

Illuminating Hope

a quarterly newsletter for patients, patient advocates, doctors, staff, friends

Issue 25: October 2021

Making Cancer History®

Breast Cancer Awareness Month / Boot Walk 2021

This is the 6th year that 'Team IBC Wranglers' are fundraising to support our patients with Inflammatory Breast Cancer (IBC) and advance IBC research. This year we look forward to you joining us virtually. On November 6th, we will put on our boots to join the 5,000 cancer fighters around the globe and walk the 1.2 miles. We decided to have 3 team captains this year to maximize our ability to engage our patient advocates and IBC team members. Alessandra Land is our IBC advocacy captain, Dr. Chandra Bartholomeusz is our faculty captain, and Ms. Hope Murphy is our administrative captain. Our goal is to raise \$100,000, where 100% of the money raised goes toward our mission. Alessandra Land knows first-hand the importance of research into IBC. As of now, we have reached 71% of our goal. Your donation will make a difference in patients' lives, such as our team captain Alessandra whose longevity relies on past, present, and future research offering hope to see her son grow up. If you would like to participate or donate, please use this link: http://mdacc.convio.net/goto/IBCWranglers2021





As part of the Boot Walk and Breast Cancer Education, we are happy to share that Advocate Terry Arnold has hosted a "Spirit Night" at Black Walnut Café in Rice Village on Tuesday, October 12th. Spirit Nights are events that allow non-profits to raise funds by encouraging their supporters and friends to visit the restaurant and purchase food/drinks. Black Walnut Café is a local chain that generously offers 15% of their sales at a specific restaurant location to donate on the designated Spirit Night. In addition, we were able to pass out good information about IBC and talk to people about the Boot Walk. Thanks to Black Walnut for allowing this opportunity for fundraising, education, and a pleasant location to host a meet-up for IBC patients.

IBC Boot Walk Team Profile – Meet the IBC Wranglers Captains Team Captain: Alessandra Land



This year the Boot Walk is on my birthday, and I feel so honored to have been asked to be the IBC Wranglers team captain. These medical professionals have helped, and continue to help, me and countless others who will follow me. I was diagnosed with Stage IV Inflammatory Breast Cancer just weeks before my husband, and I had learned we were expecting our first child. It had only been 19 days since my first symptom, a swollen breast, had appeared. Suddenly, when I'd finally gotten everything I wanted, my whole world was in jeopardy. This diagnosis led my husband and me to pack our bags and head to MD Anderson. As a native Houstonian, I didn't even think of going anywhere else, and I am so grateful. In fact, MD Anderson is one of only a handful of facilities that treat Inflammatory Breast Cancer. And it is

the leader in researching new treatments and the possibility of a cure.

When I met my team (the A-Team, as I call them), my first question, of course, was "what about the baby." Dr. Lucci piped up right away, telling me not to worry, that chemo was safe during my stage of pregnancy, and my treatment would not need to be altered in any significant way. Months later, I found out his father and uncle were pioneers in researching cancer treatment during pregnancy. After surgery when I asked, "what about cancer in my neck?" Dr. Woodward had the research to prove radiation would obliterate it. When I got concerned and wondered, "what happens after treatment?" Dr. Ueno and his research team had a clinical trial ready and waiting.



Co-Captain: Chandra Bartholomeusz



I grew up with a dedicated medical doctor father, and I decided to follow in his footsteps. I attained my M.D. from the Medical School of the University of Zambia. I then completed a rotating internship program at the University Teaching Hospital of Zambia, followed by an externship at the Department of Pediatrics at Queen Elizabeth Hospital of St. Bartholomew's Medical School in London, England. I soon realized the importance of combining clinical medicine with the experience and knowledge of basic research. The opportunity to achieve this presented itself when I moved to Houston with my husband, who accepted a position at MD Anderson. I then joined MD Anderson as a research assistant in the Department of Molecular and Cellular Oncology. This motivated me to pursue graduate studies in Cancer biology at The University of Texas, which allowed me to complement my prior clinical training with basic science. I progressed through the ranks of Postdoctoral fellow, Instructor, Assistant Professor, and now Tenured Associate

Professor and became an independent researcher at the MD Anderson. My other passions are rescuing dogs and bringing them back to a happy place, cooking for my friends and family, traveling, and gardening.

