

CANCER JOURNAL

SUMMER 2017

Meet the Radiation Oncologists: Six Memorial Hermann Cancer Centers Offer Radiation Oncology Programs

Special Section: Memorial
Hermann Cancer Centers'
Annual Report, Page 7

Angel Blanco, M.D.

Affiliated Radiation Oncologist, Memorial Hermann Mischer Neuroscience Institute at the Texas Medical Center



As director of radiation oncology and stereotactic radiosurgery for the Memorial Hermann Mischer Neuroscience Institute at the Texas Medical

Center, Dr. Angel Blanco oversees all radiation therapy services at the Memorial Hermann Cancer Center-Texas Medical Center. He is certified in radiation oncology by the American Board of Radiology and specializes in adult radiation oncology with an emphasis on breast, central nervous system and body stereotactic cases. He also has expertise in Gamma Knife® radiosurgery, which is available only at the Texas Medical Center; intensity-modulated radiation therapy (IMRT); and high-dose rate brachytherapy for cancer patients.

Dr. Blanco made the decision to become a doctor at the age of five or six. "After one of my grandparents died from cancer, I never considered anything else," he says.

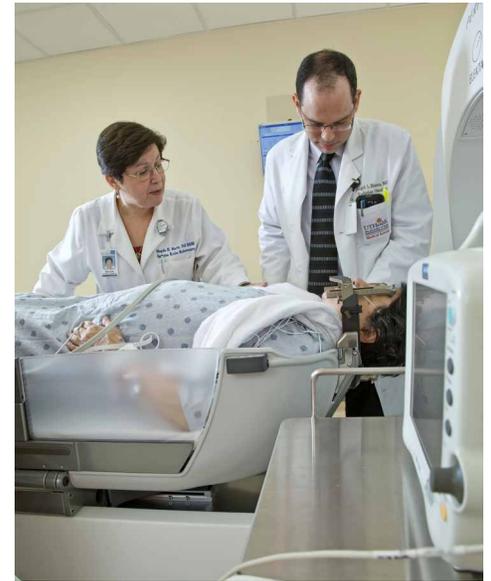
A Phi Beta Kappa graduate of Emory University, Dr. Blanco received his medical degree at Baylor College of

Medicine in Houston, where he became interested in the specialty of radiation oncology as a third-year medical student. He was attracted by the blend of physics with computer technology and the opportunity to develop relationships with patients during the course of treatment.

Dr. Blanco completed his residency in radiation oncology at Washington University in St. Louis, Missouri, where he served as chief resident. Before joining the Mischer Neuroscience Institute and Mischer Neuroscience Associates-Texas Medical Center, he served as junior faculty in the head and neck service at The University of Texas MD Anderson Cancer Center, and was in community practice at Memorial Hermann Southwest Hospital.

He has lectured nationally and internationally on topics in radiation oncology, and has authored three textbook chapters and 30 articles and abstracts in peer-reviewed medical journals. He serves as a reviewer for the *International Journal of Radiation Oncology-Biology-Physics*, *Cancer*, *Journal of Radiation Oncology*, and *Radiotherapy and Oncology*. He has served as director-at-large of the Texas Society of Medical Oncology and also is a member of the American Association of Therapeutic Radiology and Oncology, American Society of Clinical Oncology, National Cancer Institute and Texas Society of Clinical Oncology.

"We offer the full range of treatment modalities at the Institute, including Gamma Knife radiosurgery for brain tumors," he says. "Our main goal in



Mischer Neuroscience Institute acquired the region's first Leksell Gamma Knife® in 1993. Read more on page 5.

working with our patients is to tailor evidence-based treatments to each patient's medical and lifestyle needs. We are unique among Memorial Hermann centers because we offer on-campus, subsite-directed tumor boards for virtually every oncologic site of interest. In addition, the close association with subspecialists at UTHealth provides patients access to a vast range of expertise in the treatment of cancer."

Radiation Oncologists continues on page 2

DIGITAL VERSION

To receive the Memorial Hermann Cancer Journal via email, please sign up online at memorialhermann.org/cancerjournal.

MEMORIAL
HERMANN
Cancer Centers

Radiation Oncologists continued from page 1

Shariq Khwaja, M.D., Ph.D.

Affiliated Radiation Oncologist, Memorial Hermann Mischer Neuroscience Institute at the Texas Medical Center and Memorial Hermann Memorial City Medical Center



Initially interested in becoming a scientist, Dr. Shariq Khwaja worked in the Cancer Research Lab in his freshman year at the University of Wisconsin-Madison.

“Somewhere in the middle of college, I realized I was interested in more than the basic molecular biology of cancer and that I also wanted to treat patients,” the radiation oncologist says. “In order to do both, I decided to pursue a combined M.D./Ph.D. program.”

Dr. Khwaja earned his M.D. and Ph.D. at the Mayo Clinic in Rochester, Minnesota, through the Mayo Clinic Medical Scientist Training Program. While rotating through the cancer-related specialties in medical school, his love of radiobiology and physics drew him to the

technical aspects of radiation oncology.

“It’s a highly technical, very localized therapy in which we’re firmly involved in the multidisciplinary nature of patient care,” he says. “In treating patients daily for six weeks, we really get to know them and their families. The research opportunities available in radiation oncology also appealed to me.”

After his internship in internal medicine at Parkland Memorial Hospital/The University of Texas Southwestern Medical Center in Dallas, Dr. Khwaja went on to complete his radiation oncology residency at Barnes Jewish Hospital/Washington University School of Medicine in St. Louis. He was the recipient of an Integrated Clinical and Translational Science Research Award in 2014, and his project on human papillomavirus-related head and neck cancer biomarkers was awarded the American Society of Radiation Oncology Clinical Research Award in 2015. The following year, he was the recipient of the Radiological Society of North America’s Roentgen Resident/Fellow Research Award.

It was at Washington University that Dr. Khwaja developed a special interest in high-dose-rate (HDR) brachytherapy for prostate, breast and gynecological cancers. When he joined the medical staff at Memorial Hermann and the faculty of McGovern Medical School at UTHealth, he brought the technique with him, taking brachytherapy to the next level within the health system.

“During brachytherapy, we treat tumors with very high doses of localized radiation that greatly reduces the dose to surrounding healthy tissues,” he says. “Treatment lasts only a few minutes. Using image guidance, we place tiny, hollow catheters in the prostate and then insert a radioactive wire into each of the catheters. Treatment with HDR brachytherapy lasts a day or two versus the usual eight to nine weeks of treatment with external beam radiation therapy for prostate cancer.”

Dr. Khwaja also has clinical interests in intensity-modulated radiation therapy, image-guided and adaptive radiation therapy, advanced localization systems, partial breast irradiation, prostate low

IN THIS ISSUE

EXCELLENCE IN CANCER CARE 1-5

Meet the Radiation Oncologists: Six Memorial Hermann Cancer Centers Offer Radiation Oncology Programs

SURVIVORSHIP 5-6, 11-12

Jeremy Slater, M.D.: Physician Chooses His Own Hospital for Cancer Treatment

A NOTE FROM LEADERSHIP 6

ANNUAL REPORT 7-10

A Year in Review: Memorial Hermann Cancer Centers’ 2016 Accomplishments

ADVANCES IN CANCER TREATMENT 12-15

Prehabilitation and Rehabilitation Ease the Transition Back to Everyday Life for Cancer Patients

Mischer Neuroscience Institute Extends Patient-specific Brain Tumor Treatment Across Houston

PERSPECTIVES ON RESEARCH 15-17

Two Novel Studies Seek to Improve Outcomes in Children with Malignant Fourth Ventricular Brain Tumors

Ongoing Clinical Trials

PROFILES IN CARING 17-19

Oncology Nurse Navigators Help Guide Memorial Hermann Patients Through the Cancer Journey

COMMUNITY OUTREACH 20-22

Community Partner Spotlight: The American Cancer Society

Bringing Colorectal Cancer Awareness to the Community

Memorial Hermann Offers Free Cancer Screenings to the Community

MEMORIAL HERMANN WELCOMES 22-23

dose-rate brachytherapy, and Gamma Knife® and Linac-based radiosurgery. He practices primarily at Memorial Hermann Memorial City, where the patient population is a good fit for his particular interests in prostate and breast cancer. He also treats children with cancer and spends one day a week at Memorial Hermann-TMC conducting research.

Dr. Khwaja's research has been published in the *International Journal of Radiation Oncology Biology and Physics*, *Cancer Medicine*, *Otology and Neurotology*, *Clinical Breast Cancer*, *American Journal of Clinical Oncology* and *Journal of Clinical Investigation*, among other journals.

"Patient safety and patient satisfaction are our main goals," he says. "As radiation oncologists we use extremely high energy X-rays to treat cancer, and this must be done in a precise and accurate manner. From a patient satisfaction standpoint, we're intimately involved with care, assessing any side effects on a daily to weekly basis, depending on the patient and the treatment."

Mi Kyung "Micki" Ko, M.D.

Affiliated Radiation Oncologist
Memorial Hermann Northeast Hospital



Originally from Chicago, Dr. Micki Ko is a graduate of the Honors College at the University of Michigan in Ann Arbor. While in college, she volun-

teered at the University Hospital, where she learned she had the right skill set to be a doctor.

"I loved math and physiology, and I felt compassion for patients and their families," says Dr. Ko, who wrote her honors thesis on the epidemiology of breast cancer. "I felt a calling to combine all these skills into the art and science of medicine. As a physician, I treat not only the body, but offer healing to the mind and soul in the process."

Dr. Ko had a special interest in women's medicine when she enrolled at Rush

Medical College in Chicago. "During medical school rotations, I would spend a lot of time with women with breast, cervical and uterine cancers. I wanted to learn everything I could about oncology and did rotations in gynecology oncology, medical oncology, surgical oncology and radiation oncology. One doctor gave a talk on stereotactic radiosurgery, and I thought it was a perfect match for me. I loved the physics of radiation and the idea of targeted treatment of cancer anywhere in the body."

Dr. Ko completed her residency training at the University of California, Irvine Integrated Program in Radiation Oncology, where she was chief resident. Before coming to Houston, she practiced radiation oncology in a group setting in the Los Angeles area.

She has published research on neoplastic transformation and continues to serve as a medical adviser for the Milburn Foundation, which funds grants supporting research in inflammatory/triple-negative breast cancers. Dr. Ko is a member of the American Society for Radiation Oncology and the Harris County Medical Society.

Dr. Ko sees and treats patients with virtually all tumor types, including breast, prostate, head and neck, lung, gastrointestinal tract, genitourinary, brain, lymphoma and skin cancers. She has given talks on techniques to reduce the toxicity of breast cancer radiation therapy to the community. Modalities available at the Memorial Hermann Cancer Center-Northeast include conventional external beam radiation therapy, intensity-modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT) and stereotactic body radiation therapy (SBRT), which delivers high doses of radiation in a few fractions to organs such as the lung, allowing for treatments to be completed within a shorter timeframe.

"Many patients come in with fears about radiation therapy," she says. "I'm happy to spend as much time as needed to answer their questions. My number-one goal is delivering curative doses of radiation while minimizing its side

effects and alleviating symptoms while maintaining the best quality of life the patient can achieve. Following consultation, my patients leave with a more thorough understanding of their treatment and a greater sense of calm. I'm very fortunate to work in a field I love. There's nothing else I could imagine doing."

Beth Sands, M.D.

Affiliated Radiation Oncologist
Memorial Hermann The Woodlands Hospital



A native Houstonian, Dr. Beth Sands grew up in a medical family. "My father was a physician, but I did not necessarily plan to follow the same

path," she says. "In college at the University of Virginia, I came to realize that a career in medicine offered the combination of an intellectual challenge with the opportunity to serve others."

Before entering medical school, Dr. Sands took a year off to explore the Northeast United States and accepted a position in Boston as a clerk at Harvard Community Health Plan, a large HMO with a strong focus on quality care. "I discovered that I really loved the cancer patients," she says. "People with cancer tend to be straightforward and cut to the chase. When I entered Baylor College of Medicine, I planned to specialize in medical oncology. Then a friend at MD Anderson suggested I do a rotation there in radiation oncology."

She was captivated. "I liked the combination of intense interaction with patients and the opportunity to develop deep relationships with them, as well as the technical aspects of radiation oncology," she says. She went on to complete her residency in radiation oncology at The University of Texas MD Anderson Cancer Center.

