



# Newsletter 2014

ISSUE 1

## Welcome

Welcome to the 2014 San Antonio Breast Cancer Symposium (SABCS), a joint presentation of the Cancer Therapy & Research Center at the University of Texas Health Science Center at San Antonio, Baylor College of Medicine, and the American Association for Cancer Research (AACR). The next several days will offer you the opportunity to acquire new knowledge and information that will have immediate clinical application and, in the near future, bring about changes in the standard of care for patients with breast cancer or at risk of having the disease. There are vital and important presentations in the clinical domain, including notable results in trials of adjuvant and neoadjuvant therapies, with a particular focus on endocrine and targeted therapies, as well as further work enlisting the immune system in treatment, plus studies of mechanisms and pathways which may suggest new targets and predictive factors.

In addition, there are valuable sessions in basic science and translational research across a wide range of topics, including epigenetics, germ line risk factors, combinations of targeted therapies, and molecular analysis of acquisition of mutations in breast cancer and progression to metastasis. There are also presentations dealing with patient-centered issues such as survivorship, the role of advocates in research, and regulatory issues that apply to new drug approvals. Our program aims to inform professionals in all domains regarding current frontiers of our knowledge, and to highlight paths leading to future progress. We hope not only to share information, but also to encourage development of new and productive collaborations.

The symposium unfolds over 5 days. Tuesday afternoon begins with a career development forum for young investigators and a special session on accelerating international drug development, followed by educational sessions on a variety of current clinical and translational issues. During the subsequent 3 days there are oral presentations of submitted work in 6 general sessions and 6 poster sessions, as well as selected poster discussions. Interspersed with these are 3 invited plenary talks, 5 award lectures, 2 mini-symposia, and clinical and basic science forums and case discussions. On the 5th day we wrap up with a final poster session and "The Year in Review", which brings together a panel of distinguished speakers whose succinct reports provide a synthesis of major developments in breast cancer during the past year — one of the most popular parts of the program. And don't forget to take a little time to enjoy San Antonio! The usually warm and always congenial atmosphere — the food, music, and Christmas lights on the world-famous Riverwalk — are unforgettable.

C. Kent Osborne, MD  
Carlos L. Arteaga, MD  
Ismail Jatoi, MD/PhD

## Issue at a GLANCE

- 1 Welcome
- 2 Plenary Lecture  
Plenary Lecture Schedule
- 3 Scholarship Recipients
- 4 Product Theatre Schedule,  
Awards
- 5 Awards - *continued...*
- 6 Symposium Updates  
Conference Grants  
Special Thank You
- 7 Foundation, Industry, & Agency  
Supporters
- 8 Conference Exhibitors

### Listen to AUDIO FILES

Scan the QR code to hear brief interviews and commentaries from faculty who presented this year's hot topics and plenary lectures as they become available during the Symposium.



[www.audiodigest.org/sabcs14](http://www.audiodigest.org/sabcs14)

Plenary  
**LECTURES**  
HALL D

**WEDNESDAY, DEC 10<sup>TH</sup>**  
**8:15 AM**

**Genome-Directed Therapeutics for  
Endocrine Therapy Resistant ER+  
Breast Cancer**

*Matthew J. Ellis, MD, PhD*

**THURSDAY, DEC 11<sup>TH</sup>**  
**9:00 AM**

**Patient Derived Xenografts - Pre-Clinical  
Models for Prevention and Treatment  
of Metastasis**

*Alana L. Welm, PhD*

**FRIDAY, DEC 12<sup>TH</sup>**  
**9:00 AM**

**Adjuvant Endocrine Therapy in 2015**

*Nancy E. Davidson, MD*

**Plenary Lecture #1:  
Driving Genome-Directed Medicine in Estrogen  
Receptor-Positive Breast Cancer**

A pioneer in the area of genomics and molecular profiling of breast cancer (BC), Dr. Matthew Ellis navigates along a “therapeutic roadmap,” based on data about significantly mutated genes. These findings can help fill the gaps in data sets to help form pharmacological hypotheses for novel luminal BC tumor suppressor genes, and provide better understanding of mutation status and prognosis of estrogen receptor-positive (ER+) BC. On Wednesday morning, Dr. Ellis will present probable therapeutic principles about molecular pathways that affect ER function.

“We recently learned that the estrogen receptor is not wild type in every case,” Dr. Ellis said. By looking at patient-derived xenograft (PDX) models from patients with hormone therapy-refractory ER+ BC, Dr. Ellis and his colleagues found that several PDX models harbored mutations in the ER that made the PDX grow in a hormone-independent way, and that the mutant ER can be targeted with a new-generation ER downregulator.