My primary research interests are understanding the mechanistic biology of metastasis and improving therapeutic options. I want to do this by providing target-driven therapy that is less toxic than conventional therapies, which helps reduce mortality for patients with very aggressive forms of breast cancer such as IBC and TNBC. I know cancer on a much more personal level. My brother died of Stage IV pancreatic cancer four years ago in London while his teenage daughters were still in middle and high school. Cancer research saves lives. Every new discovery we make can prevent and treat cancer.

Co-Captain: Hope Murphy

Last year I was a team captain for IBC Wranglers during my first Boot Walk to End Cancer. After the success of our first virtual Boot Walk, I am thrilled to be a team captain again this year. Before working at MD Anderson, I received my Bachelor of Science in physics at Utica College. Then, I attained my Master of Science in computational biophysics from Texas Christian University. During my time at Texas Christian University, I completed a dissertation of an original biophysics research project. My project used mathematical modeling of breast cancer cells to help predict tumor growth and optimize treatment regimens. This research motivated me to apply for a job at MD Anderson. Just months before the world shut down for COVID-19, I started working at MD Anderson as a Research Data Coordinator. My main job is to enter data for various clinical trials and collect the questionnaires for IBC Registry. When I am not working, I like to needlepoint, watch TV and spend time with my family.



Join us on Zoom for a Multi-Team Live Q&A Panel – October 20th

As part of Breast Cancer Awareness month, and to connect with our community, we will host a Zoom panel discussion with our 3 multi-disciplinary faculty leaders (Dr. Naoto Ueno, Dr. Woodward, and Dr. Teshome and moderated by Dr Angela Alexander). The event will be on Wednesday, October 20th at 5 PM CST and last about 1.5 hours. We invite all that are interested in joining to email us at ibcp@mdanderson.org for the link and password. If you would like to submit questions in advance, we will accept them at the same email address and pose them to our panel. The zoom is open to patients and caregivers regardless of treatment location or health status. If you are unable to watch it live, we can provide a link to the recording – please contact us after the event to obtain this information.



New collaboration with Dana Farber Cancer Institute

We have also recently begun a long-term collaboration with Dana Farber Cancer Institute's IBC program to work together more closely. The first academic projects involve combining clinical databases to have a larger dataset to draw conclusions and examine outcomes in patients who have suboptimal responses to initial chemotherapy regimens. Once we can successfully merge the databases, future research projects will be done as well.





We are also exploring the possibility of co-designing clinical trials that can be opened at both institutions; however, given the many regulatory and logistical barriers, this is a more challenging goal. Given the rarity of IBC, we do feel that multicenter trials are likely the way to go to more quickly complete the enrollment so that advances can be made prior to the standard of care treatment landscape changing. Patients may also benefit from having trial options at multiple IBC clinics that may be more convenient geographically. We appreciate our senior data coordinator, Megumi Kai's efforts to lead this data integration project to efficiently merge our valuable resources.

New collaboration with BCM to understand the immune microenvironment

We are pleased to share that we are initiating a new collaboration with Dr. Xiang Zhang, an esteemed breast cancer metastasis researcher at Baylor College of Medicine. The project has been submitted to the IRB (ethics committee) for approval will study the blood from newly diagnosed TNBC patients (including TN-IBC) to examine whether there

are differences between cancer patients and healthy female volunteers. Dr. Zhang's lab has found that there are immune deficiencies in mouse models of TNBC, including a decrease in the population of B cells. B cells are a subset of lymphocytes that recognize

foreign substances (such as bacteria or viruses) and make antibodies, resulting in other immune cells destroying the invader. These immune differences might be a reason why some patients do not respond to immunotherapy. Suppose the project successfully demonstrates that similar changes are observed in humans compared with the mice. In that case, this data will provide a rationale for designing new strategies to improve the activity of current immunotherapies. In addition, we have opened a new protocol to generate humanized mouse models of IBC, which would be

ideal for such studies. Unfortunately, current models of IBC are suboptimal since they must be done in severely immunocompromised mice.