At the Memorial Hermann Cancer Center-The Woodlands, Dr. Sands treats all adult malignancies and has a special

Radiation Oncologists continues on page 4

Radiation Oncologists continued from page 3

interest in breast cancer. She and her partners review each new patient's case and radiation plan together, providing an additional level of quality assurance. Dr. Sands also specializes in gynecologic brachytherapy for cervical and uterine cancers. High dose-rate brachytherapy, using an applicator that is placed in or near the tumor or tumor bed, allows the delivery of high doses of radiation to the tumor or tumor bed directly, reducing exposure to the bowel, bladder and other surrounding healthy tissue. Other modalities available at the Memorial Hermann Cancer Center-The Woodlands include traditional external beam radiation therapy, intensity-modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT) and stereotactic body radiation therapy (SBRT), which is high-dose radiation delivered in a few fractions, allowing for treatments to be completed within a shorter time frame.

Dr. Sands is a member of the American Society of Therapeutic Radiology and Oncology and the American Society of Clinical Oncology. She participates in numerous hospital committees and is past president of the North Branch of the Harris County Medical Society. She served on the executive board of the Harris County Medical Society and on the board of trustees of the Houston Academy of Medicine. She serves on the advisory council for Canopy, a community cancer survivorship center that addresses the emotional, physical and social needs of those whose lives are touched by cancer.

"We have a very strong radiation oncology team at The Woodlands," she says. "Our mission is to offer personalized, evidence-based, compassionate care with a strong focus on patient safety and patient satisfaction."

Aparna Surapaneni, M.D.

Affiliated Radiation Oncologist
Memorial Hermann Greater Heights Hospital

Originally from New York City, Dr. Aparna Surapaneni graduated from the Massachusetts Institute of Technology



with a degree in materials science engineering with a focus on biomedical applications. After college she worked with AmeriCorps, a public service initiative where she developed and implemented after-school education programs in Boston, Massachusetts.

"At that point I thought that combining my background in engineering with medicine would be an interesting clinical niche," she says. She completed a master's degree in biophysics at Georgetown University in Washington, D.C., and then enrolled in the State University of New York Downstate Medical School in Brooklyn, where she received her medical degree.

"In medical school I enjoyed oncology and working with cancer patients and a friend suggested that, with my interest in engineering, I might enjoy radiation oncology," she says. "I spent a week shadowing radiation oncologists and decided it was the right field for me."

Dr. Surapaneni completed her residency training in radiation oncology at SUNY Downstate Medical Center, where she was chief resident. Prior to joining the Memorial Hermann Cancer Center-Greater Heights, she was an attending physician at Saint Barnabas Medical Center in Livingston, New Jersey.

"I'm new to Houston and am enjoying exploring the city," she says. "We have a great team, including our Oncology Nurse Navigator Angela Sisk, who does a wonderful job of guiding each patient from diagnosis through treatment and follow-up. All of Memorial Hermann's Cancer Centers are accredited by the American College of Surgeons Commission on Cancer. What's unique about our program here at Greater Heights is that we're also accredited by the National Accreditation Program for Breast Centers, which ensures that we meet the highest standards of care for patients with diseases of the breast. We meet as a team - radiation oncology, medical oncology and surgical oncology - to discuss each

patient diagnosed with breast cancer to develop an individualized treatment plan."

The Memorial Hermann Cancer Center-Greater Heights offers all the standard treatment modalities including traditional external beam radiation therapy, intensity-modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT) and stereotactic body radiation therapy (SBRT), which is high-dose radiation delivered in a few fractions, allowing for treatments to be completed within a shorter time frame. Patients who would benefit from a therapy unavailable at Greater Heights can be easily referred to another of Memorial Hermann's six radiation therapy centers.

Dr. Surapaneni has published research on gynecologic and prostate cancers and is a member of American Society of Therapeutic Radiology and Oncology and the American Society of Clinical Oncology. She enjoys helping patients through a difficult time in their lives.

"We're compassionate and mindful of all aspects of each of our patients' lives and healthcare needs," she says. "We work hard to help them through their diagnosis as smoothly as possible so that they can move forward with their lives. Ultimately, our goal is to take the very best care of our patients."

Theodore Yang, M.D.

Affiliated Radiation Oncologist
Memorial Hermann Southeast Hospital



Dr. Ted Yang says he decided to become a physician in two phases: the first when his grandfather was diagnosed with cancer and the latter while working as a medical physicist.

"I was 12 when we found out my grandfather had lung cancer, which gave me a desire to go into medicine," says Dr. Yang, who received his bachelor's degree in physics from The University of Texas at Austin and went on to work as a medical physicist with several radiation

oncologists before attending medical school. “It was because of the compassion and dedication of these doctors that I decided to become a radiation oncologist.”

After receiving his medical degree and completing residency training in radiation oncology at The University of Texas Medical Branch in Galveston, he joined the UTMB faculty specializing in head and neck radiation therapy and prostate and gynecologic brachytherapy. Board certified in therapeutic radiology, Dr. Yang has practiced radiation oncology in southeast Houston since 1984.

Dr. Yang and the radiation oncology team at the Memorial Hermann Cancer Center-Southeast are strongly focused on patient education. “Radiation oncology gives us the opportunity as physicians to sit for an hour or two and

chat with the patient,” he says. “Not too many patients understand radiation, which makes that first face-to-face meeting so important. The specialty is much more advanced than it used to be, and for most patients it’s not difficult to go through the treatments once we dispel their fears.”

The Memorial Hermann Cancer Center-Southeast offers external beam radiation therapy, intensity-modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT), and high dose-rate brachytherapy, and will begin offering stereotactic body radiation therapy (SBRT) this fall. Patients who would benefit from a therapy unavailable at Southeast can be referred easily to another of Memorial Hermann’s six radiation therapy centers.

Dr. Yang is a member of professional medical societies, including the Harris County Medical Society, Texas Medical Association, American Medical Association, American Society for Therapeutic Radiology and Oncology, and the Chinese American Doctors Association of Houston. ♦

For more information or to refer a patient for radiation therapy, please contact Memorial Hermann Cancer Centers:

Greater Heights - 713.867.4668

Memorial City - 713.242.3500

Northeast - 281.540.7905

Southeast - 281.929.4200

Texas Medical Center - 713.704.2674

The Woodlands - 713.897.5655

Gamma Knife Radiosurgery: No Incision, No Hospital Stay

The Memorial Hermann Mischer Neuroscience Institute at the Texas Medical Center acquired the region’s first Leksell Gamma Knife® in 1993, and is now using the more advanced Leksell Gamma Knife® Perfexion™. Neurosurgeons affiliated with the Institute have performed more than 3,500 Gamma Knife procedures.

The Gamma Knife’s fine-beam technology is specifically designed to treat delicate brain tissue. Extra margin or additional volume surrounding the tumor is rarely needed, which spares healthy brain tissue. With the Gamma Knife there are no moving parts during the delivery of radiation, which means that the source of radiation and the target are always in a fixed relationship during treatment, ensuring the highest degree of accuracy. Treatment is typically delivered in a few hours on a single day.

Patients who benefit from the Perfexion’s sophisticated software with dose-to-target conformation include those with meningiomas and vestibular schwannomas; astrocytomas; arteriovenous malformations; medically refractory trigeminal neuralgia; glioblastoma multiforme; and tumors that have metastasized from other areas of the body to the brain.

At the Mischer Neuroscience Institute’s Brain Metastases Clinic, a multidisciplinary team of affiliated neuro-oncologists, neuroradiologists, neuropathologists and neurosurgeons works closely together to provide patients with personalized, evidence-based care. This approach is designed for patient convenience and also allows for quicker and better clinical decision-making by several specialists, who are faculty and researchers at McGovern Medical School at UTHealth.

Patients can expect personalized service from a team that will be with them throughout their treatment. The Institute’s Imaging Review Board, which includes an affiliated radiation oncologist, radiologist and neurosurgeon, meets to review results each time a patient has a new MRI. They also assist patients in arranging any other treatments they may need, including surgery, radiation therapy and chemotherapy.

The Institute’s treatment team closely tracks each patient’s progress and outcomes and tailors treatments accordingly. They also offer those who are eligible the opportunity to participate in new clinical trials as soon as they are available.

SURVIVORSHIP

Jeremy Slater, M.D.: Physician Chooses His Own Hospital for Cancer Treatment

It’s been said that doctors make the worst patients. Nothing could be further from the truth in the case of neurologist Jeremy Slater, M.D., according to the

two physicians who treated him for tonsil cancer. Dr. Slater is director of the Texas Comprehensive Epilepsy Program at Memorial Hermann-Texas Medical Center,

the leading program in the southwestern United States for the diagnosis and treatment of epilepsy in patients of all ages.

Jeremy Slater continues on page 6

Jeremy Slater continued from page 5

During a December skiing vacation in Colorado, he noticed a swollen lymph node high on the right side of his neck. "I thought I'd caught a cold, or that it might be related to my chronic sinusitis," says Dr. Slater, who holds the Kraft W. Eidman Development Board Professorship in the Medical Sciences in the department of Neurology at McGovern Medical School at UTHealth.

When it didn't subside in January, he saw his internist, who prescribed a course of antibiotics. "The antibiotics shrank



"I hope reading about my experience will help other people be comfortable with treatment, and I also hope that it will encourage them to seek diagnosis and treatment early."
- Jeremy Slater, M.D.

it, but the lump didn't disappear so we did a second course of antibiotics," he says. "In retrospect I should have gone to an ENT right away, but you want to believe that there's nothing really wrong. You don't want to think you might have cancer. As doctors we tend to think of our patients as the people who get diseases, and

we get used to thinking of ourselves as bulletproof."

By spring, Dr. Slater became more concerned and went back to his internist, who referred him to Amber Luong, M.D., Ph.D., an associate professor and research director in the department of Otorhinolaryngology-Head and Neck Surgery, who also directs a laboratory at the Brown Foundation Institute of Molecular Medicine for the Prevention of Human Diseases. Dr. Luong's primary research and clinical interests lie in the

Jeremy Slater continues on page 11

A NOTE FROM LEADERSHIP



Since joining Memorial Hermann in December 2015, I continue to be inspired by the dedication and passion that our entire team has for making high-quality cancer care easily accessible for patients in Houston. From our affiliated physicians in surgical, medical and radiation oncology, to our bedside and nurse navigation teams, to the leaders of our supportive and imaging services, each person that touches patients along their cancer journey has one goal in mind - at Memorial Hermann you will

never fight cancer alone. We strive to constantly make improvements to our patients' outcomes and experiences.

In this edition of the *Memorial Hermann Cancer Journal*, we decided to highlight our key accomplishments for 2016. Memorial Hermann is one of only two health systems in Texas to be accredited by the American College of Surgeons as an Integrated Network Cancer Program. As such we were proud recipients of this re-designation with Silver Commendation in March of 2016. Whether it was welcoming new physicians and clinical staff to the team, opening two outstanding survivorship centers or increasing access to cancer prevention and screening exams in our community, we are proud of all that has been achieved over the year. The

Annual Report section discusses these accomplishments.

In addition, I'd like to take a moment to recognize the Oncology Nurses that serve patients at Memorial Hermann each day. We celebrated Oncology Nursing Month in May, and without the work of these fearless, committed and dedicated nurses, we would not be able to provide exceptional cancer care.

Thank you for continuing to partner with us. Together, we're making a positive impact on cancer patients in Houston.

Sandra Miller, M.H.S.M., RN, NE-BC
Vice President
Memorial Hermann Oncology
Service Line



It has been an honor to serve as the chair of the Oncology Service Line Physician Strategic Steering Committee over the past year. In addition to bringing together

affiliated physicians across clinical disciplines, the committee enabled us to work with senior leadership at Memorial Hermann to outline goals and expecta-

tions for our cancer program as it continues to grow. One of the most important pieces of work that came out of the committee was defining the mission for Memorial Hermann Cancer Centers:

At Memorial Hermann, you'll never fight cancer alone. Our affiliated experts provide full-scope, patient-centered cancer care. With numerous access points across Greater Houston, Memorial Hermann delivers high-quality, timely and convenient cancer care including prevention, screening, treatment and survivorship support.

Our duty is to continue to live up to this mission each day, for each and every patient we serve. We thank you for taking the time to engage with us and for joining Memorial Hermann to provide excellent cancer care for the Greater Houston community.

