



October 12-13, 2017

Houston, Texas

Jointly provided by

Baylor College of Medicine, the Lester & Sue Smith Breast Center
and Theresa's Research Foundation



LESTER & SUE SMITH
**BREAST
CENTER**



Metastatic Breast Cancer Conference 2017

October 12-13, 2017

AGENDA

Thursday | OCTOBER 12, 2017

- 7:00 a.m. Registration and Continental Breakfast
- 7:30 Welcome: Announcements and Introduction
Xiang "Shawn" Zhang, Ph.D. and Joshua W. Newby
- Session I Genomic Heterogeneity and Metastatic Breast Cancer**
- 8:00 *Chris A. Miller, Ph.D.*
8:20 *Steffi Oesterreich, Ph.D.*
8:40 Abstract Presentation –
Ron Kinase: A Therapeutic Target for Cancer-Induced Bone Destruction
Jaime Fornetti, Ph.D.
- 8:50 Panel Discussion
- Session II DNA Repair and Mutations in Metastatic Breast Cancer**
- 9:15 *Svasti Haricharan, Ph.D.*
9:35 *Fergus J. Couch, Ph.D.*
9:55 Abstract Presentation –
Direct Regulation of Estrogen Receptor- α Transcriptional Activity by NF1
Eric Chang, Ph.D.
- 10:05 Panel Discussion
10:30 Break
- Session III Targeted Therapies in Metastatic Breast Cancer**
- 10:40 *Xi Chen, Ph.D.*
11:00 *Funda Meric Bernstam, M.D.*
11:20 Abstract Presentation –
Creatine Kinase Activity Promotes ER-Negative Breast Cancer Cell Invasion and Lung Metastasis
Tiffany Seagroves, Ph.D.
- 11:30 Panel Discussion
11:55 Lunch
- Session IV Blood-based Diagnostics in Metastatic Breast Cancer**
- 1:00 p.m. *Ben Ho Park, M.D., Ph.D.*
1:20 *Minetta C. Liu, M.D.*
1:40 Abstract Presentation –
Mammary Gland Cancer Cell-specific Knockout Twist1 Inhibits Cancer Cell Plasticity, Dissemination and Lung Metastasis in Mice
Jianming Xu, Ph.D.
- 1:50 Panel Discussion
2:15 Break

- Session V New Fronts in Cancer Biology and Therapy: Immunology and Metabolism**
- 2:25 *Benny Abraham Kaiparettu, Pharm, Ph.D.*
2:45 *Andy J. Minn, M.D., Ph.D.*
3:05 Abstract Presentation –
Mitochondrial Genetics Appear to Alter Immune Cell Development/Tracking
Thomas Beadnell, Ph.D.
- 3:15 Panel Discussion
3:40 Break
- Session VI Patient Centered Research**
3:50 *Marc Hurlbert, Ph.D.*
- Session VII KEYNOTE ADDRESS**
4:30 *Charles M. Perou, Ph.D.*
- 5:00 Adjournment
- 5:15 – 7:00 p.m. Reception and Posters*
* Session not designated for CME (AMA PRA Category 1 Credit™).

Friday | OCTOBER 13, 2017

- 8:00 a.m. Registration and Continental Breakfast
- 8:20 Welcome: Announcements and Introduction
Matthew J. Ellis, B.Sc., M.B., B.Chir., Ph.D., and Joshua W. Newby
- Clinical Advances in Metastatic Breast Cancer**
- 8:30 *Melinda L. Telli, M.D.*
8:50 *Hope S. Rugo, M.D.*
9:10 Panel Discussion
9:35 Break
- Modeling Techniques in Metastatic Breast Cancer**
- 9:45 **Intravital Imaging**
Mikala Egeblad, Ph.D.
- 10:05 **Single Cell Genetics**
Chenghang Zong, Ph.D.
- 10:25 **PDX Models**
Alana L. Welm, Ph.D.
- 10:45 **3D Culture**
Andrew J. Ewald, Ph.D.
- 11:05 Adjournment - Conclusion of CME-Accredited portion of the conference.

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

ACTIVITY DIRECTORS

Activity Director | Matthew J. Ellis, B.Sc., M.B., B.Chir., Ph.D.

