

## IBC Program's 10<sup>th</sup> Anniversary Ambassador Luncheon Highlights



*Photo Courtesy: Jangsoon Lee and UTTV*

**ON SEPTEMBER 21<sup>ST</sup>**, the Morgan Welch IBC Program and Clinic held its 10<sup>th</sup> anniversary Ambassador Luncheon, at our conference hall in Mays Clinic. It was an opportunity to honor our patient advocates and their commitment to our program since its inception. Special guests included former Lt. Governor of Texas, David Dewhurst's sister Linda Dewhurst and former Senator of New Mexico, Timothy Z. Jennings, who were instrumental in passing the legislature to fund the IBC Program and Clinic, IBC advocates Forrest and Cathy Rain Smith, Houston City Council Member and Mayor Pro Tem, Ellen Cohen, and MD Anderson President, Ronald DePinho. A wonderful turnout as our patient advocates and the Program's Executive Directors provided insights on the history of the Program, our past research achievements, and a dive into a promising future.

Our Boot Walk's "IBC Wranglers" team captains, Forrest and Cathy Smith, Jenee Bobbora, Terry Arnold and Shaunte' Ellis were given special recognition as the luncheon concluded. We'd like to thank everyone who was able to attend, and extend our sincere appreciation to our distinguished guests and speakers.

### Recent Awards and Grants

We congratulate the following individuals who have been recognized for their significant accomplishments and contributions to IBC research:

**Jihyun Park and Chandra Bartholomeusz** – whose abstract “PEA-15 (phosphoprotein enriched in astrocytes) regulates epithelial-mesenchymal transition and invasive behavior through its phosphorylation in triple negative breast cancer” was selected for poster presentation at the Annual Postdoctoral Science Symposium (APSS).

**Bisrat Debeb, PhD** – who was recently awarded a U54 pilot grant award of \$130,000 / over 2 years for his proposal entitled “Targeting Lipocalin 2 to prevent brain metastasis in IBC” submitted to The University of Puerto Rico/The University of Texas MD Anderson Cancer Center Partnership for Excellence in Cancer Research.

**James Reuben PhD and Naoto T. Ueno MD, PhD** – Executive leaders of the IBC Program were awarded the collaborative CTC project with Hitachi Chemical Co., Ltd. This collaboration offers potential to identify biomarkers for IBC by liquid biopsy, a non-invasive platform.

## Recent Publications

**Important Role of FTO in the Survival of Rare Panresistant Triple-Negative Inflammatory Breast Cancer Cells Facing a Severe Metabolic Challenge.** PLoS ONE 11(7): e0159072.

*Balraj Singh, Hannah Kinne, Ryan Milligan, Laura Washburn, Mark Olsen, Anthony Lucci*

It has been previously shown that only 0.01% cells survive a metabolic challenge involving lack of glutamine in culture medium of SUM149 triple-negative Inflammatory Breast Cancer cell line. These cells, designated as SUM149-MA for metabolic adaptability, are resistant to chemotherapeutic drugs, and they efficiently metastasize to multiple organs in nude mice. The hypothesis was that obesity-related molecular networks, which normally help in cellular and organismal survival under metabolic challenges, may help in the survival of MA cells. The fat mass and obesity-associated protein FTO is overexpressed in MA cells. It was found that IRX3 was significantly overexpressed in SUM149-MA cells as compared to parental SUM149 cell line, supporting the hypothesis. It can be concluded that panresistant MA cells contain interconnected molecular networks that govern developmental status and energy balance, and genetic and epigenetic alterations that are selected during cancer evolution. These results further support the concept that FTO is important in the survival of rare embryo-like SM149 TNBC cells when they face a severe metabolic challenge, e.g., a prolonged lack of glutamine.

## News/Events

**Save the Date: February 11-12, 2017**

MD Anderson Morgan Welch Inflammatory  
Breast Cancer Research Program and Clinic

**10<sup>th</sup> Anniversary Scientific Conference**

Details to come.....



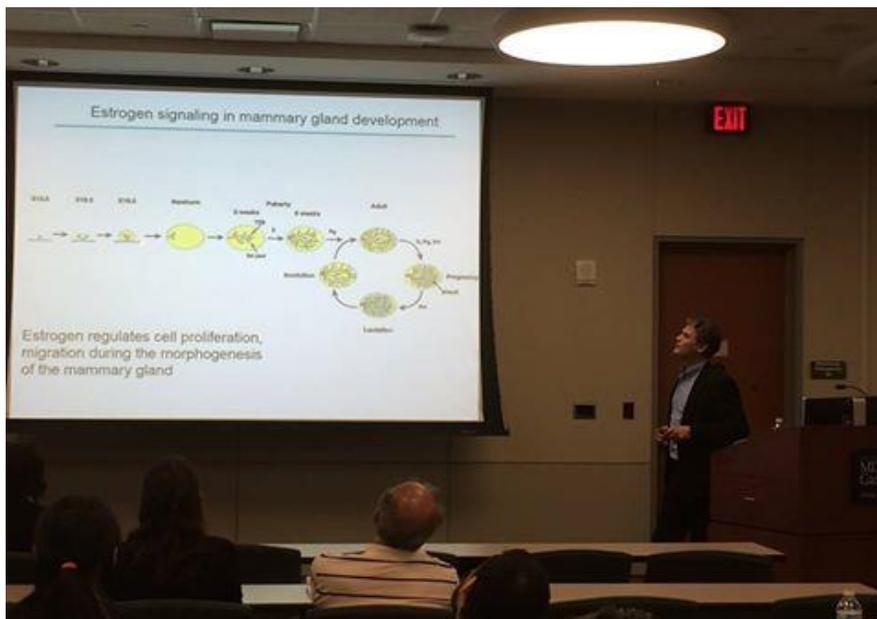
**IBC Multi-Team Clinic (IBC MTC):** The IBC Multi-Team Clinic launched in August 2015 at our Nellie B. Connally Breast Center, continues to serve our patients. Our highly specialized multi-disciplinary physicians work together to create a personalized treatment plan. In just one appointment and one place, patients can meet their radiation, surgical and medical oncologists, and leave with a plan of action and peace of mind that comes from having the best physicians care for them, every step of the way.

