EXPLORE THE DATA

TUKYSAhcp.com

TUKYSA tucatinib
50 mg | 150 mg tablets

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Daiichi-Sankyo
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Compassion for Patients.

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OR
LIVE EXHIBIT
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VIRTUAL EXHIBIT
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YOU ARE CORDIALLY INVITED TO THE FOLLOWING PROGRAM:

Expert Perspectives on the Treatment of a Broad Range of Patients With HR+/HER2- Metastatic Breast Cancer

Henry B. Gonzalez Convention Center
900 E. Market Street
San Antonio, TX

December 10, 2021 | 12:00–1:00 pm CT
Lunch will be served.

HEAR FROM THE FOLLOWING SPEAKERS:

Adam M. Brufsky, MD, PhD
University of Pittsburgh School of Medicine
Pittsburgh, PA

Joyce A. O'Shaughnessy, MD
Texas Oncology
Dallas, TX

If you plan to attend, kindly make every effort to arrive by the designated start time and to remain through the duration of the program. Please be advised that late arrivals may be prohibited from participating in the event.

Notice: This event is conducted in accordance with the PhRMA Code on Interactions with Healthcare Professionals and is limited to healthcare professionals (HCPs). Attendance by guests or spouses is not appropriate. Government employees are subject to state and federal laws and ethics rules that may limit their ability to receive any gifts, including meals, from pharmaceutical companies. If you are a state or federal employee, it is your responsibility to seek guidance and prior approval from your employer or site ethics counselor to attend this or any Pfizer event. Your attendance will be considered confirmation to Pfizer that you have obtained any necessary approvals to attend this event.

State Laws and Pfizer Disclosures: The cost of meals and refreshments provided to US licensed Healthcare Professionals attending this Pfizer-sponsored program will be subject to public disclosure on www.pfizer.com as part of Pfizer’s Healthcare Professional Disclosure policies, and may also be subject to disclosure by state governmental authorities pursuant to your state law and applicable federal law such as the National Physician Payment Transparency Program (otherwise known as “Sunshine”). Pfizer’s disclosure will allocate the cost of meals and refreshments equally across all attendees regardless of actual consumption. If you are licensed to practice in Massachusetts, Minnesota or Vermont, we are prohibited from providing you any meals and/or refreshments due to your state limitation on meals, gifts or other items of value to HCPs and ask that you do not partake in the hospitality provided.

NO CNE or CME contact hours will be awarded.

This Exhibitor Product Theatre is a promotional activity and is not approved for continuing education credit. The content of this Exhibitor Product Theatre and opinions expressed by presenters are those of the sponsor or presenter and are not of the San Antonio Breast Cancer Symposium® (SABCS®)
Relentless curiosity. Persistent progress.

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We are looking forward to the 2021 San Antonio Breast Cancer Symposium. The health and safety of San Antonio Breast Cancer Symposium attendees, exhibitors, and staff is a top priority. SABCS continues to monitor the Coronavirus (COVID-19). Our priority is always on the health and safety of our community. SABCS will base its on-site protocols on the latest guidance from the CDC in addition to local regulations in San Antonio. At this time, the City of San Antonio requires masks indoors in all its public facilities, therefore SABCS will require masks for all in-person attendees. SABCS is not legally able to require vaccinations but recommends everyone that is attending the in-person event be vaccinated. Meeting space will be set to accommodate those attendees who prefer more personal space as well as those who prefer to sit closer together. Here’s what you need to know:

- **Enhanced sanitation**—SABCS will work with venue partners to ensure highest standard of hygiene and cleanliness throughout the Henry B. Gonzalez Convention Center
- **Increased hand sanitization stations** throughout the event.
- The SABCS team is working closely with our host venue to monitor local infection rates and capacity limits in San Antonio. SABCS plans will be in response to these and other relevant data, as well as to guidance from the CDC. SABCS reserves the right to update this plan, as necessary, in accordance with science and any new guidance issued by federal and state authorities. Additional information about on-site safety protocols will be posted as it becomes available. We encourage you to visit www.sabcs.org to stay abreast of the latest updates.

If you are attending the SABCS virtually, to ensure that you have a great experience and to avoid any potential attendance issues, we are providing the following technical directions.

**On-Demand Session Availability**
Recordings of daily sessions will be available for on-demand viewing if the presenter has given SABCS permission on the virtual platform at the end of that day’s programming.

**Browser Requirements**
The video player is embedded into the 2021 Virtual SABCS platform, so attendees do not need to install any software or adjust any computer settings. Attendees will be able to view the meeting as long as a supported browser is used. The list of supported web browsers and versions is as follows:

- Chrome (preferred): Version 80 and 81
- Safari for Mac: Version 12 and 13
- Safari for Windows: Version 4 and 5
- Microsoft Edge: Version 80 and 81

Users should check their browser version before accessing the 2021 SABCS site.

**Technical Support**
If you require assistance with accessing the 2021 SABCS site, please contact Technical Support and they will respond as soon as possible.

**Support**
If you are not yet registered, click here. You must register to attend the 2021 SABCS. Should you require assistance with your login information, please contact SABCS.
CONVENTION CENTER

Symposium events & services are located on three levels of the convention center.

**Street (1st) level** (Main Lobby, Hall 1, Hall 2, Hall 3, Hall 4)

- **Entrance (Main Lobby)**
  Registration, Market Place, Mobile Charging Stations

- **Hall 1**
  Poster Sessions, Continental Breakfast (Wednesday-Friday), Reception (Wednesday-Thursday)

- **Hall 2**
  First Aid station, Housing Desk, Lounge, Information Desk, Exhibits, Product Theatre, Loading Dock (for exhibitors), Continental Breakfast (Tuesday), Mobile Charging Stations

**Meeting Level**
Press Room, Speaker Lounge

**Ballroom Level (Stars at Night Ballrooms, Room 304)**
Educational Sessions, Career Development Forum, Workshops, Forums, Mini-Symposium, Case Discussions, Spotlight Sessions, Special Sessions, Molecular Tumor Board, View from the Trenches, Mobile Charging Stations

**REGISTRATION DESK HOURS**
Symposium events & services are located on three levels of the convention center.

- Monday, December 6  12:00 PM - 5:00 PM
- Tuesday, December 7  8:00 AM - 5:00 PM
- Wednesday, December 8  7:00 AM - 5:00 PM
- Thursday, December 9  7:00 AM - 4:00 PM
- Friday, December 10  7:00 AM - 3:00 PM

**POSTER SESSIONS COLOR KEY**
To help you navigate the poster sessions, the poster board sections are color coded as shown below.

- DETECTION/DIAGNOSIS
- TUMOR CELL AND MOLECULAR BIOLOGY
- PROGNOSTIC AND PREDICTIVE FACTORS
- EPIDEMIOLOGY, RISK AND PREVENTION
- PSYCHOSOCIAL, QUALITY OF LIFE AND EDUCATIONAL ASPECTS
- TREATMENT
- ONGOING CLINICAL TRIALS
- SPOTLIGHT SESSIONS
SYMPOSIUM HOTEL SHUTTLE

Shuttle buses will operate December 7 through December 10 between official symposium hotels and the convention center at no charge.

- Buses will drop off and pick up at the Market Street Entrance of the Henry B. Gonzalez Convention Center.
- Buses will only stop at the official symposium hotels.
- A wheelchair accessible bus will be available during the listed days and times.
- SABCS does not provide transportation from the airport to hotels

<table>
<thead>
<tr>
<th>DATE</th>
<th>SERVICE TIMES</th>
<th>PEAK TIMES</th>
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<tbody>
<tr>
<td>Tuesday, December 7, 2021</td>
<td>6:00 am - 9:30 am and 4:00 pm - 8:00 pm</td>
<td>15-20 Minute Service</td>
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<tr>
<td>Wednesday, December 8, 2021</td>
<td>6:00 am - 9:30 am and 4:00 pm - 8:00 pm</td>
<td>15-20 Minute Service</td>
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<tr>
<td>Thursday, December 9, 2021</td>
<td>6:00 am - 9:30 am and 4:00 pm - 8:00 pm</td>
<td>15-20 Minute Service</td>
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<tr>
<td>Friday, December 10, 2021</td>
<td>6:00 am - 9:30 am and 4:00 pm - 8:00 pm</td>
<td>15-20 Minute Service</td>
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PROPOSED ROUTES

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<th>HOTEL SERVICED</th>
<th>PICK UP / DROP OFF</th>
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<tbody>
<tr>
<td>Route 1 – Bright Green</td>
<td>Courtyard by Marriott</td>
<td>Stop 1: Valencia- just past Houston on St Mary’s</td>
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<tr>
<td></td>
<td>Drury Inn and Suites</td>
<td>Stop 2: Holiday Inn RW (Courtyard by Marriott Mokara, Omni La Mansion &amp; Drury Inn and Suites walk to Holiday Inn Riverwalk)</td>
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<tr>
<td></td>
<td>Drury Plaza</td>
<td>Stop 3: Drury Plaza – St. Mary’s, just pass Commerce</td>
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<tr>
<td></td>
<td>Holiday Inn Riverwalk</td>
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<td></td>
<td>Mokara</td>
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<td>Omni La Mansion</td>
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<td>Proposed Routes</td>
<td>Hotel Serviced</td>
<td>Pick Up / Drop Off</td>
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<tr>
<td>Route 2 – Bright Yellow</td>
<td>The Menger</td>
<td>Stop 1: Menger guests must walk from the hotel to Commerce at Alamo – The Menger is no longer accessible.</td>
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<tr>
<td></td>
<td>Embassy Suites</td>
<td>Stop 2: Embassy Suites</td>
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<td></td>
<td>St. Anthony</td>
<td>Stop 3: St. Anthony – by motor lobby</td>
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<td></td>
<td>Hyatt Regency Riverwalk</td>
<td>Stop 4: Hyatt Regency Riverwalk</td>
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<tr>
<td>Route 3 – Bright Pink</td>
<td>Emily Morgan</td>
<td>Stop 1: Hampton Inn (Guests from Fairfield walk to Hampton Inn)</td>
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<td></td>
<td>Fairfield Inn</td>
<td>Stop 2: Sonesta (Guests from Springhill Suites walk to Sonesta)</td>
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<tr>
<td></td>
<td>Hampton Inn</td>
<td>Stop 3: Avenue E – Across from the Emily Morgan</td>
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<td>Sonesta</td>
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<td>Springhill Suites</td>
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<tr>
<td>Route 4 – Bright Blue</td>
<td>Westin Riverwalk</td>
<td>Stop 1: Westin Riverwalk (Guests from Hotel Contessa walk to Westin)</td>
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<td>Hotel Contessa</td>
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SCHEDULE AT A GLANCE

MONDAY, DECEMBER 6, 2021

12:00 PM - 5:00 PM CT
REGISTRATION – Main Lobby

5:30 PM - 7:00 PM CT
Metastatic Breast Cancer Heroes™ 2021
https://event.curetoday.com/event/c6cdbe06-fa54-4571-a364-b8cca53b5800/ summary

TUESDAY, DECEMBER 7, 2021

7:45 AM - 8:00 AM CT
WELCOME AND OPENING REMARKS – HALL 3

8:00 AM - 10:45 AM CT
GENERAL SESSION 1 – HALL 3

10:00 AM - 5:00 PM CT
EXHIBITS – HALL 2

10:45 AM - 11:00 AM CT
BREAK

11:00 AM - 1:00 PM CT
COVID-19 AND CANCER – HALL 4A

CLINICAL RESEARCH WORKSHOP – STARS AT NIGHT BALLROOM 1&2

Selecting rational biomarkers for clinical and translational studies

How to design an efficient clinical study

How to include patient advocates in clinical research

How to present clinical research results effectively
BASIC SCIENCE FOR BREAST ONCOLOGISTS WORKSHOP – STARS AT NIGHT BALLROOM 3&4

- Genome editing in human organoids as new models for discovery
- In silico experimentation from your living room: Tools to access and analyze existing datasets
- Tricking T cells into action: Using patient-derived organoids to identify and expand tumor-specific T cells
- Meeting the bar: How to tell when basic science discoveries are ready to translate

10:00 AM - 5:00 PM CT EXHIBITS – Hall 2

1:00 PM – 4:00 PM CT TRUST IN SCIENCE AND HEALTHCARE – Hall 3

4:00 PM – 5:00 PM CT BRINKER AWARD LECTURES – Hall 3
- Brinker Award for Scientific Distinction in Basic Science
- Brinker Award for Scientific Distinction in Clinical Research

5:00 PM - 7:00 PM CT EDUCATIONAL SESSIONS
- Triple Positive Breast Cancer – Stars at Night Ballroom 1&2
  - The ideal partner to HER2 directed therapies
  - ER/HER2+ cross talk
  - Escalating and de-escalation - titrating the right regimen in early stage HER2 positive
- Artificial Intelligence: Beyond the Soundbites supported by the Lobular Breast Cancer Alliance – Stars at Night Ballroom 3&4
  - Everything you always wanted to know about AI but were afraid to ask
  - Artificial intelligence: Guiding the pathologists’ eyes
  - Artificial intelligence in radiology
Refining Heredity Risk – Hall 4B

Reclassifying VUS: New techniques can solve the puzzle once and for all
Clinical management of moderate penetrance genes
Polygenic risk score: Should clinicians use it
Panel Discussion

Evidence Based Integrative Therapies - During and Beyond Treatment – Hall 4A

Acupuncture
Hypnosis and mindfulness
Complementary treatments
What does diet and exercise change really do for you
Panel Discussion

7:00 PM - 9:00 PM CT OPEN SATELLITE EVENTS – Marriott Rivercenter

WHAT CLINICIANS WANT TO KNOW: Addressing Current Questions and Controversies in the Management of ER-Positive Breast Cancer (Part 1 of a 3-Part CME Satellite Symposia Series) presented by Research to Practice

Optimizing Immunotherapy in Triple Negative Breast Cancer: Novel Predictive Biomarkers and Blood-Based Efficacy Monitoring presented by Your CE Source
WEDNESDAY, DECEMBER 8, 2021

7:00 AM - 8:30 AM CT
POSTER SESSION 1 – HALL 1

7:00 AM - 8:30 AM CT
SPOTLIGHT POSTER DISCUSSION SESSIONS 1-3

1. Endocrine Resistance: Novel mechanisms and emerging new therapies – Stars at Night Ballroom 3&4

2. Insights to CDK4/6i resistance: Novel models and clinical/translational genomics – Hall 4A

3. Targets in Triple Negative Breast Cancer – Stars at Night Ballroom 1&2

8:30 AM - 11:15 AM CT
GENERAL SESSION 2 – Hall 3

10:00 AM - 5:00 PM CT
EXHIBITS – Hall 2

11:30 AM - 12:00 PM CT
WILLIAM L. MCGUIRE MEMORIAL LECTURE – Hall 3

12:00 PM - 1:00 PM CT
CAREER DEVELOPMENT FORUM – Room 304

12:00 PM - 2:00 PM CT
SPECIAL SESSIONS

1. Re-framing Leadership in Academic Breast Oncology Post COVID-19 – Hall 4A

2. Regulatory Insights to the 2021 Early Stage Breast Cancer Approvals – Stars at Night Ballroom 3&4

3. Health Equity in Translational Research Studies – Stars at Night Ballroom 1&2

2:00 PM - 3:00 PM CT
FORUMS AND CLINICAL CASE DISCUSSION

Translational Forum: ER mutations and SERDS – Stars at Night Ballroom 3&4

Next generation sequencing in ER targets

ER+ word salad decoded: SERD, SERM, SERCA, CERAN, PROTAC
Basic Science Forum: Targeting Nuclear Steroid Receptors – Hall 4A

A new perspective on androgen receptor action in estrogen receptor-α positive breast cancer
PR
GR

Clinical Case Discussion – Stars at Night Ballroom 1&2

3:00 PM - 5:00 PM CT

EDUCATIONAL SESSIONS

Triple Negative Breast Cancer: Critical Update on Biology and Management – Stars at Night Ballroom 1&2

Genomic and transcriptomic landscape of TNBC
Optimizing the management of early stage TNBC
Management of special subtypes of TNBC

Emerging Adjuvant Therapies: What’s Ready for Prime Time? – Stars at Night Ballroom 3&4

Approving new therapies for early breast cancer
CDK4/6 for ER+
IO vs Capecitabine for TNBC
PARP for BRCA+ breast cancers

Fine Tuning Risk Assessment and Risk Reduction – Hall 4B

Lifestyle: Exercise and diet
Emergent pharmacologic interventions for prevention:
Non endocrine treatments
Imaging/AI

Panel Discussion

Local Therapy - Management of the Axilla presented by SABCS with the Society of Surgical Oncology – Hall 4A

Axillary management in upfront surgery - staging, local control or both?
Refining axillary management after neoadjuvant chemotherapy - what does the evidence support
Can radiation replace ALND after + SLNB
Options for reducing risk for lymphedema when ALND/regional nodal XRT are needed
5:00 PM - 6:30 PM CT
POSTER SESSION 2 – Hall 1

5:00 PM - 6:30 PM CT
SPOTLIGHT POSTER DISCUSSION SESSIONS 4-6

4. **Brain Metastases: Managing LMD/Targeting HER2** – Stars at Night Ballroom 3&4

5. **Life after breast cancer: Cardiac health, fertility preservation, and returning to life** – Stars at Night Ballroom 1&2

6. **Genomic and Genetic Analysis on Metastases** – Hall 4A

7:00 PM - 9:30 PM CT
OPEN SATELLITE EVENTS – Marriott Rivercenter

**Navigating the Evolving Treatment Landscape for ER- Positive Breast Cancer** presented by Physicians’ Education Resource, LLC

**WHAT CLINICIANS WANT TO KNOW: Addressing Current Questions and Controversies in the Management of HER2-Positive Breast Cancer**
(Part 2 of a 3-Part CME Satellite Symposia Series) presented by Research to Practice
THURSDAY, DECEMBER 9, 2021

7:00 AM - 8:30 AM CT
POSTER SESSION 3 – Hall 1

SPOTLIGHT POSTER DISCUSSION SESSIONS 7–9

7. Locoregional Treatment: De-Escalation in Breast Cancer – Stars at Night Ballroom 1&2
8. HER2 Positive Breast Cancer – Stars at Night Ballroom 3&4
9. Evaluating Emerging and Established Biomarkers – Hall 4A

8:45 AM - 11:15 AM CT
GENERAL SESSION 3 – Hall 3

10:00 AM - 5:00 PM CT
EXHIBITS – Hall 2

11:30 AM - 12:30 PM CT
DEBATE – Hall 3

RxPONDER: Was it all OFS?

12:30 PM - 1:00 PM CT
AACR Distinguished Lectureship in Breast Cancer Research, supported by Aflac Inc – Hall 3

Translation of fundamental cell cycle principles to targeted cancer therapies

1:30 PM - 2:00 PM CT
PLENARY LECTURE 1 – Hall 3

Genomic Profiling in Early Stage ER Positive Breast Cancers/ Precision Medicine

2:00 PM - 3:00 PM CT
FORUMS AND TUMOR BOARD

Translational Science Forum: HER2 Heterogeneity – Hall 4A

Basic

Heterogeneity in treatment outcomes for HER2+ breast cancer - clinical management strategies

Molecular heterogeneity in HER2+ breast cancer - can outcomes be predicted?
Clinical Science Forum: The Promise and Reality of Oligometastatic Ablation for Breast Cancer – Stars at Night Ballroom 3&4

- Oligometastatic disease: Definitions and practice patterns
- OMD data and gaps in breast cancer

Molecular Tumor Board – Stars at Night Ballroom 1&2

3:00 PM - 5:00 PM CT

Educational Sessions

Local Therapy of the Primary and Beyond in Patients with Advanced Disease – Hall 4A

- Local therapy of the primary tumor
- Special indications where local therapy should be considered
- Oligo-progressive disease. Treating locally more than systemically

Clinical Updates on Immunotherapy – Hall 3

- Immunotherapy in the metastatic setting - chemo backbone and biomarker
- Immune therapy in the (neo) adjuvant setting
- IO beyond TNBC

Anti-Cancer Immune Response – Hall 4B

- Understanding the anti-cancer immune response: Innate and adaptive responses to cancer cells
- Macro and micro: Macrophage and microbiome diversity in the breast cancer microenvironment
- Optimizing immunotherapy efficacy in the clinic through biomarkers: Advances in single cell and spatial histology analyse

The Fluid Landscape of Liquid Biopsy – Stars at Night Ballroom 3&4

- Monitoring of advanced breast cancer with liquid biopsies
- Single cell analysis of circulating tumor cells
- Challenges in early detection - screening and MRD
Targeting the “Un-druggable” – Stars at Night Ballroom 1&2

Targeting EZH2 functions
RNA metabolism and splicing
Novel epigenomic targets in TNBC

5:00 PM - 6:30 PM CT
POSTER SESSION 4 – Hall 1

SPOTLIGHT POSTER DISCUSSION SESSIONS 10-11

10. Novel Immunotherapy Approaches – Stars at Night Ballroom 1&2

11. The Future is Now: Innovation in Pathology and Radiology – Stars at Night Ballroom 3&4

7:00 PM - 9:00 PM CT
OPEN SATELLITE EVENTS – Marriott Rivercenter

Candid Conversations & Clinical Consults: Personalizing Treatment Decisions in HER2-Altered Breast Cancer - Strategies for Improving Equity and Patient Outcomes Through Individualized Targeted Therapy Selection, Team-Based Care, and Shared Decision-Making presented by PVI, PeerView Institute for Medical Education

WHAT CLINICIANS WANT TO KNOW: Addressing Current Questions and Controversies in the Management of Triple-Negative Breast Cancer (Part 3 of a 3-Part CME Satellite Symposia Series) presented by Research to Practice
FRIDAY, DECEMBER 10, 2021

7:00 AM - 8:30 AM CT
POSTER SESSION 5 – Hall 1

SPOTLIGHT POSTER DISCUSSION SESSIONS 13–15

13. **Novel therapeutic approaches in HER2 negative breast cancer** – Stars at Night Ballroom 1&2

14. **Clinical Translational Updates in Invasive Lobular Carcinoma** – Stars at Night Ballroom 3&4

15. **Defining Molecular Markers of Endocrine Resistance in Clinic** – Hall 4A

8:45 AM - 11:15 AM CT
GENERAL SESSION 4 – Hall 3

10:00 AM - 5:00 PM CT
EXHIBITS – Hall 2

11:30 AM - 12:30 PM CT
DEBATE – Hall 3

One Week of Whole Breast RT is the New Standard of Care

12:30 PM - 1:00 PM CT
AACR Outstanding Investigator Award for Breast Cancer Research
supported by the Breast Cancer Research Foundation – Hall 3

Moving toward precision medicine for patients with breast cancer

1:00 PM - 1:30 PM CT
Break

1:30 PM - 2:00 PM CT
PLENARY LECTURE 2 – Hall 3

Triple Negative Breast Cancer - Pitfalls and Progress

2:00 PM - 3:00 PM CT
MINI-SYMPOSIA

DNA Repair in Breast Cancer - Diagnosis and Treatment – Stars at Night Ballroom 1&2

CRISPR screens to identify novel DNA repair defects synthetic lethal therapies

Genomics of DNA repair defects in breast cancer
Targeting DNA damage response and HRD in breast cancer

The Evolution of Local Therapy in the Genomic Era – Hall 3

Is less (or more) axillary surgery needed in the genomic era?

Can genomic risk be used to tailor radiation therapy?

3:00 PM - 5:00 PM CT
Year in Review – Hall 3

Basic science
Translational research
Early breast cancer
Advanced breast cancer

5:00 PM - 7:00 PM CT
View from the Trenches: What will You do on Monday Morning –
Stars at Night Ballroom 1&2

7:30 PM - 10:00 PM CT
OPEN SATELLITE EVENT – Marriott Rivercenter

Molecular Imaging and Breast Cancer: Selecting and Evaluating Targeted Treatments presented by Society of Nuclear Medicine and Molecular Imaging (SNMMI)
DETAILED PROGRAM

MONDAY, DECEMBER 6, 2021

12:00 PM - 5:00 PM CT
REGISTRATION – Main Lobby

5:30 PM - 7:00 PM CT
Metastatic Breast Cancer Heroes™ 2021
https://event.curetoday.com/event/c6cdbe06-fa54-4571-a364-b8cca53b5800/summary

TUESDAY, DECEMBER 7, 2021

7:45 AM - 8:00 AM CT
WELCOME AND OPENING REMARKS – Hall 3
Carlos L. Arteaga, MD
UT Southwestern Medical Center
Simmons Comprehensive Cancer Center
Dallas, TX

Virginia G. Kaklamani, MD
UT Health San Antonio
San Antonio, TX

8:00 AM - 10:45 AM CT
GENERAL SESSION 1 – Hall 3
Co-Moderator: Matthew J. Ellis, MB, BChir, BSc, PhD, FRCP
Baylor College of Medicine
Houston, TX
and
Co-Moderator: Jenny Chang, MD, MB BChir
Houston Methodist Hospital
Houston, TX

8:00 AM CT
GS1-00 Single-cell spatial analysis by imaging mass cytometry and immunotherapy response in triple-negative breast cancer (TNBC) in the NeoTRIPaPDL1 trial
Bianchini G, Wang XQ, Danenberg E, Huang C-S, Egle D, Callari M, Bermejo B, Zamagni C, Thill M, Anton A, Dugo M, Zambelli S, Russo S, Ciruelos EM, Greil R, Semiglazov V, Colleoni M, Kelly C, Mariani G, Del Mastro L, Győrffy B, Biasi O, Valagussa P, Viale G, Gianni L, Ali HR. San Raffael Scientific Institute, Milano, Italy; CRUK Cambridge Institute, University of Cambridge, Cambridge, United Kingdom; National Taiwan University Hospital and Taiwan Breast Cancer Consortium, Taipei, Taiwan; Department of Gynecology, BrustGesundheitZentrum Tirol, Medical University Innsbruck, Innsbruck, Austria; Hospital Clinico Universitario Valencia and GEICAM, Valencia, Spain; IRCCS Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy; Agaplesion Markus Krankenhaus, Frankfurt am Main, Germany; Hospital Universitario Miguel Servet and GEICAM, Zaragoza, Spain; Ospedale Santa Maria della Misericordia, Udine, Italy; Hospital Universitario 12 de octubre, Madrid, Spain; IIRd Medical Department, Paracelsus Medical University Salzburg; Salzburg Cancer Research Institute-CCCIT;
Cancer Cluster Salzburg, Salzburg, Austria; NN Petrov Research Inst of Oncology, St. Petersburg, Russian Federation; IRCCS Istituto Europeo di Oncologia, Milano, Italy; Cancer Trials Ireland & Mater Misericordiae University Hospital, Dublin, Ireland; Istituto Nazionale Tumori, Milano, Italy; Università degli Studi di Genova, Ospedale Policlinico San Martino, Genova, Italy; Ospedale San Raffaele, Milano, Italy; Fondazione Michelangelo, Milano, Italy; University of Milan, Istituto Europeo di Oncologia IRCCS, Milano, Italy.

8:15 AM CT
GS1-01 KEYNOTE-522: Phase 3 study of pembrolizumab + chemotherapy vs placebo + chemotherapy as neoadjuvant treatment, followed by pembrolizumab vs placebo as adjuvant treatment for early-stage high-risk triple-negative breast cancer (TNBC)

Schmid P, Cortes J, Dent R, Pusztai L, McArthur H, Kümmel S, Bergh J, Denkert C, Hee Park Y, Hui R, Harbeck N, Takahashi M, Untch M, Fasching PA, Cardoso F, Andersen J, Patt D, Danso M, Ferreira M, Mouret-Reynier M-A, Im S-A, Ahn J-H, Gion M, Baron-Hay S, Boileau J-F, Zhu Y, Pan W, Tryfonidis K, Karantza V, O'Shaughnessy J. Barts Cancer Institute, Queen Mary University London, London, United Kingdom; International Breast Cancer Center, Quiron Group, Madrid and Barcelona, Spain and Vall d’Hebron Institute of Oncology, Barcelona, Spain; National Cancer Center Singapore, Duke-NUS Medical School, Singapore, Singapore; Yale School of Medicine, Yale Cancer Center, New Haven, CT; Cedars-Sinai Medical Center, Los Angeles, CA; Klinikum Essen-Mitte, Essen, Germany; Department of Oncology-Pathology, Karolinska Institutet and Breast Cancer Centre, Cancertheme, Karolinska University Hospital, Solna, Sweden; Institute of Pathology, Philipps-University Marburg and University Hospital Marburg (UKGM), Marburg, Germany; Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Westmead Breast Cancer Institute, Westmead Hospital and the University of Sydney, Sydney, NSW, Australia; Breast Center, Department of Obstetrics and Gynecology and CCC Munich, LMU University Hospital, Munich, Germany; Hokkaido Cancer Center, Sapporo, Japan; Breast Cancer Center, HELIOS Klinikum Berlin-Buch GmbH, Berlin, Germany; University Hospital Erlangen, Department of Gynecology and Obstetrics, Comprehensive Cancer Center Erlangen-EMN, Erlangen, Germany; Breast Unit, Champalimaud Clinical Center/Champalimaud Foundation, Lisbon, Portugal; Compass Oncology, US Oncology, Portland, OR; Texas Oncology, Austin, TX; Virginia Oncology Associates, Norfolk, VA; Instituto Português de Oncologia do Porto Francisco Gentil (IPO-Porto), Porto, Portugal; Centre Jean-Perrin, Clermont-Ferrand, France; Seoul National University, Seoul, Republic of Korea; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Ramon y Cajal University Hospital, Madrid, Spain; Royal North Shore Hospital, Sydney, NSW, Australia; McGill University, Jewish General Hospital Segal Cancer Centre, Montréal, QC, Canada; Merck & Co., Inc., Kenilworth, NJ; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX.

8:30 AM CT
GS1-02 Final results of KEYNOTE-355: Randomized, double-blind, phase 3 study of pembrolizumab + chemotherapy vs placebo + chemotherapy for previously untreated locally recurrent inoperable or metastatic triple-negative breast cancer

Cortes J, Cescon DW, Rugo HS, Nowecki Z, Im S-A, Yusof MMd, Gallardo C, Lipatov O, Barrios CH, Perez-Garcia J, Iwata H, Masuda N, Torregroza Otero M, Gokmen E, Loi S, Guo Z, Zhou X, Karantza V, Pan W, Schmid P. International Breast Cancer Center, Quiron Group, Madrid and Barcelona, Spain and Vall d’Hebron Institute of Oncology, Barcelona, Spain; Princess Margaret Cancer Centre, Toronto, ON, Canada; University of California San Francisco Comprehensive Cancer Center, San Francisco, CA; Maria
Sklodowska-Curie Memorial Cancer Centre and Institute of Oncology, Warsaw, Poland; Seoul National University Hospital, Seoul, Republic of Korea; Pantai Hospital, Kuala Lumpur, Malaysia; Arturo Lopez Perez Foundation, Santiago, Chile; Republican Clinical Oncology Dispensary, Republic of Bashkortostan, Russian Federation; Centro de Hematologia e Oncologia, Porto Alegre, Brazil; International Breast Cancer Center, Quiron Group, Barcelona, Spain; Aichi Cancer Center Hospital, Nagoya, Japan; National Hospital Organization Osaka National Hospital, Osaka, Japan; Oncomedica S.A., Monteria, Colombia; Ege University Medical Faculty, Izmir, Turkey; Peter McCallum Cancer Institute, Melbourne, Australia; Merck & Co., Inc., Kenilworth, NJ; Barts Cancer Institute, Centre for Experimental Cancer Medicine, London, United Kingdom.

8:45 AM CT
GS1-03 Discussant
Hope S. Rugo, MD
University of California San Francisco
San Francisco, CA

9:00 AM CT
GS1-04 Moved to Wednesday, Dec 8 GS2-00.

9:15 AM CT
GS1-05 Datopotamab deruxtecan in advanced/metastatic HER2- breast cancer: Results from the phase 1 TROPION-PanTumor01 study
Krop I, Juric D, Shimizu T, Tolcher A, Spira A, Mukohara T, Lisberg AE, Kogawa T, Papadopoulos KP, Hamilton E, Damodaran S, Greenberg J, Gu W, Kobayashi F, Guevara F, Jikoh T, Kawasaki Y, Meric-Bernstam F, Bardia A. Dana-Farber Cancer Institute, Boston, MA; Department of Hematology/Oncology, Massachusetts General Hospital Cancer Center Harvard Medical School, Boston, MA; National Cancer Center Hospital, Tokyo, Japan; NEXT Oncology, San Antonio, TX; Virginia Cancer Specialists, Fairfax, VA; Department of Medical Oncology, National Cancer Center Hospital East, Kashiwa, Japan; UCLA Jonsson Comprehensive Cancer Center, Santa Monica, CA; Advanced Medical Development Center, Cancer Institute Hospital of JFCR, Tokyo, Japan; START Center for Cancer Care San Antonio, San Antonio, TX; Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TX; The University of Texas MD Anderson Cancer Center, Houston, TX; Daiichi Sankyo Inc, Basking Ridge, NJ; Daiichi Sankyo Co, Ltd, Tokyo, Japan.
9:30 AM CT
GS1-06 A randomized control phase III trial of entinostat, a once weekly, class I selective histone deacetylase inhibitor, in combination with exemestane in patients with hormone receptor positive advanced breast cancer
Xu B, Zhang Q, Hu X, Li Q, Sun T, Li W, Ouyang Q, Wang J, Tong Z, Yan M, Li H, Zeng X, Shan C, Wang X, Yan X, Zhang J, Zhang Y, Wang J, Zhang L, Lin Y, Feng J, Chen Q, Huang J, Lu Y, Li H, Wu J, Cheng J, Hao Y, Geng C, Lu M, Li Y, Chen X, Song L, Wu X, Hu C, Wu X, Wang X, Pan Y, Cui Y, Guohua Yu, Sun S. Cancer Hospital Chinese Academy of Medical Sciences, Beijing, China; Harbin Medical University Cancer Hospital, Harbin, China; Fudan University Shanghai Cancer Center, Shanghai, China; Liaoning Cancer Hospital & Institute, Shenyang, China; The First Hospital of Jilin University, Jilin, China; Hunan Cancer Hospital, Changsha, China; Linyi Cancer Hospital, Shandong, China; Tianjin Medical University Cancer Institute & Hospital, Tianjin, China; Henan Cancer Hospital, Zhengzhou, China; Beijing Cancer Hospital, Beijing, China; Chongqing University Cancer Hospital, Chongqing, China; Affiliated Hospital of Jining Medical University, Jining, China; Run Run Shaw Hospital, Affiliated Hospital of Zhejiang University, Hangzhou, China; West China Hospital, Sichuan University, Chengdu, China; The First Affiliated Hospital of Sun Yat-sen University, Guangzhou, China; Jiangsu Cancer Hospital, Nanjing, China; Guangdong Hospital of Traditional Chinese Medicine, Guangzhou, China; The Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China; Guangxi Medical University Cancer Hospital, Guangxi, China; Affiliated Cancer Hospital and Institute of Guangzhou Medical University, Guangzhou, China; The First Affiliated Hospital of Hainan Medical University, Haikou, China; Union Hospital Affiliated to Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China; The Peoples Hospital of Guangxi Zhuang Autonomous Region, Nanning, China; The Fourth Hospital of Hebei Medical University and Hebei Cancer Hospital, Shijiazhuang, China; Beijing Shijitan Hospital, Capital Medical University, Beijing, China; Fuzhou General Hospital, Fuzhou, China; Shandong Cancer Hospital, Jinan, China; Taizhou EOC Pharma Co., Ltd., Taizhou, China; Anhui Provincial Cancer Hospital, Hefei, China; Hubei Cancer Hospital, Wuhan, China; Zhejiang Cancer Hospital, Hangzhou, China; Anhui Provincial Hospital, Hefei, China; Zhongshan Hospital, Fudan University, Shanghai, China; Weifang People’s Hospital, Weifang, China; Xuzhou Central Hospital, Xuzhou, China.

9:45 AM CT
GS1-07 Adjuvant palbociclib in HR+/HER2- early breast cancer: Final results from 5,760 patients in the randomized phase III PALLAS trial
Gnant M, Dueck AC, Frantal S, Martin M, Burstein H, Greil R, Fox P, Wolff AC, Chan A, Winer E, Singer C, Miller K, Colleoni M, Naughton M, Rubovszky G, Bliss J, Mayer IA, Steger GG, Nowecki Z, Hahn O, Wolmark W, Rugo H, Pfeifer G, Fohler H, Metzger O, Schurmans C, Theall KP, Lu DR, Tenner K, Fesi C, DeMichele A*, and Mayer EL *shared last authorship. Medical University of Vienna, Vienna, Austria; Alliance Statistics and Data Center, Mayo Clinic, Phoenix, AZ; ABCSG, Vienna, Austria; Hospital General Universitario Gregorio Marañón, Madrid, Spain; Dana-Farber Cancer Institute, Boston, MA; Salzburg Cancer Research Institute– Laboratory for Immunological and Molecular Cancer Research (SCRI-LIMCR) Paracelsus Medical University, Salzburg, Austria; Central West Cancer Care Centre, Orange Health Service, Orange, NSW, Australia; Johns Hopkins University, Baltimore, MD; Breast Cancer Research Centre
10:00 AM CT
GS1-08 CCTGMA.32, a phase III randomized double-blind placebo controlled adjuvant trial of metformin (MET) vs placebo (PLAC) in early breast cancer (BC): Results of the primary efficacy analysis (clinical trials.gov NCT01101438)

Goodwin P J, Chen BE, Gelmon KA, Whelan TJ, Ennis M, Lemieux J, Ligibel JA, Hershman DL, Mayer IA, Hobday TJ, Bliss JM, Rastogi P, Rabaglio-Poretti M, Mukherjee SD, Mackey RR, Abramsom VG, Oja C, Wesolowski R, Thompson AM, Rea DW, Stos PM, Shepherd LE, Stambolic V, Parulekar WR. Mount Sinai Hospital/Lunenfeld-Tanenbaum Research Institute, University of Toronto, Toronto, ON, Canada; Canadian Cancer Trials Group, Queens University, Kingston, ON, Canada; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC, Canada; Juravinski Cancer Center, McMaster University, Hamilton, ON, Canada; Applied Statistician, Toronto, ON, Canada; CHU de Quebec, University Laval, Quebec City, QC, Canada; Dana Farber Cancer Center, Harvard University, Boston, MA; Herbert Irving Comprehensive Cancer Center, Columbia University, New York, NY; Vanderbilt University, Nashville, TN; Mayo Clinic, Rochester, MN; Institute of Cancer Research, London, United Kingdom; NRG Oncology, University of Pittsburgh, Pittsburgh, PA; IBCSG, Department of Oncology, University of Bern, Berne, Switzerland; Juravinski Cancer Centre, McMaster University, Hamilton, ON, Canada; Cross Cancer Institute, Edmonton, AB, Canada; Vanderbilt-Ingram Cancer Center, Nashville, TN; British Columbia Cancer Agency, University of British Columbia, Surrey, BC, Canada; James Cancer Hospital and the Ohio State University Comprehensive Cancer Center, Columbus, OH; Baylor College of Medicine, Houston, TX; CRTC, Institute of Cancer and Genomic Sciences, University of Birmingham, Birmingham, United Kingdom; Princess Margaret Cancer Center, University Health Network, Dept of Medical Biophysics, University of Toronto, Toronto, ON, Canada.

10:15 AM CT
GS1-09 Inhibition of GPX4 induces preferential death of p53-mutant triple-negative breast cancer cells

Tahaney WM, Qian J, Powell R, Moyer CL, Ma Y, Nguyen N, Hill J, Stephan C, Mazumdar A, Davies PJA, Brown PH. Baylor College of Medicine, Houston, TX; UT MD Anderson Cancer Center, Houston, TX; Texas A&M Institute for Biosciences and Technology, Houston, TX.

10:30 AM CT
GS1-10 Clinical utility of molecular tumor profiling: Results from the randomized trial SAFIR02-BREAST

D. Soubeyran I, Morel A, Arnedos M, Bachelot T. Gustave Roussy-Department of Medical Oncology, Villejuif, France; Institut Paoli-Calmettes, Marseille, France; Institut Claudius Regaud, Toulouse, France; Institut Claudius Regaud, IUCT-Oncopole, Toulouse, France; Institut de Cancérologie de l’Ouest, ST-HERBLAIN, France; Institut Curie, Paris, France; Institut Bergonié, Bordeaux, France; Institut Curie and Paris-Descartes University-Department of Medical Oncology, Paris, France; Gustave Roussy-Department of Medical Biology and Pathology, BMO Unit - AMMICa UMS3655/US23, Villejuif, France; Gustave Roussy Cancer Campus-Inserm UMR981 and Department of Medical Oncology, Villejuif, France; Unicancer, Paris, France; Centre Léon Bérard-Département de Recherche Translationnelle et d’Innovation, Lyon, France; Institut Curie-Genomics Platform, Translational Research Department. PSL University, Paris, France; Institut Bergonié-nité de Pathologie Moléculaire - Département de Biopathologie, Bordeaux, France; ICO- Centre Paul Papin-Department of Innate Immunity and Immunotherapy, Angers, France; Centre Léon Bérard-Department of Medical Oncology, Lyon, France

10:00 AM - 5:00 PM CT
EXHIBITS – Hall 2

10:45 AM - 11:00 AM CT
BREAK

11:00 AM - 1:00 PM CT
COVID-19 and Cancer - Hall 4A

Sub-Session: Living in the COVID generation – Vaccinations and Patient Perspectives
Moderator: Susan Rafte
Community Advocate Baylor College of Medicine
Houston, MD

Peter Hotez, MD
Baylor College of Medicine
Houston, TX

Patient Advocates
Abigail Johnston
Sharon Anderson
Isabel Centeno

Sub-Session: How COVID changed “everything”
Moderator: Melissa L. Bondy, PhD
Stanford Medicine
Stanford, CA

How COVID changed cancer center operations
Debra Patt, MD, PhD
Texas Oncology
Austin, TX

How COVID changed clinical trials
Ko Un (Clara) Park, MD
The Ohio State University
Columbus, OH
How COVID changed regulatory aspects
Donna Rivera, PharmD
US Food & Drug Administration
Baltimore, MD

Sub-Session: Impact of COVID across Cancer Continuum
Moderator: Ko Un (Clara) Park, MD
The Ohio State University
Columbus, OH

Challenges in breast cancer supportive care during COVID 19 and beyond
Maryam Lustberg, MD, MPH
Yale University School of Medicine
New Haven, CT

Importance of real world data in fighting a pandemic
Dimpy Shah, MD, PhD
UT Health San Antonio
San Antonio, TX

The impact of the COVID-19 outbreak on breast cancer stage in the Netherlands by screening status
Anouk H. Eijkelboom, PhD
Netherlands Comprehensive Cancer Organization
Utrecht, Netherlands

National claims data analysis of breast cancer diagnosis and treatment before versus during the COVID-19 pandemic
Jennifer L. Caswell-Jin, MD
Stanford University
Stanford, CA

11:00 AM - 1:00 PM CT
WORKSHOPS

Clinical Research: From Study Design to Scientific Presentation – Stars at Night Ballroom 1&2
Moderator: Aditya Bardia, MD, MPH
Massachusetts General Hospital
Boston, MA

Selecting rational biomarkers for clinical and translational studies
Justin Balko, PharmD, PhD
Vanderbilt University Medical Center
Nashville, TN

How to design an efficient clinical study
Valentina Nekljudova, PhD
German Breast Group
Neu Isenburg, German

How to include patient advocates in clinical research
Patty Spears, BS
University of North Carolina at Chapel Hill
Chapel Hill, NC
How to present clinical research results effectively
George W. Sledge, Jr, MD
Stanford University School of Medicine
Stanford, CA

Basic Workshop: Basic Science for Breast Oncologists –
Stars at Night Ballroom 3&4
Moderator: Alana Welm, PhD
University of Utah Huntsman Cancer Institute
Salt Lake City, UT

Genome editing in human organoids as new models for discovery
Jennifer Rosenbluth, MD, PhD
University California San Francisco
San Francisco, CA

In silico experimentation from your living room: Tools to access and analyze existing datasets
Daniel Stover, MD
Ohio State University Comprehensive Cancer Center
Columbus, OH

Tricking T cells into action: Using patient-derived organoids to identify and expand tumor-specific T cells
Senthil K. Muthuswamy, PhD
Beth Israel Deaconess Medical Center
Boston, MA

Meeting the bar: How to tell when basic science discoveries are ready to translate
Bora Lim, MD
UT MD Anderson Cancer Center
Houston, TX

1:00 PM - 4:00 PM CT
SPECIAL SESSION – Hall 3

Trust in Science and Healthcare
Co-Moderator: Charles M. Perou, PhD
University of North Carolina at Chapel Hill
Chapel Hill, NC
and
Co-Moderator: Maimah Karmo
Tigerlily Foundation
Stone Ridge, VA

Keynote #1
Lori L. Wilson, MD
UNC Lineberger Comprehensive Cancer Center
Chapel Hill, NC

Panel 1: Equity in Research and Patient Care
Deborah Stroman, PhD, CLU
UNC and Project Ground Water
Chapel Hill, NC
Olufunmilayo I. Olopade, MD, FACP  
University of Chicago  
Chicago, IL

Daniel J. Calac, MD  
Indian Health Council, Inc  
San Diego, CA

Maria Elena Martinez, PhD  
UC San Diego  
La Jolla, CA

George Sledge, Jr, MD  
Stanford University  
Stanford, CA

Lisa C. Richardson, MD, MPH  
CDC Division of Cancer Prevention and Control  
Decatur, GA

**Patient Advocates**

Darcy Burbage, DNP, RN, AOCN  
Newark, DE

Na’Diah Smith  
Tigerlily Foundation Breast Cancer ANGEL Advocate

Aliya Whipple  
Tigerlily Foundation Breast Cancer ANGEL Advocate

**Keynote #2**

Charles M. Perou, PhD  
University of North Carolina at Chapel Hill  
Chapel Hill, NC

**Panel 2: Diversity in Clinical Trials – From Ideation to Implementation**

Erica Stringer-Reasor, MD  
UAB Medicine  
Birmingham, AL

Eric P. Winer, MD  
Dana-Farber Cancer Institute  
Boston, MA

Amelie Ramirez, DrPH  
UT Health San Antonio  
San Antonio, TX

Melissa Davis  
New York University  
New York, NY

Sophia George, PhD  
University of Miami Cancer Center  
Miami, FL
Lori L. Wilson, MD  
UNC Lineberger Comprehensive Cancer Center  
Chapel Hill, NC

**Patient Advocates**
Thelma Brown  
University of Alabama at Birmingham  
Patient Research Advocate  
Birmingham, AL
Ashley Dedmon, MPH, CHES  
Tigerlily Foundation Breast Cancer ANGEL Advocate  
Iowa Colony, TN
Ysabel Duron  
The Latino Cancer Institute  
San Jose, CA

**4:00 PM - 5:00 PM CT**

Susan G. Komen® Brinker Awards for Scientific Distinction Lectures – Hall 3

**Brinker Award for Scientific Distinction in Basic Science**
Carlos Caldas, MD, FMedSci  
University of Cambridge  
Cambridge, United Kingdom

**Brinker Award for Scientific Distinction in Clinical Research**
Judy Garber, MD, MPH  
Harvard Medical School  
Boston, MA

**5:00 PM - 7:00 PM CT**

**EDUCATIONAL SESSIONS**

Updates on advances in key areas and in technologies available for translational research. Many of these sessions will provide attendees with a better understanding of the background leading up to talks they will hear in the succeeding days, and some of the techniques that will be used. These presentations should also provide researchers with ideas and techniques to be considered for their own studies.

**Triple Positive Breast Cancer – Stars at Night Ballroom 1&2**
Moderator: Jenny C. Chang, MD, MB BChir  
Houston Methodist Hospital  
Houston, TX

*The ideal partner to HER2 directed therapies*
Sara A. Hurvitz, MD  
UCLA  
Los Angeles, CA

*ER/HER2+ cross talk*
Charles M. Perou, PhD  
UNC Lineberger Comprehensive Cancer Center  
Chapel Hill, NC

*Escalating and de-escalation - titrating the right regimen in early stage HER2 positive*
Nadia Harbeck, MD, PhD  
University of Munich  
Munich, Germany
Artificial Intelligence: Beyond the Soundbites supported by the Lobular Breast Cancer Alliance – Stars at Night Ballroom 3&4
Jorge S. Reis-Filho, MD, PhD
Memorial Sloan Kettering Cancer Center
New York, NY

Everything you always wanted to know about AI but were afraid to ask
Regina Barzilay, PhD
MIT
Cambridge, MA

Artificial intelligence: Guiding the pathologists’ eyes
Thomas J. Fuchs
Memorial Sloan Kettering Cancer Center
New York, NY

Artificial intelligence in radiology
Gopal Vijayaraghavan, MD, MPH
University of Massachusetts Medical School
Worcester, MA

Refining Heredity Risk – Hall 4B
Moderator: Olufunmilayo (Funmi) Olopade, MD, FACP
University of Chicago
Chicago, IL

Reclassifying VUS: New techniques can solve the puzzle once and for all
Sean V. Tavtigian, PhD
Huntsman Cancer Institute at the University of Utah
Salt Lake City, UT

Clinical management of moderate penetrance genes
Allison W. Kurian, MBBS, MD, MSc
Stanford University School of Medicine
Palo Alto, CA

Polygenic risk score: Should clinicians use it
Montserrat Garcia-Closas, MD, DrPH
National Cancer Institute
Rockville, MD

Panel Discussion
Evidence Based Integrative Therapies - During and Beyond Treatment – Hall 4A
Moderator: Dawn L. Hershman, MD, MS
Columbia University
Herbert Irving Comprehensive Cancer Center
New York, NY

**Acupuncture**
Ting Bao, MD, DABMA, MS
Memorial Sloan Kettering Cancer Center
New York, NY

**Hypnosis and mindfulness**
David Spiegel, MD
Stanford University
Stanford, CA

**Complementary treatments**
Donald Abrams, MD
University of California, San Francisco
San Francisco, CA

**What does diet and exercise change really do for you**
Nicole Simone, MD
Thomas Jefferson University
Philadelphia, PA

**Panel Discussion**
7:00 PM - 8:45 PM CT

OPEN SATELLITE EVENTS - Live Symposia will be held at the San Antonio Marriott Rivercenter.

What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of ER-Positive Breast Cancer (Part 1 of a 3-Part CME Series) presented by Research to Practice

Register for this complimentary live symposia or virtual event: http://www.researchtopractice.com/Meetings/SA2021

Optimizing Immunotherapy in Triple Negative Breast Cancer: Novel Predictive Biomarkers and Blood-Based Efficacy Monitoring presented by Oncocyte
WEDNESDAY, DECEMBER 8, 2021

7:00 AM - 8:30 AM CT
POSTER SESSION 1 – Hall 1

7:00 AM - 8:30 AM CT
SPOTLIGHT POSTER DISCUSSION SESSIONS

Spotlight Poster Discussion 1- Endocrine Resistance: Novel mechanisms and emerging new therapies – Stars at Night Ballroom 3&4
Chair: Rachel Schiff, PhD
Baylor College of Medicine
Houston, TX

New mechanistic insights to ER biology and endocrine therapies
Luca Magnani, PhD
Imperial College London
London, United Kingdom

Transcriptional reprogramming, ESR1 mutations, and novel targets and treatment
Rinath Jeselsohn, MD
Dana-Farber Cancer Institute
Boston, MA

Spotlight Poster Discussion 2 - Insights to CDK4/6i resistance: Novel models and clinical/translational genomics Hall 4A
Chair: Richard Finn, MD
Geffen School of Medicine at UCLA
Los Angeles, CA

Are we closer to understanding why CDK 4/6 inhibitors stop working and what to do about it
Shom Goel, MD, PhD
Peter MacCallum Cancer Centre
Melbourne, Australia

Three CDK 4/6 inhibitors, a lot of biomarkers, what does it all mean moving forward?
Sarat Chandarlapaty, MD, PhD
Memorial Sloan Kettering Cancer Center
New York, NY

Spotlight Poster Discussion 3 - Targets in Triple Negative Breast Cancer – Stars at Night Ballroom 1&2
Chair: Justin M. Balko, PharmD, PhD
Vanderbilt University Medical Center
Nashville, TN

Immunotherapy/genomic implications
Clinton Yam, MD
UT MD Anderson Cancer Center
Houston, TX
Combined inhibition of CDK4/6 and AKT (LAR subtype)
Jennifer Richer, PhD
University of Colorado
Denver, CO

8:30 AM - 11:15 AM CT
GENERAL SESSION 2 – Hall 3
Moderator: Olufunmilayo (Funmi) Olopade, MD, FACP
University of Chicago
Chicago, IL

8:30 AM CT
GS2-00 GS2-00 Correlative analysis of overall survival by intrinsic subtype across the MONALEESA-2, -3, and -7 studies of ribociclib + endocrine therapy in patients with HR+/HER2- advanced breast cancer
Carey L, Solovieff N, André F, O’Shaughnessy J, Cameron DA, Janni W, Sonke GS, Yap Y-S, Yardley DA, Zarate JP, Taran T, Su F, Lteif A, Prat A. University of North Carolina, Chapel Hill, NC; Novartis Institutes for Biomedical Research, Cambridge, MA; Department of Medical Oncology, Institut Gustave Roussy, Villejuif, France; Texas Oncology-Baylor University Medical Center and The US Oncology Research Network, Dallas, TX; Edinburgh Cancer Research Centre, University of Edinburgh, Edinburgh, United Kingdom; Department of Gynecology, University of Ulm, Ulm, Germany; Netherlands Cancer Institute/Borstkanker Onderzoek Groep Study Center, Amsterdam, Netherlands; National Cancer Center Singapore, Singapore, Singapore; Sarah Cannon Research Institute, Tennessee Oncology, PLLC, Nashville, TN; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Novartis Pharma AG, Basel, Switzerland; Department of Medical Oncology, Hospital Clinic of Barcelona, Barcelona, Spain.

8:45 AM CT
GS2-01. Overall survival subgroup analysis by metastatic site from the phase 3 MONALEESA-2 study of first-line ribociclib + letrozole in postmenopausal patients with advanced HR+/HER2- breast cancer
O’Shaughnessy J, Stemmer SM, Burris HA, Yap Y-S, Sonke G, Hart L, Campone M, Petrakova K, Winer EP, Janni W, Conte P, Cameron DA, André F, Arteaga C, Zarate JP, Chakravartty A, Taran T, Le Gac F, Serra P, Hortobagyi GN. Texas Oncology-Baylor University Medical Center and The US Oncology Research Network, Dallas, TX; Institute of Oncology, Davidoff Center, Rabin Medical Center, Tel Aviv University, Tel Aviv, Israel; Sarah Cannon Research Institute, Nashville, TN; Department of Medical Oncology, National Cancer Centre Singapore, Singapore, Singapore; Medical Oncology, Netherlands Cancer Institute and BOOG Study Center, Amsterdam, Netherlands; Florida Cancer Specialists, Sarah Cannon Research Institute, Fort Myers, FL; Department of Medical Oncology, Institut de Cancérologie de l’Ouest/ René Gauducheau, Saint-Herblain, France; Department of Comprehensive Cancer Care, Masaryk Memorial Cancer Institute, Brno, Czech Republic; Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA; Department of Gynecology, University of Ulm, Ulm, Germany; Department of Surgery, Oncology and Gastroenterology and Division of Medical Oncology; University of Padua and Istituto Oncologico Veneto, IRCCS, Padua, Italy; Edinburgh Cancer Research Centre, University of Edinburgh, Edinburgh, United Kingdom; Department of Medical Oncology, Institut Gustave Roussy, Villejuif, France; Harold C. Simmons Comprehensive Cancer Center, UT
9:00 AM CT

GS2-02. Elacestrant, an oral selective estrogen receptor degrader (SERD), vs investigator's choice of endocrine monotherapy for ER+/HER2- advanced/metastatic breast cancer (mBC) following progression on prior endocrine and CDK4/6 inhibitor therapy: Results of EMERALD phase 3 trial
Bardia A, Neven P, Streich G, Montero AJ, Forget F, Mouret-Reynier M-A, Sohn JH, Vuylstcke P, Harnden KK, Khong H, Kocsis J, Dalenc F, Kaklamani , Dillon P, Babu S, Waters S, Deleu I, García-Sáenz J, Bria E, Cazzaniga M, Lu J, Aftimos P, Cortes J, Liu S, Laurent D, Conlan MG, Bidard F-C. Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA; Université Ziekenhuisen (UZ) - Leuven Cancer Institute, Leuven, Belgium; Centro Médico Austra, Buenos Aires, Argentina; University Hospitals Seidman Cancer Center- Case Western Reserve University, Cleveland, OH; Centre Hospitalier de l’Ardenne - Site de Libramont, Libramont-Chevigny, Belgium; Centre Jean Perrin, Clermont-Ferrand, France; Yonsei Cancer Center, Yonsei University Health System -Medical Oncology, Seoul, Republic of Korea; CHU UCL Namur – Site Sainte-Elisabeth, Namur, Belgium; Inova Schar Cancer Institute, Fairfax, VA; Moffit Cancer Center & Research Institute, Tampa, FL; Bács-Kiskun Megyei Kórház, Kecskemét, Hungary; Institut Claudius Regaud, IUCT-Oncopeople, Toulouse, France; University of Texas Health Sciences Center, Houston, TX; University of Virginia Cancer Center, Charlottesville, VA; Fort Wayne Medical Oncology and Hematology, Fort Wayne, IN; Velindre Cancer Centre, Cardiff, United Kingdom; AZ Nikolaas, Sint-Niklaas, Belgium; Instituto de Investigación Sanitaria Hospital Clínico San Carlos (IdISSC), Madrid, Spain; Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Università Cattolica del Sacro Cuore, Roma, Italy; Ospedale San Gerardo-ASST Monza, Monza, Italy; University of Southern California/Norris Comprehensive Cancer Center, Los Angeles, CA; Institut Jules Bordet – Université Libre de Bruxelles, Brussels, Belgium; International Breast Cancer Center (IBCC), Quiron Group, Barcelona, Spain; Cytel, Waltham, MA; Berlin Chemie AG/Menarini Ricerche S.p.A, Berlin, Germany; Radius Health, Inc., Boston, MA; Institut Curie, Paris and Saint Cloud, France.

9:15 AM CT

GS2-03. Discussant
David W. Cescon, MD, PhD
Princess Margaret Cancer Centre
Toronto, Canada

9:30 AM CST

GS2-04. Aromatase inhibitors versus tamoxifen in pre-menopausal women with estrogen receptor positive early stage breast cancer treated with ovarian suppression: A patient level meta-analysis of 7,030 women in four randomised trials
Bradley R, Braybrooke J, Gray R, Hills RK, Lui Z, Pan H, Peto R, Bergh J, Swain SM, Francis P, Gnant M, Perrone F, Regan MM. University of Oxford, Oxford, United Kingdom; Karolinska University Hospital, Solna, Sweden; Georgetown University Medical Center, Washington, WA; University of Melbourne, Melbourne, Australia; Medical University of Vienna, Vienna, Austria; National Cancer Institute of Naples, Naples, Italy; Dana-Farber Cancer Institute, Boston, MA.
9:45 AM CST

GS2-05. Randomized comparison of adjuvant aromatase inhibitor exemestane (E) plus ovarian function suppression (OFS) vs tamoxifen (T) plus OFS in premenopausal women with hormone receptor-positive (HR+) early breast cancer (BC): update of the combined TEXT and SOFT trials

10:00 AM CST

GS2-06. Taxane with anthracycline versus taxane without anthracycline: An individual patient-level meta-analysis of 16,500 women with early-stage breast cancer in 13 randomised trials
Braybrooke J, Bradley R, Gray R, Hills R, Liu Z, Pan H, Petro B, Blum J, Chen X, Ejlertsen B, Janni W, Nitz U, Slamon D, Toi M, Watanabe T, Swain S, Bergh J, on behalf of the Early Breast Cancer Trialists Collaborative Group. University of Oxford, Oxford, United Kingdom; Baylor University Medical Centre, Dallas, TX; Shanghai Jiao Tong University, Shanghai, China; University of Copenhagen, Copenhagen, Denmark; University of Ulm, Ulm, Germany; West German Study Group, Mönchengladbach, Germany; University of California Los Angeles, Los Angeles, CA; Kyoto University, Kyoto, Japan; Hamamatsu Oncology Centre, Hamamatsu, Japan; Georgetown University Medical Center, Washington, DC; Karolinska University Hospital, Stockholm, Sweden.

10:15 AM CST

GS2-07. Distant-disease free interval in participants (pts) with 1-3 positive lymph nodes (LN), hormone receptor-positive (HR+) and her2-negative (HER2-) breast cancer (BC) with recurrence score (RS) < or = 25 randomized to endocrine therapy (ET) +/- chemotherapy (CT): SWOG s1007 (RxPONDER)
Kalinsky KM, Barlow WE, Gralow JR, Meric-Bernstam F, Albain KS, Hayes DF, Lin NU, Perez EA, Goldstein LA, Chia SKL, Dhesy-Thind S, Rastogi P, Alba E, Delaloge S, Martin M, Kelly CM, Ruiz-Borrego M, Gil-Gil M, Arce-Salinas CH, Brain EGC, Lee ES, Pierga J-Y, Bermejo B, Ramos-Vasquez M, Jung KH, Ferrero J-M, Schott A, Shak S, Sharma P, Lew D, Miao J, Tripathy D, Pusztai L, Hortobagyi G. Emory University Winship Cancer Institute (SWOG), Atlanta, GA; SWOG Statistics and Data Management Center (SWOG), Seattle, WA; University of Washington School of Medicine/Seattle Cancer Care Alliance (SWOG), Seattle, WA; University of Texas MD Anderson Cancer Center (SWOG), Houston, TX; Loyola University Chicago Stritch School of Medicine, Cardinal Bernardin Cancer Center (SWOG), Maywood, IL; Breast Oncology Program, Division of Hematology/Oncology, Department of Medicine, University of Michigan (SWOG), Ann Arbor, MI; Dana Farber Cancer Institute, Medical Oncology (Alliance for Clinical Trials in Oncology), Boston, MA; Mayo Clinic Jacksonville, Hematology/Oncology Division (Alliance for Clinical Trials in Oncology), Jacksonville, FL; Fox Chase Cancer Center (ECOG-ACRIN), Philadelphia, PA; British Columbia Cancer Agency, Medical Oncology (CCTG), Vancouver, BC, Canada; Juravinski Cancer Centre (CCTG), Hamilton, ON, Canada; Emory University Winship Cancer Institute (SWOG), University of Pittsburgh (NRQ), PA; Hospital Clínico Virgen de la Victoria, UGCI Medical Oncology, IBIMA, GEICAM, Spanish Breast Cancer Group, Málaga, Spain; Institut Gustave Roussy (UNICANCER), Paris, France; Instituto de Investigación Sanitaria Gregorio Marañón,
10:30 AM CT  
**GS2-08. Discussant**  
Anne Blaes, MD  
University of Minnesota  
Minneapolis, MN

10:45 AM CT  
**GS2-09. Tamoxifen instigates uterine cancer development by activating PI3K signaling and supersedes PIK3CA driver mutations**  

11:00 AM CT  
**GS2-10. Nimbus: A phase 2 trial of nivolumab plus ipilimumab for patients with hypermutated her2-negative metastatic breast cancer (MBC)**  
Barroso-Sousa R, Li T, Reddy S, Emens LA, Overmoyer B, Lange P, Dilullo MK, Attaya V, Kimmel J, Winer EP, Mittendorf EA, Tayob N, Tolaney SM. Hospital Sirio-Libanes, Brasilia, Brazil; Dana-Farber Cancer Institute, Boston, MA; University of Texas Southwestern Medical Center, Houston, TX; University of Pittsburgh Medical Center, Pittsburgh, PA.

11:15 AM CT  
**Break**

10:00 AM - 5:00 PM CT  
**EXHIBITS – Hall 2**

11:30 AM - 12:00 PM CT  
**WILLIAM L. MCGUIRE MEMORIAL LECTURE – Hall 3**  
Heterogeneity of Breast Cancer Genomes: Going Beyond Therapy to Risk Assessment and Prevention  
Olufunmilayo (Funmi) Olopade, MD, FASCO, FACP, OON, FAACR
CAREER DEVELOPMENT FORUM sponsored by Eisai, Inc. – Room 304

The Career Development Forum provides interactive informational interviews with experts on a variety of topics that are important for the career development of early-career scientists. The session is open to early-career scientists, defined as graduate students, postdoctoral or clinical fellows, or medical students and residents, who are registered attendees of the 2021 SABCS. In-person and virtual opportunities will be available for the Career Development Forum.

Attendance to the Virtual Career Development Forum will require pre-registration and will be limited to 60 participants. An invitation with a link to the pre-registration form will be sent to early-career scientists registered with a virtual registration ticket to the 2021 SABCS on Monday, November 22. The full program, including the participating mentors and list of breakout career topics, is available HERE.

Attendance to the in-person Career Development Forum will be limited to 120 participants on a first-come, first-served basis and limited to 120 participants. Pre-registration is not required, but badges are will be scanned at door for registration. Boxed lunches will be provided. Participants may visit as many or few tables during the session as they like. Some tables topics will have a more clinical focus, while others will have a more laboratory research focus. The subthemes are denoted in parenthesis after the table topic name.

In-Person CDF Schedule

12:00 pm - 12:05 pm Introduction
12:05 pm - 1:00 pm Rotation through roundtables (at leisure)

Roundtable Topics

12:05 - 1:00 pm

1. Balancing Research and Clinical Practice (Clinical)
   a. Cynthia Ma, Washington University Siteman Cancer Center, St. Louis, MO
   b. Mentor to be announced
   c. Jerri Francoeur, Alamo Breast Cancer Foundation, San Antonio, TX

2. Becoming a Successful Clinical Trialist (Clinical)
   a. Carey Anders, Duke Comprehensive Cancer Center, Durham, NC
   b. Hope Rugo, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
   c. Advocate to be announced

3. Careers in Industry
   a. Oyewale Daejin Abidoye, Gilead Sciences Inc., Foster City, CA
   b. Kim L. Blackwell, Tempus Labs, Indianapolis, IN
   c. Amy C. Peterson, CytomX, South San Francisco, CA
   d. Stacey Tinianov, Advocate Collaborative
4. Careers in Translational Research (Clinical)
   a. Minetta C. Liu, Mayo Clinic College of Medicine and Science, Rochester, MN
   b. Rita Nanda, University of Chicago, Chicago, IL
   c. Janice Cowden, GRASP

5. Careers in Translational Research (Laboratory)
   a. Justin M. Balko, Vanderbilt University, Nashville, TN
   b. Mentor to be announced
   c. Advocate to be announced

6. Making the Transition from Fellowship to Faculty (Clinical)
   a. Dawn L. Hershman, Columbia University, New York, NY
   b. Erica Stringer-Reasor, University of Alabama at Birmingham, Birmingham, AL
   c. Advocate to be announced

7. Making the Transition from Fellowship to Faculty (Laboratory)
   a. Fabrice André, Institut Gustave Roussy, Villejuif, France
   b. Alana L. Welm, University of Utah Huntsman Cancer Institute, Salt Lake City, UT
   c. Abigail Johnson, Connect IV Legal Services, Inc.

8. Negotiating a Job Offer or Promotion
   a. Norah Lynn Henry, University of Michigan, Ann Arbor, MI
   b. Kevin Kalinsky, Emory Winship Cancer Center, Atlanta, GA
   c. Jamie LaScala, Patient Advocate Board Member Translational Center of Excellence in Breast Cancer, Penn Medicine, Philadelphia, PA

9. How to Get Involved In & Make Collaborative Research Work for You
   a. Angela M. DeMichele, University of Pennsylvania, Philadelphia, PA
   b. Jorge Reis-Filho, Memorial Sloan Kettering Cancer Center, New York, NY
   c. Ginny Mason, Inflammatory Breast Cancer Research Foundation, West Lafayette, IN

10. Time Management to Optimize Productivity
    a. Shelley Hwang, Duke Comprehensive Cancer Center, Durham, NC
    b. Erika P. Hamilton, Sarah Cannon Research Institute, Nashville, TN
    c. Bárbara Segarra-Vázquez, University of Puerto Rico, San Juan, PR
12:00 PM - 2:00 PM CT

SPECIAL SESSIONS

Re-framing Leadership in Academic Breast Oncology post COVID-19 – Hall 4A
Co-Moderator: Carlos L. Arteaga, MD
UT Southwestern Medical Center
Simmons Comprehensive Cancer Center
Dallas, TX

Co-Moderator: Rebecca Dent, MD
MScNational Cancer Center Singapore
Singapore, Singapore

Co-Moderator: Lisa Carey, MD, ScM, FASCO
University of North Carolina at Chapel Hill
Chapel Hill, NC

Learning by leading- lessons learned
Clifford A. Hudis, MD, FACP, FASCO
American Society of Clinical Oncology
Alexandria, VA

Building a successful translational breast cancer research program
Matthew J. Ellis, MB, BChir, BSc., PhD, FRCP
Lester and Sue Smith Breast Center
Baylor College of Medicine
Houston, TX

Panel Members:
Lisa A. Carey, MD, ScM, FASCO
University of North Carolina at Chapel Hill
Chapel Hill, NC

Charles M. Perou, PhD
University of North Carolina at Chapel Hill
Chapel Hill, NC

Eric P. Winer, MD
Dana-Farber Cancer Institute
Boston, MA

Kornelia Polyak, MD, PhD
Dana-Farber Cancer Institute
Boston, MA

Regulatory Insights to the 2021 Early Stage Breast Cancer Approvals –
Stars at Night Ballroom 3&4
Moderator: Laleh Amiri Kordestani, MD
Food and Drug Administration
Silver Spring, MD

Christy Osgood, MD
Food and Drug Administration
Silver Spring, MD
Health Equity in Translational Research Studies – Stars at Night Ballroom 1&2
Co-Moderator: Melissa L. Bondy, PhD
Stanford Medicine
Stanford, CA
and
Co-Moderator: Patty Spears
University of North Carolina at Chapel Hill
Chapel Hill, NC

Working with patient advocates to promote diversity in trial participation and biospecimen donation
Vernal Branch
UNC Chapel Hill Breast SPORE
Chapel Hill, NC

Increasing accrual of Latinos into clinical trials: A cancer center’s perspective
Amelie Ramirez, DrPH
UT Health San Antonio
San Antonio, TX

Engaging racial and ethnic minority women in clinical trials and biospecimen donation: Keeping it simple, strategic, and sincere
Vanessa B. Sheppard, PhD
Virginia Commonwealth University
Richmond, VA

Integrating community networks in cancer research to increase diversity in clinical trials accrual
Lidia Schapira, MD, FASCO
Stanford University School of Medicine
Stanford, CA

Supporting and infusing health equity in translational research at the investigator and organizational level
Melissa Simon, MD, MPH
Northwestern University
Chicago, IL

Panel Discussion
2:00 PM - 3:00 PM CT
TRANSLATIONAL SCIENCE FORUM
ER Mutations and SERDS – Stars at Night Ballroom 3&4
Moderator: Fabrice André, MD, PhD
Institut Gustave Roussy
Villejuif, France

Next generation sequencing in ER targets
Donald P. McDonnell, PhD
Duke University School of Medicine
Durham, NC

ER+ word salad decoded: SERD, SERM, SERCA, CERAN, PROTAC
Komal Jhaveri, MD
Memorial Sloan Kettering Cancer Center
New York, NY

BASIC SCIENCE FORUM

Targeting Nuclear Steroid Receptors – Hall 4
Moderator: Carol Lange, PhD
University of Minnesota
Minneapolis, MN

A new perspective on androgen receptor action in estrogen receptor-α positive breast cancer
Wayne Tilley, PhD
The University of Adelaide
Adelaide, Australia

PR
Christy R. Hagan, PhD
University of Kansas Medical Center
Kansas City, KS

GR
Suzanne Conzen, MD
UT Southwestern Medical Center
Dallas, TX

CASE DISCUSSIONS – Stars at Night Ballroom 1&2

Clinical Case Discussion
Moderator: Matthew P. Goetz, MD
Mayo Clinic
Rochester, MN

Panel Members
Thelma Brown
Boon H. Chua, MBBS PhD FRANZCR
Hope S. Rugo, MD FASCO
Anne Vincent-Solomon, MD, PhD
Lee G. Wilke, MD

3:00 PM - 5:00 PM CT
EDUCATIONAL SESSIONS

Triple Negative Breast Cancer: Critical Update on Biology and Management –
Stars at Night Ballroom 1&2
Moderator: Rita Nanda, MD
University of Chicago
Chicago, IL

Genomic and transcriptomic landscape of TNBC
Zhi-Ming Shao, MD
Fudan University of Shanghai
Shanghai, China

Optimizing the management of early stage TNBC
Elizabeth A. Mittendorf, MD, PhD
Dana-Farber Brigham and Women’s Cancer Center
Boston, MA

Management of special subtypes of TNBC
Alexandra Thomas, MD, FACP
Wake Forest Baptist Health
Winston-Salem, NC

Emerging Adjuvant Therapies: What’s Ready for Prime Time? – Stars at Night Ballroom 3&4
Moderator: Angela DeMichele, MSCE
University of Pennsylvania
Philadelphia, PA

Approving new therapies for early breast cancer
Suparna Wedam, MD
Food and Drug Administration
Silver Spring, MD

CDK4/6 for ER+
Ingrid A. Mayer, MD, MSCI
Vanderbilt-Ingram Cancer Center
Nashville, TN

IO vs Capecitabine for TNBC
Sherene Loi, MD, PhD
Peter MacCallum Cancer Centre
Melbourne, Australia

PARP for BRCA+ breast cancers
Andrew Tutt, MD
Institute of Cancer Research
London, United Kingdom

Fine Tuning Risk Assessment and Risk Reduction – Hall 4B
Moderator: Banu Arun, MD
UT MD Anderson Cancer Center
Houston, TX

Lifestyle: Exercise and diet
Neil M. Iyengar, MD
Memorial Sloan Kettering Cancer Center
New York, NY

Emergent pharmacologic interventions for prevention: Non endocrine
treatments
Brandy Heckman-Stoddard, PhD, MPH
National Cancer Institute
Rockville, MD

Imaging/AI
Constance Lehman, MD, PhD
Massachusetts General Hospital
Boston, MA

Panel Discussion
Ashley A. Dedmon

SABCS with the Society of Surgical Oncology present
Local Therapy - Management of the Axilla – Hall 4A
Moderator: Hiram (Chip) Cody, MD
Memorial Sloan Kettering Cancer Center
New York, NY

Axillary management in upfront surgery - staging, local control or both?
Stephanie Wong, MD, MPH
McGill University
Montreal, Canada

Refining axillary management after neoadjuvant chemotherapy - what does the evidence support
Eleftherios (Terry) Mamounas, MD, MPH, FACS
Orlando Health Cancer Institute
Orlando, FL

Can radiation replace ALND after + SLNB
Reshma Jagsi, MD, DPhil
University of Michigan
Ann Arbor, MI

Options for reducing risk for lymphedema when ALND/regional nodal XRT are needed
Hani Sbitany, MD
Mount Sinai
New York, NY

5:00 pm - 6:30 pm CT
POSTER SESSION 2 – Hall 1

5:00 pm - 6:30 pm CT
SPOTLIGHT POSTER DISCUSSIONS

Spotlight Poster Discussion 4 - Brain Metastases: Managing LMD / Targeting HER2 – Stars at Night Ballroom 3&4
Chair: Andrew Brenner, MD
UT Health San Antonio
San Antonio, TX
Patricia Steeg, PhD
National Cancer Institute
Bethesda, MD
Eudocia Lee, MD, MPH
Dana-Farber Cancer Institute
Boston, MA

**Spotlight Poster Discussion 5 - Life after breast cancer: Cardiac health, fertility preservation, and returning to life – Stars at Night Ballroom 1&2**
Chair: Kathryn Ruddy, MD, MPH
Mayo Clinic
Rochester, MN

**Cardiotoxicity**
Carmen Bergom, MD, PhD
Washington University School of Medicine
St. Louis, MO

**Ovarian reserve and assisted reproduction**
Maryam Lustberg, MD, MPH
Yale University School of Medicine
New Haven, CA

**Employment changes, sedative hypnotic use, and risk of long-term chemotherapy toxicity**
Tara Sanft, MD
Yale Cancer Center
New Haven, CT

**Spotlight Poster Discussion 6 - Genomic and genetic analysis on metastases – Hall 4A**
Chair: Christina Curtis, PhD, MSc
Stanford University
Stanford, CA

Christina Curtis, PhD MSc
Stanford University
Stanford, CA

Daniel Stover, MD
Ohio State University Comprehensive Cancer Center
Columbus, OH

7:00 PM - 9:00 PM CT
**OPEN SATELLITE EVENT** - San Antonio Marriott Rivercenter.

**What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of HER2-Positive Breast Cancer (Part 2 of a 3-Part CME Series)** presented by Research to Practice
Register for this complimentary live symposia or virtual event: http://www.researchtopractice.com/Meetings/SA2021

7:30 PM - 9:30 PM CT
**OPEN SATELLITE EVENT** - San Antonio Marriott Rivercenter.

**Navigating the Evolving Treatment Landscape for ER-Positive Breast Cancer** presented by Physicians’ Education Resource
Register for this complimentary live symposia or virtual event:
HOME - Medical Crossfire®: Navigating the Evolving Treatment Landscape for HR-Positive Breast Cancer (gotoper.com)

**THURSDAY, DECEMBER 9, 2021**

7:00 AM - 8:30 AM CT
POSTER SESSION 3 – Hall 1

7:00 AM - 8:30 AM CT
SPOTLIGHT POSTER DISCUSSION SESSIONS

**Spotlight Poster Discussion 7 - Locoregional treatment: De-escalation in breast cancer – Stars at Night Ballroom 1&2**
Chair: Wendy A. Woodward  
UT MD Anderson Cancer Center  
Houston, TX

**Reducing and omitting radiotherapy for select breast cancers**
Julie A. Bradley, MD  
UF Health Proton Therapy Institute  
Jacksonville, FL

**Topics in surgical omission: Is less always more?**
Alastair M. Thompson, BSc (Hons), MBChB, MD, FRCS (Ed)  
Baylor College of Medicine  
Houston, TX

**Spotlight Poster Discussion 8 - HER2 Positive Breast Cancer – Stars at Night Ballroom 3&4**
Chair: Ian E. Krop, MD, PhD  
Dana-Farber Cancer Institute  
Boston, MA

**Optimizing use of HER2 therapies in metastatic HER2+ breast cancer and other subtypes**
Priyanka Sharma, MD  
University of Kansas Cancer Center  
Westwood, KS

**HER2 kinase inhibitors: neoadjuvant approaches and mechanisms of resistance**
Cristina Saura Manich, MD  
Vall d’Hebron University Hospital  
Barcelona, Spain

**Novel therapies for HER2+ advanced breast cancer**
Jo Chien, MD  
University California San Francisco  
San Francisco, CA

**Spotlight Poster Discussion 9 - Evaluating emerging and established biomarkers – Hall 4A**
8:45 AM - 11:15 AM CT
GENERAL SESSION 3 – HALL 3
Co-Moderator: Powel Brown, MD, PhD
University of Texas MD Anderson Cancer Center
Houston, TX
and
Angela DeMichele, MD MSCE
University of Pennsylvania
Philadelphia, PA

8:45 AM CT
GS3-01. Trastuzumab deruxtecan vs trastuzumab emtansine in patients with HER2+ metastatic breast cancer: Results of the randomized phase 3 study DESTINY-Breast03
Hurvitiz S, Kim S-B, Chung W-P, Im S-A, Park YH, Hegg R, Kim M-H, Tseng L-M, Petry V, Chung C-F, Iwata H, Hamilton E, Curigliano G, Xu B, Lee C, Liu Y, Cathcart J, Bako E, Verma S, Cortés J. University of California, Los Angeles, Jonsson Comprehensive Cancer Center, Los Angeles, CA; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; National Cheng Kung University Hospital, Tainan, Taiwan; Seoul National University Hospital, Seoul, Republic of Korea; Samsung Medical Center, Seoul, Republic of Korea; Clínica de Pesquisas e Centro de Estudos em Oncologia Ginecológica e Mamária Ltda., Sao Paulo, Brazil; Severance Hospital, Yonsei University, Seoul, Republic of Korea; Taipei Veterans General Hospital, Taipei, Taiwan; Instituto do Câncer do Estado de São Paulo Octavio Frias de Oliveira, Sao Paulo, Brazil; Koo Foundation Sun Yat-Sen Cancer Center, Taipei, Taiwan; Aichi Cancer Center Hospital, Aichi, Japan; Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN; European Institute of Oncology, IRCCS, University of Milano, Milano, Italy; Chinese Academy of Medical Sciences Cancer Hospital, Beijing, China; Daiichi Sankyo, Inc., Basking Ridge, NJ; AstraZeneca Pharmaceuticals, LP, Gaithersburg, MD; International Breast Cancer Center (IBCC), Quiron Group, Barcelona, Spain.

9:00 AM CT
GS3-02. Updated overall survival (OS) results from the phase 3 PHOEBE trial of pyrotinib versus lapatinib in combination with capecitabine in patients with HER2-positive metastatic breast cancer
Y, Cheng Y, Li W, Zhu X, Chen C, Jianjun Zou J. Cancer Hospital Chinese Academy of Medical Sciences, Beijing, China; The Affiliated Cancer Hospital of Zhengzhou University & Henan Cancer Hospital, Zhengzhou, China; National Cancer Center/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; Fudan University Cancer Hospital, Shanghai, China; Jiangsu Cancer Hospital, Nanjing, China; Hunan Cancer Hospital, The Affiliated Cancer Hospital of Xiangya School of Medicine, Central South University, Changsha, China; Tianjin Medical University Cancer Institute and Hospital, Tianjin, China; Beijing Cancer Hospital, Beijing, China; Harbin Medical University Cancer Hospital, Harbin, China; Liaoning Cancer Hospital & Institute, Shenyang, China; Zhejiang University School of Medicine Sir Run Run Shaw Hospital, Hangzhou, China; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China; Jilin Cancer Hospital, Changchun, China; The First Bethune Hospital of Jilin University, Changchun, China; Jiangsu Hengrui Pharmaceuticals Co., Ltd., Shanghai, China.

9:15 AM CT
GS3-03. Genomic analysis of 733 HER2+ breast cancers identifies recurrent pathways alterations associated with anti-HER2 resistance and new therapeutic vulnerabilities

9:30 AM CT
GS3-04. Discussant
Ciara O’Sullivan, MB, BCh
Mayo Clinic
Rochester, MN

9:45 AM CT
GS3-05. Fulvestrant-palbociclib vs continuing aromatase inhibitor-palbociclib upon detection of circulating ESR1 mutation in HR+ HER2- metastatic breast cancer patients: Results of PADA-1, a UCBG-GINECO randomized phase 3 trial
Bidard F-C, Hardy-Bessard A-C, Bachelot T, Piera J-Y, Canon J-L, Clatot F, Andre F, De La Motte Rouge T, Pistilli B, Dalenc F, Dohollou N, Arseno O, Petit T, Riedl C, Morvan F, Marti A, Lachaie M, Achille M, Gozy M, Escande A, Mille D, Trouboul F, Arnould L, Bieche I, Pradines A, Lemmonnier J, Berger F, Delaloge S. Institut Curie, Paris, France; CARIO - Centre Armoricain Radiothérapie Imagerie Médicale et Oncologie, Plérin, France; Centre Léon Bérard, Lyon, France; Grand Hopital de Charleroi, Charleroi, Belgium; Centre Henri Becquerel, Rouen, France; Gustave Roussy, Villejuif, France; Centre Eugène Marquis, Rennes, France; Institut Claudius Régaud, Toulouse, France; Polyclinique Bordeaux Nord Aquitaine, Bordeaux, France; Centre Hospitalier de Blois, Blois, France; Centre Paul Strauss, Strasbourg, France; Centre Hospitalier Mont de Marsan, Mont de Marsan, France; Centre Hospitalier René Dubos, Cergy-Pontoise, France; Centre Hospitalier d’Auxerre, Auxerre, France; CHU d’Amiens, Amiens, France; Clinique de l’Orangerie, Strasbourg, France; Clinique de l’Europe, Amiens, France; Clinique Sainte Anne, Strasbourg, France; Medipole de Savoie, Challes les eaux, France; Centre Hospitalier Bretagne Atlantique, Vannes, France; Centre Georges François Leclerc, Dijon, France; Unicancer, Paris, France.

10:00 AM CT
GS3-06. Primary results of the cTRAK TN trial: A clinical trial utilising ctDNA
mutation tracking to detect minimal residual disease and trigger intervention in patients with moderate and high risk early stage triple negative breast cancer

Turner N, Swift C, Jenkins B, Kilburn L, Coakley M, Beaney M, Fox L, Goddard K, Garcia-Murillas I, Hall P, Harper-Wynne C, Hickish T, Kernaghan S, Macpherson I, Okines A, Palmieri C, Perry S, Randle K, Snowdon C, Stobart H, Wardley A, Wheatley D, Waters S, Winter M, Bliss J. The Institute of Cancer Research, London, United Kingdom; The Institute of Cancer Research & The Royal Marsden Hospital, London, United Kingdom; Clinical Trials and Statistics Unit at The Institute of Cancer Research, London, United Kingdom; The Royal Marsden NHS Foundation Trust, London, United Kingdom; University of Edinburgh, Edinburgh, United Kingdom; Maidstone Hospital; Maidstone and Tunbridge Wells NHS Trust, Maidstone, United Kingdom; Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust, Bournemouth, United Kingdom; The Beatson West of Scotland Cancer Centre, Glasgow, United Kingdom; Clatterbridge Cancer Centre NHS Trust, Liverpool, United Kingdom; Independent Cancer Patients’ Voice, London, United Kingdom; Outreach Research & Innovation Group Ltd and AstraZeneca, Manchester, United Kingdom; Royal Cornwall Hospital, Truro, United Kingdom; Velindre Cancer Centre; Velindre University NHS Trust, Cardiff, United Kingdom; Weston Park Hospital; Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, United Kingdom.

10:15 AM CT

GS3-07. Circulating tumor DNA (ctDNA) dynamics in patients with hormone receptor positive (HR+)/HER2 negative (HER2-) advanced breast cancer (aBC) treated in first line with ribociclib (R) and letrozole (L) in the BioloItaLEE trial

Bianchini G, Malorni L, Arpino G, Zambelli A, Puglisi F, Del Mastro L, Colleoni M, Montemurro F, Bianchi G, Paris I, Allegrini G, Cazzaniga ME, Orditura M, Zamagni C, Tamberi S, Castelletti D, Benelli M, Callari M, Santoro A, De Laurentiis M. Department of Oncology, Ospedale San Raffaele, Milano, Italy; Department of Oncology and Translational Research Unit “Sandro Pitigliani”, Ospedale di Prato, Azienda USL Toscana Centro, Prato, Italy; Department of Medical Clinics and Surgery, Università Federico II, Napoli, Italy; U.S.C. Oncologia, Presidio Ospedaliero Papa Giovanni XXIII, Bergamo, Italy; S.O.C. Oncologia Medica e Prevenzione Oncologica, IRCCS, Centro di Riferimento Oncologico, Aviano, Italy; U.O.S.D. Breast Unit, I.R.C.C.S. Ospedale Policlinico San Martino, Genoa, Italy; Senologia Medica, IEO, Istituto Europeo di Oncologia, IRCCS, Milano, Italy; Istituto di Candiolo, FPO, IRCCS, Candiolo, Torino, Italy; SC Oncologia Medica 1, Fondazione IRCCS Istituto Nazionale Tumori Milano, Milan, Italy; Department of Woman and Child Sciences, Fondazione Policlinico Universitario Agostino Gemelli, IRCCS, Rome, Italy; U.O.C. Oncologia Medica, Presidio Ospedaliero Livorno, Livorno, Italy; Phase 1 Research Unit & Oncology Unit, Azienda Socio Sanitaria Territoriale Monza & Milano Bicocca School of Medicine and Surgery, Monza, Italy; U.O.C. Oncologia Medica e Ematologia, A.O.U. Università Degli Studi L. Vanvitelli, Napoli, Italy; IRCCS Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy; U.O. Oncologia, PO. Ospedale degli Infermi – AUSL, Ravenna, Italy; Oncology, Novartis Farma SpA, Origgio, Italy; Department of Oncology and Bioinformatics Unit, Ospedale di Prato, Azienda USL Toscana Centro, Prato, Italy; CRUK Cambridge Institute, University of Cambridge Li Ka Shing Centre, Cambridge, United Kingdom; IRCCS Istituto Nazionale Tumori Fondazione G Pascale, Napoli, Italy.

10:30 AM CT

GS3-08. Discussant

Minetta C. Liu, MD
10:45 AM CT
**GS3-09. Loss of ASXL1 tumor suppressor promotes resistance to CDK4/6 inhibitors in ER+ breast cancer**
Sudhan DR, Chatterjee S, Kim J, Wang Y, Kandagatla V, Ye D, Lin C-C, Gomez Tejeda Zanudo J, Jain E, Marin A, Servetto A, Lee K-m, Povedano JM, McFadden D, Barrett A, Wagle N, Hanker AB, Arteaga CL. UT Southwestern Medical Center, Dallas, TX; Dana Farber Cancer Institute, Boston, MA; TEMPUS, Chicago, IL.

11:00 AM CT
**GS3-10. Study of samuraciclib (CT7001), a first-in-class, oral, selective inhibitor of CDK7, in combination with fulvestrant in patients with advanced hormone receptor positive HER2 negative breast cancer (HR+BC)**
Coombes C, Howell SJ, Krebs MG, Lord S, Kenny LM, Bahl A, Clack G, Ainscow E, Dickinson PA, Fostea R, Mansi J, Palmieri C, Bertelli G, Jeselsohn R, Mitri Z, Gradishar WJ, Sardesai S, O’Shaughnessy J, Ward P, Chalasani P, Lehnert M, Ali S, McIntosh S. Imperial College, London, United Kingdom; The University of Manchester, Manchester, United Kingdom; The Christie NHS Foundation Trust and University of Manchester, Manchester, United Kingdom; Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom; Carrick Therapeutics, Dublin, Ireland; SEDA Pharmaceutical Development Services, Stockport, United Kingdom; HCA Healthcare, London, United Kingdom; Guy’s and St Thomas’ NHS Foundation Trust, London, United Kingdom; University of Liverpool, Liverpool, United Kingdom; Brighton and Sussex University Hospital, Brighton, United Kingdom; Dana Faber Cancer Institute, Boston, MA; Oregon Health & Science University, Portland, OR; North Western University, Chicago, IL; The Ohio State University, Columbus, OH; The US Oncology Network, Dallas, TX; The University of Arizona, Tucson, AZ.

11:15 AM CT
**BREAK**

10:00 AM - 5:00 PM CT
**EXHIBITS – Hall 2**

11:30 AM - 12:30 PM CT
**DEBATE – Hall 3**

RxPONDER: Was it all OFS?
Chair: Harold Burstein MD, PhD
Dana-Farber Cancer Institute
Boston, MA

Pro
Michael Gnart, MD
Medical University of Vienna
Vienna, Austria

Con
Sibylle Loibl, Dr Med
GBG Forschungs GMBH
Hessen, Germany

12:30 PM - 1:00 PM CT
AACR Distinguished Lectureship in Breast Cancer Research – Hall 3
Helen Piwnica-Worms, PhD
MD Anderson Cancer Center
Houston, TX

1:30 PM - 2:00 PM CT
PLENARY LECTURE 1 – HALL 3
Genomic Profiling in Early Stage ER Positive Breast Cancers/Precision Medicine
Mitchell Dowsett, PhD
Royal Marsden Hospital
London, United Kingdom

2:00 PM - 3:00 PM CT
TRANSLATIONAL SCIENCE FORUM
HER2 Heterogeneity – Hall 4A
Matthew J. Ellis, MB, BChir, BSc., PhD, FRCP
Baylor College of Medicine
Houston, TX

Basic
Kim RM Blenman, PhD, MS
Yale Cancer Center
Yale University
New Haven, CT

Heterogeneity in treatment outcomes for HER2+ breast cancer – Clinical management strategies
Sara M. Tolaney, MD, MPH
Dana Farber Cancer Institute
Boston, MA

Molecular heterogeneity in HER2+ breast cancer – can outcomes be predicted?
Aleix Prat, MD, PhD
Hospital Clinic Barcelona
Barcelona, Spain

CLINICAL SCIENCE FORUM – Stars at Night Ballroom 3&4
The Promise and Reality of Oligometastatic Ablation for Breast Cancer
Moderator: Steven J. Chmura, MD, PhD
University of Chicago
Chicago, IL

The Promise and Reality of Oligometastatic Ablation for Breast Cancer
Moderator: Steven J. Chmura, MD, PhD
University of Chicago
Chicago, IL

Oligometastatic disease: Definitions and practice patterns
Yolande Lievens, MD, PhD
UZ Gent
Ghent, Belgium
OMD data and gaps in breast cancer
David Palma, MD, PhD
London Health Sciences Center
Ontario, Canada

MOLECULAR TUMOR BOARD – Stars at Night Ballroom 1&2

**Moderator:** Ben Ho Park, MD, PhD
Vanderbilt University Medical Center
Nashville, TN

**Panel Members:**
Fabrice André, MD, PhD
Mark Burkard, MD, PhD
Sarat Chandarlapaty, MD, PhD
Susan Domchek, MD
Diana Mandelker, MD, PhD
Bob Riter, MHSA
Aditya Bardia, MD, MPH

3:00 PM - 5:00 PM CT

**EDUCATIONAL SESSIONS**

**Local Therapy of the Primary and Beyond in Patients with Advanced Disease – Hall 4A**
Moderator: Rajendra A. Badwe, MBBS, MS
Tata Memorial Centre
Mumbai, India

- Local therapy of the primary tumor
  Seema Khan, MD
  Northwestern University
  Chicago, IL

- Special indications where local therapy should be considered
  Anthony Lucci, MD
  UT MD Anderson Cancer Center
  Houston, TX

- Oligo-progressive disease. Treating locally more than systemically
  Amy Xu, MD, PhD
  Memorial Sloan Kettering Cancer Center
  New York, NY

**Clinical Updates on Immunotherapy – Hall 3**
Moderator: Peter Schmid, MD, PhD
Bart’s Cancer Institute Queen Mary University of London
London, United Kingdom

- Immunotherapy in the metastatic setting - chemo backbone and biomarker
  Rebecca Dent, MD
  National Cancer Center
  Singapore

- Immune therapy in the (neo) adjuvant setting
  Heather L. McArthur, MD, MPH
  UT Southwestern
  Dallas, TX
IO beyond TNBC
Giuseppe Curigliano, MD, PhD
European Institute of Oncology
Milan, Italy

Anti-cancer Immune Response – Hall 4B
Moderator: Justin Balko, PharmD, PhD
Vanderbilt University Medical Center
Nashville, TN

Understanding the anti-cancer immune response: Innate and adaptive responses to cancer cells
Laurence Zitvogel, MD, PhD
Institut Gustave Roussy
Villejuif, France

Macro and micro: Macrophage and microbiome diversity in the breast cancer microenvironment
Jennifer L. Guerriero, PhD
Dana-Farber Cancer Institute
Harvard Medical School
Boston, MA

Optimizing immunotherapy efficacy in the clinic through biomarkers: Advances in single cell and spatial histology analyse
Marleen Kok, MD, PhD
The Netherlands Cancer Institute
Amsterdam, Netherland

The Fluid Landscape of Liquid Biopsy – Stars at Night Ballroom 3&4
Nicholas Turner, PhD, FRCF
The Royal Marsden Hospital Institute of Cancer Research
London, United Kingdom

Monitoring of advanced breast cancer with liquid biopsies
François-Clément Bidard, MD, PhD
Institut Curie
Paris Saclay University
Paris, France

Single cell analysis of circulating tumor cells
Shyamala Maheswaran, PhD
Massachusetts General Hospital
Boston, MA

Challenges in early detection - screening and MRD
Pedram Razavi, MD, PhD
Memorial Sloan Kettering Cancer Center
New York, NY

Targeting the “Un-druggable” – Stars at Night Ballroom 1&2
Moderator: Funda Meric-Bernstam, MD
UT MD Anderson Cancer Center
Houston, TX
Targeting EZH2 functions
Celina G. Kleer, MD
University of Michigan Medical School
Ann Arbor, MI

RNA metabolism and splicing
Trey Westbrook, PhD
Baylor College of Medicine
Houston, TX

Novel epigenomic targets in TNBC
David W. Cescon, MD, PhD
Princess Margaret Cancer Centre
Toronto, Canada

5:00 PM - 6:30 PM CT
POSTER SESSION 4 – HALL 1

Spotlight Poster Discussion 10 - Novel immunotherapy approaches – Stars at Night Ballroom 1&2
Chair: Kevin Kalinsky, MD, MS
Winship Cancer Institute
Emory University
Atlanta, GA
Rebecca A. Shatsky, MD
UC San Diego Health
San Diego, CA
David B. Page, MD
Providence Cancer Institute
Portland, OR
Elizabeth A. Mittendorf, MD, PhD
Dana-Farber Cancer Institute
Boston, MA

Spotlight Poster Discussion 11 - The future is now: Innovation in pathology and radiology – Hall 4A
Co-Chair: Kalliopi P. Siziopikou, MD, PhD
Northwestern University
Chicago, IL
Co-Chair: Sughra Raza, MD
University of Massachusetts Medical School
Worcester, MA

Innovation in Pathology
Lee A. Cooper, PhD  
Northwestern Medicine  
Feinberg School of Medicine  
Chicago, IL

**Innovation in Radiology**  
Linda Moy, MD  
NYU Langone  
New York, NY

**7:00 PM - 8:45 PM CT**  
**OPEN SATELLITE EVENT** – San Antonio Marriott Rivercenter

*What Clinicians Want to Know: Addressing Current Questions and Controversies in the Management of Triple-Negative Breast Cancer (Part 3 of a 3-Part CME Series)* presented by Research to Practice

Register for this complimentary live symposia or virtual event: [http://www.researchtopractice.com/Meetings/SA2021](http://www.researchtopractice.com/Meetings/SA2021)

*Candid Conversations & Clinical Consults: Personalizing Treatment Decisions in HER2-Altered Breast Cancer - Strategies for Improving Equity and Patient Outcomes Through Individualized Targeted Therapy Selection, Team-Based Care, and Shared Decision-Making* presented by PVI, PeerView Institute for Medical Research
FRIDAY, DECEMBER 10, 2021

7:00 AM - 8:30 AM CT
POSTER SESSION 5 – Hall 1

7:00 AM - 8:30 AM CT
SPOTLIGHT POSTER DISCUSSION SESSIONS

Spotlight Poster Discussion 13 - Novel Therapeutic Approaches in HER2 Negative Breast Cancer – Stars at Night Ballroom 1&2
Chair: Sara M. Tolaney, MD, MPH
Dana-Farber Cancer Institute
Boston, MA

Going beyond just endocrine therapy: The path ahead
Mafalda Oliveira, MD, PhD
Vall d’Hebron Institute of Oncology
Barcelona, Spain

Novel strategies for endocrine therapy: Can we do better?
Heather A. Parsons, MD, MPH
Dana-Farber Cancer Institute
Boston, MA

Spotlight Poster Discussion 14 - Clinical translational updates in invasive lobular carcinoma – Stars at Night Ballroom 3&4
Rachel C. Jankowitz, MD
Penn Medicine
Philadelphia, PA

Christine Desmedt, PhD
Katholieke Universiteit Leuven
Leuven, Belgium

Spotlight Poster Discussion 15 - Defining molecular markers of endocrine resistance in clinic – Hall 4A
Chair: Lajos Pusztai, MD, DPhil
Yale University School of Medicine
New Haven, CT

Komal Jhaveri, MD FACP
Memorial Sloan Kettering Cancer Center
New York, NY

Reva Basho, MD
Cedars-Sinai Cancer
Los Angeles, CA

8:45 AM - 11:15 AM CT
GENERAL SESSION 4 – Hall 3
Moderator: Tari King, MD
Dana-Farber/Brigham and Women’s Cancer Center
Boston, MA
8:45 AM CT
GS4-01. Impact of race and ethnicity on incidence and severity of breast cancer related lymphedema after axillary lymph node dissection: Results of a prospective screening study
Barrio AV, Montagna G, Sevilimedu V, Gomez EA, Mehrara B, Morrow M. Memorial Sloan Kettering Cancer Center, New York, NY.

9:00 AM CT
GS4-02. Analysis of clinical outcomes and expression-based immune signatures by race in the I-SPY 2 trial
Kyalwazi B, Yau C, Olopade O, A. Chien J, Wallace A, Forero-Torres A, Pusztai L, Ellis E, Albain K, Blaes A, Haley B, Boughhey J, Elias A, Clark A, Isaacs C, Nanda R, Han H, Yung R, Tripathy D, Edmiston K, Viscusi R, Northfelt D, Khan Q, Sanil A, Berry S, Asare S, Wilson A, Hirst G, Hylton N, Melisko M, Perlmutter J, Rugo H, Symmans F, van’t Veer L, Berry D, Esserman L. University of Chicago Pritzker School of Medicine, Chicago, IL; University of California San Francisco, San Francisco, CA; University of Chicago, Chicago, IL; University of California San Diego, San Diego, CA; University of Alabama at Birmingham, Birmingham, AL; University of Texas MD Anderson Cancer Center, Houston, TX; Swedish Cancer Institute, Seattle, WA; Loyola University Chicago Stritch School of Medicine, Chicago, IL; University of Minnesota, Minneapolis, MN; University of Texas Southwestern, Dallas, TX; Mayo Clinic Rochester, Rochester, MN; University of Colorado, Denver, CO; University of Pennsylvania, Philadelphia, PA; Georgetown, Washington, DC; Moffitt Cancer Center, Tampa, FL; University of Washington, Seattle, WA; University of Southern California, Los Angeles, CA; Inova Health System, Falls Church, VA; University of Arizona, Phoenix, AZ; Mayo Clinic Scottsdale, Scottsdale, AZ; University of Kansas, Kansas City, KS; Berry Consultants, LLC, Austin, TX; Quantum Leap Healthcare Collaborative, San Francisco, CA; Gemini Group, Ann Harbor, MI.