Activity Co-Director | Xiang "Shawn" Zhang, Ph.D.

PLANNING COMMITTEE

Katherine Crawford-Grey, M.S.

CEO, World Wide Breast Cancer
New York, New York

Andrew J. Ewald, Ph.D.

Associate Professor of Cell Biology
Johns Hopkins University School of Medicine
Baltimore, Maryland

Marc Hurlbert, Ph.D.

Chair, Metastatic Breast Cancer Alliance
New York City, New York

Yibin Kang, Ph.D.

Warner-Lambert Parke-Davis Professor of Molecular
Biology
Princeton University
Princeton, New Jersey

Sarah Kurley, Ph.D.

Postdoctoral Fellow
Baylor College of Medicine
Houston, Texas

Shirley A. Mertz, J.D.

President, Metastatic Breast Cancer Network
New York, New York

Timothy J. Pluard, M.D.

Director, Saint Luke's Cancer Institute
Saint Luke's Health System
Kansas City, Missouri

ABSTRACT PRESENTERS

Thomas Beadnell, Ph.D.

Postdoctoral Fellow
University of Kansas Medical Center
Kansas City, Kansas

Eric C. Chang, Ph.D.

Associate Professor
Baylor College of Medicine
Houston, Texas

Susan Rafte

Metastatic Breast Cancer Patient Advocate
Houston, Texas

Jeffery M. Rosen, Ph.D.

Charles C. Bell Professor and Vice-Chair
of Molecular and Cellular Biology
Distinguished Service Professor
Baylor College of Medicine
Houston, Texas

Danny R. Welch, Ph.D.

Associate Director, Basic Science
The University of Kansas Cancer Center
Chair and Professor, Department of Cancer Biology
The University of Kansas School of Medicine
Kansas City, Kansas

Cynthia Zahnow, Ph.D.

Associate Professor in Oncology
The Sidney Kimmel Comprehensive Cancer Center at
Johns Hopkins
Baltimore, Maryland

CONFERENCE MANAGER

Joshua W. Newby

Founder and Executive Director
Theresa's Research Foundation
Houston, Texas

Jaime Fornetti, Ph.D.

Postdoctoral Fellow
University of Utah
Salt Lake City, Utah

Tiffany N. Seagroves, Ph.D.

Associate Professor
The University of Tennessee Health Science Center
Memphis, Tennessee

Jianming Xu, Ph.D.

Professor
Baylor College of Medicine
Houston, Texas

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

FACULTY

Xi Chen, Ph.D.

Assistant Professor and CPRIT Scholar in
Cancer Research
Molecular and Cellular Biology/Breast Center
Baylor College of Medicine
Houston, Texas

Fergus J. Couch, Ph.D.

Professor of Laboratory Medicine and Pathology
Mayo Clinic
Rochester, Minnesota

Mikala Egeblad, Ph.D.

Associate Professor
Cold Spring Harbor Laboratory
Long Island, New York

Andrew J. Ewald, Ph.D.

Associate Professor of Cell Biology
Johns Hopkins University School of Medicine
Baltimore, Maryland

Svasti Haricharan, Ph.D.

Assistant Professor
Baylor College of Medicine
Houston, Texas

Marc Hurlbert, Ph.D.

Chief Mission Officer
Breast Cancer Research Foundation
Chair, Metastatic Breast Cancer Alliance
New York City, New York

Benny Abraham Kaiparettu, Pharm, Ph.D.

Assistant Professor
Molecular and Human Genetics
Baylor College of Medicine
Houston, Texas

Minetta C. Liu, M.D.

Associate Professor of Oncology
Mayo Clinic
Rochester, Minnesota

Funda Meric-Bernstam, M.D.

Nellie B. Connally Chair in Breast Cancer Research
Department of Investigational Cancer Therapeutics
The University of Texas MD Anderson Cancer Center
Medical Director, Khalifa Institute for Personalized Cancer
Therapy
Houston, Texas

Chris A. Miller, Ph.D.

Assistant Professor, Department of Medicine
Oncology Division
Stem Cell Biology
St. Louis, Missouri

Andy J. Minn, M.D., Ph.D.