Facebook page and Twitter shutting down

Last month, after a long hiatus on posting (since November 2020), the program learned that the institutional communications strategy had changed, and our program social media accounts were closed. Rather than individual programs posting on Facebook or Twitter, the institution decided to pivot the strategy to focus on individual faculty accounts (Twitter), and the main MD Anderson Facebook and Twitter accounts for information dissemination.

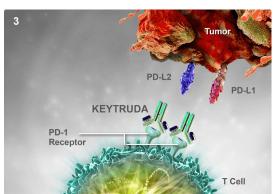
This news was difficult for us, given that our program social media has been a lifelong connection with the IBC community – not only our patients but other stakeholders, including donors, referring physicians, and caregivers. Moving forward, we will be working with the institution to share important stories in the main hospital accounts, including important scientific breakthroughs and hopeful patient stories. While the frequency, depth of content, and style may change due to the main accounts covering topics relevant to all cancers, we hope you will continue to follow those accounts as well as read this newsletter closely. In addition, our newsletter committee seeks to include information that would have previously been shared on our social media; however, due to the quarterly publication schedule, the information may be less timely.



In addition, our program faculty and staff are on Twitter, and you may follow a curated list of these accounts on <code>@thecancergeek's</code> account (https://twitter.com/i/lists/1433873807031291905). For those who prefer Facebook, we recommend following <code>Dr. Naoto Ueno</code>. He may not accept patients as friends, but his public posts may still be of interest. If you have further comments about how you would like to interact with us outside of the clinic, feel free to email us at ibcp@mdanderson.org, and we will see what can be done.

Finally, do you know of patients who aren't currently getting this newsletter that might find it useful? If so, please forward this newsletter to them, and if they would like to be added, they can email us or complete the form linked at the bottom of the newsletter. We are actively working on building the email list and welcome added subscribers.

Treatment News: Pembrolizumab (Keytruda) approved in early-stage TNBC



The era of immunotherapy as a standard treatment option for patients with triple-negative breast cancer (TNBC) is here! In July, the FDA formally approved Pembrolizumab for high-risk early-stage TNBC, which includes stage 3 IBC. Pembrolizumab is a monoclonal antibody targeting PD-1, a protein on T cells, which is used to dampen the immune response. By using this antibody, the immune system can be boosted to fight cancer.

The approval was based on the KEYNOTE-522 study, a phase 3 randomized study that combined Pembrolizumab (Keytruda) with standard chemotherapy, given before surgery for patients with non-

metastatic TNBC. Importantly, unlike the previous approval for metastatic TNBC, PD-L1 testing of the tumor is not required since patients on trial benefited regardless of their PD-L1 status. The pathologic complete response (pCR) rate in the trial was 63% in the patients randomized to receive Pembrolizumab versus 56% for chemotherapy with a placebo. Importantly, the recurrence outcome ("disease-free survival") was also significantly improved with the addition of Pembrolizumab. Therefore, this new FDA-approved standard of care consists of Pembrolizumab + chemotherapy (carboplatin and paclitaxel, followed by Adriamycin and cyclophosphamide), followed by surgery and completion of 1 year total of Pembrolizumab. Due to this vast change in the treatment landscape of TNBC, we have closed our current trial for TN-IBC and will be preparing these results for publication once data matures sufficiently to perform the analysis.

New Housing Option for Cancer Patients in Houston & Power of Advocacy

We have learned that the American Cancer Society is opening up a Hope Lodge in Houston in the coming few weeks, which will provide a free, safe place to stay for patients traveling to Houston for cancer care. The Houston Hope Lodge is located only a few miles away from MD Anderson, and once opened, there will be 64 rooms available for use by patients who live at least 40miles/1 hour away. Each patient must have an adult caregiver with them. Patients with upcoming appointments can be referred for accommodation at the Hope Lodge through their MD Anderson social worker, whether 1-2 days are needed or many weeks for surgery/radiation. If you have not



spoken with the social workers before, your oncologists can facilitate the meeting to set up arrangements. To learn more about the Hope Lodge, visit their website at https://www.cancer.org/treatment/support-programs-and-services/patient-lodging/hope-lodge/houston/about-our-facility.html





