

CENTER TIMES

MARCH 2020

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CAMPUS EDITION

Celebrating Match Day 2020 – virtually



A group of medical students pose with their Match Day T-shirts, which show in writing where they matched for residencies. More than 200 UT Southwestern Medical School students celebrated simultaneously with medical students nationwide at 11 a.m. CDT on Friday, March 20, when they opened emails revealing where they matched. See pages 4-5 for story, more photos, and Match Day list.

UT Southwestern mobilizes against COVID-19

By Carol Marie Cropper

As COVID-19 spread from China across the globe and into Texas, UT Southwestern moved aggressively to protect its health care workers, faculty, students, and staff and to prepare for treating patients struck by the disease.

In a matter of days, life at UTSW was transformed. Most work-related travel was banned, many employees were asked to work from home, and UT Southwestern Medical School classes moved online.

“We are living through a generation-defining experience, and the scope, scale, and pace of the COVID-19 events are unprecedented to us,” Dr. Daniel K. Podolsky, President of UT Southwestern, informed members of the campus community as new procedures and restrictions rolled out.

COVID-19 is a respiratory illness caused by SARS-CoV-2, a novel coronavirus. The first outbreak of the disease occurred in Wuhan, China, in December. With symptoms including high fever, cough, and shortness of breath – and no approved vaccine – COVID-19 presents a serious public

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ARTIFICIAL INTELLIGENCE and MEDICINE

Jump-starting radiation therapy for cancer patients

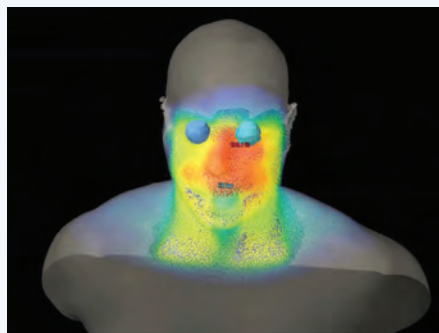
Computer instantly generates dosage plan, avoids potentially crucial treatment delay

By James Beltran

Artificial intelligence can help cancer patients start their radiation therapy sooner – and thereby decrease the odds of the cancer spreading – by instantly translating complex clinical data into an optimal plan of attack.

Patients typically must wait several days to a week to begin therapy while doctors manually develop treatment plans. But new research from UT Southwestern shows how enhanced deep-learning models streamlined this process down to a fraction of a second.

“Some of these patients need radiation



Scientists trained artificial intelligence to instantly generate 3D renderings of how best to distribute radiation therapy to cancer patients.

therapy immediately, but doctors often have to tell them to go home and wait,” said Dr. Steve Jiang, who directs UT Southwestern’s

Medical Artificial Intelligence and Automation (MAIA) Lab. “Achieving optimal treatment plans in near real time is important and part of our broader mission to use AI to improve all aspects of cancer care.”

Radiation therapy is a common form of cancer treatment that utilizes high radiation beams to destroy cancer cells and shrink tumors. Previous research shows that delaying this therapy by even a week can increase the chance of some cancers either recurring or spreading by 12-14 percent.

Such statistics motivated Dr. Jiang’s team to explore methods of using AI to improve multiple facets of radiation therapy – from the initial dosage plans required before the treatment can begin to the dose recalculations that

Please see RADIATION on page 7

AI, brain scans may alter how doctors treat depression

By James Beltran

Artificial intelligence may soon play a critical role in choosing which depression therapy is best for patients.

A national trial initiated by UT Southwestern in 2011 to better understand mood disorders has produced what scientists are calling the project’s flagship finding: a computer that can accurately predict whether an antidepressant will work based on a patient’s brain activity.

The new research is the latest among several studies from the trial that cumulatively show how high-tech strategies can help doctors objectively diagnose and prescribe depression treatments. Although implementing these approaches will take time, researchers predict tools such as AI, brain imaging, and blood tests will revolutionize the field of psychiatry in the coming years.



Dr. Trivedi



Research shows artificial intelligence can accurately predict whether an antidepressant will work based on a patient’s brain activity.

“These studies have been a bigger success than anyone on our team could have imagined,” said Dr. Madhukar Trivedi, a UT Southwestern Professor of Psychiatry who oversaw the multisite trial involving Stanford, Harvard, and other institutions. “We provided abundant data to show we can move past the guessing game of choosing depression treatments and alter the mindset of how the disease should be diagnosed and treated.”

Please see BRAIN SCANS on page 6

BLACK HISTORY MONTH



Dr. James E.K. Hildreth

Speaker urges audience to transform the world through the ‘power of one’

By Lori Sundeen Soderbergh

Can one person truly make a difference in our world? Dr. James E.K. Hildreth, keynote speaker for UT Southwestern’s recent Black History Month event, wholeheartedly believes the answer is yes.

Dr. Hildreth is President and CEO of Meharry Medical College in Nashville, Tennessee, a historically black college or university (HBCU). During his guest lecture at UT Southwestern on Feb. 13, he shared several examples of what he calls “The Transformative Power of One,” starting with the college that he leads.

Meharry Medical College began with the story of a young Irish-Scotsman in Kentucky who opposed slavery, Dr. Hildreth said. In the

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HONORING EXCELLENCE

Wellness takes center stage at the second annual Health System Celebration of Excellence event.

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SHARKS IN THE HOUSE

The first annual Innovation Tank in Internal Medicine rewards faculty for innovative ideas.

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COOL SCIENCE UP CLOSE

The sounds of science fill the halls of UT Southwestern Medical Center at Frisco at the inaugural medIDEAS festival.

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Q&A with Dr. Thomas Wang, Chair of Internal Medicine

By Patrick McGee

In early February, internationally recognized cardiologist Dr. Thomas Wang became UT Southwestern's seventh Chair of Internal Medicine. He succeeds Dr. David Johnson, who served in that role for nine years and is staying on as Professor of Internal Medicine.

Dr. Wang comes from Vanderbilt University Medical Center, where he served the past seven years as Director of the Division of Cardiovascular Medicine. His groundbreaking clinical and translational research focuses on preclinical cardiovascular disease, obesity, and metabolism. After graduating from Harvard College and then Harvard Medical School, Dr. Wang joined the cardiology faculty at Massachusetts General Hospital in Boston, working there from 2003 to 2013.