Ron J. Karni, M.D.
Chair, Oncology CPC Subcommittee
Memorial Hermann Physician Network

ANNUAL REPORT

A YEAR IN REVIEW: MEMORIAL HERMANN CANCER CENTERS' 2016 ACCOMPLISHMENTS

LETTER FROM THE CHAIRMAN



As Chairman of Memorial Hermann's Integrated Network Cancer Committee, I am pleased to present our 2016 Oncology Annual Report. The American

College of Surgeons Commission on Cancer (CoC) has approximately 1,500 accredited hospitals in the United States and Puerto Rico, which represent only 30 percent of all healthcare institutions. Approximately 70 percent of all newly diagnosed cancers are seen at these accredited institutions. The CoC accreditation demonstrates Memorial Hermann's commitment to high-quality

cancer care with concerted efforts and resources that span from prevention to survivorship and end-of-life care.

The Cancer Program at Memorial Hermann continues to grow and 2016 was an active year. Some of the accomplishments included:

- Successful three-year Commission on Cancer reaccreditation with silver commendation;
- Successful reaccreditation from the National Accreditation Program of Breast Centers at Greater Heights;
- Publication of the *Cancer Journal* highlighting the oncology program at Memorial Hermann Health System;
- Expanded oncology services with TIRR Memorial Hermann with new prehabilitative services, genetic services with UT, and community

outreach screening and prevention program collaboration with local businesses;

- Robust enrollment of patients into oncology-related clinical trials;
- Growth in oncology volume year over year.

Our Cancer Program would not be successful without the support and enthusiasm of all the physicians, oncology nurses, and administrative staff who have graciously offered their time and talent to providing the best in cancer care.

Sincerely,

Emily Robinson, M.D.

Chairman, Integrated Network

Cancer Committee

Chairman, Texas Medical Center

Cancer Committee

LETTER FROM THE CANCER LIAISON PHYSICIAN



The Memorial Hermann Health System is dedicated to providing outstanding care for cancer patients. We are accredited by two national organizations - the Commission

on Cancer (CoC) and the National Accreditation Program of Breast Centers (NAPBC) - which underscores our commitment to the highest standards for comprehensive cancer care.

As the Cancer Liaison Physician (CLP) for Memorial Hermann Greater Heights and the Integrated Network Cancer Committee as a whole, my role is to monitor, interpret and provide updated reports of the program's performance using the National Cancer Database (NCDB) with the intent of evaluating and improving the quality of patient care. Table 1 illustrates the exceptional oncology care that is provided within our Network. The liaison serves as the link between the hospital and the community, between national treatment standards and the hospital, and between the Cancer

Committee and the various departments at Memorial Hermann. In disseminating data for the CoC quality measures, the end result is enabling discussion regarding best practices, evaluating compliance with national guidelines, encouraging participation in clinical trials and improving overall quality of care.

Sincerely,

Mike Ratliff, M.D., F.A.C.S.

CLP, Integrated Network

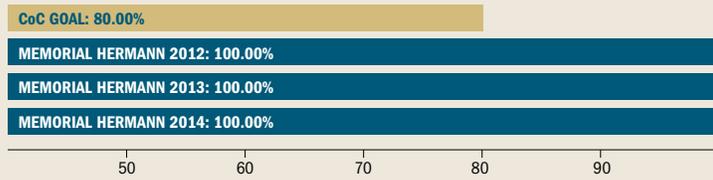
Cancer Committee

CLP, Memorial Hermann

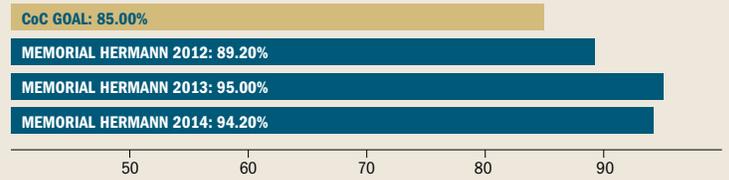
Greater Heights

Table 1: Memorial Hermann Estimated Performance for Breast and Colorectal Measures

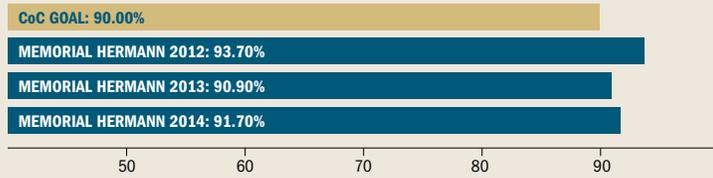
Image or palpation-guided needle biopsy to the primary site is performed to establish diagnosis of breast cancer.



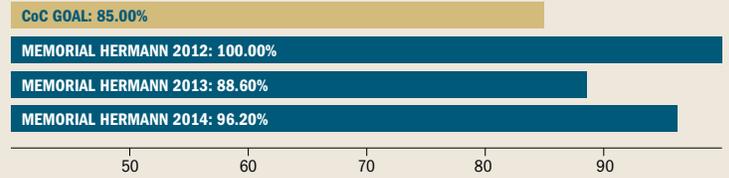
At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer.



Radiation therapy is administered within 1 year (365 days) of diagnosis for women under age 70 receiving breast-conserving surgery for breast cancer.



Preoperative chemotherapy and radiation are administered for clinical AJCC T3N0, T4N0, or Stage III; or postoperative chemotherapy and radiation are administered within 180 days of diagnosis for clinical AJCC T1-2N0 with pathologic AJCC T3N0, T4N0, or Stage III; or treatment is recommended for patients under the age of 80 receiving resection for rectal cancer.



BY THE NUMBERS

6,884
New cancers diagnosed at Memorial Hermann



11,437
Cancers seen in the Memorial Hermann System



8
Cancer Centers accredited by the American College of Surgeons Commission on Cancer



1
Breast Center accredited by the American College of Surgeons National Accreditation Program for Breast Centers (Memorial Hermann Greater Heights)



More than 800
Board-certified affiliated physicians serve in Memorial Hermann's Cancer Program



504
Multidisciplinary Cancer conferences were held throughout the system



1,755
Case presentations in breast, gynecologic, lung, central nervous system, lymphoma/leukemia, hepatobiliary, gastrointestinal, endocrine, and head and neck at cancer conferences



826
Patients participated in cancer prehabilitation and/or rehabilitation at TIRR Memorial Hermann



102,866
Breast cancer screening mammograms performed



3,337
Colon cancer screening exams performed



594
Low-Dose Computed Tomography lung cancer screenings performed



5
Free community screenings held for breast, skin, prostate or colon cancer



110
Oncology nurses in the Memorial Hermann Health System



8
Oncology Nurse Navigators

Cancer Research at Memorial Hermann

Cancer is a constellation of more than 200 diseases, each of which requires a different treatment approach, underscoring the importance of translational research that implements a bench-to-bedside approach. From laboratory experiments through clinical trials to point-of-care patient applications, physician researchers affiliated with Memorial Hermann and McGovern Medical School at UTHealth are gathering knowledge that will result in new drugs, devices and treatment options for patients.

“In the last decade, clinicians and researchers at Memorial Hermann and UTHealth have moved from the sidelines to the frontlines of cancer research, with a more than hundredfold increase in oncology studies,” says Cheryl Chanaud, Ph.D., CCRP, vice president of clinical research for the Memorial Hermann Health System. “Our driving force is providing the best patient care and experience in a changing healthcare environment. The role of clinical research remains vitally important to the future of medicine. Our goal is to foster an environment supportive of innovative, high-quality research.”

Dr. Chanaud leads the Clinical Innovation & Research Institute (CIRI), which facilitates collaborative relationships between Memorial Hermann Health System, McGovern Medical School, private practice clinics and the community. CIRI fosters partnerships between clinicians, academicians, industry and public sectors to conduct and produce meaningful, quality research that benefits society. The Institute also serves as an advocate for study participants by creating an environment that supports good clinical practice in research.

Today, Memorial Hermann is the site for 141 active oncology research studies involving 3,788 patients. That number includes interventional clinical trials, registry studies that track outcomes, and tissue repository studies focused on the discovery of biomarkers that can predict

clinical outcomes across a variety of treatments and patient populations.

Among the trials under way are three led by Robert J. Amato, D.O., professor for the division of Oncology at McGovern Medical School and chief of the division of Oncology at Memorial Hermann Cancer Center-Texas Medical Center. The trials are designed to enumerate circulating tumor cells (CTCs) from whole blood in patients with genitourinary cancers – either prostate, bladder or kidney – using two systems that provide single-cell analysis of CTCs to examine tumor heterogeneity in cells linked to the metastatic spread of the disease.



ROBERT J. AMATO, D.O.

Professor for the division of Oncology at McGovern Medical School and chief of the division of Oncology at Memorial Hermann Cancer Center-Texas Medical Center.

“The circulation of malignant cells in the blood is a critical component of the metastatic process,” Dr. Amato says. “Identification and characterization of CTCs may provide important insights into the biology of metastasis and serve as critical tools for treatment management. Tumor-specific somatic mutations may serve as predictive biomarkers of tumor response and also may be valuable in choosing appropriate treatments, benefiting cancer patients by maximizing therapeutic effectiveness and minimizing adverse drug reactions – the hallmark of personalized gene targeted cancer therapy.”

Joseph Lucci III, M.D., professor in the department of Obstetrics, Gynecology and Reproductive Sciences at McGovern Medical School, is site principal investigator of a trial of a new drug for women with relapsed ovarian cancer. To be eligible for the trial, patients must have responded to previous platinum-based chemotherapy and have a harmful mutation in either the BRCA1 or BRCA2 gene.

The drug is olaparib, which stops an enzyme called PARP (poly [adenosine diphosphate-ribose] polymerase) from working. “In normal cells when a strand of DNA is damaged, PARP helps to repair it,” Dr. Lucci says. “The BRCA1 and

BRCA2 genes produce tumor-suppressing proteins, providing another way to repair damaged DNA. Cancer cells that do not have these proteins due to mutation in the genes are unable to repair themselves. When both ways of repairing damaged DNA are not working, cancer cells die, which makes olaparib of clinical interest for the treatment of women with advanced BRCA-mutated ovarian cancer.”

As a teaching hospital affiliated with a medical school, Memorial Hermann-TMC offers patients access to innovative treatments and technologies early in their development and testing phases, and soon after becoming approved by the Food & Drug Administration. Patients who qualify also have the opportunity to participate in clinical trials of treatments that would not otherwise be available to them.

“Much of the clinical research we do helps to determine whether an experimental drug is safe and effective, and ultimately contributes to the FDA’s determination of whether drugs and devices will be approved for marketing and use as standard-of-care treatments,” Dr. Amato says. “Clinical and research data is also being utilized increasingly to inform and improve physician practice patterns and hospital clinical operations and to answer further clinical queries and research questions. Any one of the clinical trials under way at Memorial Hermann and UTHealth could have a long-term impact on how patient care is delivered locally or nationally.” ♦

Memorial Hermann Expands Lung Cancer Screening Program Focused on Early Detection

Lung cancer, both small cell and non-small cell, is the second most common cancer in both men and women, after prostate cancer in men and breast cancer in women. Only skin cancer is more common, according to the American Cancer Society. For patients at high risk of developing lung cancer, Memorial Hermann expanded its Low-Dose Com-
Cancer Research continues on page 10

Cancer Research continued from page 9
puted Tomography (LDCT) screening program to multiple locations throughout the Greater Houston area, with a goal of improving patient outcomes by identifying lung cancer in its early stages. From 2015 to 2016, Memorial Hermann saw a 97 percent increase in the number of lung screenings performed throughout the system.



Mandi Roach, along with more than 1,600 other cancer survivors, utilized Canopy's programs in 2016.

In conjunction with the screening program, Memorial Hermann launched a South Region Lung Program for cancer patients, with a multidisciplinary lung tumor board and a dedicated Oncology Nurse Navigator serving Memorial Hermann Southwest Hospital, Memorial Hermann Southeast Hospital, and Memorial Hermann Sugar Land Hospital. "From screening through diagnosis, treatment and survivorship, we work with patients individually to help them overcome barriers to healthcare access and ensure as positive an experience as possible," says Deidra Teoh, RN, OCN, who has been an Oncology Nurse Navigator since 2011 and rejoined Memorial Hermann in July 2016. "We're pleased to offer patients an innovative way to get answers to their questions about their personal care based on opinions from a large multidisciplinary team of physicians."