Mutations in the ER in a small number of cases were found to be chromosomal translocations, which activate resistance to hormone therapy. Dr. Ellis will touch on how these mutations drive hormone-independent growth, and specifically, how these translocated ERs must be targeted in a different way too, since they can't bind hormones or drugs. The growth of the cell must be blocked downstream at the translocated receptor, and the mutant receptor has shown sensitivity to a novel agent.

Other rare mutations, such as HER2 mutations are also important to identify to investigate their responsiveness to targeted agents. After discovering L755S mutation resistance to lapatinib, Dr. Ellis and his laboratory are able to test other agents for a response. Then, the next phase of work would be directing combination therapy that targets the ER as well as mutant HER2 in ER+/HER2-mutant BC. “If you don't target ER, I suspect the resistance will develop very quickly to the HER2-targeting agent,” Dr. Ellis said.

It seems that there are many implications of studying mutations of genes that primarily drive other disorders too. Truncating mutations of NF1, a gene associated with the disfiguring condition of neurofibromatosis, has been linked to BC, for example. These rare mutations are associated with poor outcome and high rates of BC relapse. Dr. Ellis will present information on how the work done in the field of neurofibromatosis therapy can potentially be applied to develop treatments that target NF1-mutant BC.

Data from a proteomics analysis will also be presented in a discussion of therapeutic opportunities in luminal-type BC with wild-type tumor suppressor protein p53. Dr. Ellis will argue that non-mutant p53 must undergo a different way of functional inhibition, perhaps by aberrations in regulation of E3 ligases. He will present data derived from mass spectrometry analyses of proteomes and discuss the therapeutic significance of inhibiting the ligases to switch p53 levels back on.

It is the extensive work in developing targeted combinations of therapy, expanding the collection of PDX models, and investigating mutation-matched treatments that continue to drive genome-directed medicine into the curative setting.

**SABCS Scholarship Recipients**

Five programs provided scholarships designed to promote the education and professional development of early-career scientists who are actively pursuing research in breast cancer by facilitating their attendance at SABCS. Scholarships were awarded to graduate students, medical students, residents, and clinical and postdoctoral fellows whose abstracts were accepted for presentation, based on the quality of the abstracts. This year's awardees are:

**AACR Scholar-in-Training Awards:**

- |                            |                                    |                                      |
|----------------------------|------------------------------------|--------------------------------------|
| • Dadrie F. Baptiste       | • Siu W. Lam, MD, PhD              | • Amanda J. Schech, PhD              |
| • Valerie N. Barton, BA    | • Jianwei Li, MD                   | • Kriti Singh, MSc, PhD              |
| • Hani Choudhry, MSc, PhD  | • Adam L. Liss, MD                 | • Siker Sokintam Juvita Kimbung, PhD |
| • Pavlina Chuntova, BA     | • Ana Elisa Lohmann, MD            | • Margaret Thomas, BSc               |
| • Benjamin G. Cuiffo, PhD  | • Shairoz Merchant, MBBS           | • Arran K. Turnbull, PhD             |
| • Nicholas C. D'Amato, PhD | • Douglas Micalizzi, MD, PhD       | • Vicky Qi Yang, MS                  |
| • Kaylyn L. Devlin, BS     | • David B. Page, MD                | • Kathleen Van Asten, MS             |
| • Prson Gautam, MSc        | • Malolan S. Rajagopalan, MD       | • Kim van Pul, MD                    |
| • Luca Gelsomino, PhD      | • Ravi Ramjeesingh, MD, PhD, FRCPC | • Adam Ross Wolfe, BS                |
| • Jessica C. Gooch, MD     | • Raquel E. Reinbolt, MD           | • Xiaowei Xu, BS                     |
| • Ariella B. Hanker, PhD   | • Emily L. Rossi, RD, BS           | • Jennifer E. Yeh, BS                |

**Avon-AACR International Scholar-in-Training Travel Award recipient**

To provide funding for scientists-in-training from abroad, working in any subspecialty of breast cancer research, who are presenters of meritorious abstracts at the San Antonio Breast Cancer Symposium.

- |                    |                                   |                        |
|--------------------|-----------------------------------|------------------------|
| • Yizhou Jiang, MD | • Ji Hyun Park, MS                | • Melanie Wuttke, MBBS |
| • Sanghwa Kim, BS  | • Enrique Soto Pérez de Celis, MD | • Yi-Zi Zheng, BS      |
| • In Ah Park, MD   | • Ayaka Sato, MD                  | • Wen-Jia Zuo, BS      |

**AACR Minority Scholar in Cancer Research Awards**

The Minority Scholar Awards program is supported by a generous grant from the Center to Reduce Cancer Health Disparities of the National Cancer Institute. These awards provide support for attendance to special conferences or the AACR Annual Meeting and are given to full-time graduate or medical students, residents, clinical or postdoctoral fellows, or junior faculty members from groups considered to be underrepresented in cancer research (*African-Americans, Hispanic-Americans, Native-Americans, Native Pacific Islanders/Hawaiians, and Alaska Natives*), as defined by the NCI.