Dr. Wang has published in numerous medical journals, including the *New England Journal of Medicine*, *JAMA*, and *Circulation*, and has received more than \$44 million in grant funding for his research. He is a co-inventor on five awarded or pending patents. A few weeks into his new role, Dr. Wang answered some questions for *Center Times* about what drew him to UT Southwestern and his goals.

What attracted you to UT Southwestern?

The institution has an incredible legacy of making biomedical discoveries, training academic leaders, and providing care to important segments of the population. So, the history of the institution and the Department of Internal Medicine really attracted me. Beyond that, UT Southwestern is in the midst of an exciting



Dr. Thomas Wang

period of growth as an academic medical center, and the Department has an important opportunity to play a key role in that.

What is at the forefront of your mind with this new role?

The late Dr. Donald W. Seldin, UT Southwestern's longest-serving Chair of Internal Medicine, was a huge figure in the field of medicine. It is a tremendous honor and a large responsibility to ensure that the Department continues to reflect his vision and his commitment to excellence.

What are your goals as Chair?

My broad goals are to have a Department that extends its historical legacy by playing a role in

biomedical advances, training future leaders, and delivering care across a large continuum. There are new opportunities across the Medical Center created by the expansion of William P. Clements Jr. University Hospital and the overall growth of the clinical enterprise, and the Department should be well positioned to take advantage of these opportunities. Scientifically, for instance, there are opportunities stemming from the availability of new tools to learn from our patients and to conduct clinical research, as well as to translate discoveries from the basic science laboratories.

Why move to an executive leadership role in internal medicine?

As a cardiologist, my original training was in internal medicine. Like many of my colleagues in cardiology, I have a broad interest in medicine. Second, my research, although it has a cardiovascular focus, does cross over into many noncardiovascular areas. For instance, I am interested in metabolism and how abnormal metabolism promotes cardiovascular disease. Departments of medicine have always had a broad role in training leaders in medicine and contributing to biomedical discoveries, and that is particularly true nowadays with all of the advances in clinical care and basic and clinical research.

Will you continue doing research and seeing patients?

Yes. Despite my administrative roles, I've tried to continue doing the things that I've done throughout my career. It also gives me greater appreciation for some of the opportunities and challenges faced by the faculty in the Department.

In your view, what are the biggest issues in cardiology today?

Over the past 50 years, there's been a tremendous decrease in death rates from cardiovascular disease. But heart disease remains the leading cause of death in this country, and the gains that have been experienced in the last 50 years have been unequally distributed by geography, racial/ethnic group, socioeconomic status, and other parameters. So one of the biggest challenges in the field – which is a public health challenge as well as a scientific challenge – is understanding these disparities and coming up with ways to address them.

What are your research areas of focus?

One of our major areas of interest is the interaction between metabolism and cardiovascular disease. A lot of the work we are doing in that area focuses on hormones that the heart makes called natriuretic peptides. We are interested in how these hormones operate in healthy people as well as in people with diseases. In another area of research, we study how cardiovascular risk can be assessed in people who don't have disease yet, using a variety of tools such as biomarkers and genetics.

Outside of work, what are your interests?

Most of that time involves activities with the family and keeping up with the kids.

Dr. Johnson holds the R. Ellwood Jones, M.D. Distinguished Professorship in Clinical Education.

Dr. Wang holds the Donald W. Seldin Distinguished Chair in Internal Medicine.

Black History Continued from page 1

spring of 1826, Samuel Meharry's wagon broke down during a trip. He was taken in for the night by a black family who also repaired his wagon – though they were recently freed and took a risk by helping him. While still just a teen, he promised that one day he would repay their courage and generosity.

Fifty years later, Mr. Meharry and his four brothers kept this promise by donating \$30,000 to found a medical school for African Americans – the first of its kind in the American South.

When Dr. Hildreth became President of Meharry in 2015, he set a personal goal based on the origin story of the college. To this day, no one knows the name of the black family that helped Mr. Meharry in 1826. Dr. Hildreth said he is determined to find out, and to honor that family for their deeds.

While the founding of Meharry was a step forward, it took more than a century for African Americans to win the right to attend other medical schools.

In 1949, honors student Esther McCready applied to attend the University of Maryland nursing school and was rejected due to her skin color. Instead of giving up, Dr. Hildreth said, she enlisted help from two lawyers with the NAACP. When they lost their case, they recruited a powerful advocate to join them for the appeal – future Supreme Court Associate Justice Thurgood Marshall. Ms. McCready won her case in 1950 and became another inspiring example of Dr. Hildreth's "transformative power of one." She is now in the Maryland Women's Hall of Fame.

Dr. Hildreth also shared a transformative story of his own that intertwines with the Meharry legacy. He grew up in Camden, Arkansas, and lost his father when he was just 11 years old. Because there was no medical care for African Americans available in their community back then, help did not reach his dad in time. To feed his family, Dr. Hildreth recalled shooting squirrels for dinner with his uncle, who called them "chickens of the trees."

These difficult circumstances inspired Dr. Hildreth to pursue the field of medicine. He began



Brittany Anderson, Executive Recruiter at UT Southwestern, performed for guests at the Black History Month celebration.

his undergraduate studies in 1975 at Harvard University, and was selected as the first African American Rhodes Scholar from Arkansas in 1978. He graduated from Harvard magna cum laude in chemistry in 1979. Studies at Oxford University in England and Johns Hopkins University School of Medicine in Baltimore followed. In 1987, he obtained his M.D. from Johns Hopkins and joined its faculty as Assistant Professor.

In 2002, Dr. Hildreth became the first African American in the 125-year history of Johns Hopkins University School of Medicine to earn full professorship with tenure in the basic sciences. In July 2005, Dr. Hildreth became Director of the National Institutes of Health-funded Center for AIDS Health Disparities Research at Meharry, and he was named President of the college in 2015.

Today, more than 80 percent of Meharry graduates practice medicine in underserved areas, and more than 50 percent of them serve in primary care specialties. Under the leadership of Dr. Hildreth, the hardships suffered by African American families continue to inspire progress to eliminate health care disparities.

In his closing remarks, Dr. Hildreth had a powerful message for members of the campus community.

"We need you. We need your energy, your talents, and your transformative power of one," he said.

The Black History Month Celebration, described as "Reflecting on the Past and Preparing for the Future," was hosted by UT Southwestern's African-American Employee Business Resource Group and the Office of Institutional Equity & Access. Music was provided by Brittany Anderson, Executive Recruiter at UT Southwestern, who sang "This Is Me" and later led the crowd in the closing song, "Lift Every Voice and Sing." The event ended with a luncheon reception.