Pulmonologists, thoracic surgeons, medical oncologists, radiation oncologists and pathologists who specialize in lung malignancies come together to review cases and recommend treatment plans.

In 2017, the System expanded the tumor board even further and invites physician participation from across the Greater Houston area. Physicians interested in participating in the tumor board should contact Maria Tran, System Director of Memorial Hermann's Cancer Registry, at 713.338.5971 or maria.tran@memorialhermann.org.

More information on the Lung Cancer Screening Program at Memorial Hermann, including a list of screening locations, may be found at memorialhermann.org/lungcancer.

Community Outreach, Prevention and Education

As an accredited Commission on Cancer Integrated Network Cancer Program, Memorial Hermann is proud of the outreach it does in both the Greater Houston community and for the patients that entrust us with their care. Following evidence-based guidelines, Memorial Hermann Cancer Centers develop and conduct dozens of support programs each year focused on prevention, education, screening and community outreach.

In 2016, Memorial Hermann opened two cancer survivorship centers - Canopy at Memorial Hermann The Woodlands Hospital and the Lindig Family Cancer Resource Center at Memorial Hermann Memorial City Medical Center. While these centers are just two of the eight sites throughout Greater Houston that offer cancer survivorship support, their openings have provided even greater access to programs for hundreds of patients and their caregivers, regardless if their treatment was received at Memorial Hermann. Since opening last summer, more than 1,600 patients have participated in more than 50 programs at Canopy, and 680 patients have participated in the 19 programs offered at the Lindig Family Cancer Resource Center. In addition to traditional support groups, programs offered at these campuses include: Chair Yoga, Creative Healing Through Art, Knitting, Eating Well Through Cancer, Lymphedema Support, Meditation, and many more.

The work Memorial Hermann does extends outside of the hospital setting, as our Cancer Centers also partner with community organizations like the American Cancer Society, Pink Door, CanCare and Ovarcome to support their efforts in the fight against cancer. By working together, these nonprofit organizations are able to benefit from the expertise of our oncology nurses and affiliated physicians, and Memorial Hermann is able to offer patients even more options to choose from in terms of survivorship support.



Yoga at Canopy - A Cancer Survivorship Center at Memorial Hermann The Woodlands Hospital.

Memorial Hermann Cancer Centers held five free community screenings for breast, skin, prostate, colon, and head and neck cancers in 2016. These events welcomed more than 250 people and provided potentially lifesaving screenings they may have otherwise not had access to.

Memorial Hermann is continually evaluating new and innovative ways to spread awareness and educational information to the community. Through the continued optimization of the system's digital assets - including the Memorial Hermann Cancer Centers website and System social media channels - we have been able to extend our voice even further. As part of these ongoing efforts, our Centers began conducting Facebook Live presentations featuring an affiliated oncology physician and nurse navigator, to provide information on the prevention and early detection of cancer. Topics in 2016 included educating the community on the differences between 2D and 3D mammography, as well as Low-Dose Computed Tomography (LDCT) screenings for lung cancer. ♦

Jeremy Slater continued from page 6

understanding and treatment of chronic rhinosinusitis.

By the time he saw her it was early May. “I was still in complete denial,” he says. “With her characteristic sense of humor, Dr. Luong said, ‘Well, it’s clearly not rhinosinusitis,’” he recalls with a laugh. “After examining me, she was concerned that it might be malignant and referred me to her colleague Dr. Karni.”

Later the same month he saw Ron Karni, M.D., chief of the division of Head and Neck Surgical Oncology and an associate professor in the department of Otorhinolaryngology at the medical school. “I’d been trying to cope with the idea that I might have cancer from the time I’d seen Dr. Luong, and there I was, sitting in Dr. Karni’s office with my wife, and he told me he wanted to do a fine-needle aspiration.”

About 80 percent of the patients seen by Dr. Karni and his partner Kunal Jain, M.D., present with an asymptomatic lump in the neck. “Like Jeremy, they’re not smokers or heavy drinkers but they find a lump,” Dr. Karni says. “When we did the needle biopsy in the office, we detected squamous cell carcinoma in his neck lymph. A more thorough exam showed Stage 3 tonsil cancer.”

Dr. Slater remembers it as the single most frightening experience of his life. “We were waiting in the office. When Dr. Karni walked in and told us it was cancer, it was devastating,” he says. “I was very scared, but I have to say, he made it okay. It reminded me of something my wife told me when we first started dating years ago. She teaches medical students and always tells them that the primary job of a physician is to give hope. When she first told me this, I disagreed with her, but in dealing with my diagnosis of cancer I realized how true it is. While I was devastated and terrified, there was a part of me that listened to Dr. Karni and thought it would be okay. He didn’t sugarcoat it. It was clear to me that he knew exactly what he was doing. At that moment I knew I wouldn’t be going to MD Anderson for a second opinion because I had absolute



Dr. Slater with children Meg, Alexa, Nathan and wife Dawnelle on a cross-country skiing trip in Granby, Colorado.

confidence in him.”

After meeting with the members of Dr. Karni’s multidisciplinary team, Dr. Slater elected to undergo minimally invasive transoral robotic surgery (TORS) using the *da Vinci*[®] Surgical System, which offers advantages beyond traditional surgical approaches to the throat, especially in the region of the tonsils and tongue. “Rather than having to divide the lower lip or divide the jaw in the midline, we can approach these tumors directly through the mouth using the robot,” says Dr. Karni, who focuses his practice on head and neck cancers. “The robot’s camera provides a highly magnified 3-D view around structures like the tongue and allows us to carefully remove cancers, along with a narrow rim of tissue around them. We assess the margins to make sure we’ve removed it all. TORS also allows for decreased radiation following surgery.”

In a quick and precise surgery, Dr. Karni performed a radical tonsillectomy and selective neck dissection, removing all the lymph nodes with cancer and preparing his patient for radiation therapy. Before the procedure, he referred Dr. Slater to Kris Conley, CCC-SLP, who

works with patients under the direction of Carolina Gutiérrez, M.D., director of TIRR Memorial Hermann’s Cancer Prehabilitation and Rehabilitation Program.

“Throughout radiation therapy and a month afterwards, I did the swallow exercises Kris taught me,” Dr. Slater says. “To her credit, by working on that I didn’t need to use a feeding tube and also didn’t need postsurgical rehabilitation for swallow.”

Dr. Slater underwent six weeks of radiation therapy with Angel Blanco, M.D., a radiation oncologist with Mischer Neuroscience Associates in the Texas Medical Center and an associate professor in the Vivian L. Smith Department of Neurosurgery at McGovern Medical School. “If there’s anyone as genuinely nice, compassionate and professional as Dr. Karni, it’s Dr. Blanco,” Dr. Slater says. “I couldn’t have done better with the doctors I had in terms of their skill and ability to relate to patients. Dr. Blanco did IV hydration a couple times a week, which made a big difference.”

“We have incorporated much more aggressive hydration into our program

Jeremy Slater continues on page 12

Jeremy Slater *continued from page 11*

here, which in our experience can improve the acute side effects that can result from radiation, including fatigue, skin reaction and energy levels,” says Dr. Blanco, who specializes in adult radiation oncology with an emphasis on breast, central nervous system and body stereotactic cases, and has expertise in Gamma Knife® radiosurgery, intensity-modulated radiation therapy (IMRT) and high-dose rate brachytherapy for cancer patients. “The fact that Dr. Slater underwent a margin-negative dissection with TORS allowed for a lower dose of radiation. We believe a modest reduction in dose, combined with hydration, speech and swallowing therapy, pain management, dietary support and other multidisciplinary components of cancer care, can reduce long-term toxicity and benefit the patient. He was also able to be treated unilaterally rather than bilaterally, which decreases both acute and late radiation side effects in the neck.”

Dr. Blanco describes Dr. Slater as the ideal patient. “He was a delight and joy to take care of,” the radiation oncologist says. “We don’t always expect that of physicians. He was full of insightful comments, questions and suggestions, which we appreciate in a patient.”

In the end, Dr. Slater regained 90 percent of his ability to swallow. “I feel like I was Dr. Blanco’s poster child,” he says. “I can eat anything, and 90 percent of my ability to taste has come back, which is wonderful because at the end of radiation therapy I couldn’t taste anything. I have to be honest. I was totally miserable the last month of radiation. Still, they made me laugh. The radiation oncology team was fabulous.”

Dr. Slater finished radiation therapy at the end of July and returned to practice on Sept. 1, 2016. “My associates in the epilepsy division did a heroic job of covering for me during my three-month absence,” he says. “As soon as I returned I was doing full clinics and went back on

call. I keep the same schedule I had before and it’s been fine. I hope reading about my experience will help other people be comfortable with treatment, and I also hope that it will encourage them to seek diagnosis and treatment early, no matter how busy their schedules are.”

Dr. Karni attributes Dr. Slater’s fast recovery to the quality of care he received and his strength of character. “The old adage that doctors don’t make good patients didn’t apply to Jeremy,” he says. “He’s tough and smart, and he asked the right questions. We’re always humbled to treat one of our peers.”

“In retrospect, the whole experience seemed really quick: diagnosis, PET scan, surgery scheduled and bam, let’s get it over with,” Dr. Slater says. “The entire team was professional and caring throughout my entire experience. Given the choice, I would rather not have had cancer. I’m fine now, back to work with a pretty scar on my neck, and I feel fabulous.” ♦

ADVANCES IN CANCER TREATMENT

Prehabilitation and Rehabilitation Ease the Transition Back to Everyday Life for Cancer Patients

The availability of cancer prehabilitation and rehabilitation is good news for the 14 million cancer survivors in the United States, many of whom say they’ve found it hard to transition to a new way of life when their medical care ended. Through the Memorial Hermann Cancer Network, patients have access to the entire continuum of cancer care: prevention, screening, diagnosis, prehabilitation, treatment, rehabilitation after treatment, and ongoing survivorship support. The network now includes eight Cancer Centers located across the city, along with 19 Breast Care Centers and 11 TIRR Memorial Hermann Rehabilitation Network locations offering support for cancer rehabilitation.

Several factors have converged to

create a need for cancer prehabilitation and rehabilitation, including a growing population of cancer patients. Because of education, screening programs and advances in cancer treatment, more patients live longer, and many have multiple functional deficits, ranging from cognitive issues in brain tumor patients to swallowing and eating difficulties in head and neck cancer patients.



CAROLINA GUTIÉRREZ, M.D.

Attending Physician, TIRR Memorial Hermann
Clinical Assistant Professor, McGovern Medical
School at UTHealth

“Cancer rehabilitation is emerging as a very important component of Memorial

Hermann’s cancer program, with a particular focus on prehabilitation for specific patient populations,” says Carolina Gutiérrez, M.D., a fellowship-trained psychiatrist who focuses her practice on cancer rehabilitation at TIRR Memorial Hermann and is a clinical assistant professor at McGovern Medical School at UTHealth. “As an example, we can help head and neck cancer patients anticipate and prepare for treatment-related challenges to their physical health that may include swallowing, lymphedema, and problems with neck and shoulder movement. For patients with breast cancer, we can help prepare for challenges including fatigue, deconditioning, cognitive changes, neuropathy and

lymphedema. The medical literature supports prehabilitation, and our experience has shown that patients who have access to it have much better functional and quality of life outcomes.



ANNA DE JOYA, PT, D.SC., NCS
Director of New Program Development
Memorial Hermann Post Acute Care Services

The goal of prehabilitation is to prevent or lessen the severity of anticipated treatment-related problems that could lead to later disability. “A comprehensive baseline assessment is critical to creating a successful prehabilitation plan for each patient,” Dr. Gutiérrez says. “By educating patients on the benefits of a prehabilitation plan we are giving them the opportunity to be active participants in their own cancer care. Early engagement and compliance with their rehabilitation plans can have highly desirable results – fewer deficits after treatment, better outcomes, better function and improved quality of life. We are giving patients the tools and motivation to help preserve function, helping them to become stakeholders in their journey to healing and recovery.”