Assistant Professor of Radiation Oncology
University of Pennsylvania
Philadelphia, Pennsylvania

Steffi Oesterreich, Ph.D.

Professor and Vice Chair, Precision and Translational
Pharmacology
Magee-Women's Research Institute, University of
Pittsburgh
Pittsburgh, Pennsylvania

Ben Ho Park, M.D., Ph.D.

Professor, Department of Oncology, Sidney Kimmel
Comprehensive Cancer Center
Johns Hopkins University
Baltimore, Maryland

Charles M. Perou, Ph.D.

May Goldman Shaw Distinguished Professor of Molecular
Oncology
University of North Carolina School of Medicine
Chapel Hill, North Carolina

Hope S. Rugo, M.D.

Clinical Professor, Department of Medicine
(Hematology/Oncology)
Director, Breast Oncology Clinical Trials Program
University of California San Francisco
San Francisco, California

Melinda L. Telli, M.D.

Assistant Professor of Medicine (Oncology)
Stanford University Medical Center
Stanford, California

Alana L. Welm, Ph.D.

Associate Professor, Department of Oncological Sciences
University of Utah School of Medicine
Investigator, Huntsman Cancer Institute (HCI)
Co-Leader, Cell Response and Regulation Program at HCI
Salt Lake City, Utah

Chenghang Zong, Ph.D.

Assistant Professor, Molecular and Human Genetics
McNair Scholar
Baylor College of Medicine
Houston, Texas

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

Needs Statement

Stage IV metastatic breast cancer (advanced breast cancer), is the spread of cancer cells beyond the breast to other organs of the body, often by way of the lymph system or bloodstream.

Metastases account for greater than 90% of cancer morbidity and mortality. In metastatic breast cancer this translates to nearly 40,000 deaths annually in the U.S. and more than 500,000 deaths worldwide. Metastatic breast cancer is the leading cause of cancer death in women below 50 years of age.

Target Audience

Clinicians, patient advocates, scientists, and other healthcare professionals involved in the research, treatment, or care of patients with metastatic breast cancer.

Educational Objectives

At the conclusion of the activity, participants should be able to:

- Implement evidence-based recommendations for treatment of metastatic breast cancer and its subtypes.
- Discuss strategies for improving palliative care and end of life counseling for patients with metastatic breast cancer.
- Discuss how clinical trials can help improve treatment of metastatic breast cancer.
- Describe how drug resistance pathways can be applied to the treatment of metastatic breast cancer in order to improve outcomes and quality of life.
- Explain how Biomarkers and genomic analysis can be applied to the treatment of metastatic breast cancer in order to improve outcomes and quality of life.

Educational Methods

Lecture ▪ Clinical Debate ▪ Advocate Forum ▪ Panel Discussion ▪ Translational Research

Evaluation

Evaluation by questionnaire will address program content, presentation, and possible bias.

Accreditation/Credit Designation

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Baylor College of Medicine, the Lester & Sue Smith Breast Center, and Theresa's Research Foundation. Baylor College of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Baylor College of Medicine designates this live activity for a maximum of 10.0 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

CLAIMING CREDIT - Physician CME and Other Healthcare Professional Attendance

After the conference, an email will follow from the Baylor College of Medicine Office of Continuing Medical Education with instructions for completing the evaluation and obtaining your CME, Certificate of Attendance, or CE Certificate (if applicable).

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

Disclaimer

This activity is designed for healthcare professionals for educational purposes. Information and opinions offered by the faculty/presenters represent their own viewpoints. Conclusions drawn by the participants should be derived from careful consideration of all available scientific information.

While Baylor College of Medicine makes every effort to have accurate information presented, no warranty, expressed or implied, is offered. The participant should use his/her clinical judgment, knowledge, experience, and diagnostic decision-making before applying any information, whether provided here or by others, for any professional use.

Faculty/presenters have submitted materials for this syllabus for printing in advance so that you may have an outline or summary of the main points of their presentation. Often this differs from the final version of their slides as faculty/ presenters make revisions up until the day of the meeting.

Additionally, some images (cartoons, drawings and some photographs) shown on the screen may not be present in your educational materials because of publishers' requirements for reprinting of copyrighted images.

