

Making Cancer History®



Issue 20: September 2020

WELCOME

We are excited to extend a warm welcome and share information regarding our new IBC Connect team members from Texas - Lyndon B. Johnson (LBJ) County Hospital in Houston, UT Health San Antonio MD Anderson (UTHSA) in San Antonio, and UT Southwestern Medical Center (UTSW) in Dallas.

Location: Lyndon B. Johnson (LBJ) County Hospital, Houston

Lyndon B. Johnson Hospital is the State's busiest hospital with over 70,000 emergency patient visits each year. The MD Anderson Oncology Program at Lyndon B. Johnson (LBJ) Hospital was established with the collaboration of MD Anderson, the Harris County Hospital District, The UT Houston Health Science Center, and Baylor College of Medicine.

Med Onc - Dr. Tejal Patel

Surgeon – Dr. Tamara Saunders Rad Onc – Dr. Michelle Ludwig

Facebook:<u>www.facebook.com/HarrisHealthSystem</u>

Twitter: @harrishealth

LYNDON B. JOHNSON HOSPITAL MARRISHEALTH SYSTEM

The LBJ Oncology Clinic provides health care for low income and medically underserved residents of Harris County, with the primary goal being cancer control and treatment. The collaborative program with MD Anderson was founded by Dr. Vicente Valero, one of our IBC medical oncologists, in 1995, and the relationship has grown since then to involve many MD Anderson faculty and fellows who rotate there.

The MD Anderson Oncology Program at Lyndon B. Johnson Hospital manages all types of cancer care and provides medical oncology, surgical oncology, and colposcopy services, along with a range of supportive programs in partnership with Harris Health, UT Health, and Baylor. Every member of their team is specifically trained in oncology, including physician assistants and advanced practice nurses, who work closely with their physicians and specialists to design a plan made just for you. The multidisciplinary approach to patient care means that you and your loved ones are a part of the team that helps



decide the best course of treatment possible. Patients who would like an appointment can call 713-566-5100.





Location: UT Health San Antonio MD Anderson, TX

The Mays Cancer Center, home to UT Health San Antonio MD Anderson Cancer Center, is an NCI-designated research center that is transforming cancer care to better serve patients in San Antonio and South Texas, in partnership with MD Anderson Cancer Center.

Med Onc - Dr. Virginia Kaklamani Surgeon - Dr. Maryam Elmi Rad Onc - Dr. Richard Crownover

Facebook: <u>www.facebook.com/UTHealthSAphysicians</u>

Twitter: <u>@UTHealthcareSA</u>

The mission of the Mays Cancer Center is to reduce the burden of cancer in San Antonio, South Texas, and beyond, through the highest-quality cancer research, prevention, and treatment, as well as through the education of the next generation of scientists and clinicians focused on the prevention and treatment of cancer in South Texas. Mays Cancer Center physicians offer treatment at disease-specific, multidisciplinary clinics for cancer in all its forms, including breast, gastrointestinal, gynecological, genitourinary, geriatric, head and neck, hematologic/blood, neuro-oncology, sarcoma, and thoracic-pulmonary cancers.

South Texas patients can benefit from the multidisciplinary approach, treatment innovations, and standards of care. As the program expands, select clinical trials and other research opportunities will be made available in the future. Mays Cancer Center's multidisciplinary approach means that doctors and breast cancer specialists are committed to delivering excellent care for conditions and diseases of the breast. UTSW's multidisciplinary treatment teams work together to develop a personalized treatment plan specific to your type of cancer. We're excited about the opportunity to collaborate with our UT System sister institution to elevate the standard of care for patients in South Texas. Together, we can work toward common goals in our mission to end cancer.

Patients who would like an appointment with the IBC team may call 210-450-1000.



Location: University of Texas Southwestern Cancer Center (UTSW)

As the only National Cancer Institute-designated comprehensive cancer center in North Texas, UTSW delivers the best cancer care, providing patients the ability to participate in the broadest possible range of clinical trials, with access to newer therapies.

Med Onc – Dr. Sangeetha Reddy Surg Onc – Dr. Rachelle Woolridge Rad Onc – Dr. Nathan Kim

f Facebook: <u>www.facebook.com/UTSWNews</u>

Twitter: @UTSWNews

UT Southwestern's Center for Breast Care offers comprehensive, patient-focused breast cancer treatment using the latest medications, techniques, and therapies. At the Center for Breast Care, patients benefit from the knowledge and experience of an entire team of breast care specialists, such as medical, surgical, and radiation oncologists; breast imaging specialists; genetic counselors; pathologists; and reconstructive surgeons. This expertise means patients receive unsurpassed care from specialists who treat breast cancer patients every day.

UT Southwestern's mission is to ease the burden of cancer through exceptional patient care, transdisciplinary research discovery, community engagement and education, partnership, and collaboration.

UTSW's Patients who would like an appointment with the IBC team may call 214-645-8300 or 817-882-2700.