“Texas Oncology, one of the largest cancer treatment and research providers in Texas, reached out to TIRR Memorial Hermann to provide prehabilitative and rehabilitative care to their patients as part of their Oncology Care Model compliance requirements,” says Anna de Joya, PT, D.Sc., NCS, director of new program development for Memorial Hermann Post Acute-care Services. Texas Oncology has been selected to participate in the Oncology Care Model (OCM), a new initiative introduced by Centers for Medicare and Medicaid Services (CMS) to improve the effectiveness and efficiency of oncology care. Oncology practices selected to participate in the model have entered into payment arrangements that include financial and performance accountability for episodes of care surrounding chemotherapy administration to cancer patients, as well as a commitment to enhanced

services to Medicare beneficiaries. These services include care coordination, patient navigation, follow-up after treatment, patient education, expanded survivorship programs that include rehabilitation, and advance care planning programs, such as prehabilitation, all of which are designed to enhance the quality of life for cancer survivors. According to Anna de Joya, “Patients are referred to Dr. Gutiérrez for evaluation, management and development of a comprehensive, personalized cancer rehabilitation care plan. She will make referrals as appropriate for physical therapy, occupational therapy, speech therapy, neuropsychology and other services.”



The goal of cancer prehabilitation is to prevent or lessen the severity of anticipated treatment-related problems that could lead to later disability.

TIRR Memorial Hermann’s cancer prehabilitation and rehabilitation programs support healthy lifestyles as patients continue ongoing surveillance with their oncologists and other specialists. “After a diagnosis of cancer, patients should be evaluated for any functional needs that arise because of the cancer itself or as a result of treatment,” Dr. Gutiérrez says. “It’s important for physicians who create the plan of care to keep quality of life in mind along with quality of oncological care. For each patient, my role includes performing a functional assessment, investigation of factors underlying any functional deficits, and development of a comprehensive management plan. As part of a team approach, I will involve the expertise of specialized services as needed.”

To help patients and their physicians

identify the need for rehabilitation, De Joya has created a self-assessment form for patients. The form includes a list of tasks and offers patients and family members the opportunity to check any problems they have, such as weakness, numbness or tingling, new joint pain, swelling associated with lymphedema, unsteadiness while standing or walking, fatigue during daily tasks, falls, difficulty changing positions in bed, inability to drive, difficulty swallowing, problems with learning and memory, and other issues.

“The self-assessment tool has been well received by physicians at Texas Oncology,” De Joya says. “It helps the oncologist know if the patient is having functional deficits and could benefit from an evaluation by a physiatrist. The physician faxes the form to us, which allows Dr. Gutiérrez and our therapists to see exactly what the patient reported from his or her own perspective.”

Dr. Gutiérrez presented the results of her recent research at the American Society of Clinical Oncology’s Cancer Survivorship Symposium held Jan. 27-28 in San Diego. The research, conducted at TIRR Memorial Hermann, is based on patients who presented for outpatient rehabilitation. The majority of patients represented included those with cancers of the brain, breast, prostate, melanoma, myelofibrosis and multiple myeloma.

“Compared to the U.S. population mean, cancer survivors presenting for a cancer rehabilitation consultation had lower physical health than mental health,” she says. “Our findings suggest the importance of screening cancer survivors for physical impairments and providing interventions focused on functional recovery. In the future we aim to assess the impact of a cancer rehabilitation consultation on patient physical and mental health, including effects on cancer-related symptoms and quality of life.” ♦

To make referrals or schedule an appointment, please call 800.44.REHAB (800.447.3422).

TIRR is a registered trademark of TIRR Foundation.

Mischer Neuroscience Institute Extends Patient-specific Brain Tumor Treatment Across Houston

The traditional goal of neuro-oncology has been to ensure that patients live as long as possible with enhanced quality of life. Physicians affiliated with the Memorial Hermann Mischer Neuroscience Institute at the Texas Medical Center and McGovern Medical School at UTHealth have broader goals: to maximize function through personalized brain tumor treatment, to help patients maintain meaningful lives as much as possible at every stage of treatment and recovery, and to provide collaborative care that brings multidisciplinary medical resources to patients in their own communities. To this end, the Mischer Neuroscience Institute has expanded its comprehensive services across the city, and has grown the program to make this high-level care accessible close to home.



SIGMUND H. HSU, M.D.
Affiliated Neuro-oncologist
Memorial Hermann Mischer Neuroscience
Institute at the Texas Medical Center



JAY JIGUANG ZHU, M.D., PH.D.
Affiliated Neuro-oncologist
Memorial Hermann Mischer Neuroscience
Institute at the Texas Medical Center

“Personalized brain tumor treatment has been made possible by our capability to identify specific cancer genetic signatures, which allows neuro-oncologists to choose one chemotherapeutic drug over another, a dramatic change in the way we treat primary and metastatic brain tumors,” says fellowship-trained neuro-oncologist Sigmund Hsu, M.D., an assistant professor in the Vivian L. Smith Department of Neurosurgery at UTHealth. “Before the discovery of these signatures, we made decisions about treatment based on the location of the tumor in the body and how it looked under the microscope during pathological examination. Advancements made through cancer

research have allowed us to move away from the shotgun approach to treatment and have moved us closer to finding the silver bullet.”



Over the past three years, the Mischer Neuroscience Institute has expanded neuro-oncology services once available only at Memorial Hermann-Texas Medical Center to Memorial Hermann Memorial City Medical Center, Memorial Hermann The Woodlands Hospital and most recently to Memorial Hermann Southwest Hospital.

Dr. Hsu was recruited to the Mischer Neuroscience Institute by fellowship-trained neuro-oncologist Jay-Jiguang Zhu, M.D., Ph.D., an associate professor in the department of Neurosurgery. “Thanks to next-generation sequencing, we understand more about the underlying DNA mutations that drive cancer growth, which has allowed us to adapt treatment to the specific genetics of the tumor,” Dr. Zhu says. “As we learn more, we’re replacing traditional cytotoxic treatments with less toxic, potentially more effective therapies that target changes in a patient’s unique DNA that promote the survival of cancer cells.”

Over the past three years, the Institute has expanded neuro-oncology services once available only at Memorial Hermann-Texas Medical Center to Memorial Hermann Memorial City Medical Center, Memorial Hermann The Woodlands Hospital, and most recently to Memorial Hermann Southwest Hospital. Neurologists, neurosurgeons, pain management specialists and radiation oncologists work

together through Mischer Neuroscience Associates (MNA) clinics to provide a better end-to-end patient experience and continuum of care.

“This extension of neuro-oncology expertise and capabilities outside the Texas Medical Center has been made possible by the Mischer Neuroscience Institute’s infrastructure expansion and Memorial Hermann’s presence across Houston,” says Amanda Spielman, president of Phytex and vice president of neurosciences at the Memorial Hermann Health System. “Each hospital’s program is based on the needs of the local community, so that residents of North Houston, The Woodlands, Memorial City and Southwest Houston no longer have to make the drive to Houston for clinic visits and certain procedures. At the same time, the reputation of the Institute and UTHealth has helped us recruit high-quality, high-service physicians who deliver outstanding care at Memorial Hermann’s network of hospitals. Building on a core group of expert academic neuro-oncologists at Memorial Hermann-Texas Medical Center and UTHealth, we’ve created multidisciplinary teams that collaborate closely to develop consistent, quality care, regardless of the site of service.”

New additions to the MNA team of renowned neuroscience specialists are radiation oncologist Shariq Khwaja, M.D., Ph.D., at Memorial Hermann Memorial City; neurosurgeon Joseph Cochran, M.D., at Memorial Hermann Southwest; and neurosurgeon YOSHUA Esquenazi, M.D., at Memorial Hermann-TMC. “All the physicians on our neuro-oncology team confer regularly,” says Dr. Zhu. “We discuss each patient to make sure he or she is seen at the right facility and given the appropriate treatment. Being able to triage patients correctly and offer them a high level of quality care is part of the benefit of

practicing within an integrated network.”

In addition to its multidisciplinary brain tumor clinics, the Institute offers five specialized neuro-oncology clinics. The Pituitary Tumor and Vision Change Clinic ensures early and precise diagnosis of patients with pituitary and other parasellar tumors. The Skull Base Program at the Institute treats patients with these tumors through minimally invasive endoscopic surgery, when appropriate. At the Brain Metastases Clinic, a team of affiliated neuro-oncologists, neurosurgeons, neuroradiologists, radiation oncologists and neuropathologists works closely with referring oncologists to

provide personalized and innovative care to patients with brain tumors. Specialists at the Cancer Neurology Clinic treat patients with neurological issues resulting from chemotherapy. At the Neurogenetics Clinic, a genetic counselor identifies genetic risk and explains inheritance patterns, provides education on the natural history of disease, and discusses the risks, benefits and limitations of available genetic testing options.

“Many people return to normal life after cancer treatment but a growing number, as a result of their diagnoses, are learning to cope with a decline in

function related either to the disease or to the effects of chemotherapy and radiation therapy, which have complications of their own,” Dr. Zhu says. “We see a lot of people who are excited to be alive after their cancer treatment, but then they discover they’re living with issues that affect their quality of life. Developing biological agents with improved efficacy and reduced toxicity is only half the battle,” he says. “Every patient we treat deserves the opportunity to live life in a meaningful way.” ♦

For more information or to refer a patient, call 713.704.7180.

PERSPECTIVES ON RESEARCH

Two Novel Studies Seek to Improve Outcomes in Children with Malignant Fourth Ventricular Brain Tumors

The current outlook for children with recurrent malignant brain tumors originating from the posterior fossa is extremely poor. Most clinical trials offer systemic chemotherapy or re-irradiation, both of which can have a variety of side effects and frequently fail in children with recurrent tumors. Two new single-center trials under way at Children’s Memorial Hermann Hospital and McGovern Medical School at UTHealth are investigating novel therapies with the potential to improve outcomes for children with fourth ventricular brain tumors while avoiding systemic toxicity.



DAVID SANDBERG, M.D., FAANS, FACS, FAAP
Director of Pediatric Neurosurgery,
Children’s Memorial Hermann Hospital

Conducted by David Sandberg, M.D., FAANS, FACS, FAAP, professor and director of pediatric neurosurgery at Children’s Memorial Hermann Hospital, the Memorial Hermann Mischer Neuro-

science Institute at the Texas Medical Center, and UTHealth, the first trial, “A Combination Intraventricular Chemotherapy Pilot Study,” is investigating methotrexate and etoposide infusions into the fourth ventricle in children with recurrent posterior fossa brain tumors. The trial is open to patients age 1 to 21 with recurrent medulloblastoma, recurrent ependymoma and recurrent atypical teratoid/rhabdoid tumors involving the brain and/or spine.

“Despite advances in pediatric neuro-oncology, we’re still seeing too many children die of malignant brain tumors, and the treatments currently available are not satisfactory for children,” says Dr. Sandberg, who holds the Dr. Marnie Rose Professorship in Pediatric Neurosurgery at UTHealth. “Many suffer extreme toxicity from chemotherapy and radiation, and I believe we can do better. Novel approaches are needed to improve treatment outcomes.”

The primary objective of the new trial is to determine if combination

intraventricular infusions of two agents, methotrexate and etoposide, are safe and can be infused without neurological toxicity. The secondary objective is to assess the antitumor activity of these infusions, in the hope that the infusions will yield even more robust treatment responses than those observed in the previous single-agent trials.

The second pilot study, “Infusion of 5-Azacytidine (5-AZA) into the Fourth Ventricle or Resection Cavity in Children with Recurrent Posterior Fossa Ependymoma,” is also open for enrollment to patients age 1 to 21.