This news is particularly exciting as we have learned that one of our longtime IBC advocates, Mrs. Terry Arnold, was involved in lobbying for this facility about 10 years ago. In addition, our former program director, Mrs. Pam Jones was heavily involved in advocating for this, given the high percentage of IBC patients from outside of the Houston area. At the time, the policy was 1 hope lodge per state, and Texas already had one in Dallas; hence it was quite challenging to convince the organization about the need for another one. Of course, one simple argument of Dallas being 4 hours away was made, but also the nature of MD Anderson, being consistently the #1 cancer center, and many patients with rare cancers like IBC coming from distant states and countries. After flying to NYC to meet with the committee, Terry learned that her advocacy had impacted the decision to move forward with this project. What a great example of advocacy that will impact many thousands of patients! Thank you, Terry, for your tireless work on behalf of patients and MD Anderson.

MD Anderson's Institutional Update on Covid-19 – Additional vaccine(3rd) dose and Booster Vaccine

1 in every 500 Americans has died of COVID-19- The highly transmissible delta variant is now responsible for over 99% of all COVID-19 cases in the US. The future is highly dependent on progressive vaccination to achieve herd immunity and continuing to follow precautionary measures such as social distance, wearing a mask, and washing your hands.

Additional vaccine doses are available for immunocompromised individuals

The third dose of Pfizer-BioNTech (marketed now as Comirnaty) and Moderna COVID-19 vaccines is authorized for certain immunocompromised individuals, including those undergoing active cancer treatment.

Additionally, FDA has authorized Pfizer booster doses for individuals that meet the criteria for additional vaccinations. This includes all individuals over the age of 65 years. For individuals 18 through 64 years, the vaccine is limited to people at risk of developing severe COVID or frequently exposed to COVID either through their work or "institutional" exposure. However, booster doses are not yet approved for other fully vaccinated individuals. Vaccine administration and rollout recommendations are being expected per FDA and CDC guidance.

Third (3rd) dose Versus Booster

The third dose of the COVID-19 vaccine is authorized only to improve the immune response of those who have certain immunocompromised conditions. By contrast, booster shots are slated for non-immunocompromised people who were first vaccinated about eight months ago with an immune response that may have waned over time. As always, if you have specific questions about multiple vaccines and your own medical condition or situation, please discuss these questions with your primary care physician.

Scheduling Appointments

MD Anderson is providing safe and effective COVID-19 vaccinations to the Houston community. You do not need to be a cancer patient or caregiver to be vaccinated at MD Anderson. Everyone age 12 and older is eligible to receive a vaccine. Eligible MD Anderson patients can sign into MyChart to schedule an appointment. In addition, appointments for eligible community members for a third dose of the vaccine are available at the link - https://covidvaccine.mdanderson.org/VaccineSchedule.



Announcements Welcome, baby boy!



Congratulations and a warm welcome to Dr. Saleem's bundle of joy!

We are truly excited to share with you that Dr. Sadia Saleem and her husband welcomed their baby boy into the world in August 2021. Mother and Baby are doing great.

Best wishes to the beautiful family!



Congratulations Dr. Wendy Woodward, 2021 ASTRO fellow

We congratulate Dr. Wendy Woodward for her recognition as a 2021 ASTRO fellow. ASTRO is the largest professional organization for radiation oncologists, and a limited number of distinguished members receive this recognition each year. This year's class of 28 new fellows will be honored at an awards ceremony at the ASTRO Annual Meeting in Chicago later this month.

This honor is bestowed upon individuals who have made substantial contributions to the Society and field of radiation oncology and speaks to her international



reputation in the breast radiation oncology field. Dr. Woodward currently serves as the Section Chief of Breast Radiation Oncology here at MD Anderson, Deputy Department Chair for Faculty Affairs in the Department of Radiation Oncology, Co-Director of the UT McGovern, GSBS, UTMDACC MD-PhD Program, and Deputy Executive Director and core leader for the IBC program.

Recent Awards and Grants

Savitri Krishnamurthy, MD, Professor, Department of Pathology/Laboratory Medicine, received funding from *Dhristi, Inc.* **Title**: Artificial Intelligence tools to predict the response of breast cancer to chemotherapy.

Bisrat Debeb, DVM, Ph.D., Assistant Professor, Department of Breast Medical Oncology – Research, and Savitri Krishnamurthy, MD, Professor, Department of Pathology/Laboratory Medicine received funding from the *American Cancer Society*, **Title**: Novel mechanisms of brain metastasis in aggressive breast cancers.