UT AUSTIN COLLABORATION

A collaboration between MD Anderson (Dr. Wendy Woodward) and UT Austin (Dr. Marissa Rylander) has developed the first three-dimensional, in vitro, vascularized, microfluidic platform that enables the dynamic characterization and modeling of complex inflammatory breast cancer (IBC) tumor-vascular interactions. These platforms (Fig. 1) provide a robust and cost-effective means to investigate IBC systematically and quantitatively in a controlled and replicable manner compared to current standards. This study was able to demonstrate that IBC cells were more active in collagen remodeling as well as secretion of proangiogenic and tumorigenic factors compared with non-IBC cells, revealing potential targets for future IBC therapeutics. For the first time, these platforms captured the angiogenic sprouting and vascular surrounding of tumor emboli (a unique behavior of IBC tumors) purely through tumor-endothelial cell interactions.

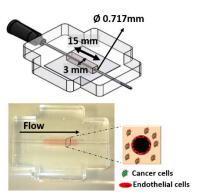


Figure 1: Setup and tumor-vasculature interface of the 3D in vitro vascularized IBC platform.

The development of vascularized tumor platforms allows for the identification of behavioral variations that are representative of different breast cancer tumors. With the ability to perform spatiotemporal imaging (Fig. 2) and identify biological proteins and responses, these platforms can decipher factors that may play a direct role in tumorigenesis and vascularization. Furthermore, these platforms provide a simple and efficient way to investigate and tease out the contributing factors associated with the lethality of IBC and use the knowledge towards the development of IBC specific treatments. Current efforts are underway to utilize these platforms to investigate the roles of specific cell populations in the progression and treatment of IBC, including the application of IBC targeted therapeutics utilizing the knowledge gathered from the study of these platforms.

For more details in the manuscript published at Biotechnology and Bioengineering (https://onlinelibrary.wiley.com/doi/full/10.1002/bit.27487).

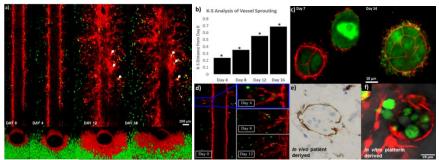


Figure 2: Vascular sprouting dynamically observed over a three week period in the tumor platforms. (a) Top panel: Longitudinal cross section images of the vessel show vessel sprouting, branching, as well formation of tumor emboli (white arrows), Bottom panel: front view of the vessels. (b) K-S analysis of vessel sprouting revealed a significant increase in sprouting at later time points compared to Day 0; (c) F-actin (red) staining of MDA-IBC3 cells (green) show formation and growth of tumor emboli. (d) Lumen formation followed over time in one of the vessel sprouts. (e) Vascular nesting phenomenon of IBC tumors in in vivo patient derived histological samples demonstrated by CD31 staining of vascular vessel (brown) surrounding IBC tumor emboli (blue). (f) In vitro recreation of vascular nesting of IBC tumors as shown by the encircling of MDA-IBC3 tumor cells (green) by mKate labeled sprouts (red).



Rare Cancers Research Program Concept Award Announcement (DoD, CDRMP)

Earlier this month, the **DoD Rare Cancers Research Program (RCRP) Grant** was announced to support the **research for exceptional scientific merit in the area of rare cancers research**. IBC is a great example of a rare cancer in need of research support. In FY20, the Defense Appropriations Act provided \$7.5 million (M) to the Department of Defense (DoD) to support rare cancers research, thus establishing the RCRP. Applicants are allowed to submit applications related to those sub-types to either the RCRP or other relevant **Congressionally Directed Medical Research** (CDMRP) cancer research programs. **FY20 RCRP definition of rare cancers: The RCRP defines rare cancer as cancers affecting less than 6 persons per 100,000 per year in the U.S. (IBC is 2.2/100000). A full list of application requirements and key criteria are listed at https://cdmrp.army.mil/rcrp/default.**

Applications for the Concept Award (up to \$100,000) submitted to the FY20 RCRP must address one or more of the following Focus Areas:

- Biology and Etiology: Identify disease-defining molecular pathways, cell context, and microenvironment.
- Research Model: Develop and validate rare tumor-specific models that can support clinical trial readiness.
- **Platform Development:** Development of platforms (such as, tumor tissue repository with clinical annotation; centralized databanks; patient registry with common data structure; research model and Omics database; longitudinal studies of natural history and treatment response), for multiple rare cancers, to allow sharing data, bio-specimens and resources.
- **Therapy:** Identify novel therapeutic strategies, including drug repurposing.

Applications for the Idea Development Award (up to \$350,000) submitted to the FY20 RCRP must address one or more of the following Focus Areas:

- **Biology and Etiology:** Identify disease-defining molecular pathways, cell context, and microenvironment.
- **Research Model:** Develop and validate rare tumor-specific models that can support clinical trial readiness.
- Therapy: Identify novel therapeutic strategies, including drug repurposing.

Applications for the Resource and Community Development Award (up to \$600,000) submitted to the FY20 RCRP must address the Focus Areas below:

• <u>Platform Development:</u> Development of platforms (such as, tumor tissue repository with clinical annotation; centralized databanks; patient registry with common data structure; research model and Omics database; longitudinal studies of natural history and treatment response), for multiple rare cancers, to allow sharing data, bio-specimens and resources.