More online: Watch an archived video of the speech on *Center Times Plus* at utsouthwestern.edu/ctplus.

Kaplan named Professor Emeritus of Internal Medicine at UTSW

By Carol Marie Cropper

Dr. Norman Kaplan, a leader in early hypertension treatment and research who founded UT Southwestern's hypertension program in the early 1960s, has been named Professor Emeritus of Internal Medicine.

Dr. Kaplan literally wrote the textbook on the subject, *Kaplan's Clinical Hypertension*, which served as the field's bible for decades. "It was translated into about 10 different languages, including Russian and Chinese, Japanese – even Polish and Turkish," Dr. Kaplan said.

After graduating first in his UT Southwestern Medical School Class of 1954, Dr. Kaplan completed a residency and fellowship at Parkland Memorial Hospital. He then served in the Air Force as a medic during the Korean War.

He returned to UT Southwestern in 1961 as an Instructor of Internal Medicine. The late Dr. Donald W. Seldin, then-Chair of Internal Medicine, told him "to go ahead and start doing what you want to do," Dr. Kaplan recalled.

Convinced that high blood pressure was a greater problem than commonly recognized at the time, Dr. Kaplan started a lab to investigate hypertension. "Nobody else was focusing on it, and we recognized it was common and a major risk factor for heart attacks and strokes," he said.

In the decades that followed, Dr. Kaplan and fellow UT Southwestern colleagues trained others who became leaders in the field and led clinical trials into some of the first hypertension drugs – drugs like ACE inhibitors, which coax blood vessels to relax, and angiotensin, which dilates, or widens, blood vessels. Later, calcium channel blockers were added to lower blood pressure, he said.

When he started practicing medicine, diuretics were virtually the only pharmaceuticals to battle high blood pressure, Dr. Kaplan said.

Dr. Kaplan rose to Professor of Internal Medicine and Director of the Hypertension Division (now the Hypertension Section). He practiced medicine at UT Southwestern for 61 years, then stepped back in 2015 to an advisory role. "Sixty-one years is enough," he said.

In recognition of his contributions in cardiology, Dr. Kaplan received the Irvine



Dr. Norman Kaplan

Page & Alva Bradley Lifetime Achievement Award from the American Heart Association's Council for High Blood Pressure Research (now the Council on Hypertension) in 1997. He was also a founding member of the Executive Committee of the American Society of Hypertension.

Dr. Wanpen Vongpatanasin, a Professor of Internal Medicine who now heads the Hypertension Section and the Fellowship Program, calls Dr. Kaplan "a true hypertension legend and thought leader in our field." "*Kaplan's Clinical Hypertension* became a standard reference textbook. In addition, he started the Hypertension Fellowship Program here," Dr. Vongpatanasin said. "Many of his trainees have become leaders in hypertension research. I am deeply thankful for all of his contributions to hypertension practice and research."

While he will continue checking in with staff at the Parkland Health & Hospital System Hypertension Clinic about once a month, Dr. Kaplan now spends most of his time reading and watching football. Two of his four daughters became doctors, both graduating from UT Southwestern Medical School.

"It's been wonderful – a remarkable place to be involved with," the son of South Dallas grocers said of his years at UT Southwestern.

Dr. Vongpatanasin holds the Norman and Audrey Kaplan Chair in Hypertension and the Fredric L. Coe Professorship in Nephrolithiasis Research in Mineral Metabolism.

CENTERTIMES

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Wellness takes center stage at Health System Celebration of Excellence

By Tim Bateman

An “Arena of Excellence” greeted attendees as they arrived at the second annual Health System Celebration of Excellence. The “arena,” located outside the Tom and Lula Gooch Auditorium on South Campus, featured over 125 research posters on improving quality and patient care, serving as a powerful reminder of UT Southwestern’s long-standing commitment to excellence as a core value.

The arena also included wellness-themed games, a selfie station, therapy dogs, and information on wellness resources. These new elements reinforced the importance of mental and physical health as foundations for achieving clinical excellence.

“Much has been accomplished during the past 10 years since UT Southwestern embarked on a path toward clinical transformation,” said UTSW President Dr. Daniel K. Podolsky as he kicked off the daylong event. “But clinical transformation was never about growth – it was always about excellence – excellence in every dimension of the quality of care we provide to our patients.”

Dr. John Warner, Executive Vice President for Health System Affairs, followed Dr. Podolsky’s remarks and presented a review of the past year, which included Health System accomplishments and construction projects underway to expand UT Southwestern’s impact in communities across North Texas. He also shared recent metrics highlighting continued improvement in the quality and value of patient care provided by UTSW clinical teams.

“Buildings are buildings,” Dr. Warner reminded the audience. “People are the real reason we’re here, and the reason for our celebration today.”

The focus shifted to workplace wellness as keynote speaker Dr. J. Bryan Sexton, Director of the Duke Center for Healthcare Safety and Quality at Duke University Health System, took the stage. Dr. Sexton, who is also Associate Professor of Psychiatry and Behavioral Sciences at Duke, shared a growing body of evidence examining mental health in the workplace.

As a renowned expert on resiliency, Dr. Sexton talked about the causes and impact of burnout,



Keynote speaker Dr. J. Bryan Sexton discusses burnout and its impact on personal well-being and clinical performance.



Health System leaders learn the power of human connection to improve resiliency.

defining it as “the impaired ability to experience positive emotion.”

He described numerous studies that have found increasing prevalence of burnout and depression among health care workers that can negatively influence how they care for patients.

“If you rank physicians based on how well, or poorly, they say they’re doing,” Dr. Sexton said, “the ones who are struggling with well-being have patients who are being admitted to hospitals at much higher rates for conditions that should have been caught, and addressed, in the primary care setting.”

Burnout also acts like a social contagion – influencing thoughts,

emotions, and behaviors from person to person.

“Who you work with matters,” explained Dr. Sexton. “Burnout is a team sport.”

In one particularly eye-opening exercise during his address, Dr. Sexton asked audience members to stand and to only sit back down if they had personally experienced one of seven symptoms of burnout. As he called out each symptom, waves of attendees sat down. By the time Dr. Sexton reached the sixth symptom, only a handful remained standing.

There are numerous strategies for combating burnout and increasing resiliency in the workplace, he said. One simple, proven method that

Dr. Sexton described is to take a few minutes every night to write down three good things that happened that day. “Doing this each night for just two weeks,” he said, “increases your overall happiness, and decreases your burnout, problems with work/life balance, and depression, for up to a year.”