9:15 AM CT
GS4-03. Patient-reported outcomes (PROs) for the intergroup sentinel mamma study (INSEMA, GBG75, ABCSG43): Persistent impact of axillary surgery on arm and breast symptoms in early breast cancer
Gerber B, Stachs A, Veselinovic K, Polata S, Müller T, Kühn T, Heil J, Ataseven B, Reitsamer R, Hildebrandt G, Knauer M, Golatta M, Stefek A, Zahm D-M, Thill M, Nekljudova V, Krug D, Seither F, Loibl S, Reimer T. Department of Obstetrics and Gynecology, University of Rostock, Rostock, Germany; Department of Obstetrics and Gynecology, University of Ulm, Ulm, Germany; Breast Center, Evangelisches Waldkrankenhaus Spandau, Berlin, Germany; Women’s Hospital, Klinikum Hanau GmbH, Hanau, Germany; Women’s Hospital, Klinikum Esslingen, Esslingen, Germany; Department of Obstetrics and Gynecology, Universitätssklinikum Heidelberg, Heidelberg, Germany; Kliniken Essen-Mitte, Essen, Germany; Breast Center, Gemeinnützige Salzburger Landeskrankenhäuser Betriebsgesellschaft, Salzburg, Austria; Department of Radiotherapy, University of Rostock, Rostock, Germany; Brustzentrum Ost, St. Gallen, Switzerland; Department of Obstetrics and Gynecology, Universitätssklinikum Heidelberg, Heidelberg, Germany; Women’s Hospital, Johanniter-Krankenhaus Stendal, Stendal, Germany; Breast Center, SRH Waldklinikum Gera, Gera, Germany; Breast Center, AGAPLESION Markus Krankenhaus, Frankfurt, Germany; German Breast Group, Neu-Isenburg, Germany; Universitätsklinikum Schleswig-Holstein, Kiel, Germany.

9:30 AM CT
GS4-04. Discussant
Lisa A. Newman, MD, MPH
New York-Presbyterian/Weill Cornell Medical Center
New York, NY
9:45 AM CT
GS4-05. Preservation of axillary lymph nodes compared to complete dissection in T1-T2 breast cancer patients presenting 1-2 metastatic sentinel lymph nodes. A multicenter randomized clinical trial. Sinodar One

10:00 AM CT
GS4-06 Estimation of breast cancer over diagnosis in a US breast screening cohort
Ryser MD, Lange J, Inoue L, O’Meara ES, Gard C, Miglioretti DL, Bulliard J-L, Brouwer AF, Hwang ES, Etzioni RB. Duke University, Durham, NC; Oregon Health & Science University, Portland, OR; University of Washington, Seattle, WA; Kaiser Permanente Washington Health Research Institute, Seattle, WA; New Mexico State University, Las Cruces, NM; University of California, Davis, Davis, CA; University of Lausanne, Lausanne, Switzerland; University of Michigan, Ann Arbor, MI; Fred Hutchinson Cancer Research Center, Seattle, WA.

10:15 AM CT
GS4-07. The Breast PreCancer Atlas DCIS genomic signatures define biology and correlate with clinical outcomes: An analysis of TBCRC 038 and RAHBT cohorts

10:30 AM CT
GS4-08. Comprehensive genomic profiling of patients with breast cancer identifies germline-somatic interactions mediating therapy resistance

10:45 AM CT
GS4-09. Quality of life results from OlympiA: A phase III, multicenter, randomized, placebo-controlled trial of adjuvant olaparib after (neo)-adjuvant chemotherapy in patients with germline BRCA1/2 mutations and high-risk HER-2 negative early breast cancer
Ganz PA, Bandos H, Spanic T, Friedman S, Müller V, Kümmel S, Delaloge S, Brain E, Toi M, Yamauchi H, de Dueñas E-M, Armstrong A, Im S-A, Song C, Zheng H, Sarosiek T, Sharma P, Rossi G, Rastogi P, Fielding A, Gelber RD, Campbell C, Garber JE, Geyer Jr CE, Tutt ANJ, On behalf of the OlympiA Trial Steering Committee and Investigators, NSABP/NRG Oncology, and UCLA Jonsson Comprehensive Cancer Center, and UCLA Fielding School of Public Health, Los Angeles, PA; NSABP/NRG Oncology, and The University of Pittsburgh, Pgh, PA; Europa Donna, The European Breast Cancer Coalition, Milan, Italy; Facing Our Risk of Cancer Empowered (FORCE), Tampa, FL; University Medical Center Hamburg-Eppendorf, Hamburg, Germany; Charité – Universitätsmedizin Berlin, Department of Gynecology with Breast Center Breast Unit, Klinikum Essen-Mitte, Berlin, Germany; UNICANCER Breast Group (UCBG), Institut Gustave Roussy, Villejuif, France; Institut Curie, Saint-Cloud, France; Japan Breast Research Group (JBCRG), and Kyoto University Hospital, Kyoto, Japan; Japan Breast Research Group (JBCRG), and St. Luke’s International Hospital, Tokyo, Japan; GEICAM Spanish Breast Cancer Group, and The Consorcio Hospitalario Provincial de Castellón, Castellón, Spain; National Cancer Research Institute - Breast Cancer Clinical Studies Group (NCRi-BCSG), The Christie NHS Foundation Trust, and the University of Manchester, Manchester, United Kingdom; Cancer Research Institute, Seoul National University Hospital, Seoul National University College of Medicine, Seoul, Republic of Korea; Fujian Medical University Union Hospital, Fujian, China; Cancer Center, West China Hospital, Sichuan University, Chengdu, China; LUXMED Onkologia, Warsaw, Poland; University of Kansas Medical Center, Westwood, KS; Breast International Group (BIG), Brussels, Belgium; NSABP/NRG Oncology, and UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, and Magee-Womens Hospital, Pittsburgh, PA; AstraZeneca, Gaithersburg, MD; Dana-Farber Cancer Institute, Harvard Medical School, Harvard TH Chan School of Public Health, Frontier Science Foundation, Boston, MA; Frontier Science (Scotland) Ltd, Kincaig, United Kingdom; Dana-Farber Cancer Institute, Harvard Medical School, Harvard TH Chan School of Public Health, Frontier Science Foundation, and Alliance for Clinical Trials in Oncology, Boston, MA; NRG Oncology, and Houston Methodist Cancer Center, Houston, TX; Breast International Group (BIG), and Breast Cancer Now Toby Robins Research Centre, The Institute of Cancer and The Breast Cancer Now Unit, Guy’s Hospital Cancer Centre, King’s College London, London, United Kingdom.

11:00 AM CT

**GS4-10.** Neratinib + fulvestrant + trastuzumab for hormone receptor-positive, HER2-mutant metastatic breast cancer and neratinib + trastuzumab for triple-negative disease: Latest updates from the SUMMIT trial

Jhaveri K, Park H, Waisman J, Goldman JW, Guerrero-Zotano A, Boni V, Haley B, Mayer IA, Brufsky A, Yang ES, García-Sáenz JA, Bidadar F-C, Crown J, Zhang B, Frazier A, Diala I, Eli LD, Barnett B, Wildders H. Memorial Sloan Kettering Cancer Center, New York, NY; Washington University School of Medicine, St. Louis, MO; City of Hope Comprehensive Cancer Center, Duarte, CA; UCLA, Santa Monica, CA; Fundación Instituto Valenciano de Oncología, Valencia, Spain; START Madrid-CIOCC, Hospital Universitario, Madrid Sanchinarro, Madrid, Spain; UT Southwestern Medical Center, Dallas, TX; Vanderbilt University Medical Center / Vanderbilt-Ingram Cancer Center, Nashville, TN; Magee-Womens Hospital of UPMC, Pittsburgh, PA; University of Alabama at Birmingham, Birmingham, AL; Hospital Clínico San Carlos, Madrid, Spain; Institut Curie, St. Cloud, France; St. Vincent’s University Hospital, Dublin, Ireland; Puma Biotechnology Inc., Los Angeles, CA; University Hospitals Leuven, Leuven, Belgium.

11:15 AM CT

**BREAK**
10:00 AM - 5:00 PM CT  
EXHIBITS – Hall 2

11:30 AM - 12:30 PM CT  
DEBATE – Hall 3

**One Week of Whole Breast RT is the New Standard of Care**  
Chair: Wendy A. Woodward, MD, PhD  
UT MD Anderson Cancer Center  
Houston, TX

Pro  
Charlotte E. Coles, MbChB, PhD  
University of Cambridge  
Cambridge, United Kingdom

Con  
Julia White, MD  
Ohio State University  
Columbus, OH

12:30 PM - 1:00 PM CT  
AACR Outstanding Investigator Award for Breast Cancer Research – Hall 3  
Fabrice Andre, MD, PhD  
Gustave Roussy  
Villejuif, France

1:00 PM - 1:30 PM CT  
BREAK

1:30 PM - 2:30 PM CT  
PLENARY LECTURE – Hall 3

**Triple Negative Breast Cancer - Pitfalls and Progress**  
Lisa A. Carey, MD, ScM, FASCO  
University of North Carolina at Chapel Hill  
Chapel Hill, NC

2:00 PM - 3:00 PM CT  
MINI SYMPOSIA

**DNA Repair in Breast Cancer - Diagnosis and Treatment – Stars at Night Ballroom 1&2**  
Moderator: Simon N. Powell, MD, PhD, FRCP  
Memorial Sloan Kettering Cancer Center  
New York, NY

- **CRISPR screens to identify novel DNA repair defects synthetic lethal therapies**  
  Daniel Durocher, PhD  
  Lunefeld-Tanenbaum Research Institute  
  Toronto, Canada

- **Genomics of DNA repair defects in breast cancer**  
  Serena Nik-Zainal, PhD  
  University of Cambridge  
  Cambridge, United Kingdom
Targeting DNA damage response and HRD in breast cancer
Timothy A. Yap, MBBS, PhD, FRCP
UT MD Anderson Cancer Center
Houston, TX

The Evolution of Local Therapy in the Genomic Era – Hall 3
Moderator: Tari King, MD
Brigham and Women’s Hospital
Boston, MA

Is less (or more) axillary surgery needed in the genomic era?
Monica Morrow, MD
Memorial Sloan Kettering Cancer Center
New York, NY

Can genomic risk be used to tailor radiation therapy?
Philip Poortmans, PhD
Iridium Netwerk
Paris, France

3:00 PM - 5:00 PM CT
YEAR IN REVIEW – Hall 3
Moderator: Carlos L. Arteaga, MD
Harold C. Simmons Comprehensive Cancer Center
UT Southwestern
Dallas, TX

Basic science
Xiang Zhang, PhD
Baylor School of Medicine
Houston, TX

Translational research
Christina Curtis, PhD, MSc
Stanford Medicine
Stanford, CA

Early breast cancer
Foluso Olabisi Ademuyiwa, MD, MPH, MSCI
Washington University School of Medicine
Saint Louis, MO

Advanced breast cancer
Peter Schmid, MD, PhD
Bart’s Cancer Institute Queen Mary University of London
London, United Kingdom
5:00 PM - 7:00 PM CT
View from the Trenches: What will You do on Monday Morning? – Stars at Night Ballroom 1&2
Co-Moderator: Stephen Johnston, MBBS, ARCP, PhD
The Royal Marsden Hospital
London, United Kingdom
and
Co-Moderator: Alastair Thompson, BSc (Hons), MBChB, MD, FRCSEd, FACS
Baylor College of Medicine
Houston, MD

Panel Members
Carlos H. Barrios, MD
Latin American Cooperative Oncology Group (LACOG)
Porto Alegre, Brazil
Thomas Braun, PhD
University of Michigan
Ann Arbor, MI
Javier Cortes, MD, PhD
International Breast Cancer Center
Barcelona, Spain
Erika Hamilton, MD
Sarah Cannon Research Institute
Tennessee Oncology
Nashville, TN
Meena Moran, MD
Yale School of Medicine
New Haven, CT
Ann H. Partridge, MD, MPH
Dana-Farber Cancer Institute
Boston, MA
Jorge S. Reis-Filho, MD, MRCPath, PhD
Memorial Sloan Kettering Cancer Center
New York, NY
Ivis Febus-Sampayo
SHARE
New York, NY
Anna C. Weiss, MD
Brigham and Women’s Hospital
Boston, MA

7:00 PM CT
OPEN SATELLITE EVENT - San Antonio Marriott Rivercenter
Molecular Imaging and Breast Cancer: Selecting and Evaluating Targeted Treatments presented by Society of Nuclear Medicine and Molecular Imaging SNMMI
Register for this complimentary live symposia or virtual event: http://www.snmmi.org/sabcs.
POSTER SESSION 1

WEDNESDAY, DECEMBER 8, 2021: 7:00 AM – 8:30 AM CT

Axillary Staging and Sentinel Nodes

PS1-01-01 Prospective ultrasonographic surveillance study for incidence and recovery period of COVID-19 vaccination-related axillary lymphadenopathy

P1-01-02 Pathologic nodal status is a predictor for metastatic disease in lymph nodes identified by axillary reverse mapping
Saengphongchawan R, Manasnayakorn S. King Chulalongkorn Memorial Hospital, Bangkok, Thailand.

P1-01-03 Feasibility and diagnostic performance of ultrasound assisted carbon nanoparticle suspension versus dual-tracer-guided sentinel lymph node mapping in patients with early breast cancer: A prospective, randomized controlled, phase III clinical trial
Cheng M, Zhang L, Chen Y, Zhuang X, Yang C, Ji F, Gao H, Yang M, Zhu T, Li J. Department of Breast Cancer, Cancer Center, Guangdong Provincial People’s Hospital, Guangdong Academy of Medical Sciences, Guangzhou, China.

P1-01-04 RUFY3 as a predictive intratumor biomarker for lymph node metastasis in older women with invasive breast cancer
Angarita FA, Oshi M, Yamada A, Yan L, Matsuyama R, Edge SB, Endo I, Takabe K. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Yokohama City University Graduate School of Medicine, Kanagawa, Japan; Yokohama City University Graduate School of Medicine, Yokohama, Japan.

P1-01-05 Influence of age and tumor size on lymph node positivity in breast cancer: A retrospective population study on the US SEER database

P1-01-06 Predictor of sentinel node positivity in screen-detected invasive breast cancer

P1-01-07 Factors predicting a lower likelihood of residual nodal disease in clinically-node positive patients undergoing sentinel node surgery after neoadjuvant chemotherapy for breast cancer
Cabioglu N, Karanlık H, Igci A, Muslumanoglu M, Tukenmez M, Emiroglu S, Ozkurt E, Onder S, Saip P, Eralp Y, Aydiner A, Yavuz E, Ozmen V. Istanbul University, Istanbul Faculty of Medicine, Department of Surgery, Istanbul, Turkey; Istanbul University, Institute of Oncology, Surgical Oncology Division, Istanbul, Turkey; American Hospital, Department of Surgery, Istanbul, Turkey; Ozel Basari Hospital, Department of Surgery, Istanbul, Turkey.
Istanbul University, Istanbul Faculty of Medicine, Department of Pathology, Istanbul, Turkey; Istanbul University, Institute of Oncology, Department of Medical Oncology, Istanbul, Turkey; Acibadem Maslak Hospital, Acibadem Health Group, Istanbul, Turkey; Tuzlali Pathology Laboratory, Istanbul, Turkey.

**P1-01-08** Axillary surgery after neoadjuvant chemotherapy in breast cancer - Survey among Argentinian breast surgeons


**P1-01-09** Prediction of node negative breast cancer and high disease burden through image analysis software on mammographic images and clinicopathological data

Rejmer C, Dihge L, Bendahl P-O, Fornvik D, Dustler M, Ryden L. Department of Clinical Sciences, Division of Surgery, Lund University, Lund, Sweden; Department of Clinical Sciences, Division of Surgery, Lund University, and Department of Plastic and Reconstructive Surgery, Skåne University Hospital, Lund and Malmö, Sweden; Department of Clinical Sciences, Division of Oncology, Lund University, Lund, Sweden; Diagnostic Radiology, Department of Translational Medicine, Faculty of Medicine, Lund University, and Medical Radiation Physics, Department of Translational Medicine, Skåne University Hospital, Lund University, Lund and Malmö, Sweden; Diagnostic Radiology, Department of Translational Medicine, Faculty of Medicine, Lund University, Lund, Sweden; Department of Clinical Sciences, Division of Surgery, Lund University, and Department of Surgery, Skåne University Hospital, and Aarhus University, Lund and Aarhus, Sweden.

**P1-01-10** A phase 3, multicenter, self-controlled, non-inferiority trial comparing mitoxantrone hydrochloride injection for tracing versus technetium-99m in the detection of axillary sentinel nodes in patients with early-stage breast cancer

Yang B, Jiao D, Chen J, Wang C, Jin L, Zhao W, Gao X, Wang H, Li J, Zhao H, Wu D, Fan Z, Wang S, Liu Z, Wang Y, Wu J. Department of Breast Surgery, Fudan University Shanghai Cancer Center, Shanghai, China; Affiliated Cancer Hospital of Zhengzhou University, Zhengzhou, China; Shandong Cancer Hospital, Jinan, China; Affiliated Sir Run Run Shaw Hospital, Zhejiang University School of Medicine, Hangzhou, China; The Affiliated Hospital of Qingdao University, Qingdao, China; The Affiliated Hospital of Qingdao University, Qingdao, Shandong, China; Second Affiliated Hospital of Dalian Medical University, Dalian, China; The First Bethune Hospital of Jilin University, Changchun, China, Changchun, China; The First Bethune Hospital of Jilin University, Changchun, China; Shenyang Pharmaceutical University, Shenyang, China, Shanghai, China; Affiliated Cancer Hospital of Zhengzhou University, Zhengzhou, Henan, China, Zhengzhou, China; Shandong Cancer Hospital, Jinan, China, Jinan, China.

**P1-01-11** Axillary extensive burden evaluation by ultrasound in preoperative nodal staging in breast cancer patients

Defoort C, Chemaly J, Ceugnart L, Chauvet M-P. Centre Oscar Lambret, Lille, France.

**P1-01-12** Withdrawn

**P1-01-13** A prospective self-controlled study of indocyanine green instead of radioisotope for axillary sentinel lymph nodes in breast cancer

Jin Y, Yuan L, Jiang J, Qi X. Army Medical University, Chongqing, China.
P1-01-14 Axillary assessment by Systemic Axillary Sonography (SAS) for axillary disease treated with neoadjuvant chemotherapy
Melnikau S, Layton C, Ozmen T, Allen M, Avisar E. University of Miami Miller School of Medicine/Jackson Memorial Hospital, Miami, FL; Florida Atlantic University, Charles E. Schmidt College of Medicine, Miami, FL; University of Miami Miller School of Medicine, Miami, FL.

P1-01-15 Clinical relevance of TRIM37 gene expression in breast cancer

P1-01-16 Perspectives on axillary management after primary systemic treatment: An international EUBREAST survey
Gasparri ML, De Boniface J, Gentilini OD, Kaidar-Person O, Poortmans P, Kuehn T. University of the Italian Switzerland. Ente Ospedaliero Cantonale of Lugano, Lugano, Switzerland; Karolinska Institutet, Stockholm, Sweden; San Raffaele University Hospital, Milan, Italy; Oncology Institute, Sheba Hospital Tel Hashomer, Ramat Gan, Israel; Iridium Kankernetwerk, Wilrijk-Antwerp, Belgium; Klinikum Esslingen, Esslingen, Germany.

P1-01-17 Machine learning-based DNA methylation classifiers to predict pathologic nodal stage in breast cancer patients with clinically node positive disease
DiNome ML, Ensenyat-Mendez M, Orozco JIJ, Rünger D, Baker JL, Weidhaas JB, Marzese DM. UCLA, Los Angeles, CA; Institut d’Investigació Sanitària Illes Balears (IdISBa), Palma, Spain; Saint John’s Cancer Institute, Santa Monica, CA.

Detection/Diagnosis - Pathology: Diagnostic Pathology
P1-02-01 Deep learning identifies morphological changes in whole slide images of treatment-resistant TNBC

P1-02-02 Examination of low Her2 expression in breast cancer
Fernandez AI, Liu M, Bellizzi A, Brock J, Fadare O, Hanley K, Harigopal M, Jorns JM, Kuba MG, Ly A, Podoll M, Rabe K, Sanders MA, Singh K, Snir OL, Soong R, Wei S, Wen H, Wong S, Yoon E, Pusztai L, Reisenbichler E, Rimm DL. Yale University, New Haven, CT; University of Iowa, Iowa City, IA; Brigham and Women’s Hospital, Boston, MA; University of California San Diego, San Diego, CA; Emory University, Atlanta, GA; Medical College of Wisconsin, Milwaukee, WI; Memorial Sloan Kettering Cancer Center, New York, NY; Massachusetts General Hospital, Boston, MA; Vanderbilt University Medical Center, Nashville, TN; University of Minnesota, Minneapolis, MN; Norton Healthcare, Louisville, KY; Brown University, Providence, RI; Oregon Health & Science University, Portland, OR; University of Pittsburgh Medical Center, Pittsburgh, PA; University of Alabama at Birmingham, Birmingham, AL; MD Anderson Cancer Center, Houston, TX.
POSTER SESSION 1  WEDNESDAY, DECEMBER 8, 2021: 7:00 AM-8:30 AM CT

**P1-02-03** Tumor-infiltrating lymphocytes but not HER2 copy number or ratio show prognostic value in trastuzumab-treated HER2-positive breast cancer

Robertson S, Rönnlund C, Fredriksson I, Foukakis T, Hartman J. Department of Oncology-Pathology, Karolinska Institutet and Dept of Clinical Pathology and Cancer Diagnostics, Karolinska University Hospital, Stockholm, Sweden; Department of Molecular Medicine and Surgery, Karolinska Institutet and Dept of Breast-, Endocrine Tumors and Sarcoma, Karolinska University Hospital, Stockholm, Sweden; Department of Oncology-Pathology, Karolinska Institutet and Breast Center, Theme Cancer, Karolinska University Hospital, Stockholm, Sweden; Department of Oncology-Pathology, Karolinska Institutet and Dept of Clinical Pathology and Cancer Diagnostics, and MedtechLabs Bioclinicum, Karolinska University Hospital, Stockholm, Sweden.

**P1-02-04** Modified Miller-Payne score as a pragmatic and efficient alternative to Residual Cancer Burden


**P1-02-05** A genome-wide functional genomics screen reveals unique co-driver mutations of mutant TP53 promoting cellular heterogeneity during breast cancer progression


**P1-02-06** Prediction of Prosigna® breast cancer intrinsic subtype by immunohistochemical ER, PR and Ki67 expression

Heber U, Tendl-Schulz K, Heber S, Danzinger S, Bartsch R, Singer CF, Fitzal F, Exner R, Gnant MF, Müllauer L, Bago-Horvath Z. Department of Pathology, Medical University of Vienna, Wien, Austria; Center for Physiology and Pharmacology, Medical University of Vienna, Wien, Austria; Department of Obstetrics and Gynecology, Medical University of Vienna, Wien, Austria; Department of Medicine 1, Clinical Division of Oncology, Medical University of Vienna, Wien, Austria; Department of Surgery, Medical University of Vienna, Wien, Austria; Comprehensive Cancer Center, Medical University of Vienna, Wien, Austria.

**P1-02-07** Accuracy and predictive value of resection margin assessment by intraoperative frozen section after neoadjuvant therapy: An analysis of the ABCSG 24 and 34 trials

Rokitte K, Tendl-Schulz K, Heber U, Wimmer K, Bartsch R, Kacerovsky-Strobl S, Pfeiler G, Steger GG, Singer CF, Hlasuchek D, Gnant M, Fitzal F, Bago-Horvath Z. Department of Pathology, Medical University of Vienna, Wien, Austria; Department of Surgery, Medical University of Vienna, Wien, Austria; Department of Medicine 1, Clinical Division of Oncology, Medical University of Vienna, Wien, Austria; Department of Gynecology and Obstetrics, Medical University of Vienna, Wien, Austria; Austrian Breast and Colorectal Cancer Study Group, Wien, Austria; Comprehensive Cancer Center, Medical University of Vienna, Wien, Austria.
**P1-02-08** Comparison of clinical features and outcomes for pleomorphic invasive lobular carcinoma vs. non-pleomorphic invasive lobular carcinoma

Wright MD, Dempster MS, ElSherif A, Cocco D, Valente SA, Li H, Kruse ML. Cleveland Clinic, Cleveland, OH.

**P1-02-09** Results of a worldwide survey on the currently used histopathological diagnostic criteria for invasive lobular breast cancer (ILC)

De Schepper M, Vincent-Salomon A, Christgen M, Van Baelen K, Tsuda H, Kurozumi S, Brito MJ, Cserni G, Schnitt S, Larsimont D, Kulka J, Fernandez PL, Rodriguez P, Aula A, Mendelez C, Van Bockstal M, Kovacs A, Varga Z, Wesseling J, Bhargava R, Boström P, Franchet C, Zambuko B, Matute G, Berghian A, van Diest P, Oesterreich S, Derksen PWB, Floris G, Desmedt C. Laboratory for Translational Breast Cancer Research, Department of Oncology, KU Leuven, Leuven, Belgium; Diagnostic and Theranostic Medicine Division, Institut Curie, PSL Research University, Paris, France; Institute of Pathology, Hannover Medical School, Hannover, Germany; Department of Pathology, National Defense Medical College Hospital, Tokorozawa, Saitama, Japan; Department of Breast Surgery, International University of Health and Welfare, Chiba, Japan; Breast Unit, Champalimaud Clinical Center, Champalimaud Foundation, Lisbon, Portugal; Department of Pathology, Bács-Kiskun County Teaching Hospital, Kecskemét, Hungary; Brigham and Women’s Hospital and Dana-Farber Cancer Institute, Boston, MA; Department of Pathology, Institut Jules Bordet, Université Libre de Bruxelles (ULB), Brussels, Belgium; 2nd Department of Pathology, Semmelweis University, Budapest, Pest, Hungary; Hospital German Trias i Pujol, Badalona, Spain; University Hospital Doctor Josep Trueta, Girona, Spain; Department of Pathology, Cliniques Universitaires Saint-Luc Bruxelles, Woluwé-Saint-Lambert, Belgium; Department of Clinical Pathology, Sahlgrenska University Hospital, Gothenburg, Sweden; Institut für Pathologie und Molekularpathologie, Universitätsspital Zürich, Zürich, Switzerland; Divisions of Molecular Pathology and Diagnostic Oncology, Netherlands Cancer Institute, Amsterdam, Netherlands; Women’s Cancer Research Center, UPMC Hillman Cancer Center, Magee-Womens Research Institute, Pittsburgh, PA; Department of Pathology, Turku University Hospital and University of Turku, Turku, Finland; Institut Claudius Regaud, Institut Universitaire du Cancer Toulouse - Oncopole, Toulouse, France; Department of Pathology, Sir Ketumile Masire Teaching Hospital, University of Botswana, Gaborone, Botswana; Clinica Universitaria Bolivariana, Universidad Pontificia Bolivariana, Medellín, Colombia; Département de biopathologie, Centre Henri Becquerel, Rouen, France; Department of Pathology, University Medical Center Utrecht, Utrecht, Netherlands; Department of Pathology, University Hospitals Leuven, UZ Leuven, Leuven, Belgium.

**P1-02-10** Breast tumor measurement after neoadjuvant chemotherapy using the 8th edition of the American Joint Committee on cancer staging system: Impact on estimates of tumor size and discrepancies with residual cancer burden class

Harter D, O’Connor SM, Hertel JD, Calhoun BC. University of North Carolina, Chapel Hill, NC.
**P1-02-11** Somatic alterations and PD-L1 positivity in advanced breast cancer  
Finkelman BS, Cristofanilli M, Blanco, Jr LZ, Behdad A, Platanias LC, Gradishar WJ, Siziopikou KP. Northwestern University Feinberg School of Medicine, Chicago, IL.

**P1-02-12** Genomic testing on breast cancer core biopsy material is feasible and provides useful treatment information  
Gilmore H, Bomeisl P, Montero A, University Hospitals of Cleveland, Cleveland, OH.

**P1-02-13** Tumour infiltrating lymphocytes (TILs) and immune composition in breast cancer patients from Kenya: Spatial distributions and associations with risk factors and tumour characteristics  
Sayed S, Yang XR, Govender D, Breast Health Study group. Aga Khan University Hospital, Nairobi and University of Cape Town, Nairobi, Kenya and Cape Town South Africa, Kenya; National Cancer Institute (NCI), Bethesda, MD; University of Cape Town, Cape Town, South Africa.

**P1-02-14** A comparative analysis of clinical and pathologic characteristics of patients with HER2 positive breast cancer treated with neoadjuvant versus adjuvant anti-HER2 therapy: Analysis of 397 cases  

**P1-02-15** Predicting molecular subtypes of breast cancer using  
Huang C-C, Phan NN, Tseng L-M. Taipei Veterans General Hospital, Taipei, Taiwan; National Taiwan University, Taipei, Taiwan.

**P1-02-16** Prediction of breast ductal carcinoma in situ recurrence using histomics analysis of stromal collagen from second-harmonic generation and hematoxylin and eosin stain-based images  

**P1-02-17** Artificial intelligence-based whole slide scoring of nuclear breast cancer IHC markers Ki67, ER, and PR matches performance of manual clinical scoring  

**Detection/Diagnosis - Pathology: Biopsy Techniques**

**P1-03-01** Heterogeneity between core needle biopsy and primary tumor tissue in early breast cancer patients: Comparison of intrinsic subtypes after different treatment regimes  
Weydandt L, Kreklau A, Nel I, Horn L-C, Aktas B. University Hospital of Leipzig, Leipzig, Germany.
P1-03-02 Clip placement after ultrasound guided biopsy in the setting of neoadjuvant chemotherapy

Tumor Cell and Molecular Biology: Immunology and Preclinical Immunotherapy

P1-04-01 Digital spatial profiling of immune-related proteins in luminal androgen receptor (LAR) vs non-LAR triple-negative breast cancer (TNBC)

P1-04-02 Immune milieu associated with PD-L1 status in TNBC is dependent on time of biomarker assessment and treatment received: A secondary analysis of the NeoTRIPA-PDL1 trial
Callari M, Huang C-S, Egle D, Bermejo B, Zamagni C, Dugo M, Thill M, Anton A, Barreca M, Russo S, Ciruelos EM, Greil R, Zambelli S, Gyorffy B, Smart C, Biasi O, Valagussa P, Viale G, Gianni L, Bianchini G. Fondazione Michelangelo, Milan, Italy; Breast Center, National Taiwan University Hospital, Taiwan, Taiwan; Medical University of Innsbruck, Innsbruck, Austria; Hospital Clinico Universitario de Valencia, Valencia, Spain; IRCCS Azienda ospedaliero Universitaria di Bologna, Bologna, Italy; IRCCS Ospedale San Raffaele, Milan, Italy; Agaplesion Markus Krankenhaus, Frankfurt am Main, Germany; University Hospital Miguel Servet, Zaragoza, Spain; Fondazione MichelangeloAzienda Sanitaria Universitaria Friuli Centrale, Udine, Italy; Hospital Universitario 12 de Octubre, Madrid, Spain; IIId Medical Department, Paracelsus Medical University Salzburg; Salzburg Cancer Research Institute-CCCIT; and Cancer Cluster Salzburg, Salzburg, Austria; Semmelweis University, Budapest, Hungary; Istituto Europeo di Oncologia, Milan, Italy.

P1-04-03 Host myeloid response to tumor and immunotherapy is associated with heterogeneity in outcomes to anti-PD-L1
Hanna A, Sun X, Gonzalez-Ericsson PI, Sanchez VM, Sanders ME, Balko JM. Vanderbilt University Medical Center, Nashville, TN.

P1-04-04 DNA barcoding reveals ongoing immunoediting of clonal cancer populations during metastatic progression and in response to immunotherapy
Baldwin LA, Bartonicek N, Yang J, Wu SZ, Deng N, Roden D, Chan C-L, Al-Eryani G, Zanker DJ, Parker BS, Swarbrick A, Junankar S. Garvan Institute of Medical Research, Sydney, Australia; Sir Peter MacCallum Department of Oncology, Melbourne, Australia.

P1-04-05 Multiplexed immunofluorescence staining of intra-tumoral immune cell populations and associations with immunohistochemical, clinical, and pathologic variables in breast cancer
O’Meara TA, Keenan TE, Waks AG, Felt KD, Sharma B, Rodig S, Hughes M, Lin NU, Agudo J, Guerriero JL, McAllister SS, Mittendorf E, Tolaney S. Brigham and Women’s Hospital, Department of Medicine, Boston, MA; Dana Farber Cancer Institute, Boston, MA; Brigham and Women’s Hospital, Department of Pathology, Boston, MA; Brigham and Women’s Hospital, Department of Surgery, Boston, MA.
**P1-04-06** Semaphorin7a expression in breast cancers promotes susceptibility to immune checkpoint blockade

Elder A, Stoller A, Lyons T. University of Colorado, Aurora, CO.

**P1-04-07** Xiap expression is associated with infiltration of cd163+ tumor-associated macrophages in the tumor micro-environment of inflammatory breast cancer

Van Berckelaer C, Van Laere S, Gerardts J, Dirix L, Morse M, Kockx M, Bertucci F, Van Dam P, Devi GR. Multidisciplinary Breast Clinic, Unit Gynaecologic Oncology; Antwerp University Hospital (UZA) (Belgium); Molecular Imaging, Pathology, Radiotherapy, Oncology (MIPRO); Faculty of Medicine and Health Sciences; University of Antwerp, Antwerp, Belgium; Center for Oncological Research (CORE), Integrated Personalized and Precision Oncology Network (IPPON), University of Antwerp, Antwerp, Belgium; Department of Pathology, East Carolina University, Greenville, NC; Translational Cancer Research Unit, GZA Hospitals & CORE, University of Antwerp, Antwerpen, Belgium; Department of Medicine, Duke University, Durham, NC; CellCarta, Antwerp, Belgium; Predictive Oncology team, Centre de Recherche en Cancérologie de Marseille (CRCM), Inserm, CNRS, Aix-Marseille Université, Institut Paoli-Calmettes, Marseille, France; Department of Surgery, Duke University, Durham, NC.

**P1-04-08** Exosomes from primary breast adipocytes induce immune exhaustion in triple negative breast cancer

Jafari N, Kolla M, Pompa I, Meshulam T, Batista Junior M, Denis GV. Boston University, Boston, MA.

**P1-04-09** Essential role for MUC1-C in chronic activation of cytosolic nucleotide sensing and the type I interferon pathway in triple-negative breast cancer

Yamashita N, Fushimi A, Morimoto Y, Bhattacharya A, Long M, Liu S, Kufe D. Dana-Farber Cancer Institute, Boston, MA; Roswell Park Comprehensive Cancer Center, Buffalo, NY.

**P1-04-10** Breast cancer survivors exhibit an accumulation of CD4+ central memory T cells, a fall in CD8+ naive T cells and higher activation of CD4+/CD8+ memory T cells and higher activation of CD4+/CD8+ memory T cells in blood, which is positively correlated with age and fat mass index

Arana Echarri A, Struszczaek L, Beresford M, Campbell JP, Jones RH, Butler R, Thompson D, Turner JE. University of Bath, Bath, United Kingdom; Royal United Hospitals Bath NHS Trust, Bath, United Kingdom; Velindre Cancer Centre and Cardiff University, Cardiff, United Kingdom; South West Genomics Laboratory Hub, North Bristol NHS Trust, Bristol, United Kingdom.

**P1-04-11** Pd-I-expressing b-cells promote murine breast cancer development and mediate the response to anti-pd-I immune checkpoint inhibitor


**P1-04-12** Pathway analysis of immune checkpoint gene regulation as altered in Type 2 diabetes: Implications for breast cancer patients treated with checkpoint inhibitors

Ennis CS, LLevenes P, Kolla M, Jafari N, Belkina AC, Denis GV. Boston University, Boston, MA.
P1-04-13 Generation and validation of an estrogen receptor signaling (ERS) gene panel that inversely correlates with antigen presentation and T cell infiltration and activity in hormone receptor positive (HR+) breast cancer
Goldberg JS, Cui X, Shimada K, McAllister S, Tolaney S, Waks A, Jeselsohn R, Guerriero J, Agudo J, Mittendorf E. Dana-Farber/ Brigham and Womens Cancer Center, Boston, MA; Brigham and Women’s Hospital, Boston, MA.

Tumor Cell and Molecular Biology: Tumor Heterogeneity/Molecular Subclassification

P1-05-01 The tumor immune microenvironment and HER2 landscape of high-risk ductal carcinoma in situ: The DEFENSE study

P1-05-02 Intratumor molecular tumor heterogeneity in low ER-expressing primary breast tumors
Foldi J, Reisenbichler E, Pan L, Sorg K, Church SE, Pusztai L. Yale University School of Medicine, New Haven, CT; NanoString Inc, Seattle, WA.

P1-05-03 Integrating spatial transcriptomics and high-resolution morphological annotation to investigate tumor heterogeneity and PAM50 molecular subtyping in lobular breast cancer

P1-05-04 Novel breast cancer proteomic subtyping with connection to cell of origin
Wang G, Shah P, Searfoss R, Fantaccone-Campbell JL, Hooke JA, Deyarmin B, Zingmark RN, Somiari S, Liu J, Kvecher L, Sturtz LA, Raj-Kumar P-K, Granger E, Vahdat L, Narain NR, Cutler ML, Sarangarajan R, Hu H, Kiebish MA, Kovatch AJ, Shriver CD. Murtha Cancer Center / Research Program, Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, MD; BERG LLC, Framingham, MA; Chan Soon-Shiong Institute of Molecular Medicine at Windber, Windber, PA; Memorial Sloan Kettering Cancer Center, New York, NY; Department of Pathology, Uniformed Services University of the Health Sciences, Bethesda, MD; Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, MD.

P1-05-05 Prognostic value of HER2 expression levels in non-metastatic triple-negative breast cancer and correlation with other biomarkers
Establishment of novel BRCA1ness score to quantify BRCA1ness in breast cancer

Oshi M, Wu R, Yamada A, Yan L, Ishikawa T, Endo I, Takabe K. Roswell Park Comprehensive Cancer Institute, Buffalo, NY; Yokohama City University Graduate School of Medicine, Yokohama, Japan; Tokyo Medical University, Tokyo, Japan.

Spatially-resolved single-cell tumor heterogeneity captured by TumorScope biophysical modeling software using MR Imaging

Cook DJ, Whitman J, Liadis N, Cole J. SimBioSys, Inc., Champaign, IL.

Targeting tumor heterogeneity and breast cancer metastasis through the metastatic microenvironment mediated epigenetic reprogramming


Analysis of immunophenotyping of patient-derived primary breast cancer cells according to the medium composition and culture method

Ryu S, Kim HS, Yoon SH, Lee S, Song J, Baek M, Lee HB, Jon Sangyong, Han W. Cancer Research Institute, Seoul National University, Biomedical Research Institute, Seoul National University Hospital, Interdisciplinary Programs in Cancer Biology Major, Seoul National University Graduate School, Korea, Republic of Cancer Research Institute, Seoul National University, Biomedical Research Institute, Seoul National University Hospital, Seoul, Republic of Korea; Cancer Research Institute, Seoul National University, Biomedical Research Institute, Seoul National University Hospital, Interdisciplinary Programs in Cancer Biology Major, Seoul National University Graduate School, Seoul, Republic of Korea; Cancer Research Institute, Seoul National University, Biometitute, Seoul National University Hospital, Interdisciplinary Programs in Cancer Biology Major, Seoul National University Graduate School Integrated Major in Innovative Medical Science, Seoul Nati, Seoul, Korea, Republic of Department of Biological Sciences, Korea Advanced Institute of Science and Technology, Korea, Daejeon, Republic of Korea; Department of Surgery, Seoul National University College of Medicine, Cancer Research Institute, Seoul National University Biomedical Research Institute, Seoul National University Hospital, Seoul, Republic of Korea; Cancer Research Institute, Seoul National University, Seoul, Republic of Korea.

Insights from rapid autopsy shed light on mechanisms of cancer dissemination in metastatic breast cancer


Targeted deletion of Kindlin-2 in mouse mammary glands inhibits tumor growth, invasion and metastasis downstream of TGF-β/EGF oncogenic signaling pathway

Rana P, Wang W, Alkrekchi A, Bialkowska K, Markovic V, Plow EF, Pluskota E, Sossey-Alaoui K. Case Western Reserve University, Cleveland, OH; MetroHealth Medical Center, Cleveland, OH; Cleveland Clinic Lerner Research Institute, Cleveland, OH.
P1-06-03 Promotion of E-cadherin-mediated tumor cell adhesion by COX-2/ GSK3β signaling is a targetable mechanism of metastatic breast cancer
Balamurugan K, Sehareen S, Krishnamurthy S, Sharan S, Tang W, Ueno N, Ambs S, Poria D, Sterneck E. NCI, Frederick, MD; Morgan Welch Inflammatory Breast Cancer Research Program, MDACC, Houston, TX; NCI, Bethesda, MD.

P1-06-04 Spatial, temporal and therapy dependent heterogeneity in transport phenotype of multiple liver metastases in murine breast cancer model
Nguyen T, Liu Yt, Ziemys A, Haifa S, Yokoi K. Houston Methodist Research Institute, Houston, TX.

P1-06-05 Moved to Spotlight Session 3

P1-06-06 Intrinsic and inducible signals in circulating tumor cells that promote breast cancer metastasis

P1-06-07 Enhanced differentiation of clinical behavior by breast carcinomas utilizing quantification of estrogen and progesterin receptor proteins and gene expression subsets
Wittliff JL, Daniels MW. University of Louisville, School of Medicine, Louisville, KY; University of Louisville, School of Public Health, Louisville, KY.

P1-06-08 Metabolic diversity determines metastatic fitness of breast cancer brain-tropic cells
Malladi S. UT Southwestern Medical Center, Dallas, TX.

P1-06-09 The role of miR-155-5p in MSI2 induced metastasis of prolonged DEHP exposed triple-negative breast cancer cells
Jadhao MG, Chiu CC. Kaohsiung Medical University, Kaohsiung, Taiwan.

Prognostic and Predictive Factors: Predictive Biomarkers for Endocrine Therapies

P1-07-01 Real time detection of ESR1 mutation in blood by droplet digital PCR in the PADA-1 trial: Feasibility and cross-validation with NGS
Callens C, Bidegard F-C, Curto-Taribo A, Trabelsi-Grati O, Melaabi S, Delalogue S, Hardy-Bessard A-C, Bachelot T, Clatot F, De La Motte Rouge T, Canon J-L, Arnould L, André F, Marques S, Stern M-H, Pierga J-Y, Salomon A-V, Jeannot E, Berger F, Bieche I, Pradines A, Institut Curie, Paris, France; Gustave Roussy, Villejuif, France; CARIO - Centre Armoricain Radiothérapie Imagerie Médicale et Oncologie, Plérin, France; Centre Léon Bérard, Lyon, France; Centre Henri Becquerel, Rouen, France; Centre Eugène Marquis, Rennes, France; Grand Hôpital de Charleroi, Charleroi, Belgium; Centre Georges François Leclerc, Dijon, France; UNICANCER, Paris, France; Institut Claudius Régaud, Toulouse, France.

P1-07-02 Primary results of ONAWA (SOLT1-1802) trial: A window of opportunity trial of onapristone in postmenopausal women with progesterone receptor-positive/HER2-negative early breast cancer (EBC)
Falato C, Nuciforo P, Martínez D, Ferrero-Cafiero JM, Pascual T, Prat A, Lange C, Saura C. SOLTIB Breast Cancer Research Group / Medical Oncology Department, Vall d’Hebron University Hospital / Breast Cancer Group, Vall d’Hebron Institute of Oncology (VHI0), Barcelona, Spain; Medical Oncology Department, Hospital Universitari Arnau de Vilanova de Lleida, Lleida, Spain; Medical Oncology Department, Hospital Universitari Sant Joan de Reus, Reus, Spain; Medical Oncology Department, Hospital Clínica de Barcelona, Barcelona, Spain; SOLTIB Breast Cancer Research Group, Barcelona, Spain; SOLTIB Breast Cancer Research Group / Medical Oncology Department, Hospital General de Catalunya, Barcelona, Spain; SOLTIB Breast Cancer Research Group, Barcelona, Spain; SOLTIB Breast Cancer Research Group / Medical Oncology Department, Hospital Clínica de Barcelona, Barcelona, Spain; Molecular Oncology Group, Vall d’Hebron University Hospital, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Translational Genomics and Targeted Therapies in Solid Tumors Lab, August Pi i Sunyer Biomedical Research Institute (IDIBAPS), Barcelona, Spain; SOLTIB / Medical Oncology Department, Hospital Clínica de Barcelona / Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute, Barcelona, Spain; Departments of Medicine (Division of Hematology, Oncology, and Transplantation) and Pharmacology and The Masonic Cancer Center, University of Minnesota, Minneapolis, MN.

P1-07-03 Clinical treatment score post-5 years (CTS5) and the prediction of survival benefit from extended endocrine therapy for breast cancer patients under and over 50 years of age
Ahn JH, Park JM, Choi SB, Go J, Kim JY, Park HS, Kim SI, Park B-W, Park S. Yonsei University College of Medicine, Seoul, Republic of Korea.

P1-07-04 Potential role of the antibody-dependent cellular phagocytosis (ADCP) in tumors achieving pCR in NRG Oncology/NSABP B-52
Pogue-Geile KL, Wang Y, Feng H, Lipchick C, Gavin P, Kim RS, Cecchini RS, Jacobs SA, Srinivasan A, Swain SM, Mamounas E, Geyer, Jr CE, Rastogi P, Lucas PC, Osborne CK, Paik S, Wolmark N, Rimawi MF. NSABP/NSABP Oncology, Pittsburgh, PA; NSABP/NSABP Oncology, and AstraZeneca, Oncology Translational Medicine, Gaithersburg, MD; NSABP/NSABP Oncology, and The University of Pittsburgh, Pittsburgh, PA; NSABP/NSABP Oncology, and Autism Impact Fund, Pittsburgh, PA; NSABP/NSABP Oncology, and Georgetown University Lombardi Comprehensive Cancer Center, MedStar Health, Washington, DC, DC; NSABP/NSABP Oncology, and Houston Methodist Cancer Center, Pittsburgh, PA; NSABP/NSABP Oncology, UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, and Magee-Womens Hospital, Pittsburgh, PA; NSABP/NSABP Oncology, and UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, Pittsburgh, PA; NSABP/NSABP Oncology, and Baylor College of Medicine /Dan L Duncan Comprehensive Cancer Center, Houston, TX; NSABP/NSABP Oncology, and Yonsei University College of Medicine, Seoul, Republic of Korea; NSABP/NSABP Oncology and UPMC Hillman Cancer Center, University of Pittsburgh, Pittsburgh, PA.

P1-07-05 Gene expression analysis of HOXB13-high and -low tumors reveals a dichotomous immune landscape
Lachtara E, Lawrence M, Sgroi D. Harvard Medical School, Boston, MA; Harvard Medical School, Winchester, MA.

P1-07-06 Endoxifen exposure after 5 weeks of preoperative tamoxifen is predictive of long-term outcome of operable hormone receptor positive (HR+) HER2 - early breast cancer


**P1-07-07** Endoresist: Prognostic and predictive gene profiles in endocrine-resistant breast cancers

Schagerholm C, Robertson S, Holm B, Lindberg K, Sifakis E, Hases L, Williams C, Hartman J. Department of Oncology-Pathology, Karolinska Institutet, Stockholm, Sweden; Department of Oncology-Pathology, Karolinska Institutet and Department of Clinical Pathology and Cancer Diagnostics, Karolinska University Hospital, Stockholm, Sweden; Novartis Sverige AB, Kista, Sweden; Department of Biosciences and Nutrition, Karolinska Institutet, Stockholm, Sweden; Department of Protein Science, KTH Royal Institute of Technology, SciLifeLab and Department of Biosciences and Nutrition, Karolinska Institutet, Stockholm, Sweden; Department of Oncology-Pathology, Karolinska Institutet and Department of Clinical Pathology and Cancer Diagnostics, and MedtechLabs Bioclinicum, Karolinska University Hospital, Stockholm, Sweden.

**P1-07-08** Endoxifen predicts early recurrence in breast cancer: A Brazilian prospective study

Almeida T, Schroth W, Nardin JM, Mürdter T, Picolotto S, Hoppe R, Kogin JP, Gaio ED, Dasenbrock A, Skrsypcsak RC, Noronha L, Brauch H, Casali-da-Rocha JC. Hospital Erasto Gaertner, Curitiba, Brazil; Dr. Margarete Fischer-Bosch Institute of Clinical Pharmacology, Stuttgart, Germany; Pontifical Catholic University of Parana, Curitiba, Brazil.

**P1-07-09** Results of treatment with inhibitors of cycline-dependent kinase CDK4/6 in patients with breast cancer in the presence of different types mutation in the PIK3CA gene


**P1-07-10** Estrogen-stimulated DNA damage in mammary epithelium varies among strains of rodents and women

Dunphy KA, Sharma A, Majhi P, Schneider SS, Crisi GM, Makari-Judson G, Jerry DJ. University of Massachusetts & Pioneer Valley Life Sciences Institute, Amherst, MA; University of Massachusetts-Amherst, Amherst, MA; University of Massachusetts Medical Center-Baystate & Pioneer Valley Life Sciences Institute, Springfield, MA; University of Massachusetts Medical Center-Baystate, Springfield, MA.

**Prognostic and Predictive Factors-Biomarkers Predicting Tx Response: Predictive Biomarkers for Chemo**

**P1-08-01** Validation of automated Ki67 analysis to predict Oncotype DX recurrence score in early-stage breast cancer

P1-08-02 Cytochrome P450 reductase gene, POR, associated with paclitaxel induced peripheral neuropathy in patients of European ancestry from the adjuvant breast cancer trial, ECOG-ACRIN E5103


P1-08-03 Deep learning for early prediction of neoadjuvant chemotherapy response in triple negative breast cancers


P1-08-04 The impact of sarcopenia and sarcopenic obesity detected by bioelectrical impedance analysis in patients with early breast cancer

Aleixo GFP, Wei W, Valente SA, Moore HCF. Cleveland Clinic Foundation, Cleveland, OH.

P1-08-05 Expression of the human APOE4 genotype modulates Doxorubicin cardiotoxicity in mice

Wang G, Rebeck GW, Rodriguez O, Lippman ME, Bishopric NH. Georgetown Lombardi Comprehensive Cancer Center, Washington, DC.

P1-08-06 Multicenter study for brain metastasis from breast cancer in Korea: The significance of molecular subtype (KROG 1612)

Kim JS, Kim K, Jung W, Shin KH, Im S-A, Kim J-K, Kim YB, Chang JS, Kim JH, Choi DH, Park YH, Kim DY, Kim TH, Choi BO, Lee S-W, Kim S, Kwon J, Kang KM, Chung W-K, Kim KS, Yoon WS, Kim JH, Cha J, Oh YK, Kim IA. Department of Radiation Oncology, Seoul National University College of Medicine, Seoul, Republic of Korea; Department of Radiation Oncology, Ewha Womans University College of Medicine, Seoul, Republic of Korea; Department of Radiation Oncology, Seoul National University College of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Chung-Ang University College of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Chung-Ang University College of Medicine, Seoul, Republic of Korea; Department of Radiation Oncology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Proton Therapy Center, National Cancer Center, Goyang, Republic of Korea; Department of Radiation Oncology, Seoul St. Mary’s Hospital, The Catholic University of Korea, Seoul, Republic of Korea; Department of Radiation Oncology, Seoul Metropolitan Government Seoul National University Boramae Medical Center, Seoul, Republic of Korea; Department of Radiation Oncology, Chonbuk National University College of Medicine, Daejeon, Republic of Korea; Department of Radiation Oncology, Gyeongsang National University School of Medicine and Gyeongsang National University Changwon Hospital, Changwon, Republic of Korea; Department of Radiation Oncology, Chonnam National University Hwasun Hospital, Chonnam National University Medical School, Hwasun, Republic of Korea; Department of Radiation Oncology, Dongnam Institute of Radiological and Medical
POSTER SESSION 1

WEDNESDAY, DECEMBER 8, 2021: 7:00 AM-8:30 AM CT

Sciences, Busan, Republic of Korea; Department of Radiation Oncology, Ansan Hospital, Korea University Medical College, Ansan, Republic of Korea; Department of Radiation Oncology, Keimyung University Dongsan Medical Center, Keimyung University School of Medicine, Daegu, Republic of Korea; Department of Radiation Oncology, Wonju Severance Christian Hospital, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea; Department of Radiation Oncology, Chosun University Medical School, Gwangju, Republic of Korea.

P1-08-07 Prediction model of the response of neoadjuvant chemotherapy and long term survival according to multi-omic profiling in cooperation with clinicopathologic features in patients with breast cancer


P1-08-08 Forecasting treatment response to neoadjuvant systemic therapy in triple negative breast cancer via mathematical modeling and quantitative MRI

Wu C, Jarrett AM, Zhou Z, Elshafeey N, Adrada BE, Candelaria RP, Mohamed RM, Boge M, Huo L, White J, Tripathy D, Valero V, Litton J, Moulder S, Yam C, Son JB, Ma J, Rauch GM, Yankeelov TE. The University of Texas at Austin, Austin, TX; The University of Texas MD Anderson Cancer Center, Houston, TX; Eli Lily and Company, Indianapolis, IN.

P1-08-09 High mid-treatment RNA disruption in patients with HER2-negative breast cancer predicts survival benefit after neoadjuvant chemotherapy

Pritzker LB, Haugland Haugen M, von der Lippe Gythfeldt H, Masilamani T, Theriault G, St-Onge R, D’costa L, Lingjaerde OC, Parissenti A, Engebraaten O. Rna Diagnostics, Toronto, ON, Canada; Institute for Cancer Research, The Norwegian Radium Hospital, Oslo University Hospital, Oslo, Norway; Institute for Cancer Research, Oslo University Hospital, Oslo, Norway; Rna Diagnostics, Sudbury, ON, Canada; Laurentian University, Sudbury, ON, Canada; Oslo University Hospital, Oslo, Norway.

P1-08-10 Ki67 assessment based on international Ki67 working group recommendations and correlation with 21-gene assay results in a large integrated health care system: We might not be there yet


P1-08-11 Clinical relevance of host immunity in patients with breast cancer who received neoadjuvant chemotherapy

Bae SJ, Ji JH, Chu C, Cha YJ, Ahn SG, Jeong J. Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea.

P1-08-12 The status of homologous recombination deficiency is a potential biomarker for platinum-based chemotherapy in triple-negative breast cancer

Chen Y, Wang X, Du F, Yue J, Si Y, Cui L, Zhang B, Xu B, Yuan P. Department of Medical Sciences,
Onkology, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; Department of VIP Medical Services, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), The VIPII Gastrointestinal Cancer Division of Medical Department, Peking University Cancer Hospital and Institute, Beijing, China; The Medical Department, 3D Medicines Inc., Shanghai, China.

**P1-08-13** Comparison of gene expression profiling results and clinical outcomes among patients with pleomorphic ILC and classic ILC
Dempster M, Wright M, Cocco D, Elsherif A, Valente SA, Li H, Kruse ML. Cleveland Clinic Foundation, Cleveland, OH.

**P1-08-14** Differences in Recurrence Score (RS) results between primary and second primary breast cancer (BC): Exploratory analysis of the Clalit Health Services (CHS) registry
Strulov Shachar S, Levirov M, Yerushalmi R, Drumea K, Tokar M, Soussan-Gutman L, Bareket-Sansh A, Sonnenblick A, Efrat Ben-Baruch N, Paluch-Shimon S, Bar Sela G, Stemmer SM, Soursary Medical Center, Tel Aviv, Israel; Lin Medical Center, Haifa, Israel; Davidoff Center, Rabin Medical Center, Petah Tikva, Israel; Rambam Health Care Campus, Haifa, Israel; Soroka University Medical Center, Beer Sheva, Israel; Oncotest- Rhenium, Moody in, Israel; BioInsight Ltd, Binyamina, Israel; Kaplan Medical Center, Rehovot, Israel; Hadassah Hebrew University Medical Center, Jerusalem, Israel; Emek Medical Center, Afula, Israel.

**P1-08-15** Communication between tumor cells and fibroblasts as a prognostic factor of NACT in TNBC
Bauer M, Vetter M, Maia A, Vilachavas E, Michels B, Berdiel-Acer M, Schuler K, Morselli A, Skarlatou M, Thomssen C, Wiemann S. Institute of Pathology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; Dept. of Gynecology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; German Cancer Research Center (DKFZ), Heidelberg, Germany.

**P1-08-16** Using machine learning approaches to predict response to neoadjuvant chemotherapy in patients with triple-negative breast cancer
Fisher TB, Li H, TS R, Krishnamurthy J, Bhattachai S, Janssen EAM, Kong J, Aneja R. Georgia State University, Atlanta, GA; JSS Medical College, Karnataka, India; Stavanger University and Stavanger University Hospital, Atlanta, GA.

**P1-08-17** Melk expression is associated with immune cell infiltration and pathological compete response (pCR) after neoadjuvant chemotherapy in breast cancer
Oshi M, Gandhi S, Hyser MR, Tokumaru Y, Yan L, Wu R, Yamada A, Endo I, Takabe K. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Yokohama City University Graduate School of Medicine, Yokohama, Japan.

**P1-08-18** Impact of gene expression profile testing for lymph node positive (LN+), hormone receptor positive (HR+), HER2 negative (HER2-) breast cancer (BC) patients on the use of adjuvant chemotherapy in a large community cancer center
Kalmadi NR, Brown A, Sharma M, Shtivelband M, Rifkind J, Kalmadi S, Bagai R, Ho E, Clark P, Kellogg C, Khanuja P. Arizona State University, Tempe, AZ; Arizona College of Osteopathic Medicine, Midwestern University, Mesa, AZ; Rensselaer Polytechnic institute, Troy, NY; Ironwood Cancer Center, Chandler, AZ.

P1-08-19 Utilising artificial intelligence (AI) for analysing multiplex genomic and magnetic resonance imaging (MRI) data to develop multimodality predictive system for personalised neoadjuvant treatment of breast cancer (BC)

Abdel-Fatah TM, Ball G, Chen X, Mehaisi D, Giannotti E, Auer D, Vadakekolathu J, Li R, Pockley G, Chan S. Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom; Nottingham Trent University, Nottingham, United Kingdom; University of Nottingham, Nottingham, United Kingdom.

P1-08-20 In silico analysis of a novel mathematical model integrating in vitro and in vivo imaging data reveals driving mechanisms of breast cancer response to NAT for personalized tumor forecasting

Lorenzo G, Jarrett AM, Meyer CT, Tyson DR, Quaranta V, Yankeeol TE. The University of Texas at Austin, Austin, TX; Vanderbilt University, Nashville, TN.

P1-08-21 Assessing the impact of treatment interruptions during neoadjuvant therapy in early stage breast cancer

Pandey T, Pfeiffer JR, Braun E, Abe H, Howard F, He G, Pearson AT, Nanda R. SimBioSys, Inc., Chicago, IL; Michiana Hematology Oncology, Westville, IN; Department of Radiology, The University of Chicago, Chicago, IL; Department of Medicine, University of Chicago, Chicago, IL.

P1-08-22 The role of DAXX as a critical growth regulator of triple negative breast cancer

Osipo C, Wyatt D, Fernandez M, Peiffer DS, Albain KS. Loyola University Chicago, Maywood, IL; Loyola University Stritch School of Medicine, Maywood, IL.

P1-08-23 Androgen receptor as predictive marker for pathologic complete response in breast cancer with neoadjuvant chemotherapy


P1-08-24 Platelet-to-lymphocyte ratio is worth using with tumor-infiltrating lymphocytes to predict good response to neoadjuvant chemotherapy in triple negative breast cancer: A study on 120 patients

Radosevic-Robin N, Lusho S, Durando X, Mouret-Reynier M-A, Kossai M, Lacrampe N, Molnar I, Penault-Llorca F, Abrid C. University Clermont Auvergne, INSERM U1240, Centre Jean Perrin, Department of Pathology, Clermont-Ferrand, France; University Clermont Auvergne, INSERM U1240, Centre Jean Perrin, Department of Clinical Research, Clermont-Ferrand, France; University Clermont Auvergne, INSERM U1240, Centre Jean Perrin, Department of Oncology, Department of Clinical Research, Clermont-Ferrand, France; University Clermont Auvergne, INSERM U1240, Centre Jean Perrin, Department of Oncology, Clermont-Ferrand, France.

P1-08-25 Evaluating an ex vivo organ culture system for predicting response to neoadjuvant chemotherapy in breast cancer patients

P1-08-26 Morphologic characterization of tumor-infiltrating lymphocytes and its relation with pathological response in a series of breast cancer patients treated with primary chemotherapy

P1-08-27 Dynamic monitoring of circulating tumor DNA can predict chemotherapy response and prognosis in metastatic triple-negative breast cancer patients
Li H, Chi Y, Yin S, Yu B, Su M, Zhang B, Qiang L, Ren G, Song L, Bu B, Fang S, Shang M, Tan Q, Man X. Shandong Cancer Hospital and Institute, Jinan, China; Berry Oncology Corporation, Beijing, China; Jinan Central Hospital, Jinan, China.

P1-08-28 Real world use of OncotypeDx testing in the management of breast cancer. The North East England experience
Gault A, Veeratterapillay J, Taylor W. Newcastle Hospitals NHS Foundation Trust, Newcastle upon Tyne, United Kingdom.

P1-08-29 The influence of pre-treatment peripheral blood inflammatory markers on post-treatment response in patients with locally advanced breast cancer (LABC) from Saudi Arabia

P1-08-30 Validation of the AAGAB gene as a novel on-treatment biomarker predicting pCR in patients receiving NACT for early breast cancer
Semple F, Ironside A, Bownes R, Martinez-Perez C, Wilson N, Turnbull A, Oikonomidou O. University of Edinburgh, Edinburgh, United Kingdom; Western General Hospital, Edinburgh, United Kingdom.

P1-08-31 Simbiosys tumorscope: Biophysical modeling of patient-specific response to chemotherapy

P1-08-32 Homologous recombination deficiency predicts the response to platinum-based neoadjuvant chemotherapy in patients with early-stage triple-negative breast cancer: A meta-analysis

**P1-08-33 Disparities in the practice of precision medicine? Using multi-gene testing in early-stage, HR+/HER2- breast cancer**

Bilani N, Yaghi M, Saravia D, Jabbal I, Bou Zerdan M, Elson L, Hong L, Nahleh Z. Icahn School of Medicine, Mount Sinai Morningside and West, New York, NY; Cleveland Clinic Florida, Weston, FL.

**P1-08-34 Peripheral immunity predicts therapeutic outcomes in breast cancer patients**

Axelrod ML, Wang Y, Xu Y, Bejan CA, Sun X, Gonzalez-Ericsson PL, Bergman RE, Donaldson J, Nunnery S, Sanders M, Massa C, Seliger B, Mayer IA, Balko JM. Vanderbilt University, Nashville, TN; Institute of Medical Immunology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany.

**P1-08-35 Stromal tumor infiltrating lymphocytes analysis by race and ethnicity in triple negative breast cancers from 2 phase III randomized adjuvant breast cancer trials: ECOG-ACRIN E2197 and E1199**

Klar N, Gray RJ, Adams S, Sparano JA, Goldstein LJ, DeMichele AM, Wolff AC, Davidson NE, Sledge GW, Badve SS. Laura and Isaac Perlmutter Cancer Center at NYU Langone Grossman School of Medicine, New York, NY; Dana Farber Cancer Institute - ECOG-ACRIN Biostatistics Center, Boston, MA; The Tisch Cancer Institute at Mount Sinai, New York, NY; Fox Chase Cancer Center, Philadelphia, PA; University of Pennsylvania/Abramson Cancer Center, Philadelphia, PA; Johns Hopkins University/Sidney Kimmel Cancer Center, Baltimore, MD; University of Washington/Fred Hutchinson Cancer Research Center, Seattle, WA; Stanford Cancer Institute Palo Alto, Stanford, CA; Emory Winship Cancer Institute, Atlanta, GA.

**P1-08-36 Racial disparity in post-neoadjuvant chemotherapy residual breast tumor microenvironment**

Kim G, Asiry S, Oktay I, Lin Y, Ye X, Cheng E, Ladak N, Condeelis J, Adler E, Ginter P, D’Alfonso T, Entenberg D; Oktay M. Montefiore Medical Center, Bronx, NY; University of Colorado, Boulder, CO; Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, NY; New York Presbyterian/Weill Cornell Medical Center, New York, NY; NYU Langone Health, New York, NY; Memorial Sloan Kettering Cancer Center, New York, NY.

**Epidemiology, Risk, and Prevention: Prevention - Nutritional Studies**

**P1-09-01 Breast and prostate cancer risk associated with nitrites and nitrates from food additives: Results from the NutriNet-Santé cohort**

Chazelas E, Pierre F, Druesne-Pecollo N, Esseddi Y, Szabo de Edelenyi F, Agaesse C, De Sa A, Lutchia R, Gigandet S, Srour B, Debras C, Huybrechts I, Julia C, Kesse-Guyot E, Allès B, Zelek L, Galan P, Hercberg S, Deschasaux-Tanguy M, Touvier M. Sorbonne Paris Nord University, Inserm U1153, Inrae U1125, Cnam, Nutritional Epidemiology Research Team (EREN), Epidemiology and Statistics Research Center – University of Paris (CRESS), Bobigny, France; Toxalim (Research Centre in Food Toxicology), Université de Toulouse, INRAE, ENVIT, INP-Purpan, UPS, Toulouse, France, Toulouse, France; Open Food Facts,

**P1-09-02 Risk of breast and other cancers associated with the consumption of artificial sweeteners: Results from the prospective NutriNet-Santé cohort**


**P1-09-03 Omega-3 polyunsaturated fatty acid supplementation shifts the gut and breast microbiome to influence inflammation**

Cook KL, Wilson AS, Soto-Pantoja DR, Kimler BF, Umar S, Fabian CJ. Wake Forest University School of Medicine, Winston Salem, NC; University of Kansas Medical Center, Kansas City, KS.

**P1-09-04 Flaxseed & breast cancer: A systematic review**

Wang R, Yang M, Zhi I, Bao T. Memorial Sloan Kettering Cancer Center, Montvale, NJ; Memorial Sloan Kettering Cancer Center, New York, NY.

**P1-09-05 Baseline dietary patterns among women with newly diagnosed early-stage breast cancer enrolled in the Optimal Living Program**


**P1-09-06 Insulinemic potential of diet and risk of total and subtypes of breast cancer among US women**

Romanos-Nanclares A, Willett WC, Rosner BA, Tamimi RM, Tabung FK, Holmes MD, Chen WY, Eliassen AH, Brigham and Women’s Hospital and Harvard Medical School, Boston, MA; Harvard T.H. Chan School of Public Health, Boston, MA; Weill Cornell Medicine, New York, NY; The Ohio State University College of Medicine, Columbus, OH; Dana-Farber Cancer Institute, Boston, MA.

**Epidemiology, Risk, and Prevention: Prevention - Clinical Trials**

**P1-10-01 Results from the breast cancer - anti progestin prevention study 1 (BC-APPS1) trial - a novel approach in breast cancer prevention**


**P1-10-02 Effect of metformin on metabolic markers associated with breast cancer risk in a phase II clinical trial in overweight/obese premenopausal women**
POSTER SESSION 1

WEDNESDAY, DECEMBER 8, 2021: 7:00 AM-8:30 AM CT

**P1-10-03** Estrogen and breast cancer benefits: Emerging hormone replacement therapy breast cancer paradigms

Ragaz J, Spinelli JJ, Qian H, Wong H, Shakeraneth S, Fox J, Wilson KS. School of Population and Public Health, University of British Columbia, Vancouver, BC, Canada; Institute on Aging & Lifelong Health, University of Victoria, Delta, BC, Canada; Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada; British Columbia Cancer, Victoria, BC, Canada.

**P1-10-04** AGR2, an estrogen response gene associated with tamoxifen resistance, is modulated by acolbifene in premenopausal women at high risk for development of breast cancer

Fabian CJ, Phillips TA, Kimler BF. University of Kansas Medical Center, Kansas City, KS.

**P1-10-05** Evidence that body mass index modifies breast tissue collagen peptide response pattern to treatment with the non-steroidal anti-inflammatory drug sulindac

Rujchanarong D, Angel PM, Stopeck A, Preece C, Chalasani P, Thompson PA. Medical University of South Carolina, Charleston, SC; Stony Brook Cancer Center, Stony Brook, NY; Cedars Sinai, Los Angeles, CA; University of Arizona Cancer Center, Tucson, AZ.

**P1-10-06** Effect of aging and mTOR inhibition on human mammary stem cells and early breast cancer progression markers


**P1-10-07** A randomized, controlled, 2x2 factorial trial of a diet and physical activity intervention among Latina breast cancer survivors: ¡Mi Vida Saludable! study


Epidemiology, Risk, and Prevention: Prevention - Preclinical Studies and Model Systems

**P1-11-01** Modulation of the high risk postmenopausal breast tissue genomic profiles with licorice and its bioactive compounds

Hajirahimkhlan A, Chen S-N, Pauli GF, Bartom E, Clare S, Khan SA. Northwestern University, Chicago, IL; University of Illinois at Chicago, Chicago, IL.
**P1-11-02** Parity reduces the risk of mammary cancer by altering the characteristics of mammary stem cells

Subramani R, Estrada A, Rodriguez S, Poudel S, Foskey J, Jimenez C, Smith K, Shahinian M, Yazadi A, Mehmetoglu-Gurbuz T, Rocha J, Lakshmanaswamy R. Texas Tech University Health Sciences Center El Paso, El Paso, TX; Texas Tech University Health Sciences Center, El Paso, TX; Graduate School of Biomedical Sciences Texas Tech University Health Sciences Center El Paso, El Paso, TX.

**Tumor Cell and Molecular Biology: Tumor Cell and Molecular Biology - Other**

**P1-12-01** Dose-dense sequential adjuvant chemotherapy in the trastuzumab era: Final long-term results of the hellenic cooperative oncology group phase III HE10/05 trial


**P1-12-02** The tolerance of CREATE-X capecitabine dosing in a United States patient population


**P1-12-03** Metaplastic carcinoma of the breast: A single-center 18-year series of 73 cases


**P1-12-04** The impact of chemotherapy in elderly early triple negative breast cancer: A population based study from the SEER database

Huang K, Zhang J, Yu Y, Lin Y, Song C. Fujian Medical University Union Hospital, Fuzhou, China.

**Treatment - Adjuvant Therapy: Adjuvant Endocrine Therapy**

**P1-13-01** Withdrawn

**P1-13-02** Autophagy inhibition and senolytics to improve the response to fulvestrant + palbociclib in ER positive breast cancer

Finnegan RM. Virginia Commonwealth University, Richmond, VA.

**P1-13-03** Radiotherapy vs. endocrine therapy for hormone receptor positive early stage breast cancer accounting for endocrine therapy adherence

Seol SW, Pflederer T, Weller L, Goodman C, Donnelly ED, Hayes JP, Strauss JB. Northwestern University Feinberg School of Medicine, Chicago, IL; University of Illinois at Chicago College of Medicine, Chicago, IL; Robert H Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL; The University of Texas MD Anderson Cancer Center, Houston, TX.
**P1-13-04** Evaluation of the impact Vitamin D and Calcium supplementation on bone mineral density in breast cancer patients using or not taking Aromatase Inhibitors: 5-year follow-up
Antonini M, Salerno GRF, Vieira NDK, Cardoso MS, Solino MD, Vasconcelos RND, Vasconcelos LD, Ferraro O, Mattar A, Lopes RGC, Real JM. Hospital Do Servidor Publico Estdual - Francisco Morato Oliveira, Sao Paulo, Brazil; Universidade Mackenzie, Sao Paulo, Brazil; Hospital Perola Byington, Sao Paulo, Brazil.

**P1-13-05** Completeness and timeliness of EMR integrated pharmacy dispensing data for early detection of non-adherence to breast cancer adjuvant endocrine therapy
Levy M, Paul S, Lieberenz J. Rush University Medical Center, Chicago, IL.

**P1-13-06** The influence of the oncotype DX breast recurrence score on persistence to endocrine therapy in patients with low-risk ER/PR+ invasive breast cancer
Pirruccello J, Kuhn E, Chamberlin M. Department of Medicine, Dartmouth-Hitchcock Medical Center, Lebanon, NH; Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center, Lebanon, NH.

**P1-13-07** De-escalation of five-year adjuvant endocrine therapy in patients with ER-low positive breast cancer: Propensity-matched analysis from a prospectively maintained cohort
Yu K, Cai Y, Shao Z. Fudan University, Shanghai, China.

**P1-13-08** Patterns of adjuvant endocrine therapy, discontinuations, toxicities and quality of life: Development of a model for early discontinuation using the CANTO cohort
Balazard F, Bertaut A, Bordet É, Mulard S, Blanc J, Briot N, Paux G, Dhaine Merimeche A, Rigal O, Coutant C, Fournier M, Jouannaud C, Soulie P, Lerebours F, Cottu P-H, Tredan O, Vanlemmens L, Levy C, Mouret-Reynier M-A, Campone M, Brady KJS, Sasane M, Rice M, Coulouvrat C, Martin A-L, Jacquet A, Vaz-Luis I, Herold C, Pistilli B. Owkin Inc., New York, NY; Centre George François Leclerc, Dijon, France; Sanofi Research and Development, Chilly-Mazarin, France; Sanofi Research and Development, Cambridge, MA; Centre Alexis Vautrin, Vandoeuvre Les Nancy, France; Centre Henri Becquerel, Rouen, France; Institut Bergonié, Bordeaux, France; Institut Jean Godinot, Reims, France; Institut de Cancérologie de l'Ouest – Centre Paul Papin, Anger, France; Institut CURIE - Hôpital René Huguenin, St-Cloud, France; Institut Curie - Site de Paris, Paris, France; Centre Léon Bérard, Lyon, France; Centre Oscar Lambret, Lille, France; Centre François Baclesse, Caen, France; Centre Jean-Perrin, Clermont-Ferrand, France; Institut de Cancérologie de l’Ouest - Centre René Gauducheau, Nantes Saint Herblain, France; Unicancer, Paris, France; Gustave Roussy, Villejuif, France.

**P1-13-09** Withdrawn

**Treatment - Adjuvant Therapy: Adjuvant Therapy - Targeted**

**P1-14-02** Phase II study of adjuvant endocrine therapy with CDK 4/6 inhibitor, ribociclib, for localized ER+/HER2- breast cancer (LEADER, part 1)
Spring LM, Scarpetti L, Niemierko A, Isakoff SJ, Moy B, Wander SA, Smith E, Abraham E, Shin J, Patel JM, Comander A, Mulvey T, Bardia A. Massachusetts General Hospital, Boston, MA; Beth Israel Deaconess Medical Center, Boston, MA.
**P1-14-03** Adjuvant enzalutamide for the treatment of early-stage androgen-receptor positive, triple negative breast cancer: A feasibility study


**P1-14-04** Cardiotoxicity of adjuvant trastuzumab chemotherapy in women with early-stage breast cancer under 50 years of age based on analysis of Japanese insurance claims data

Shimomura A, Ohtsu H, Shimizu C, Sase K. National Center for Global Health and Medicine, Tokyo, Japan; Juntendo University Graduate School of Medicine, Tokyo, Japan.

**P1-14-05** The impact of erythropoietin administration concomitantly with adjuvant anti-HER2 treatment on the patients’ outcome: Sub-analysis of the ALTTO study

Martins-Branco D, Kassapian M, Deben V, Caparica R, Eiger D, Dafni U, Andriakopoulou C, El-Abed S, Izquierdo M, Vicente M, Chumsri S, Piccart-Gebhart M, Moreno-Aspitia A, Knop AS, Lombard J, de Azambuja E. Academic Trials Promoting Team, Institut Jules Bordet and l’Université Libre de Bruxelles (U.L.B.), Brussels, Belgium; Frontier Science Foundation-Hellas, Athens, Greece; Novartis Pharma AG, Basel, Switzerland; National and Kapodistrian University of Athens & Frontier Science Foundation-Hellas, Athens, Greece; Breast International Group, Brussels, Belgium; Alliance Statistics and Data Center, Mayo Clinic, Rochester, MN; Oncology Department, Institut Jules Bordet, Brussels, Belgium; Jacoby Center for Breast Health, Mayo Clinic, Jacksonville, FL; Department of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark; Calvary Mater Newcastle and Breast Cancer Trials (BCT-ANZ), Newcastle, Australia.

**Treatment - Adjuvant: Adjuvant Therapy - Other**

**P1-15-01** Effect of concomitant statin treatment in postmenopausal patients with hormone-receptor positive early-stage breast cancer receiving adjuvant denosumab or placebo: A post-hoc analysis of ABCSG-18

Minichsdorfer C, Fuereder T, Leutner M, Singer CF, Kacerovsky-Strobl S, Egle D, Greil R, Balic M, Fitzal F, Pfeiler G, Frantl S, Bartsch RA, Gnant M. Internal Medicine I, University of Innsbruck, Innsbruck, Austria; Medical University of Graz, Graz, Austria; Austrian Breast & Colorectal Cancer Study Group, Vienna, Austria.

**P1-15-02** Low incidence of hepatitis B reactivation after chemotherapy in Japanese breast cancer patients with resolved HBV

Fukuda T, Hattori M, Ozaki Y, Inagaki L, Hosonaga M, Fukada I, Kobayashi K, Hara F, Kobayashi T, Yoshio S, Ueno T, Takano T, Ohno S. The Cancer Institute Hospital of JFCR, Koto-ku, Tokyo, Japan; Department of Breast Oncology, Aichi Cancer Center, Nagoya, Japan; Department of Liver Diseases, Research Center for Hepatitis and Immunology, National Center for Global Health and Medicine, Ichikawa, Chiba, Japan.
P1-15-03 Assessing the association of statins with clinical outcomes in women with breast cancer
Chongxi R, Jianna S, Lingjun K. Cangzhou Clinical College of Integrated Traditional Chinese and Western Medicine of Hebei Medical University, Cangzhou, China.

P1-15-04 Features of HER2+ metastatic patients (pts) from a prospective registry of advanced breast cancer (ABC). GEICAM/2014-03 (RegistEM)
Treatment - Advanced Disease Treatment: Advanced Chemotherapy

**P1-16-01** Pemetrexed plus vinorelbine versus vinorelbine monotherapy in patients with metastatic breast cancer: A randomized, open-label, multicenter, phase II trial (KCSG-BR15-17)

Lee D-W, Park YH, Jung K-H, Lee K-H, Lee KS, Sohn J, Ahn HK, Jeong JH, Koh S-J, Kim JH, Kim HJ, Lee KE, Kim H-J, Lee KH, Park KH, Lee J, Won HS, Kim T-Y, Im S-A. Seoul National University Hospital, Seoul, Republic of Korea; Samsung Medical Center, Seoul, Republic of Korea; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; National Cancer Center, Goyang, Republic of Korea; Yonsei University College of Medicine, Seoul, Republic of Korea; Gachon University Gil Medical Center, Incheon, Republic of Korea; Ulsan University Hospital, Ulsan, Republic of Korea; Seoul National University Bundang Hospital, Seongnam, Republic of Korea; Soonchunhyang University Hospital, Cheonan, Republic of Korea; Ewha Womans University Hospital, Seoul, Republic of Korea; Chung-Ang University College of Medicine, Seoul, Republic of Korea; Chungbuk National University Hospital, Cheongju, Republic of Korea; Korea University Anam Hospital, Seoul, Republic of Korea; Seoul St. Mary’s Hospital, Seoul, Republic of Korea; Uijeongbu St. Mary’s Hospital, Uijeongbuk, Republic of Korea.

**P1-16-02** A randomized phase II study investigating oral metronomic vinorelbine versus conventional dosage of vinorelbine in HER2-negative metastatic breast cancer previously treated with anthracycline or taxane: clinical results and biomarker analysis

Ma F, Liu X, Shi Y, Guan X, Li H, Wang X, Teng Y, Liu Q, Yang J, Li M, Zhang Q, Zhao W, Du C, Sheng L; Xu B. National Cancer Center / National Clinical Research Center for Cancer / Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; The General Hospital of Ningxia Medical University, Yinchuan, China; State Key Laboratory of Oncology in South China, Sun Yat-sen University Cancer Center, Guangzhou, China; Shandong Cancer Hospital, Jinan, China; Institute of Cancer and Basic Medicine, Chinese Academy of Sciences Cancer Hospital of the University of Chinese Academy of Sciences (Zhejiang Cancer Hospital), Hangzhou, China; The First Hospital of China Medical University, Shenyang, China; Sun Yat-sen Memorial Hospital, Guangzhou, China; First Affiliated Hospital of Xi’an Jiaotong University, Xi’an, China; The Second Hospital of Dalian Medical University, Dalian, China; Harbin Medical University Cancer Hospital, Harbin, China; Chinese PLA General Hospital, Beijing, China; Cancer Hospital Chinese Academy of Sciences Cancer Hospital of the University of Chinese Academy of Sciences, Shenzhen, Shenzhen, China; The First Affiliated Hospital of Wannan Medical College, Wuhu, China.

**P1-16-03** Response pattern to chemotherapy in metastatic breast cancer (MBC): Real-world data from the Austrian AGMT_MBC-Registry

Rinnerthaler G, Gampenrieder SP, Tinchon C, Petzer Petzer A, Balic M, Sonja H, Zabernigg AF, Egle D, Sandholzer M, Roitner F, Andel J, PicHLer P, Hager C, Hubalek M, Knauer M, Singer CF, Greil R. Paracelsus Medical University Salzburg, Salzburg, Austria; LKH Hochsteiermark, Leoben, Austria; Ordensklinikum Linz Barmherzige Schwestern – Elisabethinen, Linz, Austria; Medical University Graz, Graz, Austria; Klinikum Wels-Grieskirchen GmbH, Wels, Austria; County Hospital Kufstein, Kufstein, Austria; Medical University Innsbruck, Innsbruck, Austria; Academic Teaching Hospital Feldkirch, Feldkirch Salzburg, Austria; Hospital Braunau, Braunau, Austria; Landeskrankenhaus Steyr, Steyr, Austria; University Hospital St.Pölten, St.Pölten, Austria; Breast Center Dornbirn, Dornbirn, Austria; Breast Health Center Schwaz, Schwaz, Austria; Breast Center Eastern Switzerland, St. Gallen, Switzerland; Medical University of Vienna, Vienna, Austria.
P1-16-04 Capecitabine efficacy after progression on endocrine treatment and cycline-dependant-kinase 4/6 inhibitor combination in metastatic hormone-receptor positive breast cancer

P1-16-05 Oraxol + Encequidar (OPac+E) vs IV paclitaxel (IVPac) in the treatment of patients with metastatic breast cancer (mBC) (Study KX-ORAX-001): Subgroup survival analysis of patients with hepatic dysfunction
Umanzor G, Rugo HS, Barrios FJ, Vasallo RH, Chivalan MA, Bejarano S, Ramirez JR, Fein L, Kowalsyyn RD, Cutler DL, Kramer D, Wang H, Kwan RMF, Liga Contra el Cancer, San Pedro Sula, Honduras; UCSF Hellen Diller Family Comprehensive Cancer Center, San Francisco, CA; Institut Cancerologica de Cancerologica (ICAN), Guatemala City, Guatemala; Clinical Research RD, Santo Domingo, Dominican Republic; CLEAN Clinical Medica, Guatemala City, Guatemala; Excel Medica, San Pedro Sula, Honduras; CRESEM, Quetzaltenango, Guatemala; Instituto de Oncologia de Rosario, Rosario, Argentina; Centro de Investigaciones Clinica,, Clinica Veidma, Argentina; Athenex, Buffalo, NY.

P1-16-06 In real world, a high percentage of premenopausal patients with hormone receptor-positive, HER2-negative metastatic breast cancer receive chemotherapy as first-line treatment: A study of the National Cancer Center, China

P1-16-07 A synthetic lethality treatment strategy for p53 mutant breast cancer

Treatment - Advanced Disease Treatment: Advanced Endocrine Therapy

P1-17-01 Response of persistent metastatic ER+/Her2- breast cancer treated with fulvestrant plus enzalutamide
Richer J, Spoelstra N, Winchester A, Wulfkuhle J, Gallagher R, Sams S, Vidal G, Kabos P, Diamond J, Shagisultanova E, Alghahi A, Mayordomo J, McSpadden T, Crawford G, Borges V, Gao D, Petricoin E, Elias A. University of Colorado Anschutz Medical Campus, Aurora, CO; 5. Center for Applied Proteomics and Molecular Medicine, George Mason University, Washington DC, DC; George Mason University, Washington DC, DC; West Cancer Center and Research Institute and University of Tennessee Health Science Center, Germantown, TN.

P1-17-02 ZN-c5, an oral selective estrogen receptor degrader (SERD), in women with advanced estrogen receptor-positive (ER+)/human epidermal growth factor receptor 2 negative (HER2-) breast cancer
P1-17-03 H3B-6545 in combination with palbociclib in women with metastatic estrogen receptor-positive (ER+), human epidermal growth factor receptor 2 (HER2)-negative breast cancer, phase 1b study


P1-17-04 Hormone therapy (HT) brings more survival benefits than capecitabine (CAP) as maintenance therapy following the 1st-line chemotherapy in HR+/HER2-ABC/MBC: Update primary endpoint of OVERSTEP(ZJCHBC001)

Wang X-J, Huang J, Shao X-y, Cai L, Yin Y-m, Zhang L-I, Shen P, Shi Y-x. Cancer Hospital of the University of Chinese Academy of Sciences (Zhejiang Cancer Hospital), Hangzhou, China; Cancer Hospital Affiliated to Harbin Medical University, Harbin, China; Jiangsu Province Hospital, Nanjing, China; Jiangsu Cancer Hospital, Nanjing, China; The First Affiliated Hospital of Zhejiang University, Hangzhou, China; Sun Yat-sen University Cancer Center, Guangzhou, China.

P1-17-05 Benefit of endocrine therapy for metastatic breast cancer after loss of hormone receptor expression in patients with HR+/HER2- primary tumors

File D, Abdou Y, Wheless A, Dees C, Carey L. University of North Carolina, Chapel Hill, NC.

P1-17-06 Impact of body mass index on the efficacy of aromatase inhibitors in patients with metastatic breast cancer

Patel R, Li Z, Zimmerman BS, Fink MY, Wells JD, Zhou X, Ayers KL, Redfern A, Newman S, Chen R, Oh WK, Tiersten A. Icahn School of Medicine at Mount Sinai, New York, NY; Sema4, Stamford, CT.

P1-17-07 Consequences of stopping a 4/6 cyclin D-dependent kinase Inhibitor in metastatic breast cancer patients with clinical benefit on endocrine treatment, in the context of the COVID-19 outbreak

**P1-17-08** Abemaciclib and endocrine therapy for hormone receptor-positive, HER2-negative advanced breast cancer: A real-world UK multicentre experience

Battisti NML, Morrison L, Nash T, Senthivel N, Kestenbaum S, Begum P, Obeid M, Hayhurst W, Yang D, Gafoor S, Brown C, Rehman F, Kenny L, Hatcher O, Susan S, Williams J, Brown A, Rozati H, Alexandros A, Sawyer E, Gousis C, Karapanagiotou E, Rigg A, Rapti K, Roylance R, Beresford M, Gee AL, Konstantis A, King J, Nathan M, Spurrell E, Pearce M, Bradwell D, Denton A, Swain K, McGrath S, Allen M, Ring A, Johnston S, Raja F. The Royal Marsden NHS Foundation Trust, Sutton, United Kingdom; Royal Free Hospital NHS Foundation Trust, London, United Kingdom; Beatson West of Scotland Cancer Centre, Glasgow, United Kingdom; Imperial College Healthcare NHS Trust, London, United Kingdom; North Middlesex University Hospital NHS Trust, London, United Kingdom; Guy’s and St Thomas’ NHS Foundation Trust, London, United Kingdom; University College London Hospitals NHS Foundation Trust, London, United Kingdom; Royal United Hospital, Bath, United Kingdom; Princess Alexandra Hospital NHS Trust, Harlow, United Kingdom; King’s College Hospital NHS Foundation Trust, London, United Kingdom; Whittington Health, London, United Kingdom; The Christie NHS Foundation Trust, Manchester, United Kingdom; Macclesfield District General Hospital, Macclesfield, United Kingdom; Mount Vernon Cancer Centre, Northwood, United Kingdom; Hull University Teaching Hospital NHS Trust, Hull, United Kingdom.

**P1-17-09** Efficacy of limited dose modifications for palbociclib-related grade 3 neutropenia in hormone receptor positive metastatic breast cancer

Kim S-G, Kim MH, Park S, Kim GM, Kim JH, Kim JY, Park HS, Park S, Park BW, Kim SI, Ji JH, Jeong J, Shin K, Lee J, Kim H-D, Jung KH, Sohn J. Division of Medical Oncology, Department of Internal Medicine, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Department of Biostatistics and Computing, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Breast Surgery, Department of Surgery, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Breast Surgery, Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Department of Internal Medicine, Seoul St. Mary’s Hospital, The Catholic University of Korea, Seoul, Republic of Korea; Department of Oncology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea.

**P1-17-10** H3B-6545, a novel selective estrogen receptor covalent antagonist (SERCA), in estrogen receptor positive (ER+) human epidermal growth factor receptor 2 negative (HER2-) advanced breast cancer - A phase II study

Hamilton EP, Wang JS, Pluard T, Morikawa A, Dees EC, Jones RH, Haley B, Armstrong A, Cohen AL, Munster P, Wright GS, Kayali F, Cantagallo L, Korpal M, Long J, Xiao J, Destenaves B, Gao L, Sahmoud T, Gualberto A, Juric D. Sarah Cannon Research Institute, Tennessee Oncology, Nashville, TN; Florida Cancer Specialists/Sarah Cannon Research Institute, Sarasota, FL; Saint Luke’s Cancer Institute, Kansas City, MO; University of Michigan, Ann Arbor, MI; Lineberger Comprehensive Cancer Center, University of North Carolina, Chapel Hill, NC; Cardiff University and Velindre Cancer Centre, Cardiff, United Kingdom; University of Texas Southwestern Medical Center, Dallas, TX; The Christie Hospital, Manchester, United Kingdom; Huntsman Cancer Institute, University of Utah, Salt Lake City, UT; University of California San Francisco, San Francisco, CA; Sarah Cannon Research Institute, Florida
P1-17-11 Updated data from AMEERA-1: Phase 1/2 study of amcenestrant (SAR439859), an oral selective estrogen receptor (ER) degrader (SERD), combined with palbociclib in postmenopausal women with ER+/HER2- advanced breast cancer

Chandarlapaty S, Linden HM, Neven P, Petrakova K, Bardia A, Kabos P, Braga S, Boni V, Gosselin A, Celanovic M, Cohen P, Paux G, Pelekanou V, Ternès N, Lee JS, Campone M. Memorial Sloan Kettering Cancer Center, New York, NY; University of Washington Medical Center, Seattle Cancer Care Alliance, Seattle, WA; Universitair Ziekenhuis Leuven, Leuven, Belgium; Masarykuv Onkologicky Ustav, Brno, Czech Republic; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA; University of Colorado Denver, Aurora, CO; Instituto CUF de Oncologia, Lisbon, Portugal; START Madrid-Centro, Madrid, Spain; Sanofi, Paris, France; Sanofi, Cambridge, MA; Institut de Cancérologie de l’Ouest, René Gauducheau, St Herblain, France.

P1-17-12 Preliminary data from a phase I/II, multicenter, dose escalation study of OP-1250, an oral CERAN/SERD, in subjects with advanced and/or metastatic estrogen receptor (ER)-positive, HER2-negative breast cancer

Patel M, Alemany C, Mitri Z, Makower D, Borges V, Sparano J, Le T, Klein P, Lawrence J, Kushner P, Faltaos D, Harmon C, Myles D, Zujewski J, Hamilton E. Florida Cancer Specialists, Sarasota, FL; AdventHealth, Orlando, FL; Knight Cancer Institute OHSU, Portland, OR; Montefiore Medical Center, New York, NY; University of Colorado, Denver, CO; Mount Sinai Health System, New York, NY; Olema Oncology, San Francisco, CA; Olema Oncology, Chapel Hill, NC; Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN.

Treatment - Advanced Disease Treatment: Advanced Therapy - Targeted

P1-18-01 Withdrawn

P1-18-02 Withdrawn

P1-18-03 Alpelisib + fulvestrant in patients with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-), PIK3CA-mutated advanced breast cancer (ABC) previously treated with cyclin-dependent kinase 4/6 inhibitor (CDK4/6i) + aromatase inhibitor (AI): 18-month follow-up of BYLieve Cohort A

Ciruelos EM, Lerebours F, Rugo HS, Ruiz-Borrego M, Drullinsky P, Prat A, Bachelot T, Neven P, Park YH, Turner N, Juric D, Gu E, Arce CH, Akdere M, Chia S. Hospital Universitario 12 de Octubre, Madrid, Spain; Institut Curie, Saint-Cloud, France; University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Hospital Virgen del Rocio de Sevilla, Seville, Spain; Memorial Sloan Kettering Cancer Center, New York, NY; Hospital Clinic of Barcelona, Barcelona, Spain; Centre Léon Bérard, Lyon, France; University Hospitals, Leuven, Belgium; Samsung Medical Center, Sungkyunkwan University, Seoul, Republic of Korea; The Royal Marsden and Institute of Cancer Research, London, United Kingdom; Massachusetts General Hospital Cancer Center, Boston, MA; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Novartis Pharma AG, Basel, Switzerland; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC, Canada.
P1-18-04 Feasibility of palbociclib in women aged 70 and older with resistant and/or pretreated advanced breast cancer in the PALOMAGE study

Brain E, Pulido M, Paillaud E, Grosjean J, Minà W, Caillet P, Tassy L, Soubeyran P, Bouteiller F, Rifi N, Vauthier J-M, Falandry C, Carola E. Institut Curie, Saint-Cloud & Paris, France; PACAN Platform, CLCC Bergonié, Bordeaux, France; AP-HP, Paris Cancer Institute CARPEM, Hôpital European Georges Pompidou, Department of Geriatrics, Paris, France; Clinique des Dentellières, Valenciennes, France; Centre Hospitalier de Troyes, Troyes, France; Institut Paoli-Calmette, Marseille, France; CLCC Bergonié, Bordeaux, France; Pfizer, Paris, France; CH Lyon Sud, Lyon, France; CH GHPSO, Senlis, France.

P1-18-05 Early changes in circulating tumor DNA and its effect on clinical outcomes in patients with advanced breast cancer receiving the CDK4/6 inhibitor palbociclib: Genotyping results from POLARIS

Tripathy D, Zhang Z, Blum JL, Karuturi MS,McCune SL, Telivala B, Lakhanpal S, Patel K, Frank RC, Lu K, Deshpande C, Wang Y, Liu Y, Bardia A. The University of Texas MD Anderson Cancer Center, Houston, TX; Pfizer Inc, San Diego, CA; Texas Oncology, Baylor-Sammons Cancer Center, US Oncology, Dallas, TX; Wellstar Health System, Marietta, GA; Cancer Specialists of North Florida, Jacksonville, FL; Saint Vincent’s Birmingham, Birmingham, AL; CARTI Cancer Center, Little Rock, AR; Whittingham Cancer Center at Norwalk Hospital, Norwalk, CT; UPMC Hillman Cancer Center Pinnacle, Harrisburg, PA; Pfizer Inc, New York, NY; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA

P1-18-06 Long term outcome data from the EORTC 75111-10114 ETF/BCG randomized phase II study: Pertuzumab and trastuzumab with or without metronomic chemotherapy for older patients with HER2-positive metastatic breast cancer, followed by T-DM1 after progression


P1-18-07 Impact of PIK3CA mutation (PIK3CA-mt) clonality on alpelisib (ALP) activity based on real-world evidence (RWE) following liquid biopsy testing


P1-18-08 Effect of duration of prior cyclin-dependent kinase 4/6 inhibitor (CDK4/6i) therapy (<6 mo or >6 mo) on alpelisib benefit in patients with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-), PIK3CA-mutated advanced breast cancer (ABC) from BYLieve

Chia S, Ciruelos EM, Rugo HS, Lerebours F, Ruiz-Borrego M, Drullinsky P, Prat A, Bachelot T, Turner N, Gu E, Arce C, Akdere M, Juric D. British Columbia Cancer Agency, University of British Columbia, Vancouver, BC, Canada; Hospital Universitario 12 de Octubre, Madrid, Spain; University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Institut Curie, Saint-Cloud, France; Hospital Virgen del Rocío
de Sevilla, Seville, Spain; Memorial Sloan Kettering Cancer Center, New York, NY; Hospital Clinic of Barcelona, Barcelona, Spain; Centre Léon Bérard, Lyon, France; The Royal Marsden and Institute of Cancer Research, London, United Kingdom; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Novartis Pharma AG, Basel, Switzerland; Massachusetts General Hospital Cancer Center, Boston, MA.

**P1-18-09** Impact of prior adjuvant trastuzumab (aT) on clinical characteristics, patterns of recurrence and outcomes in 4145 patients with Her2 positive (HER2+) metastatic breast cancer (MBC) - Results from the French ESME UNICANCER program

Le Du F, Carton M, Saghatelian M, Perol D, Pistilli B, Brain E, Loirat D, Vanlemmens L, Vermeulin T, Levy C, Goncalves A, Ung M, Robert M, Jaffre A, Robain M, Delaloge S, Dieras V. CRLCC Eugène Marquis, Rennes, France; Institut Curie, Paris, France; American Hospital of Paris, Neuilly Sur Seine, France; Department of Biostatistics, DRCI, Centre Léon Bérard, Lyon, France; Institut Gustave Roussy, Villejuif, France; CLCC Rene Huguenin Institut Curie, Saint Cloud, France; Département d’Oncologie Médicale, Institut Curie, Paris, France; Centre Oscar Lambret, Lille, France; Centre Henri-Becquerel, Rouen, France; Centre Francois Baclesse, Caen, France; Institut Paoli-Calmettes, Marseille, France; UNGInstitut Claudius Regaud, IUCT-Oncopole, Toulouse, France; Institut de Cancérologie de l’Ouest - René Gauduchau, Saint Herblain, France; Institut Bergonié, Bordeaux, France; Unicancer, Paris, France.

**P1-18-10** A clinical study of samuraciclib (CT7001), a first-in-class, oral, selective inhibitor of CDK7, in patients with advanced triple negative breast cancer (TNBC)

Howell SJ, Kenny LM, Lord S, Krebs MG, Arkenau T, Baird R, MacPherson IR, Bahl A, Clack G, Ainscow E, Barrett ACM, Dickinson PA, Fuchter MJ, Lehnert M, Ali S, McIntosh S, Coombes C. The University of Manchester, Manchester, United Kingdom; Imperial College, London, United Kingdom Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom; The Christie NHS Foundation Trust and University of Manchester, Manchester, United Kingdom; HCA Healthcare, London, United Kingdom; Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom; University of Glasgow, Glasgow, United Kingdom; Carrick Therapeutics, Dublin, Ireland; SEDA Pharmaceutical Development Services, Stockport, United Kingdom; Carrick Therapeutics, Dublin, United Kingdom.

**P1-18-11** Analysis of first-line (1L) patients (pts) with de novo disease vs late relapse and all pts with vs without prior chemotherapy (CT) in the MONALEESA-3 (ML-3) trial

De Laurentiis M, Lambertini M, Chia S, Rugo HS, Petrakova K, Villanueva C, Hurvitz S, J. Beck JT, Lteif A, Haftchenary S, Deore U, Wu J, EI-Saghir N. Istituto Nazionale Tumori - IRCCS - Fondazione Pascale, Napoli, Italy; Department of Medical Oncology, U.O.C. Clinica di Oncologia Medica, IRCCS Ospedale Policlinico San Martino, Department of Internal Medicine and Medical Specialties (DiMi), School of Medicine, University of Genova, Genova, Italy; BC Cancer, Vancouver, BC, Canada; University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Masaryk Memorial Cancer Institute, Brno, Czech Republic; University Hospital of Besançon, Jean-Minjoz University Hospital, Besançon, France; University of California, Los Angeles Jonsson Comprehensive Cancer Center, Los Angeles, CA; Highlands Oncology Group, Fayetteville, AR; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Novartis Pharmaceuticals Canada, Montreal, QC, Canada; American University of Beirut Medical Center, Beirut, Lebanon.