- |                            |   |
|----------------------------|---|
| • Vivian Bea, MD, Resident | • Michael C. Stauder, MD, Assistant Professor |
|----------------------------|---|

**SABCS Basic Science Scholars:**

For laboratory-based investigators-in-training whose work focuses on the biology of breast cancer and preclinical models of its development and progression.

- |                         |                     |                     |
|-------------------------|---------------------|---------------------|
| • Nicholas J. Brady, BA | • Amanda Clark, PhD | • Yuxiong Feng, PhD |
|-------------------------|---------------------|---------------------|

**SABCS Clinical Scholars:**

For clinical scientists-in-training who are actively pursuing clinical or clinical/translational research in breast cancer.

- |                            |                          |                                    |
|----------------------------|--------------------------|------------------------------------|
| • Michael Dela Iglesia, BS | • Peter Kern, MD         | • Praveena S. Thiagarajan, MD, PhD |
| • Shom Goel, MD            | • Matthew J. Sikora, PhD |                                    |



Product Theatre  
**SCHEDULE**  
HALL C

**WEDNESDAY, DEC 10<sup>TH</sup>**

12:15 PM

Select Therapy Options for HER2-Positive Metastatic Breast Cancer  
*Presented by Genentech USA, Inc.*

3:30 PM

Advancements Utilizing Circulating Tumor Cell Technology to Predict Outcomes in Patients with Breast Cancer  
*Presented by Nektar Therapeutics*

**THURSDAY, DEC 11<sup>TH</sup>**

12:15 PM

PERJETA® (Pertuzumab) for the Neoadjuvant Treatment of HER2-Positive Breast Cancer  
*Presented by Genentech USA, Inc*

2:00 PM

Functional Molecular Subtypes: A Case Based Approach: "The Role of Molecular Subtypes and Emerging Research in the Management of Breast Cancer"  
*Presented by Agendia, Inc.*

3:30 PM

Making a Difference: A New Evolution in Breast Cancer Risk Prediction  
*Presented by sphingotec, LLC*

**FRIDAY, DEC 12<sup>TH</sup>**

12:15 PM

Patient Selection for Extended Endocrine Therapy: An Expert Panel Discussion on Clinical Factors, Patient Considerations, and New Tools for Decision-Making  
*Presented by bioTheranostics*

**Awards**

**The William L. McGuire Memorial Lecture**

Wednesday, December 10, 11:15 am, Hall D

Dr. Jim Ingle was chosen for the William L. McGuire Memorial Lecture this year for his lifelong accomplishments and leadership in breast cancer translational and clinical research. Dr. Ingle, a medical oncologist who has spent his entire career at the Mayo Clinic, is well known for being an outstanding, thoughtful, compassionate, and knowledgeable physician whose opinions on complicated patients are valued by many physicians across the country. He is also an outstanding clinical and translational researcher having led the Mayo Clinic Breast Cancer Specialized Program of Research Excellence Grant for a decade and having been Chair of the Breast Committee for the North Central Cancer Treatment group for 22 years. He is recognized for his work on endocrine therapy and pharmacogenomics of breast cancer. Dr. Ingle is a real triple threat as an outstanding clinician, researcher, and teacher.

**Pharmacogenomics in the Quest for Precision Endocrine Therapy of Breast Cancer**

*James N. Ingle, MD*

Mayo Clinic; Rochester, MN

Dr. Ingle is a Professor of Oncology and Foust Professor in Mayo Clinic College of Medicine. He is the leader of breast cancer research in the Mayo Clinic Comprehensive Cancer Center serving as Program Co-Leader of the Women's Cancer Program with responsibility for breast cancer. Dr. Ingle is Co-Director of the Mayo Clinic Breast Cancer Specialized Program of Research Excellence.



**Susan G. Komen® Brinker Awards & Lecture**

Wednesday, December 10, 2:15 pm, Hall D

Established by Susan G. Komen® in 1992, the Brinker Award for Scientific Distinction recognizes leading scientists for their lifetime achievements in the fields of breast cancer research, screening, or treatment. These awards are presented in 2 categories: **Basic Science** and **Clinical Research**.