To encourage participation in this gratitude practice and ongoing research on its impact, Dr. Sexton and his team created a simple tracking tool at <http://bit.ly/start3gt>.

The conversation on well-being continued during a fireside chat with Dr. Sexton, Dr. Warner, and fellow Health System leaders Dr. Will Daniel, Vice President and Chief

Quality Officer; Susan Hernandez, Chief Nursing Executive; and Dr. Seth Toomay, Associate Vice President and Chief Medical Officer.

The life-changing impact of UT Southwestern’s commitment to excellence and teamwork came into sharper focus through a powerful video featuring Juan Escobar, a UTSW patient whose life was transformed by a combined liver transplant/sleeve gastrectomy surgery.

“You see me crying, but it’s not because I’m sad,” Mr. Escobar said following his procedure. “It’s because I got a second chance.”

Dr. Daniel, Dr. Toomay, and Ms. Hernandez then presented the 2020 Patient Safety Star Awards, which recognize Health System employees who provide exceptional patient care, demonstrate a commitment to transparency, and consistently strive to create a safe environment. The six award recipients were selected from 111 nominations across the categories of clinical staff, nonclinical staff, and providers for both outpatient and inpatient settings.

Clinical Excellence Awards were then presented for poster session entries. Four winners and four finalists were selected from over 125 submissions by Health System teams that achieved innovation and improvement in the areas of quality, financial stewardship, people, and service.

Two afternoon sessions continued the event’s focus on enhancing workplace resiliency and increasing employee wellness as institutional priorities – featuring insights on mindfulness and interactive discussions with UTSW leaders, faculty members, residents, and staff.

■
Dr. Daniel holds the William T. Solomon Professorship in Clinical Quality Improvement at UT Southwestern Medical Center.

Dr. Podolsky holds the Philip O’Byrne Montgomery, Jr., M.D. Distinguished Presidential Chair in Academic Administration, and the Doris and Bryan Wildenthal Distinguished Chair in Medical Science.

Dr. Warner holds the Jim and Norma Smith Distinguished Chair for Interventional Cardiology and the Nancy and Jeremy Halbreich, Susan and Theodore Strauss Professorship in Cardiology.

Biophysics Chair Rosen recognized for pioneering studies

By Deborah Wormser

UT Southwestern Biophysics Chair Dr. Michael Rosen is among three scientists awarded the 2020 Wiley Prize in Biomedical Sciences for determining how cells can compartmentalize processes without the use of membranes. These phase-separated structures are involved in many cellular mechanisms in health and in disease.

The other awardees are Dr. Cliff Brangwynne, a Professor in the Department of Chemical and Biological Engineering at Princeton University and an Investigator of the Howard Hughes Medical Institute (HHMI), and Dr. Tony Hyman, Director and Group Leader at the Max Planck Institute of Molecular Cell Biology and Genetics in Dresden, Germany.

“Their pioneering work has revealed a new principle for subcellular compartmentalization based on formation of phase-separated biomolecular condensates, a process implicated in both physiological and pathological events,” reads the award announcement. The award honors research that champions novel approaches and challenges accepted thinking.

Dr. Rosen, also an HHMI Investigator, for five years led an HHMI-funded international summer research institute to advance this line of investigation at the Marine Biological Laboratory at Woods Hole, Massachusetts. Drs. Brangwynne and Hyman participated in that institute, which, in addition to studying biological phase separa-



Dr. Michael Rosen

tion, posed the question: How can scientists best structure collaborative research teams to speed discovery?

“We honor them for the discovery of a completely new aspect of cell biology that impacts our understanding of how cells work,” said Deborah Wiley, Chair of the Wiley Foundation.

In learning of the Wiley Prize, Dr. Rosen said, “It is a tremendous honor to have our work recognized by the Wiley Foundation. The award is

testament to the hard work and creative insights of the students, postdocs, and technicians in my lab over the past decade, and the encouragement of our colleagues at UTSW and HHMI. I am grateful to them all for stepping with me into an unexplored area, and taking the risks that ultimately led to our discoveries.”

First awarded in 2002, the Wiley Prize in Biomedical Sciences is presented annually to recognize contributions that have opened new fields of research or have advanced concepts in

a particular biomedical discipline. Among the many distinguished recipients of the Wiley Prize in Biomedical Sciences, nine have gone on to be awarded the Nobel Prize in Physiology or Medicine and two have gone on to be awarded the Nobel Prize in Chemistry.

Dr. Steven McKnight, UTSW Professor and former Chair of Biochemistry, received the award in 2014 for his work on oxygen sensing in cells along with the three winners of the 2019 Nobel Prize in Physiology or Medicine: Dr. William G. Kaelin, Dr. Peter J. Ratcliffe, and Dr. Gregg L. Semenza.

This year’s award of \$50,000 will be presented to the winners on April 3 at the Wiley Prize luncheon at The Rockefeller University. The winners will deliver an honorary lecture that will be livestreamed.

Wiley is a global leader in research and education involved in publishing, platforms, and other services. The company’s website can be accessed at wiley.com.

■
Dr. McKnight holds the Distinguished Chair in Basic Biomedical Research.

Dr. Rosen holds the Mar Nell and F. Andrew Bell Distinguished Chair in Biochemistry.

More online: Read the full story on *Center Times Plus* at utsouthwestern.edu/ctplus.

MATCH DAY | 2020

Meeting your 'match' online

Virtual Match Day replaces traditional reveal

By Courtney Borchert

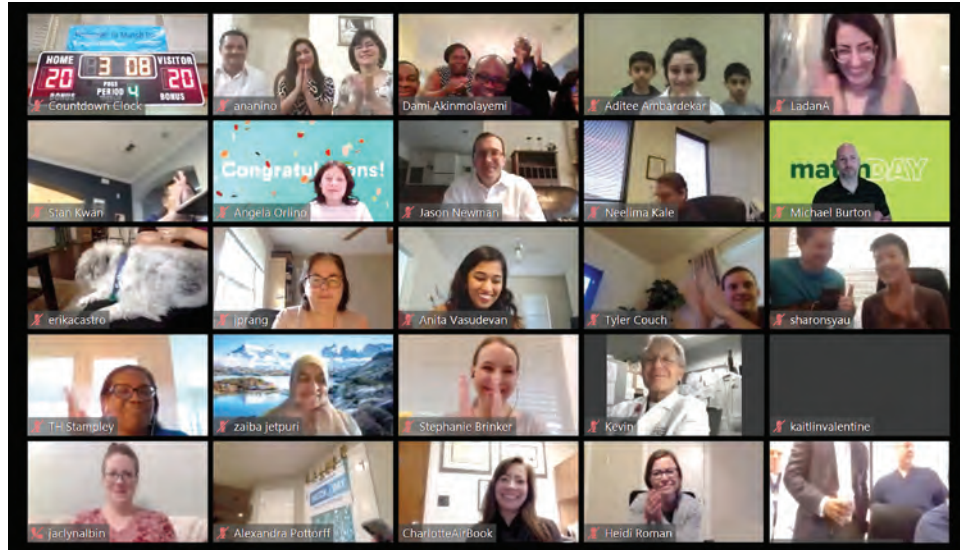
Match Day for UT Southwestern Medical School students and others nationwide looked much different this year. Amid the coronavirus pandemic, celebrations of this momentous educational milestone went virtual.