**P1-18-12** Moved to General Session 3
P1-18-13 Efficacy and safety of palbociclib plus endocrine therapy in Black and Hispanic patients with hormone receptor positive/human epidermal growth factor receptor 2-negative advanced breast cancer (HR+/HER2- ABC) participating in the PALOMA trials

Isaacs C, Mahtani R, Lynce F, Sleckman B, Castrellon A, Kalmadi S, Theall KP, Huang X, Bananis E, Rugo HS. Lombardi Comprehensive Cancer Center, Georgetown University, Washington, DC; Sylvester Cancer Center, University of Miami, Deerfield Beach, FL; Dana-Farber Cancer Institute, Harvard School of Medicine, Boston, MA; Mercy Hospital St. Louis, St. Louis, MO; Breast Cancer Center, Memorial Healthcare System, Hollywood, FL; Ironwood Cancer and Research Centers, Chandler, AZ; Pfizer Inc, Cambridge, MA; Pfizer Inc, La Jolla, CA; Pfizer Inc, New York, NY; University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA.

P1-18-14 Alpelisib monotherapy for PI3K-altered, pre-treated advanced breast cancer: A phase II study

Savas P, Lo LL, Luen SJ, Blackley EF, van Geelen CT, Ko Y-A, Moodie K, Callahan JW, Weng C-F, Zivanovic Bujaq K, Yeung MM, Ptonis S, Francis PA, Dawson S-J, Loi S. Division of Research, Peter MacCallum Cancer Centre, Melbourne, Australia; The Sir Peter MacCallum Department of Oncology, The University of Melbourne, Melbourne, Australia; Department of Cancer Imaging, Peter MacCallum Cancer Centre, Melbourne, Australia.

P1-18-15 Real-world efficacy of ribociclib + aromatase inhibitor/fulvestrant, or endocrine monotherapy, or chemotherapy as first-line treatment in women with hormone receptor-positive (HR+), human epidermal growth factor receptor-2-negative (HER2-) locally advanced or metastatic breast cancer: Fourth interim analysis from the RIBANNA study

Lüftner D, Brucker C, Decker T, Fasching P, Göhler T, Jackisch C, Janssen J, Köhler A, Lüdtke-Heckenkamp K, von Mackelenbergh M, Marmé F, Nusch A, Rautenberg B, Reimer T, Schmidt M, Weide R, Wimberger P, Nabiwa N, Roos C, Wöckel A. Department of Hematology, Oncology and Tumor Immunology, Charité University Hospital, Berlin, Germany; Klinikum Nürnberg Nord, Paracelsus Medical University, Nürnberg, Germany; Oncology Ravensburg, Ravensburg, Germany; Department of Obstetrics and Gynecology, University Hospital Erlangen, Erlangen, Germany; Onkzentrum Dresden/ Freiberg, Dresden, Germany; Department of Obstetrics and Gynecology, Sana Klinikum Offenbach, Offenbach, Germany; Medizinische Studiengesellschaft Nord-West GmbH, Westerstedt, Germany; Gemeinschaftspraxis Drs. Köhler, Fuchs, Langen, Germany; Department of Oncology and Hematology, Niels-Stensen-Kliniken, Georgsmarienhütte, Germany; Universitätsklinikum Schleswig-Holstein, Kiil, Germany; Med. Fakultät Mannheim der Universität Heidelberg, Mannheim, Germany; Practive for Hematology and Medical Oncology Velbert, Velbert, Germany; Universitätsklinikum Freiburg, Freiburg, Germany; University Hospital Rostock, Rostock, Germany; Universität Mainz, Klinik und Poliklinik für Geburtshilfe und Frauengesundheit, Mainz, Germany; InVO GbR, Koblenz, Germany; Universitätsklinikum Carl Gustav Carus, Technische Universität, Dresden, Germany; Novartis Pharma GmbH, Nuernberg, Germany; Department of Obstetrics and Gynecology, University Hospital Würzburg, Würzburg, Germany.

P1-18-16 First line aromatase inhibitor (AI) + palbociclib with randomized switch to fulvestrant + palbociclib upon detection of circulating ESR1 mutation in HR+ HER2-metastatic breast cancer patients: Global safety results of PADA-1, a UCBG-GINECO phase III trial

A, Lachaier E, Achille M, Gozy M, Escande A, Mille D, Trouboul F, Marques S, Lemonnier J, Berger F, Bidal F-C, Gustave Roussy, Villejuif, France; Cario, Plérin, France; Centre Leon Berard, Lyon, France; Curie Institute, Paris, France; Hopital de Charleroi, Charleroi, France; Centre Henri Becquerel, Rouen, France; Centre Eugene Marquis, Rennes, France; Oncopole Toulouse IUCT, Toulouse, France; Polyclinique Bordeaux Nord, Bordeaux, France; CH Blois, Blois, France; Centre Paul Strauss, Strasbourg, France; CH Mont de Marsan, Mont de Marsan, France; CH Pontoise, Pontoise, France; CH Auxerre, Auxerre, France; CH Amiens, Amiens, France; Clinique de l'orangerie, Strasbourg, France; Clinique de l’Europe, Amiens, France; Clinique Sainte Anne, Strasbourg, France; Medipole de savoie, Challes les Eaux, France; CH Bretagne Atlantique, Vannes, France; Unicancer, Paris, France.

P1-18-17 Phase I study of cfi-402257, an oral ttk inhibitor, in patients with advanced solid tumors with breast cancer expansion cohorts

Hilton J, Renouf DJ, Cescon DW, Hansen AR, Razak ARA, Stayner L-A, Denny T, Fletcher G, Mak TW, Bray M, Bedard PL. Ottawa Hospital Cancer Centre, Ottawa, ON, Canada; BC Cancer Agency, Vancouver, BC, Canada; Princess Margaret Cancer Centre, Toronto, ON, Canada; Treadwell Therapeutics, Toronto, ON, Canada.

P1-18-18 Real-world natural history data among patients with PIK3CA-mutant and PIK3CA-wild-type advanced breast cancer


P1-18-19 Long term results with everolimus in advanced hormone receptor positive breast cancer in a multicenter national real world observational study (ESME)

Francois-Martin H, Lardy-Cleaud A, Pistilli B, Levy C, Diéras V, Frenel J-S, Guiu S, Mouret-Reynier M-A, Mailliez A, Eymard J-C, Petit T, Ung M, Desmoulins I, Augereau P, Bachelot T, Uwer L, Debled M, Ferrero J-M, Veyret C, Goncalves A, Chevrot M, Cottu PH. Institut Curie, Paris, France; Centre Leon Berard, Lyon, France; Gustave Roussy, Villejuif, France; centre Francois Baclesse, Caen, France; Centre Eugène Marquis, Rennes, France; Institut de Cancérologie de l’Ouest, Saint-Herblain, France; Institut de Cancérologie de la Méditerranée, Montpellier, France; Centre Jean Perrin, Clermont Ferrand, France; Institut Godinot, Reims, France; Centre Paul Strauss, Strasbourg, France; IUCT - Oncopole, Toulouse, France; Centre Georges Francois Leclerc, Dijon, France; Institut de Cancérologie de l’Ouest, Angers, France; Institut de Cancérologie de Lorraine, Nancy, France; Institut Bergonié, Bordeaux, France; Centre Antoine Lacassagne, Nice, France; Centre Henri Becquerel, Rouen, France; Institut Paoli Calmettes, Marseille, France; Direction des Data, Unicancer, Paris, France.

P1-18-20 Real-world effectiveness of palbociclib plus letrozole vs letrozole alone for metastatic breast cancer with lung/liver metastases: Flatiron database analysis

Brufsky A, Liu X, Li B, McRoy L Layman RM. Comprehensive Breast Cancer Center, University of Pittsburgh Medical Center, Pittsburgh, PA; Pfizer Inc, New York, NY; The University of Texas MD Anderson, Houston, TX.
**P1-18-21** Abemaciclib plus fulvestrant or nonsteroidal aromatase inhibitor in participants with HR+, HER2- breast cancer - A pooled analysis of the endocrine therapy-naive participants with measurable disease in MONARCH 2 and MONARCH 3

Goetz MP, Gonzalez Trujillo JL, Toi M, Huober J, Llombart-Cussac A, Zhang W, Knoderer H, Haddad N, Van Hal G, Sledge, Jr. GW. Mayo Institute, Rochester, MN; Fundacion Rodolfo Padilla AC, Leon Guanajuato, Mexico; Kyoto University, Kyoto, Japan; University of Ulm, Ulm, Germany; Hospital Arnau Villanova, Valencia, Spain; Eli Lilly and Company, Indianapolis, IN; Stanford University, Stanford, CA.

**P1-18-22** AKT inhibition in combination with endocrine therapy and a CDK4/6 inhibitor (CDK4/6i) in patients with hormone receptor positive (HR+)/HER2 negative metastatic breast cancer (MBC) and prior CDK4/6i exposure: A translational investigation


**P1-18-23** Implementation and evaluation of a shared care model between oncologists and pharmacists for advanced breast cancer patients on cyclin-dependent kinase (CDK) 4/6 inhibitors


**P1-18-25** Real-world quality of life (QoL) in patients with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-), advanced breast cancer (ABC) treated with palbociclib: A patient-reported outcome (PRO) analysis from POLARIS

Karuturi MS, Rocque GB, Cappelleri JC, Blum JL, McCune SL, Telivala B, Kurian S, Anderson DM, Tsai M, Pluard T, Migas J, Wang Y, Montelongo MZ, Tripathy D. The University of Texas MD Anderson Cancer Center, Dallas, TX; The University of Alabama at Birmingham, Birmingham, AL; Pfizer Inc, Groton, CT; Texas Oncology, Baylor-Sammons Cancer Center, US Oncology, Dallas, TX; Wellstar Health System, Marietta, GA; Cancer Specialists of North Florida, Jacksonville, FL; West Virginia University, Morgantown, WV; Health Partners Institute, St. Paul, MN; Minnesota Oncology, Minneapolis, MN; Saint Luke’s Cancer Institute, Kansas City, MO; Mid-Illinois Hematology & Oncology Associates, Ltd., Normal, IL; Pfizer Inc, New York, NY; ICON plc, North Wales, PA; The University of Texas MD Anderson Cancer Center, Houston, TX.

**P1-18-26** Intracranial efficacy of tucatinib, palbociclib and letrozole combination in patients with HR+/HER2+ breast cancer and brain metastases

Shagisultanova E, Gradishar W, Brown-Glaberman U, Chalasani P, Brenner A, Stopeck A, Mayordomo J, Diamond J, Kabos P, Borges VF. University of Colorado Denver, Aurora, CO; Northwestern University, Chicago, IL; University of New Mexico, Albuquerque, NM; University of Arizona, Tuscon, AZ; University of Texas Health San Antonio, San Antonio, TX; Stony Brook University, New York, NY.

**P1-18-28** Phase IV study evaluating effectiveness and safety of talazoparib in patients with locally advanced or metastatic HER2 negative breast cancer and a BRCA1 or BRCA2 mutation (VITAL)

P1-18-29 Male patients with hormone receptor positive (HR+)/human epidermal growth factor receptor 2-negative (HER2-) advanced breast cancer (ABC) receiving palbociclib in the real world: patient characteristics, treatment patterns, and outcomes from the POLARIS study

Blum J, DiCristo C, Gordon D, Karuturi M, Oubre D, Jepsen E, Cuevas J, Lakhanpal S, Zhang Z, Wang Y, Tripathy D. Texas Oncology, Baylor-Sammons Cancer Center, US Oncology, Dallas, TX; Pfizer Inc, New York, NY; Munson Medical Center, Traverse City, MI; The University of Texas MD Anderson Cancer Center, Houston, TX; Pontchartrain Cancer Center, Hammond, LA; Novant Health, Winston-Salem, NC; St. Louis Cancer Care, Bridgeton, MO; Saint Vincent’s Birmingham, Birmingham, AL; Pfizer Inc, San Diego, CA.

P1-18-31 Accessibility of CDK4/6 inhibitors for breast cancer patients in the Netherlands

Luyendijk M, Blommestein H, Jager A, Siesling S, Uyl-de Groot C. IKNL, Utrecht, Netherlands; ESHPM, Rotterdam, Netherlands; Erasmus MC Cancer Institute, Rotterdam, Netherlands.

P1-18-32 A nationwide real-world study for evaluation of efficacy and safety of T-DM1 in patients with HER2-positive locally-advanced unresectable or metastatic breast cancer in Korea (KCSG BR19-15)

Baek SK, Jeong J-H, Park Y-H, Ahn HK, Kim MH, Park IH, Suh YJ, Lee D-W, Sim SH, Kim JH, Shim H-J, Chaey Y, Koh S-J, Lee H, Lee J, Byun J-H, Seol Y, Lee EM, Ahn JS, Jung K-H, Im S-A, Lee KS, Sohn J, Lee KE. Kyung Hee University Hospital, Kyung Hee University College of Medicine, Seoul, Republic of Korea; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Gachon University Gil Medical Center, Incheon, Republic of Korea; Yonsei University College of Medicine, Seoul, Republic of Korea; Korea University Guro Hospital, Seoul, Republic of Korea; Inha University College of Medicine, Incheon, Republic of Korea; Seoul National University Hospital, Seoul, Republic of Korea; National Cancer Center, Goyang, Republic of Korea; Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, Republic of Korea; Chonnam National University Medical School and Hwasun Hospital, Gwangju, Republic of Korea; Kyungpook National University College of Medicine, Daegu, Republic of Korea; Ulsan University Hospital, Ulsan, Republic of Korea; Korea Cancer Center Hospital, Seoul, Republic of Korea; Seoul St. Mary’s Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea; Incheon St. Mary’s Hospital, College of Medicine, The Catholic University of Korea, Incheon, Republic of Korea; Pusan National University Hospital, Busan, Republic of Korea; Kosin University Gaspel Hospital, Busan, Republic of Korea; Ewha Womans University Hospital, Seoul, Republic of Korea.
P1-18-33 Real-world outcomes with palbociclib, abemaciclib and ribociclib; experience of a tertiary oncology centre in the United Kingdom
Wang L, Ibrahim M, Neal A. Royal Surrey County Hospital, Guildford, United Kingdom.

P1-18-34 Solti-1507 IPATHER - A phase Ib study of ipatasertib (IPAT) and dual anti-HER2 therapy with pertuzumab and trastuzumab (HP) in patients with HER2-positive (HER2+) advanced breast cancer (ABC) and a PIK3CA mutation (mut): Results from the first safety cohort
Oliveira M, Ciruelos E, Morales S, Gavilá J, Quiroga V, Vega E, Bofill JS, Cortegoso A, Henao F, Tolosa P, Canes J, Villagrasa P, Gonzalez Farré X, Pascual T, Saura C. Medical Oncology Department, Vall d’Hebron University Hospital, and Breast Cancer and Melanoma Group, Vall d’Hebron Institute of Oncology (VHIO) / SOLTI Breast Cancer Research Group, Barcelona, Spain; Medical Oncology Dept, University Hospital 12 De Octubre / SOLTI Breast Cancer Research Group, Madrid / Barcelona, Spain; Medical Oncology, Hospital Universitario Arnaud de Vilanova, Lleida, Spain; Department of Medical Oncology, Instituto Valenciano de Oncologia / SOLTI Breast Cancer Research Group, Valencia / Barcelona, Spain; Medical Oncology, Badalona-Applied Research Group in Oncology (B-ARGO Group), Catalan Institute of Oncology, Barcelona, Spain; Medical Oncology, Centro Integral Oncológico Clara Campal, Madrid, Spain; Medical Oncology, Hospital Virgen del Rocío, Sevilla, Spain; Servicio Oncología Médica, Complejo Hospitalario Universitario de Santiago de Santiago de Compostela, Spain; Medical Oncology, Hospital Virgen de Macarena, Sevilla, Spain; SOLTI Breast Cancer Research Group, Barcelona, Spain; Medical Oncology, Institut Oncологic Dr. Rosell / SOLTI Breast Cancer Research Group, Barcelona, Spain.

P1-18-35 Futibatinib in combination with fulvestrant in patients with metastatic breast cancer (MBC) harboring high-level FGFR1 amplification: Preliminary data from a phase 2 study
Damodaran S, Unni N, Giridhar KV, Daniel B, Howell S, Costa L, Ferreira M, Shimura M, Tomlinson G, Gil M, Turner N. MD Anderson Cancer Center, Houston, TX; University of Texas Southwestern Medical Center, Dallas, TX; Mayo Clinic, Rochester, MN; Tennessee Oncology, Chattanooga, TN; The Christie NHS Foundation Trust, Manchester, United Kingdom; Centro Hospitalar Universitário Lisboa Norte, Lisboa, Portugal; Instituto Português de Oncologia do Porto Francisco Gentil, Porto, Portugal; Taiho Pharmaceutical Co., Ltd., Tokyo, Japan; Taiho Pharma Canada, Inc., Oakville, ON, Canada; Taiho Oncology, Inc., Princeton, NJ; Royal Marsden Hospital, London, United Kingdom.

P1-18-36 Withdrawn

P1-18-37 Treatment patterns and outcomes associated with sequential and non-sequential use of CDK4 and 6i for HR+, HER2- MBC in the real world
Kalinsky KM, Kruse M, Nash Smyth E, Guimaraes CM, Gautam S, Nisbett AR, Fisher MD, Cui ZL, Bowman L. Winship Cancer Institute of Emory University, Atlanta, GA; Taussig Cancer Institute, Cleveland Clinic, Cleveland, OH; Eli Lilly and Company, Indianapolis, IN; ConcertAI, Memphis, TN.

P1-18-38 Moved to Spotlight Session 3
Treatment - Advanced Disease Treatment: Advanced Therapy - Other

**P1-19-01** Palbociclib plus endocrine therapy significantly enhances overall survival of HR+/HER2- metastatic breast cancer patients compared to endocrine therapy alone - A large institutional study

Singareeka Raghavendra A, Ha MJ, Kettner NM, Damodaran S, Layman R, Hunt KK, Shen Y, Tripathy D, Keyomarsi K. The University of Texas MD Anderson Cancer Center, Houston, TX.

**P1-19-02** Repurposing the FOXO4 senolytic against triple-negative breast cancer


**P1-19-03** Phase II trial of durvalumab and tremelimumab in the hormone receptor-positive metastatic breast cancer with high tumor mutational burden selected by whole exome sequencing: Korean cancer study group trial (KCSG BR17-04)

Moon YW, Kim E, Kim MH, Kim GM, Kim S-G, Chae Y, Lee J, Jeong JH, Lee K-H, Kim HJ, Jung JY, Koh S-J, Lee KE, Kim H-J, Park KH, Lim S, Park YH, Kim TH, Kim S, Yang Y, Kim S, Sohn J. Hematology and Oncology, CHA Bundang Medical Center, Seongnam, Republic of Korea; Graduate School of Medical Science, Brain Korea 21 Project, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Hematology-Oncology, Kyungpook National University Chilgok Hospital, Daegu, Republic of Korea; Division of Medical Oncology, Seoul St. Mary’s Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea; Department of Oncology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Division of Hematology and Medical Oncology, Seoul National University Hospital, Seoul, Republic of Korea; Division of Oncology/Hematology, Soonchunhyang University Cheonan Hospital, Cheonan, Republic of Korea; Department of Internal Medicine, Dongtan Sacred Heart Hospital, College of Medicine, Hallym University, Hwaseong, Republic of Korea; Division of Hematology and Oncology, Ulsan University Hospital, Ulsan University College of Medicine, Ulsan, Republic of Korea; Division of Hematology and Oncology, Ewha Womans University Hospital, Seoul, Republic of Korea; Department of Internal Medicine, Chung-Ang University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology/Hematology, Korea University College of Medicine, Seoul, Republic of Korea; Wonju Severance Christian Hospital, Wonju, Republic of Korea; Division of Hematology-Oncology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Department of Pathology, CHA Bundang Medical Center, CHA University, Seongnam, Republic of Korea; Department of Biomedical Systems Informatics, Yonsei University College of Medicine, Seoul, Republic of Korea; Department of Biomedical Systems Informatics, Graduate School of Medical Science, Brain Korea 21 Project, Yonsei University College of Medicine, Seoul, Republic of Korea.

Treatment - Types and Sites of Breast Cancer: Bone Metastases

**P1-20-01** Immune microenvironment change of breast cancer and bone metastasis

Chao X, Zhang Y, Lu J, Sun P, He J. Sun Yat-sen University Cancer Center, Guangzhou, China.
**P1-20-02** A machine learning approach to identify risk factors associated with skeletal-related events following denosumab cessation among patients with bone metastases from breast cancer


**P1-21-01** Multicenter study for brain metastasis from breast cancer in Korea: The significance of molecular subtype (KROG 1612)

Kim JS, Kim K, Jung W, Shin KH, Im S-A, Kim H-J, Kim YB, Chang JS, Kim JH, Choi DH, Park YH, Kim DY, Kim TH, Choi BO, Lee S-W, Kim S, Kwon J, Kang KM, Chung W-K, Kim KS, Yoon WS, Kim JH, Cha J, Oh YK, Kim IA. Department of Radiation Oncology, Seoul National University College of Medicine, Seoul, Republic of Korea; Department of Radiation Oncology, Ewha Womans University College of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Chung-Ang University College of Medicine, Seoul, Republic of Korea; Department of Radiation Oncology, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Department of Radiation Oncology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Department of Internal Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Proton Therapy Center, National Cancer Center, Goyang, Republic of Korea; Department of Radiation Oncology, Seoul St. Mary’s Hospital, The Catholic University of Korea, Seoul, Republic of Korea; Department of Radiation Oncology, Seoul Metropolitan Government Seoul National University Boramae Medical Center, Seoul, Republic of Korea; Department of Radiation Oncology, Chungnam National University College of Medicine, Daejeon, Republic of Korea; Department of Radiation Oncology, Gyeongsang National University College of Medicine and Gyeongsang National University Changwon Hospital, Changwon, Republic of Korea; Department of Radiation Oncology, Chonnam National University Hwasun Hospital, Chonnam National University Medical School, Hwasun, Republic of Korea; Department of Radiation Oncology, Dongnam Institute of Radiological and Medical Sciences, Busan, Republic of Korea; Department of Radiation Oncology, Ansan Hospital, Korea University Medical College, Ansan, Republic of Korea; Department of Radiation Oncology, Keimyung University Dongsan Medical Center, Daegu, Republic of Korea; Department of Radiation Oncology, Wonju Severance Christian Hospital, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea; Department of Radiation Oncology, Chosun University Medical School, Gwangju, Republic of Korea.

**P1-21-02** Scalp sparing whole-brain radiotherapy using IMRT technique. Do we need it?

Barsoum MS, Barsoum EM, Kamaleldin M, Mahmoud N, Abdelgeleel S, Ashour MG. Barsoum Oncology Center (BOC), Cairo, Egypt; Department of Clinical Oncology, Kasr Alainy School of Medicine, Cairo University, Cairo, Egypt; Biostatistics and Epidemiology Department, National Cancer Institute, Cairo University, Cairo, Egypt; Radiation Oncology and Nuclear Medicine Department, National Cancer Institute, Cairo University, Cairo, Egypt.
P1-21-03 Efficacy of tyrosine kinase inhibitors (TKI) in the treatment of patients with HER2-positive (HER2+) breast cancer with or without brain metastases: A systematic review and meta-analysis
Nader-Martag, G. Martins-Branco D, Agostinotto E, Bruzzone M, Cepp M, Lambertini M, Kotecki N, Awada A, de Azambuja E, Institut Jules Bordet, and l’Université Libre de Bruxelles (U.L.B), Belgium, Belgium; Clinical Epidemiology Unit, IRCCS Ospedale Policlinico San Martino, Genova, Italy, Genova, Italy; Department of Medical Oncology, U.O. Clinica di Oncologia Medica, IRCCS Ospedale Policlinico San Martino, Genova, Italy.

P1-21-04 The real world study on clinical features and prognostic factors of Chinese breast cancer patients with brain metastasis

P1-21-05 GM-CSF is an autocrine driver of HER2+ breast leptomeningeal carcinomatosis
Bhan AK, Ansari KI, Chen C, Jandial R. City of Hope National Medical Center, Duarte, CA.

P1-21-06 Phase I study of T-DM1 and metronomic temozolomide in secondary prevention of HER2+ breast cancer brain metastases following local radiation therapy
Zimmer AS, Steinberg S, Gilbert M, Armstrong T, Burton E, Houston N, Smart DD, Biassou N, Butman J, Brastianos PK, Anders CK, Lipkowitz S, Steeg PS, National Cancer Institute, Bethesda, MD; Massachusetts General Hospital / Harvard University, Boston, MA; Duke Cancer Institute, Durham, NC.

P1-21-07 Implications for chronoradiobiology: Differential effect of radiation response for breast cancer patients with brain metastases depending on treatment time
Matlack L, Lombardo J, Nelson N, Smith A, Shi W, Simone N. Cooper Medical School of Rowan University, Camden, NJ; Thomas Jefferson University Hospital, Philadelphia, PA; Philadelphia College of Osteopathic Medicine, Philadelphia, PA.

P1-21-08 Brain metastases (BM) from breast cancer: Real-word data from the Austrian AGMT_MBC-registry
Gampenrieder SP, Rinnerthaler G, Tinchon C, Petzer A, Balic M, HeiI S, Zabernigg AF, Egle D, Sandholzer M, Roitner F, Andel J, Pichler P, Hager C, Knauer M, Hubalek M, Singer CF, Greil R. Department of Internal Medicine III, University of Salzburg Cancer Research Institute - Laboratory for Immunological and Molecular Cancer Research (SCRI-LIMCR), Paracelsus Medical University Salzburg, Salzburg, Austria; Internal Medicine - Department for Haematology and Oncology, LKH Hochsteiermark, Leoben, Austria; Internal Medicine I for Hematology with Stem Cell Transplantation, Hemostaseology and Medical Oncology, Norderrheinzien Klinikum Linz Barmherzige Schwestern – Elisabethinen, Linz, Austria; Division of Oncology, Department for Internal Medicine, Medical University Graz, Graz, Austria; Department of Internal Medicine IV, Klinikum Wels-Grieskirchen GmbH, Wels, Austria; Department of Internal Medicine, County Hospital Kufstein, Kufstein, Austria; Department of Gynaecology, Medical University Innsbruck, Innsbruck, Austria; Department of Internal Medicine II, Academic Teaching Hospital Feldkirch, Feldkirch, Austria; Department of Internal Medicine II, Hospital Braunau, Braunau, Austria; Department of Internal Medicine II, Landesklinikum Steyr, Steyr, Austria; University Hospital St. Pölten, Department for Internal Medicine 1, St. Pölten, Austria; Breast Center Dornbirn, Dornbirn, Austria; Breast Center Eastern Switzerland, St.
Treatment - Types and Sites of Breast Cancer: DCIS/LCIS

**P1-22-01** Predictors of inaccurate pre-operative size assessment of screen detected DCIS and impact on recurrence rates

Kirwan CC, Hilton B, Clements K, Stobart H, Wallis M, Mylvaganam S, Provenzano E, Maxwell A, Sharma N, Shaaban A, Dodwell D, Dulson-Cox J, Sawyer E, Kearins O, Brace-McDonnell S, Pinder S, Thompson AM. University of Manchester, Manchester, United Kingdom; Public Health England, Birmingham, United Kingdom; Independent Cancer Patients Voice, London, United Kingdom; University of Cambridge, Cambridge, United Kingdom; The Royal Wolverhampton NHS Trust, Wolverhampton, United Kingdom; Leeds Teaching Hospital NHS Trust, Leeds, United Kingdom; Queen Elizabeth Hospital Birmingham and University of Birmingham, Birmingham, United Kingdom; University of Oxford, Oxford, United Kingdom; King’s College London and Guy’s and St Thomas’ Hospitals NHS Foundation Trust, London, United Kingdom; Baylor College of Medicine, Houston, TX.

**P1-22-02** Subsequent risk of ipsilateral breast events in a multinational DCIS cohort of 48,619 patients: A meta-analysis within the PRECISION consortium


**P1-22-03** Expression of immune-related genes and breast cancer recurrence in women with ductal carcinoma in situ

Guerini Rocco E, Fumagalli C, Concardi A, Taormina SV, Guerrieri-Gonzaga A, Corso F, Gandini S, Bonanni B, Viale G, Barberis M, Fusco N, Matteo L. European Institute of Oncology (IEO), Milano, Italy; University of Milan, Milano, Italy.

**P1-22-04** Decision aids and risk prediction models to support decision making about DCIS treatment: A systematic literature review

Schmitz RSJM, Wilthagen E, van Duijnhoven F, van Oirsouw M, Verschuur E, Lynch T, Punglia RS, Hwang S, Wesseling J, Schmidt MK, Bleiker E, Engelhardt EG. Grand Challenge PRECISION consortium. Netherlands Cancer Institute, Amsterdam, Netherlands; Borstkanker Vereniging Nederland, Utrecht, Netherlands; Duke University, Durham, NC; Dana-Farber Cancer Institute, Boston, MA.

**P1-22-05** Identifying predictors of invasive recurrence based on molecular profiles of DCIS lesions

of Cancer and Pharmaceutical Sciences, Faculty of Life Sciences and Medicine, Guy’s Cancer Centre, King’s College London, London, United Kingdom; Department of Surgery, Duke University School of Medicine, Durham, NC; Division of Molecular Pathology, The Netherlands Cancer Institute, Amsterdam, Netherlands; MRC Cancer Unit, University of Cambridge, Hutchison/MRC Research Centre and Academic Department of Medical Genetics, Cambridge Biomedical Research Campus, Cambridge, United Kingdom; Department of Genomic Medicine, MD Anderson Cancer Center, Houston, TX; Patient Advocates in Research, Danville, CA; Independent Cancer Patients’ Voice, London, United Kingdom; Department of Genetics, MD Anderson Cancer Center, Houston, TX; Department of Surgical Oncology, Dan L Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX; Oncoide Institute and Division of Molecular Carcinogenesis, The Netherlands Cancer Institute and Faculty of Electrical Engineering, Mathematics, and Computer Science, Delft University of Technology, Amsterdam, Netherlands; Division of Molecular Pathology and Division of Diagnostic Oncology, The Netherlands Cancer Institute and Department of Pathology, Leiden University Medical Center, Amsterdam, Netherlands.

P1-22-06 A longitudinal cohort study of outcomes in 311 women with unresected ductal carcinoma in situ detected through the English breast screening programme

Clements K, Maxwell A, Hilton B, Wallis M, Kirwan C, Stobart H, Provenzano E, Sharma N, Litherland J, Shaaban A, Dodwell D, Dulson-Cox J, Sawyer E, Mylvaganam S, Kearins O, Brace-McDonnell S, Pinder S, and Thompson A. Public Health England, Birmingham, United Kingdom; University of Manchester, Manchester, United Kingdom; Cambridge University Hospitals NHS Trust, Cambridge, United Kingdom; Independent Cancer Patients’ Voice, London, United Kingdom; Leeds Teaching Hospital NHS Trust, Leeds, United Kingdom; NHS Greater Glasgow and Clyde, Glasgow, United Kingdom; Queen Elizabeth Hospital Birmingham and University of Birmingham, Birmingham, United Kingdom; University of Oxford, Oxford, United Kingdom; King’s College London and Guy’s and St Thomas’ Hospitals NHS Foundation Trust, London, United Kingdom; Royal Wolverhampton NHS Trust, Wolverhampton, United Kingdom; Baylor College of Medicine, Houston, TX.

P1-22-07 Surgical outcomes of lobular carcinoma in situ diagnosed on core biopsy in Dutch women between 2011 and 2020

Westenend PJ, Kerkhoven C, Meurs CJC, Siesling S. Laboratory of Pathology, Dordrecht, Netherlands; CMAnalyzing, Zevenaar, Netherlands; Department of Research, Netherlands Comprehensive Cancer Organisation, Utrecht, Netherlands.

P1-22-08 Withdrawn

Treatment - Types and Sites of Breast Cancer: Male Breast Cancer

P1-23-01 Male breast cancer- a 20 year multi-center experience

Zheng G, Wang H, Liu F-Y, Leone JP. St Elizabeth Medical Center, Brighton, MA; Dana Farber Cancer Institute, Boston, MA.

P1-23-02 Incidence, clinicopathological features and treatment patterns of male breast cancer (MBC) in a high-volume cancer center in the United Arab Emirates (UAE)

Al-Awadhi A, Yousif A, Balalaa N, Luiten E, Jelovac D. Tawam Hospital, Al Ain, United Arab Emirates; Johns Hopkins University, Baltimore, MD.
**P1-23-03** Male breast cancer in a retrospective study from the Maria Sklodowska Curie National Research Institute of Oncology in Warsaw, Poland

**Treatment - Types and Sites of Breast Cancer: Inflammatory Breast Cancer**

**P1-24-01** Does modified radical mastectomy in de novo stage IV inflammatory breast cancer patients improve disease specific survival?
Chen JC, Li Y, Fisher JL, Tsung A, Obeng-Gyasi S. The Ohio State University, Columbus, OH.

**P1-24-02** Genetic variants and tumor microenvironment in inflammatory breast cancer: Clues for targeted therapies

**P1-24-03** Clinicopathological characterization of inflammatory breast cancer in the Netherlands: First results of the prospective INFLAME registry
van Geel J.J.L., van der Schoor G, van Leeuwen-Stok E, Martens J.W.M, Witting SM, Wesseling J, Sonke GS, Schröder CP. University Medical Center Groningen, Groningen, Netherlands; Dutch Breast Cancer Trialists’ Group (BOOG), Amsterdam, Netherlands; University Medical Center Rotterdam, Rotterdam, Netherlands; Netherlands Cancer Institute, Amsterdam, Netherlands.

**P1-24-04** Spatially resolved cell type heterogeneity uncovers the distinct biology of inflammatory breast cancer
Courtois E, Flynn W, Sivajothi S, Seignon M, Luo D, Lim B, Robson P. The Jackson Laboratory, Farmington, CT; Baylor College of Medicine, Houston, TX.

**P1-24-05** Breast conserving surgery for non-metastatic inflammatory breast cancer: A National Cancer Database (NCDB) study
Angarita FA, Edge SB, Attwood K, Takabe K, Young J. Roswell Park Comprehensive Cancer Center, Buffalo, NY.

**P1-24-06** Risk factor modeled microenvironment effects lymphatics activity and IBC invasiveness and progression
Balema W, Morton J, Larson R, Velasquez FC, Sevick-Muraca E, Woodward WA. University of Texas MD Anderson Cancer Center, Houston, TX; University of Texas Health Science Center at Houston, Houston, TX.

**P1-24-07** Management trends and outcomes assessment for inflammatory breast cancer
Tran J, Valente S, Tu C, Kruse M. Cleveland Clinic Foundation, Cleveland, OH.
POSTER SESSION 2

WEDNESDAY, DECEMBER 8, 2021: 5:00 PM - 6:30 PM CT

Detection/Diagnosis - Pathology: Circulating Biomarkers and ctDNA

P2-01-01 Genetic alterations detected by circulating tumor DNA (ctDNA) in HER2-low metastatic breast cancer (MBC)
Hensing WL, Gerratana L, Clifton K, Velimirovic M, Shah A, D’Amico P, Reduzzi C, Zhang Q, Dai CS, Baggen NA, Opyrchal M, Ademuyiwa FO, Ron B, Behdad A, Ma CX, Bardia A, Cristofanilli M, Davis AA. Washington University in St. Louis, Saint Louis, MO; Northwestern University, Chicago, IL; Massachusetts General Hospital, Boston, MA.

P2-01-02 A whole blood assay to identify breast cancer: Interim analysis of the international identify breast cancer (IDBC) study evidence supporting the Syantra DX breast cancer test
Bundred N, Fuh K, Asgarian N, Brown S, Simonot D, Wang X, Shepherd R, Quan ML, Docktor BJ, Maxwell A, Kirwan C, Hollingsworth A (retired), Morris D, Rinker K. Manchester University NHS Foundation Trust, Manchester, United Kingdom; Syantra Inc., Calgary, AB, Canada; Alberta Cancer Research Biobank, Calgary, AB, Canada; Alberta Health Services, Calgary, AB, Canada; University of Calgary, Calgary, AB, Canada; University of Manchester, Manchester, United Kingdom; Mercy Health, Oklahoma City, OK; Tom Baker Cancer Centre, Calgary, AB, Canada.

P2-01-03 Elucidating the biology of circulating tumor DNA (ctDNA) shedding across receptor subtypes in high-risk early-stage breast cancer

P2-01-04 Esr1 hotspot mutations in circulating tumor DNA mutation are associated with endocrine therapy resistance in metastatic breast cancer
Zhang Q, D’Amico P, Qin W, Jiao J, Davis AA, Gerratana L, Jacob SL, Zhang Y, Donahue J, Qiang W, Shah AN, Behdad A, Fraum L, Gradishar W, Platinias LC, Cristofanilli M. Department of Medicine, Division of Hematology and Oncology, Feinberg School of Medicine, Lurie Cancer Center, Northwestern University, Chicago, IL; Department of Urology, Air Force Medical University, Xi’an, China; Department of Medicine, Division of Oncology, Washington University School of Medicine, St. Louis, St. Louis, MO; Department of Medicine, University of Udine, Udine, Italy; CLP - Chemistry of Life Processes Institute, Northwestern University, Chicago, IL; Department of Pathology, Feinberg School of Medicine, Northwestern University, Chicago, IL.

P2-01-05 Impact of post-treatment ctDNA and residual cancer burden (RCB) on outcomes in patients with triple-negative breast cancer (TNBC) and residual disease
Sharma P, Stecklein SR, Kimler BF, Yoder R, Schwensen K, Staley JM, Khan QJ, O’Dea AP, Nye LE, Elia M, Heldstab J, Home T, Hyter S, Isakova K, Pathak HB, Godwin AK. University of Kansas Medical Center, Westwood, KS; University of Kansas Medical Center, Kansas City, KS; University of Kansas Medical Center, Lee’s Summit, MO.
P2-01-06 Detection of circulating tumor DNA post neoadjuvant chemotherapy using a personalized assay is associated with disease relapse

P2-01-07 Detection of early-stage breast cancer recurrence using a personalized liquid biopsy-based sequencing approach

P2-01-08 Esr1 Y537 mutations are associated with increased baseline circulating tumor cells enumeration for patients with estrogen receptor positive metastatic breast cancer
Zhang Q, Jiao J, D’Amico P, Davis AA, Qin W, Gerratana L, Jacob SL, Zhang Y, Donahue J, Qiang W, Shah AN, Flaum L, Gradishar WR, Platinian LC, Cristofanilli M. Department of Medicine, Division of Hematology and Oncology, Feinberg School of Medicine, Lurie Cancer Center, Northwestern University, Chicago, IL; Department of Urology, Air Force Medical University, Xi’an, China; Department of Medicine, Division of Oncology, Washington University School of Medicine, St. Louis, St. Louis, MO; Department of Medicine, University of Udine, Udine, Italy; CLP - Chemistry of Life Processes Institute, Northwestern University, Chicago, IL.

P2-01-09 Clinical impact of ESR1 mutation ctDNA on survival outcome is dependent on PI3KCA/TP53 ctDNA mutation status

P2-01-10 Detection of ctDNA following surgery predicts relapse in breast cancer patients receiving primary surgery

P2-01-11 Single-cell sequencing of the blood T cell repertoire before and after trastuzumab treatment in early stage HER2+ breast cancer
**P2-01-12 Detection of circulating tumor cells in cerebrospinal fluid for patients with suspected breast cancer leptomeningeal metastases: A prospective study**

Darlix A, Pouderoux S, Thezenas S, Bievelez A, Jacot W, Cayrefourcq L, Menjot-de-Champfleur N, Leaha C, Alix-Panabières C. Department of Medical Oncology, Institut régional du Cancer de Montpellier, Institut de Génomique Fonctionnelle, INSERM, CNRS, University of Montpellier, Montpellier, France; Department of Medical Oncology, Institut régional du Cancer de Montpellier, University of Montpellier, Montpellier, France; Biometrics Unit, Institut régional du Cancer de Montpellier, University of Montpellier, Montpellier, France; Laboratory of Rare Human Circulating Cells, CREEC, MIVEGEC, CNRS, IRD, University Medical Center of Montpellier, University of Montpellier, Montpellier, France; Department of Neuroradiology, University of Montpellier, CHU Montpellier, Montpellier, France; Department of Pathology, Institut régional du Cancer de Montpellier, University of Montpellier, Montpellier, France.

**P2-01-13 Longitudinal circulating tumor DNA (ctDNA) monitoring by digital droplet PCR (ddPCR) in metastatic breast cancer**

Higashiyama N, Williams L, McCue B, Kuriakose A, Tran T, Gonzalez S, Licerio M, Chenault C, Dowst H, Hilsenbeck S, Miles G. Lester and Sue Smith Breast Center, Dan L Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX.

**P2-01-14 The multi switching activity of neutrophils in the circulation of patients with early breast cancer**

Ramessur A, Ambasager B, Malanchi I, Coombes RC. Imperial College London, London, United Kingdom; Francis Crick Institute, London, United Kingdom.

**P2-01-15 Developing highly sensitive high NGS data efficient ctDNA detection assays for breast cancer surveillance**

Fu A, Cui W, Ton MV, Wang K, Gu W, Li T, Parsons HA, Liu MC. NVIGEN Inc., San Jose, CA; UC Davis Medical Center, Davis, CA; Dana-Farber Cancer Institute, Boston, CA; The Mayo Clinic, Rochester, MN; Stanford University, Stanford, CA.

**P2-01-16 Targeted sequencing of plasma-derived vs. urinary cfDNA from patients with triple negative breast cancer**

Herzog H, Aktas B, Nel I. University of Leipzig, Medical Center, Department of Gynaecology, Leipzig, Germany.

**P2-01-17 Circulating tumor cell count and levels of circulating tumor DNA are complementary prognostic biomarkers in metastatic breast cancer - A pilot study**


**P2-01-18 Orthogonal assessment of PIK3CA and ESR1 mutation detection in longitudinal cfDNA samples from endocrine-resistant HR+/HER2- advanced breast cancer patients using dPCR and NGS-based SafeSEQ technology**

**Detection/Diagnosis - Pathology: Circulating Tumor Cells**

**P2-02-01** Stage IV stratification using circulating tumor cells (CTCs) enumeration modeling: A retrospective analysis of the MONARCH 2 study  
Gerratana L, Kocherginsky M, Davis AA, D'Amico P, Reduzzi C, Zhang Q, Puglisi F, Cristofanilli M. CRO Aviano National Cancer Institute, Aviano, Italy; Northwestern University, Chicago, IL; Washington University in St. Louis, St. Louis, MO.

**P2-02-02** Differences in levels of circulating tumor cells (CTC) and disseminated tumor cells (DTC) in early-stage lobular versus ductal breast cancer  

**P2-02-03** Circulating tumor cells (CTCs), CTC heterogeneity and distinct morphological CTC subtypes predict worse survival in metastatic breast cancer (MBC)  
O’Shaughnessy JA, Levin MK, San Roman Rodriguez E, Lu J, Jones JT, Anderson AKL, Tubbs A, Schonhoff JD, Wenstrup R. Baylor University Medical Center, US Oncology, Texas Oncology, Dallas, TX; Baylor Scott & White Research Institute, Dallas, TX; Epic Sciences, San Diego, CA.

**P2-02-04** In early breast cancer, the ratios of neutrophils, monocytes and platelets to lymphocytes significantly correlate with the presence of subsets of circulating tumor cells in blood and disseminated tumor cells in the bone marrow  
Kasimir-Bauer S, Karaaslan E, Hars O, Bittner A-K, Hoffmann O, Kimmig R. University Hospital Essen, Essen, Germany; Olaf Hars Wissenschaft, Berlin, Germany.

**P2-02-05** Dynamic circulating tumor cell changes in enumeration and HER2 expression during systemic therapy for metastatic breast cancer  
Zhang Q, Qin W, D'Amico P, Davis AA, Jiao J, Gerratana L, Jacob SL, Zhang Y, Donahue J, Qiang W, Shah AN, Behdad A, Flaum L, Gradishar W, Platnias LC, Cristofanilli M. Department of Medicine, Division of Hematology and Oncology, Feinberg School of Medicine, Lurie Cancer Center, Northwestern University, Chicago, IL; Department of Urology, Air Force Medical University, Xi’an, China; Department of Medicine, Division of Oncology, Washington University School of Medicine, St. Louis, St. Louis, MO; Department of Medicine, University of Udine, Udine, Italy; CLP - Chemistry of Life Processes Institute, Northwestern University, Chicago, IL; Department of Medicine, Division of Hematology and Oncology, Lurie Cancer Center, Northwestern University, Chicago, IL; Department of Pathology, Feinberg School of Medicine, Northwestern University, Chicago, IL.

**P2-02-06** Her2-low ctc in breast cancer: Pipeline for phenotypic driven, single-cell collection and molecular analysis  

**P2-02-07** Unbiased liquid biopsy in breast cancer patients utilizing novel light sheet microscopy of circulating tumor cells. Proof of concept in 10 patients and 13 controls  
Tannenbaum S, Hsu E, Reddy A, Keilich S, Tafas T. UCONN Health, Farmington, CT; QCDx LLC, Farmington, CT.
Detection/Diagnosis: Detection/Diagnosis - Other

P2-03-01 Changes in breast cancer presentation during Covid-19: Experience in an Urban Academic Center

P2-03-02 Detection of insulin receptor isoforms by mass spectrometry in breast cancer
Zhang X, Higgins L, Markowski T, Yang T-Y, Wragge J, Murray K, Witthuhn B, Barrios A, Yee D. Masonic Cancer Center, University of Minnesota, Minneapolis, MN; Center for Mass Spectrometry and Proteomics, University of Minnesota, Minneapolis, MN; California State University Dominguez Hills, Carson, CA.

P2-03-03 The comparison of genomic alteration characteristics of young women with breast cancer between Chinese and Western population

P2-03-04 Characteristics and clinical differences of breast cancer patients with negative or low HER2 expression
Voutsadakis I, Rosso C. Sault Area Hospital, Sault Ste Marie, ON, Canada; Algoma University, Sault Ste Marie, ON, Canada.

Tumor Cell and Molecular Biology: Cell Cycle Regulation

P2-04-01 Overexpressed cyclin D1 and CDK4 proteins are responsible for the resistance to CDK4/6 inhibitor in breast cancer that can be reversed by PI3K/mTOR inhibitors
Liu Q, Cai Z, Wang J, Li Y, Wong LL. Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China.

Tumor Cell and Molecular Biology: Cellular Mechanisms

P2-05-01 Inactivation of LATS1/2 drives luminal-basal plasticity to initiate basal-like mammary carcinomas

P2-05-02 Low molecular weight cyclin E facilitate replication stress tolerance in breast cancer development
Li M, Low KH, Bui T, Hunt KK, Keyomarsi K. MD Anderson UT Health Graduate School of Biomedical Sciences, Houston, TX; Department of Breast Surgical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX; Department of Experimental Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX.

Tumor Cell and Molecular Biology: DNA Damage and Repair

P2-06-01 Parp inhibition sensitizes brca deficient cancer cell lines and tumors to clinical x-ray and proton irradiation
Ben Kacem M, Bright SJ, Turner BX, Flint DB, Manandhar M, Martinus D, Sawakuchi GO, Shaitelman SF. MD Anderson, Houston, TX.

**P2-06-02** The condensin core subunit, SMC2 (structural maintenance of chromosomes 2), is necessary for the growth and genomic stability of triple negative breast cancer cells
Ventura J, Webb B, Keri R. Cleveland Clinic Lerner Research Institute, Cleveland, OH.

**P2-06-03** Obesity is associated with DNA damage in the breast epithelium of BRCA1 and BRCA2 mutation carriers: A role for estrogens & strategies for prevention
Bhardwaj P, Iyengar NM, Oshchepkova S, Piloco P, Bareja R, Elemento O, Giri DD, Pollak M, Morrow M, Specter JA, Brown KA. Weill Cornell Medicine, New York, NY; Memorial Sloan Kettering Cancer Center, New York, NY; McGill University, Montreal, QC, Canada.

**P2-06-04** Pathognomonic long molecule footprints of backup repair pathways in homologous recombination deficient cancers

**Prognostic and Predictive Factors - Predictive Biomarkers for Combined Modality Therapies**

**P2-07-01** Blood tumor mutational burden (bTMB) and blood copy number burden (bCNB) by genome-wide circulating tumor DNA (ctDNA) assessment predict outcome and resistance in hormone-receptor positive (HR+), HER2 negative (HER2-) metastatic breast cancer (MBC) patients (pts) treated with CDK4/6 inhibitor (CDK4/6i)

**P2-07-02** Genomic predictors of rapid progression to first line endocrine and CDK4/6 inhibitor combination therapy in patients with estrogen receptor positive (ER+) HER-2 negative (HER2-) advanced breast cancer (ABC)
Velimirovic M, Gerratana L, Davis AA, Hensing WL, Clifton K, Shah AN, D’Amico P, Dai CS, Denault EN, Ma CX, Wander SA, Junic D, Cristofanilli M, Chabner BA, Bardia A, Department Of Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA; Department of Medicine, University of Udine, Udine, Italy; Department of Medicine, Division of Hematology and Oncology, Washington University in St. Louis, St. Louis, MO; Department of Medicine, Division of Hematology and Oncology, Feinberg School of Medicine, Northwestern University, Chicago, IL; Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL; Dana Farber Cancer Institute, Boston, MA; Massachusetts General Hospital Cancer Center, Boston, MA; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA.

**P2-07-03** Correlation of immune-related protein expression with hormone receptor (HR) status and pathologic response to neoadjuvant paclitaxel/trastuzumab/pertuzumab (THP) among patients with early-stage HER2+ breast cancer
P2-07-04 Analysis of host inflammatory and estrogen biomarkers in JAKEE: A phase II trial of the JAK inhibitor ruxolitinib in combination with exemestane for estrogen receptor-positive metastatic breast cancer

Makhlin I, McAndrew N, Wileyto EP, Clark A, Holmes R, Bottalico LN, Jeschke GR, Fox KR, Domcheck SM, Matro JM, Bradbury AR, Shih N, Feldman MD, Hexner EO, Bromberg JF, DeMichele A. University of Pennsylvania, Philadelphia, PA; UCLA David Geffen School of Medicine, Los Angeles, CA; Georgetown University, Washington, DC; University of California San Diego Health System, San Diego, CA; Memorial Sloan Kettering Cancer Center, Philadelphia, PA.

P2-07-05 Activation of the AKT/mTOR signaling pathway is associated with response to the combination of endocrine therapy and CDK4/6 inhibitor in HR+/HER2- metastatic breast cancer

Abu-Khalaf M, Hatzis C, Hodge KA, Baldelli E, Sikov W, Mita M, Valdes-Albini F, Dunetz B, Petricoin E, and Pierobon M. Sidney Kimmel Cancer Center at Jefferson Health, Thomas Jefferson University, Philadelphia, PA; Bristol Myers Squibb, Cambridge, MA; George Mason University, Manassas, VA; Women and Infants Hospital of Rhode Island-Brown University, Providence, RI; Cedars Sinai, Los Angeles, CA; University of Miami, Miami, FL; Side Out Foundation, Fairfax, VA.

P2-07-06 Peripheral T-lymphocytes senescence and response to neoadjuvant therapy (NAT) in operable breast cancer (BC)


P2-07-07 Does OncotypeDX have predictive value in HER2+ breast cancer?

Bilani N, Yaghi M, Saravia D, Jabbal I, Bou Zerdan M, Elson L, Liang H, Nahleh Z. Icahn School of Medicine, Mount Sinai Morningside and West, New York, NY; Cleveland Clinic Florida, Weston, FL.

P2-07-08 Identification of UGT2B15 as a potential biomarker in response to neoadjuvant therapy in HER2+ breast cancer

P2-07-09 Characterization of the tumor microenvironment in patients with hormone receptor positive, HER2 negative early breast cancer
Kearney MR, Vanguri R, Wang Q, Fenn K, Guo H, Marks D, Hibshoosh H, Kalinsky KM, Connolly E. NYP-Columbia University Medical Center, New York, NY; Memorial Sloan Kettering Cancer Center, New York, NY; Yale Cancer Center, Trumbull, CT; New York University, New York, NY; Winship Cancer Institute at Emory University, Atlanta, GA.

P2-07-10 Germline BRCA screening for locally advanced breast cancer treated by neoadjuvant chemotherapy: defining a subgroup with high rate of mutation and local relapses

P2-07-11 Application of the genetic signature MammaPrint™ in the Brazilian population - Real-world study (AGEMA-BRA)
Mansani FP, Freitas-Junior R. Universidade Estadual de Ponta Grossa, Ponta Grossa, Brazil; Universidade Federal de Goiás, Goiania, Brazil.

P2-07-12 Triple negative breast cancer subtypes and early dynamics of the 27-gene IO score predict pCR in the NeoTRIPaPDL1 trial
Dugo M, Huang C-S, Egle D, Bermejo B, Zamagni C, Seitz RS, Nielsen TJ, Thill M, Anton A, Russo S, Ciruelos EM, Schweitzer BL, Ross DT, Galbardi B, Grell R, Semiglazov V, Gyorffy B, Colleoni M, Kelly C, Mariani G, Del Mastro L, Valagussa P, Viale G, Callari M, Gianni L, Bianchini G. IRCCS Ospedale San Raffaele, Milan, Italy; Breast Center, National Taiwan University Hospital, Taiwan, Taiwan; Medical University of Innsbruck, Innsbruck, Austria; Hospital Clinico Universitario de Valencia, Valencia, Spain; IRCCS Azienda ospedaliero Universitaria di Bologna, Bologna, Italy; Oncocyte Corporation, Nashville, TN; AGAPLESION Markus Krankenhaus, Frankfurt am Main, Germany; University Hospital Miguel Servet, Zaragoza, Spain; Azienda Sanitaria Universitaria Friuli Centrale, Udine, Italy; Hospital Universitario 12 de Octubre, Madrid, Spain; IIIrd Medical Department, Paracelsus Medical University Salzburg; Salzburg Cancer Research Institute-CCCIIT; and Cancer Cluster Salzburg, Salzburg, Austria; N. N. Petrov Research Institute of Oncology, St. Petersburg, Russian Federation; Semmelweis University, Budapest, Hungary; Istituto Europeo di Oncologia, Milan, Italy; Mater Misericordiae University Hospital, Dublin, Ireland; Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; University of Genova; IRCCS Ospedale Policlinico San Martino, Genova, Italy; Fondazione Michelangelo, Milan, Italy.

P2-07-13 High-dimensional, single-cell analysis and transcriptional profiling reveal novel correlates of response to PARP inhibition plus PD-1 blockade in triple-negative breast cancer
Guerriero JL, Baker GJ, Lin J-R, Chen Y-A, Pastorello R, Vallius T, Davis J, Yapp C, Church SE, Miller E, Färrkila A, Vinayak S, Telli ML, Fulci G, D'Andrea A, Shapiro GI, Tolaney SM, Santagata S, Sorger PK, Mittendorf EA. Division of Breast Surgery, Department of Surgery, Brigham and Women's Hospital, Boston, MA; Laboratory of Systems Pharmacology, Program in Therapeutic Science, Harvard Medical School, Boston, MA; Department of Pathology, Hospital Sírio Libanês, Sao Paulo, Brazil; Breast Tumor Immunology Laboratory, Dana-Farber Cancer Institute, Boston, MA; Nanostring Technologies, Seattle, WA; Research Program in Systems Oncology, University of Helsinki, Helsinki, Finland; University of Washington, Seattle Cancer Care Alliance, Fred Hutchinson Cancer Center, Seattle, WA;
Prognostic and Predictive Factors-Biomarkers Predicting Tx Response: Predictive Biomarkers-Other

P2-08-01 Validation of a 16-gene genomic signature to identify early-stage invasive breast cancer patients who may omit radiotherapy
Fyles A, Chang SL, Rey-McIntyre K, Shi W, Feng F, Speers C, Pierce L, McCready D, Liu F-F. Princess Margaret Cancer Centre and University of Toronto, Toronto, ON, Canada; Exact Sciences, Madison, WI; University of California San Francisco, San Francisco, CA; University of Michigan, Ann Arbor, MI.

P2-08-02 Virtual replication of the NeoSphere trial using SimBioSys TumorScope: Associating standard of care data with clinical outcomes in HER2 positive breast cancer patients to garner novel insights in silico
Pfeiffer JR, Foley T, Braun E, Antony A. SimBioSys, Inc, Champaign, IL; Rush University Medical Center, Chicago, IL.

P2-08-03 PD-L1 protein expression in relation to Recurrence Score values in early stage ER+HER2+ breast cancer
Blennman KRM, Harigopal M, Huang R, Reisenbichler E, Qing T, Ibrahim E, Singh K, Ramkissoon S, Mustimbo R, Ross J, Pusztai L. Yale University, New Haven, CT; Foundation Medicine, Inc., Cambridge, MA; Brown University, Providence, RI; Bristol Myers Squibb, Princeton, NJ.

P2-08-04 Progressive metastatic breast cancer with no detectable circulating tumor DNA: Evaluating limitations of this highly sensitive tool

P2-08-05 Plasma lipidomics analysis to identify potential non-invasive biomarkers for breast white adipose inflammation and aromatase expression levels

P2-08-06 Defining transcriptomic profiles of breast cancer with early lymph node metastases: A FLEX database sub-study
Budhathoki N, Fa’ak F, D’Abreo N, Dhage S, Soe PP, Holmes D, Haan J, Wang S, Dauer P, Menicucci A, Audeh W, Marks DK. June Nylen Cancer Center, Sioux City, IA; Perlmutter Cancer Center at NYU Langone Health, Mineola, NY; Providence Santa Monica, Santa Monica, CA; Agenda, NV; Amsterdam, Netherlands5Agenda, Inc., Irvine, CA.

P2-08-07 Predicting DCIS prognosis using infrared and raman spectroscopy of breast calcifications and soft-tissue microstructure
Nallala J, Calabrese D, Gosling S, Hall A, Pinder S, Bouybayoune I, King L, Marks J, Lips E, Lynch T, Pinto D, Wesseling J, Hwang S, Rogers K, Stone N, on behalf of the Grand Challenge PRECISION consortium. University of Exeter, Exeter, United Kingdom; Cranfield University, Cranfield, United Kingdom; Duke University School of Medicine, Durham, NC; Kings College London, London, United Kingdom; The Netherlands Cancer Institute, Amsterdam, Netherlands; www.DCIS411.com, San Diego, CA.

P2-08-08 Concurrent predictors of an immune responsive tumor microenvironment within tumor mutational burden-high breast cancer

Sammons S, Elliott A, Force J, Chumsri S, Anders C, Tan AR, Magee D, Zeng J, Korn WM, Kahsraw M, Roussos Torres ET. Duke University, Durham, NC; Caris Life Sciences, Houston, TX; Mayo Clinic, Jacksonville, FL; Levine Cancer Institute/ Atrium Health, Charlotte, NC; University of Southern California, Keck School of Medicine, San Diego, CA.

P2-08-09 Investigation of autoantibodies (AAbs) in HER2+ breast cancer (BC) patients treated in the neo-adjuvant setting

Collins DM, Qiu J, Blayney J, McCabe N, Kennedy R, LaBaer J, Crown J. Dublin City University, Dublin, Ireland; Arizona State University, Tempe, AZ; Queen’s University Belfast, Belfast, United Kingdom; Saint Vincent’s University Hospital, Dublin, Ireland.

P2-08-10 First results of the randomized window of opportunity clinical trial D-Biomark: Immunomodulatory effect of denosumab in early breast cancer


P2-08-11 How reliable are biomarkers assessed on a core needle biopsy? A study of paired core needle biopsies and surgical specimens in early breast cancer

Saghir H, Veerla S, Malmberg M, Rydén L, Ehinger A, Saal L, Vallon-Christersson J, Borg Å, Hegardt C, Hedenfalk I, Dieroff-Hay S, Larsson C, Loman N, Kimbung S. Division of Oncology, Dept. of Clinical Sciences, Lund University, Lund, Sweden; Dept. of Hematology, Oncology and Radiation Physics, Lund University Hospital, Lund, Sweden; Bröstcancerförbundet, Stockholm, Sweden; Division of Translational Cancer Research, Dept. of Laboratory Medicine, Lund University, Lund, Sweden.

P2-08-12 Interim analysis of the PREDICT Registry: Changes in treatment recommendation for a biologic signature predictive of radiation therapy (RT) benefit in patients with DCIS

Shivers SC, Whitworth PW, Patel R, Bremer T, Cox CE. PreludeDx, Laguna Hills, CA; Nashville Breast Center, Nashville, TN; Good Samaritan Cancer Center, Los Gatos, CA; University of South Florida, Tampa, FL.
**P2-08-13** The prognostic significance of Ki67 and progesterone receptor; could they really have prognostic importance in early breast cancer with estrogen receptor positive, HER-2 negative?

Choi SB, Park JM, Ahn JH, Go J, Kim J, Park HS, Kim SI, Park B-W, Park S. Yonsei University College of Medicine, Seoul, Republic of Korea.

**P2-08-14** Effect of markers of systemic inflammation on tumor infiltrating lymphocytes in patients with non-metastatic triple negative and HER2+ breast cancer: A single center retrospective study

Chen N, Bulsara S, Hilsenbeck S, Hoyos V. Baylor College of Medicine, Houston, TX.

**P2-08-15** Clinical, pathologic, and molecular associations of tumor mutational burden in metastatic breast cancer

Mohamed MA, Wang C, Buckley M, Lehman J, Canzoniero J, Gocke CD, Nunes R, Park BH, Smith KL, Tao J, Tukachinsky H, Wilkinson M, Wolff AC, Stearns V, Santa-Maria CA. Johns Hopkins University School of Medicine, Baltimore, MD; Vanderbilt University Medical Center, Nashville, TN; Foundation Medicine, Cambridge, MA.

**P2-08-16** The cross-talk between nuclear p-ser294-FOXO3a and cytoplasmic MMP-2 in breast cancer survival and treatment response

Hou M-F, Yang S-F, Huang Y-C, Chen F-M, Yeh Y-T. Kaohsiung Medical University Hospital, Kaohsiung, Taiwan; Fooyin University, Kaohsiung, Taiwan.

**P2-08-17** Withdrawn

**P2-08-18** Evaluation of the activity of key actionable oncogenic driving pathways in triple negative breast cancer using OncoSignal™; a novel molecular assay based on transcriptional profile analysis


**P2-08-19** Prognostic significance of Hounsfield unit of tumor in patients with breast cancer

Kim K, Cho I-J, Noh H, Choi H, Hahn S, Lim ST, Lee J-I, Han A. Department of Surgery, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea; Department of Radiology, Inje University College of Medicine, Haeundae Paik Hospital, Busan, Republic of Korea; Department of Oncology, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea.

**P2-08-20** Risk of everolimus- and alpelisib-induced hyperglycemia in obese and non-obese breast cancer patients with or without pre-existing hyperglycemia

Xu B, Messiner T, Williams C. Avera Cancer Institute, Sioux Falls, SD.

**P2-08-21** Overall survival associated with BRCA or ATM mutation status in patients with metastatic triple-negative breast cancer: findings from the PRIOR-2 study

P2-08-22 Correlation of ER (ESR1), PR (PGR), and HER2 (ERBB2) at protein and mRNA levels in operable breast cancer

Lei L, Wang X, Cheng SH-C. Chinese Academy of Sciences University Cancer Hospital (Zhejiang Cancer Hospital), Hangzhou, China; Koo Foundation Sun Yat-Sen Cancer Center, Taipei, Taiwan.

P2-08-23 Early intratumoral changes after a single dose of anti-PD-1 treatment in patients with early breast cancer (BC)


Epidemiology, Risk, and Prevention: Familial Breast Cancer - Genetic Testing

P2-09-01 Population-based risk estimates of clinical subtypes of breast cancer among carriers of germline pathogenic variants in cancer predisposition genes

Yadav S, Hu C, Boddicker NJ, Polley E, Hart S, Gnanaolivu R, Na J, Huang H, Yao S, Vachon CM, Teras L, Taylor JA, Sandler DP, Palmer JR, Olson JE, Neuhausen S, Martinez E, Lindstroem S, Le Marchand L, Kooperberg C, Haiman C, Gaudet MM, Lacey JV, Bertrand KA, Bernstein L, Auer PW, Ambrosone C, Weitzel JN, Kraft P, Goldgar DE, Nathanson KL, Domchek SM, Couch FJ. CARRIERS Consortium. Mayo Clinic, Rochester, MN; Harvard University T.H. Chan School of Public Health, Boston, MA; Roswell Park Comprehensive Cancer Center, Buffalo, NY; American Cancer Society, Atlanta, GA; NIEHS, Durham, NC; Slone Epidemiology Center at Boston University, Boston, MA; Beckman Research Institute of City of Hope, Duarte, CA; University of California San Diego, San Diego, CA; University of Washington, Seattle, WA; University of Hawaii Cancer Center, Honolulu, HI; Fred Hutchinson Cancer Research Center, Seattle, WA; Keck School of Medicine, University of Southern California, Los Angeles, CA; UWM Joseph J. Zilber School of Public Health, Milwaukee, WI; University of Utah, Salt Lake City, UT; Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA.

P2-09-02 Withdrawn

P2-09-03 Pathogenic variants among female breast cancer patients with a subsequent cancer demonstrate preventable cancer burden

Bychkovsky BL, Lo M-T, Yussuf A, Horton C, Hemyari P, LaDuca H, Garber JE, Rana HQ. Dana-Farber Cancer Institute, Boston, MA; Ambry Genetics, Aliso Viejo, CA.

P2-09-04 Timing and acceptance of bilateral prophylactic salpingo-oophorectomy among BRCA1 and BRCA2 mutation carriers enrolled in an integrated community-based health care system

Kwan KW, Morton SW, Chung J. Kaiser Permanente Southern California, Department of Hematology/Oncology, Los Angeles, CA; Kaiser Permanente Southern California, Department of Genetics, Los Angeles, CA; Department of Research and Evaluation, Kaiser Permanente Southern California, Pasadena, CA.
**P2-09-05** Germline BRCA1/2 mutation testing in human epidermal growth factor receptor 2 (HER2)-negative advanced breast cancer (ABC): A real-world study in the Syapse Learning Health Network (LHN)

Niyazov A, Izano M, Johanson C, Walters S, Berry A, Arondekar B, Laird AD, Shahied Arruda L, Kaplan H. Pfizer Inc, New York, NY; Syapse, San Francisco, CA; Pfizer Inc, Collegeville, PA; Pfizer Inc, La Jolla, CA; Swedish Cancer Institute, Seattle, WA.

**P2-09-06** Increased rates of genetic variants of unknown significance in Latino and African American populations of south Texas


**P2-09-07** Withdrawn

**P2-09-08** Impact of race on clinical outcomes among patients with advanced triple negative breast cancer (TNBC) and Germline BRCA1/2 mutation(s) (gBRCA1/2mut): Results from a US real-world study


**P2-09-09** Genetic assessment of hereditary breast and ovarian cancer in the Smith Clinic: A 10-year, single center experience


**P2-09-10** Different CNVs account for 10.4% of pathogenic variants in 1418 patients referred for hereditary breast cancer testing

Tsoulos N, Agiannitopoulos K, Pepe G, Papadopoulos E, Tsousis GN, Apostolopoulos D, Meintani A, Venizelos V, Markopoulos C, Iosifidou R, Karageorgopoulou S, Christodoulou C, Natsiopoulos I, Papazisis K, Vasiliaki-Antonatou M, Kabletosa E, Psysri A, Giassas S, Ziogas D, Lalla E, Koumarianou A, Papadimitriou C, Ozmen V, Tansan S, Kaban K, Oztal G, Tudor Eniu D, Chiorean A, Bidadar A, Nasioulas G. Genekor Medical S.A, Athens, Greece; Metropolitan Hospital, Athens, Greece; Athens Medical Center, Athens, Greece; Theagenio Anticancer Hospital, Thessaloniki, Greece; IASO, General Maternity and Gynecology Clinic, Athens, Greece; Interbalkan Medical Center of Thessaloniki, Thessaloniki, Greece; Euromedica General Clinic, Thessaloniki, Greece; Metropolitan General Hospital, Athens, Greece; University Hospital of Ioannina, Ioannina, Greece; Attikon University Hospital, Athens, Greece; General Hospital of Athens “LAIKO”, Athens, Greece; Athens Regional General Hospital, Athens, Greece; Faculty of Medicine, Istanbul University, Istanbul, Turkey; Tansan Oncology, Istanbul, Turkey; American Hospital, Istanbul, Turkey; Istinye University Hospital, Istanbul, Turkey; Institutul Oncologic Prof. Dr. I. Chiricuta, Cluj, Romania; Medimages, Cluj, Romania; Institutul Oncologic Bucuresti, Bucuresti, Romania.

**P2-09-11** Uptake of risk-reducing strategies and related challenges among carriers of breast cancer-associated germline pathogenic variants in Mexico

Mesa-Chavez F, Chavarri-Guerra Y, Aguilar y Mendez D, Becerril-Gaitan A, Vaca-Cartagena BF, Santiesteban SG, Aranda-Gutierrez A, Obregon-Leal D, Miaja-Avila M, Ochoa Chavez MF,
P2-09-12 Optimizing genetic testing in hispanic women with breast cancer

P2-09-13 Is there a male breast cancer cluster region in the BRCA2 gene?

P2-09-14 Characteristics of TNBC patients carrying other than BRCA gene mutations

P2-09-15 Frequency of germline mutations in breast cancer susceptibility genes among women under age 50 presenting with parity associated breast cancer
Wrubel E, Dennis SR, Tsukioki T, Sciaraffa T, Luo Y, Khan SA. Northwestern University Feinberg School of Medicine, Division of Breast Surgery, Chicago, IL; Northwestern University Feinberg School of Medicine, Division of Preventive Medicine, Chicago, IL; Northwestern Memorial Hospital, Department of Obstetrics and Gynecology, Division of Clinical Genetics, Chicago, IL; Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL.

P2-09-16 Clinicopathological features and outcome of breast cancer in CHEK2 germline mutation carriers
Schlosser S, Bernstein Molho R, Karinsky N, Barsuk D, Goldberg Y, Friedman E, Yerushalmi R, Dremea K, Kedar I, Jiveliouk I, Ben David MA. Oncology Institute, Assuta Medical Center, Tel Aviv, Israel; Breast Cancer Unit, Oncology Institute, Sheba Medical Center, Ramat Gan, Israel; Oncology Institute, Wolfson Medical Center, Holon, Israel; Breast Surgery Unit, Assuta Medical Center, Tel Aviv, Israel; Genetics Institute, Rabin Medical Center, Petach Tikva, Israel; Oncogenetic Unit, Sheba Medical Center, Ramat Gan, Israel; Davidoff Cancer Center, Rabin Medical Center, Petach Tikva, Israel; Oncology Institute, Assuta Medical Center, Haifa, Israel.

P2-09-17 Family communication and attitude of patients with breast cancer toward positive pathogenic BRCA1 or BRCA2 mutations. A regional perspective

P2-09-18 Use of navigators to identify breast cancer patients for genetic counseling and testing: A quality improvement project
Cohen SA, Nixon D, Ascension St. Vincent, Indianapolis, IN.
**P2-09-19** Inequitable access to genetic testing leads to missed screening and prevention opportunities for individuals at risk for hereditary breast and ovarian cancer


**Epidemiology, Risk, and Prevention: Risk Factors and Modeling**

**P2-10-01** Estimating risk of breast cancer-specific mortality (BCSM) and non-BCSM in patients with triple-negative breast cancer


**P2-10-02** Random periareolar fine-needle aspiration (RPFNA) cell number, prior precancerous breast disease and subsequent uptake of a prevention intervention predict short-term breast cancer risk

Hensing WL, Fabian CJ, Zalles CM, Sharma P, Kreutzjans AL, Powers KR, Chollet-Hilton L, Kimler BF. Department of Medicine, Washington University School of Medicine, Saint Louis, MO; Department of Internal Medicine, University of Kansas Medical Center, Kansas City, KS; Department of Pathology, Boca Raton Hospital, Boca Raton, FL; Department of Biostatistics and Data Science, University of Kansas Medical Center, Kansas City, KS; Department of Radiation Oncology, University of Kansas Medical Center, Kansas City, KS.

**P2-10-03** Improving breast cancer risk prediction using a convolutional neural network-based mammographic evaluation in combination with clinical risk factors

Michel A, Ro V, McGuinness JE, Mutasa S, Ha R, Crew KD. NYP/Columbia University Irving Medical Center, New York, NY; University of California, Irvine, CA.

**P2-10-04** Breast cancer risk assessment tool (BCRAT) predicted breast cancer incidence and breast cancer mortality in the women’s health initiative

Nelson R, Pan K, Chlebowski R, Rohan TE, Mortimer J, Wactawski-Wende J, Lane D; Kruper L. City of Hope National Medical Center, Duarte, CA; The Lundquist Institute at Harbor UCLA Medical Center, Torrance, CA; Albert Einstein College of Medicine, Bronx, NY; University of Buffalo, Buffalo, NY; Stony Brook University, Stony Brook, NY.

**P2-10-05** The estimated impact of COVID-19 on population breast cancer screening outcomes, and options for risk-based recovery


**P2-10-06** Validation of abridged breast cancer risk assessment model for the general population

Spaeth E, Dite G, Allman R. Phenogen Sciences, Charlotte, NC; Genetic Technologies Inc, Fitzroy, Australia.
P2-10-07 Prediction of menstruation recovery timing in premenopausal breast cancer patients taking tamoxifen after chemotherapy: An ASTRRA substudy

Lee YJ, Noh WC, Nam SJ, Park B-W, Lee ES, Im SA, Jung YS, Yoon JH, Kang SS, Park KH, Lee S-J, Lee MH, Jeong J, Kim SY, Kim H-A, Han S-H, Han W, Hur MH, Kim S, Ahn S-h, Kim HJ, Seoul St. Mary’s Hospital, Seoul, Republic of Korea; Korea Cancer Center Hospital, Seoul, Republic of Korea; Samsung Medical Center, Seoul, Republic of Korea; Yonsei University College of Medicine, Seoul, Republic of Korea; National Cancer Center, Goyang, Republic of Korea; Seoul National University Hospital, Seoul, Republic of Korea; Ajou University School of Medicine, Suwon, Republic of Korea; Chonnam National University Hwasun Hospital, Gwangju, Republic of Korea; Cha ILSan Medical Center, Goyang, Republic of Korea; Korea University Anam Hospital, Seoul, Republic of Korea; Yeungnam University Hospital, Daegu, Republic of Korea; SoonChunHyang University College of Medicine, Seoul, Republic of Korea; Gangnam Severance Hospital, Seoul, Republic of Korea; SoonChunHyang University College of Medicine, Cheonan Hospital, Cheonan, Republic of Korea; Asan Medical Center, Seoul, Republic of Korea.

P2-10-08 Assessment of risk factors for HER2+ breast cancer recurrence: A literature review

O’Shaughnessy J, Gradishar W, O’Regan R, Gadi V. Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX; Northwestern University, Chicago, IL; University of Rochester, Rochester, NY; Department of Medicine, University of Illinois at Chicago, Translational Oncology, University of Illinois at Chicago Cancer Center, Chicago, IL.

P2-10-09 Oxysterol profiling in breast adipose tissue identifies brassicasterol and 24-hydroxycholesterol as breast cancer risk predictors

Chen I-C, Kuo W-H, Hu F-C, Wang M-Y, Lu Y-S, Lütjohann D, Lin C-H. Department of Medical Oncology, National Taiwan University Cancer Center, Taipei, Taiwan; National Taiwan University Hospital, Taipei, Taiwan; International-Harvard Statistical Consulting Company, Taipei, Taiwan; Department of Surgery, National Taiwan University Cancer Center, Taipei, Taiwan; Department of Oncology, National Taiwan University University, Taipei, Taiwan; 3 Institut fu¨r Klinische Chemie und Klinische Pharmakologie, Universitaetsklinikum Bonn, Bonn, Germany.

P2-10-10 The associations between brain metastasis and tumor size, nodal status, and patterns of extracranial metastasis vary by subtypes in breast cancer patients: a population-based study

Shen B, Li J, Yang M, Zhang J, Li W, Wang K. Guangdong Provincial People’s Hospital and Guangdong Academy of Medical Sciences, Guangzhou, China; The First Affiliated Hospital/School of Clinical Medicine of Guangdong Pharmaceutical University, Guangzhou, China.

Epidemiology, Risk, and Prevention: Epidemiology, Risk, and Prevention - Other

P2-11-01 Breast cancer (BC) risk among patients with benign breast disease (BBD) by NSAID use

Vierkant RA, Masters M, Teras LR, Sherman ME. Mayo Clinic, Rochester, MN; American Cancer Society, Kennesaw, GA; Mayo Clinic, Jacksonville, FL.
P2-11-02 Subsequent breast cancer among women with HER2+ disease in a large integrated healthcare system
Haque R, Chen LH, Kwan K, Oestreicher N, Chlebowski RT, Lalla D. Kaiser Permanente Southern California, Pasadena, CA; PUMA Biotechnology, Los Angeles, CA.

P2-11-03 Menstrual phase classification of benign breast tissue using hormone-regulated gene expression and morphology
Hosseini O, Helenowski I, Lee O, Zhang H, Wang J, Blanco L, Khan SA. Northwestern University Feinberg School of Medicine, Chicago, IL.

P2-11-04 Participation in a breast cancer prevention clinic before and after implementation of the Affordable Care Act
Tinglin J, Crouse A, Krontiras H. University of Alabama School of Medicine, Birmingham, AL.

P2-11-05 Generating real-world external comparators for randomized clinical trials (RCTs) in metastatic breast cancer (mBC) using electronic health records (EHRs)

P2-11-06 Differential gene expression patterns in healthy breast tissue exhibiting epigenetic age acceleration
Sehl ME, Guo W, Farrell C, Marino N, Henry JE, Storniolo AM, Papp J, Li JJ, Pellegrini M, Horvath S, Ganz PA. UCLA David Geffen School of Medicine, Los Angeles, CA.

P2-11-07 Mammographic density is associated with increased risk of contralateral breast cancers but not of ipsilateral breast tumor recurrences

P2-11-08 Impact of COVID-19 on patients undergoing neoadjuvant therapy: A pre/post pandemic analysis and assessment of quality of care delivered

P2-11-09 Comparing the effects of various beta blockers on cardiovascular-related mortality in breast cancer patients
Chikermane SG, Gopinathan S, Abdulkareem NM, Johnson ML, Trivedi MV. University of Houston, Houston, TX.

P2-11-10 Heterogeneity of preneoplastic breast tissues drives efficacy of therapeutic agents
Bhardwaj A, Rojo R, Ju Z, Wang J, Bedrosian I. UT MD Anderson Cancer Center, Houston, TX; University of the Philippines Manila, Manila, Philippine.

P2-11-11 Impact of baseline body mass index (BMI) and weight changes after diagnosis in young women with early breast cancer (BC): A multicenter retrospective study
Brussels, Belgium; Leuven Cancer Institute, University Hospitals Leuven, Leuven, Belgium; Centre for Biostatistics and Statistical Bioinformatics, KU Leuven, University of Leuven, Leuven, Belgium; Université Libre de Bruxelles (U.L.B), Brussels, Belgium; IRCCS Policlinico San Martino, Genoa, Italy.

**P2-11-12** Benign breast disease and breast malignancy

Ter-Minassian M, Somasundaram B, Visvanathan K. Kaiser Permanente Mid-Atlantic States, Rockville, MD; Johns Hopkins Bloomberg School of Public Health and School of Medicine, Baltimore, MD.

**P2-11-13** Distinctive clinicopathological features of premenopausal women with intermediate 21-gene recurrence score

Park JM, Ahn JH, Choi SB, Ko J, Kim JY, Park HS, Kim SI, Park B-W, Park S. Yonsei University College of Medicine, Seoul, Republic of Korea.

**P2-11-14** Pathology AI features and immune biomarkers of postpartum involution: Implications for postpartum breast cancer

Ogony JW, De Bel T, Radisky D, VanderLaak J, Sherman M. Mayo Clinic, Jacksonville, FL; Radboud University, Nijmegen, Netherlands.

**P2-11-15** Clinical trial enrollment for initial therapy of breast cancer: Exploring factors associated with poor accrual and significant disparities


**P2-11-16** Rate of breast biopsy referrals in BRCA mutation carriers: A retrospective comparative study and matched analysis

Pomerantz A, Tsoref D, Grubstein A, Wadhawker S, Rapson Y, Gadiel I, Goldvaser H, Hammerman A, Shochat T, Sharon E, Yerushalmi R. Institute of Oncology, Davidoff Cancer Center, Beilinson Hospital, Petah Tikva, Israel; Radiology Department, Rabin Medical Center, Beilinson Hospital, Petah Tikva, Israel; Surgery Department, Breast Cancer Unit, Rabin Medical Center, Beilinson Hospital, Petah Tikva, Israel; Chief Physician’s Office, Clalit Health Services Headquarters, Tel Aviv, Israel; Statistical Consulting Unit, Rabin Medical Center, Beilinson Hospital, Petah Tikva, Israel.

**P2-11-17** Feasibility of microbiome analysis from random periareolar fine needle aspiration in premenopausal women at increased risk for breast cancer

Nye LE, Klemp JR, Powers KR, O’Dea AP, Kreutzjans AL, Metheny T, Phillips TA, Carlson SE, Kimler BF, Fabian CJ. University of Kansas Medical Center, Westwood, KS; University of Kansas Medical Center, Kansas City, KS.

**P2-11-18** Weekly evaluation of α estrogen and progesterone receptors in women´s breast epithelium after oral combined hormonal contraceptive use for one month

Araujo Neto JT, Nazário ACP, Taniguchi CK, Berrettini Jr, A, Fenile R. Federal University of Sao Paulo, Sao Paulo, Brazil.

**P2-11-19** Estimating the long-term risk of recurrence in patients receiving HER2-targeted agents in HER2+ early-stage breast cancer (ESBC)

Veenstra DL, Hendrix N, Dolan CM, Fisher KA, Lalla D, Oestreicher N, Brufsky A. University
of Washington, Seattle, WA; T.H. Chan School of Public Health, Harvard University, Boston, MA; CMD Consulting, Sandy, UT; Puma Biotechnology Inc., Los Angeles, CA; Puma Biotechnology Inc., University of California San Francisco, San Francisco, CA; Magee-Womens Hospital of UPMC, Pittsburgh, PA.

**P2-11-20** A risk tool for digital breast tomosynthesis to predict breast cancer and guide clinical follow-up

Eriksson M, Destounis S, Schilling K. Karolinska Institutet, Stockholm, Sweden; Elisabet Wende Breast Care, Rochester, NY; Boca Raton Regional Hospital, Boca Raton, FL.

**P2-11-21** Integration of an ancestrally unbiased polygenic risk score with the Tyrer-Cuzick breast cancer risk model

Hughes E, Bernhisel R, Pederson H, Probst B, Simmons T, Wagner S, Judkins T, Rosenthal E, Roa B, Domchek SM, Eng C, Garber J, Gary M, Gordon OK, Klemp J, Mukherjee S, Offit K, Olopade F, Vijai J, Weitzel J, Whitworth P, Yehia L, Kurian A, Robson M, Slavin TP, Gutin A, Lanchbury JS. Myriad Genetics, Inc., Salt Lake City, UT; Cleveland Clinic, Cleveland, OH; University of Pennsylvania School of Medicine, Philadelphia, PA; Dana-Farber Cancer Institute, Boston, MA; Grand View Health, Sellersville, PA; Providence Health, Burbank, CA; University of Kansas Cancer Center, Westwood, KS; Memorial Sloan Kettering Cancer Center, New York, NY; University of Chicago, Chicago, IL; Latin American School of Oncology, Sierra Madre, CA; Nashville Breast Center, Nashville, TN; Stanford University School of Medicine, Stanford, CA.

**Treatment - Therapeutic Strategies: Neoadjuvant Chemotherapy**

**P2-12-01** Randomized trial of neoadjuvant chemotherapy with or without concurrent aromatase inhibitor therapy to downstage ER+ve breast cancer: Breast Cancer Trials group ANZ 1401 ELIMINATE trial

Murray N, Francis PA, Zdenkowski N, Wilcken N, Boyle F, Gebski V, Tiley S, Dawson S-J, Loi S, Redfern A, Lombard J, Spillane A, Shadbolt C, Gilham L, Badger H. Royal Adelaide Hospital, Adelaide, Australia; Peter MacCallum Cancer Centre, Melbourne, Australia; Breast Cancer Trials Australia & New Zealand, Newcastle, Australia; Westmead Hospital, University of Sydney, Sydney, Australia; The Mater Hospital, Sydney, Australia; National Health and Medical Research Council (NHMRC) Clinical Trials Centre, Sydney, Australia; Gosford Hospital, Gosford, Australia; Fiona Stanley Hospital, Perth, Australia; Calvary Mater Newcastle, Newcastle, Australia.

**P2-12-02** Efficacy, safety and survival of neoadjuvant chemotherapy with different estrogen deprivation stratified by menstrual status versus chemotherapy alone in locally advanced breast cancer (SHPD002) — A randomized multicentre, open-label, phase 3 Triab

Zhou L, Xu S, Xue X, Zhang Y, Gu B, Lin B, Bai J, Zhang H, Wu K, Lin Y, Ye Y, Du Y, Sheng X, Xu Y, Zhang J, Yin W, Lu J. Department of Breast Surgery, Renji Hospital, School of Medicine, Shanghai Jiaotong University, Shanghai, China; Department of Mammary, YueYang Hospital of Integrated Traditional Chinese and Western Medicine, Shanghai University of Traditional Chinese Medicine, Shanghai, China; Department of Breast Surgery, Central Hospital of Handan, Breast Center, The Fourth Hospital of Hebei Medical University, Hebei, China; Department of Thyroid and Breast Surgery, Kunshan Second People’s Hospital, Jiangsu, China; Department of Thyroid and Breast Gland Surgery, Shenzhen Longgang Central Hospital, Guangdong, China; Department of Thyroid and Breast Surgery, The Affiliated
Hospital of Inner Mongolia Medical College, Hohhot, China; Department of General Surgery, Zhongshan Hospital, Fudan University, Shanghai, China; Department of Breast Surgery, Obstetrics and Gynecology Hospital of Fudan University, Shanghai, China.

**P2-12-03** Phenotype shifting in early breast cancer with and without primary systemic treatment: A retrospective cohort analysis correlating core needle biopsies and excisional biopsies in 1250 consecutive real-world cases

Argyriadis A, Bange M, Mehta K, Loibl S, Khodaverdi S, Braun S, Denkert C, Jackisch C. Breast Cancer Center, Sana Clinic, Offenbach am Main, Germany; Pathology Institute, Sana Clinic, Offenbach am Main, Germany; German Breast Group, Neu-Isenburg, Germany; Department of Pathology, Philipps University, Marburg, Germany.

**P2-12-04** Characterization of gut microbiome composition in triple negative breast cancer patients treated with neoadjuvant chemotherapy

Vernaci GM, Massa D, Patuzzi I, Menichetti A, Giarratano T, Griguolo G, Miglietta F, Fassan M, Savarino E, Conte P, Guarneri V,Dieci MV. Medical Oncology 2 Unit, Istituto Oncologico Veneto; Department of Surgery, Oncology and Gastroenterology University of Padova, Padova, Italy; Research & development Division, EuBiome S.r.l., Padova, Italy; Medical Oncology 2 Unit, Istituto Oncologico Veneto, Padova, Italy; Department of Medicine (DIMED), Surgical Pathology & Cytopathology Unit, University of Padova, Padova, Italy; Department of Surgery, Oncology and Gastroenterology University of Padova, Padova, Italy.

**P2-12-05** Efficacy of neoadjuvant systemic carboplatin therapy in triple-negative breast cancer

Thomssen C, Schüler K, Bauer M, Reinhardt K, Strauß H-G, Vetter M. Dept. of Gynecology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; Institute of Pathology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; Dept. of Gynecology, Martin-Luther-University Halle-Wittenberg, Halle (Saale), Germany.

**P2-12-06** Pathological response-guided postoperative treatment strategy for positive HR/negative HER2 and positive lymphnodes breast cancer patients with non-responsive pathological results to neoadjuvant chemotherapy


**P2-12-07** Fdg PET/CT early response prediction for triple negative breast cancer neoadjuvant chemotherapy with addition of carboplatin


**P2-12-08** Impact of summation dose intensity product on pathologic response in patients receiving neoadjuvant chemotherapy for early breast cancer

Deutsch TM, Kobel M, Feisst M, Riedel F, Smetanay K, Fremd C, Michel L, Golatta M, Heil J, Wallwiener M, Schneeweiss A. Department of Gynecology and Obstetrics, Heidelberg University Hospital, Heidelberg, Germany; Institute of Medical Biometry, University of Heidelberg, Heidelberg, Germany; National Center for Tumor Diseases (NCT), Heidelberg University Hospital, Heidelberg, Germany.
P2-12-09 Correlation between pathologic complete response (pCR), event-free survival (EFS)/ disease-free survival (DFS) and overall survival (OS) in neoadjuvant and/or adjuvant (NAdj/Adj) hormone receptor positive (HR+) and human epidermal growth factor receptor-2 negative (HER2-) breast cancer (BC)


P2-12-10 Improving pathological complete response in luminal breast cancer after neoadjuvant chemotherapy


P2-12-11 Multi-omics fusion for prediction of response to neoadjuvant therapy in breast cancer with external validation

Li B, Zhu T, Liu Z, Wang K, Tian J. CAS Key Laboratory of Molecular Imaging, Institute of Automation, Chinese Academy of Sciences, Beijing, China; Guangdong Provincial People’s Hospital & Guangdong Academy of Medical Sciences, Guangdong, China.

P2-12-12 The effect of Neoadjuvant Chemotherapy in reducing the need for axillary lymph node dissection in HR+/HER2- node positive breast cancers

Jabbal IS, Saravia D, Yaghi M, Bilani N, Elson L, Liang H, Nahleh Z. Cleveland Clinic Florida, Weston, FL.

P2-12-13 Pathologic complete response rate according to the carboplatin dose in patients with non-metastatic HER2+ breast cancer treated with neoadjuvant docetaxel/carboplatin/trastuzumab/pertuzumab (TCHP)

Ji JH, Bae SJ, Kim S-G, Kim MH, Kim G-M, Sohn J, Kim JH, Ahn SG, Jeong J. Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea.

P2-12-14 Effect of moderate physical exercise on the immune system modulation in breast cancer patients during preoperative chemotherapy: The NEO-RUNNER study

Garrone O, Paccagnella M, Ruatta F, Abbona A, Falletta A, Vanella P, Denaro N, Merlano MC. AO S. Croce e Carle, Cuneo, Italy; Candiolo Cancer Institute, FPO-IRCCS, Candiolo, Italy.

P2-12-15 Neoadjuvant liposomal doxorubicin and carboplatin is effective and tolerable for the treatment of early stage triple negative breast cancer

**P2-12-16** Use of ovarian function suppression to preserve fertility during neoadjuvant chemotherapy oncologically safe in women under age 40: An inverse probability weighting adjusted analysis

Lee YJ, Kim S, Kim HJ. Seoul St. Mary’s Hostital, Seoul, Republic of Korea; Asan Medical Center, Seoul, Republic of Korea.

**P2-12-17** Comparative outcomes of Neoadjuvant versus Adjuvant chemotherapy in HR+/HER2- node positive breast cancer

Jabbal IS, Saravia D, Yaghi M, Bilani N, Elson L, Liang H, Nahleh Z. Cleveland Clinic Florida, Weston, FL.

**P2-12-18** A phase 2 study of neoadjuvant systemic therapy with eribulin followed by doxorubicin and cyclophosphamide for HER2-negative inflammatory breast cancer

Lynce F, Yeh ED, Regan MM, Qin L, Bay CP, Krop I, Harrison BT, Nakhllis F, Bellon J, Overmoyer B. Dana-Farber Cancer Institute, Boston, MA; Brigham and Women’s Hospital, Boston, MA.

**P2-12-19** Platinum is essential in neoadjuvant treatment of triple negative breast cancer: A network meta-analysis

Li J, Chen L, Tan W, Qi F, Zhang Y, Wang Z, Shao Z. Shanghai Cancer Center, Shanghai, China; Nottingham Clinical Trials Unit, Nottingham, United Kingdom; Systematic Review Solutions Ltd, Shanghai, China.

**P2-12-22** Neoadjuvant weekly carboplatin and paclitaxel followed by dose dense adriamycin/cyclophosphamide in locally advanced triple negative breast cancer: A single-center real-world experience

Chen N, Bulsara S, Hilsenbeck S, Nangia J. Baylor College of Medicine, Houston, TX.

**P2-12-23** Changes in 18F-FDG-PET uptake after the first course of DTX reflect response to preoperative chemotherapy and prognosis in breast cancer

Hirakata T, Yanagita Y, Fujisawa T, Kinoshita T, Horikoshi H, Oya N, Akiyoshi T, Iijima M, Miyamoto T, Yanai K, Matsumoto H, Inoue K, Horii R, Fujii T, Shirabe K. Saitama Cancer Center, Saitama, Japan; Gunma Prefectural Cancer Center, Gunma, Japan; Tsurugaya Hospital, Gunma, Japan; Gunma University, Gunma, Japan.

**P2-12-24** Exosomal metabolic signatures are associated with differential response to neoadjuvant chemotherapy in patients with breast cancer

Joshi S, Garalapati C, Bhattarai S, Chandrashekar DS, Varambally S, Deep G, Aneja R. Georgia State University, Atlanta, GA; University of Alabama at Birmingham, Alabama, GA; Wake Forest School of Medicine, Winston-Salem, NC.

**Treatment - Therapeutic Strategies: HER2-Targeted Therapy**

**P2-13-01** Withdrawn

**P2-13-02** Pathologic nodal staging and systemic therapy among patients with cT1-2N0 HER2+ breast cancer: A prospective single institution cohort analysis

Weiss A, Waks AG, Laws A, Tolaney SM, Winer EP, Mittendorf EA, Partridge AH, King TA. Brigham and Women’s Hospital, Boston, MA; Dana-Farber Cancer Institute, Boston, MA.
P2-13-03 KEYRICHED-1 - A prospective, multicenter, open label, neoadjuvant phase II single arm study with pembrolizumab in combination with dual anti-HER2 blockade with trastuzumab and pertuzumab in early breast cancer patients with molecular HER2-enriched intrinsic subtype

Kuemmel S, Gluz O, Reinsch M, Kostara A, Scheffen I, Graeser M, Luedtke-Heckenkamp K, Hartkopf A, Hilpert F, Kentsch A, Ziske C, Depenbusch R, Braun M, Blohmer J, zu Eulenburg C, Christgen M, Bartels S, Kreipe H, Pelz E, Schmid P, Harbeck N, Breast Unit, Clinics Essen-Mitte, Essen, Germany; West German Study Group, Moenchengladbach, Germany; GynOnco Duesseldorf, Duesseldorf, Germany; Niels-Stensensen-Kliniken Franziskus-Hospital, Georgsmarienhuette, Germany; University Clinics Tuebingen, Department for Senology, Tuebingen, Germany; Breast Center Hamburg at Hospital Jerusalem, Hamburg, Germany; Diakovere Henriettenstift, Dept. for Gynecology, Hanover, Germany; Praxis Dr. H. Forstbauer, C. Ziske, R. Reihs, E. Rodermann, A. Diel, Troisdorf, Germany; Onkodok GmbH, Guetersloh, Germany; Rotkreuz-Clinics Munich, Munich, Germany; Charité - University Medicine Berlin, Dept. of Gynecology with Breast Center, Berlin, Germany; Hanover Medical School, Institute of Pathology, Hanover, Germany; Institute for Pathology, Viersen, Germany; Queen Mary University of London, London, United Kingdom; Breast Center, Dept. OB&GYN and CCC Munich, LMU University Hospital, Munich, Germany.

P2-13-04 Final survival analysis of a phase 3 study comparing SB3 (trastuzumab biosimilar) and reference trastuzumab in HER2-positive early or locally advanced breast cancer

Pivot X, Pegram MD, Cortes J, Lüftner D, Lyman GH, Curigliano G, Bondarenko IM, Dvorkin M, Ahn JH, Im S-A, Litwiniuk M, Shparyk YV, Ho GF, Kislov NV, Wojtkiewicz M, Sarosiek T, Chae YS, Ahn JS, Jang H, Kim S, Lee J, Lee JY, Yoon YC. Institut de Cancérologie Strasbourg Europe, Strasbourg, France; Stanford Women’s Cancer Center, Stanford, CA; Vall d’Hebron Institute of Oncology, Barcelona, Spain; Charité Campus Benjamin Franklin, Berlin, Germany; Fred Hutchinson Cancer Research Center, Seattle, WA; University of Milan, European Institute of Oncology, Milan, Italy; Dnipropetrovsk City Mutly-Field Clinical Hospital #4, Dnipropetrovsk, Ukraine; Omsk Regional Budgetary Healthcare Institution “Clinical Oncology Dispensary”, Omsk, Russian Federation; Asan Medical Center, Seoul Republic of Korea; Seoul National University Hospital, Seoul, Republic of Korea; Wielkopolskie Centrum Onkologii, Poznan, Poland; Lviv State Oncological Regional Therapeutical and Diagnostic Center, Lviv, Ukraine; University Malaya Medical Centre, Kuala Lumpur, Malaysia; State Budgetary Healthcare Institution of Saratov Region “Regional Clinical Oncology Hospital”, Saratov, Russian Federation; Białostockie Centrum Onkologii im.M.Sklodowskiej-Curie, Białystok, Poland; Magdent Sp. Z o.o., Warszawa, Poland; Kyungpook National University Chilgok Hospital, Daegu, Republic of Korea; Samsung Medical Center, Seoul, Republic of Korea; Samsung Bioepis, Incheon, Republic of Korea.

P2-13-05 Central nervous system metastases as a site of first recurrence in adjuvant therapy trials of HER2+ early breast cancer (EBC)

Lin NU, Lueftner D, Brufsky AM, Tolaney SM, Melisko ME, Holmes FA, Awada A. Dana-Farber Cancer Institute, Boston, MA; University Hospital Charitè, Berlin, Germany; Magee-Womens Hospital of University of Pittsburgh Medical Center, Pittsburgh, PA; University of California San Francisco, San Francisco, CA; Texas Oncology, US Oncology, Houston, TX; Jules Bordet Institute, Brussels, Belgium.

P2-13-06 Clinical implication of HER2 status change after neoadjuvant chemotherapy with Trastuzumab and Pertuzumab (HP) in patients with HER2-positive breast cancer

**P2-13-07** Zanidatamab (ZW25), a HER2-targeted bispecific antibody, in combination with chemotherapy (chemo) for HER2-positive breast cancer (BC): Results from a phase 1 study

Bedard PL, Im S-A, Elimova E, Rha SY, Goodwin R, Ferrario C, Lee K-W, Hanna D, Meric-Bernstam F, Mayordomo J, Beeram M, Hamilton E, Chaves J, Cobleigh M, Mwatha T, Woolery J, Oh D-Y. Princess Margaret Cancer Centre, Toronto, ON, Canada; Seoul National University Hospital, Cancer Research Institute, Seoul National University College of Medicine, Seoul, Republic of Korea; Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; University of Ottawa Cancer Centre, Ottawa, ON, Canada; Jewish General Hospital de Montréal, QC, Canada; Seoul National University College of Medicine, Seoul National University Bundang Hospital, Seongnam, Republic of Korea; USC Norris Comprehensive Cancer Center, Los Angeles, CA; The University of Texas MD Anderson Cancer Center, Houston, TX; University of Colorado Cancer Center, Aurora, CO; The START Center for Cancer Care, San Antonio, TX; Sarah Cannon Research Institute and Tennessee Oncology, Nashville, TN; Northwest Medical Specialists, Tacoma, WA; Rush University Medical Center, Chicago, IL; Zymeworks Inc., Vancouver, BC, Canada.

**P2-13-08** Combined peri-operative lapatinib and trastuzumab in early HER2-positive breast cancer - Long term results of the randomized UK EPHOS-B trial

Bundred N, Porta N, Adrian Murray Brunt, Cramer A, Hanby A, Shaaban A, Rakha E, Armstrong A, Cutress R, Dodwell D, Emson M, Evans A, Hartup S, Horgan K, McIntosh S, Naik J, Narayanan S, Oii J, Skene A, Cameron D, Bliss J. Manchester University NHS Foundation Trust, Manchester, United Kingdom; The Christie Pathology Partnership, Manchester, United Kingdom; University of Leeds & Leeds Institute of Medical Research, Leeds, United Kingdom; Queen Elizabeth Hospital Birmingham and University of Birmingham, Birmingham, United Kingdom; University of Nottingham, Nottingham, United Kingdom; The Christie NHS Foundation Trust, Manchester, United Kingdom; University of Southhampton and University Hospital Southampton, Southampton, United Kingdom; University of Oxford, Oxford, United Kingdom; Clinical Trials and Statistics Unit at The Institute of Cancer Research, London, United Kingdom; Poole Hospital NHS Foundation Trust, Poole, United Kingdom; St James’s University Hospital, Leeds, United Kingdom; Queen’s University Belfast, Belfast, United Kingdom; Mid Yorkshire NHS Hospitals Trust, Wakefield, United Kingdom; University Hospitals of North Midlands, Stoke-on-Trent, United Kingdom; Royal Bolton Hospital, Bolton, United Kingdom; University of Southampton, Southampton, United Kingdom; University of Edinburgh Cancer Research Centre, Edinburgh, United Kingdom.