The IBC program intends to submit an application for the Resource and Community Development Award to support the infrastructure and expand further to our IBC Connect partners.

Award Information

The FY20 RCRP RCDA supports the development of resources to advance the field of rare cancers research and ultimately improve outcomes for individuals with rare cancers.

Key Elements of applications will include impact, preliminary data, clinical research and applied research. Outcomes of the RCDA must have potential for major impact on an unmet need in rare cancers research. A resource, as developed in the proposed research, should aim for long-term anticipated advantages toward greatly improving outcomes for people with rare cancers.



Patient Advocate Participation: Applications to the RCDA funding opportunity are required to include patient advocates. The research team must include at least two cancer patient advocates who will be integral throughout the planning and implementation of the research project. If you would like to help as an advocate, please reach out to us at ibcp@mdanderson.org.

Funding Opportunity Number: W81XWH-20-RCRP-CA

SUBMISSION AND REVIEW DATES AND TIMES

- Pre-Application Submission Deadline (Letter of Intent): November 12, 2020, 5:00 p.m. (ET)
- Application Submission Deadline: November 30, 2020, 11:59 p.m. (ET)
- End of Application Verification Period: December 3, 2020, 5:00 p.m. (ET)
- Peer Review: January 2021
- Programmatic Review: March 2021

Point of Contact:

CDMRP Public Affairs 301-619-9783

usarmy.detrick.medcom-cdmrp.mbx.cdmrp-public-affairs@mail.mil

News/Events

October 2020	Virtual IBC High Tea / Lite Bites Event	TBD
October 7, 2020	IBC Casual Chat w/ Dr. Ueno	Please see details below.
October 23-24, 2020	IBC Learning Academy	Please read information below.
November 7, 2020	Boot Walk	Registration is now open. Please visit
	MD Anderson Cancer Center	the Boot Walk website to register and
		kick start your fundraising.
		www.mdanderson.org/bootwalk
		Join team IBC Wranglers





MD Anderson Boot Walk to End Cancer

IBC WRANGLERS

Team Captain: ANGELA ALEXANDER

MD Anderson holds an annual fundraiser called the Boot Walk to End Cancer, which aims to generate funds specifically for research. The IBC program has participated every year as the "IBC Wranglers" and raised more than \$250,000 over the past 4 years, which have been used to support basic/translational and clinical research, including patient support to participate in our clinical trials. This year we will participate as well, but unlike before, there is not an in-person walk on the campus due to the COVID-19 pandemic. Rather, we will have a virtual event – so members can walk in their neighborhoods or local park. The program is working on developing a fun event for all to participate in. For now, we would love our former team members and newly interested patients/advocates to join our team at www.mdanderson.org/bootwalk, and search for IBC Wranglers. Please contact us at



<u>ibcp@mdanderson.org</u> if you need any assistance with signing up, if you have any questions about the event or if you have ideas for fundraising. This year may have unique challenges for fundraising, but with your help and creativity, we can raise crucial funds for program research.



IBC LEARNING ACADEMY

October 23-24, 2020

In collaboration with the IBC Network Foundation (the largest non-profit supporter of IBC research), the program is thrilled to support a new advocacy training course that will be held virtually, for the first time, October 23-24, 2020. The goals of this event are to train advocates to become more involved in advocacy and provide opportunities for engagement with the program. Perhaps you have been curious how to give back after completing treatment or helping a family member go through IBC treatment, but don't know how or where to start. If so, please consider joining the event, which will be held via Zoom, so anyone worldwide may participate, regardless of whether they are a current/former MD Anderson patient or not. The free course will provide educational background on IBC biology and treatment (so that you would understand research better), and also cover more general aspects such as how grants work, health-care-related advocacy and how clinical trials work. The agenda will be shared by the IBC Network shortly, and registration will be open later in September. The course will be taught by many MD Anderson faculty and staff, and select invited guests from the advocacy community. There will be opportunities for meeting each other virtually (small breakout rooms) and ample time for Q&A between the didactic content. The lectures will be recorded and archived online for later watching, but those who join live will be able to discuss ideas with other attendees. If you wish to receive an email once the registration is open and the agenda is finalized, please send an email to ibcp@mdanderson.org.

Online Events - Starting October

Since we cannot hold any in-person social/educational events like we usually do in October, we plan to initiate a monthly 1-hour IBC casual chat. The first informal chat will be on October 7th at 7:30 pm CT.

Website: Zoom.com; or

Click on link: https://mdacc.zoom.us/j/95517354703?pwd=SXNqOHdlRnBSeTRKSU82R2luVVdUZz09

Meeting ID: 955 1735 4703

Passcode: 830994

Last but not least, we wholeheartedly thank all our IBC Connect team members for their cooperation and promptly sharing exciting information regarding their institutions and allowing us to share with the IBC community.

Newsletter Committee

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