Each year, fourth-year medical students complete applications and interviews for numerous residency programs in the medical field of their choosing. The National Resident Matching Program (NRMP) then uses an algorithm to determine the highest match based off rankings given by both students and programs. The 2020 Main Residency Match is the largest in history with increases both in the number of applicants and positions, including more than 40,000 resident physician applicants across the country, according to the NRMP.

In prior years, UT Southwestern senior students marked this important event by coming together with their classmates, families, mentors, and advisers. The soon-to-be doctors would open designated personal envelopes and discover where they would train as residents for the next three to seven years. This year, in order to abide by the current restriction of gatherings at UT Southwestern, the traditional large-scale event was canceled, reflecting the institution's commitment to protect public health. Instead, it was replaced with compassion and understanding from the senior medical students and the concerted efforts of Medical School leadership and staff to ensure these students were celebrated.

"I have not seen one expression of frustration or anger, but rather an understanding that the current state is needed to protect others," said Dr. Melanie S. Sulistio, Associate Dean for Student Affairs, regarding her observations of the senior students in the past week. "Their attitudes reflect the profession they chose, where compassion, integrity, and serving the greater good takes precedent."

To recognize them, UT Southwestern found alternate ways to celebrate. Instead of the in-person reveal, a virtual meeting was created where students could join Dr. Daniel K. Podolsky, UT Southwestern President; Dr. W. P. Andrew Lee, Executive Vice President for Academic Affairs, Provost, and Dean of the Medical School; and Dr. Charles Ginsburg, Vice Provost and Senior Associate Dean for Education, along with many other faculty, to watch the countdown clock and hear the drumroll leading up to the moment of the reveal, a UT Southwestern



Match Day went entirely virtual where medical students joined the group celebration from private gatherings and shared their announcements utilizing technology and social media.

More online: To see full Match Day coverage, including student spotlights and videos, go to [Center Times Plus](https://www.centertimes.com/plus) at utsouthwestern.edu/ctplus.

tradition. Dr. Blake Barker, Associate Dean for Student Affairs, described it best: "Technology offered us a means to celebrate together. No matter the current public health situation, medicine is about partnership and teamwork, and this allowed us to reflect these principles."

Therefore, on Friday, March 20, Match Day went entirely virtual, and 225 medical students learned where they would train as residents through one long-awaited email. Many joined the virtual group celebration, others chose private gatherings, and even more shared their announcements utilizing technology and social media.

While Match Day 2020 at UT Southwestern and around the nation appeared much different than in years past, it still reflected both the spirit of the Medical School community and medicine itself. It honored hard work and achievement and brought individuals together in a unique way that reflected the selflessness of medical professionals in this era of COVID-19. Of the 225 students who matched, 51 will serve their residencies at UT Southwestern.

Dr. Angela Mihalic, Dean of Medical Students and Associate Dean for Student Affairs, summarized the occasion: "In this time, we need to rally together, support each other, and find ways to celebrate life." UT Southwestern Match Day did just that.



Ferzana Hossain with her celebratory T-shirt, which shows she matched at UT Medical School at Houston.

I liked that they did the virtual Match Day. I appreciate that they put that effort in to still make it feel like a special event."



Nicole Akinseye and her fiancé, Shawn Okpara

Nicole Akinseye

Where she matched: UT Medical School at Houston
Specialty: Radiology

Reaction: "My fiancé and I are going to be in Houston! We're so happy that we're going to be together, and we both really love the programs we interviewed with. My little brother printed out our results so we could open up an envelope instead of an email. We would have loved for all of our friends to be here with us, but it was still really awesome opening Match Day results in front of my family and having Shawn's family on FaceTime."

Shawn Okpara

Where he matched: Baylor College of Medicine
Specialty: Orthopedic Surgery

Reaction: "I'm from Houston, so it is nice to be able to return back. Match Day was not how my fiancée and I imagined it, but it was still a lot of fun. We still found ways to incorporate family into the Match Day experience. We're looking forward to moving to Houston and starting this new phase of our lives."

Natalie Schauwecker

Where she matched: Vanderbilt University Medical Center
Specialty: Otolaryngology

Reaction: "My husband and I are ecstatic. We couldn't be happier. During December and January I was flying across the country, seeing programs that would be interesting to me and interested in me. It was stressful, but I took for granted the ability to do this. A lot has happened since then and it's good to be reminded that we are the luckiest people in the world. The virtual Match Day was kind of neat, but hopefully our class will be the only one that has to do it."

Note: Staff members Nyshicka Jordan and Patrick Wascovich contributed to this report.

Dr. Ginsburg holds the Marilyn R. Corrigan Distinguished Chair in Pediatric Research.

Dr. Lee holds the Atticus James Gill, M.D. Chair in Medical Science.

Dr. Podolsky holds the Philip O'Bryan Montgomery, Jr., M.D. Distinguished Presidential Chair in Academic Administration, and the Doris and Bryan Wildenthal Distinguished Chair in Medical Science.

For 2020, the top five residency specialties selected by UTSW graduates were:

1. Internal Medicine
2. Radiology
3. Emergency Medicine, Surgery (tie)
4. Family Medicine, Pediatrics (tie)
5. Anesthesiology

Medical school is a marathon that tests students' mettle, but the feeling of triumph awaiting those who cross the finish line and find their perfect match makes the struggle worthwhile. Several medical students from the Class of 2020 reflected on their time at UT Southwestern, described what Match Day means to them, and shared their reactions upon learning where they are headed next.