**P2-13-09** An investigational next generation ADC (DAN-311) is highly effective in HER2-low breast cancer models


**P2-13-10** First-in-human HER2-targeted bispecific antibody KN026 for the treatment of patients with HER2-positive metastatic breast cancer: Results from a phase 1 study

**P2-13-11** Response to anti-HER2 neoadjuvant chemotherapy in invasive breast cancers with different HER2 FISH-positive patterns

Lv H, Bai Q-M, Liu Y, Wang Z-H, Shui R-H, Lu H-F, Xu X-L, Yu B-H, Tu X-Y, Bi R, Cheng Y-F, Zhou X-Y, Shao Z-M, Wen-Tao Yang W-T. Department of Pathology, Fudan University Shanghai Cancer Center, Shanghai Medical College, Fudan University, Shanghai, China; Department of Breast Surgery, Fudan University Shanghai Cancer Center, Shanghai Medical College, Fudan University, Shanghai, China.

**P2-13-12** High CD36 expression predicts worse event free survival in HER2-positive breast cancer patients treated with neoadjuvant trastuzumab-based therapy: An exploratory analysis of the NeoALTTO study

Ligorio F, Di Cosimo S, Verderio P, Ciniselli CM, Pizzamiglio S, Castagnoli L, Triulzi T, Tagliabue E, El-Abed S, Izquierdo M, de Azambuja E, Nuciforo P, Moscetti L, Janni W, Coccia-Portugal M, Corsetto P, Belfiore A, Lorenzini D, Daidone MG, Vingiani A, Puca SM, Pruneri G, Vernieri C. Istituto Nazionale dei Tumori, Milano, Italy; Breast International Group (BIG), Brussels, Belgium; Novartis Pharma AG, Basel, Switzerland; Institute Jules Bordet and l’Université Libre de Bruxelles (U.L.B), Brussels, Belgium; Vall d’Hebron Institute of Oncology (VHIO), Vall d’Hebron University Hospital, Barcelona, Spain; Breast Center Cantonal Hospital St. Gallen, St. Gallen, Switzerland; Division of Medical Oncology, Department of Oncology and Hematology, University Hospital of Modena, Modena, Italy; Ulm University Hospital, Ulm, Germany; Clinical Trial Department, Eastleigh Breast Care Center, Pretoria, South Africa; University of Milan, Milano, Italy.

**P2-13-13** The patient-centered paradox: A US-based survey of physician- and patient-reported experiences with biosimilar trastuzumab

Papautsky EL, Carlson M, Lustberg M. University of Illinois at Chicago, Chicago, IL; Yale University, New Haven, CT.

**P2-13-14** Pattern of recurrence after pathologic complete response after neoadjuvant chemotherapy in patients with early HER2-positive breast cancer: real-world evidence

Kim JH, Lee JB, Bae SJ, Ahn SG, Jeong J, Kim MH, Kim S-G, Kim GM, Kim JY, Park HS, Park S, Park BW, Kim SY, Sohn J. Division of Medical Oncology, Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Hemato-oncology, Wonju Severance Christian Hospital, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea; Division of Breast Surgery, Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Department of Internal Medicine, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Breast Surgery, Department of Surgery, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea.

**P2-13-15** VRN101396, a brain-permeable HER2 inhibitor, shows the anti-tumor activity in preclinical HER2-positive cancer models

Kim JH, Lee JB, Bae SJ, Ahn SG, Jeong J, Kim MH, Kim S-G, Kim GM, Kim JY, Park HS, Park S, Park BW, Kim SY, Sohn J. Division of Medical Oncology, Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Hemato-oncology, Wonju Severance Christian Hospital, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea; Division of Breast Surgery, Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Medical Oncology, Department of Internal Medicine, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Division of Breast Surgery, Department of Surgery, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea.

**P2-13-16** Dual HER2-blockade with pertuzumab (P) and trastuzumab (T) in patients with HER2-positive metastatic breast cancer (mBC) relapsing after adjuvant treatment with T. Results from a German non-interventional study (NIS) HELENA (NCT01777958)

Thill M, Grafe A, Klare P, Luedtke-Heckenkamp K, Reichert D, Winberger P, Zaiss M, Ziegler-Loehr K, Eckl T, Schneweiss A, Department of Gynecology and Gynecological Oncology, Agaplesion Markus Hospital, Frankfurt am Main, Germany; Medical Center Nordhausen gGmbH, Nordhausen, Germany; Gynecological out-patient Clinic, Berlin, Germany; Niels-Stensen-Clinics, Franziskus-Hospital Harderberg, Georgsmarienhütte, Germany; Center for Oncology, Ammerland-Clinic, Westerstede, Germany; Department of Gynecology and Obstetrics TU Dresden, National Center for Tumor Diseases (NCT/UCC), German Cancer Research Center (DKFZ), Helmholtz-Zentrum Dresden - Rossendorf (HZDR), Dresden, Germany; Practice for Interdisciplinary Oncology & Hematology, Freiburg, Germany; Practice for Gynecological Oncology, Cologne, Germany; Roche Pharma GmbH, Grenzach-Whylen, Germany; National Center for Tumor Diseases (NCT), Heidelberg University Hospital and German Cancer Research Center, Heidelberg, Germany.

**P2-13-17** A phase III, randomized, multicenter, double-blind study to compare efficacy and safety of EG12014 (EirGenix trastuzumab) with Herceptin® as neoadjuvant treatment in combination with anthracycline/paclitaxel-based systemic therapy in patients with HER2-positive early breast cancer - a multinational phase III study conducted during the COVID-19 pandemic

Grohmann-Izay B, Huang C-S, Dzagnidze G, Llinas N, Misra A, Pominchuk D, Prokhorov A, Rapoport B, Semiglazov V, Tseng L-M, Yanez Ruiz E, Loibl S, EirGenix GmbH, Munich, Germany; National Taiwan University Hospital, Taipei, Taiwan; LTD S. Khechinashvili University Hospital, Tbilisi, Georgia; Clinic Life Foundation, Medellin, Colombia; King George’s Medical University, Department of Endocrine Surgery, Shatabdi Phase II, Uttar Pradesh, India; Medical Center “VERUM” Limited Liability Company, Kyiv, Ukraine; Minsk City Clinical Oncology Center, Minsk, Belarus; Medical Oncology Centre of Rosebank, Johannesburg, South Africa; N.N. Petrov National Medical Research Center of Oncology, St. Petersburg, Russian Federation; Taipei Veterans General Hospital, Taipei, Taiwan; Limited Medical Research Society, Temuco, Chile; GBG Forschungs GmbH, Neu-Isenburg, Germany.

**P2-13-18** Activity and tolerability of combination of trastuzumab deruxtecan with olaparib in preclinical HER2+ and HER2-low breast cancer models


**P2-13-19** Statin modulation of antibody drug conjugate activity in breast cancer models and patients

P2-13-20 Loss of HER2 expression in HER2-positive breast cancer patients after neoadjuvant therapy
Sang Y, Wu J, Yang B. Fudan University Shanghai Cancer Center, Shanghai, China.

P2-13-21 Improved central nervous system outcomes in patients with early-stage HER2-positive breast cancer who receive neratinib for the recommended duration: Findings from the phase 3 ExteNET trial
Holmes FA, Patt D, Manalo Y, Smith JC, Papish SW, Efrat N, Arance A, Zhang B, Lalla D, Wong A, Martin M. Texas Oncology, US Oncology, Houston, TX; Texas Oncology, Austin, TX; Coastal Bend Cancer Center, Corpus Christi, TX; Confluence Health, Wenatchee, WA; Summit Health, Florham Park, NJ; Holy Family Hospital, Nazareth, Israel; Hospital Clinic of Barcelona, Barcelona, Spain; Puma Biotechnology Inc., Los Angeles, CA; Puma Biotechnology Inc., San Francisco, CA; Instituto de Investigación Sanitaria Gregorio Marañón, Universidad Complutense de Madrid, Madrid, Spain.

P2-13-22 Comparative effectiveness of initiating chemotherapy with or without trastuzumab based regimens as third line treatment for metastatic breast cancer
Sanglier T, Ross R, Shi T, Mouta J, Cardoso F. Hoffmann-La Roche, Basel, Switzerland; Genesis Research, Hoboken, NJ; Breast Unit, Champalimaud Clinical Center/Champalimaud Foundation and ABC Global Alliance, Lisbon, Portugal, Lisbon, Portugal.

P2-13-23 Activity and tolerability of combination of trastuzumab deruxtecan with the pan-AKT inhibitor capivasertib in preclinical HER2+ and HER2-low breast cancer models

P2-13-24 Distinct HER2 allele specific therapeutic response and preclinical efficacy of poziotinib in metastatic ER+ HER2 mutant breast cancer
Kavuri SM, Kalra R, Chen CH, Wang J, Salam AB, Dobrolecki L, Lewis A, Sallas C, Yates C, Gutierrez C, Karanam B, Anurag M, Lim B, Ellis M. Baylor College of Medicine, Houston, TX; Tuskegee University, Tuskegee, AL; University, Tuskegee, Tuskegee, AL.

P2-13-25 A phase I dose-escalation study of DHES0815A, a HER2-targeting antibody-drug conjugate with a DNA monoalkylator payload, in patients with HER2-positive breast cancer
Krop I, Hamilton E, Jung KH, Phillips G, Shi R, Moneni S, Mamounas M, Saad O, Cheoung V, Commerford R, Cho E, Ungewickell A, LoRusso P. Dana-Farber Cancer Institute, Boston, MA; Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Memorial Sloan Kettering Cancer Center, New York, NY; Winship Cancer Institute, Emory University, Atlanta, GA; Genentech, Inc., South San Francisco, CA; Smilow Cancer Center, Yale University, New Haven, CT.

P2-13-26 Trastuzumab deruxtecan in previously treated HER2-positive metastatic or unresectable breast cancer (BC): first real-life data from the cohort temporary authorization for use (cATU) program in France
P2-13-27 Infusion-related reactions in patients receiving pertuzumab and trastuzumab: A retrospective study


P2-13-28 Inhibiting retinoic acid receptor signalling enhances the effect of neratinib in HER2 positive breast cancer cell lines

O’Reilly D, Gaynor N, Conlon N, Diala I, Eli LD, Crown J, Collins DM. Dublin City University, Dublin, Ireland; Puma Biotechnology Inc, Los Angeles, CA; St Vincents University Hospital, Dublin, Ireland.

P2-13-29 Analysis of GP2 immune response and relationship to recurrence in a prospective, randomized, placebo-controlled, single-blinded, multicenter, phase Ib study evaluating the reduction of recurrences using HER2/neu peptide GP2 (GLSI-100) vs. GM-CSF alone after adjuvant trastuzumab in HER2 positive women with operable breast cancer

Patel SS, McWilliams DB, Patel MS, Fischette CT, Thompson J, Daugherty FJ. Greenwich LifeSciences, Stafford, TX.

P2-13-30 First interim analysis from ELEANOR: A multi-national, prospective, non-interventional study (NIS) in patients with human epidermal growth factor receptor positive (HER2+) early breast cancer observing real-life extended adjuvant treatment with neratinib

Lüftner D, Bartsch R, Breitenstein U, Balic M, Jackisch C, Müller V, Rinnerthaler G, Schmidt M, Schwitter M, Zaman K, Wrobel D, Guth D, Terhaag J, Zais M, Schinköthe T, Harbeck N. University Hospital Charité, Berlin, Germany; Medical University of Vienna, Department of Medicine I, Division of Oncology, Vienna, Austria; Division of Oncology, Brust-Zentrum Zurich, Zurich, Switzerland; Division of Oncology, Department of Internal Medicine, Medical University Graz, Graz, Austria; Department of Gynecology and Obstetrics, Klinikum Offenbach, Offenbach, Germany; Department of Gynecology and Obstetrics, University Hospital Hamburg-Eppendorf, Hamburg, Germany; Department of Internal Medicine III, Oncologic Center, Salzburg Cancer Research Institute – Laboratory for Immunological and Molecular Cancer Research (SCRI-LIMCR), Paracelsus Medical University, Salzburg, Austria; University Hospital Mainz, Dept. Gynecology, Mainz, Germany; Kantonsspital Graubünden, Chur, Switzerland; Breast Center, Lausanne University Hospital CHUV, Lausanne, Switzerland.
Switzerland; Sozialstiftung Bamberg Klinikum am Bruderwald, Bamberg, Germany; Gynecological practice Dr. Guth, Plauen, Germany; Rottal/Inn Clinic, Eggenfelden, Germany; Oncology Practice, Freiburg, Germany; CANKADO Service GmbH, Kirchheim, Germany; Breast Center, Dept. OB&GYN, LMU University Hospital, Munich, Germany.

P2-13-31 Pyrotinib in combination with docetaxel as first-line treatment for HER2-positive metastatic breast cancer (PANDORA): A single-arm, multicenter phase 2 trial
Wang X, Huang J, Zheng Y, Shao X, Cao W, Chen Z, Shi Y, Cai L, Chen W, Guo Z, Liu J, Shen P, Chen Y, Wang X, Li H, Li M. Department of Breast Medical Oncology, Cancer Hospital of the University of Chinese Academy of Sciences (Zhejiang Cancer Hospital), Hangzhou, China; Department of Internal Medicine, Sun Yat-sen University Cancer Center, Guangzhou, China; The Fourth Department of Medical Oncology, Harbin Medical University Cancer Hospital, Harbin, China; Medical Oncology Department 2, The Third Hospital of Nanchang, Nanchang, China; Breast Surgery Department 5, The Third Hospital of Nanchang, Nanchang, China; Department of Breast Cancer, Fujian Medical University Cancer Hospital, Fuzhou, China; Department of Medical Oncology, The First Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou, China; Department of Breast Surgery, The Second Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou, China; Department of Medical Oncology, Sir Run Run Shaw Hospital, Zhejiang University School of Medicine, Hangzhou, China; Department of Breast Oncology, Peking University Cancer Hospital & Institute, Beijing, China; Department of Oncology, The Second Affiliated Hospital of Dalian Medical University, Dalian, China.

P2-13-32 Pyrotinib in combination with letrozole for estrogen receptor (ER)-positive, human epidermal growth factor receptor 2 (HER2)-positive metastatic breast cancer: A multicenter, single-arm, phase II trial
Ouyang Q, Xiong H, Yan M, Zhong J, Ran L, Luo T, Liu L, Li J, Yang X, Xiao H, Xie N, Wu H, Gao J, Lu J, Hu X, Hu Z, Tian C, Shui Z, Cao M. Hunan Cancer Hospital, Changsha, China; Tongji Hospital affiliated to Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China; Henan Cancer Hospital, Zhengzhou, China; The First Affiliated Hospital of Guangxi Medical University, Nanning, China; Guizhou Cancer Hospital, Guiyang, China; West China Hospital, Sichuan University, Chengdu, China.

P2-13-33 Preclinical development of DHES0815A: a HER2-directed antibody-drug conjugate comprised of a reduced potency PBD dimer linked to a domain I binding HER2 antibody

P2-13-34 A phase II trial of lapatinib and everolimus for HER2 positive metastatic breast cancer
Rooney A, Sharma P, O’Dea AP, Nye L, Elia M, He J, Fabian C, Khan Q, Kansas University Medical Center, Kansas City, KS.

P2-13-35 Pyrotinib combined with fulvestrant in women with hormone receptor-positive (HR+) and human epidermal growth factor receptor 2-positive (HER2+) metastatic breast cancer: A single-arm phase II clinical trial
Wang Y, Zhao J, Yuan Z, Zou G, Li H, Ding L, Yang Y, ai J, Liu D, Yao H. Breast Tumor Center, Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; Department of Medical Oncology, Sun Yat-sen University Cancer Center, Guangzhou, China; Department of
Medical Oncology, Guangzhou Panyu Central Hospital, Guangzhou, China; Department of Breast Surgery, the Sixth Affiliated Hospital, Guangzhou, China.

**P2-13-36 Comparative time course analysis of the effects of neratinib, lapatinib and tucatinib in an in vitro HER2+ breast cancer model**

Castel ME, Conlon NT, Walsh N, Diala I, Eli L, Crown J, Collins DM. Dublin City University, Dublin, Ireland; Puma Biotechnology, Inc, Los Angeles, CA; Saint Vincent’s University Hospital, Dublin, Ireland.

**P2-13-37 A prospective, open, multi-center clinical study of pyrotinib combined with trastuzumab and nab-paclitaxel in neoadjuvant treatment for stage II-III HER2-positive breast cancer patients**

Shao B, Yu Z, Wang Y, Zhao G, Zhou F, Wei R. Mudanjiang Cancer Hospital, Mudanjiang, China; Daqing People’s Hospital, Daqing, China; The First Hospital of Qiqihar, Qiqihar, China; Qiqihar Hospital of Traditional Chinese Medicine, Qiqihar, China.

**P2-13-38 Pertuzumab study for HER2-positive non-metastatic breast cancer in the neoadjuvant setting in Australia**

Lok SW, De Boer R, Baron-Hay S, Button P, Devitt B, Forster B, Fox P, Harold M, Keteeswaran S, Kichenadasse G, Kiely BE, Marx G, Nott L, Pellegrini L, Tafreshi A, Gibbs P. The Walter and Eliza Hall Institute of Medical Research and Peter MacCallum Cancer Centre, Parkville, VIC, Australia; Peter MacCallum Cancer Centre and St Vincent’s Private Hospital, Melbourne, VIC, Australia; Royal North Shore Hospital, St Leonards, NSW, Australia; Ozbiostats Pty. Ltd, Sydney, VIC, Australia; Eastern Health Clinical School, Boxhill, VIC, Australia; The Poche Centre, North Sydney, NSW, Australia; Orange Health Service, Orange, NSW, Australia; The Walter and Eliza Hall Institute of Medical Research, Parkville, VIC, Australia; Roche Products, Pty. Limited, Sydney, NSW, Australia; Flinders Centre for Innovation in Cancer, Flinders Medical Centre, Bedford Park, SA, Australia; Macarthur Cancer Therapy Centre, Campbelltown Hospital, Campbelltown, NSW, Australia; Sydney Adventist Hospital and Sydney University, Wahroonga, NSW, Australia; Royal Hobart Hospital, Hobart, TAS, Australia; Yarra Oncology, Ringwood East, VIC, Australia; Wollongong Private Hospital, Wollongong, NSW, Australia; The Walter and Eliza Hall Institute of Medical Research and Melbourne University, Parkville, VIC, Australia.

**P2-13-39 Investigation of neratinib and endocrine therapy combinations in HER2 positive breast cancer models**

Mahdi AF, Conlon NT, Eli LD, Diala I, Crown J, Collins D. Dublin City University, Dublin, Ireland; Puma Biotechnology, Inc., Los Angeles, CA; Saint Vincent’s University Hospital, Dublin, Ireland.

**P2-13-40 Treatment patterns and adverse events of pyrotinib-based therapy in HER2-positive breast cancer patients in China: Results from a multicenter, real-world study**

Li Y, Tong Z, Ouyang Q, Wu X, Li W, Cai L, Yu Z, Han Z, Wang X, Li M, Yang J, Li L, Niu Z, Wang H, Wang Q, Li Y, Teng Y, Zhu S, Xu B. National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing, China; Department of Breast Oncology, Tianjin Medical University Cancer Institute and Hospital, Key Laboratory of Breast Cancer Prevention and Therapy, Tianjin Medical University, Ministry of Education, Key Laboratory of Cancer Prevention and Therapy, Tianjin, China; Department of Breast Cancer Medical Oncology, Hunan Cancer Hospital, the Affiliated Cancer Hospital of Xiangya Medical School, Central South University,
Changsha, China; Department of Breast Surgery, Hubei Cancer Hospital, Wuhan, China; Department of Oncology, The First Hospital of Jinlin University, Jilin, China; The Fourth Department of Medical Oncology, Harbin Medical University Cancer Hospital, Harbin, China; Department of Breast Surgery, Shandong Cancer Hospital, Shandong Academy of Medical Science, Jinan, China; Department of Oncology, The Affiliated Hospital of Xuzhou Medical University, Xuzhou, China; Department of Breast Medical Oncology, Cancer Hospital of the University of Chinese Academy of Sciences, Zhejiang Cancer Hospital & Institute of Cancer and Basic Medicine (IBMC), Chinese Academy of Sciences, Hangzhou, China; Department of Oncology, The Second Affiliated Hospital of Dalian Medical University, Dalian, China; Departments of Medical Oncology, The First Affiliated Hospital of Xi’an Jiaotong University, Xi’an, China; Department of Medical Oncology, Qilu Hospital, Cheeloo College of Medicine, Shandong University, Jinan, China; Department of Breast Center, Yuncheng Central Hospital, Yuncheng, China; Breast Disease Center, The Affiliated Hospital of Qingdao University, Qingdao, China; Breast Medical Oncology, Cancer Hospital of the University of Chinese Academy of Sciences, Zhejiang Cancer Hospital & Institute of Cancer and Basic Medicine (IBMC), Chinese Academy of Sciences, Hangzhou, China; Department of Medical Oncology, The First Hospital of China Medical University, Shenyang, China; Department of Breast Surgery, Yantai Yuhuangding Hospital, Yantai, China.

**P2-13-41** First-line pyrotinib plus trastuzumab and nab-paclitaxel for patients with HER2-positive advanced breast cancer

Xie H, Li W, Yao Y, Ni S, Yi T, Cheng J, Fang Q, Zhang L, Zhou J, Wu X, Wang C, Zhang Y, Qin J, Shao Q, Zhao T, Huang X, Xu L. Jiangsu Province Hospital, Nanjing, China; Jiangsu Cancer Hospital & Jiangsu Institute of Cancer Research & The Affiliated Cancer Hospital of Nanjing Medical University, Nanjing, China; Affiliated Hospital of Nantong University, Nantong, China; Taizhou People’s Hospital, Taizhou, China; The First People’s Hospital of Changzhou, Changzhou, China; The First People’s Hospital of Liyang, Liyang, China; Affiliated Hospital of Jiangnan University, Wuxi, China; Yancheng People’s Hospital, Yancheng, China; Zhongda Hospital Southeast University, Nanjing, China; Jiangyin People’s Hospital, Jiangyin, China; Taixing People’s Hospital, Taixing, China; Changzhou No.2 People’s Hospital, Changzhou, China.

**P2-13-42** Withdrawn

**P2-13-43** Preclinical and early clinical safety and pharmacokinetics data of DZD1516, an BBB-penetrant selective HER2 inhibitor for the treatment of HER2 positive metastatic breast cancer

Zhang J, McAndrew N, Yu W, Pan X, Wang M, Hu X. Department of Medical Oncology, Fudan University Shanghai Cancer Center, Shanghai, China; Division of Hematology/Oncology, UCLA David Geffen School of Medicine, Los Angeles, CA; Dizal Pharmaceuticals, Shanghai, China.

**P2-13-44** HDAC6 is an unfavorable prognostic factor in HER2-positive breast cancer patients treated with adjuvant trastuzumab


**P2-13-45** Interim results of a phase 1 study of the novel immunotoxin MT-5111 in patients with HER2+ tumors

University School of Medicine, St. Louis, MO; Cedars-Sinai Medical Center, Los Angeles, CA; Mary Crowley Cancer Research, Dallas, TX; Sarah Cannon Research Institute/Tennessee Oncology, PLLC, Nashville, TN; University of Texas Health San Antonio Cancer Center, San Antonio, TX; University of Miami, Miami, FL; Mayo Clinic, Phoenix, AZ; Mayo Clinic, Rochester, MN; Mayo Clinic, Jacksonville, FL; Molecular Templates, Inc., Jersey City, NJ; Molecular Templates, Inc., Austin, TX; Translational Research in Oncology, Montevideo, Uruguay; UCLA David Geffen School of Medicine, Los Angeles, CA.

**P2-13-46** Trastuzumab deruxtecan (T-DXd) for advanced breast cancer patients (ABC), regardless HER2 status: A phase II study with biomarkers analysis (DAISY)

Diéras V, Deluche E, Lusque A, Pistilli B, Bachelot T, Pierga J-Y, Viret F, Levy C, Salabert L, Le Du F, Dalenc F, Jouannaud C, Venat-Bouvet L, Jacquin J-P, Durando X, Petit T, Mahier - Ait Oukhatar C, Filleron T, Mosele MF, Lacroix-Triki M, Ducoulombier A, André F. Department of Medical Oncology, Centre Eugène Marquis, Rennes, France; Department of Medical Oncology, CHU Dupuytren, Limoges, France; Department of Biostatistics, Institut Claudius Regaud – IUCT Oncopole, Toulouse, France; Department of Medical Oncology, Gustave Roussy, Villejuif, France; Department of Medical Oncology, Centre Léon Bérard, Lyon, France; Department of Medical Oncology, Institut Curie Paris & Saint Cloud, Université de Paris, Paris, France; Department of Medical Oncology, Institut Paoli Calmettes, Marseille, France; Department of Medical Oncology, Centre François Baclesse, Caen, France; Department of Medical Oncology, Bergonie Institute, Bordeaux, France; Department of Medical Oncology, Institut Claudius Regaud, IUCT-Oncopole, Toulouse, France; Department of Medical Oncology, Institut Jean Godinot, Reims, France; Department of Medical Oncology, Institut de Cancérologie Lucien Neuwirth, Saint Priest en Jarez, France; Department of Clinical Research, Délégation Recherche Clinique et Innovation, Centre Jean Perrin, Clermont Ferrand, France; Department of Medical Oncology, Institut de Cancérologie de Strasbourg - Europe, Strasbourg, France; R&D Unicancer, Paris, France; Gustave Roussy, Villejuif, France; Department of Medical Oncology, Centre Antoine Lacassagne, Nice, France.

**P2-13-47** Safety and anti-tumor activity of ARX788 in HER2-positive metastatic breast cancer patients whose disease is resistant/refractory to HER2 targeted agents (trastuzumab, ADCs, TKIs, and bispecific antibodies): ACE-Breast-01 trial results

Zhang J, Ji D, Shen W, Xiao Q, Gu Y, O’Shaughnessy J, Xia G, Ji Y, Xiong G, Li M, Xu D, Cartmell R, Song C, Yan J, Hu X. Fudan University Shanghai Cancer Center, Shanghai Medical College, Department of Oncology, Department of Medical Oncology, Fudan University, Shanghai, China; Department of Oncology, Shanghai Medical College, Fudan University Shanghai Cancer Center, Department of Radiology, Shanghai, China; Baylor University Medical Center, Texas Oncology, Dallas, TX; Novocodex Biopharmaceuticals, Shaoxing, China; NovocodexBiopharmaceutical, Shaoxing, China

**P2-13-48** Overall survival (OS) results from the phase III PHENIX trial of HER2+ metastatic breast cancer treated with pyrotinib plus capecitabine

Jiang Z, Yan M, Bian L, Wang T, Hu X, Zhang Q, Ouyang Q, Feng J, Yin Y, Sun T, Tong Z, Wang X, Yao H, Jiang S, Zhu X, Zou J. The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; The Affiliated Cancer Hospital of Zhengzhou University & Henan Cancer Hospital, Zhengzhou, China; Fudan University Shanghai Cancer Center, Shanghai, China; Harbin Medical University Cancer Hospital, Harbin, China; Hunan Cancer Hospital, The Affiliated Cancer Hospital of Xiangya School of Medicine, Central South University, Changsha, China; Jiangsu Cancer Hospital and Jiangsu Institute of Cancer Research and Nanjing Medical University Affiliated Cancer Hospital, Nanjing, China; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China; Liaoning Cancer Hospital and
Institute, Shenyang, China; Tianjin Medical University Cancer Institute and Hospital, Tianjin, China; Zhejiang Cancer Hospital, Hangzhou, China; Guangdong Provincial Key Laboratory of Malignant Tumor Epigenetics and Gene Regulation, Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; Jiangsu Hengrui Pharmaceuticals Co., Ltd., Shanghai, China.

**P2-13-49** Acquired resistance to tucatinib is associated with EGFR amplification in HER2+ breast cancer (BC) models and can be overcome by a more complete blockade of HER receptor layer

Veeraraghavan J, Bose S, Mistry R, Selenica P, Nanda S, Qin L, Gazzo A, Zhu Y, Mancini MA, tossi F, Weigelt B, Reis-Filho JS, Osborne CK, Rimawi MF, Schiff R, Lester and Sue Smith Breast Center, Dan L. Duncan Comprehensive Cancer Center, and Department of Medicine, Baylor College of Medicine, Houston, TX; Lester and Sue Smith Breast Center, Baylor College of Medicine, Houston, TX; Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX; Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY; Lester and Sue Smith Breast Center and Dan L. Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX; Dan L. Duncan Comprehensive Cancer Center and Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX; Lester and Sue Smith Breast Center, Dan L. Duncan Comprehensive Cancer Center, and Departments of Medicine, and Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX.

**P2-13-50** Neratinib + fulvestrant + trastuzumab for hormone receptor-positive, HER2-mutant metastatic breast cancer and neratinib + trastuzumab for triple-negative disease: Latest updates from the SUMMIT trial

Jhaveri K, Park H, Waisman J, Goldman JW, Guererro-Zotano A, Boni V, Haley B, Mayer IA, Brufsky A, Yang ES, Garcia-Saenz JA, Bidard F-C, Crown J, Zhang B, Frazier A, Diala I, Eli1 LD, Barnett B, Wildiers H, Memorial Sloan Kettering Cancer Center, New York, NY; Washington University School of Medicine of St. Louis, MO; City of Hope Comprehensive Cancer Center, Duarte, CA; UCLA, Santa Monica, CA; Fundación Instituto Valenciano de Oncología, Valencia, Spain; START Madrid-CIOCC, Hospital Universitario, Madrid Sanchinarro, Madrid, Spain; UT Southwestern Medical Center, Dallas, TX; Vanderbilt University Medical Center / Vanderbilt-Ingram Cancer Center, Nashville, TN; Magee-Womens Hospital of UPMC, Pittsburgh, PA; University of Alabama at Birmingham, Birmingham, AL; Hospital Clinico San Carlos, Madrid, Spain; Institut Curie, St. Cloud, France; St. Vincent’s University Hospital, Dublin, Ireland; Puma Biotechnology Inc., Los Angeles, CA; University Hospitals Leuven, Leuven, Belgium.

**P2-13-51** Evaluation of Tucatinib + (Paclitaxel + Pertuzumab + Trastuzumab) followed by AC in high-risk HER2 positive (HER2+) stage II/III breast cancer: Results from the I-SPY 2 TRIAL

Potter DA, Roesch E, Yau C, Lu R, Wolf D, Samson S, Stafford D, Albain KS, Isaacs C, Trivedi M, Yee D, Boughey J, Thomas1 A, Chien AJ, Hylton N, Li W, DeMichele A, Perlmutter J, Symmans WF, Hershman DL, Melisko M, van ‘t Veer LJ, Wilson A, Asare SM, Berry DA, Schwab R, Rugo HS Esserman L.J. Masonic Cancer Center, University of Minnesota, Minneapolis, MN; Cleveland Clinic, Cleveland, OH; University of California, San Francisco, San Francisco, CA; Quantum Leap Healthcare Collaborative, San Francisco, CA; Breast Oncology Program, Breast Science Advocacy Core (BSAC), University of California, San Francisco, San Francisco, CA; Loyola University Chicago Stritch School of Medicine, Maywood, IL; Georgetown University Lombardi Cancer Center, Washington, DC; Columbia University Medical Center, New York, NY; Mayo Clinic Breast Cancer Center, Rochester, MN; Wake Forest Comprehensive Cancer Center, Winston-Salem, NC; University of Pennsylvania,
Philadelphia, PA; Gemini Group, Ann Arbor, MI; University of Texas, M.D. Anderson Cancer Center, Houston, TX; Berry Consultants, LLC, Austin, TX; University of California, San Diego, San Diego, CA.

Treatment - Therapeutic Strategies: Immunotherapy (Clinical)

P2-14-01 Phase II neoadjuvant trial of Interferon-gamma plus weekly paclitaxel, trastuzumab and pertuzumab in patients with HER-2 positive breast cancer

P2-14-02 Overall survival following treatment with a modified whole tumor cell targeted immunotherapy in patients with advanced breast cancer
Williams W, Dakhil SR, Calfa C, Holmes JP, Bhattacharya S, Lukas J, Tan-Chui E, Peoples GE, Sunkari VG, Lacher MD, Wiseman CL, BriaCell Therapeutics Corporation, Berkeley, PA; Cancer Center of Kansas, Wichita, KS; University of Miami, Miami, FL; Redwood Reg Medical Grp, Santa Rosa, CA; Thomas Jefferson University, Philadelphia, PA; The Everett Clinic, Everett, WA; Florida Cancer Specialists and Research Institute, Parkland, FL; Cancer Insight, San Antonio, TX; BriaCell Therapeutics Corporation, Havertown, PA.

P2-14-03 A pilot study of paclitaxel plus pembrolizumab in patients with metastatic HER2-negative breast cancer (PePPy)

P2-14-04 Updated data from FUTURE-C-PLUS: Combination of famitinib with camrelizumab plus nab-paclitaxel as first-line treatment for advanced, immunomodulatory triple-negative breast cancer, an open-label, single-arm, phase 2 trial

P2-14-05 Emerging molecular variants by circulating tumor DNA after immunotherapy in metastatic breast cancer
Kang AK, Shah AN, Katam N, Davis AA, Gerratana L, Chandra S, Jacob S, Shi M, Srivastava J, D’Amico P, Reduzzi C, Gurley M, Wehbe F, Zhang Q, Behdad A; Cristofanilli M. Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL; Washington University School of Medicine, St. Louis, MO; University of California San Francisco, San Francisco, CA.

P2-14-06 Durable responses with intratumoral electroporation of plasmid interleukin-12 plus pembrolizumab in patients with advanced triple-negative breast cancer: Cohort 1 update from KEYNOTE-890
Telli ML, Wapnir I, Devitt B, Cuff K, Soliman H, Vinayak S, Canton DA, Twitty CG, Xie S, Lu Y, Bannavong D, O’Keefe B, Aung S, Joshi R. Standford University School of Medicine, Stanford, CA; Stanford University School of Medicine, Stanford, CA; Eastern Health Clinical School, Monash University, Box Hill, VIC, Australia; Princess Alexandra Hospital, Queensland, Australia; Moffitt Cancer Center, Tampa, FL; University of Washington, Seattle Cancer Care
Alliance, Fred Hutchinson Cancer Center, Seattle, WA; OncoSec Medical, San Diego, CA; Adelaide Oncology and Haematology, Adelaide, Australia.

P2-14-07 Marrow-infiltrating lymphocytes as adoptive immunotherapy for breast cancer
Chun B, Lutz ER, Rudraraju L, DeOliveira E, Seiz A, Shah M, Borrello I, Fredrich NE, Noonan K, Page DB, Earle A. Chiles Research Institute, Portland, OR; WindMIL Therapeutics, Baltimore, MD; Johns Hopkins University School of Medicine, Baltimore, MD.

P2-14-08 Preliminary safety and efficacy results of camrelizumab in combination with apatinib and eribulin in heavily pretreated patients with advanced triple-negative breast cancer: A phase II trial
Liu J, Tian Z, Wang Y, Lin Y, Li H. Guangdong Provincial Key Laboratory of Malignant Tumor Epigenetics and Gene Regulation, Breast Tumor Center, Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; Department of Breast and Thyroid Surgery, First Affiliated Hospital of Sun Yat-Sen University, Sun Yat-sen University, Guangzhou, China; Department of Breast and Thyroid Surgery, Shanghai Hospital, Navy Medical University (Second Military Medical University), Shanghai, China.

P2-14-09 Withdrawn

P2-14-11 Immune response monitoring in breast cancer patients treated with neoadjuvant chemotherapy combined with dendritic cell vaccines

P2-14-12 B-immune interim analysis: A phase Ib/II study of durvalumab combined with dose-dense EC in a neoadjuvant setting for patients with locally advanced luminal B HER2(-) or triple negative breast cancers
Carrasco J, Quaghebeur C, Henry S, Galant C, Van Bockstal M, Delrée P, Honhon B, Korman D, Verschaeye V, Lonchay C, Levefre S, D’hondt L, Berliere M, Delmarcelle S, Mine J-M, Willems T, Müller G, Myant N, Bar I, Constant M, Haussy S, Devaux S, Coulie P, Canon J-L, Duhoux F. Departement of Medical Oncology, Grand Hôpital de Charleroi, Charleroi, Belgium; Departement of Medical Oncology, CHU UCL Namur, site Saint Elisabeth, Namur, Belgium; Departement of Pathology, Cliniques Universitaires Saint Luc, Brussels, Belgium; Institut de Pathologie et Génétique, IPG, Gosselies, Belgium; Departement of Medical Oncology, UCL Namur, Site Mont Godinne, Yvoir, Belgium; Department of Oncology, Breast Clinic, Cliniques Universitaires Saint-Luc UCL, Brussels, Belgium; Department of Pharmacy, Grand Hôpital de Charleroi, Charleroi, Belgium; Department of Gynecology, Grand Hôpital de Charleroi, Charleroi, Belgium; Laboratory of Translational Oncology, LTO, Gosselies, Belgium; de Duve Institute, UCL, Brussels, Belgium.

P2-14-13 Talimogene laherparepvec (T-VEC) + atezolizumab combination in early breast cancer (SOLT1-1503 PROMETEO): Safety and efficacy interim analysis
Pascual T, Vidal M, Oliveira M, Cejalvo JM, Vega E, Sanfeliu E, Ganau S, Julve A, Zamora E, Miranda I, Delgado A, Bermejo B, de la Cruz L, Falato C, Juan M, Ferrero-Cañiero JM, González-Farré X, Villagrasa P, Prat A. SOLT1 Breast Cancer Research Group, Barcelona, Spain; Hospital Clínico de Barcelona/SOLT1 Breast Cancer Research Group, Barcelona, Spain; Vall d’Hebron University Hospital/ SOLT1 Breast Cancer Research Group, Barcelona, Spain; Hospital Clínico Universitario de Valencia/INCLIVA, Valencia, Spain; Centro Integral Oncológico Clara Campal, Madrid, Spain; Hospital Clínico de Barcelona, Barcelona, Spain; Hospital Clínico Universitario de Valencia, Valencia, Spain; Vall d’Hebron University Hospital, Barcelona, Spain; Hospital Clínico Universitario de Valencia, Valencia, Spain; Vall d’Hebron University Hospital, Barcelona, Spain.
Barcelona, Spain; Centro Integral Oncológico Clara Campal, Barcelona, Spain; Hospital Universitario Virgen Macarena, Sevilla, Spain; Hospital Universitari General de Catalunya/SOLTI Breast Cancer Research Group, Barcelona, Spain; Hospital Clínico de Barcelona/SOLTI Breast Cancer Research Group, Barcelona, Spain.

**P2-14-14** Durvalumab and tremelimumab before surgery in patients with hormone receptor positive, HER2 negative stage II-III breast cancer

**P2-14-15** Timing of the immunization defines immune signature of a peptide cancer vaccine combined with Neoadjuvant chemotherapy in HR+ breast cancer patients

**P2-14-16** Harnessing the tumor immune microenvironment to control high-risk ductal carcinoma in situ: A phase I clinical trial of intralesional pembrolizumab and mRNA 2752 combination therapy

**P2-14-17** A phase 1b study of PVX-410 vaccine in combination with pembrolizumab in metastatic triple negative breast cancer (mTNBC)
Isakoff SJ, Tung NM, Yin J, Tayob N, Parker J, Rosenberg J, Bardia A, Spring L, Park H, Collins M, Barry WT, Severgnini M, Peterkin D, Tolaney SM. Massachusetts General Hospital, Boston, MA; Beth Israel Deaconess Medical Center, Boston, MA; Dana Farber Cancer Institute, Boston, MA; McConnell Consulting, Evergreen, CO; J. Rosenberg, MD Consulting Group, LLC, Sanibel, FL; OncoPep, North Andover, MA.

**P2-14-18** A randomized phase II trial of carboplatin with or without nivolumab in metastatic triple-negative breast cancer
Garrido-Castro AC, Graham N, Bi K, Park J, Fu J, Keenan T, Richardson ET, Pastorello R, Lange P, Attaya V, Wesolowski R, Sinclair N, Lucas Z, Lo S, Tung N, Faggien M, Kaufman PA, Block CC, Briccetti F, Toke M, Chen W, Wucherpfennig K, Marx S, Tian Y, Agudo J, Guerriero JL, Schnitt S, Lin NU, Winer EP, Mittendorf EA, Tayob N, Van Allen E, Tolaney SM, Dana-Farber Cancer Institute, Boston, MA; Broad Institute of MIT and Harvard, Cambridge, MA; Brigham and Women’s Hospital, Boston, MA; Ohio State University Hospital, Columbus, OH; Northern Light, Eastern Maine Medical Center, Bangor, ME; Stamford Hospital, Stamford, CT; Beth Israel Deaconess Medical Center, Boston, MA; University of Vermont Medical Center, Burlington, VT; UMass Memorial Medical Center, Worcester, MA.
Treatment - Therapeutic Strategies: Neoadjuvant Endocrine Therapy

**P2-15-01** Conversion from luminal to normal intrinsic subtype by PAM50 after neoadjuvant endocrine therapy is associate with biomarkers of good prognosis in luminal breast cancer

Lopez Velazco JI, Otaño M, Lacambra I, Elorriaga K, Lahuerta A, Martínez A, Segur V, Manzano S, Prat A, Caffarel M, Urruticoechea A. Biodonostia Health Research Institute, San Sebastián, Spain; Guipúzcoa Cancer Clinical Management Unit/OSI Donostialdea – Onkologikoa, San Sebastián, Spain; Hospital Clinic University of Barcelona, Barcelona, Spain; IKERBASQUE, Basque Foundation for Science and Biodonostia Health Research Institute, Bilbao-San Sebastián, Spain; Guipúzcoa Cancer Clinical Management Unit/OSI Donostialdea – Onkologikoa and Biodonostia Health Research Institute, San Sebastián, Spain.

**P2-15-02** Using Oncotype DX Breast Recurrence Score® (RS) assay to define the role of neoadjuvant endocrine therapy (NET) in early-stage hormone receptor positive (HR+) breast cancer (BC)

Taylor C, Foreman A, Russell C, Bandyopdhyay D, Deng X, Floyd L, Zelnak A, O’Regan R, Bear H, Meisel J. Emory, Atlanta, GA; Exact Sciences Corporation, Redwood City, CA; Virginia Commonwealth University, Richmond, VA; Atlanta Cancer Care, Atlanta, GA; University of Rochester, Rochester, NY.

**P2-15-03** Neoadjuvant endocrine therapy (NET) as bridge therapy for early stage breast cancer during COVID-19: A single institution experience

POSTER SESSION 3

THURSDAY, DECEMBER 9, 2021: 7:00 AM - 8:30 AM CT

Detection/Diagnosis - Imaging and Screening: Breast Imaging - Mammography etc.

P3-01-09 MRI in the pre-operative workup of breast cancer patients

P3-01-11 A clinical study indicates that 3D mammography shows no improvement over 2D mammography in cancer detection rates and biopsy-derived positive predictive value among BI-RADS 4 populations
Ezeana CF, Puppala M, Wang L, Chang JC, Wong STC. Houston Methodist Research Institute/Houston Methodist Cancer Center, Houston, TX; Houston Methodist Cancer Center, Houston, TX.

P3-01-12 The impact of COVID-19 on diagnosis of recurrent breast cancer

P3-01-13 Comparing portable and clinical ultrasound systems using 3D printed breast phantom inserts
Valdez D, Fukui J, Wolfgruber T, Leong L, Maskarinec G, Shepherd J. University of Hawaii Cancer Center, Honolulu, HI.

P3-01-14 A model incorporating axillary tail position on mammography for preoperative prediction of non-sentinel lymph node metastasis in patients with initial cN+ breast cancer after neoadjuvant chemotherapy

P3-01-15 Significant discordance between clinical and pathological staging in early stage HER2+ and triple negative breast cancers treated with upfront surgery

P3-01-16 Screening for genetic risk at the time of mammography

P3-01-17 MRI study of a novel paramagnetic seed for clinically occult breast tumor localization
Thiruchelvam P, Leff D, Upadhyay N. Imperial College, London, United Kingdom.

P3-01-18 Contrast enhanced mammography in breast cancer surveillance
Matheson J, Elder KJ, Tay JYI, Rose A, Mann B. The Royal Melbourne Hospital, Melbourne, Australia.
Detection/Diagnosis - Imaging and Screening: Molecular, Functional, and Novel Imaging

P3-02-01 Initial experience of FES-dedicated breast PET imaging of early-stage ER+ invasive lobular carcinoma

P3-02-02 FES-dedicated breast PET uptake in early-stage ER+ breast cancers

P3-02-03 Quantitative molecular breast imaging for early prediction of neoadjuvant systemic therapy response in locally advanced breast cancer patients

P3-02-04 Prediction of breast cancer response to neoadjuvant chemotherapy in different biological breast cancer subtypes using diffuse optical tomography

P3-02-05 Assessment of repeatability and uptake quantification of 68GaNOTA-anti-HER2 sdAb PET/CT in patients with locally advanced or metastatic breast cancer
Gondry O, Xavier C, Waelput W, Al Dabssi O, Vanhoeij M, Aspeslagh S, Joris S, Fontaine C, Verfaillie G, De Grève J, Gheerens K, Luyten I, Vandenbroucke F, Bourgeois S, Raes L, Thyparambil S, Devoogdt N, Vaneycken I, Cossaert J, Caveliers V, Everaert H, Lahoutte T, Keyaerts M. Nuclear Medicine Department, UZ Brussel and In Vivo Cellular and Molecular Imaging Laboratory, Vrije Universiteit Brussel, Brussels, Belgium; In Vivo Cellular and Molecular Imaging Laboratory, Vrije Universiteit Brussel, Brussels, Belgium; Department of Pathology, UZ Brussels, Brussels, Belgium; Nuclear Medicine Department, UZ Brussels, Brussels, Belgium; Department of Oncological Surgery, UZ Brussels, Brussels, Belgium; Department of Medical Oncology, UZ Brussels, Brussels, Belgium; Department of Radiology, UZ Brussels, Brussels, Belgium; mProbe, Rockville, MD.

P3-02-06 A phase II study of 68Ga-ABY-025 PET for non-invasive quantification of HER2 expression in breast cancer
Alhusein Khan A, Lindman H, Liss P, Sundin T, Frejd FY, Hartman J, Iyer V, Lubberink M, Velikyan I, Sorensen J. Department of Immunology, Genetics and Pathology, Uppsala University, Uppsala, Sweden; Department of Surgical Sciences, Radiology, Uppsala University, Uppsala, Sweden; Clinical Research and Development Unit, Uppsala University
Hospital, Uppsala, Sweden; Department of Oncology and Pathology, Karolinska Institute, Uppsala, Sweden; Nuclear Medicine and PET, Department of Surgical Sciences, Uppsala University, Uppsala, Sweden.

**P3-02-07 Assessing the variability of cardiac elasticity imaging to identify subclinical therapy related cardiac degradation in premenopausal women with breast cancer**

Miller CE, Jordan JH, Douglas E, Ansley K, Thomas A, Weis J. Wake Forest School of Medicine, Biomedical Engineering, Winston-Salem, NC; Virginia Commonwealth University, Biomedical Engineering, Richmond, VA; Wake Forest Baptist Health Medical Center, Winston-Salem, NC; Wake Forest Baptist Health Medical Center Hematology and Oncology, and Comprehensive Cancer Center, Winston-Salem, NC; Wake Forest School of Medicine Biomedical Engineering, Wake Forest Baptist Health Medical Center Comprehensive Cancer Center, Winston-Salem, NC.

**P3-02-08 Diagnosis, navigation, treatment: A versatile biocompatible and biodegradable mesoporous silica platform of NIR II fluorescence imaging for early diagnosis, breast cancer precisely surgery, and radiosensitization**

Wei M, Wang P, Zhang G. Xiamen University, Xiamen, China; Haixi Institutes, Chinese Academy of Sciences, Xiamen, China.

**P3-02-09 Three timepoint pharmacokinetic modeling to incorporate within standard of care MRI breast exams**

DiCarlo JC, Jarrett AM, Kazerouni AS, Virostko J, Sorace AG, Slavkova KP, Patt D, Goodgame BW, Avery S, Yankeelov TE. The University of Texas at Austin, Austin, TX; University of Washington, Seattle, WA; University of Alabama at Birmingham, Birmingham, AL; Texas Oncology, Austin, TX; Austin Radiological Association, Austin, TX.

**P3-02-10 Balixafortide-functionalized down-conversion NIR-IIb nanoparticles for lymph node-invaded breast cancer detection**

Zhu Y-Y, Zhang Y-Q, Wang Z, Chen M, Zhang G-J. Department of Breast-Thyroid-Surgery and Cancer Center, Xiang’ an Hospital of Xiamen University, Xiamen, China; Chang Jiang Scholar’s Laboratory, Medical College, Shantou University, Shantou, China; Clinical Central Research Core, Xiang’an Hospital of Xiamen University, School of Medicine, Xiamen, China.

**P3-02-11 Towards a new standard for staging: A comparative study of [18F]FES PET/CT vs [18F]FDG PET/CT in patients with clinical stage II/III and locoregional recurrent estrogen receptor positive breast cancer**

Iqbal R, Bonjer EC, van Zweeden A, Mammatas LH, Teunissen JJM, Booij J, Diepenhorst GMP, Schijf L, van der Velde S, Duvivier K, Barbé E, Oprea-Lager DE, Menke-van der Houven van Oordt CW. Amsterdam UMC - location VUmc, Amsterdam, Netherlands; Amstelland Hospital, Amstelveen, Netherlands; Reinier de Graaf Gasthuis, Delft, Netherlands; Amsterdam UMC - location AMC, Amsterdam, Netherlands; Flevo Hospital, Almere, Netherlands.
Detection/Diagnosis - Imaging and Screening: Radiology - Tumor Monitoring

P3-03-01 Functional tumor volume at 3 and 6-week MRI as an indicator of patients with inferior outcome after neoadjuvant chemotherapy

P3-03-02 Diffusion-weighted MRI for prediction of pathologic complete response in HER2- breast cancer treated with pembrolizumab plus neoadjuvant chemotherapy

P3-03-03 Quantitative multiparametric MRI predicts response to neoadjuvant therapy in the community setting
Virostko J, Sorace AG, Slavkova KP, Kazerouni AS, Jarrett AM, DiCarlo JC, Woodard S, Avery S, Goodgame BW, Patt D, Yankeelov TE. University of Texas at Austin, Dell Medical School, Austin, TX;University of Alabama at Birmingham, Birmingham, AL;University of Washington, Seattle, WA;Austin Radiological Association, Austin, TX;Texas Oncology, Austin, TX.

P3-03-04 Challenges of achieving high image quality on breast MRI for quantitative measurements in the I-SPY 2 TRIAL
Bareng TJ, Gibbs JE, Onishi N, Newitt DC, LeStage B, I-SPY 2 TRIAL Imaging Working Group, I-SPY 2 TRIAL Coordinators, HyltonNM. University of California, San Francisco, San Francisco, CA;Dana-Farber Cancer Institute, Boston, MA.

P3-03-05 The budget impact of the DiviTum®TKa assay in postmenopausal women with hormone receptor positive metastatic breast cancer
Guzauskas GF, Carlson JJ, Dann RA, Ramsey SD. University of Washington, Seattle, WA;Biovica, Bost, MA;Fred Hutchinson Cancer Research Center, Seattle, WA.

P3-03-06 Prediction of response to neoadjuvant systemic therapy in triple negative breast cancer using baseline tumor MRI characteristics and imaging patterns of response
Guirguis MS, Adrada BE, Candelaria RP, Sun J, Whitman GJ, Yang WT, Boge M, Mohamed RW, Elshafeey NA, Lane DL, Le-Petross H, Leung JWT, Santiago L, Scoggins ME, Spak DA, Patel MP, Perez F, Wei P, Tripathy D, White J, Ravenberg E, Huo L, Litton J, Arun B, Valero V, Thompson A, Moulder AS, Yam C, Rauch GM. University of Texas MD Anderson Cancer Center, Houston, TX;University of Texas MD Anderson Cancer Center, Houston, TX;University of Texas MD Anderson Cancer Center, Houston, TX;University of Texas MD Anderson Cancer Center, Houston, TX;University of Texas MD Anderson Cancer Center, Houston, TX;University of Texas MD Anderson Cancer Center, Houston, TX.

P3-03-07 Single-institution retrospective analysis of lymph node (LN) change on breast MRI in patients with high risk early-stage breast cancer receiving neoadjuvant chemotherapy with and without immunotherapy on the ISPY-2 TRIAL
Background parenchymal enhancement as an imaging biomarker in neoadjuvant endocrine therapy for DCIS

Onishi N, Newitt DC, Gibbs JE, Nguyen AA, Freimanis R, Price ER, Hwang S, Hylton NM. University of California, San Francisco, San Francisco, CA; Duke University School of Medicine, Durham, NC.

Detection/Diagnosis - Imaging and Screening: Screening

Information availability about screening for high-risk breast cancer on cancer center websites

Batra JS, Park E, Gupta A. University of South Alabama, Mobile, AL; University of Minnesota, Minneapolis, MN.

Real world evidence demonstrates replacement of 2D mammography with 3D mammography among insured women


The value of screening MRI in patients with high-risk breast lesions: An observational single-institution cohort study

Laws A, Katlin F, Hans M, Graichen M, Kantor O, Minami C, Bychkovsky B, Pace L, Scheib R, Garber J, King T. Brigham and Women’s Hospital, Boston, MA; Dana-Farber Cancer Institute, Boston, MA.

Multi-institutional perspective on screening mammography and breast cancer stage at diagnosis during the COVID-19 pandemic

Stephens SJ, Lloyd MR, Hong JC, Mehta T, James TA, Blitzblau R, Recht A, Spiegel DY. Duke University Medical Center, Durham, NC; Beth Israel Deaconess Medical Center, Boston, MA; University of California San Francisco, San Francisco, CA.

Tumor Cell and Molecular Biology: Epigenetics

Role of TRIM24 in metaplastic breast cancer and nomination of potential therapeutic targets

Shah V, Miao S, Yam C, Chang JT, Barton M, Piwnica-Worms H, Moulder S, Lozano G. UT MD Anderson Cancer Center, Houston, TX; University of Texas Health Sciences Center at Houston, Houston, TX; Cancer Early Detection Advanced Research Center, Portland, OR.

A minimal DNA-methylation signature to estimate tumor content and molecular subtype in breast cancer tissue samples with potential application to liquid biopsy

Romagnoli D, Galardi F, De Luca F, Biagioni C, Moretti E, Biganzoli L, Migliaccio I, Malorni L, Benelli M. Azienda USL Toscana Centro, Prato, Italy.

KMT2D as a novel therapeutic target for HER2+ breast cancers

Ma E, Zlobin A, Wyatt D, Ng J, Dingwall A, Osipo C. Loyola University Chicago, Maywood, IL; University of Chicago, Chicago, IL; Washington University in St. Louis, St. Louis, MO.
P3-05-04 The histone demethylase hairless functions as a tumor suppressor gene in breast cancer development
Liu L, Shen Y, Singh J, Sah B, Chen Z, Henzler C, Ha W, Su T, Hibshoosh H. University of Minnesota, Austin, MN; Columbia University Medical Center, New York, NY; University of Minnesota, Minneapolis, MN.

P3-05-05 Preclinical evaluation of novel HDAC6 selective inhibitors N008 with potent in vitro and in vivo profiles in non-solid tumor and solid tumors
Shen X, Li Z. Convalife (Shanghai) Co.Ltd., Shanghai, China.

P3-05-06 Genome-wide DNA methylation analysis identifies novel biomarkers associated with risk of relapse beyond oncoype DX recurrence-score risk assessment within HR+/HER2- early-stage breast cancer patients

P3-05-07 The response of histone deacetylase inhibitors in triple negative breast cancer
Alzoubi M, Nguyen K, Burks H, Hebert K, Cheng T, Matossian M, Wright M, Collins-Burow B, Burow M. Tulane University School of Medicine, New Orleans, LA; Northwestern University, Chicago, IL; University of Chicago, Chicago, IL.

Tumor Cell and Molecular Biology: Epithelial-Mesenchymal Transition

P3-06-01 Eribulin alters the chromatin landscape to induce MET, attenuating metastatic progression and sensitizing breast tumors to subsequent chemotherapy
Pattabiraman DR, Bagheri M, Ognjenovic NB, LaCroix IS, Gerber SA. Geisel School of Medicine at Dartmouth, Lebanon, NH.

P3-06-02 Exosomes produced by adipocytes induce EMT, immune exhaustion and tumor metastasis, in both in vitro and in vivo models of TNBC
Qiu Y, Ross C, Jafari N, Kolla M, Llevenes P, Ennis C, Mazzeo CS, Mahdaviani K, Ko NY, Denis GV. Boston University, Boston, MA.

P3-06-03 NR2F1 is a barrier to dissemination of early-evolved mammary cancer cells

P3-06-04 Notch3 inhibits epithelia-mesenchymal transition by trans-activating GSK3β in breast cancer
Wei-Ling C, Zhang Y-Q, Huang W-H, Chen M, Li Y-C, Zhang G-J. Xiang’an Hospital of Xiamen University, Xiamen, China; Cancer Hospital of Shantou University Medical College, Shantou, China.
P3-06-05 Human endogenous retrovirus-K (HERV-K) is aberrantly expressed in triple negative breast cancer (TNBC) and associated with increased distant metastasis: Impact of HERV-K knockdown on gene expression patterns and invasive potential of mesenchymal TNBC

Glynn SA, Bhattacharyya D, Lambe S, Kerr E, McDade S, Khan FH, Dervan E, Wang-Johanning F, Hynes S, Callagy G. National University of Ireland Galway, Galway, Ireland; National Cancer Institute, Frederick, MD; Queen University Belfast, Belfast, United Kingdom; Sunnybay Biotech, Bastrop, TX.

P3-06-06 Pg5 promotes breast cancer metastasis by activating pi3k/akt/mtor signaling pathways

Xiang K, Yan W, Yanshan H, Xiaojia Y, Chunmei Z, Minmin G. The Second Affiliated Hospital of Kunming Medical University, Kunming, China; The Third Affiliated Hospital of Kunming Medical University/Yunnan Cancer Hospital, Yunnan Cancer Center, Kunming, China.

P3-06-07 Glutathione peroxidase 8 (GPX8) as a novel therapeutic target in triple negative breast cancer

Khatib A. The Hebrew University, Jerusalem, Israel.

P3-06-08 JAM2 inhibits breast cancer invasion and migration by inhibiting the EMT process and potentially affects the immune microenvironment by increasing CXCL9/CXCL10

Peng Y. Department of Endocrine and Breast Surgery, The First Affiliated Hospital of Chongqing Medical University, Chongqing, China.

Tumor Cell and Molecular Biology: Genetics - Germline Changes

P3-07-01 Young women with breast cancer and high risk family history but no high penetrance germline mutations have a higher load of rare high functional impact germline variants in cancer relevant genes

Rozenblit M, Qing T, Ye Y, Zhao H, Hofstatter E, Singh V, Reisenbichler E, Murray M, Pusztai L. contributed equally to this work, Yale University, New Haven, CT; Yale University, New Haven, CT.

P3-07-02 Identification of potential germline variants (GV) on tumor comprehensive genomic profiling (CGP) in patients with advanced breast cancer (BC): BRCA1/2 and beyond

Tierno MB, Dougherty KC, Gornstein E, Pavlick DC, Schrock A, Oxnard GR. Foundation Medicine, Cambridge, MA.

P3-07-03 Real-world evidence database reveals 17.74% of individuals with breast cancer harbor a germline pathogenic or likely-pathogenic variant with implications for medical management and/or reproduction

Bontempo K, Wernecke C, Mauer C, Bentley B, Graham M, Whitworth P, Patel R, Beitsch P, Medneon, Cupertino, CA; Nashville Breast Center, Nashville, TN; Good Samaritan Hospital, Los Gatos, CA; Dallas Surgical, Dallas, TX.

P3-07-04 Geographical patterns of pathogenic genetic variants associated with hereditary breast, ovarian and prostate cancer (HBOPC) in Portugal

**P3-07-05** Genetic profile of germline mutations in unselected women with breast cancer in a Colombian population

Sierra-Díaz DC, Morel A, Fonseca DJ, Contreras N, Angulo-Aguado M, Balaguera V, Llinás-Caballero K, Munevar I, Borras M, Lema M, Idrobo H, Trujillo D, Serrano N, Orduz Al, Lopera D, Gonzalez J, Rojas G, Londoño P, Manneh R, Quintero C, Laisseu P, Cabrera R, Restrepo CM, Mantilla W. Universidad del Rosario, Bogota, Colombia; Fundación Cardioinfantil-Instituto de Cardiología, Bogota, Colombia; Clínica de Oncología Astorga, Medellín, Colombia; Centro Médico Julián Coronel, Cali, Colombia; Hospital Internacional de Colombia, Bucaramanga-Piedecuesta, Colombia; Oncólogos del Occidente S.A.S, Armenia, Manizalez, Pereira, Colombia; Sociedad de Oncología y Hematología del Cesar - SOHEC, Valledupar, Colombia; Integrative IPS, Bogota, Colombia; BIOPAS Laboratoires, Orphan Disease Unit, Bogota, Colombia.

**P3-07-06** Guideline-based multi-gene panel (MGP) testing for germline pathogenic variants among patients diagnosed with breast cancer: Regional perspectives


**P3-07-07** Prevalence of BRCA 1/2 germinal mutation among young women with breast cancer: Experience in a third level private center

Vazquez-Juarez D, Serrano-Olvera JA, Noguez-Ramos A, Regalado-Porras GO, Lazaro-León JM, Olivares-Beltran G, Gerson-Cwilich R. Breast Cancer Center, Hospital Zambrano Hellion TecSalud, Tecnologico de Monterrey, San Pedro Garza Garcia, Mexico; ABC Medical Center, CDMX, Mexico.

**P3-07-08** Germline mutational profiling in Indian TNBCs

Koppiker CB. Prashanti Cancer Care Mission, Pune, India.

**P3-07-09** Single cell transcriptomic analysis reveals the effects of BRCA1 and BRCA2 mutations on distinct signaling networks and cancer susceptibility


**Tumor Cell and Molecular Biology: Genetics - Somatic Changes**

**P3-08-01** Clonal hematopoiesis of indeterminate potential (CHIP) in metastatic triple negative breast cancer

Santos K, Jin Q, Miller PG, Patel A, Kirchner GJ, Files JL, Hughes ME, Stokes SM, Tayob N, Stover DG, Gibson CJ, Winer EP, Lin NU, Garber JE, Parsons HA, Dana-Farber Cancer Institute, Boston, MA; Ohio State University Comprehensive Cancer Center, Columbus, OH.

**P3-08-02** The frequency and somatic mutation landscape of Fibroblast growth factor receptor (FGFR) alterations in breast cancer

P3-08-03 **HOXB13** is coamplified with **HER2** in a subset of breast cancers  
Sgroi D, Onozato M, Mitsuides I, Mcmullin R, Hicks D, Volorio A, Rheinbay E. Harvard Medical School, Boston, MA; AstraZeneca, Worcester, MA; Yale Medical School, New Haven, CT.

P3-08-04 The genomic and transcriptomic landscape of **PIK3R1** mutated breast cancers  
Cobleigh M, Okeke E, Mahon B, Mauer E, Barrett A, Abukhdeir A. Rush University Medical Center, Chicago, IL; Tempus, Chicago, IL.

P3-08-05 Multi-omic profiling of simultaneous ductal carcinoma in situ and invasive breast cancer  
Kaplan HG, Berry AB, Dowdell A, Piening B. Swedish Cancer Institute, Seattle, WA; Earle A. Chiles Research Institute, Providence Cancer Institute, Portland, OR.

P3-08-06 Breast cancer patients categorized as high-risk of recurrence and/or basal-type molecular subtype by MammaPrint and BluePrint, respectively, should universally undergo germline genetic testing  
Bentley BG, Wennecke C, Bontempo K, Graham M, Witworth P, Patel R, Beitsch P. Medneon, Cupertino, CA; Nashville Breast Center, Nashville, TN; Good Samaritan Hospital, Los Gatos, CA; Dallas Surgical, Dallas, TX.

P3-08-07 Comparison of the genomic alterations in metastatic inflammatory and non-inflammatory breast cancer  
Richard F, De Schepper M, Maetens M, Leduc S, Isnaldi E, Geukens T, Van Baelen K, Nguyen H-L, Vermeulen P, Van Laere S, Dirix L, Floris G, Biganzoli E, Desmedt C. Laboratory for Translational Breast Cancer Research, Department of Oncology, KU Leuven, Leuven, Belgium; Translational Cancer Research Unit, GZA Hospitals & CORE, MIPRO, University of Antwerp, Antwerp, Belgium; Center for Oncological Research (CORE), Integrated Personalized and Precision Oncology Network (IPPON), University of Antwerp, Antwerp, Belgium; Department of Imaging and Pathology, Laboratory of Translational Cell & Tissue Research and University Hospitals Leuven, KU Leuven, Leuven, Belgium; Unit of Medical Statistics, Biometry and Epidemiology, Department of Biomedical and Clinical Sciences (DIBIC) “L. Sacco” & DSRC, LITA Vialba Campus, Università degli Studi di Milano, Milan, Italy.

**Tumor Cell and Molecular Biology: Genomics**

P3-09-01 A ubiquitination cascade regulating the integrated stress response and survival in carcinomas  

P3-09-02 Mutational assessment of newly diagnosed breast cancer using Germline and tumor genomiCs  
De Silva DL, Skandarajah AR, Sinclair M, Kentwell M, Devereux L, Zeethoven M, Hogg K, Lal L, Stafford L, James PA, Lindeman GJ, Mann GB, Campbell IG. Memorial Sloan Kettering, New York, NY; Peter MacCallum Cancer Centre, Melbourne, Australia; Centre for Women’s Mental Health, Royal Women’s Hospital, Melbourne, Australia; Parkville Familial Cancer Centre,
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THURSDAY, DECEMBER 9, 2021: 7:00 AM-8:30 AM CT

P3-09-03 Single nucleotide polymorphisms of aromatase gene (CYP19A1) and toxicity of adjuvant aromatase inhibitors: A translational, prospective study
Conte B, Molinelli C, Bisagni G, Durando A, Sanna G, Gori S, Garrone O, Tamberi S, De Placido S, Schettini F, Pazzola A, Ponzone R, Montemurro F, Lunardi G, Notaro R, Turletti A, Bighin C, Poggio F, Buzzatti G, Lambertini M, Boni L, Del Mastro L. Oncologia Medica 2, Medical Oncology Department, IRCCS Ospedale Policlinico San Martino, Genova, Italy; Azienda unità Sanitaria Locale – IRCCS di Reggio Emilia, Reggio Emilia, Italy; Breast Unit Ospedale S Anna, Città della Salute e della Scienza di Torino, Torino, Italy; Azienda Ospedaliera Universitaria – Sassari, Sassari, Italy; UOC Oncologia Medica, IRCCS Ospedale Sacro Cuore Don Calabria, Negrar, Verona, Italy; Breast Unit, AO S. Croce e Carle Ospedale di insegnamento, Cuneo, Italy; O.O Oncologia, Ospedale degli Infermi, Faenza, Italy; Department of Clinical Medicine and Surgery, University of Naples Federico II, Napoli, Italy; Translational Genomics and Targeted Therapies in Solid Tumors, August Pi I Sunyer Biomedical Research Institute (IDIBAPS), Barcellona, Spain; Candido Cancer Institute, FPO-IRCCS, Gynecologic Oncology and Multidisciplinary Outpatient Oncology Clinic, Candido (TO), Italy; Laboratorio Analisi Chimico-Cliniche, IRCCS-Ospedale Sacro Cuore Don Calabria, Negrar, Verona, Italy; Core Research Laboratory-Instituto Toscano Tumori, Azienda Universitaria-Ospedaliera Careggi, Firenze, Italy; Breast Unit, ASL Città di Torino, Torino, Italy; O.O.C. Clinica di Oncologia Medica, Medical Oncology Department, IRCCS Ospedale Policlinico San Martino and Università di Genova, Dipartimento di Medicina Interna e Specialità Mediche (Di.M.I.), Genova, Italy; S.C. Epidemiologia Clinica, IRCCS Ospedale Policlinico San Martino, Genova, Italy; S.S.D. Breast Unit, IRCCS Ospedale Policlinico San Martino and Università di Genova, Dipartimento di Medicina Interna e Specialità Mediche (Di.M.I.), Genova, Italy.

P3-09-04 Genomic landscape of HER2-negative advanced or metastatic breast cancer with PIK3CA gain-of-function mutations
Xi J, Harnden K, Luo J, Call GS, Mauer E, Ronski K, Ma CX, Vasan N. Washington University, St. Louis, MO; Inova Schar Cancer Institute, Fairfax, VA; Tempus Labs, Inc, Chicago, IL; Columbia University Irving Medical Center, New York, NY.

P3-09-05 Genomic and clinical characterization of breast tumors with unusual HER2 FISH pattern (ratio < 2, HER2 copy number ≥ 6): Are they mostly HER2 “positive?”
Wei CH, Yang L, Stewart D, Bedell V, Schmolze D, Apple S, Murata-Collins JL, Pillai R, Mortimer JE. City of Hope Comprehensive Cancer Center, Duarte, CA.

P3-09-06 Targeting tumor subpopulations based on single-cell transcriptomics
Grible JM, Leftwich T, Olex AL, Duong AK, Hairr N, Rashid NS, Smith TM, Signaevskaia L, Boyd DC, Dozmorov MG, Harrell JC. Virginia Commonwealth University, Richmond, VA.

P3-09-07 R-loop forming sequences determine early response genes and tumorigenic pathways driven in BRCA1-deficient carriers
Grageda A, Kuznetsov VA. SUNY Upstate Medical University, Syracuse, NY.
P3-09-08 An automated tool to determine optimal cluster numbers in single-cell RNA sequencing data identifies key prognostic subsets of T cells in breast tumors
Liu S, Thennavan A, Marron J, Perou. University of North Carolina at Chapel Hill, Chapel Hill, NC.

P3-09-09 Serial circulating tumor DNA from patients with metastatic breast cancer with and without BRCA1/2 mutations

P3-09-10 NTRK1/2/3 fusions are observed in both secretory and non-secretory breast cancers
Sokol E, Maund S, Ross J, Wilson T. Foundation Medicine, Cambridge, MA; Genentech, South San Francisco, CA.

P3-09-11 Clinical characteristics associated with BRCA1/2 mutations identified on routine tumor tissue genotyping in metastatic breast cancer

P3-09-12 Breast cancer derived GATA3 mutations disrupt luminal transcriptional network
Takaku M, Saotome M, Nair R. University of North Dakota, Grand Forks, ND.

P3-09-13 Androgen receptor loss is associated with genomic instability characterized by copy number alterations and mirna deregulation in triple-negative breast cancer
Bhattanai S, Sugita BM, Cavalli L, Aneja R. Georgia State University, Atlanta, GA; Research Institute Pelé Pequeno Príncipe, Curitiba, Brazil.

P3-09-14 Whole exome sequencing of matched primary and metastatic triple-negative breast cancer samples
Kaur J, Chandrashekar DS, Varga Z, Janssen E, Gandhi K, Mittal K, Kiraz U, Varambally S, Aneja R. Georgia State University, Atlanta, GA; University of Alabama at Birmingham, Birmingham, AL; University Hospital Zurich, Department of Pathology and Molecular Pathology, Zurich, Switzerland; Stavanger University Hospital, Department of Pathology, Stavanger, Norway; Winship Cancer Institute, Emory University, Atlanta, GA; Department of Pediatrics, Emory University School of Medicine, Atlanta, GA.

P3-09-15 Value-added clinical tumor/normal whole exome and whole transcriptome sequencing versus a DNA and RNA tumor only gene panel for managing breast cancer
P3-09-16 Validating alternative splicing events between bulk and scRNA sequencing data: A bioinformatic approach
Cottone G, Spike BT, Mirzaei Mehrabad E, Seema A Khan SA, Clare S. Department of Surgery, Lurie Cancer Center, Northwestern University, Feinberg School of Medicine, Chicago, IL; Huntsman Cancer Institute, Department of Oncological Sciences, University of Utah, Salt Lake City, UT; School of Computing, University of Utah, Salt Lake City, UT.

P3-09-17 Systems-scale characterization of the human immunome in breast cancer for precision medicine
Yi S. University of Texas at Austin, Austin, TX.

P3-09-18 The association between genomic alterations and body mass index in patients with early breast cancer
Nguyen H-L, Geukens T, Maetens M, Van Baelen K, De Schepper M, Leduc S, Isnaldi E, Aparicio S, Borg A, Brock J, Broeks A, Caldas C, Green A, Khout H, Jórunn E, Knappskog S, Krishnamurthy S, Lakhani S, Langerod A, Martens JWM, Murphy L, Nik-Zaina S, Purdie C, Rakha E, Richardson A, Salomon A, Simpson P, Sotiriou C, Span P, Tan BK, Thompson A, Tommasi S, Van de Vijver M, Van Laere S, Viari A, Floris G, Biganzoli E, Richard F, Desmedt C. Laboratory for Translational Breast Cancer Research, Department of Oncology, KU Leuven, Leuven, Belgium; BC Cancer Research Institute, Vancouver, BC, Canada; Lund University, Lund, Sweden; Department of Pathology, Brigham & Women’s Hospital, Boston, MA; The Netherlands Cancer Institute, Amsterdam, Netherlands; University of Cambridge, Cambridge, United Kingdom; Nottingham Breast Cancer Research Centre, University of Nottingham, Nottingham, United Kingdom; Nottingham University Hospitals NHS Trust, Nottingham, United Kingdom; University of Iceland, Reykjavik, Iceland; Department of Clinical Science, University of Bergen and Department of Oncology, Haukeland University Hospital, Bergen, Norway; MD Anderson Cancer Center, Houston, TX; University of Queensland/Pathology Queensland, Brisbane, Australia; Institute for Cancer Research, Oslo University Hospital, Oslo, Norway; Erasmus University Medical Center, Rotterdam, Netherlands; University of Manitoba and CancerCare Manitoba, Winnipeg, MB, Canada; University of Dundee, Dundee, United Kingdom; Johns Hopkins Medicine, Washington DC, DC; Diagnostic and Theranostic Medicine Division, Institut Curie, PSL Research University, Paris, France; University of Queensland, Brisbane, Australia; Institut Jules Bordet, Brussels, Belgium; Department of Radiation Oncology, Radboud University Medical Center, Nijmegen, Netherlands; Department of General Surgery, Sengkang General Hospital, Singapore, Singapore; Istituto tumori Giovanni Paolo II, Bari, Italy; Amsterdam University Medical Centre, Amsterdam, Netherlands; Center for Oncological Research (CORE), Integrated Personalized and Precision Oncology Network (IPPON), University of Antwerp, Antwerp, Belgium; INRIA, Grenoble, France; Department of Pathology, University Hospitals Leuven, Leuven, Belgium; Unit of Medical Statistics, Biometry and Epidemiology, Department of Biomedical and Clinical Sciences (DiBiC) “L. Sacco” & DSRC, LITA Vialba campus, Università degli Studi di Milano, Milan, Italy.

P3-09-19 The utility of using genomic testing on needle core biopsies during the COVID-19 pandemic: Molecular characterization, risk stratification, neoadjuvant outcome, and future implications
Tumor Cell and Molecular Biology: MicroRNAs and Other Non-coding RNAs

**P3-10-01** Mir-150 expression is associated with immune cell infiltration and immune response in breast cancer

Oshi M, Gandhi S, Wu R, Yan L, Yamada A, Ishikawa T, Endo I, Takabe K. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Yokohama City University Graduate School of Medicine, Yokohama, Japan; Tokyo Medical University, Tokyo, Japan.

**P3-10-02** Enhanced miR-579-3p by anti-estrogen treatment may affect capecitabine response in hormone receptor positive metastatic breast cancer


**P3-10-03** Enrichment of pro-oncogenic immune miRNAs in exosomes by cyclin D1, promote cancer stem cell expansion

Jiao X, Xu C, Tian L, Zhang Z, Ashton AW, Li Z, Pestell RG. Baruch S Blumberg Institute, Doylestown, PA; Thomas Jefferson University, Philadelphia, PA; Lankenau Institute for Medical Research, Wynnewood, PA.

**P3-10-04** microRNA-125a high expressing tumors enrich cell proliferation associated gene sets and associated with poor prognosis in estrogen receptor positive breast cancer patients

Tokumaru Y, Futamura M, Taniguchi K, Oshi M, Mase J, Asano Y, Mori R, Takabe K, Yoshida K. Gifu University School of Medicine, Gifu City, Japan; Osaka Medical and Pharmaceutical University, Takatsuki, Japan; Roswell Park Comprehensive Cancer Center, Buffalo, NY.

**P3-10-05** Feasibility of detecting long noncoding RNAs in clinical FFPE specimens using clinical grade RNA-sequencing pipeline

Wei CH, O’Meally D, Kirschenbaum M, Mao A, Kancharla C, Morris KV, Stewart D. City of Hope Comprehensive Cancer Center, Duarte, CA.

**P3-10-06** High levels of miR-18a is associated with increased proliferation but suppression of EMT phenotype in ER negative breast cancer

Nair MG, Chandrakala M, Apoorva D, Snijesh VP, Prabhu JS, Rajarajan S, Korlimarla A, Ramesh RS, Srinath BS, Sridhar TS. St. John’s Research Institute, Bangalore, India; Shankara Cancer Hospital and Research Centre, Bangalore, India; St. John’s Medical College and Hospital, Bangalore, India; Indian Institute of Science Education and Research, Berampur, India.

Tumor Cell and Molecular Biology: Virology

**P3-11-01** Withdrawn

**P3-11-02** Evaluation of the effects of anticancer treatments in cancer patients undergoing SARS-COV2 vaccination (VAX-on study: Breast cancer subgroup analysis)

Fabbri A, Marrucci E, Nelli F, Mazzotta M, Onorato A, Francesca P, Chilelli MG, Virtuoso A, Signorelli C, Giron Berrios JR, Schirripa M, Donghia R, Ruggeri EM. Belcolle Hospital, Viterbo, Italy; Belcolle Hospital, viterbo, Italy; National Institute of Gastroenterology “Saverio de Bellis”, Castellana Grotte, Italy.
Epidemiology, Risk, and Prevention: Epidemiology - Population Studies

P3-12-01 Regular aspirin use, breast tumor characteristics and long-term breast cancer survival
Peng C, Holmes MD, Wang T, Harris A, Chen W, Brantley K, Heng YJ, Bret-Mounet VC, Baker GM, Rosner B, Willett W, Tamimi R, Eliassen AH, Brigham and Women’s Hospital, Boston, MA; National Cancer Institute, Bethesda, MD; Dana-Farber Cancer Institute, Boston, MA; Beth Israel Deaconess Medical Center, Boston, MA; Harvard T. H Chan School of Public Health, Boston, MA; Weill Cornell Medicine, NY, NY.

P3-12-02 Loss of PTEN expression, PIK3CA mutations, and breast cancer survival in the Nurses’ health studies
Wang T, Heng YJ, Baker GM, Bret-Mounet VC, Hankinson SE, Holmes MD, Chen WY, Willett WC, Rosner BA, Tamimi RM, Eliassen AH, Brigham and Women’s Hospital and Harvard Medical School, and Harvard T. H. Chan School of Public Health, Boston, MA; Beth Israel Deaconess Medical Center, Boston, MA; University of Massachusetts Amherst School of Public Health and Health Sciences, Amherst, MA; Dana-Farber Cancer Institute, and Brigham and Women’s Hospital and Harvard Medical School, Boston, MA; Weill Cornell Medicine and Harvard T. H. Chan School of Public Health, Boston, MA.

P3-12-03 Pre-diagnostic plasma 25-hydroxyvitamin D and mortality among women with breast cancer in the nurses’ health study cohorts
Holder E. UMASS Amherst, Amherst, MA.

P3-12-04 Extending therapy after 5-year adjuvant hormone therapy in breast cancer patients: A population-based study

P3-12-05 Influence of environmental temperature on breast cancer outcomes: A SEER population-based study
Gupta A, Attwood K, Gupta K, Catalfamo K, Takabe K, Gandhi S. Roswell Park Comprehensive Cancer Center, Buffalo, NY; University of Massachusetts Medical School - Baystate, Springfield, MA.

P3-12-06 Prognosis of pregnancy-associated breast cancer: Inferior outcome in patients diagnosed during second and third gestational trimesters and lactation
Suelmann BBM, Bakhuis CFJ, van Dooijeweert C, Verloop J, Zweemer RP, Linn SC, van der Wall E, van Diest PJ. UMC Utrecht, Utrecht, Netherlands; Netherlands Cancer Institute, Amsterdam, Netherlands

P3-12-07 Breast cancers are overrepresented in school teachers, particularly of young students
Gagnon J, Wernick MH. Washington and Lee University, Lexington, VA; Frederick Health Hospital, Frederick, MD.

P3-12-08 Neighborhood disadvantage predicts worse breast cancer-specific survival
Goel N, Choi S, Yadegarynia S, Rojas K, Kesmodel S, Kobetz E, Westrick A. University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; University of Michigan, Department of Public Health, Ann Arbor, MI.
P3-12-09 Impact of the COVID-19 outbreak on the treatment strategy of Dutch breast cancer patients
Eijkelboom AH, Siesling S, de Munck L, van den Bongard DHJG, Menke-van der Houven van Oordt W, Westenend PJ, Siemerink EJM, Strobbe LJA, Vrancken Peeters M-JTFD, Koppert LB, Mureau MAM, Jager A, Broeders MJM, Lobbes MBl, Verkooijen HM, Wesseling J, Smidt M, Tjan-Heijnen VCG, NABON-COVID-19 consortium, COVID and Cancer Care NL consortium (ZONMW number10430022010014). Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht, Netherlands; Amsterdam UMC, Amsterdam, Netherlands; Amsterdam UMC - location VUmc, Amsterdam, Netherlands; Laboratory of Pathology, Dordrecht, Netherlands; Hospital Group Twente (ZGT), Hengelo/Almelo, Netherlands; Canisius Wilhelmina Hospital, Nijmegen, Netherlands; Netherlands Cancer Institute – Antoni van Leeuwenhoek, Amsterdam, Netherlands; Erasmus University Medical Center, Rotterdam, Netherlands; Erasmus MC Cancer Institute, Rotterdam, Netherlands; Radboud University Medical Center, Nijmegen, Netherlands; Zuyderland Medical Center, Sittard-Geleen, Netherlands; University Medical Centre Utrecht, Utrecht, Netherlands; Maastricht University Medical Centre, Maastricht, Netherlands; Maastricht University Medical Centre (School of GROW), Maastricht, Netherlands.

P3-12-10 Socioeconomic status in young breast cancer patients is associated with inequalities in recurrence patterns: A population-based study in the Netherlands
van Maaren MC. Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht, Netherlands.

P3-12-11 Survival differences in Filipino versus white women with breast cancer in the United States: A SEER-based analysis
Lim DW, Giannakeas V, Narod SA. Women’s College Hospital, Toronto, ON, Canada.

P3-12-12 ATTITUDE: Understanding and reducing ATTRition in longiTUDinal studiEs of cancer survivors

P3-12-13 Evaluation of disparities in anxiety, depression, and cancer empowerment in a study of BRCA1/2-positive females in the United States
Dibble KE, Connor AE. Johns Hopkins Bloomberg School of Public Health, Baltimore, MD.

P3-12-14 Attenuated negative prognostic effect of progesterone receptor negativity in postmenopausal ER+ breast cancer with normal BMI (<25): A nation-wide study in Korean Breast Cancer Society and the institutional cohort
Bae SJ, Hwang J, Lee J, Ji JH, Chu C, Kim JH, Ahn SG, and Joon Jeong J. Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea.

P3-12-15 Clinical characteristics, treatment patterns, and survival outcomes in women with early triple-negative (TN) or hormone receptor-positive/human epidermal growth factor receptor-2 negative (HR+/HER2−) breast cancer (BC) in the real-world (RW) setting
Gogate A, Crosbie A, Le TK, Zhang Y, Das R, Davis C. Bristol Myers Squibb, Princeton, NJ
P3-12-17 Breast cancer treatment related survival gains in the African breast cancer - Disparities in outcomes study
Foerster M, Kantelhardt E, Boucheron P, dos-Santos-Silva I, McCormack V, the ABC-DO study team. International Agency for Research on Cancer, 69372 LYON cedex 08, France; University of Halle-Wittenberg, 06108 Halle, Germany; London School of Hygiene and Tropical Medicine, London, United Kingdom.

P3-12-18 Mortality after late breast cancer recurrence in Denmark
Pedersen RN, Mellemkjær L, Ejlertsen B, Nørgaard M, Cronin-Fenton D. Department of Clinical Epidemiology, Aarhus University, Aarhus N, Denmark; Danish Cancer Society Research Center, Copenhagen, Denmark; Danish Breast Cancer Group, Rigshospitalet, Copenhagen, Denmark.

P3-12-19 Associations of alcohol consumption with benign breast tissue composition
Yaghjyan L, Austin-Datta R, Heng YJ, Baker G, Rosner B, Tamimi R. University of Florida, Gainesville, FL; Department of Pathology, Harvard Medical School, Beth Israel Deaconess Medical Center, Boston, MA; Channing Division of Network Medicine, Department of Medicine, Brigham and Women’s Hospital and Harvard Medical School, Boston, MA; Department of Population Health Sciences, Weill Cornell Medicine, New York, NY.

P3-12-20 Outcomes of patients with pathologic complete response following neoadjuvant HER2-targeted therapy in patients with HER2+ early stage breast cancer
O'Shaughnessy J, Oestreich C, Fulcher D, Tseng W-Y, Beeks A, Moore J, Lalla D. Baylor University Medical Center, Texas Oncology, Dallas, TX; Puma Biotechnology, Inc., Los Angeles, CA; Ontada, The Woodlands, TX.

P3-12-21 Blood pressure and the subsequent risk of breast cancer: Findings from the Health Examinees-Gem Study

P3-12-22 Socioeconomic position and prognosis in premenopausal breast cancer: A population-based cohort study in Denmark
Hjorth C, Damkier P, Ejlertsen B, Lash TL, Sørensen HT, Cronin-Fenton D. Aarhus University Hospital, Aarhus N, Denmark; Southern University of Denmark, Odense, Denmark; Rigshospitalet, Copenhagen, Denmark; Emory University, Atlanta, GA.

P3-12-23 Characterization of triple-negative breast cancer in two Central American countries
Reyes-Morales A, Alvarado-Muñoz JF, Bejarano S, Castro H, Puac-Polanco V, Chiwalan M, Torselli S. Roosevelt Hospital, Guatemala; Guatemala Hospital de la Liga contra el Cáncer, Honduras; Instituto Guatemalteco de Seguridad Social, Guatemala; Department of Health Care Policy, Harvard Medical School, Boston, MA.

P3-12-24 Landscape of germline BRCA1 and BRCA2 mutations in breast cancer in Peru
Bioingenieria, UTEC, Lima, Peru; Instituto de Cancerologia Las Americas, AUNA, Medellin, Colombia; ONCOGENOMICS, Lima, Peru; Instituto Nacional de Enfermedades Neoplásicas, INEN, Lima, Peru; Escuela Profesional de Medicina Humana, Universidad Privada San Juan Bautista, Lima, Peru.

**P3-12-25** Risk of second primary cancers after curative treatment of breast cancer: A Korean nationwide population-based study
Kim H, Kim SS, Lee JS, Yoon JS, Shin HJ, Lee JE, Lee SK, Chung IY, Jung SY, Choi YJ, Korean Breast Cancer Society. Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Clinical Research Center, Asan Institute for Life Sciences, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Korea University, Department of Biostatistics, Seoul, Republic of Korea; Department of Surgery, Myongji Hospital, Seonam University College of Medicine, Goyang, Republic of Korea; Department of Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Division of Breast Surgery, Department of Surgery, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Center for Breast Cancer, National Cancer Center, Goyang, Republic of Korea; Department of Surgery, Chungbuk National University Hospital, Chungbuk National University College of Medicine, Cheongju, Republic of Korea.

**P3-12-26** Baseline characteristics and survival of neuroendocrine carcinoma of the breast: A SEER database analysis
Alvarez Soto A, Anampa J. NYCHHC/Jacobi, New York, NY; Montefiore Medical Center, New York, NY.

**P3-12-27** Characteristics and survival outcomes of male breast cancer in Sao Paulo state of Brazil: A population-based study
Frederice RdO, Pereira AAL, de Andrade FEM, Hanna SA, Carvalho HdA, Marta GN. Sirio Libanes Hospital, São Paulo, Brazil.

**P3-12-28** Reproductive factors and molecular subtypes of breast cancer in premenopausal and postmenopausal women from 3 Colombian cities: PRECAMA & POSCAMA studies
Zambrano JA, Idarraga MDM, Agudelo S, Arias S, Zambrano Y, Cardenas K, Jurado D, Agudelo MC, Vasco E, Mondul A, Rozek L, Ossa A, Borrello M, Herazo F, Navarro E, Jaramillo R, Romieu I, Rinaldi S, Sánchez GI. Grupo Infección y Cáncer, Facultad de Medicina, Universidad de Antioquia, Medellín, Colombia; Department of Environmental Health Sciences and Risk Science Center, University of Michigan, Ann Arbor, MI; Hospital General de Medellín, Medellín, Colombia; Departamento de Ginecología y Obstetricia, Universidad de Antioquia, Medellín, Colombia; Clínica Vida Fundación, Medellín, Colombia; Universidad del Norte, Barranquilla, Colombia; Hemato Oncólogos S.A., Cali, Colombia; International Agency for Research on Cancer, Lyon, France.

**P3-12-29** Effect of the COVID outbreak on detection of second primary breast cancer and breast cancer recurrences
POSTER SESSION 3
THURSDAY, DECEMBER 9, 2021: 7:00 AM-8:30 AM CT

P3-12-30 Impact of medicaid expansion on breast cancer stage at diagnosis: Exploring the mechanisms at play
Koroukian SM, Dong W, Albert J, Kim U, Rose J, Owusu C, Zanotti K, Cooper G, Tsui J. Case Western Reserve University, Cleveland, OH; University of Southern California, Los Angeles, CA

P3-12-31 A 10 year retrospective study of male breast cancer patients within central Scotland
Morris REL, Pitsinis V. University Of Dundee, Dundee, United Kingdom; University Of Dundee & NHS Tayside Breast Unit, Dundee, United Kingdom.

P3-12-32 Long-term outcomes among young Saudi women with breast cancer
Aboualkhair OA, Omair A, Masuadi E, Alamri G, Aljehani A, Alkushi A, Partridge A. Dr. Sulaiman Al Habib Medical Group, Riyadh, Saudi Arabia; King Saud Bin Abdulaziz University for Health Sciences & King Abdullah International Medical Research Center, Riyadh, Saudi Arabia; Imam University, Riyadh, Saudi Arabia; King Saud Bin Abdulaziz University for Health Sciences, King Abdullah International Medical Research Center & King Abdulaziz Medical City - Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia; Dana-Farber Cancer Institute, Boston, MA.

P3-12-33 Breast cancer incidence rates in Japan showed unimodal age distribution
Uchida K, Ohashi H, Nogi H. Meiji Yasuda Shinjuku Kenshin Center, Shinjuku-Ku, Japan; The Jikei University of Medicine, Minato-Ku, Japan.

P3-12-34 Antibiotic use and mortality from triple-negative breast cancer

P3-12-35 Industrial and ruminant trans fatty acid intakes and cancer risk: Results from the NutriNet-Santé cohort
P3-12-36 The diagnosis and prognosis of ductal carcinoma in situ (DCIS) with microinvasion - Results from the United Kingdom Sloane project
Shaaban AM, Hilton B, Clements K, Dodwell D, Sharma N, Kirwan C, Sawyer E, Maxwell A, Wallis M, Stobart H, Mylvaganam S, Litherland J, Brace-McDonnell S, Dulson-Cox J, Kearins O, Provenzano E, Pinder S, Thompson A. Queen Elizabeth Hospital Birmingham and University of Birmingham, Birmingham, United Kingdom; Public Health England Screening, Birmingham, United Kingdom; University of Oxford, Oxford, United Kingdom; Leeds Teaching Hospital NHS Trust, Leeds, United Kingdom; University of Manchester, Manchester, United Kingdom; King’s College London and Guy’s and St Thomas’ Hospitals NHS Foundation Trust, London, United Kingdom; Cambridge University Hospitals NHS Trust, Cambridge, United Kingdom; Independent Cancer Patient Voice, London, United Kingdom; Royal Wolverhampton NHS Trust, Wolverhampton, United Kingdom; NHS Greater Glasgow and Clyde, Glasgow, United Kingdom; University of Warwick, Warwick, United Kingdom; King’s College London and Guy’s and St Thomas’ Hospitals NHS Foundation Trust, London, United Kingdom; Baptist College of Medicine, Houston, TX.

Eijkelboom AH, Siesling S, de Munck L, van Gils CH, Lobbes MBI, Tjan-Heijnen VCG, Strobbe LJA, Wesseling J, Pijnappel RM, Broeders MJM, NABON-COVID-19 consortium, COVID and Cancer Care-NL consortium (ZONMW number10430022010014), Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht, Netherlands; Julius Center for Health Sciences and Primary Care - University Medical Center, Utrecht, Netherlands; Zuyderland Medical Center, Sittard-Geleen, Netherlands; Maastricht University Medical Centre (School of GROW), Maastricht, Netherlands; Canisius Wilhelmina Hospital, Nijmegen, Netherlands; Netherlands Cancer Institute – Antoni van Leeuwenhoek, Amsterdam, Netherlands; University Medical Centre Utrecht, Utrecht, Netherlands; Radboud University Medical Center, Nijmegen, Netherlands.

P3-13-01 Association of polygenic risk score with 2 year risk of poor prognosis breast cancer
McCarthy AM, Manning AK, Hsu S, Moy B, Lehman CD, Armstrong K. University of Pennsylvania School of Medicine, Philadelphia, PA; Massachusetts General Hospital, Boston, MA.


Lee O, Choi M-R, Cottone G, Patel P, Clare SE, Khan SA. Northwestern University, Chicago, IL.

P3-13-05 Comprehensive analysis of global genetic ancestry and socioeconomic status on breast cancer outcomes
Rodriguez DA, Yadegarynia S, Harbour JW, Merchant NB, Kobetz EN, Goel N. Sylvester Comprehensive Cancer Center; University of Miami, Miami, FL; University of Miami, Miami, FL.

P3-13-06 Single nucleotide polymorphisms and mortality after docetaxel-based chemotherapy in premenopausal breast cancer: A population-based cohort study in Denmark
Hjorth CF, Damkier P, Stage TB, Feddersen S, Ejlertsen B, Lash TL, Hamilton-Dutoit S, Ahern TP, Rørth M, Sørensen HT, Cronin-Fenton D. Aarhus University Hospital, Aarhus N, Denmark; University of Southern Denmark, Odense, Denmark; Odense University Hospital, Odense, Denmark; Rigshospitalet, Copenhagen, Denmark; Emory University, Atlanta, GA; University of Vermont, Burlington, VT.

P3-13-07 A comprehensive germline genetic landscape in young Jewish & Arab women with breast cancer
Rennert G, Nehoray B, Lejbkowicz F, Dishon S, Kalet S, Herzog J, Slavin T, Castillo D, Tsang K, Sand S, Rennert HS, Weitzel J. Carmel Medical Center and Technion Faculty of Medicine, Haifa, Israel; Division of Clinical Cancer Genomics, City of Hope, Duarte, CA; Division of Clinical Cancer Genomics, City of Hope, Duarte, CA; Latin American School of Oncology, Sierra Madre, CA.

P3-13-08 Fusion analysis including NTRK fusion in breast cancers (BC): From RNASeq data analysis from 629 BC tissue samples

Epidemiology, Risk, and Prevention: Ethnic/Racial Aspects

P3-14-01 Withdrawn

P3-14-02 Racial/ethnic differences in the benefit of adjuvant chemotherapy for breast cancer patients with an intermediate risk 21-gene recurrence score
Ching Huang H-C, Calip GS, Weiss J, Simons Y, Gadi VK, Danciu OC, Rauscher GH, Hoskins KF. University of Illinois College of Pharmacy, Chicago, IL; University of Illinois at Chicago, Division of Hematology/Oncology, Chicago, IL; University of Illinois School of Public Health, Chicago, IL.

P3-14-03 The DNA damage repair landscape in Black women with breast cancer
Mazumder A, Jimenez A, Ellsworth RE, George S, Freedland SJ, Bainbridge MN, Haricharan S. Sanford Burnham Prebys, La Jolla, CA; Sanford Burnham Prebys Medical Discovery Institute, La Jolla, CA; Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, MD; Sylvester Comprehensive Cancer Center, Miami, FL; Cedars Sinai Medical Center, Los Angeles, CA; Rady Children’s Hospital Institute for Genomic Medicine, San Diego, CA.
P3-14-04 Genetic testing in non-Hispanic Black women with breast cancer treated within an equal-access healthcare system
Ellsworth R, Vargason A, Turner C, Shriver C. Murtha Cancer Center, Windber, PA; Walter Reed National Military Medical Center, Bethesda, MD; Uniformed Services University of the Health Sciences, Bethesda, MD.

P3-14-05 Racial/ethnic disparities in cancer mortality after a second breast cancer
Deng Z, Jones MR, Wang M-C, Visvanathan K. Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; Johns Hopkins Bloomberg School of Public Health and Johns Hopkins School of Medicine, Baltimore, MD.

P3-14-06 A transdisciplinary approach for characterizing racial differences in the biology of breast cancer by integrating imaging and -omics data
Liadis N, Earnest T, Bruan E, Antony A, Hallock M, Cook D. SimBioSys, Inc., Champaign, IL; Michiana Hematology Oncology, Westville, NE; Rush University Medical Center, Chicago, IL.

P3-14-07 Breast cancer screening disparities among insured women in the Washington DC-Baltimore area
Staib J, Catlett K, Dacosta Byfield S. OptumLabs, Minnetonka, MN

P3-14-08 The influence of metabolic factors, migration, and ethnic disparities on breast cancer risk and treatment
Lofterød T, Frydenberg H, Veierød M, Jenum AK, Reitan JB, Wist E, Thune I. Oslo University Hospital, Oslo, Norway; University of Oslo, Oslo, Norway.

P3-14-09 Breast cancer disparities through an imaging lens: Are black women more likely to have cancer detected on their first mammogram?
Wilkerson A, Obi M, Ortega Estrella C, Tu C, Pederson H, Al-Hilli Z. Cleveland Clinic, Cleveland, OH.

P3-14-10 Breast cancer patterns, behavior and survival among American Indians in the west north central region and the other regions of the U.S.
Gaba AG, Cao L, Renfrew R, Witte D, Wernisch J, Lutkemeier D, Egland K, Crosby R. Sanford Roger Maris Cancer Center, Fargo, ND; Sanford Research, Fargo, ND; Sanford Cancer Registry, Fargo, ND; Sanford Research, Sioux Falls, SD; Sanford Cancer Registry, Sioux Falls, SD; SAB Biotherapeutics, Sioux Falls, SD.

P3-14-11 Mammaprint and Blueprint identify genomic differences in HR+ HER2- breast cancers from young Black and White women
Reid S, Pal T, Mayer IA, Shu X-O, Tezak AL, Hoskins K, Sharma D, Robinson P, Wei J, Ruby J, Wang S, Haan J, Menicucci A, Audeh W. FLEX Investigators Group. Department of Medicine, Vanderbilt University Medical Center, Nashville, TN; Division of Hematology/Oncology, University of Illinois at Chicago, Chicago, IL; Department of Oncology, Johns Hopkins University School of Medicine, Baltimore, MD; Stritch School of Medicine, Loyola University Chicago, Maywood, IL; Agendia Inc., Irvine, CA; Agendia NV, Amsterdam, Netherlands.
P3-14-12 Distinct and targetable molecular features of breast cancer in African American women
Magliocco G, Khalife R, Magliocco A. Boston University School of Medicine, Boston, MA; University of South Florida, Tampa, FL; Protean BioDiagnostics Inc, Orlando, FL.

P3-14-13 Metabolic links to socioeconomic stresses uniquely affecting race in normal breast tissue at risk for breast cancer
Angel PM, Park Y, Scott DA, Rujchanarong D, Brown S, Drake RR, Sandusky GE, Nakshatri H. Medical University of South Carolina, Charleston, SC; University of Wisconsin-Madison, Madison, WI; Indiana University School of Medicine, Indianapolis, IN.

P3-14-14 A mediation analysis of racial disparity in breast cancer survival
Hines RB, Zhu X, Lee E, Rapp C, Volk A, Johnson AM. University of Central Florida, Orlando, FL; Stetson University, DeLand, FL.

P3-14-15 The impact of race and age on response to neoadjuvant therapy and long-term outcomes in black and white women with early-stage breast cancer

P3-14-16 Prevalence of low estrogen receptor and low progesterone receptor positivity at an urban safety net hospital
Angell C, Bullock J, Diaz A, Basha R, Narra K. University of North Texas Health Science Center Texas College of Osteopathic Medicine, Fort Worth, TX; Oncology and Infusion Center, JPS Health Network, Fort Worth, TX.

P3-14-17 Exploring racial disparities in BRCA testing for triple negative breast cancer patients: A real-world data analysis

P3-14-18 Adaptive stress response genes associated with breast cancer subtypes and survival outcomes reveal race-related differences
Al Abo M, Gearhart-Serna L, Van Laere S, Freedman J, Patierno S, Hwang E-S, Krishnamurthy S, Williams K, Devi G. Duke University, Durham, NC; University of Antwerp, Antwerp, Belgium; MD Anderson Cancer Center, Houston, TX; North Carolina Central University, Durham, NC.