**MD Anderson Boot Walk: “IBC Wranglers” Team Updates:** Whoop! To date, our IBC Wranglers team has raised a total of \$65,091.00! Amazing! Since we have passed the \$25,000 threshold, all funds raised will be allotted to the IBC Program. We appreciate everyone’s hard work so far and encourage everyone to keep spreading the news about the Boot Walk in November. If you haven’t had a chance to register yet, please check out the following link, [www.mdanderson.org/bootwalk](http://www.mdanderson.org/bootwalk). After choosing to join a team, please make sure you enter “IBC Wranglers” to join our program’s team. Keep in mind that you’ll be able to continue fundraising on behalf of our program until December 2016.

Funds raised will be utilized for:

1. Testing novel technologies that can help in the early detection of IBC.
2. Collecting and analyzing both IBC and non-IBC patient samples to detect changes that are unique to IBC patients.
3. Procuring innovative and high throughput equipment and/software that will accelerate our preclinical laboratory research so IBC patients can get novel treatments faster.

## Guest Speakers Series



**Dr. Christoforos Thomas, PhD,** Assistant Professor at the Center for Nuclear Receptors and Signaling at the University of Houston, presented “Targeting estrogen receptor beta signaling in IBC.” Dr. Thomas’s current research interests are focused on exploring the possibility of estrogen receptor- $\beta$ 1 to inhibit epithelial to mesenchymal (EMT) process and the metastatic potential of basal-like IBC cells. We thank Dr. Thomas for visiting us and presenting his research.

## Quarterly Oral Presentations

### **Update: The role of ERK1/2 in metastasis and survival in a TNBC xenograft model**

Mary Kathryn Pitner, PhD  
Postdoctoral Fellow, Breast Medical Oncology

### **Contribution of JNK signaling to TNBC aggressiveness through promotion of CSC phenotype and tumor-microenvironment cross-talk**

Xumei Xie, PhD  
Research Scientist, Breast Medical Oncology

### **Investigating the role of adipose stromal/stem (ASCs) in promoting the aggressiveness of inflammatory breast cancer**

Xiaoping Wang, PhD  
Sr. Research Scientist, Breast Medical Oncology

### **Tools for patient empowerment and research cell collaborations**

Terry Arnold, IBC Advocate, Founder of The IBC Network Foundation

## Current Clinical IBC Trials Open for New Patient Enrollment

### **2006-1072 IBC Registry**

**2013-0007 Phase II study of Denosumab to define the role of bone related biomarkers in patients with breast cancer and bone metastasis**

**2013-0139 Phase IB trail of two folate binding protein peptide vaccine (E39 and J65) in breast and ovarian cancer patients**

**2013-0436 Combination immunotherapy with Herceptin and HER2 vaccine E75 in low and intermediate HER2 expressing breast cancer patients to prevent recurrence**

**2014-0464 A phase II study of BIBF-1120 (Nintedanib) for patients with HER2 normal metastatic inflammatory breast cancer**

**2014-0533 A phase II study of anti-PD1 (MK-3475) therapy in patients with metastatic inflammatory breast cancer who have perceived prior chemotherapy with clinical response**

**2014-0034 A phase II study using Talimogene Laherparepvec (T-VEC) as a single agent for IBC or non-IBC patients with inoperable local recurrence**

## Current Clinical IBC Lab Studies

**PA15-0499 Tissue biomarker study of T-DM1 and/or Pertuzumab resistant or refractory breast cancer NI0000-A-U002**



**PA12-0097 Prognostic utility of CTCs assessed by AdnaGen technology and clinical outcome of patients with stage III breast cancer**

**PA12-0728 Expansion and characterization of tumor-infiltrating and tumor-associated T cells from primary and metastatic triple-negative breast cancer and inflammatory breast cancer.**

**PA12-0860 Assessing feasibility of sentinel lymph node increase dissection in IBC**

**PA14-0772 Derivation of patient derived xenograft tumor models from isolated CTC from breast cancer patients (IBC/TNBC)**

**PA14-0778 Gene profiles in androgen receptor-positive CTC in patients with metastatic breast cancer**

If you are interested in learning more about our clinical trials, or lab studies, please email the Morgan Welch Inflammatory Breast Cancer Research Program and Clinic directly at [ibcp@mdanderson.org](mailto:ibcp@mdanderson.org)  
We are happy to provide general information and eligibility guidelines for our clinical trials and lab studies.

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