Anita Vasudevan

Where she matched: Sutter Santa Rosa Regional Hospital
Specialty: Family Medicine

Reaction: "Sutter was my first choice because of its community advocacy and emphasis on social justice. I am so excited to be a part of that and I am so honored that they wanted me. I'm ready for this new adventure. Even though everyone wasn't physically around us for Match Day, I still enjoyed it. I initially thought it wouldn't be as exciting, but it was actually really, really exciting – and all of my classmates are texting each other furiously right now. I think the thing that I am going to miss the most are my friends. I am moving really far away and most of my friends matched all over the country, but the best things I found at UT Southwestern were the amazing people."



Anita Vasudevan

Juan Reyna

Where he matched: University of California, San Francisco
Specialty: Surgery

Reaction: "I initially set out to do this in 2010 and it felt like a pipe dream. There were so many hurdles I had to get through to get to this point. Granted I still have residency, but now that I am poised to become a surgeon, I am very thankful. It bummed me out that they canceled the event, but



Juan Reyna

ANESTHESIOLOGY

Collin Buerger, Baylor Scott & White-Texas; Vincent Choo, U Rochester/Strong Memorial-N.Y.; Savannah Hampton, UT Southwestern; Christine Henderson, Vanderbilt U Med Ctr, Tenn.; William Hsu, Johns Hopkins Hosp, Md. (Transitional Year, U Maryland Med Ctr Midtown Campus); Kurt Leininger, UC Irvine Med Ctr; Maria Lima, U Wash Affil Hosps; Rachael Lu, Northwestern McGaw/NMH/Va.-Ill.; Shuhan Reyes, UT Southwestern; Lucas Richardson, UT Southwestern; Bailey Shepherd, Baylor Scott & White-Texas; Alwin Somasundaram, Massachusetts General Hospital;

Sharon Sun, NYP Hosp-Columbia U Med Ctr, N.Y.

DERMATOLOGY

Aya Alame, UT Southwestern (Preliminary-Internal Medicine, UT Southwestern); Bahir Chamseddin, UT Southwestern (Preliminary-Internal Medicine, UT Southwestern); Jennifer Coias, Mayo Clinic School of Grad Med Educ, Minn. (Preliminary-Internal Medicine, Baylor U Med Ctr, Dallas); Jamael Lamb Thomas, UT Med School, Houston (Preliminary-Internal Medicine, Baylor U Med Ctr, Dallas); Smriti Prasad, Oregon Health & Science U (Preliminary-Internal Medicine, Baylor COM-

Houston); Edgar Rodriguez, Baylor COM-Houston (Preliminary-Internal Medicine, Baylor U Med Ctr, Dallas); Andrea Tan, Stony Brook Teaching Hosps-N.Y. (Preliminary-Internal Medicine, Icahn SOM Beth Israel-N.Y.).

EMERGENCY MEDICINE

Tochi Ajiwe, Baylor COM-Houston; Maria Box, UT Southwestern; Travis Bulloch, U Hosps, Columbia, Mo.; Ted Deng, UT Med School, Houston; Naomi Freeman, Med Coll Wisc Affil Hosps; Alexander Guinn, UTSouthwestern; Fraz Haseen, Penn State Hershey Med Ctr; Jordan Hughes, U Virginia;

Rachel Hurst, Med Coll Wisc Affil Hosps; Philip Jarrett, UT Southwestern; Sussana Oad, Kendall Regional Med Ctr, Fla.; Heather Renfro, U Chicago Med Ctr; Joshua Riechers, John Peter Smith Hosp, Texas; Josie Simmons, Penn State Hershey Med Ctr; Katie Tai, Albany Med Ctr-N.Y.; Emiliya Usheva, UT Southwestern.

FAMILY MEDICINE

Emily Gao, UT Med School, Houston; Joo Lee, UT Austin Dell Med School; Chung-Kuang Lin, Riverside Community Hosp-Calif.; Andriana Love, Tideland Health, S.C.; Amy Luu, McLennan County Fam

Here, grouped by specialty, are the matches achieved by members of the UT Southwestern Medical School Class of 2020

MATCH DAY | 2020



With Match Day virtual this year, students submitted photos to a shared drive to display their individual celebrations. Signage on campus remained to capture the spirit of the occasion, while students could view a countdown clock virtually through a Zoom online congratulatory announcement.

Med, Texas; **Micah Nishigaki**, UT Southwestern; **David Nitschmann**, North Colo. Med Ctr; **Brian Ostler**, Valley Med Ctr-Wash.; **Maria Ruiz**, U Arizona COM-South Campus; **Rachel Shober**, Tacoma Family Med-Wash.; **Oliver Taylor**, John Peter Smith Hosp, Texas; **Benjamin Tomelleri-Galichia**, John Peter Smith Hosp, Texas; **Kaitlin Valentine**, UT Austin Dell Med School; **Anita Vasudevan**, Sutter Santa Rosa Regional Hosp, Calif.

INTERNAL MEDICINE

Caroline Abe, UT Southwestern; **Carol Abousaab**, UT Southwestern; **Vijay Agusala**, UT Southwestern; **Oludamilola Akinmolayemi**, NYP Hosp-Columbia U Med Ctr, N.Y.; **Gautam Babu**, Vanderbilt U Med Ctr, Tenn.; **Ashley Barasa**, San Antonio Uniformed Services Health Education; **Nora Bismar**, UT Southwestern; **Benjamin Bleiberg**, Hosp of the U of Pa.; **Punya Chittajallu**, UCLA Med Ctr; **Tyler Couch**, Duke U Med Ctr, N.C.; **Emmanuella Egbonim**, Duke U Med Ctr, N.C.; **Hillary Evans**, U Miami/Jackson Health System, Fla.; **Laura Gammon**, Baylor COM-Houston; **Feng Gao**, Baylor COM-Houston; **Jason Gao**, Cedars-Sinai Med Ctr, Calif.; **Sandra Garcia**, UT Southwestern; **Jonathan Harder**, U Florida COM-Shands Hosp; **Chuan Ho**, UT Southwestern; **Lawrence Hoang**, Methodist Health System Dallas; **Chanhwa Hong**, U New Mexico SOM; **Larry Huynh**, Baylor U Med Ctr, Dallas; **Shailavi Jain**, UCLA Med Ctr; **Alice Jiang**, Emory U SOM, Ga.; **Janice Jiang**, Stanford U Progs, Calif.; **Rhoda Jiao**, U New Mexico SOM; **Rohan Kanade**, UT Southwestern; **Jacob Khoury**, Tulane U SOM, La.; **Jinwan Kim**, UT Med School, Houston; **Daniel Li**, Methodist Hosp, Houston; **Terrence Liu**, U Wash Affil Hosps; **Sonakshi Manjunath**, Barnes-Jewish Hosp, Mo.; **Ali Mohamedi**, UT Southwestern; **Jaelyn Nguyen**, Billings Clinic, Mont.; **Paul Parisot**, Vanderbilt U Med Ctr, Tenn.; **Jamie Pfaff**, Vanderbilt U Med Ctr, Tenn.; **Hiep Phan**, U Wisc Hosps and Clinics; **Oswaldo Renteria**, U Arizona COM-Tucson; **Cory Smith**, Stanford U Progs, Calif.; **Owais Syed**, U Maryland Med Ctr; **Wei Shan Tsui**, U Florida COM-Shands Hosp; **Derek Udeh**, Yale-New Haven Hosp, Conn.; **Aishwarya Vishwanath**, Rhode Island Hosp/Brown U; **Charles Wanna**, UT Med School, Houston; **Jacob Welch**, U Colorado SOM-Denver; **Lawrence Wu**, Johns Hopkins Hosp, Md.; **Danny Xu**, UCLA Med Ctr; **Serena Zadoo**, UT Med School, Houston; **Michael Zou**, U of Utah Health.