“5-AZA is a DNA methylation inhibitor that has been infused in non-human primates with no neurological toxicity, while achieving substantial and sustained cerebrospinal fluid (CSF) levels,” Dr. Sandberg says. “Recent studies have demonstrated that DNA methylation inhibitors are logical therapeutic candidates for ependymomas originating in the posterior fossa. Our goals are to

Two Novel Studies continues on page 17

Ongoing Clinical Trials

TRIAL NAME	DESCRIPTION
<p>A Phase 2/3 Randomized, Open-Label Study of Toca 511, a Retroviral Replicating Vector, Combined With Toca FC versus Standard of Care in Subjects Undergoing Planned Resection for Recurrent Glioblastoma or Anaplastic Astrocytoma</p>	<p>This study compares the overall survival of subjects treated with Toca 511 combined with Toca FC to subjects treated according to standard of care after tumor resection for recurrence of glioblastoma or anaplastic astrocytoma. Subjects undergoing resection for first or second recurrence (including this recurrence) of glioblastoma or anaplastic astrocytoma are eligible.</p> <p>Lead Physician: Jay-Jiguang Zhu, M.D. Contact: Guangrong (Greg) Lu at 713.704.7100 or guangrong.lu@uth.tmc.edu</p>
<p>A Randomized Phase II Trial of Radiation Therapy and Cisplatin Alone or in Combination with Intravenous Triapine in Women with Newly Diagnosed Bulky Stage IB2, Stage II, IIIB, or IVA Cancer of the Uterine Cervix or Stage II-IVA Vaginal Cancer</p>	<p>Researchers are evaluating the efficacy of an experimental regimen of triapine, cisplatin, and radiation to increase progression-free survival relative to the standard/control regimen of cisplatin and radiation in women with uterine cervix and vaginal cancer. Eligible patients must have a pathologic diagnosis of stage IB2 (> 5 cm), II, IIIB or IVA squamous, adenocarcinoma, or adenosquamous carcinoma of the uterine cervix or stage II-IVA squamous, adenocarcinoma, or adenosquamous carcinoma of the vagina not amenable to curative surgical resection alone.</p> <p>Lead Physician: Joseph A. Lucci III, M.D. Contact: Sonia Robazetti, M.D., CCRC at 713.500.6382 or sonia.c.robazetti@uth.tmc.edu</p>
<p>Phase 3 Study of ADXS11-001 Administered Following Chemoradiation as Adjuvant Treatment for High-Risk Locally Advanced Cervical Cancer</p>	<p>The study is designed to compare the disease-free survival of patients who use the investigational drug, ADXS11-001, to placebo administered in the adjuvant setting following concurrent chemotherapy and radiotherapy. The drug is administered with curative intent to participants with high-risk locally advanced squamous, adenosquamous or adenocarcinoma of the cervix. Eligible patients must be diagnosed with squamous cell, adenocarcinoma or adenosquamous carcinoma of the cervix and must have undergone definitive therapy with curative intent consisting of at least 4 weeks of treatment with cisplatin and a minimum of 40 Gy external-beam radiation therapy.</p> <p>Lead Physician: Joseph A. Lucci III, M.D. Contact: Sonia Robazetti, M.D., CCRC at 713.500.6382 or sonia.c.robazetti@uth.tmc.edu</p>
<p>The OUTBACK Trial: A Phase III Trial of Adjuvant Chemotherapy Following Chemoradiation as a Primary Treatment for Locally Advanced Cervical Cancer Compared to Chemoradiation Alone</p>	<p>The OUTBACK Trial is suitable for women with locally advanced cervical cancer (FIGO stage IB1 and node positive, IB2, II, IIIB or IVA). The primary objective of this randomized Phase III trial is to determine if the addition of adjuvant chemotherapy to standard cisplatin-based chemo-radiation improves overall survival. Women are randomized to either A) standard cisplatin-based chemoradiation or B) standard cisplatin-based chemoradiation followed by 4 cycles of carboplatin and paclitaxel chemotherapy. Secondary objectives are to compare progression-free survival, treatment-related toxicity, patterns of disease recurrence, quality of life and psycho-sexual health and the association between radiation protocol compliance and outcomes. Blood and tumor samples are collected from consenting patients for future translational studies. 780 women will be enrolled to determine if the addition of adjuvant chemotherapy can improve the 5-year overall survival rate by ≥ 10%. OUTBACK opened in Australia and New Zealand in 2011. The trial opened in the USA in early 2012.</p> <p>Lead Physician: Joseph A. Lucci III, M.D. Contact: Sonia Robazetti, M.D., CCRC at 713.500.6382 or sonia.c.robazetti@uth.tmc.edu</p>
<p>A Phase II Trial Evaluating Cisplatin and Gemcitabine Concurrent with Intensity-Modulated Radiation Therapy in the Treatment of Locally Advanced Squamous Cell Carcinoma of the Vulva</p>	<p>Specialized radiation therapy that delivers a high dose of radiation directly to the tumor may kill more tumor cells and cause less damage to normal tissue. Drugs used in chemotherapy, such as gemcitabine hydrochloride and cisplatin, work in different ways to stop the growth of tumor cells, either by killing the cells or by stopping them from dividing. Giving radiation therapy together with gemcitabine hydrochloride and cisplatin may kill more tumor cells. This Phase II trial studies how well giving radiation therapy together with gemcitabine hydrochloride and cisplatin work in treating patients with locally advanced squamous cell carcinoma of the vulva. The primary objective is to determine the efficacy of cisplatin, gemcitabine hydrochloride (gemcitabine) and intensity-modulated radiation therapy (IMRT) in achieving a complete pathologic response when used for the primary treatment of locally advanced squamous cell carcinoma of the vulva.</p> <p>Lead Physician: Joseph A. Lucci III, M.D. Contact: Sonia Robazetti, M.D., CCRC at 713.500.6382 or sonia.c.robazetti@uth.tmc.edu</p>

Two Novel Studies continued from page 15

establish the safety of direct administration of 5-AZA into the fourth ventricle and also hopefully demonstrate the clinical efficacy of these infusions.”

Both clinical trials build on two previous recent trials conducted at Children’s Memorial Hermann Hospital and UTHealth, in which Dr. Sandberg demonstrated that repeated infusions of methotrexate into the fourth ventricle are well tolerated and do not cause new

neurological deficits or other serious adverse events. “We have also demonstrated that some patients, all of whom had recurred despite surgery, radiation and chemotherapy, have a response to treatment with decreased tumor burden after the infusions,” he says.

Patients enrolled in the studies will undergo surgical placement of a ventricular catheter into the fourth ventricle or posterior fossa resection cavity with simultaneous surgical resection of

recurrent tumor as indicated. Safety will be assessed through serial neurological examinations and MRI scans, and treatment response will be assessed via MRI scans of the brain and spine as well as lumbar punctures to assess CSF cytology.

Each of the two studies will enroll an estimated 10 patients. For questions about the studies or more information about enrollment, contact Marcia Kerr, RN, at marcia.l.kerr@uth.tmc.edu or by phone at 713.500.7363. ♦

PROFILES IN CARING

Oncology Nurse Navigators Help Guide Memorial Hermann Patients Through the Cancer Journey

Following a cancer diagnosis, a patient may feel lost - between scheduling appointments with physicians to coping with the emotional toll a diagnosis can have on the mind and body. To help sort through this new territory, a very specialized group of oncology nurses offer a coordination of care that can be very beneficial to the patient. An Oncology Nurse Navigator is often the

initial point of contact following a diagnosis, and can help patients with everything from seeking out support groups and services, to streamlining communication and appointment scheduling with the patient’s physicians.

According to the Oncology Nursing Society, “the goal of navigation is to reduce cancer morbidity and mortality by eliminating barriers to timely access to cancer care, which may be financial, psychological, logistic, or related to communication or the healthcare delivery system.” Becoming an Oncology Nurse Navigator is not an easy feat, as it requires not only specialized training in oncology, but a determination and passion to guide patients during such a difficult disease. Cancer treatment can be extremely complex and patients can

get overwhelmed by barriers during the lengthy process. Navigation is essential in assisting to identify and resolve the barriers that could affect the patient’s plan of care. Ultimately, the navigation team’s goal is to have every patient be able to receive treatment in a timely manner with as little issues/barriers as possible.

At Memorial Hermann, a dedicated team of Oncology Nurse Navigators assist the cancer patients seen in the System each year:

Carolyn Allsen, B.S.N., RN, OCN, ONN-CG

Memorial Hermann Cancer Center - The Woodlands

Carolyn Allsen received her Bachelor of Science in Nursing from Memorial University of Newfoundland Canada, and has been working in the oncology field since 1994. She began her career as a certified chemotherapy inpatient nurse and moved to Texas in 2000, upon which she worked at The University of Texas M.D. Anderson Cancer Center in multiple roles, including manager at the Proton Therapy Center. Since 2013, Carolyn has been the Oncology Nurse Navigator at Memorial Hermann The Woodlands Hospital.

Carolyn is currently the president of the Houston Area Chapter of the American Academy of Oncology and Patient Navigators and a member of the Oncology Profiles in Caring continues on page 18



Memorial Hermann’s Oncology Nurse Navigators (from left to right): Sylvia Brown, M.S., RN, OCN, CNL, ONN-CG; Carolyn Allsen, B.S.N., RN, OCN, ONN-CG; Jessica Burgess, B.S.N, RN, OCN, ONN-CG; Carol Kirton, B.S.N., RN, OCN; Angela Sisk, M.S.N., RN, OCN, AHN-BC; Deidra Teoh, M.S.N., RN, OCN, ONN-CG

Profiles in Caring continued from page 17

Nursing Society, and serves on both Memorial Hermann's Integrated Network Cancer Committee and Cancer Survivorship Celebration Planning Committee.

Carolyn's passion for her role shines through in everything she does, whether it is teaching an art therapy course, to presenting on cancer prevention and detection at countless school or community events in The Woodlands. "I have been working with oncology patients for over 20 years and this patient population is the most receptive for education. Even as they are preparing for the biggest fight of their life, my patients' contagious, positive energy is what motivates me to keep going each day. My greatest passion is educating patients about being healthy and taking care of their body."

Sylvia Brown, M.S., RN, OCN, CNL, ONN-CG

Memorial Hermann Cancer Center - Texas Medical Center

Sylvia Brown received her Bachelor of Science in Nursing from The University of Texas Nursing School at Houston, and a Master of Science in Nursing from Texas Woman's University Houston - Clinical Nurse Leader. She began her career in 2007 at MD Anderson Cancer Center and worked both in the Stem Cell Transplant and Cellular Therapy Unit and as a Clinical Nurse Leader at MD Anderson's Children's Cancer Hospital. She has been an Oncology Nurse Navigator since coming to Memorial Hermann in 2013.

In July 2011, Sylvia's article "Hematologic Malignancy Education for Stem Cell Transplantation Nurses" was published in *Oncology Nursing Forum*. She was also a contributor to Lorene Payne's 2010 book, *The Nursing Student's Guide to Clinical Success*, and has had several poster presentations at the American Society for Blood and Marrow Transplantation conference.

For Sylvia, her passion for working with oncology patients is enhanced because of her personal history with the

disease.

"As a cancer survivor, I know first-hand what it feels like to receive a cancer diagnosis and the uncertainties a diagnosis can bring. I was a caregiver to my mom who was diagnosed with lung cancer and lost her battle nine months later. Given my own personal experience, I have a better understanding of what oncology patients are going through from the point of view of the patient, caregiver and healthcare worker."

"GIVEN MY OWN PERSONAL EXPERIENCE, I HAVE A BETTER UNDERSTANDING OF WHAT ONCOLOGY PATIENTS ARE GOING THROUGH FROM THE POINT OF VIEW OF THE PATIENT, CAREGIVER AND HEALTHCARE WORKER."

- SYLVIA BROWN, M.S., RN, OCN, CNL, ONN-CG

Jessica Burgess, B.S.N., RN, OCN, ONN-CG

Memorial Hermann Cancer Center - Memorial City

Jessica Burgess received her Bachelor of Science in Nursing from Texas A&M Corpus Christi in 2007 and has been an Oncology Nurse Navigator at Memorial Hermann Cancer Center - Memorial City since September 2013. Before coming to Memorial Hermann, Jessica worked as a nurse manager in the MD Anderson Cancer Center Stem Cell Transplant and Cellular Therapy Unit, and has over 10 years of experience in oncology patient care.

Each year, Jessica participates in countless community outreach events and lends her support to committees within Memorial Hermann, including the annual Cancer Survivorship Celebration committee. In 2014, Jessica co-authored "Impact of an incentive-based mobility program, 'Motivated and Moving,' on physiologic and quality of life outcomes in a stem cell transplant population," which was published in *Cancer Nursing*. She serves as the membership liaison for the Academy of Oncology Nurse Navigators

Houston Area Chapter.

Of her role as an Oncology Nurse Navigator, Jessica says: "I believe that oncology nursing is a true calling. To hold the hands of those going through the cancer journey, not knowing what they feel like but empathizing with the struggles they are enduring is truly an honor. I have learned so much from my patients and I am so grateful to them for sharing their stories, their struggles, successes, good days and bad all with me. To be in the presence of such bravery is very humbling and I only hope that I can bring a small piece of hope and happiness to them right when they need it most."

Carol Kirton, B.S.N., RN, OCN

Memorial Hermann Cancer Center - Northeast

Of Scottish descent, Carol earned her Bachelor of Science in Nursing at the University of Dundee in Dundee, Scotland, and her Diploma in Adult Nursing at Robert Gordon University in Aberdeen, Scotland. Upon graduation in 2003, she worked as a staff nurse at the Aberdeen Royal Infirmary, where she was first exposed to oncology nursing. She has been practicing in the field ever since.