Psychosocial, QOL, and Educational Aspects- Social and Education Issues: Advocacy

P3-15-01 Patients and Researchers Together (PART): a patient-centered tumor tissue collection PARTnership between patients and researchers to increase tissue donations for breast cancer research
LA, Earp HS. University of North Carolina, Lineberger Comprehensive Cancer Center, Patient Advocates for Research Council, UNC Breast SPORE Advocacy, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, UNC Breast SPORE Advocacy, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, Community Outreach and Engagement, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, Office of Lineberger Sponsored Clinical Research, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, Department of Genetics, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, Department of Pharmacology, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, Department of Surgery, Chapel Hill, NC; University of North Carolina, Lineberger Comprehensive Cancer Center, Chapel Hill, NC.

P3-15-02 Assessing the engagement related needs of researchers and patient advocates at the UNC Lineberger Comprehensive Cancer Center
Blount T, Gora Combs K, Mann Norwood C, Skywark ER, Potter JA, Zhang A, Spears PA. University of North Carolina at Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC; University of North Carolina at Chapel Hill Lineberger Comprehensive Cancer Center, Chapel Hill, NC.

P3-15-03 Imaging and invasive lobular carcinoma: A survey study conducted by the lobular breast cancer alliance
Hutcheson LB, Axelrod J, Fitzwater CL, Jochelson MS, Joergensen GH, Langdon T, Levine JK, Metzger O, Mitchell-Daniels M, Neilsen BF. Lobular Breast Cancer Alliance, Calabasas, CA; Memorial Sloan Kettering Cancer Center, New York, NY; Dana-Farber Cancer Institute, Boston, MA.

P3-15-04 How can we help: The needs of those seeking breast cancer information and support from a cancer patient advocacy organization in Brazil
de Camargo Barros LH, Siqueira ACA, Kruse M, dos Santos AM, Neumann LTV. Instituto Oncoguia, São Paulo, Brazil.

Psychosocial, QOL, and Educational Aspects: Social and Education Issues - Cost-Effectiveness

P3-16-01 Withdrawn

P3-16-02 Enhancing impact and efficiency of financial support for cancer through use of AI: A nascent initiative of Indian cancer society
Vora T, Khanna N, Gokarn A, Rawat A, Ramarajan N, Srivastava G, Thorat U. Princess Margaret Cancer Centre, Toronto, ON, Canada; Tata Memorial Hospital, Mumbai, India; Tata Memorial Center, Homi Bhabha National Institute, Mumbai, India; Indian Cancer Society, Cancer Cure Fund, Mumbai, India; National Cancer Grid, Oncology, Mumbai, India.
P3-16-03 Clinical and pharmacoeconomic analyses of CDK4/6 inhibitors use in stage IV breast cancer females in the state of Qatar: A comparative retrospective observational study with cost effectiveness and cost utility analyses
Al-Ziftawi NH, Elazzazy S, Alam MF, Shafie AA, Hamad A, Bujassoum S, Ibrahim MI. Qatar University, QU Health, Doha, Qatar; Hamad General Corporation, National Center for Cancer Care and Research, Doha, Qatar; Universiti Sains Malaysia, School of Pharmaceutical Sciences, Malasia, Malaysia.

P3-16-04 Estimation of willingness-to-pay for breast cancer treatments through contingent valuation method in Japanese breast cancer patients (JCOG1709A): The main study findings
Iwatani T, Hara F, Shien T, Takahashi M, Masuda N, Sagara Y, Sasaki K, Mizusawa J, Fukuda H, Shiroiwa T, Iwata H. Department of Breast Surgery, National Cancer Center Hospital East, Kashiwa, Japan; Department of Breast Oncology, Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo, Japan; Department of Breast and Endocrine Surgery, Okayama University Hospital, Okayama, Japan; Department of Breast Surgery, National Hospital Organization Hokkaido Cancer Center, Sapporo, Japan; Department of Surgery, Breast Oncology, National Hospital Organization Osaka National Hospital, Osaka, Japan; Department of Breast Surgery, Sagara Hospital, Kagoshima, Japan; Japan Clinical Oncology Group (JCOG) Data Center/Operations Office, National Cancer Center Hospital, Tokyo, Japan; Center for Outcomes Research and Economic Evaluation for Health, National Institute of Public Health, Wako, Japan; Department of Breast Oncology, Aichi Cancer Center Hospital, Nagoya, Japan.

P3-16-05 Predicted financial impact of continued HER2-directed therapy in metastatic breast cancer: What is the financial toxicity in a public payer healthcare system?
Jackson EB, Corke L, Ohm H, Simmons C. BC Cancer, Vancouver, BC, Canada.

Psychosocial, Quality of Life and Educational Aspects-Social and Education Issues: Education

P3-17-01 Metastatic breast cancer caregiver participation in a psychoeducational cancer support program: Results from the frankly speaking about cancer: Metastatic breast cancer evidence-based educational workshops

P3-17-02 Knowledge is power: Designing an educational program to support black breast cancer patients
Rivers J, Tomlin T, Ahlum Hanson A, Ormerod C, Guglielmino JE. The Chrysalis Initiative, Philadelphia, PA; My Style Matters, Atlanta, GA; Living Beyond Breast Cancer, Bala Cynwyd, PA.

P3-17-03 Raising the level of cancer care around the world: The feasibility and perceived benefit of a virtual breast tumor board
P3-17-04 Perceived value of patient education among breast cancer patients: A moderator of the antecedents and consequences of patients’ satisfaction
Berger V, Beaumont N, Labbe B, Lombart C. Institut de Cancérologie de l’Ouest, Angers, France; Audencia Business School, Nantes, France.

P3-17-05 Physicians’ attitudes and perceived barriers to adherence to national breast cancer clinical practice guidelines (BCCPG) in Mexico
Martinez-Cannon BA, Soto-Perez-de-Celis E, Erazo Valle-Solis AA, Arce Salinas C, Bargallo Rocha E, Bautista Piña V, Cervantes Sanchez MG, Flores Bacalarz CH, Lara Tamburrino MdC, Lluch Hernandez A, Maffuz Aziz A, Perez Sanchez VM, Poitevin Chacon A, Salas Gonzalez E, Torrecillas Torres L, Valero V, Villaseñor Navarro Y, Cardenas Sanchez J. Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubian, Ciudad de Mexico, Mexico; Centro Medico Nacional 20 de Noviembre, Ciudad de Mexico, Mexico; Hospital Clinico, Valencia, Spain; Centro Medico ABC, Ciudad de Mexico, Mexico; Medica Sur, Ciudad de Mexico, Mexico; Centro Medico Nacional de Occidente, Guadalajara, Mexico; M.D. Anderson Cancer Center, Houston, TX; Centro Medico de Colima, Colima, Mexico.

P3-17-06 Telephone triaging during the 1st wave of the COVID 19 Pandemic: Outcomes and proposed pathway for managing patients referred for breast pain

Treatment - Surgery and Radiotherapy: Breast Conservation

P3-18-01 Assessment of DCISionRT for guiding radiotherapy of DCIS in Sweden
Wärrnberg F, Wadsten C, Karakatsanis A, Olofsson Bagge R, Holmberg E, Karlsson P, Lindman H, Whitworth PW, Sawyer E, Shah C, Shivers S, Vicirii F, Mann BG, Bremer T. Dept. of Surgery, Sahlgrenska Academy at Gothenburg University, Gothenburg, Sweden; Deparment of Surgery, Sumdsval Hospital, Umeå University, Umeå, Sweden; Dept. of Surgical Sciences, Uppsala University, Uppsala, Sweden; Dept of Surgery, Sahlgrenska Academy at Gothenburg University, Gothenburg, Sweden; Dept. of Oncology, Sahlgrenska Academy at Gothenburg University, Gothenburg, Sweden; Dept. of Oncology, Sahlgrenska Academy at Gothenburg University, Gothenburg, Sweden; Dept. of Surgery, Sahlgrenska Academy at Gothenburg University, Gothenburg, Sweden; Dept of Surgery, Uppsala University, Gothenburg, Sweden; Nashville Breast Centre, Nashville, TN; Guys Cancer Centre, Kings College, London, United Kingdom; Department of Radiation Oncology, Cleveland Clinic, Cleveland, OH; PreludeDx, Laguna Hills, CA; GenesisCare, Royal Oak, Royal Oak, MI; Department of Surgery, University of Melbourne, Melbourne, Australia; Prelude Dx, Laguna Hills, CA.
P3-18-02 Breast conservation plus radiotherapy provides superior survival benefit than mastectomy in triple negative breast cancer: A propensity matched national cancer database analysis
Cao L, Towe CW, Miller ME, Montero AJ, Shenk R. University Hospitals Cleveland Medical Center, Cleveland, OH.

P3-18-03 Long-term outcomes for breast conservation plus radiotherapy versus mastectomy in early breast cancer after neoadjuvant systemic therapy: Results from the Swedish national breast cancer register (NKBC)

P3-18-04 Evaluating de-escalation of breast radiation (DEBRA) following lumpectomy for breast conservative treatment of stage 1, hr+, HER2-, RS ≤18 breast cancer: NRG-BRO07 a phase III trial
White J, Anderson SJ, Harris EER, Mamounas EP, Stover DG, Ganz PA, Jagsi R, Cecchini RS, Bergom C, Theberge V, EI-Tamer M, Zellars RC, Shumway DA, Chen G-P, Julian TB, Wolmark N, NRG Oncology and Ohio State University Comprehensive Cancer Center, Columbus, OH; NRG Oncology and University Hospitals Case Western Reserve University, Cleveland, OH; NRG Oncology and Orlando Health Cancer Institute, Orlando, FL; NRG Oncology and UCLA Jonsson Comprehensive Cancer Center, UCLA Fielding School of Public Health, Los Angeles, CA; NRG Oncology and University of Michigan, Ann Arbor, MI; NRG Oncology and Washington University School of Medicine, St. Louis, MO; CCTG and CHU de Quebec – Universite Laval, Quebec City, QC, Canada; Alliance and Memorial Sloan Kettering Cancer Center, Weill Cornell Medical School, New York, NY; ECOG-ACRIN and Indiana University, Indianapolis, IN; SWOG and Mayo Clinic, Rochester, MN; Medical College of Wisconsin, Milwaukee, WI; NRG Oncology and Allegheny Health Network Cancer Institute, Pittsburgh, PA.

P3-18-05 Impact of neoadjuvant paclitaxel/trastuzumab/pertuzumab (THP) on breast tumor downsizing for patients with HER2+ breast cancer - results from a single-arm clinical trial
Weiss A, Li T, Desai NV, Tung NM, Tayob N, King TA, Winer EP, Mittendorf EA, Waks AG. Brigham and Women’s Hospital, Boston, MA; Dana-Farber Cancer Institute, Boston, MA; Beth Israel Deaconess Medical Center, Boston, MA.

P3-18-06 Satisfaction and physical wellbeing after breast conserving therapy: Clinical predictors and reference values using the BREAST-Q

P3-18-07 Margin involvement in invasive breast cancer leads to increased distant recurrence after breast conservation: Systematic review
Bundred JR, Dodwell D, Cuttress R, Michael S, Stuart B, Holleczek B, Beckmann K, Dahlstrom J, Bundred NJ. Leeds University NHS Foundation Trust, Leeds, United Kingdom; Oxford University NHS Foundation Trust, Oxford, United Kingdom; Southampton University NHS Foundation Trust, Southampton, United Kingdom; Manchester University NHS Foundation Trust, Manchester, United Kingdom; University of Southampton, Southampton,
POSTER SESSION 3
THURSDAY, DECEMBER 9, 2021: 7:00 AM-8:30 AM CT

P3-18-08 Feasibility and safety of breast-conserving surgery in early-stage breast cancers during the first trimester of pregnancy

P3-18-09 Refusal of breast surgery in breast cancer patients with clinical complete response (cCR) after neoadjuvant systemic therapy and vacuum-assisted biopsy (VAB) and sentinel lymph node biopsy (SLNB) confirmed pathological complete response (pCR). A first report of the prospective non-randomized trial results. NCT04293796

P3-18-10 Current options and future perspectives for breast margin assessment in clinical practice
Javaid H, Marín I, Montalvan J, Healy L, Menegaz B, Hsu C, Silberfein E, Bonefas E, Carter SA, Thompson AM. Baylor College of Medicine, Houston, TX.

P3-18-11 Meeting the challenge of successful one-stage lumpectomy for DCIS

P3-18-12 Achieving negative margin after repeated attempts for lumpectomy does not nullify the risk of ipsilateral breast tumor recurrences

P3-18-13 A cross-sectional study to investigate association between oncoplastic techniques and patient satisfaction who received breast-conserving surgery

P3-18-14 Assessment of quality of life and objective cosmetic outcome of breast conserving surgery with or without latissimus dorsi mini-flap in breast cancer
**P3-18-15** Reliability and measurement error of breast volume calculation using 3D surface imagery
Fearn NR, Meybodi F, Kilbreath S, Dylke E, Llanos C, Stuart K. The University of Sydney, Sydney, Australia; Westmead Breast Cancer Institute, Sydney, Australia.

**P3-18-16** Breast conserving surgery in BRCA-mutation carriers. A single Institution experience

**P3-18-17** Impact of change in margin negative guidelines for breast cancer on recurrence rates: Single institution audit

**Treatment - Surgery and Radiotherapy: Radiotherapy**

**P3-19-01** CANTO RT: The largest prospective multicenter cohort of early breast cancer patients treated with radiotherapy including full DICOM RT data
Sarrade T, Allodji R, Ghannam Y, Auzac G, Everhard S, Querel O, Kirova Y, Peignaux K, Guilbert P, Charra-Brunaud C, Blanchecotte J, Belshi R, Pasquier D, Racadot S, Bourgier C, Ducornet S, Gibon D, André F, De Vathaire F, Rivera S. Radiotherapy Department, Gustave Roussy, Villejuif, France; Gustave Roussy, Unit INSERM UMR U1018, Villejuif, France; UNICANCER, Paris, France; Institut Curie, Paris, France; Centre Georges-François Leclerc, Dijon, France; Institut Jean Godinot, Reims, France; Institut de Cancérologie de Lorraine, Vandoeuvre les Nancy, France; Institut de Cancérologie de L’ouest - Paul Papin, Angers, France; Institut Curie, Saint Cloud, France; Centre Oscar Lambret, Lille, France; Centre Léon Bérard, Lyon, France; ICM, Montpellier, France; Aquilab, Loos, France; Gustave Roussy, Villejuif, France; Radiotherapy Department, Molecular Radiotherapy and Therapeutic Innovation Unit INSERM UMR 1030 - Université Paris-Saclay, Gustave Roussy, Villejuif, France.

**P3-19-02** Should deep inspiration breath hold scans be standardly acquired for right-sided breast/chestwall and regional nodal irradiation?.
Jhawar SR, Lindsey K, Kuhn K, Tedrick K, Zoller I, Taylor W, Cochran E, Healy E, Beyer S, White J. Bazan JG. The Ohio State University, Columbus, OH.

**P3-19-03** Preliminary results of a feasibility study assessing radiation response with MRI/CT directed preoperative accelerated partial breast irradiation in the prone position for hormone responsive early stage breast cancer
Beyer S, Smith T, Sekhon A, Bazan J, Jhawar S, Healy E, Wei L, Yildiz V, Mohamed M, Knopp M, White J. Stefanie Spielman Comprehensive Breast Center at The Ohio State University, Columbus, OH; Center for Biostatistics at The Ohio State University, Columbus, OH; Department of Radiology at The Ohio State University, Columbus, OH.

**P3-19-04** Minimal increases in tumor infiltrating lymphocytes despite excellent tumor responses after pre-operative accelerated partial breast irradiation in early stage ER+ breast cancer patients
Beyer S, Smith T, Sekhon A, Bazan J, Jhawar S, Healy E, Wei L, Yildiz V, Mohamed M, Knopp M, White J. Stefanie Spielman Comprehensive Breast Center at The Ohio State University, Columbus, OH; Center for Biostatistics at The Ohio State University, Columbus, OH; Department of Radiology at The Ohio State University, Columbus, OH.
Currey A, Jorns JM, Desai N, Kelly TR, Bovi J, Kong AL, Wadhwa A, Paulson E, Bergom C. Medical College of Wisconsin, Milwaukee, WI; ThedaCare Regional Cancer Center, Appleton, WI; Washington University, St. Louis, MO.

**P3-19-05** Genomic machine learning model predicts radiation therapy benefit in early-stage breast cancer patients with high accuracy
Badal K, Foster J, Haraksingh R, John M. The University of the West Indies, St Augustine, Trinidad and Tobago.

**P3-19-06** Radiation toxicity in ATM mutation carriers with breast cancer

**P3-19-07** Hypofractionated and conventional whole-breast radiotherapy for breast cancer patients: Financial risk and expenditures in the U.S. 2008-2017
Saulsberry L, Liao C, Huo D. The University of Chicago, Chicago, IL.

**P3-19-08** Breast cancer related lymphedema in patients undergoing RNI: Is the axillary lateral vessel thoracic junction an organ-at-risk?
Healy E, Jhawar S, Beyer S, White JR, Bazan JG. James Comprehensive Cancer Center, The Ohio State University Medical Center, Columbus, OH.

**P3-19-09** Impact of intraoperative radiation therapy and external beam radiation therapy on non-breast cancer mortality in early-stage breast cancer
Bazan JG, Fisher J, Jhawar S, Healy E, Beyer S, White JR. James Comprehensive Cancer Center, The Ohio State University Medical Center, Columbus, OH.

**P3-19-10** Subcutaneous layer dosimetry of the breast and chest wall at clinical beam energies without bolus: A Monte Carlo and analytical anisotropic algorithm (AAA) calculation study

**P3-19-11** Long-term outcomes of primary and secondary angiosarcomas of the breast: A 20-year single-center experience
Tolba M, Di Lalla V, Khosrow-Khavar F, Baig A, Freeman C, Panet-Raymond V. Radiation Oncology, McGill University Health Centre, Montreal, QC, Canada; Gerald Bronfman Department of Oncology, McGill University, Montreal, QC, Canada; Pathology, McGill University Health Centre, Montreal, QC, Canada.

**P3-19-12** Impact of endocrine therapy (ET) noncompliance following intra-operative radiation therapy (IORT) in treatment of early-stage breast cancer patients (pts) enrolled in the ExBRT trial
Schwartzberg B, Syed A, Cohen R, Dooley W, Farha M, Jones V, Hodge W. Schwartzberg Center for Minimally Invasive Breast Surgery, Santa Rosa, CA; MemorialCare Health System, Long Beach, CA; Inova Health System, Schar Cancer Institute, Fairfax, VA; University of Oklahoma Breast Institute, Oklahoma City, OK; Medstar Good Samaritan Hospital, Baltimore, MD; City of Hope National Medical Center, Duarte, CA; Advent Health Florida Hospital, Orlando, FL.
**P3-19-13** Radiation oncology treatment planning in breast cancer patients undergoing lumpectomy with and without oncoplastic reconstruction
Lue BK-H, Kakadiaris E, Alluri P. UT Southwestern Medical Center, Dallas, TX.

**P3-19-14** Development of simplified auto-segmentable functional cardiac atlas

**P3-19-15** Prognostic impact of radiation therapy in mucinous carcinoma of the breast
Chevli N, Wang K, Haque W, Schwartz MR, Nangia J, Sasaki J, Farach AM, Hatch SS, Butler EB, Teh BS. Department of Radiation Oncology, The University of Texas Medical Branch at Galveston, Galveston, TX; Department of Radiation Oncology, University of Arkansas, Little Rock, AR; Department of Radiation Oncology, Houston Methodist Hospital, Houston, TX; Department of Pathology and Genomic Medicine, Houston Methodist Hospital, Houston, TX; Department of Medical Oncology, Baylor College of Medicine, Houston, TX; Breast Surgery, Texas Breast Specialists, Houston, TX; Department of Radiation Oncology, MD Anderson Cancer Center, Houston, TX.

**P3-19-16** Impact of targeted intraoperative (TARGIT-IORT) tumor bed boost during breast conserving surgery for early breast cancer on breast cancer associated and non-breast cancer associated mortality and morbidity
Kolberg H-C, Gutberlet S, Vaidya JS, Krajewska M, Lövey G, Hoffmann O, Stephanou M, Kolberg-Liedtke C. Marienhospital Bottrop, Bottrop, Germany; Alfried-Krupp-Krankenhaus, Essen, Germany; University College London, London, United Kingdom; Charité - Universitätsmedizin Berlin, Berlin, Germany; BORAD, Bottrop, Germany; Universitätsfrauenklinik Essen, Essen, Germany.

**P3-19-17** Radiation of the low axilla in the prone position
Doss V, Healy E, Beyer S, Jhawar SR, Bazan JG, White J. The Ohio State University, Columbus, OH.

**P3-19-18** Feasibility and short term toxicity of a consecutively delivered 5-fraction stereotactic body radiotherapy in early stage breast cancer patients receiving accelerated partial breast irradiation

**P3-19-19** Intraoperative Radiation Therapy (IORT) : A large integrated healthcare system’s approach and outcomes
Tang A, Kelly J, Cureton E, Svahn J, Thomas E, Lyon L, Shim V. Department of Surgery, University of California, San Francisco, Oakland, CA; The Permanente Medicine, Radiation Oncology, Oakland, CA; The Permanente Medicine, Surgery, Oakland, CA; The Permanente Medicine, Medical Oncology, Oakland, CA; The Permanente Medicine, Division of Research, Oakland, CA.

**P3-19-20** Are traditional indications for radiation therapy appropriate for small cell carcinoma of the breast: An NCDB outcomes analysis and treatment utilization report
P3-19-21 Semi-lateral decubitus position using Alexandria left breast board-16. A prospective study regarding dose distribution and reproducibility

Emam OS, Abouegylah M, Elsaka R, Munir A, Aziz F, Ismail AA, Elsaid AA. Faculty of Medicine, Alexandria University, Alexandria, Egypt.

P3-19-22 Clinical and cosmetic outcomes of adjuvant stereotactic partial breast irradiation using the GammaPod

Paulosky K, Ruff S, Becker SJ, Guerrero M, McAvoy S, Nichols EM. University of Maryland School of Medicine, Baltimore, MD.

P3-19-23 Radiation-induced sarcomas of the breast: A 20-year single-centre experience

Di Lalla V, Tolba M, Khosrow-Khavar F, Baig A, Freeman C, Panet-Raymond V. Radiation Oncology, McGill University Health Centre, Montreal, QC, Canada; Gerald Bronfman Department of Oncology, McGill University, Montreal, QC, Canada; Pathology, McGill University Health Centre, Montreal, QC, Canada.

P3-19-24 Long-term follow-up results of intensity modulated radiotherapy in early-stage breast cancer patients


P3-19-25 ICE3 trial - Radiation following cryoablation for low-risk breast tumors: Assessment of safety and variables that effect referral

Dietz JR, Fine RE, Boolbol SK, Haziza R. Allegheny Health Network, Pittsburgh, PA; West Cancer Center, Germantown, TN; Mount Sinai Beth Israel, New York, NY; Masaryk University, Brno, Czech Republic.

P3-19-26 The impact of post-mastectomy radiotherapy on the survival of breast cancer patients aged 70 years or older: A study based on SEER database

Lin J, Luo S, Zhang J, Song C. Fujian Medical University Union Hospital, Fuzhou, China.

P3-19-27 Prognostic impact of postmastectomy radiation therapy in breast cancer patients with T1, 2 and 1-3 lymph nodes from Japan Breast Cancer Registry

Yamada A, Hayashi N, Kumamaru H, Nagahashi M, Usune S, Miyata H, Ishikawa T, Narui K, Endo I, Imoto S, Ohno S, Jinno H. Yokohama City University Hospital, Yokohama, Japan; St. Luke’s International Hospital, Tokyo, Japan; The University of Tokyo, Tokyo, Japan; Hyogo College of Medicine Hospital, Hyogo, Japan; Tokyo Medical University Hospital, Tokyo, Japan; Yokohama City University Medical Center, Yokohama, Japan; Kyorin University Hospital, Tokyo, Japan; The Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo, Japan; Teikyo University School of Medicine, Tokyo, Japan.
**P3-19-28** The impact of PM$_{2.5}$ on the radiation-induced pneumonitis in patients with breast cancer

Kim DY, Kim IA, Jang BS. Seoul National University Hospital, Seoul, Korea, Republic of Seoul National University Bundang Hospital, Seongnamsi, Kyeonggido, Korea, Republic of

**Treatment - Surgery and Radiotherapy: Surgery**

**P3-20-01** Increased distant recurrence following margin involvement in early invasive breast cancer in two large UK cohorts

Bundred NJ, Michael S, Broggio J, Armstrong A, Martin G, Absar M, Ooi J. Manchester University NHS Foundation Trust, Manchester, United Kingdom; Public Health England, Birmingham, United Kingdom; The Christie NHS Foundation Trust, Manchester, United Kingdom; University of Manchester, Manchester, United Kingdom; Countess of Chester NHS trust, Chester, United Kingdom.

**P3-20-02** The association of clinicopathological variables and patient’s preference with surgical decision-making for early breast cancer

Söderberg E, Sund M, Wärnberg F, Holmberg L, Nilsson G, Garmo H, Blomqvist C, Wadsten C. Department of Surgery, Sundsvall Hospital, Umeå University, Umeå, Sweden; Department of Surgery and Perioperative Sciences, Umeå University, Umeå, Sweden; Department of Surgery, Sahlgrenska University Hospital, Gothenburg, Sweden; Translational Oncology & Urology Research (TOUR), School of Cancer and Pharmaceutical Sciences, Kings College London, London, United Kingdom; Department of Immunology, Genetics and Pathology, Section of Experimental and Clinical Oncology, Uppsala University, Uppsala, Sweden; Regional Cancer Centre, Uppsala University/ University Hospital, Uppsala, Sweden; Department of Oncology, Örebro University, University Hospital, Örebro, Sweden; Department of Surgery and Perioperative Sciences, Umeå University, Sundsvall Hospital, Umeå University, Umeå, Sweden.

**P3-20-03** Breast-conserving surgery improves the outcomes of disease-free survival and overall survival in young women with breast cancer (≤35 years): A retrospective study based on surgical options

Li P, Li L, Xue J, Wu J. Fudan University Shanghai Cancer Center, Shanghai, China; The Second Xiangya Hospital of Central South University, Changsha, China.

**P3-20-04** High-resolution $^{18}$F-FDG PET-CT for peri-operative margin assessment in early-stage breast cancer: Results of an ongoing clinical study

Göker M. University Hospital Gent, Gent, Belgium.

**P3-20-05** Trends of axillary treatment in sentinel node-positive breast cancer patients undergoing amputation


**P3-20-06** Magseed/magtrace-guided surgery in breast cancer: an institutional perspective

Montalvan J, Healy L, Javaid H, Marin I, Menegaz B, Hsu C, Silberfein E, Bonefas E, Carter S, Thompson A. Baylor College of Medicine, Houston, TX.
P3-20-07 Uncontrolled hypertension and the development of lymphedema after breast cancer surgery

Weisberg E, Assad H, Choi-Kim L, DeMeere T, Jang H, Chen W, Kosir MA. Wayne State University, Detroit, MI; Wayne State University, Department of Oncology, Detroit, MI; Wayne State University, Department of Surgery, Detroit, MI; Detroit Medical Center, Detroit, MI; Wayne State University/Karmanos Cancer Institute, Detroit, MI.

P3-20-08 Does contralateral prophylactic mastectomy improve survival in triple negative breast cancer?


P3-20-09 Surgery vs radiation therapy as the first stage treatment in patients with locally advanced breast cancer with incomplete clinical response


P3-20-10 Local recurrences after mammary adenectomy with clear retroareolar margin for the treatment of early infiltrating breast carcinomas

Heinzen RN, de Barros2 ACSD, Jacomo A, Cinquini M. CEOF, Florianopolis, Brazil; USP, Sao Paulo, Brazil.

Treatment - Surgery and Radiotherapy: Reconstruction

P3-21-01 A higher locoregional recurrence rate of nipple areolar complex sparing mastectomy with immediate implant reconstruction


P3-21-02 Robotic nipple sparing mastectomy in the management of breast cancer and prophylactic surgeries with SP system

Lee SB, Han HH, Kim J, Ko B. University of Ulsan College of Medicine, Asan Medical Center, Seoul, Republic of Korea.

P3-21-03 Timing of post-mastectomy radiation therapy and autologous reconstruction outcomes: A retrospective review

Barnes L, Martins D, Piper M. University of California, San Francisco, San Francisco, CA.

Treatment - Research Resources: Patient Resources

P3-22-01 The past and present of breast cancer resources: A re-evaluation of the quality of online resources in breast cancer after eight years

Treatment - Treatment: Other

**P3-23-01** Antibody responses after SARS-CoV-2 mRNA vaccination in breast cancer patients

**P3-23-02** Immunogenicity of SARS-CoV-2 vaccines in patients with breast cancer receiving CDK 4/6 inhibitors

**P3-23-03** Use of taxane-containing regimens during pregnancy for the treatment of breast cancer: A systematic review

**P3-23-04** A comprehensive, multidisciplinary approach to breast cancer treatment during the COVID-19 pandemic improves time to treatment
Orucevic A, Hutson R, Heidel R, Lloyd J, Morin-Ducote G, Lauro C, Perkins E, Panella T, Duncan L, VanMeter S, Bell J. The University of Tennessee Medical Center, Knoxville, TN.

**P3-23-05** Evaluation of CDK 4/6 inhibitor practice patterns and institutional versus national adherence to palbociclib laboratory monitoring in breast cancer patients
Taraba J, Swarna K, Golbach A, Sangaralingham L, Ruddy K, Mara K, Smith M, Haddad T, Giridhar K. Mayo Clinic, Rochester, MN; The University of Kansas Health System, Kansas City, KS.

**P3-23-06** Withdrawn

**P3-23-07** Radiation induced angiosarcoma of the breast: Chemotherapy for radiation induced angiosarcoma of the breast - A individual participant data meta-analysis of Japanese population
Takehara Y, Matsuda N, Kobayashi D, Yoshida A, Takei J, Tsunoda H, Kanomata N, Yamauchi H, Hayashi N. Department of Breast Surgical Oncology, St. Luke’s International Hospital, Chuo-Ku, Tokyo, Japan; Graduate School of Public Health, St. Luke’s International University, Chuo-Ku, Tokyo, Japan; Department of Radiology, St. Luke’s International Hospital, Chuo-Ku, Tokyo, Japan; Department of Pathology, St. Luke’s International Hospital, Chuo-Ku, Tokyo, Japan.

**Rescheduled Posters**

**P5-14-12** Health literacy among long term breast cancer survivors; exploring associated factors in a nation-wide sample
Vandraas KF, Reinertsen KV, Kiserud CE, Bøhn SK, Lie HC. Oslo University Hospital, Oslo, Norway; University of Oslo, Oslo, Norway.
Tumor Cell and Molecular Biology: Drug Resistance

**P4-01-01** Resistance to next generation tyrosine kinase inhibitors (TKIs) in HER2-positive breast cancer (BC): Role of HER and PIK3CA mutations and development of new treatment strategies and study models

Bose S, Mistry R, Liu CC, Nanda S, Qin L, Selenica P, Gazzo A, Zhu Y, Mancini MA, Stossi F, Diala I, Eli LD, Weigelt B, Reis-Filho JS, Rimawi MF, Osborne CK, Schiff R, Veeraraghavan J. Lester and Sue Smith Breast Center, Baylor College of Medicine, Houston, TX; Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX; Lester and Sue Smith Breast Center and Dan L. Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX; Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY; Department of Molecular and Cellular Biology and Dan L. Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX; Puma Biotechnology Inc., Los Angeles, CA; Lester and Sue Smith Breast Center, Dan L. Duncan Comprehensive Cancer Center and Department of Medicine, Baylor College of Medicine, Houston, TX; Lester and Sue Smith Breast Center, Department of Molecular and Cellular Biology, Dan L. Duncan Comprehensive Cancer Center and Department of Medicine, Baylor College of Medicine, Houston, TX.

**P4-01-02** A spectrum of secondary mutations in HER2 augment breast cancer cell growth and reduce neratinib sensitivity in HER2-mutant breast cancer

Marin AA, Al Mamun A, Akamatsu H, Ye D, Sudhan D, Brown B, Brewer MR, Eli L, Meiler J, Arteaga CL, Hanker AB. UT Southwestern Simmons Comprehensive Cancer Center, Dallas, TX; Vanderbildt University, Nashville, TN; Wakayama Medical University, Wakayama, Japan; Vanderbildt University, Nashville, TN; Vanderbildt University, Nashville, TN; Puma Biotechnology, Los Angeles, CA; UT Southwestern Medical Center, Dallas, TX.

**P4-01-03** Multiomics data reveal novel biomarkers for CDK4/6 resistance


**P4-01-04** FGFR inhibitor mediated dismissal of SWI/SNF complexes from YAP-dependent enhancers induces therapeutic resistance in triple negative breast cancer


**P4-01-05** Multi-omics data shows downregulation of mismatch repair, purin and tubulin pathways in AR-negative triple-negative chemotherapy-resistant tumors

**P4-01-06** Genomic and transcriptomic analysis reveals known and novel resistance mechanisms to CDK4/6 inhibitors and sensitivity factors for the response to triplet therapy (palbociclib + everolimus + exemestane) in a phase I/IIb study in hormone-receptor positive (HR+)/HER2- metastatic breast cancer (MBC) after progression on a CDK4/6 inhibitor (CDK4/6i)


**P4-01-07** Withdrawn

**P4-01-08** Morphological and functional plasticity of mitochondria in chemoresistant triple negative breast cancer

Baek LM, Lee J, Barrish JP, Lim B, Chang JT, Lorenzi PL, Porter W, Echeverria GV. Baylor College of Medicine, Houston, TX; Texas Children’s Hospital, Houston, TX; University of Texas Health Science Center, Houston, TX; M.D. Anderson Cancer Center, Houston, TX; Texas A&M University, College Station, TX.

**P4-01-09** The WAVE3 phosphorylation / β-catenin oncogenic signaling axis promotes chemoresistance and cancer stemness in triple negative breast cancer

Wang W, Rana P, Alkrekshi A, Markovic V, Sossey-Alaoui K. Case Western Reserve University, Cleveland, OH.

**P4-01-10** A kinase inhibitor library screen reveals novel candidates that reverse CDK4/6 inhibitor resistance in CDK6 amplified HR(+) breast cancer

Lai J-I, Zhuang Y-Z, Lin T-Y, Chao T-C, Liu C-Y, Tseng L-M. Taipei Veterans General Hospital, Taipei, Taiwan; Institute of Clinical Medicine, School of Medicine, National Yang-Ming Chiao Tung University, Taipei, Taiwan.

**P4-01-11** UBQLN4 regulates cisplatin-resistance in triple-negative breast cancer by targeting BAT3 for proteasomal degradation

Shoji Y, Yokoe T, Bostick PJ, Shiloh Y, Hoon DSB, Bustos MA. Department of Translational Molecular Medicine, Division of Molecular Oncology, Saint John’s Cancer Institute (SJCI) at Providence Saint John’s Health Center (SJHC), Santa Monica, CA; Mayo Clinic Care Network, Baton Rouge General Medical Center, Louisiana, LA; The David and Inez Myers Laboratory for Cancer Research Department of Human Molecular Genetics and Biochemistry Tel Aviv University School of Medicine, Tel Aviv, Israel.

**P4-01-12** Withdrawn

**P4-01-13** Low tumor TLR9 expression results in resistance to growth inhibitory and autophagy responses to common breast cancer treatments

Selander K, Klaper J, Petruk N, Ramm M, Jukkola A, Eskelinen E-L. University Hospital of
Oulu, Oulu, Finland; Natalia Petruk, Turku, Finland; University of Turku, Turku, Finland; University Hospital of Tampere, Tampere, Finland.

P4-01-14 The RXR agonist, IRX4204, increases the anti-tumor activity of HER2-targeted therapies in HER2-amplified breast cancer
Moyer CL, Mazumdar A, Hill J, Sanders ME, Brown P. MD Anderson Cancer Center, Houston, TX; Io Therapeutics, Inc., Santa Ana, CA.

P4-01-15 Eribulin treatment for hormone receptor positive breast cancer cells with resistant to endocrine therapy promotes re-expression of estrogen receptor
Goto Q, Kashiwagi S, Fujioka M, Ishihara S, Asano Y, Morisaki T, Noda S, Takashima T, Ohira M, Hirakawa K. Osaka City University Graduate School of Medicine, Osaka, Japan.

P4-01-16 Overcome chemoresistance of triple-negative breast cancer by inhibiting the RNA-binding protein HuR
Wei L, Zhang Q, Zhong C, Aubé J, Welch DR, Wu X, Xu L. Bioengineering Program, the University of Kansas, Lawrence, KS; Department of Molecular Biosciences, the University of Kansas, Lawrence, KS; Department of Electrical Engineering and Computer Science, The University of Kansas, Lawrence, KS; Division of Chemical Biology and Medicinal Chemistry, UNC Eshelman School of Pharmacy, The University of North Carolina, Chapel Hill, NC; Department of Cancer Biology, The University of Kansas Medical Center; The University of Kansas Cancer Center, The University of Kansas Medical Center, Kansas City, KS; Department of Molecular Biosciences, The University of Kansas; The University of Kansas Cancer Center, The University of Kansas Medical Center, Lawrence, KS; Department of Molecular Biosciences, the University of Kansas; The University of Kansas Cancer Center, The University of Kansas Medical Center; Department of Radiation Oncology, The University of Kansas Medical Center, Lawrence, KS.

P4-01-17 Preventing adaptive therapeutic resistance to CDK4/6 inhibition with CDK8/19 inhibitors

P4-01-18 Acquired sensitivity strategies in ER+ breast cancer progressing on CDK4/6 and mTOR inhibitors
Farmaki E, Emond R, Cosgrove P, Bild A. City of Hope, Monrovia, CA.

Tumor Cell and Molecular Biology: Endocrine Therapy and Resistance

P4-02-01 Targeting insulin receptor in estrogen receptor positive breast cancer
Cao J, Fettig LM, LaPara K, Zhang X, Murikipudi S, Delpero AR, Lancaster TM, Zion TC, Yee D. University of Minnesota, Minneapolis, MN; Akston Biosciences, Beverly, MA.

P4-02-02 The association between adiposity and anti-proliferative response to neoadjuvant endocrine therapy with letrozole in post-menopausal patients with estrogen receptor positive breast cancer
Isnaldi E, Richard F, De Schepper M, Leduc S, Maetens M, Geukens T, Van Baelen K, Nguyen H-L, Rouas G, Zoppoli G, Cardoso F, Sotiriou C, Larsimont D, Floris G, Biganzoli E, Desmedt C. KU Leuven, Department of Oncology, Laboratory for Translational Breast Cancer Research, Leuven, Belgium; Université Libre de Bruxelles, Institut Jules Bordet, J.C. Heuson Breast Cancer Translational Research Laboratory, Bruxelles, Belgium; Department of Internal Medicine and Medical Specialties, University of Genova, Ospedale Policlinico San Martino IRCCS per l’Oncologia, Genova, Italy; Champalimaud Clinical Center-Champalimaud Foundation, Breast Unit, Lisbon, Portugal; Université Libre de Bruxelles, Institut Jules Bordet, Pathology Department, Bruxelles, Belgium; KU Leuven, Department of Oncology, Laboratory for Translational Breast Cancer Research, KU Leuven, Translational Cell and Tissue Research Unit, Department of Imaging and Pathology, Leuven, Belgium; Unit of Medical Statistics, Biometry and Epidemiology, Department of Biomedical and Clinical Sciences (DIBIC) “L. Sacco” & DSRC, LITA Vialba Campus, Università degli Studi di Milano, Milano, Italy.

**P4-02-03** HER1-4 protein up-regulation following short-term neoadjuvant endocrine therapy in patients with hormone receptor-positive HER2-negative breast cancer  

**P4-02-04** Endocrine therapy treatment radiosensitizes estrogen receptor-positive breast cancers  

**P4-02-05** Exploiting novel models of endocrine-resistant breast cancer to identify new therapeutic targets  

**P4-02-06** Exploiting ceramide homeostasis to target endocrine therapy-resistant breast cancer  
Pal P, Millner A, Atilla-Gokcumen E, Frasor J. University of Illinois at Chicago, Chicago, IL; SUNY, Buffalo, Buffalo, NY.

**P4-02-07** Lasofoxifene as a potential treatment for aromatase inhibitor resistant ER positive breast cancer  
Laine M, Greene ME, Leng T, Kurleto JD, Li S, Komm B, Greene GL. University of Chicago, Chicago, IL; Komm-Sandin Pharma Consulting, Philadelphia, PA.

**P4-02-08** Amcenestrant in combination with CDK4/6 inhibitor palbociclib demonstrates synergistic anti-tumor activity in ER+ endocrine-resistant breast cancer xenograft models  
The IncRNA XIST mediates sensitivity to ERβ targeted therapies in triple negative breast cancer

Pfkfb3 inhibition significantly decreases endocrine-resistant breast cancer growth and induces necroptotic cell death
Jones BC, Sengupta S, Sevigny CM, Jin L, Pohlmann PR, Shahahan-Haq A, Clarke R. Georgetown University, Washington, DC; University of Minnesota, The Hormel Institute, Austin, MN.

A SIM2s/SEMA7A switch drives therapeutic resistance in ER+ breast cancer
Wyatt GL, Crump LS, Lyons TR, Porter WW. Department of Veterinary Integrative Biosciences, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University, College Station, TX; Division of Medical Oncology, Department of Medicine, School of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO.

Oxidative phosphorylation and NRF2 activation mediate resistance to estrogen deprivation in ER+ breast cancer
Tau S, Miller TW. Dartmouth College, Lebanon, NH.

Social isolation promotes mammary cancer recurrence, increases IL6/JAK/STAT3 signaling and causes mitochondrial dysfunction in tamoxifen treated rats, and a traditional herbal mixture reverses all these changes
Andrade F, Jin L, Clarke R, Wood I, Dutton M, Anjorin C, Rubin G, Gao A, Sengupta S, FitzGerald K, Hilakivi-Clarke L. Hormel Institute - University of Minnesota, Austin, MN; Georgetown University, Washington D.C, DC; Creighton University, Omaha, NE.

Breast cancer cell/adipocyte crosstalk in obesity hampers the efficacy of tamoxifen
Caruso A, Gelsomino L, La Camera G, Giordano C, Panza S, Bonofiglio D, Catalano S, Andò S, Barone I. Department of Pharmacy and Health and Nutritional Sciences, University of Calabria, Rende, Italy.

Thromboembolic events (TEE) in patients with HER2-negative, hormone receptor-positive metastatic breast cancer treated with Ribociclib combined with Letrozole or Fulvestrant. Real-world data

Investigating the role of NRIP1 as a novel marker and therapeutic target for breast cancer
Zhu Y, Zaidi F, Rao K, Yuan R. SIU School of Medicine, Springfield, IL.
**Tumor Cell and Molecular Biology: Etiology/Carcinogenesis**

P4-03-01 Budding Tumorigenesis: A novel proposed model for breast cancer tumorigenesis
Yaghoobi V, Aung TNWE, Moutafi M, Cooke TL, Rimm DL. Yale University, New Haven, CT; Dartmouth Geisel School of Medicine, Hanover, NH.

**Tumor Cell and Molecular Biology: Immunology and Preclinical Immunotherapy**

P4-04-01 β2-adrenergic receptor signaling regulates metabolic pathways critical for the function of myeloid-derived suppressor cells
Mohammadpour H. Roswell Park Comprehensive Cancer Institute, Buffalo, NY

P4-04-02 A clinical-stage toll-like receptor 5 agonist, entolimod, boosts chemo-immunotherapy in pre-clinical TNBC by generating durable antitumor immunity

P4-04-03 Modulation of antitumor immunity by extracellular matrix environment in vitro

P4-04-04 APOBEC3F is expressed by immune cells and is associated with immune response and survival in triple negative breast cancer
Wu R, Oshi M, Asaoka M, Yamada A, Yan L, Endo I, Ishikawa T, Takabe K. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Tokyo Medical University, Tokyo, Japan; Yokohama City University, Yokohama, Japan.

P4-04-05 Development of unique immune responses triggered by cryoablation of breast cancers
Wallon M, Klein JD, Aukers Z, Metz N, Ahudja V, Mandik-Nayak L, Ciocca V, Zemba-Palko V, Ciocca RM, Sabol JL, Carp NZ. Lankenau Institute for Medical Research, Wynnewood, PA; Lankenau Medical Center, Wynnewood, PA.

P4-04-06 Integrative analysis of single-cell transcriptomic and spatial profiles characterized distinct tumor microenvironment phenotypes in hormone receptor positive (HR+) breast cancer
Shimada K, Cui YX, Goldberg JS, Pastorello R, Davis J, Vallius T, Kania L, Patel A, Moore M, Ogayo ER, Dillon D, Sorger PK, Guerriero JL, Mittendorf EA. Harvard Medical School, Boston, MA; Dana-Farber Cancer Institute, Boston, MA; Brigham and Women’s Hospital, Boston, MA.

P4-04-07 Progesterone promotes immunomodulation and tumor development in the murine mammary gland
Werner LR, Gibson KA, Goodman ML, Helm DE, Walter KR, Holloran SM, Trincia GM, Hastings RC, Yang HH, Hu Y, Wei J, Lei G, Yang X-Y, Madan R, Molinolo AA, Markiewicz MA, Chalise P, Axelrod ML, Balko JM, Hunter KW, Hartman ZC, Lange CA, Hagan CR. University of Kansas School of Medicine, Kansas City, KS; National Cancer Institute, Bethesda, MD; Duke University, Durham, NC; University of Kansas Medical Center, Kansas City, KS; University of California San Diego Moores Cancer Center, La Jolla, CA; Vanderbilt University Medical Center, Nashville, TN; University of Minnesota Cancer Center, Minneapolis, MN.
P4-04-08 Determination of PD-L1 expression on tumorspheres cultured from the peripheral blood in patients with breast cancer
Pizon M, Schott D, Pachmann U, Pachmann K. Transfusion Center Bayreuth, Bayreuth, Germany.

P4-04-09 Systematic analysis of immune cell composition revealed immunological profile of breast cancer microenvironment represented by histologically assessed tumor-infiltrating lymphocyte and PD-L1 expression
Hanamura T, Kitano S, Kagama H, Yamashita M, Terao M, Tsuda B, Okamura T, Kumaki N, Hozumi K, Harada N, Iwamoto T, Honda C, Kurozumi S, Niikura N. Tokai University School of Medicine, Isehara, Japan; The Cancer Institute Hospital of JFCR, Koto, Ariake, Japan; Saitama Medical University International Medical Center, Hidaka, Japan; Chugai Pharmaceutical Co., Ltd., Kamakura, Japan; Okayama University Hospital, Shikata, Japan; Gunma University Graduate School of Medicine, Maebashi, Japan; International University of Health and Welfare, Narita, Japan.

P4-04-10 Pharmacological targeting of cholinergic receptors as a novel breast cancer immunotherapy
Eliceiri BP, Qian J, Blair S. UC San Diego, San Diego, CA.

P4-04-11 Dysregulation of immune checkpoint proteins in newly-diagnosed early breast cancer patients
Rapoport BL, Steel HC, Benn CA, Nayler S, Smit T, Heyman L, Theron A, Hlatshwayo N, Kwofie L, Meyer P. Anderson R. Department of Immunology, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa; Head of Netcare Breast Care Centre, Johannesburg, South Africa; Drs Gritzman & Thatcher Inc Laboratories & Wits Donald Gordon Medical Centre, Johannesburg, South Africa; The Medical Oncology Centre of Rosebank, Johannesburg, South Africa.

P4-04-12 Macrophage migration inhibitory factor regulates triple-negative breast cancer progression by enhancing the recruitment of immune suppressive cells
Charan M, Das S, Mishra S, Varikuti S, Satoskar AR, Ganju RK. The Ohio State University, Columbus, OH.

P4-04-13 S100a7/rage signaling promotes breast tumorigenesis through modulating tumor-associated macrophages
Verma AK, Wilkie T, Mishra S, Charan M, Ganju RK. Wexner Medical Center The Ohio State University, Columbus, OH.

P4-04-14 Immunological markers in patients with breast cancer occurring during pregnancy - Results from GBG BCP study
Galas K, Gleitsmann M, Rey J, Solbach C, Witzel I, Karn T, Schneeweiss A, Sinn B, Fehm T, Denkert C, Müller V, Litmeyer A-S, Schem C, Jank P, Marmé F, Furlanetto J, Fasching PA, Stickeler E, Ortmann O, van Mackelenbergh M, Nekljudova V, Loibl S. GBG and Institute of Pathology, UKGM University Hospital Marburg, Philipps-Universität, Marburg, Germany; Institute of Pathology, UKGM University Hospital Marburg, Philipps-Universität Marburg, Marburg, Germany; German Breast Group, Neu-Isenburg, Germany; Klinik für...
Frauenheilkunde und Geburtshilfe, Universitätsklinikum Frankfurt, Frankfurt, Germany; Universitätsklinikum Hamburg-Eppendorf, Hamburg, Germany; Goethe University Hospital, Frankfurt, Germany; National Center for Tumor Diseases, University Hospital and German Cancer Research Center, Heidelberg, Germany; Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt Universität zu Berlin, Department of Pathology, Berlin, Germany; Klinik für Frauenheilkunde und Geburtshilfe Universitätsklinikum Düsseldorf, Düsseldorf, Germany; Institute of Pathology, UKGM University Hospital, Philippus-Universität Marburg, Marburg, Germany; Mammazentrum Hamburg, Hamburg, Germany; Medizinische Fakultät Mannheim, Universität Heidelberg, Universitätsfrauenklinik, Mannheim, Germany; Department of Gynecology and Obstetrics, University Hospital Erlangen, Comprehensive Cancer Center Erlangen-EMN, Erlangen, Germany; Klinik für Gynäkologie und Geburtsmedizin, Uniklinik, Aachen, Germany; Caritas-Krankenhaus St. Josef, Regensburg, Germany; Universitätsklinikum Schleswig-Holstein, Klinik für Gynäkologie und Geburtshilfe, Schleswig-Holstein, Germany; German Breast Group, Marburg, Germany.

**Prognostic and Predictive Factors - Prognostic Factors: Clinical Testing and Validation**

**P4-05-01** Results from the first UK NEQAS ICC & ISH external quality assessment for Ki-67 demonstration in breast cancer

**P4-05-02** Impact of hormone receptor status on clinicopathological characteristics and outcomes among HER2-positive metastatic breast cancer patients in the ESME database
Cabel L, Carton M, Dieras V, Petit T, Gius V, Veyret C, Goncalves A, Uwer L, Augereau P, Ferrero J-M, Levy C, Dalenc F, Desmoulins I, Mouret-Reynier MA, Debled M, Bachelot T, Eymard J-C, Pistilli B, Jean Frenel JS, Chevrot M, Mailliez A, Carausu M, Curie, Saint Cloud, France; Centre Eugène Marquis, Rennes, France; Centre Paul Strauss/ICANS, Saint Cloud, France; Institut Régional du Cancer Montpellier / Val d’Aurelle, Montpellier, France; Centre Henri Becquerel, Rouen, France; Institut Paoli Calmettes, Marseille, France; Institut de Cancérologie de Lorraine, Nancy, France; Institut de Cancérologie de l’Ouest - Paul Papin, Angers, France; Centre Antoine Lacassagne, Nice, France; Centre François Baclesse, Caen, France; Institut Claudius Regaud, Toulouse, France; Centre Georges-François Leclerc, Dijon, France; Centre Jean Perrin, Clermond Ferrand, France; Institut Bergonié, Bordeaux, France; Centre Léon Bérard, Lyon, France; Institut Jean Godinot, Reims, France; Gustave Roussy, Villejuif, France; Institut de Cancérologie de l’Ouest - René Gauducheau, Nantes, France; Unicancer, Paris, France20Centre Oscar Lambret, Lille, France.

**P4-05-03** Evaluation of the prognostic accuracy of SimBioSys TumorScope in early breast cancer

**P4-05-04** Menopausal breast cancer: Bone mineral density (BMD) and prognostic factors

**P4-05-06** High absolute lymphocyte counts are associated with longer overall survival in patients with metastatic breast cancer treated with eribulin as the first-line chemotherapy. Combined analysis of two phase 2 study
Takashima T, Kimura K, Kawajiri H, Kashiwagi S, Tokunaga S, Nishimura S, Noda S, Oku H, Ikari A, Tominaga T, Maezawa S, Sakane J, Iwamoto M. Osaka City University Graduate School of Medicine, Osaka, Japan; Osaka Medical and Pharmaceutical University, Takatsuki, Japan; Ishikiri Seiki Hospital, Higashi Osaka, Japan; Osaka City University Graduate School of Medicine, Osaka, Japan; Osaka City General Hospital, Osaka, Japan; Sumitomo Hospital, Osaka, Japan.

P4-05-07 **Assistance with an artificial intelligence-powered tumor infiltrating lymphocytes (TIL) analyzer reduces interobserver variation in pathologic scoring of TIL in breast cancer**

Cho SI, Jung W, Choi S, Kim S, Song S, Park G, Ma M, Park S, Pereira S, Ahn S, Aum BJ, Shin S, Paeng K, Yoo D, Ock C-Y. Lunit, Seoul, Republic of Korea; Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Ajou University School of Medicine, Suwon, Republic of Korea.

P4-05-08 **18F-FDG uptake of visceral adipose tissue on preoperative PET/CT as a predictive marker for breast cancer recurrence**

Yoon CI, Kim HJ, Cha YJ, Kim D, Bae SJ, Ahn SG, Jeong J, Park W-C, Ryu YH, Jeon TJ. Paik PS, Kim CW. St Mary’s Hospital, Seoul, Republic of Korea; Department of Nuclear Medicine, Yongin Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Department of Pathology, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; Department of Nuclear Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea.

P4-05-09 **Clinicopathologic characteristics and molecular profiling of HER2-low breast cancer: A single academic institution experience**

Zhang H, Katerji H, Turner BM, Hicks DG. University of Rochester Medical Center, Rochester, NY.

P4-05-10 **Composite score combining multi-gene testing with liquid biopsy may have stronger prognostic value in HR+/HER2- breast cancer**

Bilani N, Yaghi M, Saravia D, Jabbal I, Bou Zerdan M, Elson L, Liang H, Nahleh Z. Icahn School of Medicine, Mount Sinai Morningside and West, New York, NY; Cleveland Clinic Florida, Weston, FL.

P4-05-11 **The clinical importance of the new category, ER low-positive in the ER expression HER2 negative early breast cancer**

Wakako T. National Hospital Organization Kyushu Cancer Center, Fukuoka, Japan.

P4-05-12 **Kinetics of endocan in the peripheral blood before and after the resection of primary breast tumors**

Daiki K, Kanada Y, Nagata A, Nakamura S, Kato Y. Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan; Tokyo Rosai Hospital, Tokyo, Japan; Showa University School of Medicine, Tokyo, Japan.

P4-05-13 **Prognostic implication of Yin Yang 1 (YY1) overexpression in patients with primary breast cancer**

Yin Yang 1 (YY1)
Cha C, Park H, Kim CG, Chung MS. Hanyang University Seoul Hospital, Seoul, Republic of Korea; Hanyang University, Seoul, Republic of Korea.

P4-05-14 Validation of PREDICT version 2.2 on a retrospective cohort of Indian women with operable breast cancer

P4-05-15 Follow-up of prospective cohort of Mexican premenopausal women with breast cancer who received guided adjuvant treatment with the EndoPredict assay

Prognostic and Predictive Factors - Prognostic Factors: Index Scores

P4-06-01 OncotypeDX testing does not appear to benefit patients with grade 1, progesterone receptor positive breast cancers: A TAILORx validated study
Lee Y, W. Mylander C, Martin T, Rosman M, Sanders TJ, Sibia US, Tafra L, Jackson RS. Luminis Health Anne Arundel Medical Center, Annapolis, MD.

P4-06-02 Clinically feasible pharmacokinetic model of dynamic contrast-enhanced MRI is prognostic of recurrence free survival in breast cancer patients treated with neoadjuvant therapy
Peterson JR, Earnest TM, Huang W, Abe H, Cole, Jr, JA. SimBioSys, Inc., Champaign, IL; Advanced Imaging Research Center, Oregon Health and Science University, Portland, OR; Department of Radiology, University of Chicago, Chicago, IL.

P4-06-03 Clinical-risk assessment of ER positive, Her2 negative breast cancer patients: Correlation between the average modified magee score and mammaprint
Katerji H, Zhang H, Hicks D, Turner BM. University of Rochester, Rochester, NY.

P4-06-04 The role of axillary lymph node status in residual cancer burden calculation of triple negative breast cancer post-neoadjuvant cytotoxic chemotherapy

P4-06-05 Can we adapt neoadjuvant rectal (NAR) score besides system immun inflammation index (SII) and prognostic nutritional index (PNI) as prognostic factors to locally advanced breast cancer?

P4-06-06 Role of lymphatic SEC62 expression in prediction of treatment response in patients undergoing neoadjuvant chemotherapy for primary breast cancer

**P4-06-07** Clinical risk-assessment, risk-stratification, and outcomes of ER positive, HER2 negative breast cancer patients using the Rochester modified Magee algorithm (RoMMA)

Numbere N, Moisini I, Dhakal A, Skinner K, Shaye M, Sanders MAG, Zhang H, Hicks D, Turner BM. University of Rochester Medical Center, Rochester, NY; M. Health Fairview Ridges, Burnsville, MN; University of Louisville, Louisville, KY.

**P4-06-08** Consensus on the utility of breast cancer multigene signatures in routine clinical practice among European breast cancer specialists - 1st results of the PROCURE project

Curigliano G, Cardoso F, Grant M, Harbeck N, King J, Laenkholm A-V, Penault-Llorca F, Prat A. European Institute of Oncology, Milano, Italy; Champalimaud Clinical Centre, Lisbon, Portugal; Medical University of Vienna, Vienna, Austria; LMU University Hospital, Munich, Germany; Royal Free Hospital NHS Foundation Trust, London, United Kingdom; Zealand University Hospital, Roskilde, Denmark; Jean Perrin Center, Clermont-Auvergne University, Clermont-Ferrand, France; Hospital Clínico de Barcelona, Barcelona, Spain.

**P4-06-09** Prediction of oncostype DX recurrence score by patho-biologic variables and three surrogate models

Geradts J, Kousar A, Wong J, Vohra N, Muzaffar M, Mohamed A. East Carolina University Brody School of Medicine, Greenville, NC.

**Prognostic and Predictive Factors - Prognostic Factors: Other**

**P4-07-01** Loss of HER2 on residual disease after neoadjuvant therapy in HER2-positive early breast cancer: Clinicopathological characteristics and association with outcomes

Morganti S, Marra A, Viale G, Zagami P, Sajjadi E, Corti C, Curigliano G, Fusco N, Criscitiello C. IRCCS European Institute of Oncology, Milan, Italy; Memorial Sloan Kettering Cancer Center, New York, NY; IRCCS San Raffaele Hospital, Milan, Italy.

**P4-07-02** Tumor microenvironment characteristics and prognosis in breast cancer during pregnancy: The role of differentially expressed immune-related genes


**P4-07-03** Development of prognostic models based on clinical, immune-related and proliferation factors in early breast cancer patients treated with neoadjuvant chemotherapy


**P4-07-04** Bc cancer ipsilateral breast tumor recurrence (BCC IBTR) nomogram

and GI Outcomes Unit, BC Cancer, Vancouver, BC, Canada; University of British Columbia, Vancouver, BC, Canada.

P4-07-05 Tumor mutational profiles of extreme long-term survivors with metastatic breast cancer
Hu Y, Shin J, Roy S, Burkard ME. University of Wisconsin-Madison, Madison, WI.

P4-07-06 Circulating lipids and breast cancer survival in the Malmö diet and cancer study
Harborg S, Ahern TP, Feldt M, Rosendahl AH, Cronin-Fenton D, Melander O, Borgquist S. Aarhus University Hospital, Aarhus, Denmark; University of Vermont, Burlington, VT; Lund University, Lund, Sweden; Aarhus University, Aarhus, Denmark; Lund University, Malmö, Sweden.

P4-07-07 Metaplastic carcinoma of the breast has comparable prognosis to non-metaplastic triple negative breast cancer despite poor response to chemotherapy

P4-07-08 Prognostic value of intrinsic subtypes (IS) in hormone receptor-positive (HoR+) metastatic breast cancer (MBC): A systematic review and meta-analysis of prospective trials
Schettini F, Martínez-Sáez O, Chic N, Brasó-Maristany F, Galván P, Martínez D, Paré L, Vidal M, Adamo B, Muñoz M, Pascual T, Ciruelos E, Perou CM, Carey LA, Prat A. August Pi i Sunyer Biomedical Research Institute (IDIBAPS), Barcelona, Spain; Hospital Clinic of Barcelona, Barcelona, Spain; SOLT I Innovative Cancer Research, Barcelona, Spain; Hospital 12 de Octubre, Madrid, Spain; UNC Chapel Hill, Chapel Hill, NC.

P4-07-09 Triple negative breast cancer: An analysis of the subtypes and the effects of menopausal status on invasive breast cancer

P4-07-10 Patient profiles, management and treatment patterns in HR+, HER2- early breast cancer in a real-world setting in Spain
Martín M, García Sáenz JÁ, Blancas I, Molero A, Atienza M, Cervera JM, Brown J, Rider A, Williams R, Alba E. General University Hospital Gregorio Marañón, Madrid, Spain; San Carlos Clinical Hospital, Madrid, Spain; San Cecilio Clinical Hospital, Granada, Spain; Eli Lilly and company, Madrid, Spain; Eli Lilly and company, Indianapolis, IN; Adelphi Real World, Bollington, United Kingdom; Virgen de la Victoria University Clinical hospital, Málaga, Spain.

P4-07-11 Prognostic significance of changes in tumor infiltrating lymphocytes and neutrophil-to-lymphocyte ratio after neoadjuvant chemotherapy in early breast cancer patients
**P4-07-12** An evaluation of lymphovascular invasion in relation to biology and prognosis according to subtypes in invasive breast cancer
Nishimura R, Osako T, Okumura Y, Nakano M, Otsuka H, Fujisue M, Arima N. Kumamoto Shinto General Hospital, Kumamoto City, Japan.

**P4-07-13** An exploratory case-control study of perineural invasion in breast cancer
Cox SE, Bassett R, Yi M, Sahin A, Teshome M, Hunt K, Akay C. MD Anderson Cancer Center, Houston, TX.

**P4-07-14** Long-term prognosis of minimal residual disease in breast cancer patients with breast or nodal pathologic complete response (pCR) after neoadjuvant chemotherapy (NAC)
Jieon Go, Ahn JH, Park JM, Choi SB, Kim JY, Park HS, Kim SI, Park B-W, Park S. Yonsei University College of Medicine, Seoul, Republic of Korea.

**P4-07-15** Tumor infiltrating lymphocytes as a prognostic factor
Schüler K, Bethmann D, Lantzsch T, Uleer C, Hanf V, Peschel S, John J, Pöhler M, Buchmann J, Buerrig K-F, Weigert E, Kantelhardt EJ, Thomessen C, Vetter M. Dept. of Gynecology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; Institut of Pathology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; Dept. of Gynecology, Hospital St. Elisabeth and St. Barbara, Halle (Saale), Germany; Gynäkologische-Onkologische Praxis Uleer, Hildesheim, Germany; Dept. of Gynecology and Obstetrics, Nathanstift, Hospital Fuertth, Fürth, Germany; Dept. of Gynecology, St. Bernward Hospital Hildesheim, Hildesheim, Germany; Dept. of Gynecology, Helios Hospital Hildesheim, Hildesheim, Germany; Dept. of Gynecology, Hospital Wolfenbuettel, Wolfenbuettel, Germany; Institute of Pathology, Hospital Marthe-Maria, Halle (Saale), Germany; Institute of Pathology Hildesheim, Hildesheim, Germany; Gemeinschaftspraxis Pathologie Amberg, Amberg, Germany.

**P4-07-16** Correlation of Trop-2 expression with clinicopathological characteristics and outcome in triple-negative breast cancer (TNBC)

**P4-07-17** Association between plasma-based sequential windowed acquisition mass spectrometry (SWATH-MS) and invasive disease free survival (iDFS) in HR+/HER2- early breast cancer in the CANTO cohort

**P4-07-18** Withdrawn

**P4-07-19** Quantifying epithelial-mesenchymal tumor heterogeneity for prediction of patient prognosis based on EMT state
Brown MS, Abdollahi B, Ognjenovic N, Muller KE, Hassanpour S, Pattabiraman DR. Dartmouth College, Lebanon, NH; Dartmouth Hitchcock Medical Center, Lebanon, NH.
**P4-07-20** Survival analysis using the entire transcriptome to pinpoint biomarkers with the highest prognostic power  
Gyorffy B. TTK, Budapest, Hungary.

**P4-07-21** High Tinagl1 expression is a marker of good prognosis in breast cancer  

**P4-07-22** Evaluation of human epididymis protein 4 serum and tissue expression in ductal carcinoma in situ of the breast  
Lee JS, Kim NI, Park MH. Chonnam National University Hwasun Hospital, Jeollanam-do, Republic of Korea.

**P4-07-23** Piezo1 is associated with worse prognosis along with promoted epithelial-mesenchymal transition and hypoxia as well as less anti-cancer immune cells in hormone receptor (HR)-negative breast cancer  
Katsuta E, Takabe K, Opyrchal M. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Washington University School of Medicine, St. Louis, MO.

**P4-07-24** High Mammographic Breast density was correlated with overall survival of operable breast cancer which expressed CD44+/CD24-/ALDH-1+  
Lee J, Kim W-G. Inje University, Busan, Republic of Republic.

**P4-07-25** Distant metastasis of breast cancer is triggered by changes in the dynamics of metastatic cells after removal of the primary lesion  
Tokisawa H, Aruga T, Honda Y, Ishiba T, Yonekura R, Iwamoto N, Kumaki Y. Tokyo Metropolitan Cancer and Infectious Disease Center Komagome Hospital, Tokyo, Japan.

**P4-07-26** Clinical impact of tumor infiltrating lymphocytes and neutrophil-lymphocyte ratio in estrogen receptor-positive/HER2-negative breast cancer patients with high 21-gene signature recurrence scores  

**P4-07-27** De novo metastatic breast cancer; clinical characteristics and treatment outcomes in a developing country  

**P4-07-28** Early relapse and predictors of relapse-free survival in neoadjuvant chemotherapy-treated breast cancer patients  
Martin N, Pasztorova J, Hibell I, Wheatley D. University of Exeter, Exeter, United Kingdom; Royal Cornwall Hospital, Truro, United Kingdom.

**P4-07-29** Reactive Oxygen Species (ROS) pathway is associated with aggressive cancer biology, elevated immune response, and with worse survival in ER-positive/HER2-negative breast cancer
Oshi M, Wu R, Yamada A, Yan L, Ishikawa T, Endo I, Takabe K. Roswell Park Comprehensive Cancer Institute, Buffalo, NY; Yokohama City University Graduate School of Medicine, Yokohama, Japan; Tokyo Medical University, Tokyo, Japan.

P4-07-30 Residual lymphovascular invasion: Predicts the outcome of neoadjuvant chemotherapy in locally advanced breast cancer

Elemam O, Elnaghi K, Emarah A, Alghanami H, Abdelkhaled S. King Abdullah Medical City KSA, Mansoura University Oncology Center Egypt, Makka, Saudi Arabia; King Abdullah Medical City KSA, Mansoura University Oncology Center Egypt, Makka, Saudi Arabia; King Abdullah Medical City, Makka, Saudi Arabia; King Abdullah Medical City KSA, Mansoura University Radiation Therapy Department Egypt, Makka, Saudi Arabia.

P4-07-31 Racial disparities in breast cancer chiefly reside in the lesser-known quadruple-negative breast cancer

Bhattarai S, Saini G, Rupji M, Luningham J, Turaga RC, Krishnamurti U, Li X, Agboola J, Abubakar M, Nggada HA, Omonisi A, Ahmed SA, Cavalli L, Aneja R. Department of Biology, Georgia State University, Atlanta, GA; Department of Biostatistics and Bioinformatics Shared Resource, Winship Cancer Institute, Emory University, Atlanta, GA; Department of Population Health Sciences, Georgia State University School of Public Health, Atlanta, GA; Department of Pathology and Laboratory Medicine, Emory University, Atlanta, GA; Department of Pathology, Emory University School of Medicine, Atlanta, GA; Morbid Anatomy and Histopathology Department, Obasiri Onabanjo University, Ogun, Nigeria; Department of Pathology, Ahmadu Bello University, Zaria, Nigeria; Department of Histopathology, University of Maiduguri, Maiduguri, Nigeria; Department of Anatomic Pathology, Ekiti State University, Ado-Ekiti, Nigeria; Research Institute Pelé Pequeno Príncipe, Curitiba, Brazil.

P4-07-32 Mammaprint and Blueprint are prognostic of outcome following neoadjuvant chemotherapy

Chung AP, Srour M, Dadmanesh F, Kim S, Giuliano A, Wei J, Huynh Y, Wang S, Menicucci A, Audeh S. Division of Surgical Oncology, Department of Surgery, Cedars-Sinai Medical Center, Los Angeles, CA; Biostatistics Core, Cedars-Sinai Medical Center, Los Angeles, CA; Agendia Inc., Irvine, CA.

Psychosocial, QOL, and Educational Aspects - QOL Issues: Palliation and Pain Management

P4-08-01 Effectiveness of electroacupuncture versus auricular acupuncture in breast cancer survivors with chronic musculoskeletal pain: The PEACE randomized clinical trial

Zhi W, Mao JJ, Baser RE, Li SQ, Blinder VS, Norton L, Seidman AD, Robson ME, Bao T. Memorial Sloan Kettering Cancer Center, Breast Medicine Service, New York, NY; Memorial Sloan Kettering Cancer Center, Integrative Medicine Service, New York, NY; Memorial Sloan Kettering Cancer Center, Epidemiology & Biostatistics, New York, NY.

Psychosocial, QOL, and Educational Aspects - QOL Issues: Psychosocial Aspects

P4-09-01 Incidence of patient-reported fatigue developing in patients receiving palbociclib and endocrine therapy for advanced HR+ HER2- breast cancer
Rahman SA, Erica L Mayer EL, Poort H, Schrag D, Tung SC, Zhou ES, Wiley A, Finkelstein L, Elguenaoui E, Nolan M, Joffe H, Brigham and Women’s Hospital/Harvard Medical School, Boston, MA; Dana-Farber Cancer Institute/Harvard Medical School, Boston, MA; Dana-Farber Cancer Institute, Boston, MA; Brigham and Women’s Hospital, Boston, MA.

P4-09-02 The impact of breast conserving surgery re-excision on patient-reported outcomes using the BREAST-Q

P4-09-03 Factors affecting the parenting stress and depression in young women with breast cancer

P4-09-04 When discussing breast reconstruction, do psychosocial characteristics influence which surgical options patients remember?
Wang H, Liu J, Bordes MC, Chopra D, Reece GP, Markey MK, Hoffman AS. The University of Texas at Austin, Austin, TX; The University of Texas MD Anderson Cancer Center, Houston, TX.

P4-09-05 Focus on non-adherence: A qualitative exploration of perceptions associated to adjuvant endocrine therapy (ET) in premenopausal patients with breast cancer and their health care providers (HCP)

P4-09-06 An investigation into the presence of posttraumatic stress disorder symptoms in breast cancer patients
Guidry ET, Jahan N, Jones C. UMC Cancer Center, Lubbock, TX; Texas Tech Health Science Center, Lubbock, TX.

P4-09-07 Psychological impact of type of breast cancer surgery: A national cohort study

P4-09-08 Examining neurocognitive function in breast-cancer patients after chemotherapy
Sharpe J, Palettas M, Grimm M, Kassem M, Ramaswamy B, Wesolowski R, Williams N, Sardesai S, Stover D, VanDeusen J, Cherian M, Pariser A, Gatti-Mays M, Lustberg M, Boxley L. The Ohio State University Internal Medicine, Columbus, OH; The Ohio State University Center for Biostatistics, Columbus, OH; The Ohio State University Comprehensive Cancer Center, Columbus, OH; The Ohio State University Department of Psychiatry and Behavioral Health, Columbus, OH.
P4-09-09 Internationalization of the Amsterdam cognition scan: A validated set of online cognitive tests for (neuro-)oncological studies

Lee Meeuw Kjoe P, van der Wall E, Schagen S. Netherlands Cancer Institute, Amsterdam, Netherlands; University Medical Center Utrecht, Utrecht, Netherlands.

Psychosocial, QOL, and Educational Aspects: QOL - Supportive Care

P4-10-01 Quality of life and symptom severity in the PALLAS randomized trial of palbociclib with adjuvant endocrine therapy in early breast cancer (AFT-05)

Naughton MJ, Zahrieh D, Gnant M, Zdenkowski N, Lemieux J, Mao JJ, Bjelic-Radisic V, Shinn E, Balic M, Thomssen C, Neisel J, Ruiz-Echarri M, Loibl S, Isaacs C, Cameron D, Carrasco FMH, Goetz M, Wette V, Werutsky G, Rugo H, Vetter M, Tseng L-M, Miller K, Fitzal F, Gil Gil JM, Park H, Linderholm B, Bajetta E, Dayao Z, Prat A, Ehrhardt K, Metzger O, Arahmani A, Law E, Partridge A, Carey L, Zoroufy A, Dueck A, Hlauschek D, DeMichele A, Mayer E. Ohio State University, Columbus, OH; Mayo Clinic, Rochester, MN; Medical University of Vienna, Vienna, Austria; Calvary Mater Newcastle, Waratah, Australia; Center Hospitalier Universitaire de Quebec, Universite Laval, Quebec City, QC, Canada; Memorial Sloan Kettering Cancer Center, New York City, NY; University Hospital Helios, Wuppertal, Germany; MD Anderson Cancer Center, Houston, TX; Medical University Graz, Graz, Austria; Universitatsfrauenklinik-Halle, Wittenberg, Germany; Emery University, Atlanta, GA; European Medical Center, Moscow, Russian Federation; German Breast Group, Neu-Isenberg, Germany; Georgetown University, Georgetown, DC; Cancer Research UK Edinburgh Center, Edinburgh, United Kingdom; Hospital Virgen Macarena Sevilla, Sevilla, Spain; Breast Centre, Sank Veit an der Glan, Austria; Latin American Cooperative Oncology Group (LACOG), Porto Alegre, Brazil; University of California, San Francisco, CA; University Hospital Basel, Basel, Switzerland; Taipei Veterans General Hospital, Taipei, Taiwan; Indiana University Simon Cancer Center, Indianapolis, IN; Catalan Institute of Oncology, Barcelona, Spain; Washington University, St. Louis, MO; Karolinska Institute, Solna, Sweden; Institute of Oncology, Polyclinic Hospital, di Monza, Italy; University of New Mexico Hospital, Albuquerque, NM; Hospital Clinic, Barcelona, Spain; Austrian Breast and Colorectal Cancer Study Group (ABCSG), Vienna, Austria; Dana Farber Cancer Institute/Alliance, Boston, MA; Breast International Group, Brussels, Belgium; Pfizer, Inc., New York City, NY; University of North Carolina, Chapel Hill, NC; Mayo Clinic/Alliance, Rochester, MN; Mayo Clinic/Alliance, Phoenix, AZ; Austrian Breast Cancer Study Group (ABCSG), Vienna, Austria; University of Pennsylvania, Philadelphia, PA; Dana Farber Cancer Institute, Boston, MA.

P4-10-02 Patient-reported outcomes in EA1131: A randomized phase III trial of platinum vs. capecitabine in patients with residual triple-negative breast cancer after neoadjuvant chemotherapy

Smith KL, Zhao F, Mayer IA, Tevaarwerk AJ, Garcia SF, Arteaga CL, Symmans WF, Park BH, Burnette BL, Makower DF, Block M, Morley KA, Jani CR, Mescher C, Dewani SJ, Brown-Glaberman U, Flaum LE, Mayer EL, Sikov WM, Rodler ET, DeMichele AM, Sparano JA, Wolff AC, Miller KD, Wagner LI. Johns Hopkins University, Sidney Kimmel Comprehensive Cancer Center, Baltimore, MD; Dana Farber Cancer Institute, ECOG-ACRIN Biostatistics Center, Boston, MA; Vanderbilt University Medical Center, Vanderbilt-Ingram Cancer Center, Nashville, TN; University of Wisconsin Carbone Cancer Center, Madison, WI; Northwestern University, Evanston, IL; UT Southwestern Simmons Cancer Center, Dallas, TX; MD Anderson Cancer Center, Houston, TX; Cancer Research of Wisconsin and Northern Michigan (CROWN) NCORP, Green Bay, WI; Montefiore Medical Center, New York, NY.
Alegent Health Bergan Mercy Medical Center, Omaha, NE; Saint Joseph Mercy Hospital, Ann Arbor, MI; Phoebe Putney Memorial Hospital, Albany, GA; Metro-Minnesota Community Oncology Research Consortium, St. Louis Park, MN; Columbus Oncology and Hematology Associates Inc., Columbus, OH; University of New Mexico Comprehensive Cancer Center, Albuquerque, NM; Dana-Farber Cancer Institute, Boston, MA; Women and Infants Hospital of Rhode Island, Providence, RI; University of California, Davis, Davis, CA; University of Pennsylvania/Abramson Cancer Center, Philadelphia, PA; Montefiore Medical Center, Bronx, NY; Indiana University Melvin and Bren Simon Comprehensive Cancer Center, Indianapolis, IN; Wake Forest University Health Sciences, Winston-Salem, NC.

**P4-10-03** Immunogenicity of SARS-CoV-2 vaccination in subjects on active treatment for breast cancer


**P4-10-04** Health-related quality of life (HRQoL) in hormone receptor-positive, HER2-negative, luminal B breast cancer patients treated with ribociclib plus letrozole or chemotherapy

Villacampa G, Paré L, Hernando C, Arumí M, Muñoz M, Gil-Gil M, Izarzuga Y, Ferrer N, Montañó A, Ciruelos E, González-Santiago S, Falato C, Villagrás P, Gavilá J, Prat A, Pascual T. SOTLI Breast Cancer Research Group / Oncology Data Science, Vall d’Hebron Institute of Oncology (VHIO), Barcelona / Barcelona, Spain; SOTLI Breast Cancer Research Group, Barcelona, Spain; Department of Medical Oncology, Hospital Clínico Universitario de Valencia, Valencia, Spain; Department of Medical Oncology, Vall d’Hebron University Hospital and Vall d’Hebron Institute of Oncology, Barcelona, Spain; SOTLI Breast Cancer Research Group / Department of Medical Oncology, Hospital Clinic of Barcelona, Barcelona / Barcelona, Spain; Department of Medical Oncology, Institut Català d’Oncologia Hospital de Llobregat, Spain; Department of Medical Oncology, Hospital Universitario Fundación Jimenez Díaz, Madrid, Spain; Department of Medical Oncology, Hospital Universitari Son Espases, Palma de Mallorca, Spain; Department of Medical Oncology, Hospital Universitario Virgen del Rocío, Sevilla, Spain; SOTLI Breast Cancer Research Group / Hospital Universitario Virgen del Rocío / Centro Integral Oncológico Clara Campal HM (CIÓCC), Barcelona / Madrid / Spain; Department of Medical Oncology, Hospital Universitario San Pedro de Alcántara, Cáceres, Spain; SOTLI Breast Cancer Research Group / Translational Genomics and Targeted Therapeutics in Solid Tumors, August Pi i Sunyer Biomedical Research Institute, Barcelona / Barcelona, Spain; Department of Medical Oncology, Institute Valenciano de Oncología, Valencia, Spain; SOTLI Breast Cancer Research Group / Department of Medical Oncology, Hospital Clinic of Barcelona / Translational Genomics and Targeted Therapeutics in Solid Tumors, August Pi i Sunyer Biomedical Research Institute / Department of Medicine, University of, Barcelona / Barcelona / Barcelona, Spain.

**P4-10-05** Safety and efficacy of low dose topical testosterone for sexual function improvement in women with breast cancer under treatment with ovarian suppression and aromatase inhibitor

Psychosocial, QOL, and Educational Aspects: Cost Effectiveness

**P4-10-06** Best quality care from a distance (BQual-D): Maintaining high quality care for hormone receptor positive (HR+) metastatic breast cancer (MBC) during the COVID pandemic, description of the program and provider satisfaction

**P4-10-07** It is possible to achieve the same benefits in online models than in face to face programs in bc patients
Castellanos Montealegre M, Gil-Herrero L, Casla-Barrio S. Spanish Cancer Association, Alcázar de San Juan (Ciudad Real), Spain; Spanish Cancer Association, Segovia, Spain; Spanish Cancer Association, Madrid, Spain.

**P4-10-08** Characterizing cannabidiol use in a breast cancer population
Grogan N, Henry NL. University of Michigan, Ann Arbor, MI.

Psychosocial, QOL, and Educational Aspects: QOL - Supportive Care

**P4-10-09** Patient-centered dosing: Oncologists’ perspectives about treatment-related side effects and individualized dosing for patients with metastatic breast cancer (MBC)
Loeser AL, Bardia A, Burkard ME, Kalinsky KM, Peppercorn J, Rugo HS, Carlson M, Cowden J, Maues J, McGlown S, Lustberg M. Patient-Centered Dosing Initiative, Salt Lake City, UT; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA; University of Wisconsin Carbone Cancer Center, Madison, WI; Winship Cancer Institute of Emory University, Atlanta, GA; University of California San Francisco Comprehensive Cancer Center, San Francisco, CA; Smilow Cancer Hospital, Yale Cancer Center, New Haven, CT.

**P4-10-10** Effectiveness and feasibility of exercise-oncology programs in breast cancer patients using new technologies adapted to the COVID 19 new normality

**P4-10-11** Eyebrow/eyelash loss among survivors
Cathcart-Rake E, Loprinzi CL, Couch F, Olson J, Dulmage B, Lustberg M, Larson N, Ruddy KJ. Saint Luke’s Cancer Institute, Kansas City, MO; Mayo Clinic, Rochester, MN; Ohio State University, Columbus, OH; Yale Cancer Center, New Haven, CT.

**P4-10-12** The relevance of chemobrain in breast cancer survivors: An Italian exploratory study to measure incidence and psycho-social impact
West T, Scaggiante B, Ceccherini R, Foladore S, Generali D, Versace F, Cavallero C. Lega Italiana Lotta Tumori - LILT, Trieste, Italy; Department of Life Sciences, University of Trieste, Trieste, Italy; Breast Cancer Unit - ASU Gi, Trieste, Italy; Department of Medical, Surgery and Health Sciences, University of Trieste, Trieste, Italy; The University of Texas MD Anderson Cancer Center, Houston, TX.
P4-10-13 Area deprivation index and rurality in relation to financial toxicity among breast cancer surgical patients - Investigating geospatial differences in risk profiles
Corkum JP, Zhu V, Agbafe V, Chu C, Suarez Colen J, Greenup R, Offodile AC. MD Anderson, Houston, TX; Yale University, New Haven, CT.

P4-10-14 Association between depression and anxiety status of breast cancer patients undergoing adjuvant chemotherapy and chemotherapy-induced adverse events
Lv D, Lan B, Zhang L, Sun X, Yang M, Ma F. Department of Medical Oncology, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; Department of Medical Oncology, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College; Chinese Academy of Medical Sciences Key Laboratory for National Cance, Beijing, China; National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital & Shenzhen Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Shenzhen, China; Department of Medical Oncology, Cancer Hospital of Huanxing Chaoyang District, Beijing, China; Comprehensive Oncology Department, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China.

P4-10-15 Whole-body vibration combined with physical exercise to treat aromatase inhibitor-induced musculoskeletal symptoms in breast cancer women: Results of a pilot randomized controlled study
Lippi L, de Sire A, Ammendolia A, Cisari C, Venetis K, Sajjadi E, Fusco N, Invernizzi M. Physical and Rehabilitative Medicine, Department of Health Sciences, University of Eastern Piedmont, Novara, Italy; Department of Medical and Surgical Sciences, University of Catanzaro "Magna Graecia", Catanzaro, Italy; Division of Pathology, IEO, European Institute of Oncology IRCCS, Milan, Italy; Infrastruttura Ricerca Formazione Innovazione (IRFI), Azienda Ospedaliera SS. Antonio e Biagio e Cesare Arrigo, Alessandria, Italy.

P4-10-16 Increased chemotherapy-induced ovarian reserve loss and impaired oocyte quality in a mouse ATM knock-down model: An augury for women with ATM-pathway-pathogenic-variants-associated breast cancer?
Oktay KH, Tan X, Szymanska-Vandendriessche K. Yale University School of Medicine, New Haven, CT.

P4-10-17 Alopecia among breast cancer survivors
Cathcart-Rake E, Loprinzi CL, Olson JE, Couch F, Dulmage B, Lustberg M, Larson N, Ruddy KJ. Saint Luke’s Cancer Institute, Kansas City, MO; Mayo Clinic, Rochester, MN; Ohio State University, Columbus, OH; Yale Cancer Center, New Haven, CT.

P4-10-18 The effects of preoperative personalized music therapy associated with the patient-doctor relationship and surgical experience of patients with breast cancer (MARS)
Joo Y, Chung S, Kim S, Lee S, Ahn S-H, Lee J, Ko B, Kim J, Chung IY, Son BH, Kim HJ. Division of Breast Surgery, Department of Surgery, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Republic of Korea; Department of Psychiatry, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Republic of Korea; Department of Clinical Epidemiology and Biostatistics, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Republic of Korea.
P4-10-19 Aromatase inhibitors and bone health in elderly women with early breast cancer: Real-world data

P4-10-20 Quality of life in Mexican young women with locally-advanced breast cancer: A cohort study

P4-10-21 High-intensity interval training in breast cancer survivors: A systematic review
Tsui K, Matsuoka YJ, Ochi E. Hosei University / Research Fellow of Japan Society for the Promotion of Science / National Cancer Center Japan, Tokyo, Japan; National Cancer Center Japan, Tokyo, Japan; Hosei University / National Cancer Center Japan, Tokyo, Japan.

P4-10-22 Patient reported symptoms and functional status in breast cancer
Torres S, Bayourmi A, Liu G, Kinee Abrahao AB, Mitsakakis N, Krahn M, Trudeau M. IHPME, University of Toronto, Toronto, ON, Canada; St. Michael’s Hospital, Li Ka Shing Knowledge Institute, Toronto, ON, Canada; Division of Medical Oncology and Hematology, Department of Medicine, Princess Margaret Cancer Centre/University Health Network and University of Toronto, Toronto, ON, Canada; Americas Oncologia, Sao Paulo, Brazil; Children’s Hospital of Eastern Ontario, Ottawa, ON, Canada; University Health Network, Toronto HealthEconomics and Technology Assessment (THETA) Collaborative, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto, ON, Canada.

P4-10-23 Combined analysis of PTEN and routinely assessed biomarkers reveals new high-risk subgroups of HR- or HER2+ breast cancers
Fusco N, Sajjadi E, Venetis K, Invernizzi M, Gambini D, Runza L, Ferrero S, Querini-Rocco E. European Institute of Oncology (IEO), Milano, Italy; University of Eastern Piedmont - Azienda ospedaliera Santi Antonio e Biagio e Cesare Arrigo, Alessandria, Italy; Fondazione IRCCS Ca’ Granda - Ospedale Maggiore Policlinico, Milano, Italy.

Psychosocial, QOL, and Educational Aspects - Quality of Life Issues: Survivorship Research
P4-11-01 Development of a clinico-bio-behavioral model for cancer-related fatigue (CRF) incorporating inflammatory biomarkers and proteomic data
Di Meglio A, Christodoulidis S, Soldato D, Noce AD, Presti D, Havas J. Dubuisson F, Pistilli B, Camarra-Clayette V, Charles C, Ganz PA, Bower J, Partridge AH, Jacquet A, Everhard S, Boyault S, André F, Cournede P-H, Michiel S, Pradon C, Yaz-Luis I. Institut Gustave Roussy, Villejuif, France; Centrale Supelec, Orsay, France; Bordeaux University Hospital, Bordeaux, France; University of California, Los Angeles, CA; Dana-Farber Cancer Institute, Boston, MA; UNICANCER, Paris, France; Centre Léon Bérard, Lyon, France.
P4-11-02 Prevalence and impact of fertility concerns in young women with breast cancer
Mannion S, Higgins A, Stewart EA, Khan Z, Shenoy C, Larson N, Nichols HB, Su HI, Partridge
AH, Couch FJ, Olson JE, Ruddy K. Mayo Clinic, Rochester, MN; University of North Carolina,
Chapel Hill, NC; University of California San Diego, La Jolla, CA; Dana Farber Cancer Institute,
Boston, MA.

P4-11-03 Decisions and outcomes of young women with breast cancer regarding fertility
preservation before cancer treatment and family building after treatment
Kelvin JF, Gemignani ML. Memorial Sloan Kettering Cancer Center, New York, NY; Stanford
University School of Medicine, Palo Alto, CA; University of Illinois, Chicago, IL.

P4-11-04 A randomized adaptive sequential selection trial of cryotherapy, compression
therapy, and placebo to prevent taxane induced peripheral neuropathy in patients with
breast cancer
A, Franks L, Honan E, Harden E, Law C, Hershman DL. Columbia University Medical Center,
New York, NY; Winship Cancer Institute at Emory University, Atlanta, GA.

P4-11-05 How to stay sexually active and sexually well-functioning after breast cancer -
Reporting from the SWEET study
University Hospital, Oslo, Norway; University of Oslo, Oslo, Norway.

P4-11-06 Effect of suppressed ovarian function on prognosis of premenopausal obese
women with hormone receptor-positive breast cancer: A single-institute retrospective study
T, Ohno S. The Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo,
Japan.

P4-11-07 Improfib: Impact of radiotherapy on fatigue in breast cancer survivors
P, Chara-Brunaud C, Blanchecotte J, Crehange G, Pasquier D, Racodat S, Bourgier C,
Geffrelot J, Benyoucef A, Paris F, Auzac G, Vaz-Luis I, Rivera S. Radiotherapy Department,
Gustave Roussy, Villejuif, France; Molecular Predictors and New Targets in Oncology,
INSERM Unit 981, Gustave Roussy, Villejuif, France; UNICANCER, Paris, France; Institut
Curie, Paris, France; Centre Georges-François Leclerc, Dijon, France; Jean Godinot, Reims,
France; Institut de Cancérologie de Lorraine, Vandoeuvre Les Nancy, France; Institut de
Cancérologie de l’Ouest - Paul Papin, Angers, France; Institut Curie, Saint Cloud, France;
Centre Leon Béard, Lyon, France; Institut du Cancer de Montpellier, Montpellier, France;
Centre François Baclesse, Caen, France; Centre Henri Becquerel, Rouen, France; UMR
Inserm 1232, Université de Nantes, Nantes, France.

P4-11-08 Impact of ovarian stimulation for fertility preservation in young women with breast
cancer: Updated survival and pregnancy outcomes
C. BC Cancer, Vancouver, BC, Canada; University of Calgary, Calgary, AB, Canada; University
P4-11-09 Cancer-related cognitive impairment (CRCI) in early breast cancer (BC) survivors
Presti D, Joly F, Soldato D, Christodoulidis S, Noce AD, Havas J, Dubuisson F, Pistilli B, Camara-Clayette V, André F, Martin A-L, Jacquet A, Boyault S, Bièche I, Coutant C, Cournede P-H, Michiels S, Pradon C, Vaz-Luis I, Di Meglio A. Gustave Roussy, Villejuif, France; Centre François Baclesse, Caen, France; Centrale Supelec, Orsay, France; UNICANCER, Paris, France; Centre Léon Bérard, Lyon, France; Institut Curie, Paris, France; Centre George-Francois Leclerc, Dijon, France.

P4-11-10 Association of sports activity during the first five years of survival with quality of life among Chinese breast cancer survivors
Yeo W, Lei Y, Cheung K, Lee R, Kwok C, Cheng A, Cheng A, Mo F, Ho S. Chinese University of Hong Kong, Hong Kong, China; Chinese University of Hong Kong, Hong Kong, Hong Kong; Princess Margaret Hospital, Hong Kong, Hong Kong.

P4-11-11 Effect of home-based smartphone-supported high-intensity interval training on cardiorespiratory fitness in breast cancer survivors: A randomized controlled trial of the habit-B program
Ochi E, Tsuji K, Narisawa T, Shimizu Y, Kuchiba A, Suto A, Jimbo K, Takayama S, Ueno T, Sakurai N, Matsuoka YJ. Hosei University / National Cancer Center Japan, Tokyo, Japan; Hosei University / Research Fellow of Japan Society for the Promotion of Science / National Cancer Center Japan, Tokyo, Japan; Musashino University / National Cancer Center Japan, Tokyo, Japan; National Cancer Center Hospital, Tokyo, Japan; National Cancer Center Hospital, Tokyo, Japan; Kanagawa University of Human Services, Tokyo, Japan; SUSMED, Tokyo, Japan; Cancer Solutions, Tokyo, Japan; National Cancer Center Japan, Tokyo, Japan.

P4-11-12 Integrating the patient and partner distress and perceptions about prognosis in women with metastatic breast cancer guides the medical oncology consultation

P4-11-13 Prevalence of treatment-related symptoms in patients with breast cancer undergoing (neo)adjuvant endocrine therapy with or without chemotherapy for early stage breast cancer

P4-11-14 Importance of work and work-related needs among survivors living with metastatic breast cancer
Carroll CB, Sesto ME, Zhang X, Chen KB, Terhaar A, Wilson AS, Tevaarwerk AJ. University of Wisconsin Carbone Cancer Center, Madison, WI; University of Wisconsin School of Medicine and Public Health, Madison, WI; North Carolina State University, Raleigh, NC; University of Wisconsin Trace Research and Development Center, Madison, WI.
POSTER SESSION 4  
THURSDAY, DECEMBER 9, 2021: 5:00 PM-6:30 PM CT

P4-11-15 Breast cancer survivors vulvo-vaginal atrophy symptoms: Morphological aspects unveiled  
de Mello Bianchi-Ferraro AMH, Lugollo AF, Jarmy-di Bella ZI, Sartori MG, Speck NMG,  
Patriarca MT, de Cassiade Maio Dardes R, Cruz Cantarelli G, Furtado Roberto M, Dedonato  
C, Caceres Nogueira MC, Campos MLP, Dias Oliveira C, Facina G, Nazaro ACP, Girão MJBC.  
Federal University of São Paulo, São Paulo, Brazil.

P4-11-16 Feasibility and patient satisfaction with a smartphone application to improve  
medication adherence among patients with breast cancer  
Accordino MK, Ulene S, Honan E, Trivedi MS, Crew KD, Harden E, Law C, Hershman DL.  
Columbia University Medical Center, New York, NY.

P4-11-17 Return to work after breast cancer: Disparities among patients treated in public  
and private hospitals in Brazil  
Landeiro L, Barros LHC, Neumann LTV, Santos AM, Siqueira ACA, Kaliks R, Grupo  
Oncoclínicas - Bahia, Salvador, Brazil; Instituto Oncoguia, São Paulo, Brazil.

P4-11-18 Arm lymphatic pulsing changes after mastectomy or breast-conserving surgery  
with axillary lymph node dissection, detected with near-infrared fluorescence lymphatic  
imaging  
Aldrich MB, McWain ME, Chan W, Rasmussen JC, DeSnyder S, Sevick-Muraca EM,  
Shaitelman SF. UTHealth, Houston, TX; MD Anderson Cancer Center, Houston, TX.

P4-11-19 Utilization of the RE-AIM framework for evaluating the implementation of group  
medical visit for low-income breast cancer survivors  
Trejo E, Velazquez AI, Castillo E, Cicerelli B, McBride R, Burke NJ, Dixit N. University of  
California, San Francisco (UCSF), San Francisco, CA; San Francisco Department of Public  
Health, San Francisco, CA.

P4-11-20 Attitudes and factors influencing contraception use over time in premenopausal  
women with early breast cancer in the prospective CANTO study  
P,Franzoi MA, Del Mastro L, Partridge AH, Andre F, Vaz-Luis I, Di Meglio A. University of  
Genova - IRCCS Ospedale Policlinico San Martino, Genova, Italy; Gustave Roussy, Villejuif,  
France; Unicancer, Paris, France; Centre Georges-François Leclerc, Dijon, France; Institut  
Curie, Paris, France; Centre Alexis Vautrin, Vandoeuvre Les Nancy, France; Institut CURIE,  
Saint Cloud, France; Centre Léon Berard, Lyon, France; Institut Jean Godinot, Reims, France;  
Centre Henri Becquerel, Rouen, France; Institut Bergonié, Bordeaux, France; Institut de  
Cancérologie de L’ouest -Paul Papin, Angers, France; Dana-Farber Cancer Institute, Harvard  
Medical School, Harvard Medical School, Boston, MA.

P4-11-21 Plasma cytokine levels in breast cancer-related lymphedema patients  
Vang AR, Shaitelman SF, Sevick-Muraca EM, Wen-yaw C, Rasmussen JC, DeSnyder SD,  
Aldrich MB. The University of Texas MD Anderson Cancer Center UTHealth Graduate School  
of Biomedical Sciences, Houston, TX; Nellie B. Connally Breast Cancer Center, MD Anderson  
Cancer Center, Houston, TX; McGovern Medical School, UTHealth, Houston, TX; School of  
Public Health, UTHealth, Houston, TX.
**P4-11-22** Arm lymphedema and socioeconomic factors in an urban cancer center
Choi L, Assad H, Chen S, Demeere T, Jang H, Weisberg E, Kosir MA. Wayne State University School of Medicine, Detroit, MI; Wayne State University, Detroit, MI; Detroit Medical Center, Detroit, MI; Karmanos Cancer Institute, Detroit, MI.

**P4-11-23** Project SOAR: The strong black woman schema in the breast cancer context
Denyse T, Martin KJ, Pageot YK, deLuz KD, Kim JHJ, Owoyemi P Stanton AL. Carrie’s TOUCH, Sacramento, CA; UCLA, Los Angeles, CA.

**P4-11-24** Patient’s point of view on how to promote adherence to adjuvant endocrine therapy (ET): A large french survey

**P4-11-25** Burden of financial toxicity in an underserved population of breast cancer survivors
Mehta A, Namm J, D’Errico E, Lau E, Lum S, Nagaraj G. Loma Linda University Medical Center, Loma Linda, CA; Loma Linda University Cancer Center, Loma Linda, CA; Loma Linda University School of Nursing, Loma Linda, CA.

**P4-11-26** The importance of physical exercise in cardiovascular fitness in breast cancer survivors. A cross sectional study: WIM 2.0

**P4-11-27** A multimodal and personalized digital companion to help survivors of breast cancer (BC) manage side effects of adjuvant endocrine therapy (ET): A qualitative exploration

**P4-11-28** Collecting quality of life information in a cohort of breast cancer survivors-Integrating electronic data collection into clinical practice
Amat C, Fuentes Á, Grau I, Lozano-Rubí R, Martinez-Sáez O, Chic N, Adamo B, Vidal M, Fernandez I, Valachis A, Kosmidis T, Kokkonidis M, Muñoz M. Fundació Clínic per la Recerca Biomèdica, Barcelona, Spain; Fundación Internet Salud y Sociedad, Barcelona, Spain; Hospital Clínic de Barcelona, Barcelona, Spain; Department of Oncology, Faculty of Medicine and Health, Örebro University, Örebro, Sweden; Care Across Ltd., London, United Kingdom; Intrasoft International S.A., Research and Innovation Development, Luxembourg, Luxembourg.
P4-11-29 Evaluating potential overuse of surveillance care in cancer survivors

P4-11-30 Breast cancer follow-up. Patients expectations versus reality
Zalusa-Kusz J, Litwiniuk M. Wielkopolskie Centrum Onkologii, Poznan, Poland.

P4-11-31 Health care professionals’ perspectives on less intensive post-treatment surveillance after breast cancer for women with low risks for recurrences
Ankersmid JW, Drossaert CHC, van Uden-Kraan CF, Strobbe LJA, Siesling S. Santeon Hospital Group, Utrecht, Netherlands; University of Twente, Enschede, Netherlands; Canisius Wilhelmina Hospital, Nijmegen, Netherlands.

P4-11-32 Patient-reported outcome after oncoplastic breast conservation surgery using level I or II techniques without contralateral symmetrization
Deshmane V, Raniwala A, Cardoza C. PD Hinduja Hospital, Mumbai, India.

P4-11-33 Continuous glucose monitoring and hyperglycemia during chemotherapy for early-stage breast cancer
Accordino MK, Spivack JH, Ulene S, Honan E, Trivedi MS, Crew KD, Harden E, Law C, Hershman DL. Columbia University Medical Center, New York, NY.