**The Basic Science Award:**

The Basic Science Award is presented to a researcher whose scientific discoveries or novel technologies have added substantively to our understanding of the basic biology of breast cancer and the intrinsic molecular processes that drive the disease, and/or whose work has bridged the gap between basic research and patient care. This year the award is being presented to:

**Building Upon Advances in Cancer Research to Improve Therapeutic Strategies in the Future**

*Joan S. Brugge, PhD*

Louise Foote Pfeiffer; Professor of Cell Biology; Director of the Ludwig Center at Harvard Medical School; Komen Scholar

Dr. Brugge is being recognized for her significant contributions to breast cancer research, which have been essential in advancing our understanding of the molecular and cell biology of breast cancer. Her creative approach to tackling questions in breast cancer biology have resulted in critical insights into the cellular processes and pathways that are involved in the normal development of breast cells, as well as breast cancer initiation, progression, and response to therapy.

"Joan Brugge is one of the most influential cancer biologists in the breast cancer community. Her brilliance and dedication are immediately apparent to anyone she meets, and she has made an enormous contribution to the field. Joan is truly wonderful person with a huge heart and a passion to make the world a better place through scientific discovery," said Dr. Winer.

**The Clinical Research Award:**

The Clinical Research Award presented to a clinical or translational researcher who has advanced the identification of new prevention, detection or treatment approaches for breast cancer and promoted their incorporation into clinical care. This year the award is being presented to:

**What Relevance have Hormones for Breast Cancer in the Genomic Era**

*Mitchell Dowsett, PhD, FMedSci*

Royal Marsden Hospital and Institute of Cancer Research; London, United Kingdom

Professor Dowsett is being recognized for seminal contributions in understanding the hormonal basis of estrogen receptor (ER)-positive breast cancer, and translating this knowledge to the clinic in order to improve the efficacy of treatment and prevention of breast cancer. His translational approach to studying the endocrine aspects of breast cancer and biomarkers for breast cancer prognosis and treatment has led to the implementation of key treatments and identification of tumor markers that have advanced breast cancer care

Of Prof. Dowsett, Dr. Sledge commented, "He has been a leader in the application of cutting-edge science to large clinical data sets. His leadership of several important translational studies in both the adjuvant and neoadjuvant settings has transformed our understanding of estrogen receptor positive breast cancer, improving our knowledge regarding prognosis and therapeutic benefit."

Komen's Chief Scientific Advisors Dr. Eric Winer and Dr. George Sledge said this year's awardees have made important contributions to the treatment of breast cancer and our understanding of the disease.

## Symposium UPDATES

### POSTER SESSION 1 WEDNESDAY, DEC 10<sup>TH</sup>

#### POSTERS WITHDRAWN

- P1-04-01
- P1-04-05
- P1-07-04
- P1-07-14
- P1-09-05
- P1-12-03
- P1-15-14
- OT1-1-10
- PD2-7

#### POSTERS RESCHEDULED

- P5-11-01 will be presented as poster P1-17-06
- P4-14-08 will be presented as poster P1-17-07

### POSTER SESSION 2 THURSDAY, DEC 11<sup>TH</sup>

#### POSTERS WITHDRAWN

- P2-01-13
- P2-06-13
- P2-14-05
- P2-18-01

### Conference Grants

National Cancer Institute

#### Educational Grants from Industry\*

SABCS is supported in part by educational grants from industry. This activity is supported by educational grants and/or educational donations provided by AbbVie, Amgen, AstraZeneca, Celgene, Lilly (For further information concerning Lilly grant funding visit [www.lillygrantoffice.com](http://www.lillygrantoffice.com)), Novartis and Pfizer. Supported by an educational grant from Genentech.

### Special Thank You

We'd like to publicly thank the members of the Executive Committee, the Program Planning Committee, and the Abstract Review Committee for their hard work in making SABCS one of the premier single-site cancer conferences in the world. Almost as soon as the prior year's meeting ends, these individuals work tirelessly all year long to determine the focus of the meeting, line up speakers, coordinate special events, and review thousands of abstracts -- selecting material and designing programs that most accurately represent the cutting edge of breast cancer research. Please refer to your Pocket Program for the names of everyone who helped make this year's event possible.



SABCS on Demand is a comprehensive digital library with approximately 60 hours of education from the 2014 Symposium. SABCS on Demand is free for all meeting attendees!