Chandra Bartholomeusz, MD, Ph.D., Associate Professor, Department of Breast Medical Oncology-Research, and Savitri Krishnamurthy, MD, Professor, Department of Pathology/Laboratory Medicine, received an award from American Cancer Society, Title: Understanding the Role of MCl1 in MAPK driven Tumors in TNBC.

Savitri Krishnamurthy, MD, Professor, Department of Pathology/Laboratory Medicine, received funding from NIH/NCI. Title: Multimodal microscope for intraoperative assessment of breast surgical margins.

Recent Publications and Abstracts

Inflammatory breast cancer appearance at presentation is associated with overall survival. Authors: Balema W, Liu D, Shen Y, El-Zein R, Debeb BG, Kai M, Overmoyer B, Miller KD, Le-Petross HT, Ueno NT, Woodward WA. Cancer Med. 2021 Jul 30. doi: 10.1002/cam4.4170. Epub ahead of print. PMID: 34327874.

ASO Authors Reflections: Metastasis of Inflammatory Breast Cancer to the Contralateral Axilla: A Finding Meriting Further Study. Authors: Postlewait LM, Lucci A. Ann Surg Oncol. 2021 Jun 2. doi: 10.1245/s10434-021-10208-6. Epub ahead of print. PMID: 34076808.

Lipocalin 2 promotes inflammatory breast cancer tumorigenesis and skin invasion. Authors: Villodre ES, Hu X, Larson R, Finetti P, Gomez K, Balema W, Stecklein SR, Santiago-Sanchez G, Krishnamurthy S, Song J, Su X, Ueno NT, Tripathy D, Van Laere S, Bertucci F, Vivas-Mejía P, Woodward WA, Debeb BG. Mol Oncol. 2021 Aug 3. doi: 10.1002/1878-0261.13074. Epub ahead of print. PMID: 34342930.

Inflammatory breast cancer at the extremes of age. Authors: Adesoye T, Babayemi O, Postlewait LM, DeSnyder SM, Sun SX, Woodward WA, Ueno NT, Hunt KK, Lucci, A, Teshome M. Ann Surg Oncol. 2021 Oct; 28. doi: 10.1245/s10434-021-10453-9. PMID: 34292426

Identification of the JNK-Active Triple-Negative Breast Cancer Cluster Associated with an Immunosuppressive Tumor Microenvironment. Authors: Semba T, Wang X, Xie X, Cohen EN, Reuben JM, Dalby KN, Long JP, Phi LTH, Tripathy D, Ueno NT. JNCI 2021 Jul 12. doi: 10.1093/jnci/djab128. Online ahead of print.

Immune landscape of inflammatory breast cancer suggests vulnerability to immune checkpoint inhibitors. Authors: Bertucci F, Boudin L, Finetti P, Van Berckelaer CV, Van Dam P, Dirix L, Viens P, Goncalves A, Ueno NT, Van Laere S, Birnbaum D, Mamessier E. Oncoimmunology 2021 May 23. doi: 10.1080/2162402X.2021.1929724.

Pathological complete response of adding targeted therapy to neoadjuvant chemotherapy for inflammatory breast cancer: A systematic review. Authors: Chainitikun S, Fernandez JRE, Long JP, Iwase T, Kida K, Wang X, Saleem S, Lim B, Valero V, Ueno NT. PLoS One 2021 Apr 16. doi: 10.1371/journal.pone.0250057

Estrogen Receptor β-Mediated Inhibition of Actin-Based Cell Migration Suppresses Metastasis of Inflammatory Breast Cancer. Authors: Thomas C, Karagounis IV, Srivastava RK, Vrettos N, Nikolos F, Francois N, Huang M, Gong S, Long Q, Kumar S, Koumenis C, Krishnamurthy S, Ueno NT, Chakrabarti R, Maity A. doi: 10.1158/0008-5472.CAN-20-2743.

The Role of Mastectomy in De Novo Stage IV Inflammatory Breast Cancer. Authors: Partain N, Postlewait LM, Teshome M, Rosso K, Hall C, Song J, Meas S, DeSnyder SM, Lim B, Valero V, Woodward W, Ueno NT, Kuerer H, Lucci A. doi: 10.1245/s10434-020-09392-8



Giving cancer the boot!