Notices

Faculty, topics, program schedule, and credit are subject to change.

Audio or videotaping is prohibited without written permission from the Activity Directors and the Office of Continuing Medical Education, Baylor College of Medicine, Houston, Texas.

Drug/Device Status Disclosure

Some drugs/devices identified during this activity may have United States Food and Drug Administration (FDA) clearance for specific purposes only or for use in restricted research settings. The FDA has stated that it is the responsibility of the individual physician to determine the FDA status of each drug or device that he/she wishes to use in clinical practice and to use the products in compliance with applicable law.

Baylor College of Medicine requires that all faculty/presenters disclose an unlabeled use or investigational use of pharmaceutical and medical device products, and provide adequate scientific and clinical justification for such use. Physicians are urged to fully review all the available data on products or procedures before using them to treat patients.

Disclosure of Financial Relationships with Commercial Interests

DISCLOSURE POLICY

Baylor College of Medicine (BCM) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education (CME) for physicians. BCM is committed to sponsoring CME activities that are scientifically based, accurate, current, and objectively presented.

In accordance with the ACCME Standards for Commercial Support, BCM has implemented a mechanism requiring everyone in a position to control the content of an educational activity (i.e., directors, planning committee members, faculty) to disclose any relevant financial relationships with commercial interests (drug/device companies) and manage/resolve any conflicts of interest prior to the activity. Individuals must disclose to participants the existence or non-existence of financial relationships: 1) at the time of the activity or within 12 months prior; and 2) of their spouses/partners.

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

In addition, BCM has requested activity faculty/presenters to disclose to participants any unlabeled use or investigational use of pharmaceutical/device products; to use scientific or generic names (not trade names) in referring to products; and, if necessary to use a trade name, to use the names of similar products or those within a class. Faculty/presenters have also been requested to adhere to the ACCME's validation of clinical content statements.

BCM does not view the existence of financial relationships with commercial interests as implying bias or decreasing the value of a presentation. It is up to participants to determine whether the relationships influence the activity faculty with regard to exposition or conclusions. If at any time during this activity you feel that there has been commercial/promotional bias, notify the Activity Director or Activity Coordinator. Please answer the questions about balance and objectivity in the activity evaluation candidly.

PLANNING COMMITTEE

The following planning committee members have reported that she/he has/had financial relationships with commercial interests (drug/device companies):

Matthew J. Ellis, B.Sc., M.B., B.Chir., Ph.D.:	<u>Research Support:</u> Gilead Pfizer <u>Intellectual Property:</u> PAM50 patents and Royalties licensed to Nanostring for "Prosigna" breast cancer test <u>Consultant:</u> Pfizer, AstraZeneca, Puma, Celgene, Novartis <u>Board Membership:</u> Prosigna/NanoString <u>Honorarium Recipient:</u> Prosigna/NanoString <u>Ownership Interests:</u> Prosigna/NanoString
Andrew J. Ewald, Ph.D.:	<u>Ownership Interests:</u> MedImmune
Yibin Kang, Ph.D.:	<u>Board Membership:</u> Firebrand Therapeutics <u>Ownership Interests:</u> Firebrand Therapeutics
Timothy J. Pluard, M.D.	<u>Research Support:</u> Novartis, BerGen Bio, G1 Therapeutics <u>Speakers Bureau Member:</u> Pfizer, Novartis, Genentech <u>Consultant:</u> Pfizer, Novartis
Danny R. Welch, Ph.D.:	<u>Review Panel Membership:</u> NIH, DOD, Komen

The following planning committee members have reported no interest or other relationship(s) with commercial interests (drug/device companies) that may relate to the educational content of this activity:

Katherine Crawford-Grey, M.S.	Shirley A. Mertz, J.D.	Jeffery M. Rosen, Ph.D.
Marc Hurlbert, Ph.D.	Joshua W. Newby	Cynthia Zahnow, Ph.D.
Sarah Kurley, Ph.D.	Susan Rafta	Xiang "Shawn" Zhang, Ph.D.