Carol has been with the Memorial Hermann Health System since 2009, where she served as a supplemental oncology nurse on the inpatient oncology unit and at the Memorial Hermann Cancer Center - Texas Medical Center, as well as the supplemental oncology nurse at Memorial Hermann Cancer Center - Northeast. She has been the Oncology Nurse Navigator at Memorial Hermann Cancer Center - Northeast since August 2016, is an Oncology Certified Nurse and has been credentialed in chemotherapy and biotherapy since 2010.

Of her role as an Oncology Nurse Navigator, Carol says: "I love being a navigator and following and participating in each patient's journey. It's important that patients have as much support, resources and advice as we can get them to make the journey more bearable. Oncology is my passion and I feel so lucky to work with such an awesome

navigation team that all have a genuine interest in our patients. Oncology patients deserve the best of the best.”

Angela Sisk, M.S.N., RN, OCN, AHN-BC

Memorial Hermann Cancer Center - Greater Heights

Angela Sisk received her Bachelor of Science in Nursing from Texas Woman’s University in Houston in 1996, and her Master of Science in Nursing from University of Phoenix in 2005. She has been the Oncology Nurse Navigator at Memorial Hermann Greater Heights Hospital for close to 8 years.

Angela is an Oncology Certified Nurse, an Advanced Holistic Nurse-Board Certified, and a Certified YogaNurse®. Angela is passionate about learning and sharing resources and tools to enhance physical, emotional, and spiritual wellbeing during the cancer journey.

“I HAVE LEARNED SO MUCH FROM MY PATIENTS ABOUT STRENGTH, COURAGE, AND WHAT IS IMPORTANT IN LIFE.”
- ANGELA SISK, M.S.N., RN, OCN, AHN-BC

Angela has over 20 years of experience working with oncology patients in both the inpatient and outpatient setting. She is a member of the Oncology Nursing Society, American Holistic Nursing Association, and Academy of Oncology Nurse and Patient Navigators. Angela has been a presenter at the Oncology Nursing Society’s national conference and has been published in multiple nursing journals.

Angela followed in the footsteps of her grandmother and became a nurse. When the same grandmother was diagnosed with stomach cancer, she knew she wanted to work with cancer patients. Angela chose to do a nursing rotation at MD Anderson Cancer Center and began working there right after graduating from nursing school. She has been an oncology nurse ever since.

“What I love about navigation is that I get to be a trusted partner with patients during their cancer journey. I have learned

so much from my patients about strength, courage, and what is important in life. It makes me feel good to help patients navigate the complex healthcare system and break down barriers to their care, so they can focus on getting better.”

Deidra Teoh, M.S.N., RN, OCN, ONN-CG

Memorial Hermann Southwest Region

Deidra received her Master of Science in Nurse Education from the University of Houston - Victoria, and her Bachelor of Science in Nursing from Prairie View A&M University. As the Lung Oncology Nurse Navigator for Memorial Hermann’s Southwest Region, Deidra is responsible for providing support and education to lung cancer patients, from screening through treatment and into survivorship. Throughout her career, Deidra has worked for The Woman’s Hospital of Texas, MD Anderson Cancer Center, and as an adjunct nursing instructor at the University of Houston-Victoria.

Deidra is very active in the community as a member of the Academy of Oncology Nurse Navigators, the Sigma Theta Tau International Honor Society of Nursing, and the Oncology Nursing Society. She has been the recipient of numerous awards in her nursing career, including a Bronze Award for Excellence in Nursing from the Good Samaritan Foundation in 2013.

“I became an oncology nurse because I have lost too many of my own family members to cancer. There’s nothing more special than being there as a resource in someone’s time of need to be able to make what could be the worst day of their life better, that’s a blessing. I learn so much from my patients about life - they are very special people.” ♦

For more information on Oncology Nurse Navigation at Memorial Hermann, or to be connected to any of the navigators above, please visit memorialhermann.org/cancer/oncology--cancer--nurse-navigators/.

Memorial Hermann Nurses Among First in U.S. to Receive Specialized Oncology Certification

In November 2016, Memorial Hermann Oncology Nurse Navigators Carolyn Allsen, Sylvia Brown, Jessica Burgess and Deidra Teoh were eligible and invited to take the Academy of Oncology Nurse & Patient Navigators (AONN) Certification Exam. The AONN is the largest national specialty organization dedicated to improving patient care and quality of life by defining, enhancing, and promoting the role of oncology nurse and patient navigators. This was the inaugural year for the certification program, which tested the nurses’ competencies in areas like community outreach, coordination of care, patient advocacy, and survivorship support. All four became the first nurses in Houston, and among the first in the nation, to become certified by AONN.

“When a patient receives a cancer diagnosis, it can be a shock both for the patient and his or her family. As a nurse myself, I am proud of the efforts of all of our oncology nurse navigators to help patients during what can be an overwhelming experience. This certification from the AONN is further proof of their dedication to patients,” says Charles “Chuck” Stokes, President and CEO of Memorial Hermann.



Four of Memorial Hermann’s Oncology Nurse Navigators, Carolyn Allsen, Jessica Burgess, Sylvia Brown and Deidra Teoh, recently became certified by the Academy of Oncology & Patient Navigators (AONN).

Community Partner Spotlight: The American Cancer Society

The American Cancer Society (ACS) and Memorial Hermann both trace their origins to the early 1900s, and their collaboration dates back almost to their inception. Over the decades, the partnership has benefited residents of Houston and its surrounding communities through ACS programs that support patients and caregivers from the time of diagnosis through survivorship and Memorial Hermann's extraordinary reach in the community. Both organizations share a commitment to saving lives through early diagnosis of cancer.

"Memorial Hermann has hospitals located throughout the Greater Houston area and access to very large numbers of family practice providers who refer patients to its Cancer Centers," says Stacie Ellis, health systems manager for the American Cancer Society in Houston. "The ACS provides resources to help hospitals expand their prevention programs, including community education about screenings for colorectal, breast and prostate cancer and more recently human papillomavirus. When it comes to developing preventive screening programs, Memorial Hermann's support and range is an enormous help. Our shared goal is to detect, diagnose and treat cancer early."

One of the current ACS-Memorial Hermann initiatives is the National Colorectal Cancer Roundtable, co-founded by the ACS, which has invited organizations around the country to commit to reducing the societal impact of colorectal cancer and work toward a shared goal of regular screening for 80 percent of adults age 50 and older - by 2018. "The colorectal cancer mortality rate has been decreasing since the 1980s due to increased awareness and screening," Ellis says. "If we can achieve 80 percent nationally by 2018, we estimate that 277,000 cancer cases and 203,000

colorectal cancer deaths would be prevented by 2030. For Texas, 80 percent is an ambitious goal. Our state ranks 41st out of 50 states for screening rates - only about 63 percent of Texans over the age of 50 are now getting screened. We have quite a bit of work to do to get to 80 percent, but thanks to our collaboration with Memorial Hermann, we're slowly getting there."



Look Good, Feel Good is just one of the programs the American Cancer Society offers to Memorial Hermann cancer patients. During the class, patients are taught how to minimize the cosmetic side effects associated with cancer treatment.

The ACS estimates that 50 percent of colon cancer cases could be prevented through screening. "Colonoscopy is considered the definitive test for both the diagnosis of colon cancer and treatment through removal of polyps, but when it comes to testing, we always say the best test is the one that gets done," Ellis says. "People age 50 and older with average cancer risk should be getting a colonoscopy every 10 years and a fecal occult blood test annually, based on ACS colorectal cancer screening guidelines. But sometimes there are cultural aversions or financial issues related to colonoscopy. Many people prefer to take a home test for fecal occult blood. Any test is better than no test."

In addition to the National Colorectal Cancer Roundtable, the ACS and Memorial Hermann are developing a navigation process for connecting patients at the hospitals' eight Cancer Centers to resources for virtually any need they have, including transportation,

lodging through ACS's hotel partners program, and access to care through federally funded health centers. "The American Cancer Society has an extensive database of support services that range from individuals and groups willing to offer yoga classes for cancer patients to financial assistance," Ellis says. "We stay knowledgeable about resources offered by other not-for-profit organizations, such as the United Way and the National Lymphedema Network. We partner with Commission on Cancer-accredited hospitals to find barriers to care and to make screening more accessible to the community."

Memorial Hermann's eight Cancer Centers are accredited by the American College of Surgeons Commission on Cancer (CoC), which recognizes cancer care programs for their commitment to providing comprehensive, high-quality and multidisciplinary patient-centered care. The CoC is dedicated to improving survival and quality of life for cancer patients through standard setting, prevention, research, education and the monitoring of comprehensive quality care. The commission provides access to reporting tools to aid in benchmarking and improving outcomes at a facility as well as educational and training opportunities, development resources and advocacy.

"CoC-accredited hospitals are surveyed every three years to ensure that they maintain high quality of care standards," Ellis says. "Each year the Memorial Hermann Cancer Centers share data with the CoC that demonstrates their commitment to patients to improve the quality of care, and by showing that they are providing the programs that specific communities actually need. The needs of consumers in Katy may differ from those who live downtown. Memorial Hermann does a great job of continually assessing needs around the city and designing their programs to meet them. It's our goal at the ACS to continue to help them meet those needs." ♦

Bringing Colorectal Cancer Awareness to the Community

Memorial Hermann Cancer Centers teamed up with The Health Museum on March 14 for *Cancer Connect: What You Need to Know About the Early Detection, Prevention and Treatment of Cancer*. This free, community-wide event attracted over 130 guests who had the chance to visit with affiliated physicians inside the museum's Body Worlds RX exhibit, pick up information at the cancer resource fair, and sit in on an educational panel.

Affiliated physicians Marianne V. Cusick, M.D., colon and rectal surgeon; Putao Cen, M.D., medical oncologist; and Sushovan Guha, M.D., gastroenterologist, discussed risk factors, screening methods and treatment options for colon cancer during the 45-minute panel, which was led by Sylvia Brown, M.S.N., RN, OCN, CNL, ONN-CG, Oncology Nurse Navigator at Memorial Hermann Cancer Center at the Texas Medical Center.

Other affiliated physicians that participated in the event include: Elizabeth Nugent, M.D., gynecologic oncologist; Jay-Jiguang Zhu, M.D., neuro-oncologist; Steven Schroder, M.D.,

orthopedic surgeon; Julie Rowe, M.D., medical oncologist; and Prakash Balan, M.D., cardiovascular disease specialist.

On April 1, Memorial Hermann Cancer Center-Memorial City hosted 34 members of the West Houston community for the *Don't Get Fooled by Colorectal Cancer* seminar. In addition to a light brunch, attendees learned about screening and prevention methods for the prevention of colorectal cancer.

Affiliated physicians G.S. Ramesh, M.D., gastroenterologist; Matthew Spinn, M.D., gastroenterologist; J.R. Cali, M.D., colon and rectal surgeon; *Colorectal Cancer* continues on page 22

Memorial Hermann Cancer Centers in the Community



Affiliated physicians Sushovan Guha, M.D., gastroenterologist; Marianne V. Cusick, M.D., colon & rectal surgeon; and Putao Cen, M.D., medical oncologist, discussed risk factors, screening methods and treatment options for colon cancer during Cancer Connect on March 14 at The Health Museum. The panel was moderated by Sylvia Brown, M.S., RN, OCN, CNL, ONN-CG, Oncology Nurse Navigator at Memorial Hermann Cancer Center at the Texas Medical Center.

Memorial Hermann Cancer Centers welcomed cancer survivors and their caregivers to its annual National Cancer Survivors Celebration. Held on June 2 at The Westin Houston – Memorial City, this year's theme was **Sock it to Cancer: Memorial Hermann's Cancer Survivors' Sock Hop Celebration**. More than 200 guests dined on a health lunch, explored our cancer resource fair, "rocked around the clock" and enjoyed a keynote by award-winning comedian and cancer survivor Scott Burton.



Jessica Burgess B.S.N., RN, OCN, ONN-CG; Chelsea Cappelle, MS, RD, LD; and Megan Tomczynsyn MS, RD, LD, ACSM-CPT at April 1's *Don't Get Fooled by Colorectal Cancer* seminar at Memorial Hermann Memorial City Medical Center.