Issue 25: October 2021

News/Events

Save the date: MD Anderson Virtual Boot Walk: Nov 6th, 2021





IBC Events Update

Zoom – Multi-Team FB Live Q&A 10/20 @ 5PM CST (5-6:30 PM) **Get to know your Team of Doctors** (tentative title)

IBC Wrangler's virtual walk on zoom – if you want to be a part of this, then join our team

Event Day Schedule

Date: Saturday, Nov. 6, 2021

Register Online: http://mdacc.convio.net/goto/IBCWranglers2021

Opening Ceremony: 9:00 a.m. CDT. The link to watch will be sent to registered participants.

IBC Wrangler's virtual walk: 10:00 AM CDT. The link to join will be sent to registered team members.

IBC Program Presentations

The Unique Symptom Burden of Inflammatory Breast Cancer

Meagan Whisenant, Ph.D., APRN, Assistant Professor Department of Research, Cizik School of Nursing The University of Texas Health Science Center at Houston, Adjunct Assistant Professor, Department of Nursing, The University of Texas MD Anderson Cancer Center

An overview - SarsCoV2 virology and disease mechanisms

Jeffrey Tarrand, M.D., Professor

Department of Pathology and Laboratory Medicine, Chief, Section of Clinical Microbiology and Virology, Division of Pathology and Laboratory Medicine The University of Texas MD Anderson Cancer Center

Advances in Management of Fatigue in Metastatic Breast Cancer

Sriram Yennu, MD, MS, FAAHPM, Professor
Department of Palliative Care and Rehabilitation
Medicine, Division of Cancer Medicine, The University
of Texas MD Anderson Cancer Center

Boot Walk to End Cancer

Alessandra Land IBC Wranglers, Team Captain



Current Clinical IBC Trials Open for New Patient Enrollment Neoadjuvant (newly diagnosed):

2016-0537 - A phase 1b study of neratinib, pertuzumab, and trastuzumab with taxol (3HT) in metastatic and locally advanced breast cancer, and phase II study of 3HT followed by AC in HER2 + primary IBC, and neratinib with taxol (NT) followed by AC in HR+ /HER2- primary IBC

Adjuvant (after surgery and radiation):

- 2016-0096 A phase II study of anti-PD1 (Pembrolizumab) in combination with hormonal therapy in patients with hormone-receptor (HR)-positive localized inflammatory breast cancer (IBC) who did not achieve a pathological complete response (pCR) to neoadjuvant chemotherapy
- 2018-0550 Atorvastatin in triple-negative breast cancer (TNBC) patients who did not achieve a pathologic complete response (pCR) after receiving neoadjuvant chemotherapy, a multicenter pilot study

Radiation:

SWOG1706 - A phase II randomized trial of olaparib administered concurrently with RT vs. RT alone for inflammatory breast cancer

Metastatic IBC:

- 2014-0533 A phase II study of anti-PD1 (MK-3475) therapy in patients with metastatic inflammatory breast cancer (IBC) or non-IBC triple-negative breast cancer (TNBC) who have achieved clinical response or stable disease to prior chemotherapy.
- 2016-1096 A Phase I Study of OTS167PO, a MELK inhibitor, to Evaluate Safety, Tolerability, and Pharmacokinetics in Patients with Advanced Breast Cancer and Dose-Expansion Study in Patients with Triple Negative Breast Cancer.
- 2016-0890 A phase II study of triple combination of Atezolizumab, Cobimetinib, and Eribulin (ACE) or Atezolizumab + Eribulin (AE) in patients with chemotherapy-resistant metastatic inflammatory breast cancer

We are currently actively developing several new clinical trials for patients with newly diagnosed IBC and patients with metastatic disease and will share more details once activated.

Current Clinical IBC Lab Studies:

We currently have 6 open clinical IBC laboratory studies that collect blood and tissue to analyze host and tumor biology and clinical correlations.

Newsletter Committee

Marcy Sanchez Swetha Bopparaju Jie Willey

Angela Alexander Hope Murphy Naoto Ueno

Interested in receiving this newsletter or know someone who is click on the <u>link</u> to enter name and email address