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

FACULTY PRESENTERS

The following faculty/presenters/conference moderators have reported that she/he has/had financial relationships with commercial interests (drug/device companies):

Andrew J. Ewald, Ph.D.:	<u>Ownership Interests:</u> MedImmune
Minetta C. Liu, M.D.:	<u>Research Support:</u> Eisai Seattle Genetics Celgene Veridex/Janssen Novartis Roche/Genentech GRAIL <u>Advisory Committee Member:</u> Agendia, GRAIL, Celgene
Funda Meric-Bernstam, M.D.	<u>Research Support:</u> Novartis, AstraZeneca, Taiho, Genentech, Calithera, Debio, Bayer, PUMA, Aileron, Jounce, CytoMx, eFFECTOR, Zymeworks, Curis, Pfizer <u>Advisory Committee Member:</u> Pieris, Darwin Health, GRAIL, Inflection Biosciences, Clearlight Diagnostics <u>Consultant:</u> Dialecta, Sumitomo Dainippon Pharma
Ben Ho Park, M.D., Ph.D.:	<u>Consultant:</u> Loxo Oncology, Foundation Medicine <u>Ownership Interests:</u> Loxo Oncology
Charles M. Perou, Ph.D.:	<u>Intellectual Property:</u> Bioclassifier LLC, and GeneCentric Therapeutics <u>Consultant:</u> Bioclassifier LLC, GeneCentric Therapeutics, G1 Therapeutics, Ionis Pharmaceuticals, Nanostring Technologies <u>Board Membership:</u> Bioclassifier LLC, GeneCentric Therapeutics <u>Ownership Interests:</u> Bioclassifier LLC, GeneCentric Therapeutics
Hope S. Rugo, M.D.:	<u>Research Support:</u> Genentech/Roche, Novartis, Lilly, Eisai, Pfizer, OBI, Plexxikon, MacroGenics, Merck, Incyte--all funding to UC Regents for sponsored research
Melinda L. Telli, M.D.:	<u>Research Support:</u> Research Funding (to my institution): Abbvie, PharmaMar, Biomarin, Genentech, Calithera, Oncosec, Tesaro, Biothera, Vertex, Pfizer <u>Advisory Committee Member:</u> Astra Zeneca, Tesaro, Vertex <u>Consultant:</u> PharmaMar

The following faculty/presenters/conference moderators have reported no interest or other relationship(s) with commercial interests (drug/device companies) that may relate to the educational content of this activity:

Thomas Beadnell, Ph.D.	Svasti Haricharan, Ph.D.	Steffi Oesterreich, Ph.D.
Eric C. Chang, Ph.D.	Marc Hurlbert, Ph.D.	Tiffany N. Seagroves, Ph.D.
Xi Chen, Ph.D.	Benny Abraham Kaipparattu, Pharm, Ph.D.	Alana L. Welm, Ph.D.
Fergus J. Couch, Ph.D.	Chris A. Miller, Ph.D.	Jianming Xu, Ph.D.
Mikala Egeblad, Ph.D.	Andy J. Minn, M.D., Ph.D.	Chenghang Zong, Ph.D.
Jaime Fornetti, Ph.D.		

Metastatic Breast Cancer Conference 2017

October 12-13, 2017

PHILANTHROPIC SUPPORT

The Breast Cancer Research Foundation

EDUCATIONAL GRANT SUPPORT

Baylor College of Medicine, Office of Continuing Medical Education & Theresa's Research Foundation gratefully acknowledges the following companies for providing an educational grant in support of this activity.

AstraZeneca
Celgene
Genentech
Lilly Oncology

Novartis
Pfizer
Syndax Pharmaceuticals

EXHIBITORS

Platinum Level

AstraZeneca
Lilly Oncology
Pfizer

Gold Level

AbbVie Stemcentrx

Silver Level

Eisai, Inc.
Cascadian Therapeutics
Genentech USA, Inc.
Guardant Health
Foundation Medicine
Novartis Oncology

Biotech Exhibitors

Amgen Inc
MacroGenics
R-PHARM US
Tempus
Tesarco

We encourage you to visit with the exhibitors during breaks in the program. All representatives have been advised that any business or promotional activity is prohibited in the meeting rooms. If you observe any such activity, please bring it to the attention of the Activity Director or the Conference Manager.