INTERNAL MEDICINE/DERMATOLOGY

Whitney Gao, MedStar Wash Hosp Ctr, D.C.

INTERNAL MEDICINE/PEDIATRICS

Meera Iyengar, Indiana U SOM; **Alysha Joseph**, UT Southwestern.

INTERNAL MEDICINE-PRELIMINARY

Bowen He, Virginia Mason Med Ctr, Wash.

INTERVENTIONAL RADIOLOGY

Zhonghao Cui, U Wash Affil Hosps (Preliminary-Surgery, Methodist Health System Dallas).

MATCH DAY

NEUROLOGY

Daniel Dewey, UT Southwestern; **Elli Hoge**, UT Med School, Houston; **Nishika Karbhari**, Dartmouth-Hitchcock Med Ctr, N.H.; **Tran Le**, UT Austin Dell Med School; **Sahar Noorani**, UT Southwestern; **Chiamaka Onuigbo**, Emory U SOM, Ga. (Transitional Year, Emory U SOM, Ga.); **Sumanth Reddy**, UC San Francisco; **Georgia Shelton**, Barnes-Jewish Hosp, Mo.; **Fortino Velasco**, Wake Forest Baptist Med Ctr, N.C.; **Amen Yonas**, Mayo Clinic School of Grad Med Educ, Fla.

OBSTETRICS-GYNECOLOGY

Carolina Andrade, Texas Tech U Affil-El Paso; **Lucy Cheng**, U Arizona COM-Phoenix; **Tina Chu**, UT Southwestern; **Pooja Dasari**, Methodist Health System Dallas; **Pamela De La Cruz Rivera**, UT Southwestern; **Analise Doney**, UT Southwestern; **Priyanka Gaur**, Johns Hopkins Hosp, Md.; **Gabriela Hanco**, Texas Tech U Affil-El Paso; **Chinonye Imo**, UT Southwestern; **Vinita Papat**, UT Southwestern; **Hayley Williams**, Ohio State U Med Ctr.

OBSTETRICS AND GYNECOLOGY-PRELIMINARY

Amita Kulshreshtha, Zucker SOM-Northwell NS/LJ-N.Y.

OPHTHALMOLOGY

Viet Chau, U Miami/Bascom Palmer (Preliminary-Internal Medicine, U Miami/Jackson Health System, Fla.); **William Ford**, UT Southwestern (Preliminary-Internal Medicine, Presbyterian Hosp-Dallas); **Matthew Gillings**, UT Southwestern (Transitional Year, Wellstar Kennestone Reg Med Ctr, Ga.); **Jenna Wiles**, UTHSC-San Antonio (Preliminary-Internal Medicine, UTHSC-San Antonio); **Scott Zhou**, UT Southwestern (Preliminary-Internal Medicine, Baylor COM-Houston).

ORAL AND MAXILLOFACIAL SURGERY

Vickas Agarwal, UT Southwestern; **Lindsay Graves**, UT Southwestern; **Sammy Houari**, UT Southwestern; **Shyam Indrakanti**, UT Southwestern; **David Schwitzer**, UT Southwestern.

ORTHOPEDIC SURGERY

Junho Ahn, UT Southwestern; **Lincoln Andre**, LSUHSC, Shreveport, La.; **Timothy Benage**, John Peter Smith Hosp, Texas; **Jack Martinez**, UT Southwestern; **Ivy Nguyen**, UT Southwestern; **Shawn Okpara**, Baylor COM-Houston; **Matthew Siebert**, U of Utah Health.

OTOLARYNGOLOGY

Ajay Narayanan, UT Southwestern; **Somtochi Okafor**,

Duke U Med Ctr, N.C.; **Natalie Schauwecker**, Vanderbilt U Med Ctr, Tenn.

PATHOLOGY

Jozsef Bordas, SUNY Upstate Med U; **Ryan Hunter**, U Chicago Med Ctr; **Kasey Kreutz**, Barnes-Jewish Hosp, Mo.; **Nathan McCammon**, U Michigan Hosps-Ann Arbor.

PEDIATRICS

Swathi Ariyapadi, UT Southwestern; **Daniel Beauchamp**, Cincinnati Children's Hosp Med Ctr, Ohio; **Julia Bratic**, Stanford U Progs, Calif.; **Sabiha Hussain**, UC Irvine Med Ctr; **Chelsea Lockyear**, Duke Med Ctr, N.C.; **Vidya Menon**, Emory U SOM, Ga.; **Kelsi Morgan**, Baylor COM-Houston; **Ana Nino**, UT Austin Dell Med School; **Jesse Ortega**, Baylor COM-Houston; **Alexandra Pottorff**, Children's Hosp, Boston; **Shannon Reinert**, Cincinnati Children's Hosp Med Ctr, Ohio; **Adriana Torres**, UT Med School, Houston; **Yarlina Vipulanandan**, UT Southwestern; **Ashley Wallace**, Johns Hopkins Hosp, Md.; **Zhuo Yang**, Case Western/U Hosps Cleveland Med Ctr, Ohio.