P4-11-34 An integrated clinical, behavioral and biological model to predict the risk of weight gain among breast cancer survivors (BCS)

Psychosocial, Quality of Life and Educational Aspects:Psychosocial, QOL & Educational Aspects-Other

P4-12-01 Adherence with adjuvant endocrine therapy with or without Palbociclib in the PALLAS trial
Shinn E, Zahirieh D, DeMichele A, Zdenkowski N, Lemieux J, Mao J, Bjelic-Radisic V, Naughton M, Pfeifer G, Gelmon K, Mayer I, Egle D, Zoppoli G, Traina T, Jiménez MM, Novoa SA, Haddad T, Chan A, Ring AE, Wolff A, Lorenz JJP, Sabanathan D, Burstein H, Nowecki ZI, Pristauz-Telsnigg G, Brufisky A, Bellet-Ezquerra M, Foukakis T, Novik Y, Rubovszky G, Muehlbacher K, Metzger O, Goulioti T, Law E, Partridge A, Carey L, Zoroufy A, Hlauschek D, Fesl C, Mayer E, Grant M. University of Texas M. D. Anderson, Houston, TX; The Mayo Clinic/Alliance, Rochester, MN; University of Pennsylvania/ECOG, Philadelphia, PA; Calvary Mater Newcastle, Waratah, NSW, Australia; CHU de Québec-Université Laval, Québec, QC, Canada; Memorial Sloan Kettering Cancer Center/AFT, New York, NY; Helios University Clinic Wuppertal, Breast Unit University Witten/Herdecke, Wuppertal, Germany; Ohio State University/Alliance, Columbus, OH; Austrian Breast Cancer Study Group (ABCSG), Vienna, Austria; University of British Columbia, Vancouver, BC, Canada; Vanderbilt University/ECOG, Nashville, TN; Medical University Innsbruck, Innsbruck, Austria; University Hospital San
Martino - National Cancer Institute, Genoa, Italy; Hospital General Universitario Gregorio Marañón, Madrid, Spain; A Coruña University Hospital, A Coruña, Spain; Breast Cancer Research Centre-WA, Nedlands, WA, Australia; The Royal Marsden, East Sussex, United Kingdom; Johns Hopkins University/ECOG, Baltimore, MD; Hospital General Universitario de Alicante, Spain, Alicante, Spain; Lakeside Specialist Breast Clinic and Nepean Cancer Care Centre, Norwest, NSW, Australia; Dana-Farber Cancer Institute/Alliance, Boston, MA; The Maria Sklodowska Curie Memorial Cancer Center and Institute of Oncology, Warsaw, Poland; Medical University of Graz, Graz, Austria; University of Pittsburgh Cancer Institute, Pittsburgh, PA; Vall d’Hebron Institute of Oncology, Barcelona, Spain; Karolinska Institute and University Hospital, Solna, Sweden; New York University, New York, NY; National Institute of Oncology, Budapest, Hungary; Breast International Group, Brussels, Belgium; Pfizer, Chicago, IL; University of North Carolina/Alliance, Chapel Hill, NC; Dana-Farber Cancer Institute/AFT, Boston, MA; Medical University of Vienna, ABCSG, Vienna, Austria.

P4-12-02 Improving patient-reported outcome data capture for clinical research: ePRO in ISPY 2, a phase 2 breast cancer study

P4-12-03 Assessment of quality of life (QoL) in patients with metastatic breast cancer (MBC) in clinical practice: A real-world multi-country survey
Cardoso F, Rihani J, Aubel D, Moore A, Harmer V, Harbeck N, Casas A, Haftchenary S, Pathak P, Schumacher-Wulf E. Champalimaud Clinical Center/Champalimaud Foundation, Lisbon, Portugal; King Hussein Cancer Center, Amman, Jordan; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Adelphi Real World, Cheshire, United Kingdom; Imperial College Healthcare NHS Trust, London, United Kingdom; Breast Center, Department of Obstetrics and Gynecology, LMU University Hospital Munich, Munich, Germany; University Hospital Virgen del Rocío, Sevilla, Spain; Novartis Pharmaceuticals Canada, Montreal, QC, Canada; Novartis Ireland Ltd, Dublin, Ireland; Mamma Mia! Breast Cancer Magazine, Kronberg, Germany.

P4-12-04 Healthcare utilization and symptoms among hospitalized patients with breast cancer

P4-12-05 Benefit of multidisciplinary consultation at initiation of oral antineoplastic agents in metastatic breast cancer patients
P4-12-06 A patient experience model of diagnosis of pregnancy associated breast cancer (PABC)
Hamlish T, Strom S, Ganschow P. University of Illinois at Chicago, Chicago, IL.

P4-12-07 Incremental benefit of an interdisciplinary care team model for resource identification in adolescents and young adults with breast cancer
Gruen L, Lee-Miller C, Parkes A. University of Wisconsin School of Medicine and Public Health, Madison, WI.

P4-12-08 Accuracy of Patient Self-Reported Breast Cancer Disease Characteristics Compared to the Medical Record in a Trial of the Outcomes4Me Digital Health App

P4-12-09 Implications of protocol modifications and treatment delays for breast cancer patient experiences during Covid-19
Hamlish T, Papautsky EL. University of Illinois at Chicago, Chicago, IL.

P4-12-10 Cancer worry among healthy BRCA mutation carriers in Austria: A pilot study
Parger A-M, Muhr D, Singer CF, Tan YY. Medical University of Vienna, Vienna, Austria.

P4-12-11 Eq-5d-5l utility scores for patients with breast cancer
Torres S, Bayoumi A, Trudeau M, Kinue Abrahaao AB, Mitsakakis N, Krahn M, Liu G. IHPME-University of Toronto, Toronto, ON, Canada; St. Michael’s Hospital, Li Ka Shing Knowledge Institute, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto, ON, Canada; Americas Oncologia, São Paulo, Brazil; Children’s Hospital of Eastern Ontario, Ottawa, ON, Canada; University Health Network, Toronto Health Economics and Technology Assessment (THETA) Collaborative, Toronto, ON, Canada; Division of Medical Oncology and Hematology, Department of Medicine, Princess Margaret Cancer Centre/University Health Network and University of Toronto, Toronto, ON, Canada.

P4-12-12 Assessing the impact of the COVID-19 pandemic on cancer treatment decision-making and care experiences

P4-12-13 Psychosocial aspects in relation to clinical status of breast cancer patients after prolonged COVID pandemic in south India: A observational survey study
Krishnan C. Madras Medical College, Chennai, India.

P4-12-14 Assessing patients perceptions on hormone therapy for breast cancer: Insights from a Brazilian patient group
Montemor MS, Neumann LTV, Siqueira ACA, Barros LHC, Sanches SM. Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil; Instituto Oncoguia, São Paulo, Brazil; Intituto Oncoguia, São Paulo, Brazil; Ac Camargo Cancer Center, São Paulo, Brazil.
POSTER SESSION 5

FRIDAY, DECEMBER 10, 2021: 7:00 AM - 8:30 AM CT

Tumor Cell and Molecular Biology: Animal Models

P5-01-01 Intraductal patient-derived xenograft models of ductal carcinoma in situ (DCIS) to distinguish indolent DCIS from aggressive DCIS

P5-01-02 Single cell RNA transcriptomics reveals tumor promoting mammary cell subpopulation upon replication stress in BRCA1 mutant breast cancer mouse model.
Pathania S, Rivera J, Khalid D, Manne M, Tran S, Kibaja K, Li CMC, Brugge J. University of Massachusetts Boston, Boston, MA; Northeastern University, Boston, MA; Harvard Medical School, Boston, MA.

P5-01-03 Mouse-intraductal (MIND): An in vivo model for studying the underlying mechanisms of DCIS malignancy

P5-01-04 Correlation of HER2 receptor expression and in vivo activity of the HER2-targeting therapies trastuzumab deruxtecan (DS-8201a) and T-DM1 activity in a panel of breast XPDX models

P5-01-05 Transcriptional signature of metastatic triple negative breast cancer in humanized mice

P5-01-06 Establishment and characterization of luminal A breast XPDX models from patients with acquired resistance to CDK 4/6 inhibitors
Hernandez T, Kneifel D, Simonson A, Flores JR, Quick S, Cabang A, Ulmer A, Papadopoulos

**P5-01-07** Patient-derived xenografts (PDXs) generated from hormone receptor-positive breast cancer (BC) before and after cyclin-dependent kinase 4 and 6 inhibitors (CDK4/6i) treatment: Initial findings from the PROMISE study


**P5-01-08** Mechanistic differences between abrupt and gradual involution of mouse mammary gland


**P5-01-09** Establishment and characterization of two simultaneously developed T-DM1-resistant, ER+/HER2+ XPDX models from the same patient with differential in vivo sensitivity to trastuzumab deruxtecan (DS-8201a)


**P5-01-10** A panel of murine mammary tumor cell lines to study immune responses to epitopes created by different mutagens including human APOBEC3 enzymes


**P5-01-11** Nonclinical activity of fulvestrant in a panel of ER+ breast XPDX models representing clinically acquired and innate resistance to endocrine therapies


**P5-01-12** Physical and visual (social) isolation increases tumor aggressiveness in thermoneutral housing temperatures in murine mammary cancer models

Gaymon DO. Georgetown University, Washington, DC.

**Tumor Cell and Molecular Biology: Ex vivo Models**

**P5-02-01** A FACS-free purification method to study estrogen signaling, organoid formation, and metabolic reprogramming in mammary epithelial cells

**P5-02-02** Development of automated 3D high-throughput drug screening platform for patient-derived breast cancer organoids

Kim J, Kim HS, Kim GY, Park Kh, Ryu Sy, Lee S, Lee DW, Ku B, Lee H-B, Han W. Department of Precision Medicine, Medical & Bio Decision (MBD), Suwon, Republic of Korea; Cancer Research Institute, Seoul National University, Seoul, Republic of Korea; Department of Surgery, Seoul National University College of Medicine, Seoul, Republic of Korea.

**P5-02-03** Phenotypic analysis for TNBC using a novel breast cancer microphysiological system


**P5-02-04** Withdrawn

**P5-02-05** Optimizing the differentiation of the 3T3-L1 MBX mouse cell line to mature and obese adipocytes for in vitro breast cancer studies

Mubtasim N, Gollahon L. Texas Tech University, Lubbock, TX.

**Tumor Cell and Molecular Biology: Growth Factors**

**P5-03-01** Conflicting roles of EGFR expression by subtypes in breast cancer

Oshi M, Gandhi S, Tokumaru Y, Wu R, Yan L, Yamada A, Ishikawa T, Endo I, Takabe K. Roswell Park Comprehensive Cancer Institute, Buffalo, NY; Yokohama City University Graduate School of Medicine, Yokohama, Japan; Tokyo Medical University, Tokyo, Japan.

**Tumor Cell and Molecular Biology: Hormonal Factors and Receptors**

**P5-04-02** Modulation of glucocorticoid receptor activity in invasive lobular carcinoma progression

Frerich C, Durdana I, Chatterjee S, Hanke A, Bennet L, Arteaga CL, Conzen SD. UT Southwestern, Dallas, TX.

**P5-04-03** Prolactin drives a dynamic STAT5A/HDAC6/HMGN2 cis-regulatory landscape exploitable in ER+ breast cancer

Clevenger CV, Turner T, Harrell C, Craig J. Virginia Commonwealth University, Richmond, VA.

**P5-04-04** Identification of AR driven tumors within TNBC using a novel gene signature

Rajarajan S, V.pS, Pillai M, Jolly MK, Prabhu JS. Division of Molecular Medicine, St. John’s Research Institute, St. John’s National Academy of Health Sciences, Bengaluru, India; Centre for BioSystems Science and Engineering, Indian Institute of Science, Bengaluru, India.

**P5-04-05** Loss of REST in breast cancer promotes tumor progression through estrogen sensitization, MMP24 and CEMIP overexpression

Vargheese AM, Cloud AS, Gunewardena S, Shimak RM, Ganeshkumar S, Kumarswamy E, Jensen RA, Chennathukuzhi VM. The University of Kansas Cancer Center, Kansas City, KS; The University of Kansas Medical Center, Kansas City, KS.
Tumor Cell and Molecular Biology: Metabolism and Breast Cancer

**P5-05-01** Metabolite profiling and RNA-seq identifies novel metabolomic-genomic biomarker and therapeutic options for rapidly proliferating breast cancers

Glodowski CR, Liao C, Fan C, Liu J, Mott KR, Kaushik A, Vu H, Locasale JW, McBrayer SK, DeBerardinis RJ, Perou CM, Zhang Q. University of North Carolina at Chapel Hill, Chapel Hill, NC; University of Texas Southwestern Medical Center, Dallas, TX; Duke University School of Medicine, Durham, NC; University of Texas Southwestern Medical Center, Dallas, Dallas, TX.

**P5-05-02** Extracellular vesicles from obese human breast adipose tissue promote breast cancer cell proliferation by increasing mitochondrial mass and stimulating mitochondrial respiration


**P5-05-03** Adipocyte associated methionine domain containing (AAMDC): A nuclear envelope protein with predictive and prognostic potential in luminal breast cancer

Weerasena I, Spalding L, Dessauvagie BF, Golden E, Woodward E, Blancafort P, Redfern A. Fiona Stanley Hospital, Perth, Australia; University of Western Australia, Perth, Australia; University of Western Australia, Perth, Australia.

**P5-05-04** Inhibition of HER2+ tumor growth with SDX-7320, a novel MetAP2 inhibitor, alone and in combination with capivasertib/AZD-5363: Reduced expression of hypoxia-inducible and innate-immune system genes


**P5-05-05** Unraveling the mechanism of Lipid-induced malignant transformation in non-transformed breast epithelial cells

Bustamante Eduardo M, Yadav S, Khan S, Clare S. Feinberg School of Medicine, Northwestern University, Chicago, IL.

**P5-05-06** Metformin concentration is a deciding factor of its pro- or anti-tumor function in triple negative breast cancer

Park JH, Jia D, Yang S, Jung KH, Tiwari A, Dutta D, Ghidey M, Putluri N, Coarfa C, Creighton C, Onuchic JN, Kaipparettu BA. Baylor College of Medicine, Houston, TX; Rice University, Houston, TX.

**P5-05-07** An IGF-1R-mTORC1-SRPK2 signaling axis contributes to FASN regulation in breast cancer

Mcclellan B, Gries P, Harlow B, Brenner AJ, Tiziani S, Jolly C, deGraffenried L. University of Texas at Austin, Austin, TX; University of Texas Health San Antonio, San Antonio, TX.

**P5-05-08** CXCL16 as a potential therapeutic target of triple-negative breast cancer

Cho SW, Mi Jang G, Sun HJ, Lee HS, Song YS, Kim SK. Department of Internal Medicine,
Seoul National University Hospital, Seoul, Republic of Korea; Department of Molecular Medicine and Biopharmaceutical Sciences, Graduate School of Convergence Science and Technology, Seoul National University, Seoul, Republic of Korea; Cellus Inc, Seoul, Republic of Korea; Department of Biomedical Science, Graduate School, CHA University, Gyeonggi Province, Seoul, Republic of Korea.

**P5-05-09** Cvi218, a second-generation selective PARP inhibitors with strong clinical potential for breast cancer
Shen X, Li Z. Convalife (Shanghai) Co.Ltd., Shanghai, China.

**P5-05-10** Inhibition of FASN as a potential treatment of advanced therapy-resistant breast cancer
Balinda HU. UT Health San Antonio, San Antonio, TX.

**Tumor Cell and Molecular Biology: Microenvironment - Stromal-Epithelial Interactions**

**P5-06-01** Spatiotemporal gene expression analysis to identify novel tumor-neural crosstalk in TNBC brain metastases
Zhao H, Wang X, Sheng J, Xu S, Gao D, Wong S. Houston Methodist Research Institute, Houston, TX.

**P5-06-02** A gene expression meta-analysis identifies microenvironment differences in cellular composition and cell-cell interactions associated with breast cancer invasion

**P5-06-03** Intratumoral lymphatic endothelial cell infiltration reflects lymphangiogenesis and lymph node metastasis, but is counterbalanced by immune response and better cancer biology in breast cancer tumor microenvironment
Wu R, Oshi M, Asaoka M, Yamada A, Takabe Y, Yan L, Endo I, Ishikawa T, Takabe K. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Tokyo Medical University, Tokyo, Japan; Yokohama City University, Yokohama, Japan.

**P5-06-04** A multi-omics approach to study the host-microbiota interaction in breast cancer tissue
Pirini F, Rossi T, Aboulouard S, Fosso B, Puccetti M, Ravaoli S, Tumedei MM, Cortesi M, Zanoni M, Magnani L, Martinelli G, Saletz M, Bravaccini S. IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) “Dino Amadori”, Meldola, Italy; Laboratoire Protéomique, Réponse Inflammatoire et Spectrométrie de Masse (PRISM), Université Lille, Villeneuve d’Ascq Cedex, France; Institute of Biomembrane, Bioenergetics and Molecular Biotechnologies - IBIOM-CNR, Bari, Italy; Pathology Unit, Azienda Unità Sanitaria Locale (AUSL) di Imola, Imola, Italy; Department of Surgery and Cancer, The Imperial Centre for Translational and Experimental Medicine, Imperial College London, London, United Kingdom.

**P5-06-05** Palmitate induces a senescent-like phenotype in fibroblasts resulting in altered phenotypes in cells of the breast tumor microenvironment
Hybrid cells generated by Mesenchymal Stem/Stromal Cell Enulfment enhance breast cancer metastasis upon Doxorubicin treatment in mouse model

Augimeri G, Gonzalez ME, Bonofilio D, Andò S, Kleer CG. Department of Pharmacy, Health and Nutritional Sciences, University of Calabria, Arcavacata, Italy; Departments of Pathology and Rogel Cancer Center, University of Michigan, Ann Arbor, MI.

Selective inhibition of fibroblast-specific domain discoidin receptor 1 (DDR1) results in reduced collagen deposition and immunomodulatory cytokine release: A potential target to modulate the activity of breast cancer associated fibroblasts

Fein DEC, Traugh N, Rauner G, Mal Y, Trepicchio C, Kuperwasser C. Tufts University, Boston, MA.

Triple-negative breast cancer CAFs induce a metastatic phenotype in MCF-7 cells via the SDF-1/CXCR4 axis

Sharma U, Sun J, Medina-Saenz K, Bare S, Miller P, Picon-Ruiz M, Slingerland J, El-Ashry D, Lippman M. Georgetown University, Washington, DC; University of Miami, Miami, FL; University of Minnesota, Minneapolis, MN.

Rivaroxaban targets the procoagulant tumour microenvironment in vitro and thereby inhibits breast cancer progression

Blower EL, Castle J, Santiago-Gomez A, Clarke R, Kirwan CC. Cancer Research Manchester Institute, Manchester, United Kingdom.

Tumor microenvironment modulates ganglioside expression leading to immunosuppression in triple negative breast cancer

Anand V, El-Dana F, Ly S, Andreeff M, Lokesh Battula V. MD Anderson Cancer Center, Houston, TX.

Secreted frizzled related protein 1: From lobular involution to breast osteoimmunological disorder

Clemenceau A, Lacouture A, Bherer J, Étienne A-W, Diorio C, Durocher F. Cancer Research Centre, CHU de Quebec Research Centre, Faculty of Medicine, Laval University, Quebec, QC, Canada.

Extracellular adenosine synthesis genes regulated by estrogen signaling are associated with cancer aggressiveness and poor prognosis in estrogen receptor (ER)-positive breast cancer

Katsuta E, Dai T, Sawant Dessai A, Dasgupta S. Roswell Park Comprehensive Cancer Center, Buffalo, NY.

Second-harmonic generation imaging reveals neoadjuvant chemotherapy-induced changes in breast tumor collagen
POSTER SESSION 5
FRIDAY, DECEMBER 10, 2021: 7:00 AM-8:30 AM CT

P5-06-14 A novel combination of a 2 gene score & TIL as a predictive Biomarker for responders to novel therapies in Indian TNBC - A population with greater proportion of TNBCs

Korlimarla A, Ps H, Prabhu JS, Ragulan C, Diwakar RB, Apachu S, Cheang M, Kumar RV, Srinath BS, Sridhar TS, Rajarajan S, Alexander A, Sadanandam A. Sri Shankara Cancer Hospital and Research Center, Bangalore, India; St John’s Research Institute, St John’s Medical College, Bangalore, India; Institute of Cancer Research, Sutton, United Kingdom.

P5-06-15 Enabling therapeutic decisions for a breast cancer patient cohort using matched diseased and normal tissue in tumor organoids

Deems L, Shvartsman D, Ivanova M, Murphy C, Deems D. Cellaria Inc., Wakefield, MA.

P5-06-16 Radiosensitivity and immune cell infiltration signature predict clinical outcome of patients in the molecular taxonomy of breast cancer international consortium (METABRIC) study cohort

Kang BH. Seoul National University, Seoul, Republic of Korea.

Tumor Cell and Molecular Biology: Molecular Profiles

P5-07-01 Proteogenomic analysis of differential chemotherapy responses in patient-derived xenografts of triple-negative breast cancer


P5-07-02 Potential differences in stromal patterns from breast cancer metastatic lymph between South Carolina sea islander black women and white women

Ivey A, Brown S, Mehta AS, Drake RR, Yeh ES, Ford ME, Angel PM. Medical University of South Carolina, Charleston, SC; Indiana University School of Medicine, Indianapolis, IN.

P5-07-03 Disease classification modeling of inflammatory breast cancer based on simultaneous profiling of coding and non-coding RNAs in tumor and blood samples by TGIRT-sequencing

Wylie DC, Wang X, Yao J, Xu H, Iwase T, Krishnamurthy S, Ueno NT, Lambowitz AM. University of Texas at Austin, Austin, TX; University of Texas MD Anderson Cancer Center, Houston, TX.

P5-07-04 Comprehensive analysis of the gene rearrangements within 822 breast cancer brain metastases reveals an enrichment of cyclin dependent kinase 12 rearrangements in HER2-positive brain metastases

Bhogal T, Sokol E, Ramkissoon S, Giannoudis A, McGregor K, Clark A, Razis E, Bartsch R, Huang R, Palmieri C. Institute of Translational Medicine, Liverpool, United Kingdom; Foundation Medicine, Inc., Cambridge, MA; 3rd Oncology Department, Hygeia Hospital.
P5-07-05 Deciphering the inferior prognosis of young women with estrogen receptor-positive early-stage breast cancer through full transcriptome analysis: A FLEX database sub-study

Dhage S, Gendy M, D’Abreo N, Oratz R, Diab SG, Gadi VK, Graham C, Kuilman M, Wang S, Dauer P, Menicucci A, Audeh W, Marks DK, Perlmutter Cancer Center at NYU Langone Health, Mineola, NY; Rocky Mountain Cancer Center, US Oncology, Aurora, CO; University of Illinois Cancer Center, Chicago, IL; Emory University School of Medicine, Atlanta, GA; Agency, NV, Amsterdam, Netherlands; Agency, Inc., Irvine, CA.

P5-07-06 Genomic characterization and tumor evolution in matched(primary-relapse) samplesof patients with METAPLASTIC breast cancer


P5-07-07 Mapping clonal evolution and tumor heterogeneity by whole exome sequencing of tissue and plasma circulating tumor DNA in metastatic breast cancer


Tumor Cell and Molecular Biology: New Drugs and Mechanisms

P5-08-01 Globo H: A Globo series glycosphingolipid target antigen in breast cancer

Sigal DS, Tsimberidou AM, Chen I-J, Hsu P, Pearce T, Scripps Clinic and Scripps MD Anderson Cancer Center, San Diego, CA; The University of Texas MD Anderson Cancer Center, Houston, TX; OB1 Pharma, Inc., Taipei, Taiwan; OB1 Pharma USA, Inc., San Diego, CA.

P5-08-02 MORAb-202, an antibody-drug-conjugate (ADC) targeting folate receptor alpha (FRα), exhibits durable anti-tumor efficacy in PDX models of TNBC


P5-08-03 Intraductal administration of a Transferrin Receptor-directed immunotoxin eliminates ductal carcinoma in situ in preclinical mammary in-duct (MIND) models of breast cancer

Sukumar S, Wang G, Kumar A, Ding W, Korangath P, Pai P, Gabrielson K, Pastan I. Johns Hopkins University School of Medicine, Baltimore, MD; Georgetown University, Washington, DC; Renmin Hospital of Wuhan University, Wuhan, China; National Cancer Institute, Bethesda, MD.
P5-08-04  LMP7-specific inhibitor M3258 modulates the tumor microenvironment of aggressive breast cancer
Xie X, Lee J, Manyam GC, Pearson T, Walter-Bausch G, Friese-Hamim M, Goodstal SM, Tripathy D, Jing W, Sanderson M, Ueno NT. MD Anderson Cancer Center, Houston, TX; Merck KGaA, Darmstadt, Germany; EMD Serono Research and Development Institute, Billerica, MA.

P5-08-05  Preclinical activity of KB-0742, an oral, highly selective, CDK9 inhibitor, in cell lines and in MYC-high expressing, patient-derived models of multiple breast cancer subtypes

P5-08-06  MDX-124, a novel annexin-A1 antibody, shows anti-tumor efficacy in several preclinical models of triple-negative breast cancer
Dempsey FC, Al-Ali H, Crichton SJ, Fabian C, Pepper C, Parris CN. Medannex Limited, Edinburgh, United Kingdom; ARU, Cambridge, United Kingdom; Brighton and Sussex Medical School, Brighton, United Kingdom.

P5-08-07  The complete estrogen receptor antagonist OP-1250 can combine with HER2 inhibition to inhibit estrogen receptor-driven cellular proliferation and shrink xenograft tumors in ER+/HER2+ breast cancer models

P5-08-08  C/EBPβ antagonist peptide, ST101, as a novel therapeutic for breast cancer

P5-08-09  Characterization of the Rac/Cdc42 inhibitor MBQ-168 as an anti-cancer compound
Medina J, Matos T, Velazquez L, Rivera M, Cruz-Collazo A, Hernandez E, Vlaar C, Dharmawardhane S. University of Puerto Rico, School of Medicine, Department of Biochemistry, San Juan, PR; University of Puerto Rico, Medical Sciences Campus, School of Pharmacy, San Juan, PR.

P5-08-10  TBK1 inhibition potentiates the efficacy of AXL-targeted therapy in aggressive breast cancer preclinical models

Tumor Cell and Molecular Biology: Novel/Emerging Therapeutic Targets

P5-08-11  Withdrawn

P5-08-12  Efficacy of futibatinib, an irreversible fibroblast growth factor receptor (FGFR) inhibitor, in breast cancer models with FGFR alterations
Saridogan T, Akcakanat A, Zhao M, Evans KW, Yuca E, Scott S, Kirby BP, Zheng X, Damodaran S, Meric-Bernstam F. The University of Texas MD Anderson Cancer Center, Houston, TX.

**P5-08-13** NDRG1 expression is an independent prognostic factor in inflammatory breast cancer

Schlee Villodre E, Gong Y, Hu X, Huo L, Yoon EC, Ueno NT, Woodward WA, Tripathy D, Song J, Debeb BG. UT MD Anderson Cancer Center, Houston, TX.

**P5-08-14** Maternal embryonic leucine zipper kinase is associated with metastasis in triple-negative breast cancer

Xie X, Chauhan GB, Edupuganti R, Kogawa T, Park J, Tacam MT, Vidhu F, Liu DD, Taliaferro JM, Pitner MK, Shen Y, Ueno NT, Krishnamurthi S, Hortobagyi GN, Tripathy D, Van Laere SJ, Bartholomeusz G, Dalby K, Bartholomeusz C. MD Anderson Cancer Center, Houston, TX; The University of Texas at Austin, Austin, TX; KU Leuven, Leuven, Belgium.

**P5-08-15** Overcoming mTOR inhibitor resistance by targeting the lysosomal deregulation


**P5-08-16** MTAP deletion and synthetic lethality-based drug development for metastatic breast cancer (MBC)

Pusztai L, Danziger N, Sokol ES, Pavlick DC, Graf R, Ramkissoon S, Huang RSP, Decker BJ, Ross JS. Yale University, New Haven, CT; Foundation Medicine Inc., Cambridge, MA; Upstate Medical University, Syracuse, NY.

**P5-08-17** Small G protein RALA is a driver and potential therapeutic target in triple negative breast cancer

Richardson DS, Cole MW, Schafer RE, Spehar JM, Steck SA, Das M, Lian AW, Ray A, Shakyar R, Knoblaugh SE, Timmers CD, Sizemore GM, Sizemore ST. The Ohio State University, Columbus, OH.

**P5-08-18** Disruption of redox balance in glutaminolytic triple negative breast cancer by inhibition of glutamate transport and glutaminase


**Tumor Cell and Molecular Biology: Oncogenes/Tumor Suppressor Genes**

**P5-09-01** Using isogenic model systems to determine mechanisms regulating mutant p53 protein stability in breast cancer cells

Redman-Rivera L, Jin H, Lehmman BD, Pietenpol JA. Vanderbilt University, Nashville, TN; Vanderbilt University Medical Center, Nashville, TN.

**P5-09-02** Tetrameric and monomeric gain-of-function mutant p53 interacts with chromatin

Annor GK. Graduate Center CUNY, New York, NY.

**P5-09-03** Mieap, a p53-downstream gene, is associated with suppression of breast cancer cell proliferation and better survival
Futamura M, Tokumaru Y, Takabe K, Arakawa H, Yoshida K. Breast Surgery, Dept. of Surgery, Gifu University, Gifu, Japan; Roswell Park Comprehensive Cancer Center, Breast Surgery, Dept. of Surgery, University of Buffalo, Buffalo, NY; Division of Cancer Biology, National Cancer Center Research Institute, Tokyo, Japan; Gastrointestinal and Pediatric Surgery, Dept. of Surgery, Gifu University, Gifu, Japan.

P5-09-04 Regulation of mTOR signaling pathway by ING4 in breast cancer: A new target in cancer therapy
Shatnawi A, Salisbury T. University of Charleston, Charleston, WV; Marshall University, Charleston, WV.

**Tumor Cell and Molecular Biology: Signaling Pathways**

P5-10-01 Leukemia inhibitory factor receptor inhibition reduces obesity driven progression of triple negative breast cancer

P5-10-02 A novel mechanism of phosphatase activation for EGFR by Cullin-3/KCTD10 ubiquitin E3 complex in HER2-positive breast cancer cells
Nishiyama K, Maekawa M, Murakami A, Utsunomiya K, Takemoto K, Kusakabe E, Noda H, Aoki R, Taguchi K, Yamashita M, Nakagita T, Nakayama J, Chosei M, Kiyoi T, Kamei Y, Takeda H, Takada Y, Higashiyama S. Department of Breast Center, Ehime University Hospital, Toon, Japan; Department of Biochemistry and Molecular Genetics, Ehime University Graduate School of Medicine, Toon, Japan; Division of Proteo-Drug-Discovery Sciences, Proteo-Science Center, Ehime University, Matsuyama, Japan; Division of Cellular Signaling, National Cancer Center Research Institute, Tokyo, Japan; Division of Cell Growth and Tumor Regulation, Proteo-Science Center, Ehime University, Toon, Japan; Division of Analytical Bio-medicine, Advanced Research Support Center, Ehime University, Toon, Japan; Division of Proteo-Drug-Discovery Sciences, Proteo-Science Center, Ehime University, Toon, Japan; Department of Hepato-Biliary-Pancreatic Surgery and Breast Surgery, Ehime University Graduate School of Medicine, Toon, Japan.

P5-10-03 Mutant p53 and ERK1/2 MAPK cooperate with the production of TNBC inflammatory secretome
Nascimento das Neves R, Gorthi A, James Roy Bishop A, Zanotto Filho A. Universidade Federal de Santa Catarina (UFSC), Florianópolis, Brazil; University of Texas Health at San Antonio, San Antonio, TX.

P5-10-04 Exploring novel connections between dishevelled (DVL) proteins and HER2-positive breast cancer-road to translation

P5-10-05 HER2 inhibition increases non-muscle myosin IIa to promote tumorigenesis in HER2+ breast cancers
Alanazi SM, Mishra R, Patel H, Yuan L, Kilroy MK, Garrett JT. University of Cincinnati, Cincinnati, OH.

**P5-10-06** Arginine-depleting enzyme, pegylated arginase, isolated from beef-liver tissue induces growth inhibition, apoptosis, cell cycle arrest and inhibits induced mammary tumors: A promising strategy for human breast cancer treatment in vitro and in vivo

Yahiya I, Ali A, Ali O, Sultan A. Faculty of Science, Alexandria University, Alexandria, Egypt; Faculty of Applied Health Science Technology, Pharos University, Alexandria, Egypt.

**P5-10-07** A preclinical evaluation of the isoform-specific PI3K inhibitor in HER2+ breast cancer models with resistance to trastuzumab

De P, Aske JC, Dey N. Avera Cancer Institute, Sioux Falls, SD.

**P5-10-08** Inflammation drives NOS2-Akt2 signaling in triple negative breast cancer

Chung S, Montfort W. University of Arizona, Tucson, AZ.

**Tumor Cell and Molecular Biology: Stem/Progenitor Cells**

**P5-11-01** Identification of novel ER and ER-NFκB driven stem-like cell populations in ER+ breast cancer

Semina SE, Maienschein-Cline M, Alarid ET, Sartorius CA, Frasor J. Department of Physiology and Biophysics, College of Medicine, University of Illinois at Chicago, Chicago, IL; Research Informatics Core, University of Illinois at Chicago, Chicago, IL; McArdle Laboratory for Cancer Research, Department of Oncology and Carbone Comprehensive Cancer Center, University of Wisconsin-Madison, Madison, WI; Department of Pathology, University of Colorado Anschutz Medical Campus, Aurora, CO.

**P5-11-02** Humoral immune responses direct breast cancer towards a basal-like phenotype and increases stemness and invasive potential

Sims Mourtada J, Maosa S, Opdenaker L, Toney N. ChristianaCare, Newark, DE; University of Delaware, Newark, DE.

**P5-11-03** Altered adipose-derived mesenchymal stem/stromal cells induced by obesity in the breast cancer microenvironment

Ritter A, Roth S, Friemel A, Kreis N-N, Louwen F, Solbach C, Yuan J. University Hospital Frankfurt, J. W. Goethe- University, Frankfurt, Germany.

**Tumor Cell and Molecular Biology: Tumor Cell and Molecular Biology - Other**

**P5-12-01** Apobec mutation signature in breast cancer explained by combinatorial action of apobec3a and apobec3b

Harris RS, Jarvis MC, Carpenter MA, Brown MR, Argyris PP, Brown W, Yee D. HHMI and University of Minnesota, Minneapolis, MN; University of Minnesota, Minneapolis, MN; Masonic Cancer Center, University of Minnesota, Minneapolis, MN.

**P5-12-02** Intratumor heterogeneity, angiogenesis and epithelial to mesenchymal transition are enhanced in metaplastic breast cancer
Oshi M, Chouliaras K, Asaoka M, Wu R, Yamada A, Khoury T, Endo I, Ishikawa T, Takabe K. Roswell Park Comprehensive Cancer Center, Buffalo, NY; Yokohama City University Graduate School of Medicine, Yokohama, Japan; Tokyo Medical University, Tokyo, Japan.

**P5-12-03** Wcrc-25: A novel luminal invasive lobular carcinoma cell line model


**P5-12-04** Osteogenic cocktail induces calcifications in human breast cancer cell line via placental alkaline phosphatase expression

Fushimi A, Takeyama H, Tachibana T, Manome Y. The Jikei University School of Medicine, Tokyo, Japan.

**P5-12-05** Novel pEZH2 T367-PRC2 interaction and methyltransferase activity in the nuclear and cytoplasmic fractions of breast cancer cells

Naimo GD, Gonzalez ME, Tekula SR, Gauss JC, Mauro L, Andò S, Kleer CG. University of Michigan, Ann Arbor, MI; University of Calabria, Arcavacata di Rende, Italy.

**P5-12-06** Msc engulfing by triple negative breast cancer cells induces a hybrid cell population with senescence

Paoli A, Gonzalez ME, Mauro L, Andò S, Kleer CG. University of Michigan, Ann Arbor, MI; University of Calabria, Arcavacata di Rende, Italy

**P5-12-07** Proteomic profiling of extracellular vesicles released from leptin-treated breast cancer cells: A potential role in cancer metabolism

Gelsomino L, La Camera G, Barone I, Panza S, Morello G, Caruso A, Chiodo C, Bonofiglio D, Giordano C, Andò S, Catalano S. Department of Pharmacy, Health and Nutritional Sciences, University of Calabria, Rende, Italy; Institute for Biomedical Research and Innovation, National Research Council, Catania, Italy.

**P5-12-08** The role of a novel phosphatase NUDT5 in triple-negative breast cancer

Qian J, Tahaney W, Ma Y, Mazumdar A, Brown P. MD Anderson, Houston, TX

**P5-12-09** Cis-acting super-enhancer IncRNAs as diagnostic markers to early-stage breast cancer


**P5-12-10** A commensal’s exopolysaccharide inhibits breast cancer proliferation in vitro but promotes tumor growth in vivo

Nguyen MR, Knight KL, Osipo C. Loyola University Chicago, Maywood, IL.

**P5-12-11** NSDHL knockdown decreases tightly cohesive tumorsphere formation and breast cancer stem cell population
P5-12-12 The role of a cancer testis-antigen in regulating tumor growth and oncogenic pathways in triple-negative breast cancer

Sedano MJ, Harrison AL, Le I, Gadad SS. Texas Tech University Health Sciences Center, El Paso, TX.

P5-12-13 Exploring the impact of the tumor microenvironment on nuclear morphometry: Lessons learned for sensitivity to cytotoxic treatment

Chhetri A. Purdue University, West Lafayette, IN.

Prognostic and Predictive Factors: Predictive Biomarkers for Targeted Therapies

P5-13-01 Comprehensive tumor analysis by NGS in metastatic breast cancer patients

Papadopoulou E, Tsoulos N, Metaxa-Mariotou V, Tsantikidi A, Kapetsis G, Florou-Chatzigiannidou C, Maravelaki S, Bourkoula E, Fotiou D, Tsauosis G, Touroutoglou N, Trafalis D, Boukovichas I, Varthalitis I, Saridaki Z, Zoublos C, Galani E, Papatsibas G, Papadimitriou C, Zlatintsi T, Iorga P, Orhan B, Tansan S, Özatlı T, Nasioulas G. GeneKor Medical S.A., Athens, Greece; Department of Medical Oncology, Interbalkan Medical Center, Thessaloniki, Greece; Mediterraneo Hospital, Athens, Greece; Bioclinic Thessalonikí, Thessaloniki, Greece; Henry Dunant Hospital Center, Athens, Greece; Asklepios Oncology Department and “Asklepion Crete” Clinic, Heraklion, Greece; Department of Oncology, Evaggelismos Hospital, Athens, Greece; Second Department of Medical Oncology, “Metropolitan” Hospital, Piraeus, Greece; Oncology Department, University General Hospital of Larissa, Larissa, Greece; Oncology Unit, Aretaieion Hospital, National and Kapodistrian University of Athens School of Medicine, Athens, Greece; St. Luke’s Hospital, Thessaloniki, Greece; Spitalul Universitar de Urgenta, Bucharest, Romania; Department of Medical Oncology, Ceylan International Hospital, Bursa, Turkey; Tansan Oncology, Istanbul, Turkey; Istinye University Hospital, Instabul, Turkey.

P5-13-02 Serially biopsied BRCA1/2 mutant breast tumors frequently acquire alterations in BRCA1, BRCA2, and CREBBP

Sokol E, Sivakumar S, Decker B, Ross J, Hegde P. Foundation Medicine, Cambridge, MA.

P5-13-03 Alpelisib + endocrine therapy (ET) in patients with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-), PIK3CA-mutated advanced breast cancer (ABC) previously treated with cyclin-dependent kinase 4/6 inhibitor (CDK4/6i): Biomarker analyses from the Phase II BYLieve study

Juric D, Turner N, Prat A, Chia S, Ciruelos EM, Ruiz-Borrego M, Druillinsky P, Lerebours F, Bachelot T, Balbin OA, Joshi M, Roux E, Arce CH, Akdere M, Rugo HS. Massachusetts General Hospital Cancer Center, Gillette Center for Women’s Cancer, Boston, MA; The Royal Marsden and Institute of Cancer Research, London, United Kingdom; Hospital Clinic of Barcelona, Barcelona, Spain; British Columbia Cancer Agency, University of British
P5-13-04 NF1 mutations render HER2+ breast cancer highly sensitive to T-DM1 by altering microtubule dynamics
Duso BA, Gavilán Dorronzoro E, Tini G, de Filippo MR, Bonetti E, Ippolito MR, Soriani C, D'Amico P, Rodighiero S, Curigliano G, Santaguida S, Cristofanilli M, Pelicci PG, Mazzarella L. European Institute of Oncology (IEO), Milan, Italy; Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL.

P5-13-05 Multiplex spatial systems analysis of responses to spatially separate nanoliter doses of drug predicts systemic immune-modulating combination treatments in breast cancer
Tatarova Z, Blumberg DC, Coussens LM, Mills GB, Jonas O, Gray JW. Oregon Health & Science University, Portland, OR; Brigham & Women’s Hospital, Boston, MA.

P5-13-06 Exploratory biomarker analysis in VERONICA, a phase 2 study of venetoclax + fulvestrant versus fulvestrant in patients with estrogen receptor (ER)-positive HER2-negative metastatic breast cancer (mBC)
Lindeman GJ, Fernando TM, Bowen R, Chang C-W, Desai R, Gupta K, Fléchais A, Wilson TR, Bardia A, Walter and Eliza Hall Institute, Melbourne, Australia; Genentech, Inc., South San Francisco, CA; Royal United Hospitals Bath NHS Foundation Trust, Bath, United Kingdom; IQVIA RDS, Inc., Pune, India; F. Hoffmann-La Roche Ltd, Basel, Switzerland; Massachusetts General Hospital/Harvard Medical School, Boston, MA.

P5-13-07 Implications of body mass index (BMI) on the biological and clinical effects of endocrine therapy and abemaciclib in the neoadjuvant setting
Franzoi MA, Lambertini M, Ceppi M, Bruzonne M, de Azambuja E. Jules Bordet Institute, Brussels, Belgium; IRCCS Policlinico San Martino, Genoa, Italy.

P5-13-08 Identification of PD-L1+ status as a candidate predictive biomarker of response to talazoparib (TALA) in the phase 3 EMBRACA study
Rugo HS, Blum JL, Laird AD,Hurvitz SA, Ettl J, Mina LA, Lee K-H, Gonçalves A, Yerushalmi R, Im Y-H, Martin M, Fehrenbacher L, Roché HH, Chen Y, Lanzalone S, Chelliserry J, Eiermann W, Litton JK. University of California San Francisco Comprehensive Cancer Center, San Francisco, CA; Texas Oncology-Baylor Charles A. Sammons Cancer Center, US Oncology Network, Dallas, TX; Pfizer Inc., La Jolla, CA; University of California, Los Angeles/Jonsson Comprehensive Cancer Center (UCLA/JCCC), Los Angeles, CA; Department of Obstetrics and Gynecology, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; Banner MD Anderson Cancer Center, Gilbert, AZ; Seoul National University Hospital, Cancer Research Institute, Seoul National University College of Medicine, Seoul, Republic of Korea; Institut Paoli-Calmettes, Marseille, France; Davidoff Cancer Center, Rabin Medical Center, Beilinson Hospital, Petah Tikva, Israel; Samsung Medical Center, Seoul, Republic of Korea; Instituto de Investigación Sanitaria Gregorio Marañón, CIBERONC.
P5-13-09 Identifying homologous recombination deficiency in breast cancer: Genomic instability score thresholds differ in breast cancer subtypes
Timms KM, Lenz L, Neff C, Solimeno C, Flake D, Boughey JC, Goetz MP, Richardson A, Storniolo AM, Gutin A, Connolly RM, Stearns V, Lanchbury JS. Myriad Genetics, Inc., Salt Lake City, UT; Mayo Clinic, Rochester, MN; Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins School of Medicine, Baltimore, MD; Indiana University, Indianapolis, IN; University College Cork, Cork, Ireland.

P5-13-10 Elevated plasma IL-8 predicts for reduced outcomes in CCTG MA.38, a phase 2 randomized trial of palbociclib in ER+/HER2- metastatic breast cancer patients
Polimera HV, Bhatt D, Shepherd LE, Gelmon K, Joy AA, Parulekar WR, Joshi M, Ali SM, Leitzel K, Truica C, Vasekar M, Dracibick JJ, Menon H, Shah N, Maddukuri A, Moku P, Halstead ES, McKeone D, Umstead TM, Chen BE, Lipton A. Penn State Hershey Medical Center, Hershey, PA; Queen’s University, Canadian Cancer Trials Group, Kingston, ON, Canada; British Columbia Cancer Agency, Vancouver, BC, Canada; University of Alberta, Cross Cancer Institute, Edmonton, AB, Canada; Penn State Hershey Medical Center; Lebanon VA Medical Center, Hershey/Lebanon, PA.

P5-13-11 Patient characteristics and treatment patterns by BRCA/ATM mutation status in patients with metastatic triple-negative breast cancer in the US: An electronic health records (EHR) based study

P5-13-12 Immune signatures and MammaPrint (ultra) high risk class (MP2) as predictors of response to pembrolizumab combined with the TLR9 agonist SD101 in the neoadjuvant I-SPY 2 TRIAL

P5-13-13 PIK3CA mutations co-occurring with copy number gain identify patients with adverse outcome and potentially different treatment sensitivity among hormone receptor positive and HER2 negative metastatic breast cancer
Migliaccio I, Paoli M, Risi E, Biagini C, Biganzoli L, Benelli M, Malorni L. Hospital of Prato, Azienda USL Toscana Centro, Prato, Italy.

P5-13-14 Antitumor activity of patritumab deruxtecan (HER3-DXd), a HER3-directed antibody drug conjugate (ADC) across a diverse panel of breast cancer (BC) patient-derived xenografts (PDXs)
P5-13-15 High dimensional flow cytometric analysis or the peripheral immune profile and response to HER2-targeted antibody therapy

P5-13-16 A real-world assessment of PIK3CA testing and alpelisib treatment patterns among metastatic breast cancer patients in a community oncology setting
O’Shaughnessy J, Paulson S, Brisbin L, Lindsey J, Williford A, Lisi M, Parikh RC, Simmons S, Balu S. Texas Oncology, Dallas, TX; RTI, Houston, TX; Novartis, East Hanover, NJ.

P5-13-17 PD-L1 expression in breast to brain metastases
Chehade R, Qazi MA, Ennis M, Nofech-Mozes S, Jerzak K. Department of Medical Oncology, Faculty of Medicine, University of Toronto, Toronto, ON, Canada; Faculty of Medicine, University of Toronto, Toronto, ON, Canada; Applied Statistician, Markham, ON, Canada; Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, ON, Canada; Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON, Canada.

P5-13-18 Upregulation of immune response biomarkers by ribociclib plus endocrine therapy (ET) in paired tumor samples from phase I studies
Juric D, Ma C, Tiedt R, Yap Y-S, Chiu J, Munster P, Ismail-Khan R, Garcia-Estevez L, Mayer IA, Becerra C, Solovieff N, Lteif A, Su F, Lu Y-S. Massachusetts General Hospital Cancer Center, Boston, MA; Novartis Pharmaceuticals Corporation, Cambridge, MA; Novartis Institutes for BioMedical Research, Oncology Translational Research, Basel, Switzerland; National Cancer Center Singapore, Singapore City, Singapore; Queen Mary Hospital, Hong Kong, China; University of California San Francisco, San Francisco, CA; H. Lee Moffitt Cancer Center, Tampa, FL; Hospital de San Chinarro, Madrid, Spain; Vanderbilt-Ingram Cancer Center, Nashville, TN; Texas Oncology-Baylor Charles A. Sammons Cancer Center, Dallas, TX; Novartis Institutes for Biomedical Research, Cambridge, MA; Novartis Pharmaceuticals Corporation, East Hanover, NJ; National Taiwan University Hospital, Taipei, Taiwan.

P5-13-19 Sarcopenia and skeletal muscle density as predictors of toxicity in patients with metastatic breast cancer receiving alpelisib
Raphael A, Kessner R, Raphael R, Sonnenblick A, Strulov Shachar S. Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel; Eötvös Loránd University, Budapest, Hungary.

P5-13-20 Identifying a metabolite signature that correlates with tumor proliferation in early-stage breast cancer patients treated with CDK4/6 inhibitors from matched plasma and serum samples
POSTER SESSION 5
FRIDAY, DECEMBER 10, 2021: 7:00 AM-8:30 AM CT

C. Olaris, Waltham, MA; Washington University in St. Louis, St. Louis, MO; Cedars-Sinai, Los Angeles, CA; Mayo Clinic, Phoenix, AZ; Mayo Clinic, Rochester, MN.

**P5-13-21** Relationship between circulating tumor DNA and response to neoadjuvant niraparib in HER2-negative, BRCA-mutated breast cancer
Shan M, Spring L, Liu MC, Hamilton E, Irie H, Santa-Maria CA, Isakoff SJ, Reeves J, Ellisen LW, Lim LP, Garg K, Bertucci C, Feng B, Zhang H, Sun K, Graham JR, Hofstatter E, Han H. GlaxoSmithKline, Waltham, MA; Massachusetts General Hospital and Harvard Medical School, Boston, MA; Mayo Clinic, Rochester, NY; Sarah Cannon Research Institute/ Tennessee Oncology, Nashville, TN; Icahn School of Medicine, New York, NY; Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD; Florida Cancer Specialists-South/Sarah Cannon Research Institute, Fort Myers, FL; Massachusetts General Hospital and Harvard Medical School; Ludwig Centre at Harvard, Boston, MA; Resolution Bioscience/Agilent, Kirkland, WA; GlaxoSmithKline (at time of study), Waltham, MA; Moffitt Cancer Center-McKinley Outpatient Center, Tampa, FL.

**P5-13-22** Serum thymidine kinase 1 activity (TKa) levels and progression-free survival (PFS) in patients (pts) with hormone receptor positive (HR+) HER2-negative metastatic breast cancer (MBC) on palbociclib (Pb) and endocrine therapy (ET)

**P5-13-23** Pharmacokinetic determinants of palbociclib hematological toxicity

**P5-13-24** Efficacy of first line CDK4/6 inhibitors in HER2-low vs HER2-zero, hormone receptor positive, HER2 negative metastatic breast cancer

**P5-13-25** PIK3CA registry: A noninterventional, descriptive, retrospective cohort study of PIK3CA mutations in patients with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-) advanced breast cancer (ABC)
Rajadurai P, Semiglazova T, Hegmane A, El Karak F, Chiu JW, Gupta S, Azim HA, Kitzen JJEM, Arnaud A, Haftchenary S, Wu J, Menon-Singh L, Smith L, Zhukova L. Subang Jaya Medical Centre, Selangor DE, Malaysia; N.N. Petrov National Medical Research Center of Oncology, St. Petersburg, Russian Federation; Riga East University Hospital, Latvian Oncology Centre, Riga, Latvia; Harvard Medical School, Massachusetts General Hospital, Beirut, Lebanon; Queen Mary Hospital, Pokfulam, Hong Kong; Tata Memorial Centre, Mumbai, Maharashtra, India; Cairo University, Cairo, Egypt; Albert Schweitzer Hospital, Dordrecht, Netherlands; Institut Sainte Catherine, Avignon, France; Novartis Pharmaceuticals Canada Inc, Dorval.
QC, Canada; Novartis Pharmaceuticals Corporation, East Hanover, NJ; A. S. Loginov Moscow Research Center for Chemotherapy, Moscow Clinical Scientific Center, Moscow, Russian Federation.

**P5-13-26** The future of HER2-positive breast cancer patients might be written in miRNAs: An exploratory analysis from the NeoALTTO study
Iorio MV, Pizzamiglio S, Cosentino G, Ciniselli CM, De Cecco L, Cataldo A, Plantamura I, Triulzi T, El-abed S, Wang Y, Bajji M, Nuciforo P, Huober J, Ellard S, Rimm D, Gombos A, Daidone M, Verderio P, Tagliaiue E, Di Cosimo S. Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; BIG (Breast International Group), Brussels, Belgium; Novartis Pharma AG, Basel, Switzerland; IJB (Institute Jules Bordet), Brussels, Belgium; Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Breast Center, Cantonal Hospital, St. Gallen, Switzerland; BC Cancer, Kelowna, BC, Canada; Yale University School of Medicine, New Haven, CT.

**P5-13-27** Post-treatment vascularity and vessel shape are associated with survival and response to CDK4/6 inhibitors in hormone receptor-positive metastatic breast cancer (MBC)
Viswanathan VS, Braman N, Reddy P, Kunte S, Abraham J, Montero AJ, Madabhushi A. Case Western Reserve University, Cleveland, OH; University Hospitals Cleveland, Cleveland, OH; Cleveland Clinic, Cleveland, OH; Case Western Reserve University and Louis Stokes Cleveland Veterans Administration Medical Center, Cleveland, OH.

**P5-13-28** Withdrawn

**P5-13-29** Analytical and clinical validation of a ctDNA assay for detecting copy number loss and structural rearrangement variants contributing to homologous recombination and repair (HRR) deficiency

**P5-13-30** Analysis of $\alpha\beta$ and $\gamma\delta$ circulating T cells in the PHERGain randomized phase 2 trial for patients with HER2-positive early breast cancer receiving neoadjuvant trastuzumab and pertuzumab without chemotherapy: LINGain
Andreu-Ballester JC, Pérez-García JM, Bermejo B, Carañana V, Irazo V, Gavilà J, Santaballa A, Gómez-Soler MC, Sampayo-Cordero M, Malfettone A, Cortes J Llombart-Cussac A. Hospital Arnau de Vilanova; FISABIO, Valencia, Spain; International Breast Cancer Center (IBCC), Quironsalud Group; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Hospital Clínico Universitario de Valencia; Biomedical Research Institute INCLIVA, Valencia, Spain; Hospital General Universitario de Valencia, Valencia, Spain; Instituto Valenciano de Oncología (IVO), Valencia, Spain; Hospital Universitari i Politècnic La Fe, Valencia, Spain; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; International Breast Cancer Center (IBCC), Quironsalud Group; Medica Scientia Innovation Research (MEDSIR); Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Hospital Arnau de Vilanova; FISABIO; Universidad Católica de Valencia; Medica Scientia Innovation Research (MEDSIR), Valencia, Spain.
P5-13-31 Pik3ca mutations and myc amplification are associated with pathological complete response in human epidermal growth factor receptor 2-positive breast cancer patients receiving pyrotinib combined with trastuzumab neoadjuvant treatment
Shi Q, Xuhong J, Ge J, Liu F, Lan Y, Zhang Y, Tao L, Blan X, Qi X, Jiang J. Department of Breast and Thyroid Surgery, Southwest Hospital, Army Medical University, Chongqing, China; Institute of Pathology and Southwest Cancer Center, Southwest Hospital, Army Medical University, Chongqing, China.

P5-13-32 Mucin 4 expression in high risk breast cancer: Predicting and overcoming resistance to immunotherapy

P5-13-33 Longitudinal transcriptional profiling of CTCs in metastatic breast cancer patients receiving the CDK4/6 inhibitor Palbociclib to predict therapy response
Kasimir-Bauer S, Gruber C, Hoffmann O, Kimmig R, Keup C. University Hospital Essen, Essen, Germany.

P5-13-34 A multi-modal biomarker of immunotherapy response
Pfeiffer JR, Peterson JR, Howard F, Earnest TM, Pandey T, He G, Nanda R. SimBioSys, Inc, Champaign, IL; Department of Medicine, The University of Chicago, Chicago, IL.

P5-13-35 Mechanisms of CDK4/6 inhibitor resistance in hormone receptor positive metastatic breast cancer: Single institution retrospective analysis

P5-13-36 Germ line BRCA1/2 and other predisposition genes in high-risk early-stage HR+/HER2- breast cancer (BC) patients treated with endocrine therapy (ET) with or without palbociclib: A secondary analysis from the PENelope-B study
Loibl S, Hauke J, Gelmon K, Marmé F, Ernst C, Martin M, Untch M, Bonnefoi H, Knudsen E, Im S-A, DeMichele A, Van’t Veer L, Kim S-B, Bear H, McCarthy N, Turner N, Witkiewicz A, Rojo F, Fasching PA, García-Sáenz JA, Kelly CM, Reimer T, Toi M, Rugo HS, Denkert C, Gnant M, Makris A, Liu Y, Valota O, Felder B, Weber K, Nekljudova V, Hahnen E. German Breast Group, Neu-Isenburg, Germany; Center for Familial Breast and Ovarian Cancer and Center for Integrated Oncology (CIO), Cologne, Faculty of Medicine and University Hospital Cologne, Cologne, Germany; BC Cancer Agency, Vancouver, BC, Canada; Medical Faculty Mannheim, Heidelberg University, University Hospital Mannheim, Mannheim, Germany; Instituto de Investigacion Sanitaria Gregorio Marañón, CIBERONC, Universidad Complutense and Spanish Breast Cancer Group, GEICAM, Madrid, Spain; Helios Kliniken Berlin-Buch, Berlin, Germany; Institut Bergonié and Université de Bordeaux INSERM U916, Bordeaux, France; Roswell Park Comprehensive Cancer Center, Buffalo, NY; Seoul National University Hospital, Seoul National University College of Medicine, and KCSG, Seoul, Republic of Korea; Penn Medicine Abramson Cancer Center, Philadelphia, PA; University of California, San Francisco, CA; Asan Medical Center, University of Ulsan College of Medicine, and KCSG,
Psychosocial, QOL, and Educational Aspects: Disparities and Barriers to Care

**P5-14-01** National claims data analysis of breast cancer diagnosis and treatment before versus during the COVID-19 pandemic

Caswell-Jin JL, Shafae MN, Xiao L, Liu M, Purington N, John EM, Bondy ML, Kurian AW. Stanford University, Stanford, CA; Baylor College of Medicine, Houston, TX.

**P5-14-02** Breast cancer clinical trial participation rate among patients of low socioeconomic status at a comprehensive cancer center


**P5-14-03** National claims data analysis of breast cancer diagnosis and treatment before versus during the COVID-19 pandemic

Caswell-Jin JL, Shafae MN, Xiao L, Liu M, Purington N, John EM, Bondy; Kurian AW. Stanford University, Stanford, CA; Baylor College of Medicine, Houston, TX.

**P5-14-04** Changes in management of TNBC during the COVID19 pandemic of 2020

Smart D, Allen WL, Henderson RH, Munksted S, Riccelli P. Diaceutics PLC, Belfast, United Kingdom.

**P5-14-05** Are neighborhood and community factors associated with refusing breast cancer surgery?

Relation T, Bhattacharyya O, Fisher J, Li Y, Tsung A, Hamad A, Ndumele A, Oppong B. MetroHealth Systems, Cleveland, OH; Indiana University Purdue University, Indianapolis, IN; The Ohio State University, Columbus, OH.

**P5-14-06** Predictors of adherence to oral endocrine therapy in racial and ethnic minority patients with low socioeconomic status before and during the COVID-19 pandemic

Rahimi S, Onongbu O, Mohan A, Moussa D, Abughosh S, Trivedi MV. University of Houston College of Pharmacy, Houston, TX.
P5-14-07 Financial toxicity in BRCA1 and BRCA2 carriers: A pilot study
Proussaloglou EM, Rosenthal A, Raker C, Scalia Wilbur J, Eurich KE, Stuckey A, Robison K. Women and Infants Hospital of Rhode Island, Providence, RI; Beth Israel Deaconess Medical Center (BIDMC), Boston, MA.

P5-14-08 Effectiveness of palbociclib plus letrozole vs letrozole in US Hispanic and African American patients with metastatic breast cancer: Flatiron database analysis
Rugo H, Lynce F, Liu X, Li B, McRoy L, Isaacs C. University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Dana-Farber Cancer Institute, Harvard School of Medicine, Boston, MA; Pfizer Inc, New York, NY; Lombardi Comprehensive Cancer Center, Georgetown University, Washington, DC.

P5-14-09 How exclusion criteria adversely affects the enrolment of underserved groups in breast cancer clinical trials
Moloney C, Shiel F. University College Cork, Cork, Ireland.

P5-14-10 Examining inequities associated with incarceration among patients with breast cancer
Fayanju OM, Iwai Y, Yu AY, Thomas SM, Knittel AK, Westbrook KE. Penn Medicine, Philadelphia, PA; The University of North Carolina School of Medicine, Chapel Hill, NC; Duke University School of Medicine, Durham, NC; Duke Cancer Institute, Durham, NC.

P5-14-11 Retrospective analysis of VES13 questionnaire prior oncology consultation in the Senior Women’s Breast Cancer Clinic at tertiary care center, what have we learned?
Mir Khan B, Zereshkian A, Cao X, Mehta R, Bristow B, Trudeau M, Henry-Noel N, Neve M, Norris M, Pasetka M, Rice K, McCulloch F, Wright F, Menjak I, Szumacher E. University of Toronto, Department of Radiation Oncology, Sunnybrook and UHN, Toronto, ON, Canada; University of Toronto, Toronto, ON, Canada; CI 10 - Institution: Sunnybrook Health Sciences Centre, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Department of Geriatric Medicine, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Department of Medical Oncology, Toronto, ON, Canada; CI 7 – Institution: Sunnybrook Health Sciences Centre, Department of Radiation Oncology, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Louise Temerty Breast Centre, Toronto, ON, Canada; CI 12 – Institution: Sunnybrook Health Sciences Centre, Department of Surgery, Toronto, ON, Canada; University of Toronto Department of Radiation Oncology, Sunnybrook, Toronto, ON, Canada.

P5-14-12 Moved to end of Poster Session 3

P5-14-13 Impact of race on time to treatment initiation and survival in breast cancer patients
Basali D, Zabor EC, Houston N, Moore HCF. Department of Internal Medicine, Cleveland Clinic, Cleveland, OH; Department of Quantitative Health Sciences & Taussig Cancer Institute, Cleveland Clinic, Cleveland, OH; Department of Hematology and Medical Oncology, Taussig Cancer Institute, Cleveland Clinic, Cleveland, OH.

P5-14-14 Risk factors for lack of adherence with diagnostic follow-up care in breast cancer patients
P5-14-15 Examining inequities related to inpatient hospital length of stay for breast cancer patients: A retrospective study during the COVID-19 pandemic
Kamaraju S, Canales B, Wright T, Charison J, Szabo A, Wetzel T, Power S, Campbell G. Medical College of Wisconsin, Milwaukee, WI; Duke Cancer Center, Durham, NC; University of Pittsburgh School of Health and Rehabilitation Sciences, Pittsburgh, PA.

P5-14-16 Factors associated with endocrine therapy refusal in hormone receptor-positive breast cancer patients

P5-14-17 Declining the COVID-19 vaccination: An evaluation of why some high risk cancer patients decline vaccination

P5-14-18 Socioeconomic and geographic barriers affect rates of standard of care therapy utilization in patients with hormone receptor positive, HER2 negative metastatic breast cancer
DeHaven C, Nasrazadani A, Brufsky A. Penn State College of Medicine, Hershey, PA; UPMC, Pittsburgh, PA.

P5-14-19 More than a disease: Older women and breast cancer treatment
Evans C, Benjamin C, Ryan JC, Johnson KM, Mayes G. SHARE Cancer Support, New York, NY; Pfizer Oncology, New York, NY; Pfizer Inc., New York, NY; GwenCo Health, Annapolis, MD.

P5-14-20 Neoadjuvant endocrine therapy (NET) during COVID-19: Single institution survey of patients’ perspectives

P5-14-21 Cardiotoxicity among socioeconomically disadvantaged breast cancer patients
Lu Y, Gehr AW, Anikpo I, Meadows RJ, Craten KJ, Bannout R, Narra K, Lingam A, Tanna B, Ghabach B, Ojha RP. Center for Epidemiology and Healthcare Delivery Research, JPS Health Network, Fort Worth, TX; Department of Cardiology, JPS Health Network, Fort Worth, TX; Oncology and Infusion Center, JPS Health Network, Fort Worth, TX.

Psychosocial, QOL, and Educational Aspects: Doctor-Patient Communications

P5-15-01 The value of patient-pathologist consultation for breast cancer patients
Stoos CT, Hunley KA, Cronin L, Walters R. CHI Health Lakeside Hospital/Creighton University, Omaha, NE; Creighton University, Omaha, NE.

P5-15-02 The risk for locoregional breast cancer recurrences: Significant differences in perceptions among health care professionals (HCPs)
Ankersmid JW, Sprok PER, Zeillemaker AM, Siesling S. Santeon Hospital Group, Utrecht, Netherlands; Alrijne Hospital Leiderdorp, Leiderdorp, Netherlands; University of Twente, Enschede, Netherlands.
**P5-15-03** The effectiveness of an advance care appointment companion to increase completion of advance care planning among patients with metastatic breast cancer


**P5-15-04** An intervention to help improve understanding of gene expression profiling tests in breast cancer: which is best, an information film or leaflet?

Fallowfield L, Farewell D, Jones H, May SF, Catt SL, Starkings RML, Matthews L, Jenkins VA. University of Sussex, Brighton, United Kingdom; University of Cardiff, Cardiff, United Kingdom.

**P5-15-05** Influence of shared decision making with decision aids on decisional conflict and regret in breast cancer surgery: A randomized controlled trial

Tam K-W, Lin S-Q, Shuang Ho Hospital, Taipei Medical University, New Taipei City, Taiwan; Taipei Medical University, Taipei, Taiwan.

**P5-15-06** Analysis of knowledge, quality of life and medical management of patients with metastatic breast cancer: Results of the RÉALITÉS 2 French Survey

Frenel J-S, Guiu S, Debiass D, Moley-Massol I, Guerotl-Accolas L, Lefevre-Plesse C. Institut de Cancerologie de l’Ouest, Saint Herblain, France; Institut régional du Cancer, Montpellier Cedex 5, France; Europa Donna, Paris, France; Hôpital Cochin, Paris, France; Association Patients en Réseau, Paris, France; Centre Eugène Marquis, Rennes, France.

**P5-15-07** Let’s talk about it: Communicating about risk of recurrence in early-stage breast cancer

Smith ML, Railey EM, White CB. Research Advocacy Network, Plano, TX; CBWhite, Evanston, IL.

**P5-15-08** Dietary supplement use among BRCA1/2 mutation carriers

Rogers R, Rangarajan T, Uhley V, Ivan K, Zakalik D. Oakland University William Beaumont School of Medicine, Rochester, MI; Nancy and James Grosfeld Cancer Genetics Center, Beaumont Health, Royal Oak, MI; Beaumont Cancer Institute, Beaumont Health, Royal Oak, MI.

**P5-15-09** A LINE Bot mobile app module to augment long-term and real-time follow-up of patients with breast cancer

Lien P-J, Huang C-C, Tseng L-M. Taipei Veterans General Hospital, Taipei, Taiwan.

**Treatment: Therapeutic Strategies - New Drugs and Treatment Strategies**

**P5-16-01** Assessment of health-related quality of life by clinical response from the phase 3 ASCENT study in metastatic triple negative breast cancer (mTNBC)

P5-16-02 Updated efficacy, safety and translational data from MARIO-3, a phase II open-label study evaluating a novel triplet combination of eganelisib (IPI-549), atezolizumab (atezo), and nab-paclitaxel (nab-pac) as first-line (1L) therapy for locally advanced or metastatic triple-negative breast cancer (TNBC)

Hatem S, Hargis J, Elias A, Lee A, Swart R, Dahkil S, Drakaki A, Phan V, Kass F, Cobleigh M, Babu S, Tkaczuk K, O’Connell B, Roberts J, Zizlsperger N, Hamilton E. H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL; Norton Cancer Institute, Goshen, KY; University of Colorado Comprehensive Cancer Center, Aurora, CO; UT Health East Texas HOPE Cancer Center, Tyler, TX; Arizona Onc, Tucson, AZ; Cancer Center of Kansas, Wichita, KS; University of California Los Angeles, Los Angeles, CA; Cancer and Blood Specialty Clinic, Los Alamitos, CA; Samsun Clinic, Santa Barbara, CA; Rush University Medical Center, Chicago, IL; Fort Wayne Medical Oncology and Hematology, Fort Wayne, IN; University of Maryland School of Medicine, Greenebaum Comprehensive Cancer Center, Baltimore, MD; Infinity Pharmaceuticals, Inc., Cambridge, MA; Sarah Cannon Research Institute, Tennessee Oncology PLLC, Nashville, TN.

P5-16-03 Phase II study of trastuzumab biosimilar (Herzuma®) plus gedatolisib in patients with HER-2 positive metastatic breast cancer who progressed after 2 or more HER-2 directed chemotherapy (BR 18-13, KM-10A): Interim analysis

Kim JW, Ahn HK, Choi JG, Chae YS, Lee G-W, Park KL, Lee E, Sim SH, Kim JH, Park YH, Kim M, Park JH, Kim JE, Oh SY, Sim MJ, Koh S-J, Lee KE, Kang MJ, Byun JH, Ha JY, Kwon JH, Jung JY, Lee SE, Park I, Park KH. Korea University Anam Hospital, Seoul, Republic of Korea; Konyang University Hospital, Deajeon, Republic of Korea; Kyungpook National University Chilgok Hospital, Daegu, Republic of Korea; Gyeongsang National University Hospital, Daegu, Republic of Korea; Keimyung University Dongsan Hospital, Daegu, Republic of Korea; Kosin University Gospel Hospital, Busan, Republic of Korea; National Cancer Center, Ilsan, Republic of Korea; Seoul National University Bundang Hospital, Bundang, Republic of Korea; Samsung Medical Center, Seoul, Republic of Korea; Seoul National University Hospital, Seoul, Republic of Korea; Seoul Metropolitan Government-Seoul National University Boramae Medical Center, Seoul, Republic of Korea; Asan Medical Center, Seoul, Republic of Korea; SoonChunHyang University Hospital, Cheonan, Republic of Korea; Ajou University Hospital, Suwon, Republic of Korea; Pusan National University Yangsan Hospital, Busan, Republic of Korea; Severance Hospital, Seoul, Republic of Korea; Ulsan University Hospital,
POSTER SESSION 5
FRIDAY, DECEMBER 10, 2021: 7:00 AM-8:30 AM CT

P5-16-04 Preliminary safety and efficacy results of KN046 (an anti-PD-L1/CTLA-4 bispecific antibody) in combination with KN026 (a HER2-targeted bispecific antibody) in patients with metastatic HER2-positive breast cancer: A phase II trial

Liu J, Song C, Wang X, Ni M, Wang X, Chen L, Yang H, Zhao R, Xu T, Shen L. Guangdong Provincial Key Laboratory of Malignant Tumor Epigenetics and Gene Regulation, Breast Tumor Center, Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, Guangdong, China; Department of Breast Surgery, Fujian Medical University Union Hospital, Fuzhou, Fujian, China; Department of Oncology, The First Affiliated Hospital of Gannan Medical College, Ganzhou, Jiangxi, China; Department of Oncology, Luoyang Central Hospital, Luoyang, Henan, China; Department of Breast, Neijiang Second People’s Hospital, Neijiang, Sichuan, China; Department of Oncology, Cancer Hospital Affiliated to Shantou University Medical College, Shantou, Guangdong, China; Department of Breast and Thyroid Surgery, Suiying Central Hospital, Suiying Sichuan, China; Department of Oncology, Zibo Municipal Hospital, Zibo, Shandong, China; Jiangsu Alphamab Biopharmaceuticals Co., Ltd., Suzhou, China; Department of Gastrointestinal Oncology, Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education), Peking University Cancer Hospital & Institute, Beijing, China.

P5-16-05 Withdrawn

P5-16-06 A first-in-human phase 1/2a dose escalation/expansion study of the first-in-class CDK2/4/6 inhibitor PF 06873600 alone or with endocrine therapy in patients with breast or ovarian cancer

Yap TA, Basu C, Goldman JW, Gordon M, Hamilton E, Kelly A, Liu F, Moreau AR, Neumann H, Papadopoulos K, Rugo HS, Shapiro G, Vinayak S, Zhou L, Jhaveri K. University of Texas MD Anderson Cancer Center, Houston, TX; Pfizer Inc, San Diego, CA; University of California Los Angeles, Los Angeles, CA; HonorHealth Research Institute, Scottsdale, AZ; Sarah Cannon Research Institute/Tenneseee Oncology, Nashville, TN; JPK Consultants, Bethesda, MD; START San Antonio, San Antonio, TX; University of California San Francisco, San Francisco, CA; Dana Farber Cancer Institute, Boston, MA; University of Washington School of Medicine, Seattle, WA; Memorial Sloan Kettering Cancer Center, New York, NY.

P5-16-07 Assessment of sacituzumab govitecan (SG) in Black patients (pts) from the phase 3 ASCENT study in metastatic triple-negative breast cancer (mTNBC)

Carey LA, Zelnak A, Rugo HS, Dalenc F, Nanda R, Danso M, Saghatchian M, Kalinsky K, Firmin N, Ruiz-Borrego M, Favret A, Sun J, Schwartzberg L, Hilton C, Omen C, Young R, Hurvitz SA, Harting E, Phan S, Bardia A. University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, NC; Northside Hospital, Atlanta, GA; University of California San Francisco Comprehensive Cancer Center, San Francisco, CA; Institut Claudius Regaud, Toulouse, France; The University of Chicago Medical Center, Chicago, IL; Virginia Oncology Associates, PC, Norfolk, VA; Institut Gustave Roussy, Villejuif, France; Winship
Cancer Institute, Emory University, Atlanta, GA; Institut Régional du Cancer de Montpellier, Montpellier, France; Hospital Universitario Virgen del Rocío, Sevilla, Spain; Virginia Cancer Specialists, PC, Fairfax, VA; Maryland Oncology Hematology – Clinton Office, Clinton, MD; West Cancer Center, Memphis, TN; Allegheny Health Network Cancer Institute, Pittsburgh, PA; Rutgers Cancer Institute of New Jersey, New Brunswick, NJ; The Center for Cancer and Blood Disorders, Fort Worth, TX; University of California, Los Angeles, Jonsson Comprehensive Cancer Center, Los Angeles, CA; Gilead Sciences Inc., Foster City, CA; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA.

**P5-16-08** Phase Ib/II trial evaluating safety and efficacy of copanlisib (PI3K inhibitor) and trastuzumab in pre-treated advanced HER2-positive breast cancer: Results from the PanHER study

Prior L, Keegan NM, Furney SJ, Walshe JM, Gullo G, Crown J, Kennedy MJ, Smith D, McCaffrey J, Kelly CM, Egan K, Kerr J, Given M, Sheehy N, O’Donovan P, Hernandez A, Teisersksiene A, Parker I, Kay E, McDermott R, Keane MM, O’Reilly S, Grogan L, Breathnach O, Morris PG, Toomey S, Hennessy BT. Department of Molecular Medicine, Royal College of Surgeons in Ireland, Dublin, Ireland; Genomic Oncology Research Group, Department of Physiology & Medical Physics, Centre for Systems Medicine, Royal College of Surgeons in Ireland, Dublin, Ireland; Department of Medical Oncology, St Vincent’s University Hospital, Dublin, Ireland; Department of Medical Oncology, St James’s Hospital, Dublin, Ireland; Department of Endocrinology, Beaumont Hospital, Dublin, Ireland; Department of Medical Oncology, Mater Misericordiae University Hospital, Dublin, Ireland; Cancer Clinical Trials & Research Unit, Beaumont Hospital, Dublin, Ireland; Department of Radiology, Beaumont Hospital, Dublin, Ireland; Department of Radiology, St James’s Hospital, Dublin, Ireland; Cancer Trials Ireland, Dublin, Ireland; Department of Pathology, Beaumont Hospital, Dublin, Ireland; Department of Medical Oncology, Galway University Hospital, Galway, Ireland; Department of Medical Oncology, Cork University Hospital, Cork, Ireland; Department of Medical Oncology, Beaumont Hospital, Dublin, Ireland.

**P5-16-09** Transcriptome modulation by mifepristone treatment in breast cancer patients with higher levels of progesterone receptor A than B


**P5-16-10** RLY-2608: The first allosteric mutant- and isoform-selective inhibitor of PI3K, is efficacious as a single agent and drives regressions in combination with standard of care therapies in PIK3CA mutant breast cancer models

P5-16-11 Ipatasertib (ipat) in combination with palbociclib (palbo) and fulvestrant (fulv) in patients (pts) with hormone receptor-positive (HR+) HER2-negative advanced breast cancer (aBC)

Oliveira M, Bardia A, Kim S-B, Niikura N, Hernando C, Werutsky G, Antill Y, Liedke P, Oakman C, Tokunaga E, Wander S, Krause V, Yamashita T, Schimmoller F, Rotmensch J, Savage H, Sane R, Turner N. Medical Oncology Department, Breast Cancer Group, Vall d’Hebron University Hospital, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Massachusetts General Hospital and Harvard Medical School, Boston, MA; Department of Oncology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Department of Breast Oncology, Tokai University School of Medicine, Kanagawa, Japan; Medical Oncology Department Breast Cancer Department, Hospital Clínico Universitario, and Biomedical Research Institute, Valencia, Spain; Hospital São Lucas – PUCRS, Porto Alegre, Brazil; Department of Medical Oncology, Cabrini Health, Malvern, Australia; Unidade de Pesquisa Clínica em Oncologia, Servicio de Oncología, Hospital de Clínicas, Porto Alegre, Brazil; Sunshine Hospital, St Albans, Australia; National Hospital Organization Kyushu Cancer Center, Fukuoka, Japan; Tom Baker Cancer Centre, CancerControl Alberta, and Department of Medicine, University of Calgary, Calgary, AB, Canada; Department of Breast and Endocrine Surgery, Kanagawa Cancer Center, Yokohama, Japan; Product Development Oncology, Genentech, Inc, South San Francisco, CA; Product Development Safety, Genentech, Inc., South San Francisco, CA; Oncology Biomarker Development, Genentech, Inc., South San Francisco, CA; Department of Clinical Pharmacology, Genentech, Inc., South San Francisco, CA; Breast Unit, Royal Marsden Hospital, London, United Kingdom.

P5-16-12 Neoadjuvant letrozole plus palbociclib in patients (pts) with hormone receptor (HR)-positive/HER2-negative early breast cancer (EBC) with baseline Ki67 ≥20% and an Oncotype DX Breast Recurrence Score® result (RS) ≥18: DxCARTES

Llombart-Cussac A, Guerrero-Zotano Á, Ruiz M, Bermejo B, Gil-Gil M, de la Haba J, Alba E, Quiroga V, Carañana V, Urruticoechea A, Morales S, Bellet M, Antón A, Pérez-García JM, Fernández-Abad M, Servitja S, Sánchez-Rovira P, Braga S, Sampayo-Cordero M, Maffetone A, Cortes J. Hospital Arnau de Vilanova, Valencia, Spain; Universidad Catolica de Valencia San Vicente Martir, Valencia, Spain; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Instituto Valenciano de Oncología, Valencia; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Hospital Universitario Virgen del Rocio, Sevilla, Spain; Hospital Clínico Universitario de Valencia; Biomedical Research Institute INCLIVA, Valencia, Spain; Institut Català d’Oncologia L’Hospitalet, Hospitalet de Llobregat, Barcelona, Spain; Hospital Reina Sofía, Córdoba, Spain; Hospital Universitario Virgen de la Victoria, Málaga, Spain; Institut Català d’Oncologia Badalona, Badalona, Spain; Hospital Arnau de Vilanova de Valencia, Valencia, Spain; Cancer Unit of Gipuzkoa, Osakidetz-Oñkologikoa, Donostia, Spain; Hospital Arnau de Vilanova de Lleida, Lleida, Spain; Hospital Universitari Vall d’Hebrón, Barcelona; Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Hospital Universitari Miguel Servet, Zaragoza, Spain; International Breast Cancer Center (IBCC), Quironsalud Group, Barcelona, Spain; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Hospital Universitario Ramón y Cajal, Madrid, Spain; Hospital del Mar, Barcelona, Spain; Complejo Hospitalario de Jaén., Jaén, Spain; Hospital Prof. Doutor Fernando Fonseca, Amadora, Portugal; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; International Breast Cancer Center (IBCC), Quironsalud Group, Barcelona; Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain.
P5-16-13 Safety and efficacy of INT230-6, a potential first-in-class intratumoral therapy, in monotherapy and in combination with pembrolizumab: Results from the IT-01 study [KEYNOTE-A10] in subjects with locally advanced, unresectable and metastatic breast cancer

Bedard P, Siu LL, Thomas J, Hanna D, Olszanski AJ, Azad N, Whalen G, Ingham M, Mahmood S, Bender LH, Walters IB, El-Khoueiry A. Princess Margaret Cancer Centre, Toronto, ON, Canada; USC Norris Comprehensive Cancer Center, Los Angeles, CA; USC Hoag Memorial Hospital Presbyterian, Newport Beach, CA; Fox Chase Cancer Center, Philadelphia, PA; Johns Hopkins Sidney Kimmel Comprehensive Cancer Center, Baltimore, MD; UMass Memorial Medical Center - University Campus, Worcester, MA; New York Presbyterian Hospital/Columbia University Medical Center, New York, NY; Intensity Therapeutics, Inc., Westport, CT.

P5-16-14 Withdrawn

P5-16-15 Post-progression therapy outcomes in patients (pts) from the phase 3 ASCENT study of sacituzumab govitecan (SG) in metastatic triple-negative breast cancer (mTNBC)

Cortés J, Bardia A, Loirat D, Tolaney SM, Punie K, Oliveira M, Hurvitz SA, Bru fsky A, Sardesai S, Kalinsky KM, Traina T, Hamilton E, O’Shaughnessy J, Diéras V, Carey LA, Piccart M, Loibl S, Rugo HS, Zhu Y, Phan S, Gianni L. International Breast Cancer Center (IBCC), Quiron Group, Madrid & Barcelona, Spain; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA; Institut Curie, Paris, France; Dana-Farber Cancer Institute, Boston, MA; Leuven Cancer Institute, University Hospitals Leuven, Leuven, Belgium; Vall d’Hebron University Hospital and Vall d’Hebron Institute of Oncology, Barcelona, Spain; David Geffen School of Medicine, University of California, Los Angeles, Jonsson Comprehensive Cancer Center, Los Angeles, CA; Magee-Women’s Hospital and the Hillman Cancer Center, University of Pittsburgh Medical Center, Pittsburgh, PA; The Ohio State University Wexner Medical Center, Columbus, OH; Winship Cancer Institute, Emory University, Atlanta, GA; Memorial Sloan Kettering Cancer Center, New York, NY; Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX; Centre Eugène Marquis, Rennes, France; University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, NC; Institut Jules Bordet, Université libre de Bruxelles, Brussels, Belgium; Hämatologisch-Onkologische Gemeinschaftspraxis am Bethanien-Krankenhaus, Frankfurt, Germany; University of California San Francisco Comprehensive Cancer Center, San Francisco, CA; Gilead Sciences Inc., Foster City, CA; Gianni Bonadonna Foundation, Milano, Italy.

P5-16-16 A novel investigational nanoparticle therapeutic (DAN-222) for breast cancer and other solid tumors


P5-16-17 Targeting homologous recombination-proficient triple negative cancer cells with a novel RAD51 inhibitor

Neumann CA, Skoko JJ, Freeman BA, Schopfer F, Woodcock SR, Chang F, Hong L, Braden DC Uvalle. UPITT, Pittsburgh, PA.

P5-16-18 Developing IpY: A novel inhibitor for the treatment of ER+ CDK4i-resistant breast cancer
Chen G, Blain SW, Jilishitz I, Vaninwegen A, Yan L, Wu Y. Concarlo, Brooklyn, NY; SUNY Downstate, Brooklyn, NY; Department of Cell Biology and Pediatrics, SUNY Downstate Medical Center, Brooklyn, NY; Department of Biomedical Engineering, University at Buffalo, The State University at Buffalo, Buffalo, NY.

**P5-16-19** Pyrotinib in combination with trastuzumab and docetaxel as neoadjuvant treatment for HER2-positive early or locally advanced breast cancer (PHEDRA): A randomized, double-blind, multicenter, phase 3 study

Wu J, Liu Z, Yang H, Tang J, Wang K, Liu Y, Wang H, Fu P, Zhang S, Liu Q, Jiang Z, Wang S, Huang J, Wang C, Wang S, Wang Y, Zhen L, Zhu X, Wu F, Zhang T, Zou J. Fudan University Cancer Hospital, Shanghai, China; The Affiliated Cancer Hospital of Zhengzhou University & Henan Cancer Hospital, Zhengzhou, China; Zhejiang Cancer Hospital, Hangzhou, China; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China; Guangdong Provincial People’s Hospital, Guangzhou, China; The Fourth Hospital of Hebei Medical University, Shijiazhuang, China; The Affiliated Hospital of Qingdao University, Qingdao, China; The First Affiliated Hospital Zhejiang University, Hangzhou, China; The Second Affiliated Hospital of Xi’an Jiaotong University, Xi’an, China; Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; Sun Yat-Sen University Cancer Center, Guangzhou, China; The Second Affiliated Hospital Zhejiang University, Hangzhou, China; Fujian Medical University Union Hospital, Fuzhou, China; Peking University People’s Hospital, Beijing, China; Shandong Cancer Hospital, Jinan, China; Huai’an First People’s Hospital, Huai’an, China; Jiangsu Hengrui Pharmaceuticals Co., Ltd., Shanghai, China.

**Treatment: Therapeutic Strategies - Novel Targets and Targeted Agents**

**P5-17-01** Targeting Acetyl-CoA carboxylase in pre-clinical breast cancer models

Foldi J, Marczyk M, Gunasekharan V, Qing T, Sehgal R, Shan NL, Muthusamy V, Umlau S, Surovtseva YV, Kibbey R, Pusztai L. Yale University School of Medicine, New Haven, CT; Department of Data Science and Engineering, Silesian University of Technology, Gliwice, Poland; Yale Center for Molecular Discovery, Yale University, New Haven, CT.

**P5-17-02** Withdrawn

**P5-17-03** Withdrawn

**P5-17-04** Combined PI3K and NOS inhibition enhances efficacy of taxane-based chemotherapy in metaplastic breast cancer

Reddy TP, Mahboubi B, Rosato RR, Guzman-Rojas L, Qian W, Zhou J, Kim B, Moulder S, Piwnica-Worms H Chang JC. Houston Methodist Research Institute, Houston, TX; Emory University School of Medicine, Atlanta, GA; The University of Texas MD Anderson Cancer Center, Houston, TX; Houston Methodist Cancer Center, Houston, TX.

**P5-17-05** A phase I/Ib study of inavolisib (GDC-0077) in combination with fulvestrant in patients (pts) with PIK3CA-mutated hormone receptor-positive/HER2-negative (HR+/HER2-) metastatic breast cancer

P5-17-06 P38 kinase as a therapeutic target to reverse an immune suppressive tumor microenvironment in metastatic breast cancer
Rajan P, Zonneville J, Colligan S, Abrams S, Bakin A. Department of Cancer Genetics & Genomics, Roswell Park Comprehensive Cancer Center, Buffalo, NY; Department of Immunology, Roswell Park Comprehensive Cancer Center, Buffalo, NY.

P5-17-07 Phase 1B/2 clinical trial targeting nitric oxide in the treatment of chemo-refractory metaplastic triple-negative breast cancer patients
Puri A, Ordonez A, Anselme AC, Guzman L, Niravath P, Chang JC. Houston Methodist, Houston, TX.

P5-17-08 A phase I/II study of leronlimab combined with carboplatin in patients with CCR5+ metastatic triple-negative breast cancer (mTNBC)
Cristofanilli M, Chittoria N, Ehsani S, Rui H, Dolezl M, Stork-Sloots L, de Snoo F, Recknor V, Abramson V. Robert H Lurie Comprehensive Cancer Center, Northwestern University Feinberg School of Medicine, Chicago, IL; Huntsman Cancer Institute, University of Utah, Salt Lake City, UT; Cancer Center, University of Arizona, Tucson, AZ; Medical College of Wisconsin, Milwaukee, WI; Alta Bates Summit Comprehensive Cancer Center, Berkeley, CA; Medex15, Antwerp, Belgium; Medex15, Amsterdam, Netherlands; CytoDyn, Vancouver, WA; Vanderbilt-Ingram Cancer Center Vanderbilt University Medical Center, Nashville, TN.

P5-17-09 A genome-wide CRISPR screen identifies PRMT5 as a novel therapeutic target in ER+/RB1-deficient breast cancer
Lin C-C, Chang T-C, Servetto A, Lee K-m, Zhang H, Wang Y, Ye D, Chatterjee S, Sudhan DR, Akamatsu H, Xie Y, Mendell JT, Hanker AB, Arteaga CL. UT Southwestern Medical Center, Dallas, TX; University of Naples Federico II, Naples, Italy; Hanyang University, Seoul, Republic of Korea; Wakayama Medical University, Wakayama, Japan.

P5-17-10 Anti-progranulin (GP88) antibody AG01 inhibitory effect on the growth of triple negative breast cancer cells
Serrero G, Guha R, Dong J, Yue B. A&G Pharmaceutical Inc., Columbia, MD; University of Maryland, Baltimore, MD.

P5-17-11 Novel therapeutic target for triple negative breast cancer uncovered by SpliceCore® an innovative platform that identifies disease-specific alternative splicing
**P5-17-12** First-in-human expansion study of oral PMD-026 in metastatic triple negative breast cancer patients

Beeram M, Wang JS, Mina LA, Chalasani P, Shatsky RA, Wesolowski R, Hurvitz SA, Trivedi MS, Han HS, Patnaik A, Huynh M-m, Jayanthan A, Pambid MR, Yue L, Los G, Dunn SE, Dorr A. START Center for Cancer Care, San Antonio, TX; Johns Hopkins Medical Institutions, Baltimore, MD; Indiana Cancer Pavilion, Indianapolis, IN; University of Arizona Cancer Center, Tucson, AZ; UCSD MedcI Ctr, San Diego, CA; The Ohio State University Comprehensive Cancer Center, Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, Columbus, OH; David Geffen School of Medicine, University of California, Los Angeles/ Jonsson Comprehensive Cancer Center, Los Angeles, CA; Columbia University Irving Medical Center, New York, NY; Moffitt Cancer Center, Tampa, FL; Phoenix Molecular Designs, Vancouver, BC, Canada; Phoenix Molecular Designs, San Diego, CA; Dorr & Associates, San Diego, CA.

**P5-17-13** Selective CDK8/CDK19 inhibitor RVU120 demonstrates efficacy against hormone-independent breast cancer cells in vitro and in vivo


**Treatment - Therapeutic Strategies: Toxicities - Management**

**P5-18-01** Mechanistic evidence associated with the benefit of plinabulin significantly reducing Bone pain in breast cancer patients (pts) treated with TAC (docetaxel, doxorubicin, cyclophosphamide) and pegfilgrastim (Peg)

Blayney DW, Ogenstad S, Chang M, Lelorier Y, Huang L, Mohanlal R. Stanford University, Stanford, CA; Statogen Consulting, LLC, Zebulon, NC; BeyondSpring Pharmaceuticals Inc, New York, NY.

**P5-18-02** Final findings from the CONTROL trial of diarrheal prophylaxis or neratinib dose escalation on neratinib-associated diarrhea and tolerability in patients with HER2+ early-stage breast cancer

Chan A, Ruiz-Borrego M, Marx G, Brufsky A, Chien J, Thirlwell M, Trudeau M, Bose R, García-Saenz JA, Egle D, Pistilli L, Wassermann J, Cheong KA, Singer CF, Hunt D, Foruzan N, McCulloch L, Barcenas CH. Breast Cancer Research Centre-WA, Perth & Curtin University, Nedlands, Australia; Hospital Universitario Virgen del Rocio, Seville, Spain; University of Sydney, Sydney, Australia; Magee-Womens Hospital of UPMC, Pittsburgh, PA; University of California San Francisco, San Francisco, CA; McGill University Health Centre, Montreal, QC, Canada; Sunnybrook Health Sciences Centre, Toronto, ON, Canada; Washington University School of Medicine, St. Louis, MO; Hospital Clínico San Carlos, Madrid, Spain; University Frauenklinik Innsbruck, Innsbruck, Austria; Gustave Roussy Cancer Center, Villejuif, France; Hôpital Pitié-Salpêtrière, Paris, France; Adelaide Cancer Centre, Adelaide, Australia; Medical University of Vienna, Vienna, Austria; Puma Biotechnology Inc., Los Angeles, CA; The University of Texas MD Anderson Cancer Center, Houston, TX.

**P5-18-03** Hepatopulmonary syndrome with long term use of ado-trastuzumab emtansine (T-DM1)

P5-18-04 Combination plinabulin+pegfilgrastim (Plin+Peg) had better toxicity management and health related quality-of-life (HRQoL) compared to Peg alone in early-stage breast cancer (BC) patients (pts) treated with taxotere, doxorubicin and cyclophosphamide (TAC)
Blayney DW, Lelorier Y, Mitchell D, Huang L, Mohanlal R. Stanford University, Stanford, CA; BeyondSpring Pharmaceuticals Inc, New York, NY; Université de Montréal, Repentigny, ON, Canada.

P5-18-05 Long-acting GnRH agonist ovulation trigger to avoid ovarian hyperstimulation and to combine oocyte cryopreservation with ovarian suppression during chemotherapy
Massarotti C, Lamberti M, Stigliani S, Sozzi F, Scaruffi P, Anserini P. University of Genova, Genova, Italy; IRCCS Ospedale Policlinico San Martino, Genova, Italy.

P5-18-06 Proactive diarrhea management improved tolerability of pyrotinib in combination with trastuzumab and docetaxel in patients with HER2+ early or locally advanced breast cancer: Exploratory analysis from randomized, double-blind, phase 3 PHEDRA study
Yang B, Wu J, Liu Z, Yang H, Tang J, Wang K, Liu Y, Wang H, Fu P, Zhang S, Liu Q, Jiang Z, Wang S, Huang J, Wang C, Wang S, Wang Y, Zhen L, Wu F, Liu S, Lin X, Zou J. Fudan University Cancer Hospital, Shanghai, China; The Affiliated Cancer Hospital of Zhengzhou University & Henan Cancer Hospital, Zhengzhou, China; Zhejiang Cancer Hospital, Hangzhou, China; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China; Guangdong Provincial People’s Hospital, Guangzhou, China; The Fourth Hospital of Hebei Medical University, Shijiazhuang, China; The Affiliated Hospital of Qingdao University, Qingdao, China; The First Affiliated Hospital Zhejiang University, Hangzhou, China; The Second Affiliated Hospital of Xi’an Jiaotong University, Xi’an, China; Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; Sun Yat-Sen University Cancer Center, Guangzhou, China; The Second Affiliated Hospital Zhejiang University, Hangzhou, China; Fujian Medical University Union Hospital, Fuzhou, China; Peking University People’s Hospital, Beijing, China; Shandong Cancer Hospital, Jinan, China; Huai’an First People’s Hospital, Huai’an, China; Jiangsu Hengrui Pharmaceuticals Co., Ltd., Shanghai, China.

P5-18-07 Heart rate changes, cardiac safety, and exercise tolerance from a phase la/b study of giredestrant (GDC-9545) ffl palbociclib in patients with estrogen receptor-positive, HER2-negative locally advanced/metastatic breast cancer
Neilan TG, Villanueva-Vázquez R, Bellet M, López-Miranda E, García-Estévez L, Kabos P, Bond J, Gates MR, Chang C-W Boni V. Massachusetts General Hospital, Boston, MA; ICO l’Hospitalet – Hospital Duran i Reynals, Barcelona, Spain; Vall d’Hebron University Hospital and Vall d’Hebron Institute of Oncology, Barcelona, Spain; Hospital Universitario Ramón y Cajal, Madrid, Spain; MD Anderson Cancer Center Madrid, Madrid, Spain; University of Colorado, Aurora, CO; Genentech, Inc., South San Francisco, CA; START Madrid-CIOCC, Centro Integral Oncologico Clara Campal, HM Hospitales Sanchinarro, Madrid, Spain.

P5-18-08 The relative risk of various endocrinopathies associated with neoadjuvant chemoimmunotherapy use in early-stage triple-negative breast cancer: A systematic review and meta-analysis
Jahan N, Rehman S, Tijani L. Texas Tech University Health Sciences Center, Lubbock, TX.

P5-18-09 Halt-d: A randomized open label phase 2 study of crofelemer for the prevention of chemotherapy induced diarrhea (cid) in patients with breast cancer receiving trastuzumab, pertuzumab, and a taxane
Pohlmann PR, Graham D, Wu T, Ottaviano Y, Mohebtash M, Kurian S, McNamara D, Lynce F, Warren R, Dilawari A, Rao S, Mainor C, Swanson N, Tan M, Isaacs C, Swain SM. Georgetown Lombardi Comprehensive Cancer Center, Washington, DC; John Theurer Cancer Center, Hackensack, NJ; Georgetown University, Washington, DC; Medstar Franklin Square Medical Center, Baltimore, MD; Dana-Farber Cancer Institute, Boston, MA.

**P5-18-10** Mecapegfilgrastim for primary prophylaxis of neutropenia in 355 HER2+ breast cancer patients treated with neoadjuvant docetaxel in combination with trastuzumab and/or pyrotinib: Exploratory analysis from randomized, double-blind, phase 3 PHEDRA study

He M, Yang B, Wu J, Liu Z, Yang H, Tang J, Wang K, Liu Y, Wang H, Fu P, Zhang S, Liu Q, Jiang Z, Wang S, Huang J, Wang C, Wang S, Wang Y, Zhen L, Zhu X, Liu S, Yan P, Zou J. Fudan University Cancer Hospital, Shanghai, China; The Affiliated Cancer Hospital of Zhengzhou University & Henan Cancer Hospital, Zhengzhou, China; Zhejiang Cancer Hospital, Hangzhou, China; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China; Guangdong Provincial People’s Hospital, Guangzhou, China; The Fourth Hospital of Hebei Medical University, Shijiazhuang, China; The Affiliated Hospital Of Qingdao University, Qingdao, China; The First Affiliated Hospital Zhejiang University, Hangzhou, China; The Second Affiliated Hospital of Xi’an Jiaotong University, Xi’an, China; Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; Sun Yat-Sen University Cancer Center, Guangzhou, China; The Second Affiliated Hospital Zhejiang University, Hangzhou, China; Fujian Medical University Union Hospital, Fuzhou, China; Peking University People’s Hospital, Beijing, China; Shandong Cancer Hospital, Jinan, China; Huai’an First People’s Hospital, Huai’an, China; Jiangsu Hengrui Pharmaceuticals Co., Ltd., Shanghai, China.

**P5-18-11** Impact of supportive therapies on tolerance of aromatase inhibitors in patients with early-stage, hormone-positive breast cancer

Kier MW, Li Z, Zimmerman BS, Patel R, Yang Y, Fink MY, Wells JD, Zhou X, Newman S, Chen R, Schadt E, Oh W, Tiersten A. Icahn School of Medicine at Mount Sinai, New York, NY; Sema4, Stamford, CT.

**P5-18-12** Cardioprotective effects of walnuts against aromatase inhibitor: Pilot study in a zebrafish model

Hilakivi-Clarke L, Da Silva JL, Blaes A, Hoeppner L. University of Minnesota/the Hormel Institute, Austin, MN; University of Minnesota, Minneapolis, MN.

**P5-18-13** Compression therapy and goshajinkigan for prevention of nab-paclitaxel-induced peripheral neuropathy in patients with operable breast cancer

Matsumoto A, Maeda Y, Sato A, Yamada M, Ikeda T, Jinno H. Teikyo University School of Medicine, Tokyo, Japan.

**P5-18-14** The relative risk of pneumonitis associated with neoadjuvant chemomunotherapy use in early-stage triple-negative breast cancer: A systematic review and meta-analysis

Jahan N, Rehman S, Meda S, Tijani L. Texas Tech University Health Sciences Center, Lubbock, TX.

**P5-18-15** Gastrointestinal toxicity of antibody-drug conjugates (ADCs) in metastatic breast cancer: A pooled analysis
di Mauro P, Pedersini R, Petrelli F, Ghidini A, Amoroso V, Laini L, Parati MC, Bossi P, Berruti A. Università degli Studi di Brescia, Brescia, Italy; Medical Oncology - SSVD Breast Unit, ASST-Spedali Civili, Brescia, Italy; Medical Oncology - ASST Bergamo Ovest, Treviglio, Italy; Oncology Unit - Casa di Cura Igea, Milano, Italy; Medical Oncology - ASST Spedali Civili, Brescia, Italy.

**Treatment - Research Resources: Clinical Trials Design and Management**

**P5-19-01** The impact of streamlined processes and patient-directed messaging to improve enrollment in a remote, pragmatic clinical trial


**P5-19-02** Methodological approaches to the use of real-world data (RWD) for medical products to treat breast cancer: An FDA oncology center of excellence evaluation of RWD submissions

Royce ME, Lee JJ, Osgood CL, Amiri-Kordestani L, Beaver JA, Kluetz PG, Rivera DR. U.S. Food and Drug Administration, Silver Spring, MD.

**P5-19-03** What are the barriers to assessment of ovarian toxicity in breast cancer clinical trials?

Cui W, Phillips K-A, Francis PA, Loi S, Anderson RA, Partridge AH, Keogh LA. Department of Medical Oncology, Peter MacCallum Cancer Centre, Melbourne; The Sir Peter MacCallum Department of Oncology, The University of Melbourne, Melbourne, Australia; Department of Medical Oncology Peter MacCallum Cancer Centre; The Sir Peter MacCallum Department of Oncology University of Melbourne; Breast Cancer Trials Australia & New Zealand; Melbourne School of Population and Global Health, University of Melbourne, Melbourne, Australia; Department of Medical Oncology, Peter MacCallum Cancer Centre; The Sir Peter MacCallum Department of Oncology, The University of Melbourne; Breast Cancer Trials Australia & New Zealand (BCT-ANZ), Melbourne, Australia; Department of Medical Oncology, Peter MacCallum Cancer Centre; The Sir Peter MacCallum Department of Oncology, The University of Melbourne; Division of Research, Peter MacCallum Cancer Centre; Breast Cancer Trials Australia & New Zealand (BCT-ANZ), Melbourne, Australia; MRC Centre for Reproductive Health, University of Edinburgh, Edinburgh, United Kingdom; Dana-Farber Cancer Institute, Boston, MA; Centre for Health Equity, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Australia.