Affiliated physicians G.S. Ramesh, M.D., gastroenterologist; Matthew Spinn, M.D., gastroenterologist; Mona Lisa Alattar, M.D., medical oncologist; and J.R. Cali, M.D., colon and rectal surgeon, participated in Memorial Hermann Memorial City Medical Center's *Don't Get Fooled By Colorectal Cancer* seminar on April 1.



Affiliated gynecologic oncologist Joseph A. Lucci, III, M.D. and Judith Smith, Pharm.D., BCOP, CPHQ, FCCP, FISOPP, director of the Women's Health Integrative Medicine Research Program at McGovern Medical School at UTHealth, participated in the Avon 39 Walk to End Breast Cancer on April 21-22 in Houston.

Colorectal Cancer continued from page 21

Mona Lisa Alattar, M.D., medical oncologist; and Shariq Khwaja, M.D., radiation oncologist, participated in the panel discussion. ♦

Memorial Hermann Offers Free Cancer Screenings to the Community

Throughout the year, Memorial Hermann Cancer Centers host free cancer screenings for the community. On April 7, affiliated physicians from McGovern Medical School at UT Health's department of Otorhinolaryngology-Head & Neck Surgery, led by Ron J. Karni, M.D., screened 50 people as part of National Oral, Head and Neck Cancer Awareness Week.

On May 13, skin cancer screenings were conducted at Memorial Hermann-Texas Medical Center, Memorial Hermann The Woodlands Hospital, Memorial Hermann-Memorial City Medical Center, Memorial Hermann Southeast Hospital and Memorial Hermann Northeast Hospital as part of Skin Cancer Detection and Prevention Month. Of a combined 174 people screened, 46 were referred for further exam and 26 were referred for biopsies.

There were 3 cases of suspected melanoma, 12 cases of suspected basal cell carcinoma, 76 cases of suspected seborrheic keratosis and 21 cases of suspected actinic keratosis. ♦

MEMORIAL HERMANN WELCOMES

Four physicians and an administrator have joined the team at the Memorial Hermann Cancer Centers.



APARNA SURAPANENI, M.D.
Affiliated Radiation Oncologist
Memorial Hermann Greater Heights Hospital

Dr. Aparna Surapaneni has joined the radiation oncology staff at Memorial Hermann Greater Heights Hospital. She received her undergraduate degree in

materials science engineering with a focus on biomedical applications at the Massachusetts Institute of Technology in Cambridge, followed by a master's degree in biophysics at Georgetown University in Washington, D.C. She completed her medical degree at the State University of New York Downstate Medical School in Brooklyn, followed by internship at Beth Israel Medical Center in New York City and residency at SUNY Downstate, where she was chief resident in radiation oncology. Prior to joining Memorial Hermann, she was an attending physician in radiation oncology at Saint Barnabas Medical Center in Livingston, New Jersey. While at Saint Barnabas, Dr. Surapaneni initiated a stereotactic body radiation therapy program to treat early stage lung cancers and oligometastatic disease to the spine, liver and lung. She has published research on gynecologic and prostate cancers and is a member of American Society of Therapeutic Radiology and Oncology and the American Society of Clinical Oncology.



ERIK ASKENASY, M.D.
Affiliated Colon and Rectal Surgeon
Memorial Hermann Southeast Hospital

Originally from Austin, Texas, Dr. Erik Askenasy graduated from The University of Texas at Austin with a degree in chemical engineering. He attended McGovern Medical School, and completed a residency in general surgery at Baylor College of Medicine and a fellowship in colon and rectal surgery at the Colon and Rectal Clinic of Houston. After completing his education, he accepted a position as an assistant professor of surgery at Baylor College of Medicine and worked at Ben Taub General Hospital. Later, Dr. Askenasy was a founding partner of Trauma and General Surgeons PLLC (TAGS) and practiced at Clear Lake Regional Medical Center, where he was involved in the development of a Level II trauma center. He recently returned to academic medicine, joining the department of surgery at McGovern Medical School. He

is actively involved in education with both the fellowship and residency training programs and spends time at Memorial Hermann Southeast Hospital and the Harris Health System's Lyndon B. Johnson Hospital. Additionally, he continues an active and productive research program and is the principal investigator for various projects. As a colon and rectal surgeon, he treats benign, inflammatory and malignant colorectal diseases as well as varied pelvic floor pathology. Depending on the clinical situation, he will perform either open, laparoscopic, or robotic surgery and is a certified *da Vinci*® robotic surgeon. Fluent in Spanish, Dr. Askenasy is committed to medical service abroad and has made medical and surgical mission trips to Mexico, Honduras, Guatemala and Cuba.



MONICA DESAI, M.D.
Affiliated Medical Oncologist
Memorial Hermann Memorial City
and Katy Hospitals

A native Texan, Dr. Monica Desai received her undergraduate degree at Rice University and her medical degree at Baylor College of Medicine, where she was recognized with the Competitive Award for Academic Excellence. She completed her residency in internal medicine at Washington University and Barnes-Jewish Hospital in St. Louis, Missouri. After residency, she went on to complete her fellowship in hematology and oncology at Washington University and Siteman Cancer Center in St. Louis, Missouri, where she was also co-chief fellow. Fluent in English, Spanish and Hindi, Dr. Desai is a member of the American Society of Clinical Oncology, the American Society of Hematology and the Texas Society of Clinical Oncology. She practices oncology and hematology at Memorial Hermann Memorial City Medical Center and Memorial Hermann Katy Hospital.

Dr. Mohammed Khani received his medical degree at the University of Aleppo Faculty of Medicine in Syria. He went on to complete his general surgery residency at North Shore LIJ Health



MOHAMMED KHANI, M.D.
 Affiliated Colon and Rectal Surgeon
 Memorial Hermann Southeast and
 Pearland Hospitals

System in Staten Island, New York, and his fellowship in colon and rectal surgery at St. Vincent Health System in Erie, Pennsylvania, as well as the Cleveland Clinic Foundation in Cleveland, Ohio. Fluent in English and Arabic, Dr. Khani is double board certified in general surgery by the American Board of Surgery and in colon and rectal surgery by the American Board of Colon and Rectal Surgery. He sees patients at Memorial Hermann Southeast Hospital and Memorial Hermann Pearland Hospital for the diagnosis and treatment of rectal pain, anal pain, abdominal pain, diarrhea, constipation, rectal bleeding, hemorrhoids and more. He also sees patients for both diagnostic and screening colonoscopies.



TIFFANY BALDERAS, BSRT, (R), (T), ROCC
 Manager, Radiation Oncology
 Memorial Hermann Memorial City
 Medical Center

Tiffany Balderas, B.S., RT (R) (T), ROCC, joins Memorial Hermann as manager of radiation oncology at

Memorial Hermann Memorial City Medical Center. She received her bachelor's degree in healthcare management at Ottawa University in Ottawa, Kansas. She is certified as a diagnostic cardiovascular sonographer and a radiation therapy technologist, and is a radiation oncology certified coder. Prior to joining Memorial Hermann, she was manager of the radiation oncology department at Kelsey-Seybold Clinic in Houston. ♦

EXCELLENCE IN CANCER CARE

Memorial Hermann Cancer Centers

All eight Memorial Hermann Cancer Centers are accredited by the American College of Surgeons Commission on Cancer (ACoS CoC). Only 25 percent of hospitals across the country have received this special recognition. This approval means our Centers meet national standards that have been established to



ensure cancer patients receive the best care. Commission accreditation is given only after a thorough onsite evaluation process and performance review. To maintain approval, our Centers undergo an onsite review every three years.

Memorial Hermann Greater Heights Breast Care Center

The Breast Care Center at Memorial Hermann Greater Heights Hospital is accredited by the American College of Surgeons' National Accreditation Program for Breast Centers (NAPBC). NAPBC accreditation is granted only to those centers that have voluntarily committed to provide the best in breast cancer diagnosis and treatment and are able to comply with established NAPBC standards. Each center must undergo a rigorous evaluation and review of its performance and compliance with the NAPBC standards. To maintain accreditation, centers must undergo an onsite review every three years.



NATIONAL ACCREDITATION PROGRAM FOR BREAST CENTERS
 ACCREDITED BREAST CENTER

ABOUT MEMORIAL HERMANN'S CANCER CARE

Memorial Hermann offers the entire continuum of cancer care - prevention, education, screening, diagnosis, treatment, survivorship and rehabilitation. We do more than provide trusted medical care - we're helping patients navigate their entire cancer journey by caring for their physical, social, emotional and spiritual needs. Patients can take advantage of cancer services in their own neighborhood through our convenient network, which includes eight Cancer Centers, 19 breast care locations, 10 acute care hospitals and dozens of other affiliated programs. Through partnerships with

Children's Memorial Hermann Hospital, Memorial Hermann Mischer Neuroscience Institute at the Texas Medical Center, TIRR Memorial Hermann and UTHealth, patients can be confident that oncology specialists are working together to ensure the best possible outcome for their cancer treatment. At Memorial Hermann, we enable patients with the tools and resources needed to fight cancer close to home when home is where they want to be.

All Memorial Hermann Cancer Centers are accredited by the American College of Surgeons Commission on Cancer, and the Greater Heights Breast

Care Center has been granted full, three-year accreditation by the National Accreditation Program for Breast Centers.

To refer a patient or schedule an appointment, call the Memorial Hermann Cancer Center nearest you:

- Memorial City** 713.242.3500
- Northeast** 281.540.7905
- Greater Heights** 713.867.4668
- Katy** 281.644.7000
- Southeast** 281.929.4200
- Southwest** 713.456.4028
- Texas Medical Center** 713.704.3961
- The Woodlands** 713.897.5655

Memorial Hermann Health System

MEMORIAL HERMANN

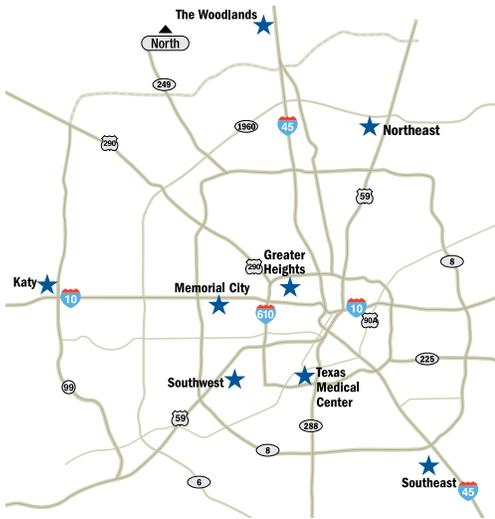
Cancer Centers

7737 Southwest Freeway
Houston, TX 77074

memorialhermann.org/cancer

Nonprofit Org.
U.S. POSTAGE
PAID
Permit No. 3156
Houston, TX

MEMORIAL HERMANN CANCER CENTER LOCATIONS



Memorial City

925 Gessner Rd.
Houston, TX 77024
713.242.3500

Northeast

18960 Memorial North
Humble, TX 77338
281.540.7905

Greater Heights

1635 North Loop West
Houston, TX 77008
713.867.4668

Katy

23900 Katy Fwy.
Katy, TX 77494
281.644.7000

Southeast

11920 Astoria Blvd.
Suite 100
Houston, TX 77089
281.929.4200

Southwest

7600 Beechnut St.
Houston, TX 77074
713.456.4028

Texas Medical Center

6400 Fannin St.
Suite 2900
Houston, TX 77030
713.704.3961

The Woodlands

920 Medical Plaza Dr.
Suite 100
Shenandoah, TX 77380
713.897.5655

The Memorial Hermann Cancer Journal is published four times a year by Memorial Hermann Health System. Please direct your comments or suggestions to Editor, Memorial Hermann Cancer Journal, Memorial Hermann Memorial City Tower, 929 Gessner Rd., Suite 2548, Houston, TX 77024, 713.242.4490.

To receive the Memorial Hermann Cancer Journal via email, please sign up online at memorialhermann.org/cancerjournal.

Sandra Miller, M.H.S.M., RN, NE-BC,
Vice President, Memorial Hermann
Oncology Service Line

Ron J. Karni, M.D., Chair, Oncology CPC
Subcommittee, Memorial Hermann Physician Network

Sunnye Owens-Garrett, Director of Marketing,
Oncology

Melissa Gilbert, Editor and Contributing Writer

Karen Kephart, Writer

Steve Stanley, Designer

Material in this publication may not be reproduced in whole or part without permission from Memorial Hermann Health System.

Summer 2017