#### FEATURES INCLUDE:

- Webcasts, PDFs and MP3s all conveniently available in one location
- Webcasts with presenter's slides and fully synchronized audio and MP3s
- Downloadable PDFs of slides available 2 hours after each session
- Advanced Search: Find any word in the presentation slides and immediately jump to that part of the presentation
- Streaming content on most mobile devices

Made possible with  
support from 

### Foundation, Industry & Agency Supporters

We are proud to acknowledge the following for their contributions to and generous support of our program.\*

PREMIER	
Celgene Corporation	Genentech, A Member of the Roche Group
ANGEL	
AbbVie Amgen Eisai	Genomic Health, Inc. NanoString Novartis Oncology
PATRON	
bioTherapeutics Eli Lilly and Company	Pfizer Oncology
MAJOR SUPPORTER	
Alphamed Press/The Oncologist Medimmune, Specialty Care Division of AstraZeneca	Quest Diagnostics, Inc.
CONTRIBUTOR	
Agendia, Inc. CellDex Therapeutics, Inc.	Myriad Genetic Laboratories, Inc. Teva Oncology
DONOR	
Ambry Genetics American Society of Clinical Oncology (ASCO) Atossa Genetics, Inc. BioMarin Pharmaceutical Inc. BioMed Central Caris Life Sciences Cianna Medical Clinical Oncology News Cynvenio Biosystems, Inc. Dana-Farber Cancer Institute Dilon Technologies Elsevier Endomagnetics Ltd. GeneDx	Genoptix Medical Laboratory GlaxoSmithKline Guardant Health Integrated Oncology Invitae Nektar Therapeutics Nuclea Diagnostics Oncovision, Inc. Pathway Genomics sphingotec, LLC Tesaro Wolters Kluwer Health (Lippincott) Xoft, a subsidiary of iCAD, Inc.

SABCS wishes to thank Avon Foundation for support of the Avon Foundation-AACR International Scholar-In-Training Grants.

SABCS gratefully acknowledges Susan G. Komen® for generous support of AACR Outstanding Investigator Award for Breast Cancer Research, AACR Scholar-in-Training Awards, and partial support of Educational Sessions.

\* At Press Time

## Conference Exhibitors

Please be sure to visit SABCS exhibitors.\*

Visit the Exhibitors section of the SABCS Mobile App for more information from these companies.

- AbbVie
- Agendia Inc.
- Alamo Breast Cancer Foundation
- Alphamed Press/The Oncologist
- Ambry Genetics
- American Association for Cancer Research (AACR)
- American Institute for Cancer Research
- American Society of Clinical Oncology (ASCO)
- Amgen
- Atossa Genetics, Inc
- Best of SABCS/Encore Medical Education
- BioMarin Pharmaceutical Inc.
- BioMed Central
- Bioscientifica
- bioTheranostics
- Breast Cancer Action
- Cancer Support Community
- Care Wise Medical Products
- Caris Life Sciences
- Carl Zeiss Meditec, Inc.
- Celgene Corporation
- Celldex Therapeutics, Inc.
- Cianna Medical
- Clinical Oncology News
- Conference Notes app
- Cyvenio Biosystems Inc.
- Dana-Farber Cancer Institute
- DARA BioSciences
- Dilon Technologies
- Dune Medical Devices
- EBC Council (ECCO)
- Eisai
- Eli Lilly and Company
- Elsevier
- Endomagnetics, Ltd.
- FORCE: Facing Our Risk of Cancer Empowered
- GeneDX
- Genentech, A Member of the Roche Group
- Genomic Health, Inc.
- Genoptix Medical Laboratory
- GlaxoSmithKline
- GBCC 2015 & 4<sup>TH</sup> IBCS Secretariat (Global Breast Cancer Conference)
- Guardant Health
- Harborside Press
- Hem Onc Today
- Informed DNA
- Inspire/Advanced Breast Cancer Community
- Integrated Oncology
- Invitae
- The JAMA Network
- John W. Nick Foundation, Inc.
- Kanserle Dans, Dance With Cancer
- MedImmune, Specialty Care Division of AstraZeneca
- Myriad Genetic Laboratories, Inc.
- NanoString Technologies, Inc.
- Nektar Therapeutics
- Novartis Oncology
- Nuclea Diagnostics
- Oncovision, Inc.
- Pathway Genomics
- Patient Access Network Foundation
- Patient Advocate Foundation
- Peregrine Pharmaceuticals
- Pfizer Oncology
- Physicians' Education Resource®, LLC
- Provista Diagnostics
- Quest Diagnostics
- Sisters Network Inc.
- sphingotec, LLC
- Susan G. Komen®
- Targeted Healthcare Communications
- Tesaro
- Teva Oncology
- Wolters Kluwer Health (Lippincott)
- Xoft, a subsidiary of iCAD, Inc.
- Young Survival Coalition

\* At Press Time