**P5-19-04** The WISDOM study: Reducing sequential steps and implementing parallel workflows in pragmatic trials


P5-19-05 Successful participation of veterans affairs patients in precision medicine research through passive recruitment efforts

POSTER SESSION OT1

WEDNESDAY, DECEMBER 8, 2021: 5:00 PM - 6:30 PM CT

Adjuvant radio- and chemotherapy timing - concurrent or sequential?

**OT1-01-01** A randomized, pragmatic trial investigating the timing of radiotherapy and endocrine in patients with early stage breast cancer (REaCT-RETT trial)

Mc Gee SF, Clemons M, Liu M, Jemaan Alzahrani M, Ng T, Awan A, Sehdev S, Hilton J, Caudrelier JM, Savard MF, Fallowfield L, Kumar V, Freedman O, Ferguson D, Pond G, Hutton B, Bourque JM. The Ottawa Hospital, Ottawa, ON, Canada; The Ottawa Hospital Research Institute, Ottawa, ON, Canada; University of Sussex, Sussex, United Kingdom; Markham Stouffville Hospital, Markham, ON, Canada; Lakeridge Health, Oshawa, ON, Canada; McMaster University, Hamilton, ON, Canada.

**Antibody-drug Conjugates**

**OT1-02-01** Phase III postneoadjuvant study evaluating sacituzumab govitecan (SG), an antibody drug conjugate in primary HER2-negative breast cancer patients with high relapse risk after standard neoadjuvant treatment - SASCIA

Marmé F, Schmidt M, Furlanetto J, Denkert C, Goncalves A, Stickeler E, Reinisch M, Antolín S, Reimer T, Janni W, Aftimos P, Untch M, Michel L, Balic M, Sinn B, Möbus V, Morris P, Schöllhorn L, Schmatloch S, Rey J, Loibl S. University Clinic Mannheim, Mannheim, Germany; Medical University Mainz, Mainz, Germany; German Breast Group, Neu-Isenburg, Germany; Institute of Pathology Philipps-University, Marburg, Germany; Institute Paoli Calmete, Marseille, France; University Clinic RWTH, Aachen, Germany; Kliniken Essen-Mitte, Essen, Germany; University Hospital Complex A Coruña, Hospital Teresa Herrera (CHUAC), Medical Oncology Service, Coruña, Spain; Department of Obstetrics and Gynecology, University of Rostock, Rostock, Germany; University Clinic Ulm, Ulm, Germany; Clinical Trials Conduct Unit, Institut Jules Bordet - Université Libre de Bruxelles, Brussels, Belgium; Helios Kliniken Berlin-Buch, Berlin, Germany; University Clinic Heidelberg, Heidelberg, Germany; Medical University of Graz, Clinical Department of Oncology, Graz, Austria; Institute of Pathology, Charité, Berlin, Germany; Internal Medicine II, Dept. of Hematology & Oncology University of Frankfurt, Frankfurt, Germany; Cancer Trials Ireland, Dublin, Ireland; Elisabeth Krankenhaus Kassel, Kassel, Germany.

**OT1-02-02** A global, phase 2 study of ARX788 in patients with HER2-positive metastatic breast cancer whose disease is resistant or refractory to T-DM1, and/or T-DXd, and/or tucatinib-containing regimens

Lu J, Kalinsky KM, Tripathy D, Sledge GW, Gradishar W, O’Regan R, O’Shaughnessy J, Modi S, Drago J, Park H, McCartney A, Frentzas S, Shannon C, Cuff K, Eek R, Miguel M, Curigliano G, Jerusalem G, Huang C-S, Press M, Li M, Xu D, Song C, Huhn R, Yan J, Hurvitz S. University of California at Los Angeles, Los Angeles, CA; Emory University, Atlanta, GA; MD Anderson, Houston, TX; Stanford University, Stanford, CA; Northwestern University, Chicago, IL; University of Rochester, Rochester, NY; Baylor-Sammons Cancer Center, Dallas, TX; Memorial Sloan Kettering Center, New York City, NY; Washington University School of Medicine, St. Louis, MO; Monash Health, Clayton, Australia; Mater Health Services, South Brisbane, Australia; Princess Alexandra Hospital, Woolloongabba, Australia; Border Medical
OT1-02-03 Trastuzumab deruxtecan (T-DXd: DS-8201) vs trastuzumab emtansine (T-DM1) in high-risk patients with HER2-positive, residual invasive early breast cancer after neoadjuvant therapy: A randomized, phase 3 trial (DESTINY-Breast05)
Geyer, Jr CE, Untch M, Prat A, Rastogi P, Niikura N, Mathias E, McLean LA, Wang Y, Loibl S, NSABP Foundation and Houston Methodist Cancer Center, Houston, TX; AGO B and Helios Hospital Berlin-Buch, Berlin, Germany; Hospital Clínica Barcelona, Barcelona, Spain; NSABP Foundation and University of Pittsburgh, Pittsburgh, PA; Department of Breast and Endocrine Surgery, Tokai University School of Medicine, Isehara, Japan; Daiichi Sankyo, Inc., Basking Ridge, NJ; German Breast Group, Neu-Isenburg, Germany.

OT1-02-04 Enfortumab vedotin 202: Phase 2 study of enfortumab vedotin for previously treated advanced solid tumors, including breast cancer
Ono M, Bruce JY, Feinstein T, Muro K, Derleth C, Gorla S, Wu C, Novik Y. The Cancer Institute Hospital of the Japanese Foundation for Cancer Research, Tokyo, Japan; University of Wisconsin Carbone Cancer Center, Madison, WI; Piedmont Cancer Institute, Atlanta, GA; Aichi Cancer Center Hospital, Nagoya, Japan; Seagen Inc., Bothell, WA; Astellas Pharma, Inc., Northbrook, IL; NYU Langone Medical Center, New York City, NY.

Autologous anti-HER2 macrophages
OT1-03-01 A phase 1, first in human (FIH) study of adenovirally transduced autologous macrophages engineered to contain an anti-HER2 chimeric antigen receptor (CAR) in subjects with HER2 overexpressing solid tumors
Abdou YG, Barton D, Ronczka A, Cushing D, Klichinsky M, Reiss Binder K. University of North Carolina, Chapel Hill, NC; Carisma Therapeutics, Philadelphia, PA; University of Pennsylvania, Philadelphia, PA.

Axillary Treatment
OT1-04-01 ATNEC: A multi-centre, randomised trial investigating whether axillary treatment can be avoided in T1-3N1M0 breast cancer patients with no residual cancer in the lymph glands after neoadjuvant chemotherapy (clinicaltrials.gov: nct04109079)
Goyal A, Cramp S, Marshall A, Wheatley D, Hammonds N, Puri S, Homer T, Vale L, Butt R, Mir R, Rose J, Edwards HT, Ahmed S, Shaaban A, Elsberger B, Bruce J, Gasson S, Speirs V, Shaw J, Higgins H, Dunn J. Royal Derby Hospital, Derby, United Kingdom; University of Warwick, Coventry, United Kingdom; Royal Cornwall Hospitals NHS Trust, Truro, United Kingdom; Newcastle University, Newcastle upon Tyne, United Kingdom; Mount Vernon Cancer Centre, Northwood, United Kingdom; NCRI Breast Clinical Studies Group, London, United Kingdom; Independent Cancer Patients’ Voice, London, United Kingdom; University Hospitals of Leicester NHS Trust, Leicester, United Kingdom; University Hospitals Birmingham NHS Foundation Trust, Birmingham, United Kingdom; Aberdeen Royal Infirmary, Aberdeen, United Kingdom; University of Aberdeen, Aberdeen, United Kingdom; University of Leicester, Leicester, United Kingdom.
OT1-04-02 The NAUTILUS trial (No Axillary sUrgical Treatment In clinically Lymph node negative patients after UltraSonography): A prospective multicenter randomized phase III trial (NCT04303715)

Lee H-B, Jung JG, Chang JM, Chang JH, Moon WK, Shin KH, Chung JY, Nam SJ, Kim E-K, Lee S, Park S, Lim WS, Jung Y, Han W. Seoul National University College of Medicine, Seoul, Republic of Korea; Asan Medical Center, Seoul, Republic of Korea; Samsung Medical Center, Seoul, Republic of Korea; Seoul National University Bundang Hospital, Seongnam, Republic of Korea; National Cancer Center, Goyang, Republic of Korea; Yonsei University College of Medicine, Seoul, Republic of Korea; Ewha Womans University Mokdong Hospital, Seoul, Republic of Korea; Ajou University Hospital, Suwon, Republic of Korea.

OT1-04-03 Sentinel lymph node biopsy versus no axillary surgery in early breast cancer clinically and ultrasonographically node negative: A multicentre prospective randomized controlled trial (VENUS trial)

Mendes Duarte G, Miyamoto Araújo DC, Menezes Jales Y, Yoriko Shinzato J, Cardoso, Filho C, Zocchio Torresan R, Palermo Brenelli F, de PaulaLeite Kraft MB, Barros Esteves SC, Otávio Zanatta Sarian L, MecedoSousa Rahal R, de Freitas, Jr R, Carvalho Pessoa E, Énio Murta Lucena C, PiresSouto Damin A, Villanova Biazus J, Milan Bucel V, de Oliveira, Jr J, Aloisio da Costa Vieira R, Narciso Gomes JC, Universidade Estadual de Campinas - UNICAMP, Campinas, Brazil; Universidade Federal de Goias, Goiania, Brazil; Universidade Estadual Paulista - UNESP, Botucatu, Brazil; Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; Hospital de Câncer de Porto Alegre, Porto Alegre, Brazil; Universidade Federal do Paraná, Curitiba, Brazil; Hospital de Amor- Fundação Pio XII, Barretos, Brazil; Hospital de Câncer de Muriaé, Muriaé, Brazil; Pontificia Universidade Católica de Campinas, Campinas, Brazil.

OT1-04-04 AXSANA - EUBREAST 3 (axillary surgery after neoadjuvant treatment): An international prospective multicenter cohort study of the EUBREAST study group to evaluate different surgical methods of axillary staging (sentinel lymph node biopsy, targeted axillary dissection, axillary dissection) in clinically node-positive breast cancer patients treated with neoadjuvant chemotherapy (NCT04373655)

Kühn T, Hartmann S, Stickleler E, de Boniface J, Gentilini O, Fröhlich S, Ruf F, Thrill M, Hauptmann M, Karadeniz Cakmak G, Rubio I, Gasparrini ML, Kontos M, Bonci E-A, Niinikoski L, Di Micco R, Murawa D, Pinto D, Peintinger F, Soibach C, Appelgren M, Blohmer J-U, Weigel M, Kaltenecker G, Schrauder M, Simons J, Smidt M, Schlichting E, Dostalek L, Emelyanov A, Thiemann E, Gunay S, Loibl S, Banys-Paluchowski M, Klinikum Esslingen GmbH, Esslingen, Germany; University Hospital Rostock, Department of Gynecology and Obstetrics, Rostock, Germany; University Hospital Aachen, Department of Gynecology and Obstetrics, Aachen, Germany; Karolinska Institutet, Department of Molecular Medicine and Surgery, Stockholm, Sweden; San Raffaele University and Research Hospital, Breast Surgery Unit, Milan, Italy; University Hospital of Schleswig Holstein, Department of Obstetrics and Gynecology, Lübeck, Germany; AGAPLESION Markus Krankenhaus, Department of Gynecology and Gynecological Oncology, Frankfurt am Main, Germany; Brandenburg Medical School Theodor Fontane, Neuruppin, Germany; Zonguldak BEUN The School of Medicine, General Surgery Department, Breast and Endocrine Unit, Kozlu/ zonguldak, Turkey; Clínica Universidad de Navarra, Breast Surgical Unit, Madrid, Spain; Ente Ospedaliero Cantonale, Ospedale Regionale di Lugano, Department of Gynecology and Obstetrics, Lugano, Switzerland; Laiko Hospital, National and Kapodistrian University of Athens, 1st Department of Surgery, Athens, Greece; “Prof. Dr. Ion Chiricuță” Institute of
Biomarkers of response

**OT1-05-01** Glycoprotein 88 (GP-88) serum levels as a marker of response to therapy in patients with metastatic breast cancer

Tkaczuk KHR, Rosenbatt P, Sulkowski S, Tait N, Yue B, Serrero G. University of Maryland Greenebaum Comprehensive Cancer Center, Baltimore, MD; University of Maryland School of Medicine, Baltimore, MD; A & G Pharmaceutical Inc, Columbia, MD.

Bone metastases

**OT1-06-01** A randomised trial comparing continuation or de-escalation of bone modifying agents (BMA) in patients treated for over 2 years for bone metastases from either breast or castration-resistant prostate cancer (REaCT-HOLD BMA)

Ng TL, Pond GR, Sienkiewicz M, Thavorn K, Clemons M. University of Ottawa, Ottawa, ON, Canada; McMaster University, Hamilton, ON, Canada; Ottawa Hospital Research Institute, Ottawa, ON, Canada.

**OT1-06-02** SMALL - Open surgery versus minimally invasive vacuum-assisted excision for small screen detected breast cancer: A phase 3 randomised trial

McIntosh SA, Coles CE, Conefrey C, Dodwell D, Elder K, Foster J, Gaunt C, Kirkham A, Lyburn I, Morgan J, Paramasivan S, Pinder S, Pirrie S, Potter S, Roberts T, Sharma N, Stobart H, Southgate E, Taylor-Phillips S, Wallis M, Rea D. Queen’s University Belfast, Belfast, United Kingdom; University of Cambridge, Cambridge, United Kingdom; University of Oxford, Oxford, United Kingdom; NHS Lothian, Edinburgh, United Kingdom; University of Birmingham, Birmingham, United Kingdom; Cheltenham General Hospital, Cheltenham, United Kingdom; University of Sheffield, Sheffield, United Kingdom; King’s College, London, United Kingdom; St James’s University Hospital, Leeds, United Kingdom; Independent Cancer Patients’ Voice, Cambridge, United Kingdom; University of Warwick, Warwick, United Kingdom; Addenbrooke’s Hospital, Cambridge, United Kingdom.
Brain Metastases

**OT1-07-01** MRI screening versus symptom-directed surveillance for brain metastases among patients with triple negative or HER2+ metastatic breast cancer: A pilot study (nct03881605)

Jerzak KJ, Sahgal A, Pond G, Brastianos PK, Freedman O, Stanisz G, Warner E. Sunnybrook Odette Cancer Centre, University of Toronto, Toronto, ON, Canada; McMaster University, Hamilton, ON, Canada; Harvard University, Boston, MA; Lake Regional Health, Oshawa, ON, Canada; Sunnybrook Research Institute, University of Toronto, Toronto, ON, Canada.

**OT1-07-02** Withdrawn

Chemoendocrine therapy - concurrent vs. sequential

**OT1-08-01** Concurrent versus sequential chemo-endocrine therapy in er positive and her2 negative non-metastatic breast cancer- an open-label, phase III, randomized controlled trial


DCIS

**OT1-09-01** A randomized study comparing surgical excision versus NeOadjuvant Radiotherapy followed by delayed surgical excision of Ductal carcinoma In Situ (NORDIS)


**OT1-09-02** The PREDICT Registry: A prospective registry to evaluate the effect of a predictive assay on treatment decisions in patients with DCIS following breast conserving therapy

Shivers SC, Whitworth PW, Patel R, Bremer T, Cox CE, PreludeDx, Laguna Hills, CA; Nashville Breast Center, Nashville, TN; Good Samaritan Cancer Center, Los Gatos, CA; University of South Florida, Tampa, FL.

Endocrine Therapy

**OT1-10-01** The Breast Cancer Index registry study: A prospective multi-center observational study to evaluate patient outcome, clinical impact, and medication adherence in HR+ breast cancer patients considering treatment with extended endocrine therapy

O’Shaughnessy JA, Fox JR, Encarnación CA, O’Neal B, Treuner K, Sanft T, Jankowitz RC, Pegram MD, Schnabel CA, Diab SG. Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX; Rocky Mountain Cancer Center, US Oncology, Boulder, CO; Texas Oncology, US Oncology, Waco, TX; Biotheranostics, Inc., San Diego, CA; Yale School of Medicine, New Haven, CT; University of Pennsylvania, Pittsburgh, PA; Stanford Comprehensive Cancer Institute, Palo Alto, CA; Rocky Mountain Cancer Center, US Oncology, Aurora, CO.

**OT1-10-02** I-SPY2 endocrine optimization protocol (EOP): A pilot neoadjuvant endocrine therapy study with amcenestrant as monotherapy or in combination with abemacicilib or letrozole in molecularly selected HR+/HER2- clinical stage 2/3 breast cancer
Endocrine Therapy - dose timing

**OT1-11-01** The PREDICT registry Australia: A prospective registry study to evaluate the clinical utility of the DCISionRT test on treatment decisions in patients with DCIS following breast conserving surgery

Zissiadis Y, Mann GB, Shivers SC, Bremer T. GenesisCare, Perth, Australia; Royal Women’s Hospital, Parkville, Australia; PreludeDx, Laguna Hills, CA.

**OT1-11-02** A pragmatic, randomised, multicentre trial evaluating the dose timing (morning vs evening) of endocrine therapy and its effects on tolerability and compliance (REaCT-CHRONO Study)

Savard M-F, Ibrahim M, Pond G, Saunders D, Vandermeer L, Beltran-Bless A-A, Fallowfield L, Clemons M. University of Ottawa, Ottawa, ON, Canada; Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON, Canada; McMaster University, Hamilton, ON, Canada; Cancer Therapeutics Program, Ottawa Hospital Research Institute, Ottawa, ON, Canada; SHORE-C, Brighton & Sussex Medical School, Brighton, United Kingdom.

HER2

**OT1-12-01** Solti-1804 HER2-PREDICT: Translational study of tumor samples from breast cancer patients treated with trastuzumab deruxtecan in the metastatic setting

Prat A, Saura C, Cruz J, Nogales Fernández E, Bofill5 JS, Gavilá J, Bermejo-Perez MJ, Quiroga V, Morales S, Servitja S, de Toro R, Zamora P, Galván P, Chic N, Martínez D, Brasó-Maristany F, Canes J, Paré L, Ferrero-Cafiero JM, Pascual T, Pernas S. SOLT I / Medical Oncology Department, Hospital Clínic de Barcelona / Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute, Barcelona, Spain; SOLT I Breast Cancer Research Group / Medical Oncology Department, Vall d’Hebron University Hospital / Breast Cancer Group, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Medical Oncology Department, Hospital Universitario de Canarias, Santa Cruz de Tenerife, Spain; Medical Oncology Department, Hospital Universitario Virgen Macarena, Sevilla, Spain; Medical Oncology Department, Hospital Universitario Virgen del Rocio, Sevilla, Spain; SOLT I / Medical Oncology Department, IVO Instituto Valenciano de Oncología, Valencia, Spain; UGCI Oncol. Hosp Univer Regional y Virgen Victoria. IBIMA, Málaga, Spain; Medical Oncology Department, ICO Badalona, Institut Català d’Oncologia, Barcelona, Spain; Medical Oncology Department, Hospital Universitari Arnau de Vilanova de Lleida, Lleida, Spain; Medical Oncology Department, Hospital del Mar, Barcelona, Spain; Medical Oncology Department, Hospital Universitario de Jerez, Jerez de la Frontera, Spain; Medical Oncology Department, Hospital La Paz, Madrid, Spain; Translational Genomics and Targeted Therapies in Solid Tumors Lab, August Pi i Sunyer Biomedical Research Institute (IDIBAPS), Barcelona, Spain; Medical Oncology Department, Hospital Clínica de Barcelona, Barcelona, Spain; Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer
**OT1-12-02** Trial in progress: Phase 2, open-label study to evaluate the safety and efficacy of praluitatmab raptansine in metastatic HER2 non-amplified breast cancer as monotherapy and combination with pacnilimab

Miller K, Emens LA, Tolaney SM, Hurvitz SA, Hamilton E, Paton V, Hannah A, Boni V. Indiana University Simon Cancer Center, Indianapolis, IN; University of Pittsburgh Medical Center, Hillman Cancer Center, Pittsburgh, PA; Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA; University of California, Los Angeles/Jonsson Comprehensive Cancer Center, Los Angeles, CA; Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN; CytomX Therapeutics, Inc., South San Francisco, CA; START Madrid CIOCC, Comprehensive Cancer Center Clara Campal, HM University Hospital Sanchinarro, Madrid, Spain.

**OT1-12-03** Phase II study of pyrotinib plus nanoparticle albumin-bound (nab)-paclitaxel as adjuvant therapy for lymph node-negative (N0) or micrometastatic (N1mi), HER2-positive early breast cancer (PHAEDRA)


**OT1-12-04** A phase 3, open-label trial of neoadjuvant trastuzumab deruxtecan (T-DXd) monotherapy or T-DXd followed by THP compared with ddAC-THP in patients with high-risk HER2-positive early-stage breast cancer (DESTINY-Breast11)

Harbeck N, Boileau J-F, Modi S, Kelly CM, Ohno S, Wu J, Brekenridge M, Herbolsheimer P, Yu T, Pusztai L. Breast Center, Department of Gynecology and Obstetrics and CCC Munich, LMU Hospital Munich, Germany; Jewish General Hospital Segal Cancer Centre, McGill University, Montréal, QC, Canada; Memorial Sloan Kettering Cancer Center/Weill Cornell Medical College, New York, NY; Mater Misericordiae University Hospital, Dublin, Ireland; Breast Oncology Center, Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo, Japan; Fudan University Shanghai Cancer Center, Shanghai, China; AstraZeneca Pharmaceuticals, Gaithersburg, MD; Yale Cancer Center, Yale School of Medicine, New Haven, CT.

**OT1-12-05** Phase II neoadjuvant trial evaluating trastuzumab deruxtecan with or without anastrozole for HER2-low, HR+ early stage breast cancer


**OT1-12-06** Neoadjuvant pyrotinib versus pertuzumab in combination with trastuzumab and nab-Paclitaxel for patients with HER2-positive early or locally advanced breast cancer (Pyramid): A randomized, multicenter, open-label, phase 2 trial

Zhang J, Liu Q, Jiang H, Zhang J, Ou J, Chen D, Tian F, Li Y, Cheng X, Ouyang Z. Tianjin Medical University Cancer Institute and Hospital, Tianjin, China; Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; Beijing Chaoyang Hospital, Beijing, China; The Second Affiliated Hospital of Harbin Medical University, Harbin, China; The Affiliated Tumor Hospital of Xinjiang Medical University, Urumqi, China; Yunnan Cancer Hospital, Kunming, China; Shanxi Cancer Hospital, Taiyuan, China; Shandong Cancer Hospital, Jinan, China; Affiliated Hospital of Zunyi Medical University, Zunyi, China; The First Affiliated Hospital of Xiamen University, Xiamen, China.

**OT1-12-07** A phase 2 study of chemotherapy de-escalation using a pathological response-guided strategy in patients with HER2-positive, low-risk early breast cancer: PHERGain-2

Pérez-García JM, Guerrero-Zotano Á, Medioni J, Schneeweiss A, Colleoni M, Sampayo-Cordero M, Malfettone A, Cortés J, Llombart-Cussac A. International Breast Cancer Center (IBCC), Quironsalud Group; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Instituto Valenciano de Oncología, Valencia; Medica Scientia Innovation Research (MedSIR), Ridgewood, New Jersey, US, Barcelona, Spain; Hôpital Européen Georges Pompidou AP-HP, Paris, France; National Center for Tumor Diseases, Heidelberg University Hospital and German Cancer Research Center, Heidelberg, Germany; European Institute of Oncology, IRCCS, Milan, Italy; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; International Breast Cancer Center (IBCC), Quironsalud Group; Medica Scientia Innovation Research (MEDSIR), Ridgewood, New Jersey; Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Hospital Arnau de Vilanova; FISABIO; Universidad Católica de Valencia, Valencia; Medica Scientia Innovation Research (MEDSIR), Ridgewood, New Jersey, Barcelona, Spain.

**OT1-12-08** Randomized study comparing electronic patient reported outcomes (ePROs) monitoring with routine follow up during trastuzumab deruxtecan treatment in patients with inoperable or metastatic breast cancer (PRO-DUCE study)

Sangai T, Kikawa Y, Hosoda M, Hamanaka Y, Tanabe Y, Yoshida T, Tane K, Takabatake D, Taira T, Araki K, Iwamoto T, Takada M, Narui K, Yamaguchi T, Yamada A, Miura T, Uemura Y, Aihara T, Mukai H, Taira N. Kitasato University Hospital, Sagamihara, Japan; Kansai Medical University Hospital, Osaka, Japan; Sunagawa City Medical Center, Hokkaido, Japan; Tohoku University, Sendai, Japan; Toranomon Hospital, Tokyo, Japan; Saiseikai Yokohamashi Nanbu Hospital, Kanagawa, Japan; Hyogo Cancer Center, Hyogo, Japan; Kochi Health Science Center, Kochi, Japan; Sagara Hospital, Kagoshima, Japan; Gunma Prefectural Cancer Center, Gunma, Japan; Okayama University Hospital, Okayama, Japan; Chiba University Graduate School of Medicine, Chiba, Japan; Yokohama City University Medical Center, Kanagawa, Japan; Yokohama City University, Kanagawa, Japan; Daiichi Sankyo Co., Ltd., Tokyo, Japan; National Center for Global Health and Medicine, Tokyo, Japan; Aihara Hospital, Osaka, Japan; National Cancer Center Hospital East, Chiba, Japan.

**OT1-12-09** Time and motion study of a subcutaneous fixed-dose combination of pertuzumab and trastuzumab for the treatment of patients with HER2-positive early breast cancer (PHaTiMa)

Gavilá Gregori J, López Miranda E, Escrivá-de-Romaní S, Jiménez Rodríguez B, Antolín Novoa S, Fernández Morales L, Galve Calvo E, González Cortijo L, Perelló Martorell A, Lagunar Ruiz J, González Santiago S. Instituto Valenciano de Oncología, Valencia, Spain; Hospital Universitario Ramón y Cajal, Madrid, Spain; Hospital Vall d’Hebron and Vall d’Hebron Instituto de Oncología (VHIO), Barcelona, Spain; Hospital Universitario Virgen de
HER2 - brain metastases

OT1-13-01 HER2CLIMB-04: phase 2 trial of tucatinib + trastuzumab deruxtecan in patients with HER2+ locally advanced or metastatic breast cancer with and without brain metastases (trial in progress)

Hamilton E, Carey L, Ramos J, Chen Y, Krop I, Sarah Cannon Research Institute/Tennessee Oncology PLLC, Nashville, TN; UNC Lineberger Comprehensive Cancer Center, Chapel Hill, NC; Seagen Inc., Bothell, WA; Dana-Farber Cancer Institute, Boston, MA.

HER2 mab

OT1-14-01 Zanidatamab in combination with ALX14B in advanced human epidermal growth factor receptor 2 (HER2) expressing cancers, including breast cancer: A phase 1b/2, multicenter, open label, dose finding and cohort expansion study (ZWI ZW25 204)

Hurvitz SA, Chaves J, Bruisky A, Montero AJ, Fang B, Yeung K, Patel MR, Parajuli R, Omipanah A, Gartner E, Fang A, Randolph S, Meric-Bernstam F, University of California, Los Angeles; Jonsson Comprehensive Cancer Center, Los Angeles, CA; Northwest Medical Specialities, Tacoma, WA; University of Pittsburgh School of Medicine, Pittsburgh, PA; UH Cleveland Medical Center/Seidman Cancer Center Case Western Reserve University, Cleveland, OH; Astera Cancer Care, East Brunswick, NJ; University of California San Diego Health Moores Cancer Center, La Jolla, CA; Florida Cancer Specialists/Sarah Cannon Research Institute, Sarasota, FL; University of California, Irvine, Orange, CA; Zymeworks Inc., Vancouver, BC, Canada; ALX Oncology Inc, Burlingame, CA; The University of Texas MD Anderson Cancer Center, Houston, TX.

OT1-14-02 Phase 3 study of trastuzumab deruxtecan (T-DXd) with or without pertuzumab vs a taxane, trastuzumab and pertuzumab in first-line (1L), human epidermal growth factor receptor 2-positive (HER2+) metastatic breast cancer (mBC): DESTINY-Breast09

Tolaney SM, Barroso-Sousa R, Jiang Z, Park YH, Rimawi M, Saura C, Schneeweiss A, Toi M, Yu T, Shetty J, Herbsheimer P, Loibl S, Dana-Farber Cancer Institute, Boston, MA; Oncology Center, Hospital Sírio-Libanês, Brasilia, Brazil; The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; Baylor College of Medicine, Houston, TX; Vall d’Hebron University Hospital, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; National Center for Tumor Diseases, Heidelberg, Germany; Kyoto University, Kyoto, Japan; AstraZeneca Pharmaceuticals, Gaithersburg, MD; QBG Forschungs GmbH, Neu-Isenburg, Germany; Centre for Haematology and Oncology Bethanien, Frankfurt, Germany.

HER2 mutants

OT1-15-01 SGNTUC-019: Phase 2 basket study of tucatinib and trastuzumab in previously treated solid tumors with HER2 alterations: HER2-mutated breast cancer cohort (ongoing clinical trial)
Okines A, Pohlmann PR, Ramos J, Walker L, Hamilton E. The Royal Marsden Hospital, London, United Kingdom; MD Anderson Cancer Center, Houston, TX; Seagen Inc., Bothell, WA; Sarah Cannon Research Institute/Tennessee Oncology PLLC, Nashville, TN.

**Her2 Vaccines**

**OT1-16-01** A multicenter phase II study of vaccines to prevent recurrence in patients with HER-2 positive breast cancer

Han HS, Disis M, Wesolowski R, Fisher C, Gandhi S, Chan N, Gwin W, Gogineni K, Mick R, Sierra Rodriguez C, Hogue D, Liu H, Costa R, Czerniecki B. Moffitt Cancer Center and Research Institute, Tampa, FL; University of Washington, Seattle, WA; Ohio State University, Columbus, OH; Indiana University School of Medicine, Indianapolis, IN; Roswell Park Comprehensive Cancer Center, Buffalo, NY; Rutgers Cancer Institute of New Jersey, New Brunswick, NY; Emory Winship Cancer Institute, Atlanta, GA; University of Pennsylvania School of Medicine, Philadelphia, PA.

**Immunotherapy**

**OT1-17-01** Solti-1716. Targeting with pembrolizumab + paclitaxel non-luminal by PAM50 hormone receptor-positive/HER2-negative advanced/metastatic breast cancer patients who have progressed on or after CDK4/6 inhibitor treatment (TATEN trial)

Ciruelos E, Muñoz M, Oliveira M, Chic N, Hernando C, Viruzuela JA, Vázquez S, Blanch S, Paré L, Salvador F, Villagrassa P, Pascual T, Prat A. SOLTi Breast Cancer Research Group/Hospital 12 de Octubre, Barcelona/Madrid, Spain; SOLTi Breast Cancer Research Group/Hospital Clinico de Barcelona/August Pi i Sunyer Biomedical Research Institute (IDIBAPS), Barcelona, Spain; Vall d’Hebron University Hospital/SOLTi Breast Cancer Research Group/Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Hospital Clinic de Barcelona, Barcelona, Spain; Hospital Clinico Universitario de Valencia, Valencia, Spain; Hospital Universitario Sagrado Corazón, Sevilla, Spain; Hospital Duran i Reynals-Institut Català d’Oncologia, Hospitalet de Llobregat, Barcelona, Spain; IVO Instituto Valenciano de Oncología, Valencia, Spain; SOLTi Breast Cancer Research Group, Barcelona, Spain; Hospital Clinic de Barcelona/SOLTi Breast Cancer Research Group/August Pi i Sunyer Biomedical Research Institute (IDIBAPS)/Medicine Department, University of Barcelona, Barcelona, Spain.

**OT1-17-02** A phase II study of pembrolizumab plus fulvestrant in hormone receptor positive, HER-2 negative advanced/metastatic breast cancer patients

Chan N, Moore D, Tandra P, Rana J, Omene C, George M, Krishnamurthy J, Desai S, Patel N, Wang Y, Bicomong M, Tan X-w, Hirshfield K, Ganesh S, Toppmeyer D. Rutgers Cancer Institute of New Jersey, New Brunswick, NJ; University of Nebraska, Omaha, NE; Michigan State University, Lansing, MI; Robert Wood Johnson Medical School, New Brunswick, NJ.

**OT1-18-01** A randomized controlled phase III study of bevacizumab and paclitaxel in combination with atezolizumab as a treatment for patients with locally advanced or metastatic hormone receptor-positive HER2 negative breast cancer: JCOG1919E/AMBITION study

OT1-18-02 First-line chemo-immunotherapy with durvalumab, paclitaxel and carboplatin with or without anti-CD73 antibody oleclumab in advanced or metastatic triple-negative breast cancer: Preliminary results of the randomized phase II SYNERGY trial

Debien V, Maurer C, Aftimos P, Clatot F, Loirat D, Punie K, Ghiringhelli F, Gonçalves A, Taylor D, Van den Mooter T, Ferrero J-M, Bonnefoi H, Canon J-L, Duhoux F, Poncin R, Bazan F, Isambert N, Barthelemy P, Brandão M, Kristanto P, Ignatiadis M, Piccart M, Buisseret L. Institut Jules Bordet, Université Libre de Bruxelles (U.L.B.), Brussels, Belgium; Center for Integrated Oncology Aachen Bonn Cologne Duesseldorf, Cologne, Germany; Centre Henri Becquerel, Rouen, France; Institut Curie, Paris, France; Leuven Cancer Institute, University Hospitals Leuven, Leuven, Belgium; Centre Georges François Leclerc, Dijon, France; Institut Paoli-Calmettes, Aix Marseille Université, Centre de Recherche en Cancérologie de Marseille (CRCM), Marseille, France; Université Catholique de Louvain, CHU UCL Namur, Sainte Elisabeth, Namur, Belgium; Gasthuiszusters Antwerpen, Antwerpen, Belgium; Centre Antoine Lacassagne, University Côte d’Azur, Nice, France; Institut Bergonié, Université de Bordeaux, Bordeaux, France; Grand Hôpital de Charleroi (Notre Dame), Charleroi, Belgium; Cliniques Universitaires Saint-Luc, Brussels, Belgium; Clinique Saint-Pierre, Ottignies, Belgium; CHU de Besançon, Besançon, France; CHU de Poitiers, Poitiers, France; Institut de Cancérologie de Strasbourg (ICANS), Strasbourg, France.

OT1-18-03 The neoRX trial: locoregional cytokine therapy to promote immunologic priming and enhanced response to neoadjuvant pembrolizumab plus chemotherapy in triple negative breast cancer (TNBC)

Sanchez K, Conlin A, Peddi P, Stanton S, Ruzich J, Perlewitz K, Wu Y, Moxon N, Mellinger S, Sun Z, Redmond W, Page DB. Baylor College of Medicine, Houston, TX; Providence Cancer Institute, Portland, OR; Saint John’s Cancer Center, Santa Monica, CA, CA; Providence Cancer Institute Newberg Clinic, Newburg, OR.

OT1-18-04 A phase II study of dual immune checkpoint blockade (ICB) plus bicalutamide to enhance thymic T-cell production and immunotherapy response in metastatic breast cancer (MBC)

OT1-18-05 A multicenter, open-label, phase 2 study of Imprime PGG and pembrolizumab in patients with metastatic breast cancer who have progressed through prior hormonal therapy

OT1-18-06 KEYNOTE-B49: A phase 3, randomized, double-blind, placebo-controlled study of pembrolizumab plus chemotherapy in patients with HR+/HER2− locally recurrent inoperable or metastatic breast cancer
Schmid P, Baccan C, Guo Z, Tryfonidis K, Rugo HS. Barts Cancer Institute, Centre for Experimental Cancer Medicine, Queen Mary University of London, London, United Kingdom; Merck & Co., Inc., Kenilworth, NJ; University of California San Francisco Comprehensive Cancer Center, San Francisco, CA.

OT1-18-07 A randomized, multicenter, placebo-controlled, phase III study to evaluate the efficacy and safety of HER2/neu peptide GLSI-100 (GP2 + GM-CSF) in patients with residual disease or high-risk PCR after both neo-adjuvant and postoperative adjuvant anti-HER2 therapy
Patel SS, McWilliams DB, Fischette CT, Thompson J, Daugherty FJ, Osborne CK, Rimawi MF. Greenwich LifeSciences, Stafford, TX; Lester and Sue Smith Breast Center, Dan L Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX.

OT1-18-08 Randomized phase II trial of pembrolizumab/carboplatin vs. carboplatin alone for breast cancer with chest wall recurrence: TBCRC044
Vidula N, Nanda R, Miller K, Emens L, Abramson V, Park B, Liu MC, Goga A, Rugo H. Massachusetts General Hospital, Boston, MA; University of Chicago, Chicago, IL; Indiana University, Indianapolis, IN; University of Pittsburg, Pittsburg, PA; Vanderbilt University, Nashville, TN; Mayo Clinic, Rochester, MN; University of California San Francisco, San Francisco, CA.

Metastatic breast cancer data resource

OT1-19-01 The metastatic breast cancer project: Generating the clinical and genomic landscape of metastatic breast cancer through patient-partnered research

Multiparameter database MBC study

OT1-20-01 Feasibility of creation of a clinico-biological database: A prospective longitudinal cohort study of metastatic breast cancer patients (epicuresein)
Colombié M, Jézéquel P, Rubeaux M, Frenel J-S, Bigot F, Seegers V, Campone M. ICO, Saint Herblain, France; Keosys, Saint Herblain, France
**New drugs and therapeutic strategies**

**OT2-01-01** Phase 1 study of ST101, a first-in-class peptide antagonist of CCAAT/-binding protein β (C/EBPβ), in patients with advanced solid tumors, with a phase 2 expansion in patients with hormone receptor positive breast cancer (HR+ BC)

Bexon AS, Arkenau H-T, Evans J, Falchook GS, Symeonides SN, McKeans MA, Fontana E, Bupath enhancer M, McLaren A, Chandana S, Ding T, Lim EA, Rotolo J, Capiaux G, Michel R, Kaesshaefer S, Lakhani N.J. Sapience Therapeutics Inc., Harrison, NY; Sarah Cannon Research Institute and University College London, London, United Kingdom; University of Glasgow, Beatson West of Scotland Cancer Centre, Glasgow, United Kingdom; Sarah Cannon Research Institute, Denver, CO; Edinburgh Cancer Research Centre, University of Edinburgh, Edinburgh, United Kingdom; The University of Texas MD Anderson Cancer Center, Houston, TX; Sarah Cannon Research Institute UK, London, United Kingdom; Sarah Cannon Research Institute at HealthONE, Denver, CO; Beatson West of Scotland Cancer Centre, Glasgow, United Kingdom; START Midwest, Grand Rapids, MI; Columbia University-Herbert Irving Comprehensive Cancer Center, New York, NY.

**OT2-01-02** First in human phase 1 dose escalation and expansion study of the safety and pharmacokinetics of the oral CDK7 inhibitor XL102 as a single-agent and in combination therapy in patients with inoperable locally advanced or metastatic solid tumors, including breast cancer

Patnaik A, Barve M, Bhave M, Subbiah V, Atwal S, Sharma K, Scheffold C, Wetmore C, Shapiro G. START Center for Cancer Care, San Antonio, TX; Mary Crowley Cancer Research Centers, Dallas, TX; Department of Hematology and Medical Oncology, Winship Cancer Institute, Emory University, Atlanta, GA; Department of Investigational Cancer Therapeutics, Division of Cancer Medicine, The University of Texas, MD Anderson Cancer Center, Houston, TX; Exelixis, Inc., Alameda, CA; Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA.

**OT2-01-03** Trial in progress: Phase 2 study of intratumoral plasmid interleukin-12 (tavokinogene telseplasmid; TAVO™) plus electroporation in combination with pembrolizumab with or without chemotherapy in patients with inoperable locally advanced or metastatic triple-negative breast cancer (KEYNOTE-890/OMS-I141)

Telli M, Devitt B, Cuff K, Vinayak S, Nanda R, Montero AJ, Hui R, Canton DA, Twitty C, Xie S, Bannavong D, O’Keeffe B, Aung S, Joshi R. Standford University School of Medicine, Stanford, CA; Eastern Health Clinical School, Monash University, Box Hill, VIC, Australia; Princess Alexandra Hospital, Woolloongabba, QLD, Australia; University of Washington, Fred Hutchinson Cancer Center, Seattle Cancer Care Alliance, Seattle, WA; University of Chicago, Chicago, IL; University Hospitals Seidman Cancer Center Case Western Reserve University, Cleveland, OH; Westmead Breast Cancer Institute, Westmead Hospital and the University of Sydney, Sydney, Australia; OncoSec Medical Incorporated, San Diego, CA; Adelaide Oncology and Haematology, Adelaide, SA, Australia.
Patient management - adjuvant endocrine therapy

**OT2-02-01** Utilization of patient reported outcomes generated by electronic medical record and smart pill bottles with follow up telehealth encounters to improve adherence to adjuvant endocrine therapy in breast cancer patients


Patient management - chemotherapy response evaluation

**OT2-03-01** RNA disruption assay (RDA) - Breast cancer response evaluation for individualized therapy (brevity/brevity-02)

Trudeau M, Tio J, Aderuwi F, Petit T, Hennessy B, Cazzaniga M, Generali D. Sunnybrook Health Sciences Centre, Toronto, ON, Canada; Universitätsklinikum Munster, Munster, Germany; Siteman Cancer Center, St Louis, MO; Institut de Cancerologie de Strasbourg, Strasbourg, France; Beaumont Hospital, Dublin, Ireland; Hospital Oncologico, ASST di Monza, Monza, Italy.

Patient management - circulating tumor guided adaptive therapy

**OT2-04-01** Circulating tumor DNA-guided adaptive therapy escalation in ER+ MBC: A phase 1b study with letrozole, palbociclib and onapristone ER


Patient management - HER2+

**OT2-05-01** The HER2-RADIcAL study (Response ADaptive CAre pLan) - Tailoring treatment for HER2 positive early breast cancer

Macpherson I, McIntosh S, Kilburn L, Tovey H, Kernaghan S, Goddard K, Bhattacharyya I, Boyd C, Coles C, Kinwan C, Mackenzie M, O’Brien C, Ring A, Snowdon C, Stobart H, Wheatley D, Wardley A, Shaaban A, Hall P, Cameron D, Bliss J. University of Glasgow, Glasgow, United Kingdom; The Queen’s University of Belfast, Belfast, United Kingdom; Clinical Trials and Statistics Unit at The Institute of Cancer Research, London, United Kingdom; Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom; Fraser Health and Social Care Trust, Belfast, United Kingdom; Department of Oncology, University of Cambridge, Cambridge, United Kingdom; The Christie NHS Foundation Trust, Manchester, United Kingdom; Independent Cancer Patients’ Voice, London, United Kingdom; The Royal Marsden NHS Foundation Trust, Sutton, United Kingdom; Royal Cornwall Hospitals NHS Trust, Truro, United Kingdom; Outreach Research & Innovation Group and AstraZeneca, Manchester, United Kingdom; University Hospitals Birmingham NHS Foundation Trust, Birmingham, United Kingdom; The University of Edinburgh, Edinburgh, United Kingdom.

Patient management - molecular profiling

**OT2-06-01** Solti-1903 HOPE: Real-world clinical practice study to assess the impact of using genomic data on the next treatment decision making-choice in patients with locally advanced or metastatic breast cancer in Spain
Casas A, Ciruelos E, Oliveira M, Saura C, Bellet M, Pernas S, Gavilá J, Muñoz M, Vidal M, González-Farré B, Cejalvo JM, López R, Vivancos A, Malumbres M, Bofill JS, Blancas I, Alba E, Boni V, De la Cruz S, Galve E, Perelló A, Margelí M, Soler M, Olivera-Salgueiro R, Masanas H, Olmos R, Forns M, Fernández Pascual P, Seguí E, Pascual T, Prat A. Fundación Actitud Frente al Cáncer, Sevilla, Spain; SOLTI Breast Cancer Research Group / Hospital 12 de Octubre, Madrid, Barcelona / Madrid, Spain; SOLTI Breast Cancer Research Group / Vall d’Hebron University Hospital, Barcelona / Vall d’Hebron Institute of Oncology, Barcelona, Spain; SOLTI Breast Cancer Research Group / Institut Catala d’Oncologia-L’Hospitalet, L’Hospitalet de Llobregat, L’Hospitalet de Llobregat, Barcelona / Valencia, Spain; SOLTI Breast Cancer Research Group / Hospital Clinic de Barcelona, Barcelona, Spain; SOLTI Breast Cancer Research Group, Barcelona, Spain; Hospital Clinic de Barcelona, Barcelona, Barcelona, Spain; Hospital Clínico Universitario de Valencia, Valencia, Spain; Complejo Universitario Santiago de Compostela, Santiago de Compostela, Spain; Vall d’Hebron Institute of Oncology, Barcelona, Spain; Centro Nacional de Investigaciones Oncológicas, Madrid, Spain; Hospital Virgen del Rocío, Sevilla, Sevilla, Spain; Hospital Universitario San Cecilio de Granada, Granada, Spain; Hospital Clínico Universitario Virgen de la Victoria, Málaga, Málaga, Spain; Centro Integral Oncológico Clara Campal, Madrid, Madrid, Spain; Complejo Hospitalario de Navarra, Pamplona, Pamplona, Spain; Hospital de Basurto, Bilbao, Bilbao, Spain; Hospital Universitari Son Espases, Palma de Mallorca, Palma de Mallorca, Spain; ICO-Badalona, BARGO Research Grup, Badalona, Badalona, Spain; SOLTI Breast Cancer Research Group / Hospital Clinic de Barcelona, Barcelona, Barcelona, Spain; Asociación Cáncer de Mama Metastásico, Madrid, Spain; SOLTI Breast Cancer Research Group, Barcelona, Barcelona, Spain; Instituto Valenciano de Oncología, Barcelona / Valencia, Spain; SOLTI Breast Cancer Research Group / Institut Catala d’Oncologia-L’Hospitalet, L’Hospitalet de Llobregat, L’Hospitalet de Llobregat, Barcelona / Valencia, Spain; SOLTI Breast Cancer Research Group / Hospital Clinic de Barcelona, Barcelona, Spain; SOLTI Breast Cancer Research Group, Barcelona, Spain; Hospital Clinic de Barcelona, Barcelona, Barcelona, Spain; Hospital Clínico Universitario de Valencia, Valencia, Spain; Complejo Universitario Santiago de Compostela, Santiago de Compostela, Spain; Vall d’Hebron Institute of Oncology, Barcelona, Spain.

Prognosis - genomic signatures

OT2-07-01 The FLEX real-world data platform explores new gene expression profiles and investigator-initiated protocols in early-stage breast cancer

Ma CX, Maganini R, Whitworth P, Crozier JA, O’Shaughnessy J, Diab S, Lesnikoski B-A, Lee J, D’Abreo N, Mavromatis BH, Kelemen P, Pronin D, Abebe H, Bolner ML, Finn C, Blumencranz L, Audeh W. FLEX Investigators Group. Washington University School of Medicine, St. Louis, MO; AMITA Health, Barlett, IL; Nashville Breast Cancer, Nashville, TN; Baptist MD Anderson Cancer Center, Jacksonville, FL; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX; Rocky Mountain Cancer Center-Aurora, Aurora, CO; Breast Specialists of South Florida, Atlantis, FL; NYU Langone Health, Mineola, NY; UPMC Western Maryland, Cumberland, MD; Northwell Health Physician Partners, Dobbs Ferry, NY; Agenda N.V., Amsterdam, Netherlands; Agendia, Inc., Irvine, CA.

Racial and ethnic disparities

OT2-08-01 Racial and ethnic groups have different clustering of common cancer genes

Beitsch P, Wernecke C, Bontempo K, Bentley B, Graham M, Whitworth P, Patel R. Dallas Surgical, Dallas, TX; Medneon, Cupertino, CA; Nashville Breast Center, Nashville, TN; Good Samaritan Hospital, Los Gatos, CA.

OT2-08-02 Racial and ethnic groups have different clustering of variants of uncertain significance

Beitsch P, Wernecke C, Bontempo K, Bentley B, Graham M, Whitworth P, Patel R. Dallas Surgical, Dallas, TX; Medneon, Cupertino, CA; Nashville Breast Center, Nashville, TN; Good Samaritan Hospital, Los Gatos, CA.
Radiation therapy - brain mets

**OT2-09-01** Phase I/II study of stereotactic radiation and abemaciclib in the management of hormone receptor positive HER2 negative breast cancer brain metastases


Screening

**OT2-10-01** The VIOLA study: Validating individualized breast cancer screening by offering a new link in access

Daily A. Namida Lab, Inc., Fayetteville, AR.

**OT2-10-02** Mypebs: An international randomized study comparing personalized, risk-stratified to standard breast cancer screening in women aged 40-70

Delaloge S, Giorgi Rossi P, Guindy M, Gilbert F, Burron J-B, Balleyguier C, Roman Exposito M, Giordano L, De Koning H, de Montgolfier S, Ragusa S, Drubay D, Rouge-Bugat M-E, Evans GD, Keatley D, Blanche H, Boland A, Gauthier E, Dubois d’Aische A, Vissac-Sabatier C, Couch D, Baron C, Deleuze J-F, Pharoah P, Michiels S, Gustave Roussy, Villejuif, France; AUSL Reggio Emilia, Reggio Emilia, Italy; Assuta, Tel Aviv, Israel; University of Cambridge, Cambridge, United Kingdom; Institut Jules Bordet, Bruxelles, Belgium; Hospital del Mar, Barcelona, Spain; CPO Piemonte, Torino, Italy; Erasmus, Rotterdam, Netherlands; Paris XIII University, Créteil, France; Predilife, Villejuif, France; Université Paul Sabatier Toulouse III, Toulouse, France; University of Manchester, Manchester, United Kingdom; Independent Patients Voices, London, United Kingdom; CEPH, Paris, France; CNRGH, Evry, France; Eonix, Brussels, Belgium; Unicancer, Le Kremlin Bicetre, France.

SERDs

**OT2-11-01** EMBER-3: A randomized phase 3 study of LY3484356, a novel, oral selective estrogen receptor degrader vs investigator’s choice of endocrine therapy of either fulvestrant or exemestane, in patients with estrogen receptor-positive, human epidermal growth factor receptor 2-negative, locally advanced or metastatic breast cancer previously treated with endocrine-based therapy

Jhaveri K, Harbeck N, Attimos P, Kim S-B, Pivot X, Saura C, Curigliano G, Casalnuovo M, Wang XA, Young SRL, Smyth L, O’Shaughnessy J. Memorial Sloan Kettering Cancer Center, New York, NY; Department of Obstetrics and Gynecology, Breast Center, LMU University Hospital, Munich, Germany; Clinical Trials Conduct Unit, Institut Jules Bordet - Université Libre de Bruxelles, Brussels, Belgium; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Institut Régional Du Cancer, Strasbourg, France; Vall d’Hebron University Hospital, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Istituto Europeo di Oncologia, IRCCS, and University of Milano, Milano, Italy; Fundación Cenit Para La Investigación En Neurociencias, Buenos Aires, Argentina; Loxo Oncology at Lilly, Indianapolis, IN; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX.
OT2-11-02 Ameera-1 Arm 4: Phase 1/2 study of amcenestrant (SAR439859), an oral selective estrogen receptor (ER) degrader (SERD), with everolimus in postmenopausal women with ER+/ human epidermal growth factor receptor 2-negative (HER2- ) advanced breast cancer

OT2-11-03 Ameera-1 Arm 5: Phase 1/2 study of amcenestrant (SAR439859), an oral selective estrogen receptor (ER) degrader (SERD), with abemaciclib in postmenopausal women with ER+/ human epidermal growth factor receptor 2-negative (HER2-) advanced breast cancer

OT2-11-04 Ameera-1 Arm 4: Phase 1/2 study of amcenestrant (SAR439859), an oral selective estrogen receptor (ER) degrader (SERD), with alpelisib in postmenopausal women with ER+/ human epidermal growth factor receptor 2-negative (HER2-) PIK3CA-mutated advanced breast cancer
Campone M, Bardia A, Kabos P, Chandarlapaty S, Neven P, Boni V, Lord S, Cartot-Cotton S, Celanovic M, Gosselin A, Pelekanou V, Linden H. Institut de Cancérologie de l’Ouest, René Gauducheau, St Herblain, France; Massachusetts General Hospital Cancer Center, Boston, MA; University of Colorado, Aurora, CO; Memorial Sloan Kettering Cancer Center, New York, NY; Universitair Ziekenhuis Leuven, Leuven, Belgium; START Madrid-CIOCC, Centro Oncológico Clara Campal, HM Hospitales Sanchinarro, Madrid, Spain; University of Oxford, Oxford, United Kingdom; Sanofi, Paris, France; Sanofi, Cambridge, MA; University of Washington Medical Center, Seattle Cancer Care Alliance, Seattle, WA.

OT2-11-05 SERENA-6: A Phase III study to assess the efficacy and safety of AZD9833 (camizestrant) compared with aromatase inhibitors when given in combination with palbociclib or abemaciclib in patients with HR+/HER2- metastatic breast cancer with detectable ESR1m who have not experienced disease progression on first-line therapy
Bidard F-C, Kalinsky K, Cristofanilli M, Bianchini G, Chia SKL, Janni W, Ma CX, Mayer EL, Park YH, Fox S, Liu X, Walding A, Huang Bartlett C, Turner NC. Institut Curie, Paris, France; Emory University, Atlanta, GA; Northwestern University Feinberg School of Medicine, Chicago, IL; IRCCS Ospedale San Raffaele, Milan, Italy; British Columbia Cancer Agency, Vancouver, BC, Canada; University Hospital Ulm, Ulm, Germany; Washington University School of Medicine, St Louis, MO; Dana-Farber Cancer Institute, Boston, MA; Sungkyunkwan University
OT2-11-06 SERENA-4: A Phase III comparison of AZD9833 (camizestrant) plus palbociclib, versus anastrozole plus palbociclib, for patients with ER-positive/HER2-negative advanced breast cancer who have not previously received systemic treatment for advanced disease
André F, Im S-A, Neven P, Baird RD, Ettl J, Goetz MP, Hamilton E, Iwata H, Jiang Z, Joy AA, Haddad V, Walding A, Selvi Miralles M, Huang Bartlett C, Llombart-Cussac A. Institute Gustave Roussy, Villejuif, France; Seoul National University Hospital, Seoul, Republic of Korea; Universitair Ziekenhuis, Leuven, Belgium; Cancer Research UK Cambridge Centre, Cambridge, United Kingdom; Technical University Munich, Klinikum rechts der Isar, Munich, Germany; Mayo Clinic, Rochester, MN; Sarah Cannon Research Institute, Nashville, TN; Aichi Cancer Center Hospital, Nagoya, Japan; The Fifth Medical Center of the Chinese PLA General Hospital, Beijing, China; University of Alberta, Edmonton, AB, Canada; AstraZeneca, Cambridge, United Kingdom; AstraZeneca, Gaithersburg, MD; Universidad Católica de Valencia, Valencia, Spain.

OT2-11-07 Solti-1905. Elacestrant in preoperative setting, a window of opportunity study (ELIPSE trial)
Vidal M, Muñoz M, Margeli M, González X, Amillano K, Sánchez-Bayona R, Salvador F, Pascual T, Prat A, Bellet M. SOLTI Breast Cancer Research Group/Hospital Clinic de Barcelona/August Pi i Sunyer Biomedical Research Institute (IDIBAPS)/University of Barcelona, Barcelona, Spain; SOLTI Breast Cancer Research Group/Hospital Clinic de Barcelona/August Pi i Sunyer Biomedical Research Institute (IDIBAPS), Barcelona, Spain; ICO Badalona, Barcelona, Spain; Hospital General de Cataluña, Barcelona, Spain; Hospital Sant Joan de Reus, Barcelona, Spain; Hospital 12 de Octubre, Barcelona, Spain; SOLTI, Barcelona, Spain; Vall d’Hebron University Hospital/Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain.

OT2-11-08 AMEERA-5: A randomized, double-blind phase 3 study of amcenestrant (SAR439859) + palbociclib versus letrozole + palbociclib for previously untreated ER+/HER2- advanced breast cancer
Bardia A, Cortes J, Hurvitz S, Delaloge S, Iwata H, Shao Z-M, Kanagavel D, Cohen P, Liu Q, Cartot-Cotton S, Pelekanou V, O’Shaughnessy J. Massachusetts General Hospital, Harvard Medical School, Boston, MA; International Breast Cancer Center (IBCC), Barcelona, Spain; UCLA Jonsson Comprehensive Cancer Center, Los Angeles, CA; Institute Gustave Roussy, Villejuif, France; Aichi Cancer Center Hospital, Nagoya, Japan; Fudan University, Shanghai, China; Sanofi, Vitry-sur-Seine, France; Sanofi, Cambridge, MA; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX.

OT2-11-09 Lidera breast cancer: A phase III adjuvant study of giredestrant (GDC-9545) vs physician’s choice of endocrine therapy (ET) in patients (pts) with estrogen receptor-positive, HER2-negative early breast cancer (ER+/HER2- EBC)
Bardia A, Schmid P, Harbeck N, Rimawi MF, Hurvitz SA, Loi S, Saji S, Jung KH, Werutsky G, Stroyakovskii D, López-Valverde V, Tesarowski D, Ye C, Davis M, Badovinac Crnjevic T, Perez-Moreno PD Geyer Jr CE. Massachusetts General Hospital, Harvard Medical School, Boston, MA; Barts Cancer Institute, London, United Kingdom; Breast Center, Department of Obstetrics and Gynecology and CCCMunich, LMU University Hospital, Munich, Germany;
Dan L Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX; University of California, Los Angeles/Jonsson Comprehensive Cancer Center (UCLA/JCCC), Los Angeles, CA; Peter MacCallum Cancer Centre, Melbourne, Australia; Fukushima Medical University, Fukushima, Japan; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, Republic of Korea; Hospital São Lucas, PUCRS University, Porto Alegre, Brazil; City Clinical Oncology Hospital 62, Moscow, Russian Federation; F. Hoffmann-La Roche Ltd, Basel, Switzerland; Genentech, Inc, South San Francisco, CA; NSABP Foundation and Houston Methodist Cancer Center, Houston, TX.

**Surgery**

**OT2-12-01** Mastectomy with reconstruction including robot endoscopic surgery (MARRES): A prospective cohort study of the Korea robot-endoscopy minimal access breast surgery study group (KoREa-BSG)

Lee J, Ryu JM, Lee JY, Ko BS, Lee S, Kim JH, Choi HJ, Shin H-J, Chang YW, Lee HY, Kim H-K, Park HS, Samsung Medical Center, Seoul, Republic of Korea; Kyungpook National University School of Medicine, Daegu, Republic of Korea; University of Ulsan College of Medicine, Seoul, Republic of Korea; Yongin Severance Hospital, Yonsei University College of Medicine, Yongin, Republic of Korea; Samsung Changwon Hospital, Changwon, Republic of Korea; Myongji Hospital, Goyang, Republic of Korea; Korea University College of Medicine, Seoul, Republic of Korea; Seoul National University College of Medicine, Seoul, Korea, Republic of Korea.

**OT2-12-02** Feasibility study to evaluate performance of the LUM imaging system for intraoperative detection of residual tumor in patients with breast cancer receiving neoadjuvant therapy

Smith KP, Ferrer J, Webster A, Kelly B, Schlossberg B, Chang M Smith B. Lumicell, Inc, Newton, MA; Massachusetts General Hospital, Boston, MA.

**OT2-12-03** Pivotal study of the Lum imaging system for assisting intraoperative detection of residual cancer in the tumor bed of female patients with breast cancer: The INCITE trial

Ferrer J, Carr D, Blumencranz P, Wapnir I, Dyess D, Hwang S, Dekshe N, Dodge D, Lesnikoski B-A, Hunt K, Clark P, Valente S, Lee MC, Clark L, Schlossberg B, Madden S, Rodriguez A, Smith K, Chang M, Smith B. Lumicell, Inc, Newton, MA; Novant Health, Raleigh, NC; Baycare Medical Center, Clearwater, FL; Stanford University, Palo Alto, CA; University of South Alabama, Mobile, AL; Duke University, Durham, NC; Beaumont Health, Royal Oak, MI; Penn State Medical Center, Hershey, PA; Baptist MD Anderson Cancer Center, Jacksonville, FL; MD Anderson Medical Center, Houston, TX; Honor Health Medical Center, Scottsdale, AZ; Cleveland Clinic, Cleveland, OH; Moffitt Cancer Center, Tampa, FL; CHI Franciscan, Tacoma, WA; Massachusetts General Hospital, Boston, MA.

**Survivorship**

**OT2-13-01** Supervised training exercise program during chemotherapy for breast cancer (STRENGTH) trial

**Targeted therapy - AKTi**

**OT2-14-01** CAPitello-292: A phase Ib/II study of capivasertib, palbociclib and fulvestrant, versus placebo, palbociclib and fulvestrant, for endocrine therapy-resistant HR+/HER2- advanced breast cancer

Rugo HS, Schiavon G, Grinsted LM, De Bruin EC, Catanese MT, Hamilton E. UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, California, CA; AstraZeneca, Cambridge, United Kingdom; Sarah Cannon Research Institute, Nashville, TN.

**Targeted therapy - anti-HER2/3 antibodies**

**OT2-15-01** Updated analysis of MCLA-128 (zenocutuzumab), trastuzumab, and vinorelbine in patients (pts) with HER2 positive/amplified (HER2+) metastatic breast cancer (MBC) who progressed on previous anti-HER2 ADCs

Hamilton E, Petit T, Pistilli B, Goncalves A, Ferreira AA, Dalenc F, Cardoso F, Mita MM, Manso L, Karim SM, Bidard F-C, Aftimos P, Escrivá-de-Romanií S, Afonso N, Wasserman E, Bol K, Stalbovskaya V, Vliet A, Murat A, Bachelot T. Tennessee Oncology and Sarah Cannon Research Institute, Nashville, TN; Institut de Cancérologie Strasbourg – Europe, Strasbourg, France; Gustave Roussy, Villejuif, France; Institut Paoli-Calmettes, Marseille, France; Centro Hospitalar e Universitario do Porto, Porto, Portugal; Department of Medical Oncology, Institut Claudius Regaud, IUCT-Oncopole, Toulouse, France; Champalimaud Clinical Center/ Champalimaud Foundation, Breast Unit, Lisbon, Portugal; Cedars-Sinai Comprehensive Cancer Center, Los Angeles, CA; Hospital 12 de Octubre, Madrid, Spain; Sarah Cannon Cancer Institutes HCA Midwest Health, Overland, KS; Institut Curie, Institut Curie, France; Institut Jules Bordet, Brussels, Belgium; Vall d’Hebron University Hospital and Vall d’Hebron Institute of Oncology, Medical Oncology Service, Barcelona, Spain; Nerus N.V, Utrecht, Netherlands; Merus N.V., Utrecht, Netherlands; Centre Léon Bérard, Lyon, France.

**Targeted therapy - antiprogestin onapristone**

**OT2-16-01** The SMILE study: A phase 2 trial of onapristone in combination with fulvestrant for patients with ER+ and HER2- metastatic breast cancer after progression on endocrine therapy and CDK4/6 inhibitors


**Targeted therapy - AR**

**OT2-17-01** Randomized, multicenter, international phase 3 ARTEST study to evaluate the efficacy and safety of enobosarm versus active control for the treatment of AR+ ER+ HER2- metastatic breast cancer in patients who progressed on a nonsteroidal aromatase inhibitor, fulvestrant and CDK 4/6 inhibitor

Bruksky A, Linden H, Hugo H, Vogel C, O’Shaughnessy JA, Getzenberg RH, Barnette KG, Rodriguez D, Steiner MS, Mayer E. Magee-Women’s Hospital, University of Pittsburgh Medical Center, Pittsburgh, PA; University of Washington/ Seattle Cancer Care Alliance, Seattle, WA; University of California San Francisco, San Francisco, CA; Miami Cancer
Institute, Baptist Health, Miami, FL; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX; Veru Inc, Miami, FL; Dana Farber Cancer Institute, Boston, MA.

**Targeted therapy - BRCA mutants**

**OT2-18-01** Harnessing olaparib, palbociclib, and endocrine therapy (HOPE): Phase I/II trial of olaparib, palbociclib and fulvestrant in patients with BRCA1/2-associated, hormone receptor-positive, HER2-negative metastatic breast cancer

Torres A, Kokkonen C, Oladeji M, D’Andrea K, Mick R, Narayan V, Mallamac M, Ewing G, Knollman H, Tung NM, Robson M, Nathanson KL, Domchek S, Shah PD. University of Pennsylvania School of Medicine, Philadelphia, PA; AstraZeneca, Wilmington, DE; Beth Israel Deaconess Medical Center, Boston, MA; Memorial Sloan Kettering Cancer Center, New York, NY.

**Targeted therapy - CDK4/6i**

**OT2-19-01** Presurgical treatment with ribociclib and letrozole in patients with locally advanced breast cancer: The NEOLETRIB study

Tekpli X, Goel S, Holm B, Fallang L-E, Cornelus Reitsma L, Beate Geisler S, Presterud Ødegård H, Bergquist Foskaug C, Lindem IC, Seyedzadeh M, Terje Geitung J, Reis J, Inge Gjesdal K, Buvarp U-C, Loeng M, Kleivi Sahlberg K, Porojnicu AC, Skjerven HK, Tahiri A, Jabeen S, Lüders T, Bemanian V, Jahnson J, Lyngra M, Hurtado A, Carroll J, Chen S, Kristensen V, Geisler J, Department of Medical Genetics, Institute of Clinical Medicine, Faculty of Medicine, University of Oslo & Oslo University Hospital, Oslo, Norway; Peter MacCallum Cancer Centre & The Sir Peter MacCallum Department of Oncology, University of Melbourne, Melbourne, Australia; Novartis, Medical Affairs Oncology, Kista, Sweden; Novartis, Medical Affairs Oncology, Oslo, Norway; Department of Breast and Endocrine Surgery, Akershus University Hospital, Oslo, Norway; Department of Oncology, Akershus University Hospital, Oslo, Norway; Department of Radiology, Akershus University Hospital, Oslo, Norway; University of Oslo, Institute of Clinical Medicine & Department of Radiology, Akershus University Hospital, Oslo, Norway; Norwegian University of Science and Technology, Trondheim, Norway; Department of Research and Innovation, Vestre Viken Hospital Trust and Department of Tumor Biology, Institute for Cancer Research, Oslo University Hospital, Oslo, Norway; Department of Surgery, Section of Oncology, Drammen Hospital, Vestre Viken Hospital Trust, Drammen, Norway; Department of Surgery, Section of Breast and Endocrine Surgery, Drammen Hospital, Vestre Viken Hospital Trust, Drammen, Norway; Department of Medical Genetics, Oslo University Hospital, Ullevål & Department of Clinical Molecular Biology (EPIGEN), Akershus University Hospital, Oslo, Norway; Institute of Clinical Medicine, University of Oslo & Department of Clinical Molecular Biology (EPIGEN), Akershus University Hospital, Oslo, Norway; Department of Gene Technology, Akershus University Hospital, Oslo, Norway; University of Oslo, Institute of Clinical Medicine & Department of Gastroenterology, Akershus University Hospital, Oslo, Norway; Department of Pathology, Akershus University Hospital, Oslo, Norway; Cancer Genomics and Proteomics Group, Department of Biomedical Sciences, University of Barcelona & August Pi i Sunyer Research Center (IDIBAPS), Barcelona, Barcelona, Spain; Cancer Research UK Cambridge Institute, University of Cambridge, Cambridge, United Kingdom; Department of Cancer Biology, Beckman Research Institute of City of Hope, Duarte, CA; Department of Medical Genetics, Institute of Clinical Medicine, Faculty of Medicine, University of Oslo & Department of Cancer Genetics, Institute for Cancer Research, Oslo University Hospital, Ullevål, Oslo, Norway; Institute of Clinical Medicine, Faculty of Medicine, University of Oslo & Department of Oncology, Akershus University Hospital, Oslo, Norway.
OT2-19-02 Clinical evaluation of the efficacy and liquid molecular analysis of abemaciclib rechallenge upon progression to abemaciclib combination therapies for ER-positive HER2-negative metastatic breast cancer patients

Nishimura M, Kogawa T, Akaishi Y, Ogata M, Masuda J, Terada M, Sakai H, Nozawa K, Kurozumi S, Yokoe T, Ozaki Ozaki Y, Yazaki S, Onishi M, Iwasa T, Onoe T, Okumura Y, Nakayama S, Hagio K, Takahashi Y, Tanino H, Tsurutani J, Matsumoto K, Shimokawa M, Takano T. Department of Medical Oncology/Hematology, Kobe University hospital, Kobe, Japan; Division of Early Clinical Development for Cancer, Advanced Medical Development Center, The Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo, Japan; Department of Medical Oncology, Osaka City General Hospital, Osaka, Japan; Department of Medical Oncology, Hyogo Cancer Center, Akashi, Japan; Department of Breast Medical Oncology, The Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo, Japan; Department of Breast Surgery, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan; Advanced Cancer Translational Research Institute, Showa University, Tokyo, Japan; Department of Clinical Oncology, Breast Oncology Aichi Cancer Center Hospital, Nagoya, Japan; Department of Breast Surgery, International University of Health and Welfare, Chiba, Japan; Department of Translational Molecular Medicine, Saint John’s Cancer Institute, Santa Monica, CA; Department of Medical Oncology, National Cancer Center Hospital, Tokyo, Japan; Department of Breast Surgery, Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital, Kobe, Japan; Department of Medical Oncology, Kindai University Faculty of Medicine, Osaka, Japan; Department of Internal Medicine, Kyushu University Beppu Hospital, Oita, Japan; Department of Breast Surgical Oncology, Showa University Hospital, Tokyo, Japan; Department of Breast Surgery, Hokkaido University Hospital, Sapporo, Japan; Department of Breast and Endocrine Surgery, Okayama University Hospital, Okayama, Japan; Department of Breast Surgery, Kobe University Hospital, Kobe, Japan; Department of Biostatistics, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan.

OT2-19-03 Solti-1801. Analysis of the efficacy of CDK4/6 inhibitors in combination with hormonal treatment in luminal breast cancer in relation to the intrinsic subtype and markers of immunity (CDK-predict)

Toïlosa P, Pascual T, Hernando C, Servitja S, Fernández Abad M, Brasó-Maristany F, Benítez J, Lema L, Martínez M, Ruano Y, Parrilla L, Bernardini A, Roncero AM, Paré L, Canes J, Villagrasa P, Salvador F, Prat A, Ciruelos E. Medical Oncology Department, Hospital 12 de Octubre, Madrid, Spain; SOLTI Breast Cancer Research Group, Barcelona, Spain; Hospital Clínico Universitario de Valencia, Valencia, Spain; Hospital del Mar, Barcelona, Spain; Hospital Universitario Ramón y Cajal, Madrid, Spain; Hospital Clinic de Barcelona/August Pi i Sunyer Biomedical Research Institute (IDIBAPS), Barcelona, Spain; Oncology Department, Hospital Clínico San Carlos, Madrid, Spain; Pathology Department, Hospital Universitario 12 de Octubre, Madrid, Spain; Molecular Pathology Unit, Hospital Universitario 12 de Octubre Research Institute, Madrid, Spain; Molecular Oncology Unit CIEMAT/Biomedical Research Institute, University Hospital “12 de Octubre”, Madrid, Spain; SOLTI Breast Cancer Research Group/Hospital Clinic de Barcelona/August Pi i Sunyer Biomedical Research Institute (IDIBAPS)/Medicine Department, University of Barcelona, Barcelona, Spain; SOLTI Breast Cancer Research Group/Hospital 12 de Octubre, Madrid, Spain.

OT2-19-04 European treatment patterns and outcomes associated with first-line CDK4/6 inhibition and hormonal therapies assessed in a real-world non-interventional study (EUCARIS)
Law EH, Galve-Calvo E, Wöckel A, Parikh R, Kurosky SK, Derrien Ansquer V, Frugier G, Davis KL, Esterberg EJ, Oikonomidou O. Pfizer Inc, New York, NY; Osakidetza, Bilbao, Spain; Universitätsklinikum Würzburg, Würzburg, Germany; RTI Health Solutions, Research Triangle Park, NC; RTI Health Solutions, Lyon, France; University of Edinburgh, Edinburgh, United Kingdom.

**OT2-19-05** A phase I/II trial of abemaciclib and T-DM1 in women and men with HER2-positive advanced or metastatic breast cancer that has progressed on treatment with a taxane, trastuzumab and pertuzumab (THP) (ACCRU-BR-1801)

Sullivan CCO, He J, Suman VJ, Kalari KR, Leon-Ferre RA, Villasboas-Bisneto JC, Chalasani P, Gokalp Yasar D, Anderson DM, Stella PJ, Jaslowski AJ, Tannenbaum SH, Saverimuthu A, Northfelt D, Moreno-Aspitia A, Carter JM, Liu MC, Wang L, Lou Z, Goetz MP, Mayo Clinic, Rochester, MN; Carle Cancer Institute, Urbana, IL; Marshfield Medical Center, Minocqua, WI; Regions Hospital-Cancer Care Center, Saint Paul, MN; IHA Hematology Oncology at St. Joe’s Ann Arbor, Ann Arbor, MI; UConn Health, Farmington, CT; Yuma Regional Medical Center, Yuma, AZ; Mayo Clinic, Scottsdale, AZ; Mayo Clinic, Jacksonville, FL.

**OT2-19-06** Phase 2 study of abemaciclib in combination with endocrine therapy with or without paclitaxel induction in patients with hormone receptor-positive, HER2-negative advanced breast cancer and aggressive disease criteria: ABIGAIL

Llombart-Cussac A, Gligorov J, Di Cosimo S, Albacar C, Cortez P, Martinez-De Dueñas E, López A, Carañana V, Medioni J, Cavanna L, Cazzaniga ME, Braga S, Coelho P, Sampayo-Cordero M, Malfetone A, Pérez-García JM, Cortes J. Hospital Arnau de Vilanova; FISABIO; Universidad Católica de Valencia; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Institut Universitaire de Cancérologie AP-HP, Sorbonne Université, Paris, France; Fondazione IRCCS Istituto Nazionale dei Tumori, Milano, Italy; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Hospital Sant Joan de Reus, Reus, Spain; IOB Institute of Oncology, Hospital Ruber Internacional, Quiron Group, Madrid, Spain; Hospital Provincial Castellón, Castelló De La Plana, Spain; Hospital Universitario de León, León, Spain; Hospital Arnau de Vilanova, Valencia, Spain; Hôpital Européen Georges Pompidou AP-HP, Paris, France; Azienda Ospedaliera Piacenza, Piacenza, Italy; School of Medicine and Surgery, University of Milano-Bicocca; ASST-Monza, Monza, Italy; Hospital Prof. Doutor Fernando Fonseca, Amadora, Portugal; Hospital Da Luz Lisboa, Lisbon, Portugal; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; International Breast Cancer Center (IBCC), Quironsalud Group; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Medica Scientia Innovation Research (MEDSIR); Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain.

**OT2-19-07** A phase I/Ib trial of the CDK4/6 antagonist ribociclib (RIB) and the HDAC inhibitor belinostat (BEL) in patients with metastatic triple negative breast cancer and recurrent ovarian cancer with response prediction by genomics (CHARGE)

Sama S, Kelley K, Vaklavas C, Bild A, Boucher K, Lamb J, Lehman J, Moos P, Werner T, Cohen A. University of Utah, Salt Lake City, UT; Huntsman Cancer Institute, Salt Lake City, UT; Department of Medical Oncology & Therapeutics Research, City of Hope National Medical Center, Duarte, CA; University of Utah, Department of Pharmacology and Toxicology, Salt Lake City, UT; Inova Schar Cancer Institute, Fairfax, VA.
OT2-19-08 Phase IB/II trial of palbociclib and binimetinib in advanced triple-negative breast cancer with hyperactivation of ERK and/or CDK4/6

Manso L, Cortes A, Cejalvo JM, Morales S, García Saenz JA, Colomer R, Sanchez-Bayona R, Silva J, Guerra JA, Malon D, Mouron S, Caleiras E, Quintela-Fandino M. Hospital 12 de Octubre, Madrid, Spain; Hospital Universitario Ramon y Cajal, Madrid, Spain; Hospital Clinico Universitario de Valencia, Valencia, Spain; Hospital Arnau de Vilanova, Lleida, Spain; Hospital Universitario Clinico San Carlos, Madrid, Spain; Hospital Universitario La Princesa, Madrid, Spain; Hospital Universitario de Fuenlabrada, Madrid, Spain; CNIO, Madrid, Spain.

**Targeted therapy - FGFR1/2+ BC**

OT2-20-01 Rogaratinib, palbociclib and fulvestrant in advanced hormone receptor-positive (HR+), FGFR1/2-positive breast cancer: Phase I trial plus an expansion cohort

Pernas S, Hernando C, Bermejo B, Martinez-Jañez N, García Saenz JA, Morales S, Manso L, Silva J, Guerra JA, Malon D, Mouron S, Caleiras E, Quintela-Fandino M. Institut Catala d’Oncologia-H.U.Bellvitge-IDIBELL, L’Hospitala-Barcelona, Spain; Hospital Clinico Universitario de Valencia, Valencia, Spain; Hospital Universitario Ramon y Cajal, Madrid, Spain; Hospital Universitario Clinico San Carlos, Madrid, Spain; Hospital Arnau de Vilanova, Lleida, Spain; Hospital 12 de Octubre, Madrid, Spain; Hospital Universitario de Fuenlabrada, Fuenlabrada, Spain; CNIO, Madrid, Spain.

**Targeted therapy - filgrastim vs. peg-filgrastim - bone pain**

OT2-21-01 A randomized, multicenter pragmatic trial comparing bone pain from a single dose of pegfilgrastim to 5 doses of daily filgrastim in breast cancer patients receiving neoadjuvant / adjuvant chemotherapy (REaCT-5G)

Ng TL, Taljaard M, Savard M-F, Stober C, Nicholls S, Vandermeer L, Thavorn K, Hampel C, Shames J, Mills N, Hilton JF, Clemons M. University of Ottawa, Ottawa, ON, Canada; Ottawa Hospital Research Institute, Ottawa, ON, Canada; The Ottawa Hospital, Ottawa, ON, Canada.

**Targeted therapy - HDAC inhibitors**

OT2-22-01 Rationale and design of a phase 1b/2 trial of OKI-179, an oral class 1-selective depsipeptide HDAC inhibitor, in combination with tamoxifen in patients with previously treated metastatic ER+ HER2- breast cancer

Kabos P, Kagihara JA, Heim AM, Piscopio AD, Winkler JD, Diamond JR. University of Colorado Anschutz Medical Campus, Aurora, CO; OnKure Therapeutics, Boulder, CO

**Targeted therapy - MAPK pathway**

OT2-23-01 A Phase 1b /2a, open-label platform study to evaluate mirdametinib in combination with fulvestrant in ER+ metastatic breast cancers harboring MAPK-activating mutations

Targeted therapy - PARPi’s

OT2-24-01 PARTNER: Randomised, phase II/III trial to evaluate the safety and efficacy of the addition of olaparib to platinum-based neoadjuvant chemotherapy in triple negative and/or germline BRCA mutated breast cancer patients

Drewett LM, Pinilla KA, Grybowicz L, Wulff J, Dayimu A, Demiris N, Martin J, de Pontes CM, Johnson N, Harvey C, Demir E, St John Green K, Jones J, Young G, Vallier A-L, Qian W, Machin A, McAdam K, Roylance R, Copson ER, Armstrong A, Levitt N, Provenzano E, Tischkowitz M, McMurtry E, Earl H, Abraham JE. The University of Cambridge and Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom; The University of Cambridge and Cancer Research UK Cambridge Centre, Cambridge, United Kingdom; Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom; Cambridge Clinical Trials Unit, Cambridge, United Kingdom; University College London Hospitals NHS Foundation Trust, London, United Kingdom; Cancer Sciences Academic Unit, University of Southampton, Southampton, United Kingdom; The Christie NHS Foundation Trust, Manchester, United Kingdom; Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom; The University of Cambridge, Cambridge, United Kingdom; EMC2 Clinical Consultancy, Manchester, United Kingdom; The University of Cambridge and NIHR Cambridge Biomedical Research Centre, Cambridge, United Kingdom; The University of Cambridge, Cambridge University Hospitals NHS Foundation Trust and Cancer Research UK Cambridge Centre, Cambridge, United Kingdom.

OT2-24-02 ZEST: Randomized phase III study evaluating efficacy and safety of niraparib in patients with HER2-negative BRCA-mutated or triple-negative breast cancer with detectable circulating tumor DNA after definitive therapy

Turner NC, Cescon DW, Loibl S, Janni W, Hugo R, Balmaña J, Crowley C, Chung J, Fucli G, Hofstatter E, Frenkl T, Telli ML. Ralph Lauren Centre for Breast Cancer Research, Royal Marsden Hospital and Institute of Cancer Research, London, London, United Kingdom; Princess Margaret Cancer Centre, University Health Network of Toronto, Toronto, ON, Canada; German Breast Group, Neu-Isenburg, Germany; Ulm University Hospital, Ulm, Germany; University of California San Francisco, San Francisco, CA; Vall d’Hebron Institute of Oncology, Hospital Universitari Vall d’Hebron, Barcelona, Spain; GlaxoSmithKline, Waltham, MA; GlaxoSmithKline, Philadelphia, PA; Stanford University School of Medicine, Stanford, CA.

OT2-24-03 Phase II study of a PARP inhibitor in metastatic breast cancer with somatic BRCA1/2 mutations identified by cell-free DNA: Genotyping based clinical trial

Vidula N, Blouch E, Basile E, Ruffle-Deignan NR, Horick N, Damodaran S, Moreno Aspitia A, Bhave M, Shah A, Liu MC, Sparano J, Ostrer H, Hugo R, Ellisen LW, Bardia A, Massachusetts General Hospital, Boston, MA; MD Anderson, Houston, TX; Mayo Clinic, Jacksonville, FL; Emory University, Atlanta, GA; Northwestern University, Chicago, IL; Mayo Clinic, Rochester, MN; Albert Einstein Medical Center, Bronx, NY; Albert Einstein College of Medicine, Bronx, NY; University of California San Francisco, San Francisco, CA.

Targeted therapy - PD-1i + oncolytic virus

OT2-25-01 Irene study: Phase 2 study of Incmga00012 and the oncolytic virus pelareorep in metastatic triple negative breast cancer

Targeted therapy - T-DXd, brain mets

**OT2-26-01** Open-label, multinational, multicenter, phase 3b/4 study of trastuzumab deruxtecan (T-DXd) in patients with or without baseline brain metastasis with previously treated advanced/metastatic human epidermal growth factor receptor 2-positive breast cancer (HER2+ BC): DESTINY-Breast12

Lin NU, Ciruelos E, Jerusalem G, Müller V, Niikura N, Viale G, Oscroft E, Anand S, Walker G, Harbeck N, Dana-Farber Cancer Institute, Boston, MA; University Hospital 12 de Octubre, Madrid, Spain; Centre Hospitalier Universitaire du Sart Tilman Liège and Liège University, Liège, Belgium; University Medical Center Hamburg-Eppendorf, Hamburg, Germany; Tokai University School of Medicine, Kanagawa, Japan; European Institute of Oncology, Milan, Italy; AstraZeneca Pharmaceuticals, Gaithersburg, MD; Breast Center, LMU University Hospital, Munich, Germany.

Targeted therapy - TKIs

**OT2-27-01** Solti-1718 NEREA Trial: Neratinib in hormone receptor (HR)-positive/HER2-negative HER2-enriched (HER2-E) advanced breast cancer (BC)

Ciruelos E, Saura C, González-Farré X, Bofill JS, Vidal M, Blancas I, López-Miranda E, Iglesias M, Arumi M, Margelí M, Pulido C, Morales S, Henao F, Sánchez P, Alves S, Branco D, Manel Gasent J, Sánchez-Rovira P, Godoy A, Passos-Coelho JL, Escrivá-de-Romani S, Ferrero-Cafiero JM, Pascual T, Prat A. Medical Oncology Department, Hospital 12 de Octubre / SOLTI Breast Cancer Research Group, Madrid/Barcelona, Spain; Medical Oncology Department, Vall d’Hebron University Hospital/SOLTI Breast Cancer Research Group/Breast Cancer Group, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Medical Oncology Department, Hospital General de Catalunya, Sant Cugat del Vallès, Spain; Medical Oncology Department, Hospital Universitari Virgen del Rocío, Sevilla, Spain; Medical Oncology Department, Hospital Clínico de Barcelona/SOLTI Breast Cancer Research Group/Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute, Barcelona, Spain; Oncology Unit. Hospital Universitario Clínico San Cecilio, Granada, Spain; Medical Oncology Department, Hospital Ramón y Cajal, Madrid, Spain; Medical Oncology Department, Hospital Son Llatzer, Palma, Illes Balears, Spain; Medical Oncology Department, Vall d’Hebron University Hospital / Breast Cancer Group, Vall d’Hebron Institute of Oncology (VHIO)/Breast Cancer Group, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Medical Oncology Department, IEO Badalona, Institut Català d’Oncologia, Barcelona, Spain; Medical Oncology Department, Hospital da Luz Lisboa, Lisboa, Portugal; Medical Oncology Department, Hospital Universitari Arnau de Vilanova de Lleida, Lleida, Spain; Medical Oncology Department, Hospital Virgen Macarena, Sevilla, Spain; Hospital Universitario Virgen de la Arrixaca, Murcia, Spain; Medical Oncology Department, Instituto Portugués de Oncologia do Porto FG, EPE (IPO-Porto), Porto, Portugal; Medical Oncology Department, Instituto Português de Oncologia de Lisboa FG (IPO-Lisboa), Lisboa, Portugal; Medical Oncology Department, Hospital Marina Salud Denia, Denia, Spain; Medical Oncology Department, Hospital Universitario de Jaén, Jaén, Spain; Medical Oncology Department, Vall d’Hebron University Hospital / Breast Cancer Group, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; SOLTI Breast Cancer Research Group, Barcelona, Spain; SOLTI Breast
Cancer Research Group/ Medical Oncology Department, Hospital Clínic de Barcelona / Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute/Medicine Department, University of Barcelona, Barcelona, Spain.

**OT2-27-02** A prospective phase II study on efficacy and safety of anlotinib combined with fulvestrant in patients with HR-positive and HER2-negative, secondary endocrine-resistant, locally advanced or metastatic breast cancer

Wang X, Huang J. Department of Breast Medical Oncology, Cancer Hospital of the University of Chinese Academy of Sciences (Zhejiang Cancer Hospital), Institute of Cancer and Basic Medicine, Chinese Academy of Sciences, Hangzhou, China.

**Targeted therapy - tyrosine kinase inhibitors**

**OT2-28-01** A phase 2 study of sitravatinib in metastatic, pre-treated, triple negative breast cancer, NCT # 04123704

Nemati Shafaee M, Otte K, Neil NJ, Osborne KC, Westbrook TF, Hilseneck S, Ellis MJ. Baylor College of Medicine, Houston, TX.

**TNBC - checkpoint inhibitors**

**OT2-29-01** neoMono - An adaptive randomized neoadjuvant two arm trial in patients with TNBC comparing a mono atezolizumab window followed by atezolizumab and chemotherapy with atezolizumab and chemotherapy

Kolberg-Liedtke C, Schumacher J, Erber R, Braun M, Heinrich B, Hoffmann O, Fasching P, Forstbauer H, Kleine-Tebbe A, Kunz G, Lux M, Rom J, Schem C, Stahl N, Hartmann A, Kasimir-Bauer S, Kolberg H-C. Phaon Scientific / University Hospital Essen, Wiesbaden / Essen, Germany; Palleos Healthcare, Wiesbaden, Germany; Institute of Pathology, University Hospital Erlangen, Erlangen, Germany; Phaon Scientific, Wiesbaden, Germany; Hämatologisch-Onkologische Praxis Augsburg, Augsburg, Germany; Universitätsklinikum Essen, Essen, Germany; University Hospital Erlangen, Erlangen, Germany; Onkologie Rheinsieg, Rheinsieg, Germany; Klinikum Köpenick, Berlin, Germany; St. Johannes Spital Dortmund, Dortmund, Germany; Klinikum Paderborn, Paderborn, Germany; Klinikum Frankfurt, Frankfurt, Germany; Mammazentrum Hamburg, Hamburg, Germany; Helios Kliniken Schwerin, Schwerin, Germany; University of Erlangen, Institute of Pathology, Erlangen, Germany; Phaon Scientific / Marienhospital Bottrop, Wiesbaden / Bottrop, Germany.
TNBC - neoadjuvant chemotherapy

**OT2-30-01** Nordictrip, a translational randomized phase-3 study exploring the effect of the addition of capecitabine to carboplatinum-based chemotherapy in early “triple negative” breast cancer. ClinicalTrials.gov Identifier: NCT04335669

Loman N, Linderholm B, Ahlgren J, Kimbung S, Zander L, Grill Magnusson H, Kjellman E-C, Raaberg A-J, Raaby Jensen M-B, Borg Å, Staaef J, Ståhlberg A, Bendahl P-O, Laenkholm A-V, Tanner M, Bjarnadóttir O, Johannsson O, Ejlertsen B, Lindman H. Dept of Hematology, Oncology and Radiation Physics, Skåne University Hospital, Sweden; Dept of Oncology, Jubileumskliniken, Sahlgrenska University Hospital, Sweden; Regional Cancer Center, Central Sweden, Uppsala, Sweden; Division of Oncology, Dept of Clinical Sciences Lund, Lund University, Sweden; Danish Breast Cancer Group, Rigshospitalet, Copenhagen, Denmark; Institute of Biomedicine, University of Gothenburg, Sweden; Dept of Surgical Pathology, Zeeland University Hospital, Roskilde, Denmark; Dept of Oncology, Tampere University Hospital, Finland; Dept of Oncology, Landspitali, Reykjavik, Iceland; Dept of Oncology, Akademiska Hospital, Uppsala, Sweden.
**POSTER SESSION PD (SPOTLIGHT POSTERS)**

**WEDNESDAY, DECEMBER 8, 2021: 7:00 AM - 8:30 AM CT**

**Endocrine Resistance: Novel mechanisms and emerging new therapeis**

**PD1-01** Estrogen therapy induces R-loop-dependent DNA damage that can be enhanced by PARP inhibition to improve response in ER+ breast cancer

Traphagen NA, Tau S, Jiang A, Wells JD, Hosford SR, Goen AE, Demidenko E. Geisel School of Medicine at Dartmouth College, Lebanon, NH; Dartmouth College, Hanover, NH.

**PD1-02** Withdrawn

**PD1-03** Estrogen receptor is a target of enzalutamide in ER+ breast cancer


**PD1-04** Estrogen-mediated mechanisms in estrogen receptor-positive breast cancer at the single cell level


**PD1-05** Targeting the FRA1-dependent transcriptional nexus in high FOXA1-driven endocrine-resistant and metastatic breast cancer

Liu CC, Qin L, De Angelis C, Nanda S, Pereira R, Shea MJ, Nardone A, Jeselsohn R, Cohen O, Wagle N, Liu Z, Rimawi MF, Osborne CK, Schiff R, Fu X. Lester & Sue Smith Breast Center, Dan L Duncan Comprehensive Cancer Center, Department of Medicine, Baylor College of Medicine, Houston, TX; Lester & Sue Smith Breast Center, Dan L Duncan Comprehensive Cancer Center and Medicine, Baylor College of Medicine, Department of Clinical Medicine and Surgery, University of Naples “Federico II”, Naples, Italy, Houston, TX; Lester & Sue Smith Breast Center, Dan L Duncan Comprehensive Cancer Center, Department of Molecular & Cellular Biology, Houston, TX; Department of Medical Oncology, Center for Functional Cancer Epigenetics, Harvard Medical School, Boston, MA; Department of Medical Oncology, Center for Cancer Precision Medicine, Dana-Farber Cancer Institute Harvard Medical School, Broad Institute of MIT and Harvard, Cambridge, Boston, MA; Department of Molecular Medicine, University of Texas Health Science Center at San Antonio, San Antonio, TX; Lester & Sue Smith Breast Center, Dan L Duncan Comprehensive Cancer Center, Departments of Molecular & Cellular Biology, Department of Medicine, Baylor College of Medicine, Houston, TX.

**PD1-06** Apobec mutagenesis is a pervasive feature of poor prognosis breast cancer associating with ESR1 wild type, endocrine resistant disease

Marra A, Gazzo A, Selenica P, Pei X, Gupta A, Pareja F, Curigliano G, Harris R, Riaz N, Reis-Filho JS, Chandralapaty S. Memorial Sloan Kettering Cancer Center, New York, NY; Istituto Europeo di Oncologia IRCCS, University of Milano, Milan, Italy; HHMI, Masonic Cancer Center, and Department of Biochemistry, Molecular Biology and Biophysics, University of Minnesota, Minneapolis, MN.
PD1-07 Mutant ESRI receptors antagonize the tumor suppressor function of androgen receptors
Grimm SL, Gu G, Herzog SK, Gonzalez TL, Lin H, Beyer AR, Rechoum Y, Bawa-Khalfe T, Khan AF, Du L, Symmans WF, Kittler R, Coarfa C, Fuqua SAW. Baylor College of Medicine, Houston, TX; University of Houston, Houston, TX; The University of Texas MD Anderson Cancer Center, Houston, TX; UT Southwestern Medical Center, Dallas, TX.

PD1-08 Esr1 mutant breast cancers show elevated basal cytokeratins and immune activation
Li Z, Wu Y, Mcginn O, Bahreini A, Priedigkeit NM, Ding K, Onkar S, Sartorius CA, Miller L, Rosenzweig M, Wagle N, Richer JK, Muller WJ, BuluweLA, Ali S, Vignali DAA, Fang Y, Zhu L, Tseng GC, Gertz J, Atkinson JM, Lee AV, Oesterreich S. University of Pittsburgh, Pittsburgh, PA; University of Colorado Anschutz Medical Campus, Aurora, CO; Dana-Farber Cancer Institute, Boston, MA; McGill University, Montreal, QC, Canada; Imperial College London, London, United Kingdom; University of Utah, Salt Lake City, UT.

PD1-09 Constitutively active estrogen receptor mutants enhance breast cancer pathogenesis by co-opting progesterone receptor activity, which can be countered by Giredestrant
Liang J, Metcalfe C. Genentech, South San Francisco, CA.

Insights to CDK4/6i resistance: Novel models and clinical/translational genomics

PD2-01 A platform of CDK4/6 inhibitor-resistant patient-derived breast cancer organoids illuminates mechanisms of resistance and therapeutic vulnerabilities

PD2-02 Combination CDK4/6 inhibition and AR agonism suppresses the growth of CDK4/6 inhibitor resistant breast cancers

PD2-03 Association between co-existing genomic alterations and abemaciclib benefit in patients with metastatic hormone receptor-positive breast cancer with ESRI mutations following disease progression on prior endocrine therapy plus palbociclib or ribociclib
Brett JO, Dubash TD, Niemierko A, Mariotti V, Kim LSL, Xi J, Pandey A, Dunne S, Nasrazadani A, Lloyd MR, Spring LM, Micalizzi D, Onozato M, Che D, Brufsky A, Kalinsky KM, Ma CX, O’Shaughnessy J, Han HS, Iafrate AJ, Maheswaran S, Haber DA, Bardia A, Wander SA. Massachusetts General Hospital Department of Medicine, Boston, MA; Massachusetts General Hospital Cancer Center, Boston, MA; Moffitt Cancer Center, Tampa, FL; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX; Washington University School of Medicine Division of Oncology, St. Louis, MO; University of Pittsburgh Medical Center, Pittsburgh, PA; University of Pittsburgh Medical Center, Hillman Cancer Center,
PD2-04 Molecular plasticity of luminal breast cancer and response to CDK 4/6 inhibition - The biomarker program of the PENEOLOPE-B trial investigating post-neoadjuvant palbociclib
Denkert C, Marmé F, Martin M, Untch M, Bonnefoi H, Kim S-B, Bear H, Witkiewicz A, Im S-A, DeMichele A, Van’t Veer L, McCarthy N, Stiewe T, Gelmon KA, García-Sáenz JA, Kelly CM, Reimer T, Knudsen E, Turner N, Rojo F, Fasching PA, Teply-Szymanski J, Liu Y, Toi M, Rugo HS, Gnatt M, Makris A, Felder B, Weber K, Loibl S. Institute of Pathology, Philipps-Universität Marburg and University Hospital Marburg (UKGM), Marburg, Germany; Medical Faculty Mannheim, Heidelberg University, University Hospital Mannheim, Mannheim, Germany; Instituto de Investigacion Sanitaria Gregorio Marañón, CIBERONC, Universidad Complutense and Spanish Breast Cancer Group, GEICAM, Madrid, Spain, Madrid, Spain; Helios Kliniken Berlin-Buch, Berlin, Germany; Institut Bergonié and Université de Bordeaux INSERM U916, Bordeaux, Bordeaux, France; The Asan Medical Center AMC, Seoul, Seoul, Republic of Korea; Division of Surgical Oncology, Massey Cancer Center, Virginia Commonwealth University, VCU Health, Richmond, Richmond, VA; Roswell Park Comprehensive Cancer Center, Buffalo, Buffalo, NY; Seoul National University Hospital, Seoul National University College of Medicine, and KCSG, Seoul, Seoul, Republic of Korea; Penn Medicine Abramson Cancer Center, Philadelphia, Philadelphia, PA; University of California, San Francisco, San Francisco, CA; Breast Cancer Trials Australia and New Zealand and University of Queensland, Newcastle, Australia; BC Cancer, Vancouver, Vancouver, BC, Canada; Servicio de Oncología Médica, Instituto de Investigación Sanitaria Hospital Clínico San Carlos (IdISSC) and GEICAM, Madrid, Madrid, Spain; Mater Misericordiae Hospital, University College Dublin and Cancer Trials, Dublin, Ireland, Ireland, Dublin, Ireland; Department of Obstetrics and Gynecology, University of Rostock, Rostock, Germany; The Institute of Cancer Research: Royal Cancer Hospital, London, London, United Kingdom; Hospital Universitario Fundación Jiménez Díaz, Madrid, Madrid, Spain; Universitätsklinik Erlangen, Erlangen, Germany; Pfizer Inc., San Diego, San Diego, CA; Breast Surgery, Graduate School of Medicine, Kyoto University, Kyoto, Japan; University of California San Francisco Comprehensive Cancer Center, San Francisco, San Francisco, CA; Comprehensive Cancer Center, Medical University of Vienna, Vienna, Austria; Mount Vernon Cancer Centre, Northwood, United Kingdom; GBG, Neu-Isenburg, Germany.

PD2-05 Genomic profiling of PAM50-based intrinsic subtypes in HR+/HER2- advanced breast cancer (ABC) across the MONALEESA (ML) studies
Prat A, Solovieff N, Su F, Bardia A, Neven P, Hortobagyi GN, Tripathy D, Chia S, Slamon D, Lu Y-S, Taran T, Lteif A, Arteaga CL, André F. Department of Medical Oncology, Hospital Clinic of Barcelona, Barcelona, Spain Novartis Institutes for Biomedical Research, Cambridge, MA; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA; Multidisciplinary Breast Centre, Universitair Ziekenhuis Leuven, Leuven, Belgium; Department of Breast Medical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX; The University of Texas MD Anderson Cancer Center, Houston, TX; British Columbia Cancer Agency, Vancouver, BC, Canada; David Geffen School of Medicine at UCLA, Los Angeles, CA; National Taiwan University Hospital, Taipei, Taiwan; Novartis Pharma AG, Basel, Switzerland; Harold C. Simmons Comprehensive Cancer Center, UT Southwestern Medical Center, Dallas, TX; Department of Medical Oncology, Institut Gustave Roussy, Villejuif, France.
PD2-06 Moved to GS1-04

PD2-07 Impact of using cross-platform gene expression profiling technologies and computational methods for intrinsic breast cancer subtyping in PALOMA-2 and PALLET
Cheang M, Dowsett M, Rimawi M, Johnston S, Jacobs S, Bliss J, Pogue-Geile K, Kilburn L, Zhu Z, Schuster EF, Xiao H, Swaim L, Deng S, Lu DR, Gauthier E, Tursi J, Slamon DJ, Hugo HS, Finn RS, Liu Y. The Institute of Cancer Research, Sutton, London, United Kingdom; Royal Marsden Hospital, Sutton, London, United Kingdom; Baylor College of Medicine, Houston, TX; NSABP Foundation, Pittsburgh, PA; Pfizer Inc, La Jolla, CA; Pfizer Inc, South San Francisco, CA; Pfizer Srl, Milan, Italy; David Geffen School of Medicine, University of California Los Angeles, Santa Monica, CA; University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA.

PD2-08 Serial genomic profiling reveals molecular mechanisms of breast cancer resistance to palbociclib

PD2-09 Moved to GS1-07

Targets in Triple Negative Breast Cancer

PD3-01 Inducible nitric oxide synthase activates PI3K/Akt signaling via PTEN S-nitrosylation in triple-negative breast cancer
Reddy TP, Guzman-Rojas L, Rosato RR, Qian W, Zhao H, Chang JC. Houston Methodist Research Institute, Houston, TX.

PD3-02 Linking proliferative signal to DNA-damage signal in a tumor cell: A contextual synergy between the PI3K pathway and the DDR pathway in TNBC
Dey N, Carlson Aske J, De P. Avera Cancer Institute, Sioux Falls, SD.

PD3-03 EZH2 T367 phosphorylation activates p38 signaling through lysine methylation to promote breast cancer progression
Gonzalez ME, Tekula SR, Anwar T, Leflein SA, Kleer CG. University of Michigan, Ann Arbor, MI.

PD3-04 Withdrawn

PD3-05 The paradoxical role of RalA and RalB in triple negative breast cancer
Spehar JM, Thies KA, Cole MW, Schafer RE, Richardson DS, Steck SA, Das M, Lian AW, Ray A, Knoblaugh SE, Trimmers CD, Sizemore GM, Sizemore ST. The Ohio State University, Columbus, OH.

PD3-06 The SRC family kinase, YES1, controls chromosomal stability and promotes growth of triple negative breast cancer
Piemonte K, Donaubauer E, Keri R. 1Cleveland Clinic, Cleveland, OH; 2Case Western Reserve University, Cleveland, OH.
PD3-07 Combined inhibition of CDK4/6 and AKT is effective in Rb-intact triple-negative breast cancer of the luminal androgen receptor (LAR) subtype
Kim GM, Lee K-m, Sudhan D, Li A, Mari A, Chatterjee S, Ye D, Kandagatla V, Mendiratta S, Hanker A, Arteaga C. UT Southwestern, Dallas, TX.

PD3-08 Novel cancer stem cell inhibitor 108600 modulates tumor immunomicroenvironment of triple negative breast cancer (TNBC)

PD3-09 Cd73 may influence zoledronate-induced b- and t-cell accumulation into triple-negative breast tumors
Nataliia PetrukI, Arafat SiddiquiI, Jorma MäättäI, Jouko SandholmI and Katri SelanderI. 1University of Turku, Institute of Biomedicine, Turku, Finland; Turku Bioscience Centre, University of Turku and Åbo Akademi University, Turku, Finland; 2Oulu University Hospital, Oulu, Finland.

PD3-10 Dual epigenetic/autophagy inhibition as a novel strategy to tackle triple negative breast cancer
Marilena Tauro, Tao Li and Conor C Lynch. H Lee Moffitt Cancer Center, Tampa, FL.

**WEDNESDAY, DECEMBER 8, 2021: 5:00 PM - 6:30 PM CT**

**Brain Metastases: Managing LMD / Targeting HER2**

PD4-01 Response according to revised RANO criteria is associated with overall survival in breast cancer patients with leptomeningeal metastasis
Griguolo G, Aldegheri V, Bottosso M, Caumo F, Pouderoux S, Miglietta F, Jacot W, Dieci MV, Darlix A. Guarneri V. University of Padova, Padova, Italy; Istituto Oncologico Veneto IRCCS, Padova, Italy; Institut régional du Cancer de Montpellier, Montpellier, France.

PD4-02 Safety and efficacy of a tucatinib-trastuzumab-capecitabine regimen for treatment of leptomeningeal metastasis (LM) in HER2-positive breast cancer: Results from TBCRC049, a phase 2 non-randomized study
Murthy RK, O’Brien B, Berry DA, Singareeka-Raghavendra A, Gule Monroe M, Johnson J, White J, Childress J, Sanford J, Schwartz-Gomez J, Melisko M, Morikawa A, Ferguson S, de Groot JF, Krop I, Valero V, Rimawi M, Wolff A, Tripathy D, Lin NU, Stringer-Reasor E. University of Texas MD Anderson Cancer Center, Houston, TX; University of California San Francisco, San Francisco, CA; University of Michigan, Ann Arbor, MI; Dana-Farber Cancer Center, Boston, MA; Baylor College of Medicine, Houston, TX; Johns Hopkins University, Baltimore, MD; Dana-Farber Cancer Institute, Boston, MA; University of Alabama at Birmingham O’Neal Comprehensive Cancer Center, Birmingham, AL.

PD4-03 Characterization of HER2 amplification in the cerebrospinal fluid of patients with Leptomeningeal Disease in stage IV patients with breast cancer
**PD4-04** Updated results of tucatinib vs placebo added to trastuzumab and capecitabine for patients with previously treated HER2-positive metastatic breast cancer with brain metastases (HER2CLIMB)

Lin NU, Murthy RK, Abramson V, Anders C, Bachelot T, Bedard P, Borges V, Cameron D, Cameron D, Carey L, Chien AJ, Curigliano G, DiGiovanna M, Gelmon K, Hortobagyi G, Hurvitz S, Krop I, Loi S, Loibl S, Mueller V, Oliveira M, Paplomata E, Pegram M, Slamon D, Zelnak A, Ramos J, Feng W, Winer E. Dana-Farber Cancer Institute, Boston, MA; University of Texas MD Anderson Cancer Center, Houston, TX; Vanderbilt University Medical Center, Nashville, TN; Duke Cancer Institute, Durham, NC; Centre Léon Bérard, Lyon, France; University Health Network, Princess Margaret Cancer Centre, Toronto, ON, Canada; University of Colorado Cancer Center, Aurora, CO; Edinburgh Cancer Research Centre, Edinburgh, United Kingdom; UNC Lineberger Comprehensive Cancer Center, Chapel Hill, NC; University of California at San Francisco, San Francisco, CA; Istituto Europeo di Oncologia, IRCCS, University of Milano, Milan, Italy; Yale Cancer Center, New Haven, CT; British Columbia Cancer - Vancouver Centre, Vancouver, BC, Canada; UCLA Medical Center/Jonsson Comprehensive Cancer Center, Los Angeles, CA; Peter MacCallum Cancer Centre, Melbourne, Australia; German Breast Group, Neu-Isenburg, Guam; Universitaetsklinikum Hamburg-Eppendorf, Hamburg, Germany; Hospital Universitario Vall D’Hebron, Barcelona, Spain; Carbone Cancer Center / University of Wisconsin, Madison, WI; Stanford Comprehensive Cancer Institute, Palo Alto, CA; UCLA Medical Center/Jonsson Comprehensive Cancer Center, Los Angeles, CA; Northside Hospital, Sandy Springs, GA; Seagen, Bothell, WA.

**PD4-05** Preclinical and clinical efficacy of trastuzumab deruxtecan in breast cancer brain metastases (BCBM)


**PD4-06** Trastuzumab deruxtecan in patients with HER2[+] or HER2-low-expressing advanced breast cancer and central nervous system involvement: Preliminary results from the DEBBRAH phase 2 study

Vaz Batista M, Cortez P, Ruiz M, Cevallo JM, de la Haba J, Garrigós L, Racca F, Servitja S, Blanch S, Teruel I, Pérez-García JM, Gion M, Nave M, Liombart-Cussac A, Sampayo-Cordero M, Malfettone A, Cortes J, Braga S. Hospital da Luz, Lisboa, Portugal; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; IOB Institute of Oncology, Hospital Ruber Internacional, Quirón Group, Madrid, Spain; Hospital Universitario Virgen del Rocio, Sevilla, Spain; Hospital Clínico Universitario de Valencia, Biomedical Research Institute INCLIVA, Valencia, Spain; Hospital Universitario Reina Sofía, Córdoba, Spain; Hospital Universitari Dexeus, Barcelona; International Breast Cancer Center (IBCC), Quiron Group, Barcelona, Spain; IOB Institute of Oncology, Quirón Group, Madrid and, Barcelona, Spain; Hospital del Mar, Barcelona, Spain; Fundación Instituto Valenciano de Oncología, Valencia; MEDSIR, Barcelona, Spain; Institut Català d’Oncologia Badalona, Badalona, Spain; International Breast Cancer Center (IBCC), Quironsalud Group, Barcelona; Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; University Hospital Ramon y Cajal, Madrid, Spain; Hospital Professor Doutor Fernando Fonseca EPE, Lisbon, Portugal; Hospital Arnaud de Vilanova, FISABIO; Universidad Católica de Valencia, Valencia; Medica Scientia Innovation Research (MEDSIR).
Posters Session PD

Wednesday, December 8, 2021: 5:00 PM-6:30 PM CT

Barcelona, Spain; Medica Scientia Innovation Research (MEDSIR), Barcelona, Spain; International Breast Cancer Center (IBCC), Quironsalud Group; Medica Scientia Innovation Research (MEDSIR); Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; Hospital da Luz, Lisbon, Portugal.

**PD4-07** Targeting latent residual HER2+ breast cancer brain metastatic cells
Marquez-Palencia M, Malladi S. UT Southwestern Medical Center, Dallas, TX.

**PD4-08** Breast cancer clinical subtypes in brain metastases patients from a prospective registry of advanced breast cancer. GEICAM/2014-03 (RegistEM)
López-Tarruella S, Guerrero-Zotano Á, Rodríguez CA, Cruz J, Hernández M, Adrover E, Rodríguez-Lescure Á, Falo C, Martínez P, Miguel A, Andrés R, Antolín S, Chacón JJ, Alonso Romero JL, Villanueva Vázquez R, Ballesteros García Al, Galán Gramaje M, Malón Jiménez D, Varela Ferreiro S, Moreno Muñoz D, Campo R, Escudero MI, Bezares S, Rojo F, Alvarez I. Hospital Universitario Gregorio Marañón, Instituto de Investigación Sanitaria Gregorio Marañón (iISGM), Universidad Complutense. CIBERONC-ISCIII-GEICAM Spanish Breast Cancer Group, Madrid, Spain; Fundación Instituto Valenciano de Oncología (FIVO), GEICAM Spanish Breast Cancer Group, Valencia, Spain; Hospital Universitario de Salamanca-IBSAL. GEICAM Spanish Breast Cancer Group, Salamanca, Spain; Hospital Universitario de Canarias. GEICAM Spanish Breast Cancer Group, Santa Cruz de Tenerife, Spain; Complejo Hospitalario Universitario de Gran Canaria Doctor Negrín. GEICAM Spanish Breast Cancer Group, Las Palmas de Gran Canaria, Spain; Hospital General Universitario de Albacete. GEICAM Spanish Breast Cancer Group, Albacete, Spain; Hospital General Universitario de Elche. GEICAM Spanish Breast Cancer Group, Alicante, Spain; ICO Hospital e. GEICAM Spanish Breast Cancer Group, Barcelona, Spain; Hospital Universitario Basurto. GEICAM Spanish Breast Cancer Group, Bilbao, Spain; ALTHAIA Xarxa asistencial de Manresa. GEICAM Spanish Breast Cancer Group, Barcelona, Spain; Hospital Clínico Universitario Lozano Blesa. GEICAM Spanish Breast Cancer Group, Zaragoza, Spain; Complejo Hospitalario Universitario A Coruña (CHUAC). GEICAM Spanish Breast Cancer Group, A Coruña, Spain; Hospital Virgen de la Salud. GEICAM Spanish Breast Cancer Group, Toledo, Spain; Hospital Clínico Universitario Virgen de la Arrixaca-IMIB. GEICAM Spanish Breast Cancer Group, Murcia, Spain; Hospital de Sant Joan Despi Moisés Broggi.GEICAM Spanish Breast Cancer Group, Barcelona, Spain; Hospital Universitario de la Princesa. GEICAM Spanish Breast Cancer Group, Madrid, Spain; Hospital Son Llàtzer. GEICAM Spanish Breast Cancer Group, Palma de Mallorca, Spain; Hospital Universitario Fundación Alcorcón, Universidad Rey Juan Carlos. GEICAM Spanish Breast Cancer Group, Madrid, Spain; Hospital Universitario Lucus Augusti. GEICAM Spanish Breast Cancer Group, Lugo, Spain; GEICAM Spanish Breast Cancer Group, Madrid, Spain; Hospital Universitario Fundación Jiménez Díaz. Hospital Universitario Gregorio Marañón, Instituto de Investigación Sanitaria Gregorio Marañón (iISGM), Universidad Complutense. GEICAM Breast Cancer Group, Madrid, Spain; Unidad de Gestión del Cáncer de Guipúzcoa (Osakidetza-OSI Donostialdea_ Onkologikoa)-BioDonostia. GEICAM Spanish Breast Cancer Group, San Sebastián, Spain.

**PD4-09** Comprehensive assessment of the genomic landscape of breast cancer brain metastases reveals targetable alterations and genomic signatures relevant to immune-checkpoint and PARP inhibitors
Giannoudis A, Sokol E, Ramkissoon SH, Bhogal T, McGregor K, Clark A, Razis ED, Bartsch R, Huang RSP, Palmieri C. University of Liverpool, Institute of Systems, Molecular and Integrative Biology, Liverpool, United Kingdom; Foundation Medicine, Inc, Cambridge, MA;
Hygeia Hospital, 3rd Oncology Department, Athens, Greece; Medical University of Vienna, Department of Medicine I, Division of Oncology, Vienna, Austria; University of Liverpool, Institute of Systems, Molecular and Integrative Biology and The Clatterbridge Cancer Centre NHS Foundation Trust, Liverpool, United Kingdom

**Life after breast cancer: Cardiac health, fertility preservation, and returning to life**

**PD5-01** Cardiovascular disease risk of breast cancer therapies: The pathways heart study


**PD5-02** Cardioprotective strategy for non-metastatic breast cancer patients receiving an anthracycline-based chemotherapy: subgroup analysis focused on impact of postoperative breast radiation therapy of the preplanned interim analysis of the phase 3 SAFE trial (NCT2236806)

Meattini I, Barletta G, Becherini C, Visani L, Martella F, Airoldi M, Amoroso D, Coltellli L, Bellini C, Stocchi G, Lorenzetti V, Orsatti C, Angelini L, Livi L, Department of Experimental and Clinical Biomedical Sciences, University of Florence, Florence, Italy; CardioThoracic and Vascular Department, Careggi University Hospital, Florence, Italy; Oncology Department, Azienda USL Toscana Centro, Florence, Italy; Medical Oncology Unit 2, “Città della Salute e della Scienza” University Hospital, Turin, Italy; Medical Oncology Unit, Ospedale Versilia, Lido di Camaiore, Lucca, Italy; Medical Oncology Unit, Livorno Hospital, Azienda USL Toscana Nord Ovest, Livorno, Italy.

**PD5-03** Development of cardiometabolic risk factors following endocrine therapy: The pathways heart study


**PD5-04** Risk factors for long-term adjuvant chemotherapy toxicity using pre-treatment host factors and self-rated treatment bother (GPS) in a clinical trial population

Henry NL, Kim S, Hays RD, Diniz MA, Luu M, Tighiouart M, Cecchini RS, Yothers G, Rogatko A, Ganz PA, University of Michigan, Ann Arbor, MI; Cedars Sinai Medical Center, Los Angeles, CA; UCLA, Los Angeles, CA; University of Pittsburgh, Pittsburgh, PA.

**PD5-05** Withdrawn

**PD5-06** Safety of assisted reproductive technologies (ART) following treatment completion in young women with germline BRCA pathogenic variants having a pregnancy after breast cancer

Jablonski C, Senechal C, Livraghi L, Ponzone R, De Marchis L, Pogoda K, Sonnenblick A, Villarreal-Garza C, Córdoba O, Teixeira L, Clatot F, Punie K, Graffeo Galbiati R, Dieci MV, Pérez-Fidalgo A, Duhoux FP, Puglisi F, Ferreira AR, Blondeaux E, Peretz-Yablonski T, Caron O, Saule C, Ameye L, Balmaña J, Partridge AH, Azim HAJ, Demeestere I, Lambertini M, Hôpital Erasme, Fertility Clinic, and Université Libre de Bruxelles, Research Laboratory on Human Reproduction, Bruxelles, Belgium; Clinical Epidemiology Unit, IRCCS Ospedale Policlinico San Martino, Genova, Italy; Department of Surgical Sciences, General Surgery III-Breast Surgery, Fondazione IRCCS Policlinico San Matteo, and Department of Clinical Surgical Sciences, University of Pavia, Pavia, Italy; Sharet Institute of Oncology, Hadassah-Hebrew University Medical Center, Jerusalem, Israel; Department of Medical Oncology, Institut Curie, Paris, France; Department of Medicine, Institut Jules Bordet and Université Libre de Bruxelles, Bruxelles, Belgium; Hereditary Cancer Genetics Group, Vall d’Hebron Institute of Oncology (VHIO), Hospital Universitari Vall d’Hebron, Vall d’Hebron Barcelona Hospital Campus, Barcelona, Spain; Gynecologic Oncology Department, European Institute of Oncology IRCCS, Milan, Italy; Molecular Predictors and New Targets in Oncology, INSERM Unit 981, Gustave Roussy, Villejuif, France; Breast Oncology Unit Sharet Institute of Oncology, Hadassah-Hebrew University Medical Center & Faculty of Medicine, Hebrew University, Jerusalem, Israel; Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA; Department of Oncology and Haematology, Azienda Ospedaliero Universitaria di Modena, Modena, Italy; Department of Surgery, Centre Léon Bérard, Lyon, France, and INSERM U1290 RESHAPE, Université Claude Bernard Lyon 1, Lyon, France; Cancer Genetics Unit, Bergonie Institute, Bordeaux, France; Medical Oncology Unit, ASST Papa Giovanni XXIII, Bergamo, Italy; Gynecological Oncology, Candiolo Cancer Institute, FPO - IRCCS, Candiolo, Turin, Italy; Division of Medical Oncology, Department of Radiological, Oncological and Pathological Sciences, “La Sapienza” University of Rome, Rome, Italy; Department of Breast Cancer and Reconstructive Surgery, Maria Sklodowska-Curie National Research Institute of Oncology, Warsaw, Poland; Oncology Division, Tel Aviv Sourasky Medical Center and Sackler Faculty of Medicine, Tel Aviv, Israel; Department of Research and Breast Tumors, Instituto Nacional de Cancerologia and, Mexico City, Mexico; Obstetrics and Gynecology Department, Hospital Universitari Son Espases, Palma, Spain; Breast Disease Unit, Saint-Louis Hospital, APHP, Université de Paris, INSERM U976, Paris, France; Department of Medical Oncology, Centre Henri Becquerel, Rouen, France; Department of General Medical Oncology and Multidisciplinary Breast Centre, Leuven Cancer Institute, University Hospitals Leuven, Leuven, Belgium; Breast Unit of Southern Switzerland (CSSI), Oncology Institute of Southern Switzerland, Bellinzona, Switzerland; Department of Surgery, Oncology and Gastroenterology, University of Padua and Medical Oncology 2, Veneto Institute of Oncology IOV - IRCCS, Padua, Italy; Department of Medical Oncology, INCLIVA University Hospital of Valencia, CIBERONC, Valencia, Spain; Department of Medical Oncology, Breast Clinic, Cliniques Universitaires Saint-Luc, UCLouvain, Bruxelles, Belgium; Department of Medical Oncology, Centro di Riferimento Oncologico di Aviano (CRO) IRCCS, Aviano, Italy; Breast Unit, Champalimaud Clinical Center, Champalimaud Foundation, Lisbon, Portugal; Breast Unit, IRCCS Ospedale Policlinico San Martino, Genova, Italy; Department of Medical Oncology, Institut Gustave Roussy, Université Paris-Saclay, Villejuif, France; Department of Genetics, Institut Curie, Paris, France; Data Centre, Institut Jules Bordet and Université Libre de Bruxelles, Bruxelles, Belgium; Breast Cancer Center, Hospital Zambrano Hellion, Tecnologico de Monterrey, San Pedro Garza Garcia, Mexico; Department of Internal Medicine and Medical Specialties (DIMI), School of Medicine, University of Genova and Department of Medical Oncology, Clinica di Oncologia Medica, IRCCS Ospedale Policlinico San Martino, Genova, Italy.
**PD5-07** Safety of assisted reproductive technologies before and after anticancer treatments in young women with breast cancer: A systematic review and meta-analysis


**PD5-08** New and persistent sedative hypnotic use after adjuvant chemotherapy for breast cancer

Cogan JC, Raghunathan RR, Beauchemin MP, Accordion MK, Elkin EB, Melamed A, Wright JD, Hershman DL. Columbia University, New York, NY.

**PD5-09** Work status changes and associated factors in a nation-wide sample of 1324 Norwegian long-term breast cancer survivors


**PD5-10** Consequent job loss, return to work and multidimensional well-being after breast cancer treatment in working-age black and white women

Emerson MA, Reeve BB, Gilkey MB, Elmore SN, Bradley CJ, Troester MA. UNC Chapel Hill, Chapel Hill, NC; Duke University School of Medicine, Durham, NC; University of Colorado Comprehensive Cancer Center, Aurora, CO.

**PD5-11** Pilot study to assess prolonged nightly fasting in breast cancer survivors (LONGFAST)


**Genomic and Genetic analysis on metastases**

**PD6-01** Moved to GS1-10

**PD6-02** The metastatic breast cancer project - Expanding the clinical, genomic, and transcriptomic landscape of metastatic breast cancer through patient-partnered research


**PD6-03** Spatio-molecular dissection of the breast cancer metastatic microenvironment

MA; Stanford University, Stanford, CA; Massachusetts Institute of Technology, Cambridge, MA; Massachusetts Institute of Technology, Howard Hughes Medical Institute, Cambridge, MA; Harvard University, Howard Hughes Medical Institute, Cambridge, MA.

PD6-04 Mutational landscape and immune infiltration of breast cancer metastases to gynecologic and other organs

Louie AD, Chudasama R, Wu S, Capelletti M, Magee D, Korn WM, Kaklamani V, Tan AR, Chalasani P, El-Deiry WS, Dizon D, Graff SL. Brown University, Providence, RI; Caris Life Sciences, Phoenix, AZ; UT Health San Antonio, MD Anderson Cancer Center, San Antonio, TX; Levine Cancer Institute, University of North Carolina, Charlotte, NC; University of Arizona, Tucson, AZ.

PD6-05 Characterization of the immune landscape of primary vs metastatic breast cancer in a real-world data cohort

Chhibber A, Van Naarden Braun K, Han C, Chang H, Roberts M, Li B. Bristol Myers Squibb, Lawrence Township, NJ.

PD6-06 Comprehensive characterization of neurotransmitters and neuronal signaling gene alterations in invasive breast cancers

Kang I, Deshpande K, Persing S, Yin J, Xiu J, Korn WM, Zeng J, Roussos-Torres ET, Lu J, Spicer D, Sener SF, Tan AR, Sumrall A, Hoon DSB, Ma CX, Anders CK, McArthur HL, Basho R, Lenz H-J, Neman J. University of Southern California, Norris Comprehensive Cancer Center, Los Angeles, CA; University of Southern California, Los Angeles, CA; Caris Life Sciences, Phoenix, AZ; University of California, San Francisco, San Francisco, CA; Los Angeles County and USC (LAC+USC) Medical Center, Los Angeles, CA; Levine Cancer Institute, Charlotte, NC; John Wayne Cancer Institute, Los Angeles, CA; Washington University School of Medicine, St. Louis, MO; Duke University, Durham, NC; Cedars-Sinai Medical Center, Los Angeles, CA.

PD6-07 Whole genome sequencing-based circulating tumor DNA profiling of metastatic breast cancer patients for molecular characterization and therapy response prediction

Sohn J, Kim MH, Ahn JM, Ryu W-J, Kim S-G, Kim JH, Kim TY, Han HJ, Kim JY, Park HS, Park S, Park BW, Kim SI, Cho EH, Kim GM. Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Green Cross Genome, Yongin-si, Republic of Korea; Avison Biomedical Research Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea.

PD6-08 Exploring the interplay among ESR1/PIK3CA codon variants, oncogenic pathway alterations and clinical phenotype of metastatic breast cancer (MBC) through circulating tumor DNA (ctDNA) next-generation sequencing (NGS)

Gerratana L, Davis AA, Velimirovic M, Clifton K, Hensing WL, Shah AN, Dai CS, Reduzzi C, D’Amico P, Zhang Q, Wehbe F, Wander S, Gradishar WJ, Behdad A, Puglisi F, Ma CX, Bardia A, Cristofanilli M. Northwestern University, Chicago, IL; Washington University in St. Louis, St. Louis, MO; Massachusetts General Hospital, Boston, MA; CRO Aviano National Cancer Institute, Aviano, Italy; Massimo Cristofanilli, Chicago, IL.
Locoregional treatment: De-escalation in breast cancer

**PD7-01 Withdrawn**

**PD7-02** Intelligent vacuum-assisted breast biopsy to identify breast cancer patients with pathologic complete response after neoadjuvant systemic treatment for omission of breast and axillary surgery

Pfob A, Sidey-Gibbons C, Rauch G, Thomas B, Schaefgen B, Kuemme S, Reimer T, Hahn M, Thill M, Blohmer J-U, Hackmann J, Malter W, Bekes I, Wojcinski S, Joos S, Paepke S, Degenhardt T, Rom J, Rody A, Große R, van Mackelenbergh M, Reinisch M, Karsten M, Göltta M, Heil J. Heidelberg University Hospital, Heidelberg, Germany; The University of Texas MD Anderson Cancer Center, Houston, TX; Institute of Biometry and Clinical Epidemiology, Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Berlin, Germany; Kliniken Essen-Mitte, Essen, Germany; University Hospital Rostock, Rostock, Germany; University Hospital Tuebingen, Tuebingen, Germany; Agaplesion Markus Hospital Frankfurt, Frankfurt, Germany; University Hospital Berlin, Berlin, Germany; Mariahospital, Witten, Witten, Germany; University of Cologne, Cologne, Germany; University Hospital Ulm, Ulm, Germany; Jerusalem Hospital Hamburg, Hamburg, Germany; Klinikum Bielefeld Mitte GmbH, Bielefeld, Germany; Visiorad, Pinneberg, Germany; Hospital rechts der Isar, Munich, Germany; University Hospital Munich, Munich, Germany; Klinikum Frankfurt-Höchst, Frankfurt, Germany; University Hospital Schleswig-Holstein, Luebeck, Germany; University Hospital Halle, Halle, Germany.

**PD7-03 Withdrawn**

**PD7-04** Avoidance of radiotherapy for low risk early breast cancer using LUMINA Trial criteria and accounting for endocrine therapy adherence

Seol SW, Weller L, Pflederer T, Goodman C, Donnelly ED, Hayes JP, Strauss JB. Northwestern University Feinberg School of Medicine, Chicago, IL; Robert H Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL; University of Illinois at Chicago College of Medicine, Chicago, IL; The University of Texas MD Anderson Cancer Center, Houston, TX.

**PD7-05** A multicenter prospective study to predict pathologic complete response by vacuum-assisted breast biopsy based on MRI and US findings after neoadjuvant chemotherapy

Hayashi N, Teruya N, Kuwayama T, Kojima Y, Ohde S, Nakayama S, Tazo M, Takei H, Ueno T, Iwase T, Ohno S, Yamauchi H, Akiyama F, Tsunoda H, Tsugawa K, Nakamura S. St. Luke’s International Hospital, Tokyo, Japan; The Cancer Institute Hospital of JFCR, Tokyo, Japan; Showa University School of Medicine, Tokyo, Japan; St Marianna University School of Medicine Hospital, Tokyo, Japan; St. Luke’s International University, Tokyo, Japan; Nippon Medical School Hospital, Tokyo, Japan.

**PD7-06** Trends in surgical resection for stage IV breast cancer: Less surgery more systemic treatment

Douglas SR, Lizarraga I, Boughey JC, Weiss A, Hunt K, Dickson-Witmer D, Subhedar PD, Park KU, Zhao B, Blair S. UC San Diego, La Jolla, CA; University of Iowa Hospitals and Clinics,
Iowa City, IA; Mayo Clinic, Rochester, MN; Dana-Farber Cancer Institute, Boston, MA; MD Anderson Cancer Center, Houston, TX; Beebe Healthcare, Lewes, DE; Winship Cancer Institute, Emory University School of Medicine, Atlanta, GA; The Ohio State University James Comprehensive Cancer Center, Columbus, OH.

**PD7-07** Surgical management and contralateral breast cancer risk in women with a history of radiation therapy for Hodgkin lymphoma: Results from a population-based cohort

Eisenberg ER, Weiss A, Prakash I, Skamene S, Basik M, Boileau JF, Ajamada L, Pollak M, Wong SM. JGH Segal Cancer Centre, McGill University, Montreal, QC, Canada; Dana-Farber/Brigham and Women’s Cancer Center, Boston, MA; McGill University Health Centre, Montreal, QC, Canada.

**PD7-08** Less is not necessarily more: A propensity matched national analysis on effect and outcome of sentinel lymph node biopsy omission

Cao L, Miller ME, Rothermel LD, Montero AJ, Towe CW, Shenk R. University Hospitals Cleveland Medical Center, Cleveland, OH.

**PD7-09** Safety of conservative surgery with accelerated partial breast re-irradiation for isolated ipsilateral breast cancer recurrence regardless of immunohistochemical subtype. A multicentric prospective study

Espinosa-Bravo M, Reyes Lopez V, Morales Comas C, Rivero Déniz J, de La Torre Fernández de Vega J, Vives Roselló I, Sisó Raber C, Altabas Gonzalez M, Giraldo Marin A, Alonso I, Argudo N, Nicolau P, Algara M, Sanz X, Caparrós X, Oses G, Saez J, Vernet-Tomas M, Mollà M. Breast Surgical Unit, Breast Cancer Center, Gynecology Department. Hospital Universitari Vall d’Hebron, Vall d’Hebron Barcelona Hospital Campus. Universitat Autònoma de Barcelona., Barcelona, Spain; Breast Radiotherapy. Radiotherapy Department. Hospital Universitari Vall d’Hebron, Vall d’Hebron Barcelona Hospital Campus. Universitat Autònoma de Barcelona., Barcelona, Spain; Department of Gynecology Oncology. Hospital Clinic Barcelona, Barcelona, Spain; Breast Unit and General Surgery Department, Hospital del Mar, Barcelona, Spain; Radiation Oncology Department. Hospital del Mar, Barcelona, Spain; Department of Radiation Oncology. Hospital Clinic Barcelona, Barcelona, Spain; Breast Surgery, Gynaecology Department. Hospital del Mar, Barcelona, Spain.

**HER2 Positive Breast Cancer**

**PD8-01** Moved to GS2-01

**PD8-01** Phase 3 SOPHIA study of margetuximab (M) + chemotherapy (CTX) vs trastuzumab (T) + CTX in patients (pts) with HER2+ metastatic breast cancer (MBC) after prior anti-HER2 therapies: final overall survival (OS) analysis

PD8-02 Trastuzumab deruxtecan (T-DXd) for advanced breast cancer patients (ABC), regardless HER2 status: A phase II study with biomarkers analysis (DAISY)

Diéras V, Deluche E, Lusque A, Pistilli B, Bachelot T, Pierga J-Y, Viret F, Levy C, Salabert L, Le Du F, Dalenc F, Jouannaud C, Venat-Bouvet L, Jean-Jacquin P, Durando X, Petit T, Mahier - Aït Oukhatar C, Filleron T, Maria Mosele F, Lacroix-Triki M, Ducoulombier A, André F. Department of Medical Oncology, Centre Eugène Marquis, Rennes, France; Department of Medical Oncology, CHU Dupuytren, Limoges, France; Department of Biostatistics, Institut Claudius Regaud – IUCT Oncopole, Toulouse, France; Department of Medical Oncology, Gustave Roussy, Villejuif, France; Department of Medical Oncology, Centre Léon Bérard, Lyon, France; Department of Medical Oncology, Institut Curie Paris & Saint Cloud, Université de Paris, Paris, France; Department of Medical Oncology, Institut Paoli Calmettes, Marseille, France; Department of Medical Oncology, Centre François Baclesse, Caen, France; Department of Medical Oncology, Bergonie Institute, Bordeaux, France; Department of Medical Oncology, Institut Claudius Regaud, IUCT Oncopole, Toulouse, France; Department of Medical Oncology, Institut Jean Godinot, Reims, France; Department of Medical Oncology, Institut de Cancérologie Lucien Neuwirth, Saint Priest en Jarez, France; Department of Clinical Research, Délégation Recherche Clinique et Innovation, Centre Jean Perrin, Clermont Ferrand, France; Department of Medical Oncology, Institut de Cancérologie de Strasbourg - Europe, Strasbourg, France; R&D Uncancer, Paris, France; Gustave Roussy, Villejuif, France; Department of Medical Oncology, Centre Antoine Lacassagne, Nice, France
PD8-03 Palbociclib and trastuzumab for HER2-positive metastatic breast cancer (SOLT1-I303 PATRICIA): Final results from cohort A and B, prospective, open-label, multicenter phase II study

Ciruelos E, Pascual T, Oliveira M, Escrivá-de-Romaní S, Pernas S, Paré L, Adamo B, Martínez E, Cortés J, Perelló A, Galan M, Melé M, Tolosa P, González-Farré B, Galván P, Canes J, Nuciforo P, Gonzalez X, Villágrasa P, Prat A. Hospital Universitario 12 de Octubre / Centro Integral Oncológico Clara Campal HM (CIOCC) / SOLT1 Breast Cancer Research Group, Madrid / Madrid / Barcelona, Spain; SOLT1 Breast Cancer Research Group / Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS) / Hospital Clínic de Barcelona / Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Barcelona / Barcelona / Barcelona / Chapel Hill, Spain; SOLT1 Breast Cancer Research Group / Vall d’Hebron University Hospital / Vall d’Hebron Institute of Oncology (VHIO), Barcelona / Barcelona / Barcelona, Spain; Vall d’Hebron University Hospital, Barcelona, Spain; SOLT1 Breast Cancer Research Group / Institut Català d’Oncologia, (ICO)-Institut d’ Investigació Biomèdica de Bellvitge, Barcelona / Hospital de l’Hospitalet de Llobregat, Spain; SOLT1 Breast Cancer Research Group / Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona / Barcelona, Spain; Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS) / Hospital Clínic de Barcelona, Barcelona / Barcelona, Spain; Consorcio Hospitalario Provincial de Castellón, Castellón de la Plana, Spain; International Breast Cancer Center (IBCC), Quiron Group, Madrid / Barcelona, Spain; Hospital Universitari Son Espases, Palma de Mallorca, Spain; Hospital Son Llàtzer, Palma de Mallorca, Spain; Hospital Universitari Sant Joan de Reus, Reus, Spain; Hospital Universitario 12 de Octubre / SOLT1 Breast Cancer Research Group, Madrid / Barcelona, Spain; Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona / Barcelona, Spain; SOLT1 Breast Cancer Research Group, Barcelona / SOLT1 Breast Cancer Research Group, Barcelona, Spain; Vall d’ Hebron University Hospital / Vall d’Hebron Institute of Oncology (VHIO), Barcelona / Barcelona, Spain; SOLT1 Breast Cancer Research Group / Institut Oncològic Dr. Rosell / Hospital General de Catalunya, Barcelona / Barcelona / Sant Cugat del Vallès, Spain; SOLT1 Breast Cancer Research Group / Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS) / Hospital Clínic de Barcelona, Barcelona / Barcelona / Barcelona, Spain.

PD8-04 Safety and anti-tumor activity of ARX788 in HER2-positive metastatic breast cancer patients whose disease is resistant/refractory to HER2 targeted agents (trastuzumab, ADCs, TKIs, and bispecific antibodies): ACE-Breast-01 trial results

Zhang J, Ji D, Shen W, Xiao Q, Gu Y, O’Shaughnessy J, Xia G, Ji Y, Xiong G, Li M, Xu D, Cartmell R, Song C, Yan J, Hu X. Fudan University Shanghai Cancer Center, Shanghai Medical College, Department of Oncology, Department of Medical Oncology, Fudan University, Shanghai, China; Department of Oncology, Shanghai Medical College, Fudan University Shanghai Cancer Center, Department of Radiology, Shanghai, China; Baylor University Medical Center, Texas Oncology, Dallas, TX; Novocodex Biopharmaceuticals, Shaoxing, China; NovocodexBiopharmaceutical, Shaoxing, China; Ambrex, Princeton, NJ.

PD8-05 Overall survival (OS) results from the phase III PHENIX trial of HER2+ metastatic breast cancer treated with pyrotinib plus capecitabine

Jiang Z, Yan M, Bian L, Wang T, Hu X, Zhang Q, Ouyang Q, Feng J, Yin Y, Sun T, Tong Z, Wang X, Yao H, Jiang S, Zhu X, Zou J. The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; The Affiliated Cancer Hospital of Zhengzhou University & Henan Cancer Hospital, Zhengzhou, China; Fudan University Shanghai Cancer Center, Shanghai, China; Harbin Medical University Cancer Hospital, Harbin, China; Hunan Cancer Hospital, The
Acquired resistance to tucatinib is associated with EGFR amplification in HER2+ breast cancer (BC) models and can be overcome by a more complete blockade of HER receptor layer

Veeraraghavan J, Bose S, Mistry R, Selenica P, Nanda S, Qin L, Gazzo A, Zhu Y, Mancini MA, Stossi F, Weigelt B, Reis-Filho JS, Osborne CK, Rimawi MF, Schiff R, Lester and Sue Smith Breast Center, Dan L. Duncan Comprehensive Cancer Center, and Department of Medicine, Baylor College of Medicine, Houston, TX; Lester and Sue Smith Breast Center, Baylor College of Medicine, Houston, TX; Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX; Department of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY; Lester and Sue Smith Breast Center and Dan L. Duncan Comprehensive Cancer Center, Baylor College of Medicine, Houston, TX; Dan L. Duncan Comprehensive Cancer Center and Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX; Lester and Sue Smith Breast Center, Dan L. Duncan Comprehensive Cancer Center, and Departments of Medicine, and Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX.

Evaluation of Tucatinib + (Paclitaxel + Pertuzumab + Trastuzumab) followed by AC in high-risk HER2 positive (HER2+) stage II/III breast cancer: Results from the I-SPY 2 TRIAL

Potter DA, Roesch E, Yau C, Lu R, Wolf D, Samson S, Stafford D, Albain KS, Isaacs C, Trivedi M, Yee D, Boughey J, Thomas A, Chien AJ, Hylton N, Li W, DeMichele A, Perlmutter J, Symmans WF, Hershman DL, Melisko M, van ’t Veer LJ, Wilson A, Asare SM, Berry DA, Schwab R, Rugo HS, Esserman LJ, Masonic Cancer Center, University of Minnesota, Minneapolis, MN; Cleveland Clinic, Cleveland, OH; University of California, San Francisco, San Francisco, CA; Quantum Leap Clinic, Cleveland, OH; University of California, San Francisco, CA; Breast Oncology Program, Breast Science Advocacy Core (BSAC), University of California, San Francisco, San Francisco, CA; Loyola University Chicago Stritch School of Medicine, Maywood, IL; Georgetown University Lombardi Cancer Center, Washington, DC; Columbia University Medical Center, New York, NY; Mayo Clinic Breast Cancer Center, Rochester, MN; Wake Forest Comprehensive Cancer Center, Winston-Salem, NC; University of Pennsylvania, Philadelphia, PA; Gemini Group, Ann Arbor, MI; University of Texas, M.D. Anderson Cancer Center, Houston, TX; Berry Consultants, LLC, Austin, TX; University of California, San Diego, San Diego, CA.

Pyrotinib in combination with trastuzumab and docetaxel as neoadjuvant treatment for HER2-positive early or locally advanced breast cancer (PHEDRA): A randomized, double-blind, multicenter, phase 3 study

Henan Cancer Hospital, Zhengzhou, China; Zhejiang Cancer Hospital, Hangzhou, China; The First Affiliated Hospital of Nanjing Medical University, Nanjing, China; Guangdong Provincial People’s Hospital, Guangzhou, China; The Fourth Hospital of Hebei Medical University, Shijiazhuang, China; The Affiliated Hospital of Qingdao University, Qingdao, China; The First Affiliated Hospital Zhejiang University, Hangzhou, China; The Second Affiliated Hospital of Xi’an Jiaotong University, Xi’an, China; Sun Yat-sen Memorial Hospital, Sun Yat-sen University, Guangzhou, China; The Fifth Medical Center of Chinese PLA General Hospital, Beijing, China; Sun Yat-Sen University Cancer Center, Guangzhou, China; The Second Affiliated Hospital Zhejiang University, Hangzhou, China; Fujian Medical University Union Hospital, Fuzhou, China; Peking University People’s Hospital, Beijing, China; Shandong Cancer Hospital, Jinan, China; Huai’an First People’s Hospital, Huai’an, China; Jiangsu Hengrui Pharmaceuticals Co., Ltd., Shanghai, China

**PD8-09** Predicted financial impact of continued HER2-directed therapy in metastatic breast cancer: What is the financial toxicity in a public payer healthcare system?
Jackson EB, Corke L, Ohm H, Simmons C. BC Cancer, Vancouver, BC, Canada.

**Evaluating emerging and established biomarkers**

**PD9-01** Expanding downstaging criteria in AJCC pathologic prognostic staging using OncotypeDx Recurrence Score® assay in T1-2N0 hormone-receptor positive patients enrolled in the TAILORx trial
Kantor O, Burstein HJ, King T, Shak S, Russell C, Giuliano AE, Hortobagyi GN, Winer EP, Korde LA, Sparano JA, Mittendorf EA. Brigham and Women’s Hospital, Boston, MA; Dana Farber Cancer Institute, Boston, MA; Exact Sciences, Madison, WI; Cedars-Sinai Medical Center, Los Angeles, CA; The University of Texas MD Anderson Cancer Center, Houston, TX; National Cancer Institute, Bethesda, MD; Montefiore Medical Center, Bronx, NY.

**PD9-02** Peripheral immune subsets and circulating tumor DNA (ctDNA) in patients (pts) with residual triple negative breast cancer (TNBC) treated with adjuvant immunotherapy and/or chemotherapy (chemo): The OXEL study

**PD9-03** Pam50 intrinsic subtype and risk of recurrence score (ROR) for the prediction of endocrine (ET) sensitivity and pathologic response to chemotherapy in postmenopausal women with clinical stage II/III estrogen receptor positive (ER+) and HER2 negative (HER2-) breast cancer (BC) in the alternate trial (Alliance A011106)
Perou CM, Ellis MJ, Suman V. Washington University School of Medicine, St. Louis, MO; Baylor College of Medicine, Houston, TX; Alliance Statistics and Data Center/Mayo Clinic, Rochester, MN; University of North Carolina, Chapel Hill, NC; Cedars-Sinai Medical Center, Los Angeles, CA; University of Chicago, Chicago, IL; Saint Elizabeth Medical Center South, Edgewood, KY; MD Anderson Cancer Center, Houston, TX; Mount Sinai Hospital, New York, NY; University of Oklahoma Health Sciences Center, Oklahoma City, OK; Mayo Clinic, Rochester, MN; Presbyterian Kaseman Hospital, Albuquerque, NM; University of Texas Southwestern Medical Center, Dallas, TX; Doctor’s Hospital of Laredo, Laredo, TX; Dana-Farber Cancer Institute/Partners Cancer Care, Boston, MA.

**PD9-04** Tumor-released circulating orphan non-coding RNAs reflect treatment response and survival in breast cancer


**PD9-05** Prognostic and tamoxifen-predictive effect of PAM50 and ROR score in premenopausal women included in the randomised SBII:2 trial

Lundgren C, Bendahl P-O, Ekholm M, Fernö M, Forsare C, Krüger U, Nordenskjöld B, Stål O, Rydén L. Department of Clinical Sciences Lund, Division of Oncology, Lund University, Lund, Sweden; Sahlgrenska Cancer Center, Department of Laboratory Medicine, Institute of Biomedicine, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden; Department of Biomedical and Clinical Sciences, Linköping University, Linköping, Sweden; Department of Clinical Sciences Lund, Division of Surgery, Lund University, Lund, Sweden.

**PD9-06** Evaluation of the predicted sensitivity to endocrine therapy (SET2,3 index) and the 21-gene Breast Recurrence Score® assay in node-positive postmenopausal breast cancer: Results from an analysis in the SWOG S8814 trial

Speers CW, Symmans WF, Barlow WE, Trevarton A, The S, Du L, Rae JM, Shak S, Baehner FL, Sharma P, Pusztai L, Hortobagyi GN, Hayes DF, Albain KS, Godwin A, Thompson A. University of Michigan, Ann Arbor, MI; MD Anderson Cancer Center, Houston, TX; SWOG Statistics and Data Management Center, Seattle, WA; Exact Sciences, Madison, WI; University of Kansas Medical Center, Kansas City, KS; Yale University, New Haven, CT; Loyola University Chicago Stritch School of Medicine, Cardinal Bernardin Cancer Center, Chicago, IL; Baylor College of Medicine, Houston, TX.

**PD9-07** Mdm2 gene amplification in estrogen receptor-positive breast cancer cells is associated with enhanced solid tumor growth and pronounced metastatic potential in humanized tumor mice (HTM) and a poor outcome of patients with luminal breast cancer

Loibl S, Wege AK, Vladimirova V, Solbach C, Rom-Jurek E-M, Blohmer J-U, Jank P, Sinn B, Trumpf A, Marangoni E, Engels K, Weichert W, Pfarr N, Irlbeck C, Polzer B, Ortmann O, van Mackelenbergh M, Denkert C, Brockhoff G. German Breast Group, Neu-Ilsenburg, Germany; Department of Gynecology and Obstetrics, University Medical Center Regensburg, Regensburg, Germany; Klinik für Frauenheilkunde und Geburthilfe, Universitätsklinikum, Frankfurt, Germany; Department of Gynecology and Obstetrics, University Medical Center Regensburg, Germany; Gynäkologie mit Brustzentrum, Charité-Universitätsmedizin, Berlin, Germany; Institute of Pathology, UKGM University Hospital Marburg, Philipps-Universität Marburg, Marburg, Germany; Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt Universität zu Berlin, Department of Pathology,
Berlin, Germany; Division of Stem Cells and Cancer, German Cancer Research Center (DKFZ) and DKFZ-ZMBH Alliance, Institute for Stem Cell Technology and Experimental Medicine (HI-STEM gGmbH), German Cancer Consortium (DKTK), Heidelberg, Germany; Department of Translational Research, Institute Curie, PSL Research University, Paris, France; Center for Pathology, Cytology and Molecular Pathology, Neuss, Germany; Institute of Pathology, Technical University Munich, München, Germany; Division of Personalized Tumor Therapy, Fraunhofer Institute for Toxicology and Experimental Medicine, Regensburg, Germany; Division of Personalized Tumor Therapy, Fraunhofer Institute for Toxicology and Experimental Medicine, Regensburg, Germany; Department of Gynecology and Obstetrics, University Medical Center Regensburg, Regensburg, Germany; Caritas-Krankenhaus St. Josef, Regensburg, Germany; Universitätsklinikum Schleswig-Holstein, Klinik für Gynäkologie und Geburtshilfe, Schleswig-Holstein, Schleswig-Holstein, Germany.

**PD9-08** Prognostic value of EndoPredict test in patients screened for UNIRAD, a UCBG randomized, double blind, phase III international trial evaluating the addition of everolimus (EVE) to adjuvant hormone therapy (HT) in women with high risk HR+, HER2- early breast cancer (eBC)

Penault-Llorca F, Dalenc F, Chabaud S, Cottu P, Allouache D, Cameron D, Jacquin J-P, Grenier J, Venat Bouvet L, Jagannathen A, Campone M, Del Piano F, Debled M, Hardy-Bessard A-C, Giacchetti S, Barthelemy P, Kaluzinski L, Mailliez A, Mouret-Reynier M-A, Legouffe E, Cayre A, Martinez M, Delbaldo C, Mollon-Grange D, Macaskill EJ, Sephton M, Stefani L, Belgadi B, Winter M, Orfeuvre H, Lacroix-Triki M, Bonnefoi H, Bliss J, Cannon J-L, Lemonnier J, Andre F, Bachelor T, Centre Jean Perrin, Clermont-Ferrand, France; Institut Claudius Régaud, Toulouse, France; Centre Léon Bérard, Lyon, France; Institut Curie, Paris, France; Centre François Baclesse, Caen, France; Western General Hospital, Edinburg, United Kingdom; IC Lucien Neuwirth, Saint-Priest-en-Jarez, France; Institut Sainte Catherine, Avignon, France; CHU Dupuytren, Limoges, France; Royal Stoke Hospital, Stoke-on-Trent, United Kingdom; Institut de cancérologie de l’Ouest, Saint-Herblain & Angers, France; Hopitaux du Léman-site Georges Pianta, Thonon-les-bains, France; Institut Bergonié, Bordeaux, France; Centre CARIO - HPCA, Plézin, France; Hopital Saint Louis, Paris, France; Institut de Cancérologie Strasbourg Europe, Strasbourg, France; Centre Hospitalier Cotentin, Cherbourg en Cotentin, France; Centre Oscar Lambret, Lille, France; Centre Oncogard, Nîmes, France; Clinique Pasteur, Toulouse, France; Hopital Diaconesses, Paris, France; Hopital Laennec, Quimper, France; Ninewells Hospital, Dundee - Scotland, United Kingdom; Musgrove Park Hospital, Taunton, United Kingdom; Centre hospitalier Annecy, Pringy, France; Centre hospitalier Montélimar, Montélimar, France; Weston Park Hospital, Sheffield, United Kingdom; Centre Hospitalier Fleyriat, Bourg En Bresse, France; Gustave Roussy, Villejuif, France; The Institute of Cancer Research, London, United Kingdom; Grand Hopital de Charleroi, Charleroi, Belgium; UNICANCER, Paris, France.

**PD9-09** Breast cancer index and assessment of tumor proliferation by molecular grade index (MGI) within distinct HOXB13/IL17BR (H/I) subsets

Mahtani R, Yuan Y, Wisinski KB, Morris J, Salganik M, Zhang Y, Schnabel CA, Gadi VK, University of Miami Sylvester Comprehensive Cancer Center, Miami, FL; City of Hope, Duarte, CA; University of Wisconsin Carbone Cancer Center, Madison, WI; Biotheranostics, Inc., San Diego, CA; University of Illinois Cancer Center, Chicago, IL.

**PD9-10** BRE12-158: A post-neoadjuvant, randomized phase 2 trial of personalized therapy vs. treatment of physician’s choice for patients with residual triple negative breast cancer

PD9-11 Association of body mass index and inflammatory dietary pattern with breast cancer pathologic and genomic immunophenotype in the nurses’ health study


Novel immunotherapy approaches

PD10-01 The PEARL trial: Pre-operative pembrolizumab with radiation therapy in early stage triple negative breast cancer


PD10-02 A randomised phase II trial of single fraction or multi-fraction SABR (stereotactic ablative body radiotherapy) with atezolizumab in patients with advanced triple negative breast cancer (AZTEC trial)

David S, Savas P, Siva S, White M, Neeson MW, White S, Marx G, Cheuk R, Grogan M, Farrell M, Foudoulis J, Dempsey A, Neeson PJ, Bressel M, Loi S. Peter MacCallum Cancer Centre, Melbourne, Australia; Monash Medical Centre, Melbourne, Australia; Austin Health, Melbourne, Australia; Sydney Adventist Hospital Clinical Trials Unit & Integrated Cancer Centre, Wahroonga, Australia; Department of Radiation Oncology, Cancer Care Services, Royal Brisbane and Women’s Hospital, Brisbane, Australia; Trans Tasman Oncology Group, Newcastle, Australia.

PD10-03 BEGONIA: Phase 1b/2 study of durvalumab (D) combinations in locally advanced/metastatic triple-negative breast cancer (TNBC): Results from Arm 1 D + paclitaxel (P), Arm 2 D+P + capivasertib (C), and Arm 5 D+P + oleclumab (O)

Schmid P, Nowecki Z, Im S-A, Chung W-P, Lord S, Armstrong A, Ma CX, Huisden R, Stewart R, Kumar R, Schiavon G, Dey H, Nunes A, Jung KH, Park YH. Barts Cancer Institute, Queen Mary University of London, London, United Kingdom; Maria Sklodowska-Curie National Research Institute of Oncology, Warsaw, Poland; Department of Internal Medicine, Cancer Research Institute, College of Medicine, Seoul National University Hospital, Seoul National University, Seoul, Republic of Korea; Department of Oncology, National Cheng Kung University Hospital,
College of Medicine, National Cheng Kung University, Tainan, Taiwan; Department of Oncology, Medical Sciences Division, University of Oxford, Oxford, United Kingdom; Christie Hospital NHS Foundation Trust and Faculty of Biology, Medicine and Health, University of Manchester, Manchester, United Kingdom; Division of Oncology, Department of Medicine, Washington University School of Medicine, St Louis, MO; AstraZeneca, Cambridge, United Kingdom; AstraZeneca, Gaithersburg, MD; AstraZeneca, Waltham, MA; Asan Medical Center, University of Ulsan, College of Medicine, Seoul, Republic of Korea; Division of Hematology-Oncology, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea.

PD10-04 Phase Ib/II open-label, randomized trial of atezolizumab (atezo) with ipatasertib (ipat) and fulvestrant (fulv) vs control in MORPHEUS-HR+ breast cancer (M-HR+ BC) and atezo with ipat vs control in MORPHEUS triple negative breast cancer (M-TNBC)

Hurvitz SA, Boni V, Comen E, Im S-A, Jung KH, Kim S-B, Lee KS, Loi S, Rugo HS, Sonnenblick A, Telli ML, DuPree K, Fasso M, Lin Y-C, Schimmoller F, Zhang X, Zhu J, Schmid P. University of California Los Angeles, Jonsson Comprehensive Cancer Center, Los Angeles, CA; START Madrid CIOCC, Centro Integral Oncológico Clara Campal, HM Hospitales Sanchinarro, Madrid, Spain; Memorial Sloan Kettering Cancer Center, New York, NY; Seoul National University College of Medicine, Seoul, Republic of Korea; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; National Cancer Center, Goyang-si, Republic of Korea; Peter MacCallum Cancer Center, Melbourne, Australia; University of California San Francisco, San Francisco, CA; Tel Aviv Sourasky Medical Center and Sackler Faculty of Medicine, Tel Aviv, Israel; Stanford Cancer Institute, Stanford University, Palo Alto, CA; Genentech, Inc, South San Francisco, CA; Barts Health NHS Trust - St Bartholomew’s Hospital, London, United Kingdom.

PD10-05 Activity of atezolizumab (atezo) plus paclitaxel (pac) in metastatic triple-negative breast cancer (mTNBC) is influenced by molecular subtypes: Analysis of the IMpassion131 trial

André F, Deurloo R, Chang C-W, Cameron D, Gligorov J, Schneeweiss A, Barrios C, Xu B, Molinero L, Patel S, Liptrot A, Morales L, Miles D, O’Shaughnessy J, Gustave Roussy, Université Paris Sud, Villejuif, France; Oncology Biomarker Development, F. Hoffmann-La Roche Ltd, Basel, Switzerland; Oncology Biostatistics, Genentech, Inc., South San Francisco, CA; University of Edinburgh, Edinburgh, United Kingdom; Medical Oncology Department, Institut Universitaire de Cancérologie Assistance Publique – Hôpitaux de Paris-Sorbonne Université, Paris, France; Division of Gynecologic Oncology, National Center for Tumor Diseases, University of Heidelberg, Heidelberg, Germany; Latin American Cooperative Oncology Group, Porto Alegre RS, Brazil; National Cancer Center/Cancer Hospital, Chinese Academy of Medical Sciences, Beijing, China; Oncology Biomarker Development, Genentech, Inc., South San Francisco, CA; Product Development Oncology, Genentech, Inc., South San Francisco, CA; Product Development Oncology, Oncology, Roche Products Ltd, Welwyn Garden City, United Kingdom; Global Product Development Medical Affairs Oncology, F. Hoffmann-La Roche Ltd, Basel, Switzerland; Mount Vernon Cancer Centre, Northwood, United Kingdom; Baylor University Medical Center, Texas Oncology, US Oncology, Dallas, TX.

PD10-06 Predictive value of RT-qPCR 27-gene IO score and comparison with RNA-Seq IO score in the NeoTRIPaPDL1 trial

B, Colleoni M, Kelly C, Mariani G, Del Mastro L, Valagussa P, Viale G, Callari M, Gianni L, Bianchini G. IRCCS Ospedale San Raffaele, Milan, Italy; Breast Center, National Taiwan University Hospital, Taiwan, Taiwan; Medical University of Innsbruck, Innsbruck, Austria; Hospital Clinico Universitario de Valencia, Valencia, Spain; IRCCS Azienda ospedaliero Universitaria di Bologna, Bologna, Italy; Oncocyte Corporation, Nashville, TN; AGAPLESION Markus Krankenhaus, Frankfurt am Main, Germany; University Hospital Miguel Servet, Zaragoza, Spain; Azienda Sanitaria Universitaria Friuli Centrale, Udine, Italy; Hospital Universitario 12 de Octubre, Madrid, Spain; IIId Medical Department, Paracelsus Medical University Salzburg; Salzburg Cancer Research Institute-CCCIIT; and Cancer Cluster Salzburg, Salzburg, Austria; N. N. Petrov Research Institute of Oncology, St. Petersburg, Russian Federation; Semmelweis University, Budapest, Hungary; Istituto Europeo di Oncologia, Milan, Italy; Mater Misericordiae University Hospital, Dublin, Ireland; Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; University of Genova; IRCCS Ospedale Policlinico San Martino, Genova, Italy; Fondazione Michelangelo, Milan, Italy.

**PD10-07** Chemokine12 (CK12) tertiary lymphoid gene expression signature as a predictor of response in 3 immunotherapy arms of the neoadjuvant ISPY 2 TRIAL - pembrolizumab with and without SD101, and durvalumab combined with olaparib - and in 9 other arms of the trial including platinum-based and dual-anti-HER2 therapies


**PD10-08** Remodeling the inflammatory breast cancer tumor microenvironment to enhance immunotherapy: Novel therapeutic development

Wang X, Semba T, Manyam GC, Wang J, Shao S, Bertucci F, Finetti P, Krishnamurthy S, Thihanh Phi L, Pearson T, Burks JK, Cohen EN, Reuben JM, Yang F, Min H, Navin N, Iwase T, Shen Y, Zhang X, Tripathy D, Ueno NT. UT MD Anderson Cancer Center, Houston, TX; Institut Paoli-Calmettes, Marseille, France; Baylor College of Medicine, Houston, TX.

**PD10-09** Comparison of early modulation of biological pathways and immune microenvironment by anthracyclines- or taxane-based treatment


**PD10-10** Relieving immune suppressive pathways in breast cancer to improve outcomes

Poissonnier A, Howells-Ferreira A, Valen Egeland E, Huisman C, Horton W, Murugan D, Cotechini T, Welm A, Ordentlich P, Adey AC, Rugo HS, Coussens LM. Oregon Health & Science University, Portland, OR; University of Oslo, Oslo, Norway; Huntsman Cancer Institute, University of Utah, Salt Lake City, UT; Syndax Pharmaceuticals, Inc., Waltham, MA; Department of Medicine and Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco, CA; Knight Cancer Institute, Oregon Health & Science University, Portland OR.
**The future is now: Innovation in pathology and radiology**

**PD11-01** An artificial intelligence-based predictor of CDH1 biallelic mutations and invasive lobular carcinoma  

**PD11-02** Subtyping invasive carcinomas and high-risk lesions for machine learning based breast pathology  

**PD11-03** Deep learning applied on resection specimen tissue slides of ‘pure’ ductal carcinoma in situ predicts ipsilateral invasive breast cancer recurrence  

**PD11-04** A multi-feature AI-based solution for cancer diagnosis in breast biopsies: A prospective blinded multi-site clinical study  
Vincent-Salomon A, Bataillon G, Nudelman A, Sandbank J, Albrecht Schach A, Thibault L, Bien L, Mikulinsky R, Krasnitsky I, Heled R, Linhart C, Vecsler M, Lefenfeld D. Diagnostic and Theranostic Medicine Division, Department of Pathology, Institut Curie, PSL University, Paris, France; Institute of Pathology, Maccabi Healthcare Services, Rehovot, Israel; Department of Pathology, Shamir Medical Center, Beer Yaakov, Israel; Ibex Medical Analytics, Tel Aviv, Israel.

**PD11-05** Intelligent shear-wave elastography to reduce unnecessary biopsies in breast cancer diagnosis (INSPIRED 002): An international, multicenter analysis  
Pfob A, Sidey-Gibbons C, Barr RG, Duda V, Alwafai Z, Balleyguier C, Clevert D-A, Fastner S, Gomez C, Goncalo M, Gruber I, Hahn M, Hennigs A, Ho C, Kapetas P, Lu S-C, Nees J, Ohlinger R, Riedel F, Rutten M, Schaefgen B, Stieber A, Togawa R, Tozaki M, Wojcinski S, Xu C, Rauch G, Hei J Golatta M. University Breast Unit, Heidelberg University Hospital, Heidelberg, Germany; The University of Texas MD Anderson Cancer Center, Houston, TX; Department of Radiology, Northeast Ohio Medical University, Ravenna, OH; University Breast Unit, University of Marburg, Marburg, Germany; University Breast Unit, University of Greifswald, Greifswald, Germany; Department of Radiology, Institut Gustave Roussy, Villejuif Cedex, France; Department of Radiology, University Hospital Munich-Grosshadern, Munich, Germany; Department of Radiology, University of Coimbra, Coimbra, Portugal; University Breast Unit, University of Tuebingen, Tuebingen, Germany; Department of Public Health Sciences, University of Virginia School of Medicine, Charlottesville, VA; Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna, Austria; Department of Radiology, Radboud University Medical Center, Nijmegen, Netherlands; Department of Radiology, Sagara Hospital, Kagoshima, Japan; Breast Cancer
Center, Klinikum Bielefeld Mitte GmbH, Bielefeld, Germany; Institute of Biometry and Clinical Epidemiology, Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Berlin, Germany.

**PD11-06** Radiomics model based on magnetic resonance image compilation (MagIC) as early predictor of pathologic complete response to neoadjuvant systemic therapy in triple-negative breast cancer


**PD11-07** Integrated model for early prediction of neoadjuvant systemic therapy response in triple negative breast cancer


**PD11-08** Associations of baseline breast MRI metrics and immune infiltration with chemotherapy response in triple negative breast cancer


**Novel therapeutic approaches in HER2 negative breast cancer**

**PD13-01** Balixafortide (a CXCR4 antagonist)+eribulin versus eribulin alone in patients with HER2 negative, locally recurrent or metastatic breast cancer: An international, randomized, phase 3 trial (FORTRESS)

Kaufman P, Martin M, Mayer I, Vahdat L, Pernas S, Schmid P, McArthur H, Dent R, Rugo HS, Barrios C, Bobirca A, Ringeisen F, Schmitter D, Cortes J. University of Vermont Cancer Center, Burlington, VT; Hospital General Universitario Gregorio Marañón, Madrid, Spain; Vanderbilt University Medical Center, Nashville, TN; Memorial Sloan Kettering Cancer Center, New York, NY; Institut Català d’Oncologia, L’Hospitalet, Barcelona, Spain; Queen Mary University of London, London, United Kingdom; Cedars-Sinai, Los Angeles, CA; National Cancer Center Singapore, Singapore, Singapore; University of California San Francisco, San Francisco, CA; Centro de Pesquisa em Oncologia, Hospital São Lucas, PUCRS, Porto Alegre, Brazil; Polyphor Ltd, Allschwil, Switzerland; International Breast Cancer Center (IBCC), Institute of Oncology, Quironsalud Group, Madrid & Barcelona and Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain.
PD13-02 Phase Ib expansion study of gedatolisib in combination with palbociclib and endocrine therapy in women with ER+ metastatic breast cancer

Layman R, Wesolowski R, Han H, Specht JM, Stringer-Reasor EM, Dees EC, Kabos P, Mayer IA, Vaishampayan U, Lu J, Gogineni K, Bardia A, Schott AF, Abu-Khalaf M, Howkins D, Sullivan B, Gorbatchevsky I, Rugo H. The University of Texas MD Anderson Cancer Center, Houston, TX; James Cancer Hospital and the Ohio State University Comprehensive Cancer Center, Columbus, OH; Moffit Cancer Center, Tampa, FL; Fred Hutch University of Washington Cancer Consortium, Seattle, WA; University of Alabama, Birmingham, AL; UNC Lineberger Comprehensive Cancer Center, Chapel Hill, NC; University of Colorado Colorado Cancer Pavilion (ACP), Aurora, CO; Vanderbilt University Medical Center, Vanderbilt-Ingram Cancer Center, Nashville, TN; Karmanos Cancer Institute, Detroit, MI; USC Norris Comprehensive Cancer Center, Los Angeles, CA; Emory University Hospital, Atlanta, GA; Massachusetts General Hospital, Harvard Medical School, Boston, MA; University of Michigan, Ann Arbor, MI; Sidney Kimmel Cancer Center at Jefferson Health, Philadelphia, PA; Celcuity, Minneapolis, MN; University of California San Francisco Comprehensive Cancer Center, San Francisco, CA.

PD13-03 Ribociclib, everolimus, exemestane triplet therapy in HR+/HER2− advanced breast cancer after progression on a CDK4/6 inhibitor: Final efficacy, safety, and biomarker results from TRINITI-1

Hurvit SA, Clark AS, Hugo HS, Bardia A, Zelnak A, Yardley DA, Karuturi M, Sanft T, Blau S, Hart L, Ma C, Purkayastha D, Eppig C, DeMichele A. UCLA Jonsson Comprehensive Cancer Center, Los Angeles, CA; University of Pennsylvania Abramson Cancer Center, Philadelphia, PA; UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston, MA; Northside Hospital Cancer Institute, Atlanta, GA; Sarah Cannon Research Institute and Tennessie Oncology, Nashville, TN; The University of Texas MD Anderson Cancer Center, Houston, TX; Yale University School of Medicine, New Haven, CT; Northwest Medical Specialties, Puyallup, WA; Florida Cancer Specialists, Fort Myers, FL; Washington University School of Medicine, St. Louis, MO; Novartis Pharmaceuticals Corporation, East Hanover, NJ.

PD13-04 Activity of patritumab deruxtecan, a HER3-directed antibody drug conjugate, in early breast cancer according to ERBB3 expression: Interim analysis results of a window-of-opportunity study (SOLTI-1805 TOT-HER3)

Prat A, Cejalvo JM, Pare L, Martinez-Sáez O, Margeli Vila M, Falato C, Cruz J, Arumi de Dios M, Vidal MJ, Guerra JA, Luna Barrera AM, Tolosa P, Salvador-Bofill FJ, Pernas S, González-Farré B, Sanfeliu E, Ciruelos E, Serra V, Espinosa-Bravo M, Izarzugaza Y, Esker S, Fan P-D, Villacampa G, Ferrero-Cafiero JM, Pascual T, Oliveira M. SOLTI Innovative Cancer Research/Medical Oncology Department, Hospital Clinic/Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute/Medicine Department, University of Barcelona, Barcelona, Spain; Medical Oncology Department, Hospital Clínic Universitario de Valencia/Breast Cancer Biology Research Group, Biomedical Research Institute INCLIVA, Valencia, Spain; SOLTI Innovative Cancer Research, Barcelona, Spain; Medical Oncology Department, Hospital Clinic/Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute/ Medicine Department, University of Barcelona, Barcelona, Spain; SOLTI Innovative Cancer Research/Medical Oncology Department, ICO - Institut Català d' Oncologia Badalona (Hospital Universitari Germans Trias i Pujol), Barcelona, Spain; SOLTI Innovative Cancer Research/Medical Oncology Department, Hospital Clinic/Translational Genomics and
Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute, Barcelona, Spain; Medical Oncology Department, Hospital Universitari Vall d’Hebron, Vall d’Hebron Barcelona Hospital Campus, Barcelona, Spain; Medical Oncology Department, Hospital Universitari Vall d’Hebron Institute of Oncology (VHIO), Hospital Universitari Vall d’Hebron, Barcelona, Spain; Medical Oncology Department, Vall d’Hebron Institute of Oncology (VHIO), Vall d’Hebron Hospital Campus, Barcelona, Spain; Medical Oncology Department, Hospital Universitario de Fuenlabrada, Madrid, Spain; Medical Oncology Department, Centro Integral Oncológico Clara Campal, Madrid, Spain; SOLTI Innovative Cancer Research/Medical Oncology Department, Hospital 12 de Octubre, Madrid, Spain; Medical Oncology Department, Hospital Universitario Virgen del Rocio, Sevilla, Spain; SOLTI Innovative Cancer Research/Medical Oncology Department, Institut Català d’Oncologia (ICO), H. U. Bellvitge-Institut d’Investigació Biomèdica de Bellvitge, Barcelona, Spain; SOLTI Innovative Cancer Research/Translational Genomics and Targeted Therapies in Solid Tumors, August Pi i Sunyer Biomedical Research Institute/Pathology Department, Hospital Clinic, Barcelona, Spain; Medical Oncology Department, Vall d’Hebron Institute of Oncology (VHIO), Vall d’Hebron Barcelona Hospital Campus/Breast Cancer Program, Vall d’Hebron Institute of Oncology (VHIO), Vall d’Hebron Hospital, Barcelona, Spain; Breast Cancer Surgical Unit, Vall d’Hebron University Hospital, Barcelona, Spain; Medical Oncology Department, Fundación Jimenez Diaz, Madrid, Spain; Research and Development, Daiichi Sankyo, Inc., Basking Ridge, NJ; SOLTI Innovative Cancer Research/Oncology Data Science, Vall d’Hebron Institute of Oncology (VHIO), Barcelona, Spain; SOLTI Innovative Cancer Research/Medical Oncology Department, Vall d’Hebron Institute of Oncology (VHIO), Vall d’Hebron Barcelona Hospital Campus/Breast Cancer Program, Vall d’Hebron Institute of Oncology (VHIO), Vall d’Hebron Barcelona Hospital, Barcelona, Spain.

**PD13-05** Alpelisib + fulvestrant in patients with \( \text{PIK3CA} \)-mutated, hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-) advanced breast cancer (ABC) previously treated with chemotherapy or endocrine therapy: BYLieve Cohort C results

Rugo HS, Neven P, Saffie I, Park YH, De Laurentiis M, Lerebours F, Ciruelos EM, Turner N, Juric D, Gu E, Arce C, Akdere M, Chia S. UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, California, CA; University Hospitals, Leuven, Belgium; Centro de Investigación Clínica Bradford Hill and Fundación Arturo López Pérez, Santiago, Chile; Samsung Medical Center, Sungkyunkwan University, Seoul, Republic of Korea; Dept. of Breast and Thoracic Oncology, IRCCS Istituto Nazionale Tumori “Fondazione G. Pascale”, Napoli, Italy; Institut Curie, Saint-Cloud, France; Hospital Universitario 12 de Octubre, Madrid, Spain; The Royal Marsden and Institute of Cancer Research, London, United Kingdom; Massachusetts General Hospital Cancer Center, Boston, MA; Novartis Pharmaceuticals Corporation, East Hanover, NJ; Novartis Pharma AG, Basel, Switzerland; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC, Canada.

**PD13-06** Neoadjuvant giredestrant (GDC-9545) + palbociclib versus anastrozole + palbociclib in postmenopausal women with estrogen receptor-positive, HER2-negative, untreated early breast cancer: Primary analysis of the randomized, open-label, phase II coopERA breast cancer study

Hurvitz SA, Quiroga V, Park YH, Bardia A, López-Valverde V, Steinseifer J, Fernando TM, Spera G, Xue C, Fasching PA. University of California, Los Angeles/Jonsson Comprehensive Cancer Center, Los Angeles, CA; GEICAM Spanish Breast Cancer Group, San Sebastián de los Reyes, Madrid, Spain; Samsung Medical Center, Seoul, Republic of Korea; Massachusetts General Hospital, Harvard Medical School, Boston, MA; F. Hoffmann-La Roche Ltd, Basel,
PD13-07 Activity and biomarker analyses from a phase Ia/b study of giredestrant (GDC-9545; G) with or without palbociclib (palbo) in patients with estrogen receptor-positive, HER2-negative locally advanced/metastatic breast cancer (ER+/HER2- LA/mBC)

Turner NC, Loi S, Moore HM, Chang C-W, Eng-Wong J, Bardia A, Boni V, Sohn J, Jhaveri KL, Lim E. Royal Marsden Hospital, London, United Kingdom; Peter MacCallum Cancer Centre, Melbourne, Australia; Genentech, Inc., South San Francisco, CA; Massachusetts General Hospital Cancer Center, Boston, MA; START Madrid-CIOCC, Centro Integral Oncologico Clara Campal, HM Hospitales Sanchinarro, Madrid, Spain; Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; Memorial Sloan Kettering Cancer Center, New York, NY; Garvan Institute of Medical Research, St Vincent’s Clinical School, Faculty of Medicine, UNSW Sydney, Darlinghurst, Australia.

PD13-08 First-in-human safety and activity of ARV-471, a novel PROTAC® estrogen receptor degrader, in ER+/HER2- locally advanced or metastatic breast cancer

Hamilton E, Vahdat L, Han HS, Ranciato J, Gedrich R, Keung CF, Chirnomas D, Hurvitz S. Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN; Moffitt Cancer Center, Tampa, FL; Arvinas, Inc., New Haven, CT; UCLA, Santa Barbara, CA.

PD13-09 Primary analysis from NEOS trial: A randomized phase III study that assessed the long-term prognosis of estrogen receptor positive (ER+) primary breast cancer (PBC) pts who received neoadjuvant endocrine therapy (NET) with/without adjuvant chemotherapy (CT)

Iwata H, Toyama T, Taira N, Masuda N, Yamamoto Y, Fujisawa T, Ohtani S, Kashiwaba M, Sakai T, Hasegawa Y, Nakamura R, Akabane H, Shibahara Y, Sasanho, Yamaguchi T. Aichi Cancer Center Hospital, Nagoya, Japan; Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan; Okayama University Hospital, Okayama, Japan; National Hospital Organization Osaka National Hospital, Osaka, Japan; Kumamoto University, Kumamoto, Japan; Gunma Prefectural Cancer Center, Ota, Japan; Hiroshima City Hiroshima Citizens Hospital, Hiroshima, Japan; Adachi Breast Clinic, Kyoto, Japan; Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo, Japan; Hiroaki Municipal Hospital, Hirokaki, Japan; Chiba Cancer Center, Chiba, Japan; Hokkaido P.W.F.A.C. Asahikawa-Kosei General Hospital, Asahikawa, Japan; Tohoku University School of Medicine, Sendai, Japan.

PD13-10 Extended adjuvant endocrine therapy in a longitudinal cohort of young breast cancer survivors

Sella T, Zheng Y, Rosenberg SM, Ruddy KJ, Gelber SI, Tamimi RM, Peppercorn JM, Schapira L, Borges VF, Come SE, Carey LA, Winer EP, Partridge AH. Dana Farber Cancer Institute, Boston, MA; Weill Cornell Medicine, New York, NY; Mayo Clinic, Rochester, MN; Massachusetts General Hospital, Boston, MA; Stanford Cancer Institute, Palo Alto, CA; University of Colorado Comprehensive Cancer Center, Aurora, CO; Beth Israel Deaconess Medical Center, Boston, MA; University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, NC.
Clinical translational updates in invasive lobular carcinoma

**PD14-01** Comprehensive molecular characterization of patients with metastatic invasive lobular carcinoma (ILC): Using real-world data to describe this unique clinical entity

Davis AA, Behdad A, Okeke E, Webhe F, Gerratana L, Mauer E, Barrett A, Shah AN, D’Amico P, Flaum L, Gradishar WJ, Platianis LC, Cristofanilli M. Washington University in St. Louis, St. Louis, MO; Robert H. Lurie Comprehensive Cancer Center, Feinberg School of Medicine, Northwestern University, Chicago, IL; Tempus Labs Inc., Chicago, IL; Centro di Riferimento Oncologico, Aviano, Italy.

**PD14-02** Unravelling spatial tumor organization and heterogeneity in lobular breast cancer using spatial transcriptomics


**PD14-03** Genetic and epigenetic basis of invasive lobular carcinomas lacking CDH1-alterations


**PD14-04** Circulating tumor DNA characterization of invasive lobular carcinoma in patients with metastatic breast cancer

Davis AA, Gerratana L, Clifton K, Velimirovic M, Hensing WL, Shah AN, D’Amico P, Reduzzi C, Zhang Q, Dai CS, Denault EN, Bagnezi NA, Opyrchal M, Ademuyiwa FO, Bose R, Gradishar WJ, Behdad A, Ma CX, Bardia A, Cristofanilli M. Washington University in St. Louis, St. Louis, MO; Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL; Massachusetts General Hospital, Boston, MA.

**PD14-05** Portraying tumor evolution of lobular breast cancer through phylogenetic analysis


**PD14-06** Does chemotherapy benefit patients with HR+/HER2- invasive lobular breast cancer?

Yaghi M, Jabbal I, Bilani N, Zerdan MB, Elson L, Li H, Saravia D, Stone E, Nahleh Z. Cleveland Clinic Florida, Weston, FL; Cleveland Clinic Foundation, Cleveland, OH.
PD14-07 Bromodomain and Extra-Terminal motif (BET) inhibitors are a rational therapeutic choice for treatment of invasive lobular carcinoma

PD14-08 Effectiveness of aromatase inhibitors versus tamoxifen in lobular compared to ductal carcinoma: Individual patient data meta-analysis of 9328 women with central histopathology, and 7654 women with e-Cadherin status

PD14-09 APOBEC signature, clinical characteristics, and outcome in hormone receptor-positive (HR+) HER2-negative (HER2-) breast cancer (BC) patients (pts) in real-world data (RWD)
Chumsri S, Raskina K, Sammons S, Alder L, Danziger N, Schrock AB, Kim McGregor K, Sokol E. Jacoby Center for Breast Health, Mayo Clinic, Jacksonville, FL; Foundation Medicine, Boston, MA; Department of Medicine, Duke University School of Medicine, Durham, NC; Oncocyte Corporation, Grand Junction, CO.

Defining molecular markers of endocrine resistance in clinic
PD15-01 Impact of ESR1 mutations on endocrine therapy (ET) plus alpelisib benefit in patients with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-), PIK3CA-mutated, advanced breast cancer (ABC) who progressed on or after prior cyclin-dependent kinase inhibitor (CDK4/6i) therapy in the BYLieve trial
Turner N, Rugo HS, Ciruelos EM, Ruiz-Borrego M, Druillinsky P, Lerebours F, Prat A, Bachelot T, Chia S, Balbin A, Joshi M, Roux E, Arce CH, Akdere M, Juric D. The Royal Marsden NHS Foundation Trust, London, United Kingdom University of California San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Hospital Universitario 12 de Octubre, Madrid, Spain Hospital Virgen del Rocio de Sevilla, Seville, Spain Memorial Sloan Kettering Cancer Center, New York, NY; Institut Curie, Saint-Cloud, France Hospital Clinic of Barcelona, Barcelona, Spain Centre Léon Bérard, Lyon, France British Columbia Cancer Agency, University of British Columbia, Vancouver, BC, Canada Novartis Institutes for BioMedical Research, Boston, MA; Novartis Pharma AG, Basel, Switzerland Novartis Pharmaceuticals Corporation, East Hanover, NJ; Massachusetts General Hospital Cancer Center, Boston, MA.
**PD15-02** HER2-enriched subtype and novel molecular subgroups drive aromatase inhibitor resistance and an increased risk of relapse in early ER+/HER2+ breast cancer

Bergamino Sirvén MA, López-Knowles E, Morani G, Tovey H, Kilburn L, Holcombe C, Skene A, Smith I, Robertson J, Schuster G, Bliss JM, Dowsett M, Cheung MCU, POETIC investigators. The Institute of Cancer Research, London, United Kingdom Liverpool University Hospitals, Liverpool, United Kingdom Birmingham’s Women and Children, Birmingham, United Kingdom Royal Marsden Hospital, London, United Kingdom The University of Nottingham, Nottingham, United Kingdom.

**PD15-03** Overlapping molecular features (proliferation, immune signatures and TP53mutations) associated with palbociclib resistance in ER+/HER2+ primary breast cancer

Schuster EF, Xiao H, Cheang M, Lopez-Knowles E, Kilburn L, Korchina V, Salvi S, Jacobs SA, Finnigan M, Wheeler DA, Puhalla S, Muzny D, Doddapaneni H, Pogue-Geile K, Liu Y, Bliss J, Johnston S, Dowsett M, Rimawi M, On behalf of the PALLET Trialists. The Institute of Cancer Research, London, United Kingdom Baylor College of Medicine, Houston, TX; NSABP Foundation, Pittsburgh, PA; University of Pittsburgh Medical Center Cancer Center, Pittsburgh, PA; Pfizer Inc, La Jolla, CA; Royal Marsden Hospital, Sutton, United Kingdom.

**PD15-04** Breast Cancer Index and assessment of the Net Treatment Benefit (NTB) of extended endocrine therapy in HR+ breast cancer


**PD15-05** Assessment of estrogen receptor (ESR1) mRNA expression for prediction of extended aromatase inhibitor benefit in HR-positive breast cancer using NRG Oncology/NSABP B-42

Mamounas E, Bandos H, Rastogi P, Crager MR, Mies C, Lucas PC, Geyer, Jr CE, Fehrenbacher L, Graham ML, Chia SKL, Brufsky AM, Walshe JM, Soori GS, Dakhil SR, Paik S, Swain SM, Baehner FL, Shак S, Wolmark N. NSABP/NRG Oncology, and Orlando Health Cancer Institute, Orlando, FL; NSABP/NRG Oncology, and The University of Pittsburgh, Pittsburgh, FL; NSABP/NRG Oncology, and UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, and Magee-Womens Hospital, Pittsburgh, PA; Exact Sciences, Precision Oncology, Redwood City, CA; NSABP/NRG Oncology, and UPMC Hillman Cancer Center, University of Pittsburgh, Pittsburgh, PA; NSABP/NRG Oncology, and Houston Methodist Cancer Center, Houston, TX; NSABP/NRG Oncology, and Kaiser Permanente Oncology Clinical Trials Northern CA, Novato, CA; NSABP/NRG Oncology, and Waverly Hematology Oncology, Cary, NC; NSABP/NRG Oncology, and British Columbia Cancer Agency, Vancouver, BC, Canada NSABP/NRG Oncology, UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, and Magee-Womens Hospital, Pittsburgh, PA; NSABP/NRG Oncology, and Cancer Trials Ireland, St. Vincent’s University Hospital, Dublin, Ireland NSABP/NRG Oncology, and Florida Cancer Specialists, Fort Myers, FL; NSABP/NRG Oncology, and Cancer Center of Kansas, Wichita, LA; NSABP/NRG Oncology, and Yonsei University College of Medicine, Seoul, Korea, Republic of NSABP/NRG Oncology, and Georgetown Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, Washington, DC, DC; NSABP/NRG Oncology, and The University of Pittsburgh, Pittsburgh, PA.
PD15-06 Estrogen receptor expression thresholds by IHC and mRNA for Ki67 response to aromatase inhibition: A POETIC study
Lopez Knowles E, Detre S, Hills M, Schuster GF, Cheang MCU, Tovey H, Kilburn L, Bliss J, Robertson J, Smith I, Dowsett M, POETIC investigators. ICR, London, United Kingdom; RMH, London, United Kingdom; Queens Medical Centre, Nottingham, United Kingdom.

PD15-07 Effect of pertuzumab plus neoadjuvant trastuzumab-based chemotherapy in early-stage HER2-positive breast cancer according to BluePrint molecularly defined breast cancer subtypes

PD15-08 Window of opportunity trial of neoadjuvant olaparib and durvalumab for triple negative or low ER-positive breast cancer
INFORMATION

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SABCS will offer wireless service throughout the symposium. Connection setting information and support specialist will be available onsite. Sponsored by Lilly.

Keep track of your badge.
Your conference badge allows you admission to all sessions, including meals and social events. Be sure to take it off when venturing outside the conference hotel. Wearing your conference badge identifies you as a tourist and makes you a target for scammers and thieves. Past and current events have heightened security awareness around the world. Although no one can predict world events, incidents or situations, we are working to help ensure a safe and a successful Symposium. To this end, to ensure easy access throughout the conference. We require attendees to wear the Symposium Name Badge to ALL Symposium activities (sessions, exhibits, etc.) at the convention center.

Onsite Dining
If you are looking for a quick snack or a nice dining experience you do not have to go far. We welcome you to sit and relax in between events or sessions at one of the onsite dining locations throughout the Henry B. Gonzalez Convention Center. Each location has items deliciously prepared by the highly acclaimed The RK Culinary Group.

- **SABCS Bistro** Stop here to get coffee, snacks and meals. Conveniently located in Hall 2 next to the exhibit hall.

- **Market Café** The Market Cafe is conveniently located in the Main Lobby. Stop here to get coffee, snacks and meals on your way into the Convention Center. You can also easily access the Market Cafe from any of the Exhibit Hall entrances.

- **El Puente Café** The El Puente Cafe is located in the West Lobby bridge overlooking the River Walk. It also offers coffee, snacks and meals. Enjoy your snack as you look out onto the River Walk through our floor to ceiling windows.

Accreditation
The Joe R. Teresa Lozano Long San Antonio School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Long School of Medicine designates this live activity up to a maximum of 87.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

American Academy of Physician Assistants (AAPA), American Academy of Nurse Practitioners (AANP) and the American Nurses Credentialing Center (ANCC) accepts certificates of attendance for educational activities certified for AMA PRA Category 1 Credit™ from organizations accredited by the ACCME. Healthcare professionals receiving a certificate of attendance should consult their licensing board for information on applicability and acceptance.
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Physicians seeking CME credit for this live continuing medical education activity must complete the online surveys. Survey opens on December 7, 2021 and closes on January 31, 2022. Certificates may be printed online after completing the surveys.

Certificates of Attendance are available for attendees who need a record of their attendance at the Symposium but do not require or qualify for CME through the online survey. The online survey opens on December 7, 2021 and closes on January 31, 2022. Certificates may be printed online after completing the survey.

Patient Advocate Lounge
SABCS will have room 225C reserved exclusively for Patient Advocates. Refreshments will be provided. SABCS will have a Zoom room reserved exclusively for Patient Advocates. The Patient Advocate Lounge sponsored by Lilly Oncology serves as a designated space where advocates can gather in a relaxed environment to take a break, catch up on work and network with others.

Exhibits
Make sure you schedule time to visit the Exhibit Hall. SABCS has over 40 exhibitors that will be on display Tuesday, December 7 - Friday, December 10.

Charging Stations
SABCS has five conveniently located charging stations to recharge your mobile device, and laptop. Charging Stations are located in the Lobby, Hall 2 and on the Ballroom Level. Charging stations are sponsored by Daiichi Sankyo, Exact Sciences, Merck, Pfizer, and Seagen Inc.

After the Symposium Complete the session evaluations and the post conference survey.
Please take a few minutes to let the planning committee know about your experience. The SABCS 2022 committee will carefully review survey responses as it plans for next year.

2021 AWARD RECIPIENTS

William L. McGuire Memorial Lecture
Wednesday, December 8, 2021, 11:30 AM
The McGuire Award was established in 1992 to honor William L. McGuire, MD, who co-founded the San Antonio Breast Cancer Symposium in 1977 along with Charles A. Coltman, MD.

Heterogeneity of Breast Cancer Genomes: Going Beyond Therapy to Risk Assessment and Prevention
Recipient: Olufunmilayo (Funmi) Olopade, MD, FASCO, FACP, OON, FAACR
University of Chicago Medicine
Chicago, IL

Dr. Olopade is the Walter L. Palmer Distinguished Service Professor of Medicine and Human Genetics and is the director of the Center for Clinical Cancer Genetics and Global Health at the University of Chicago Medicine. She is a pioneer in the fields of cancer genetics and personalized medicine. Olopade studies familial forms of cancers and molecular mechanisms of tumor progression in high-risk individuals and diverse populations, including mechanisms contributed by genetic and non-genetic factors. Olopade has championed throughout her career eliminating cancer disparities everywhere. In 1992, she founded the Comprehensive Cancer Risk and Prevention Clinic in Chicago, which serves as a critical resource for individuals at high risk for developing breast cancer. As a clinician who regularly treated patients with familial breast cancer, Olopade proposed that both genetics and environmental or lifestyle factors, can vary by race or ethnicity and affect breast cancer incidence. In 2009, she published the groundbreaking finding that most tumors in indigenous African women with breast cancer are triple-negative tumors, and that this population carried distinct genetic markers associated with accelerated tumor progression. Triple-negative
breast cancer is also more common in African American women compared to white women in the United States. Her subsequent research has illuminated the high prevalence of BRCA1 and BRCA2 mutations in African patients with breast cancer and identified unique mutations across the African Diaspora. These findings have deepened the understanding of the genomic landscape and evolutionary trajectory of breast cancer and outcomes among diverse populations and helped to inform more effective approaches to personalize screening, prevention and treatment.

Susan G. Komen® Brinker Award For Scientific Distinction In Basic Science

Tuesday, December 7, 2021, 4:00 PM

Recipient: Carlos Caldas, MD
FMedSci University of Cambridge
Cambridge, United Kingdom

Dr. Caldas is being honored for his significant contributions in the field of breast cancer genomics. His work has advanced our understanding of the DNA and RNA compositions of human breast cancers, the genomic heterogeneity of breast cancers, and the relationships of a tumor’s make up to individual outcomes and responses to breast cancer treatment. This work helped define molecular subtypes (or groups) of breast cancer and identify the genomic changes that drive tumor growth.

Susan G. Komen® Brinker Award For Scientific Distinction In Clinical Research

Tuesday, December 7, 2021, 4:30 PM

Recipient: Judy Garber, MD, MPH
Dana Farber Cancer Institute
Boston, MA

Dr. Garber is being recognized for her trailblazing work and significant contributions in clinical cancer genetics that have shaped the care of people with breast cancer, their families and those at risk of breast cancer. Her research is advancing our understanding of the role of BRCA1/2 gene mutations in breast cancer and the treatment and prevention of triple-negative breast cancer and other BRCA-associated cancers.

AACR Distinguished Lectureship In Breast Cancer Research supported by Aflac Inc

Thursday, December 9, 2021, 12:30 PM

Translation of fundamental cell cycle principles to targeted cancer therapies

Recipient: Helen Piwnica-Worms, PhD
MD Anderson Cancer Center
Houston, TX

AACR Outstanding Investigator Award For Breast Cancer Research, supported by the Breast Cancer Research Foundation

Friday, December 10, 2021, 12:30 PM

Moving toward precision medicine for patients with breast cancer

Recipient: Fabrice André, MD, PhD
Gustave Roussy
Villejuif, France
SABCS Basic Science Scholar Award Recipients
For laboratory-based investigators-in-training whose work focuses on the biology of breast cancer and preclinical models of its development and progression.

**Inhibition of GPX4 induces preferential death of p53-mutant triple-negative breast cancer cells**
**GS1-09 Tuesday, December 7 10:15 AM**
William Tahaney, BS, Baylor College of Medicine, Houston, TX

**A ubiquitination cascade regulating the integrated stress response and survival in carcinomas**
**P3-09-01 Thursday, December 9 7:00 AM**
Lisa Cervia, PhD, Dana-Farber Cancer Institute, Boston, MA

**Obesity is associated with DNA damage in the breast epithelium of BRCA1 and BRCA2 mutation carriers: A role for estrogens & strategies for prevention**
**P2-06-03 Wednesday, December 8 5:00 PM**
Priyanka S. Rana, PhD, The MetroHealth System, Case Western Reserve University, Cleveland

**Targeted deletion of Kindlin-2 in mouse mammary glands inhibits tumor growth, invasion and metastasis downstream of TGF-β/EGF oncogenic signaling pathway**
**P1-06-02 Wednesday, December 8 7:00 AM**
Svetlana E. Semina, PhD, University of Illinois at Chicago (UIC), Dept. of Physiology and Biophysics, College of Medicine, Chicago

SABCS Clinical Scholar Award Recipients
For clinical scientists-in-training who are actively pursuing clinical or clinical/translational research in breast cancer.

**Analysis of clinical outcomes and expression-based immune signatures by race in the I-SPY 2 trial**
**GS4-02 Friday, December 10 9:00 AM**
Beverly Kyalwazi, BS, University of Chicago Pritzker School of Medicine, Chicago, IL

**Spatio-molecular dissection of the breast cancer metastatic microenvironment**
**PD6-03 Wednesday, December 8 5:00 PM**
Anton Safonov, MD, Memorial Sloan Kettering Cancer Center, New York, NY

**Comprehensive genomic profiling of patients with breast cancer identifies germline-somatic interactions mediating therapy resistance**
**GS4-08 Friday, December 10 10:30 AM**
Anton Safonov, MD, Memorial Sloan Kettering Cancer Center, New York, NY
Towards a new standard for staging: A comparative study of [18F]FES PET/CT vs [18F]FDG PET/CT in patients with clinical stage II/III and locoregional recurrent estrogen receptor positive breast cancer  
P3-02-11 Thursday December 9 7:00 AM  
Ramsha Iqbal, MD, Amsterdam UMC, Amsterdam, Netherlands

Trends in surgical resection for stage IV breast cancer: Less surgery more systemic treatment  
PD7-06 Thursday, December 9 7:00 AM  
Sasha Douglas, MD, UC San Diego, La Jolla, CA

Coltman Scholar Award Recipients
In memory of Dr. Charles A. Coltman, co-founder of SABCS, to commemorate the significant contributions he made to oncology medicine. For clinical scientists-in-training.

Regular aspirin use, breast tumor characteristics and long-term breast cancer survival  
P3-12-01 Thursday, December 9 7:00 AM  
Cheng Peng, ScD, Brigham and Women’s Hospital, Boston, MA

Genetic alterations detected by circulating tumor DNA (ctDNA) in HER2-low metastatic breast cancer (MBC)  
P2-01-01 Wednesday, December 8 5:00 PM  
Whitney Hensing, MD, Washington University in St. Louis, St. Louis, MO

HER2-enriched subtype and novel molecular subgroups drive aromatase inhibitor resistance and an increased risk of relapse in early ER+/HER2+ breast cancer  
PD15-02 Friday, December 10 7:00 AM  
Milana Bergamino Sirvén, The Institute of Cancer Research, London, United Kingdom

Intelligent vacuum-assisted breast biopsy to identify breast cancer patients with pathologic complete response after neoadjuvant systemic treatment for omission of breast and axillary surgery  
PD7-02 Thursday, December 9 7:00 AM  
André Pfob, MD, Heidelberg University Hospital, Heidelberg, Germany

The association between genomic alterations and body mass index in patients with early breast cancer  
P3-09-18 Thursday, December 9 7:00 AM  
Ha-Linh Nguyen, MD, Laboratory for Translational Breast Cancer Research, Department of Oncology, KU Leuven, Leuven, Belgium

AACR Associate Member Award Recipients
For presenters of meritorious abstracts who are Associate Members of the American Association for Cancer Research (AACR).

Racial/ethnic differences in the benefit of adjuvant chemotherapy for breast cancer patients with an intermediate risk 21-gene recurrence score  
P3-14-02 Thursday, December 9 7:00 AM  
Hsiao-Ching Huang, MPH, University of Illinois College of Pharmacy, Chicago, IL
Combined inhibition of CDK4/6 and AKT is effective in Rb-intact triple-negative breast cancer of the luminal androgen receptor (LAR) subtype  
**PD3-07 Wednesday, December 8 7:00 AM**
Gun Min Kim, MD, UT Southwestern, Dallas, TX

A genome-wide association study of mammographic texture variation  
**P3-13-02 Thursday, December 9 7:00 AM**
Yuxi Liu, MS, Harvard T.H. Chan School of Public Health, Boston, MA

A gene expression meta-analysis identifies microenvironment differences in cellular composition and cell-cell interactions associated with breast cancer invasion  
**P5-06-02 Friday, December 10 7:00 AM**
Adam Dunn Officer, BS, University of California, San Diego, CA

TBK1 inhibition potentiates the efficacy of AXL-targeted therapy in aggressive breast cancer preclinical models  
**P5-08-10 Friday, December 10 7:00 AM**
Lan Phi, BS, MD Anderson Cancer Center, Houston, TX

Estrogen receptor is a target of enzalutamide in ER+ breast cancer  
**PD1-03 Wednesday, December 8 7:00 AM**
Lixuan Wei, MD, PhD, Mayo Clinic, Rochester, MN

The tumor immune microenvironment and HER2 landscape of high-risk ductal carcinoma in situ: The DEFENSE study  
**P1-05-01 Wednesday, December 8 7:00 AM**
Alexa Glencer, MD, University of California San Francisco, San Francisco, CA

Racial/ethnic disparities in cancer mortality after a second breast cancer  
**P3-14-05 Thursday, December 9 7:00 AM**
Zhengyi Deng, MD, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

A spectrum of secondary mutations in HER2 augment breast cancer cell growth and reduce neratinib sensitivity in HER2-mutant breast cancer  
**P4-01-02 Thursday, December 9 5:00 PM**
Arnaldo Marin, MD, UT Southwestern Simmons Comprehensive Cancer Center, Dallas, TX

FGFR inhibitor mediated dismissal of SWI/SNF complexes from YAP-dependent enhancers induces therapeutic resistance in triple negative breast cancer  
**P4-01-04 Thursday, December 9 5:00 PM**
Yihao Li, Dana-Farber Cancer Institute, Boston, MA

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Mayo Clinic, Rochester, MN

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Peter MacCallum Cancer Centre Melbourne, Australia

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Ohio State University College of Medicine, Columbus, OH

Frederique Penault-Llorca  
Centre Jean Perrin, Clermont-Ferrand, France

Charles M. Perou  
University of North Carolina, Chapel Hill, NC

I lajos Pusztai  
Yale University, New Haven, CT

Sughra Raza  
University of Massachusetts Medical School, Worcester, MA
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Product Theatre

Product Theatres will promote product or service of select SABCS exhibitors.

**Product Theatre Schedule**

**Tuesday, December 7, 10:00 am CT**
Cerianna: Seeing Deeper into Recurrent or Metastatic Breast Cancer
presented by GE Healthcare

**Tuesday, December 7, 12:00 pm CT**
Explore data for an FDA-approved treatment option in HR+, HER2- breast cancer in certain adjuvant or metastatic settings.
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presented by Lilly

**Tuesday, December 7, 2:00 pm CT**
Signatera for MRD detection in High-Risk Breast Cancer
presented by Natera

**Tuesday, December 7, 4:00 pm CT**
Evolving the Paradigm of Care to Improve Outcomes for Women with ER+ Breast Cancer
presented by Agendia

**Wednesday, December 8, 10:00 am CT**
Considerations for Second-Line in HER2+ Metastatic Breast Cancer
presented by Daichi Sankyo

**Wednesday, December 8, 12:00 pm CT**
TUKYSA® (tucatinib): Clinical Trial Data
presented by Seagen

**Wednesday, December 8, 2:00 pm CT**
Learn more about an FDA-approved treatment for mTNBC
presented by Gilead Sciences

**Wednesday, December 8, 4:00 pm CT**
Advancements in the Prevention of Chemotherapy-Induced Neutropenia: Understanding the Gap and its Managements
presented by BeyondSpring

**Thursday, December 9, 10:00 am CT**
Providing the Diagnostics You Need in Breast Cancer Care with One Lab
presented by Neogenomics

**Thursday, December 9, 12:00 pm CT**
The Evolving Role of the Oncotype DX® Test in Breast Cancer: TAILORx, RxPONDER, and Beyond
presented by Exact Sciences

**Thursday, December 9, 2:00 pm CT**
Clinical/Pathologic Features Are Unrelated to Benefit from Extended Endocrine: Breast Cancer Index is the modern tool for Selecting the right Patients
presented by Biotheranostics, A Hologic Company

**Thursday, December 9, 4:00 pm CT**
Resistance to Therapeutic Regimens in mBC: Translating Sciences to Clinical Decision-making
presented by Sanofi Genzyme

**Friday, December 10, 10:00 am CT**
A Treatment Option for Patients With High-Risk Early-Stage Triple-Negative Breast Cancer (TNBC)
presented by Merck

**Friday, December 10, 12:00 pm CT**
Expert Perspectives on the Treatment of a Broad Range of Patients With HR+/HER2- Metastatic Breast Cancer
presented by Pfizer

**Friday, December 10, 2:00 pm CT**
A Comprehensive Solution: Somatic and Germline Testing with Artificial Intelligence Capabilities to Inform Treatment Options in Breast Cancer
presented by Tempus

**Friday, December 10, 4:00 pm CT**
Recent Developments in Predicting IO Response in TNBC and Other Cancers
presented by Oncocyte
2021 Industry, Foundation and Agency Support

We are proud to acknowledge the following for their contributions to and generous support of our program.

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Survivingbreastcancer.org
SABCS gratefully acknowledges

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Lilly for support of the Patient Advocate Lounge.
Lobular Breast Cancer Alliance for support of the Educational Session “Artificial Intelligence: Beyond the Soundbites?”.

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AstraZeneca
Daiichi-Sankyo
Eisai
Lilly
Novartis
Sanofi Genzyme

For further information concerning Lilly grant funding visit www.lillygrantoffice.com.
Levels of HER2 expression within the HER2-negative classification merit consideration\(^1\)

When standard treatment options for HER2-negative mBC are exhausted, additional therapies for varying levels of HER2 expression are needed to reshape how the story unfolds.

**TO LEARN MORE, STOP BY BOOTHS 607 & 1027 OR EXPLORE HER2SPECTRUM.COM**

Daiichi Sankyo and AstraZeneca are committed to furthering the research and development of potential treatment options for women with mBC across the spectrum of HER2 expression.

BC, breast cancer; HER2, human epidermal growth factor receptor 2; IHC, immunohistochemistry; ISH, in situ hybridization; mBC, metastatic breast cancer.