PHYSICAL MEDICINE & REHABILITATION

Onyinyechi Chidomere, Virginia Commonwealth U Health System (Preliminary-Internal Medicine, Virginia Commonwealth U Health System); **Justin Comer**, U of Nebraska Med Ctr; **Kevin Vu**, Harvard Spaulding Rehab Hosp, Mass. (Preliminary-Internal Medicine, Medical City Weatherford, Texas).

PLASTIC SURGERY

Muhammad Harirah, UT Southwestern.

PSYCHIATRY

Danielle Collado, U Southern California; **Brayden Efseroff**, UT Southwestern; **Vinay Kotamarti**, UT Southwestern; **Tara Lemens**, U Oklahoma COM-Tulsa; **Chengxi Li**, UT Southwestern; **Duc Nguyen**, Calif Pacific Med Ctr; **Keerthi Reddy**, Carle Foundation Hosp, Ill.; **Sharon Syau**, Kaiser Permanente, San Jose, Calif.; **Ahana Yogesh**, U Southern California; **Alice Zhang**, U Wisc Hosp and Clinics.

RADIOLOGY

Oyindamola Akinseye, UT Med School, Houston (Preliminary-Internal Medicine, UT Med School, Houston); **Aida Basirat**, UT Southwestern (Transitional Year, John Peter Smith Hosp, Texas); **Zachariah Burns**, U Hosps, Jackson, Miss.; **Erika Castro**, UC San Diego Med Ctr (Transitional Year, Riverside Community Hosp, Calif.); **Alice Chang**, Beth Israel Deaconess Med Ctr, Mass.

(Transitional Year, John Peter Smith Hosp, Texas); **Ferzana Hossain**, UT Med School, Houston (Preliminary-Internal Medicine, UT Austin Dell Med School); **Matthew MacLean**, U North Carolina Hosps (Preliminary-Internal Medicine, Cone Health, N.C.); **Kiera Mason**, Baylor U Med Ctr-Dallas (Transitional Year, Henry Ford Allegiance Health, Mich.); **Alexander Mazal**, Stanford U Progs, Calif. (Preliminary-Surgery, UT Austin Dell Med School); **James Munoz**, UT Med School, Houston (Transitional Year, John Peter Smith Hosp, Texas); **Anish Narayanan**, UTHSC-San Antonio (Preliminary-Internal Medicine, UT Med Branch Galveston); **Matthew Perez**, U Wash Affil Hosps (Preliminary-Surgery, UT Austin Dell Med School); **Bilal Quadri**, Santa Clara Valley Med Ctr, Calif. (Preliminary-Internal Medicine, UT Southwestern); **Arghavan Sharifi**, NYU Grossman SOM (Preliminary-Internal Medicine, Presbyterian Hosp-Dallas); **Shan Su**, UT Southwestern (Preliminary-Internal Medicine, UC San Diego Med Ctr.); **Ali Tejani**, UT Southwestern (Preliminary-Internal Medicine, Presbyterian Hosp-Dallas); **Richard Wang**, U Miami/Jackson Health System, Fla. (Transitional Year, Sunrise Health GME Consortium, Nev.); **Helena You**, Stanford U Progs, Calif. (Preliminary-Internal Medicine, Presbyterian Hosp-Dallas).

SURGERY

Roy Baskin, Methodist Health System Dallas; **Matthew Canipe**, Ochsner Clinic Foundation, La.; **Maximilian Choi**, SUNY HSC Brooklyn, N.Y.; **Jennifer Gueler**, UT Southwestern; **Katherine Hebler**, Baylor U Med Ctr, Dallas; **Tyler Liang**, UC Irvine Med Ctr; **Yun Liang**, Mayo Clinic School of Grad Med Educ, Minn.; **Robert Myers**, Abington Mem Hosp, Penn.; **Javier Ordonez**, LSUHSC-New Orleans; **Rishi Patel**, UT Med School, Houston; **Subhadeep Paul**, LSUHSC-Shreveport, La.; **Juan Reyna**, UC San Francisco; **Andrew Tran**, Naval Med Ctr-Portsmouth, Va.; **Maura Walsh**, Oregon Health & Science U; **Samuel Younan**, Vanderbilt U Med Ctr, Tenn.; **Sarah Yuen**, UC Irvine Med Ctr.

SURGERY-PRELIMINARY

Morgan Adkins, UT Southwestern; **Mark Honrales**, Baylor COM-Houston; **Sami Horani**, Baylor COM-Houston.

TRANSITIONAL YEAR

Alex Yang, HCA Houston Healthcare/U Houston.

UROLOGY

Caleb Ashbrook, UT Southwestern; **Timothy Carroll**, LSUHSC-New Orleans; **Emily Huang**, Methodist Hosp-Houston; **Wesley Smith**, UT Southwestern; **Daniel Wong**, Wash U/B-JH/SLCH.

This list does not include matches for 2020 students who asked for no publicity, students pursuing alternative careers, or students who are taking a year off before starting their residency training.

Joan Steitz, Ph.D. – scientist, educator, and role model for women in science

By Lori Sundeen Soderbergh

The excitement was palpable at the recent Celebration of Women in Science and Medicine event, where a packed campus audience gathered to hear from Joan Steitz, Ph.D., an expert in RNA research.

Dr. Steitz, UT Southwestern's 2020 Ida M. Green Distinguished Visiting Professor Honoring Women in Science and Medicine, is known for her dedication to teaching and mentoring, her work as an outspoken advocate for women scientists, and for raising awareness of unspoken bias in medicine and science. Her lecture at UT Southwestern was titled "The Enigma of Viral Noncoding RNAs."

"Advances in technology during the past five to seven years have accelerated our research," Dr. Steitz said as she opened her talk.

RNAs are molecules that have a myriad of coding and noncoding functions – from transferring genetic information into proteins to regulation of RNA splicing, stability, translation, and transcription. Her research has resulted in major breakthroughs in the RNA field.

In the 1960s, becoming a scientist was an unusual choice for a woman, but Dr. Steitz enjoyed "figuring out how things work," she told the audience of about 275 faculty members, trainees, and researchers. Her initial degree in chemistry led her to become the first female graduate student to join the Harvard laboratory of Nobel Laureate James Watson, followed by a lifetime of work in the RNA field.

At Yale University, Dr. Steitz is the Sterling Professor of Molecular Biophysics and Biochem-



Green Professor Dr. Joan Steitz shares her research on noncoding RNAs with the campus audience.

istry. She is also a Howard Hughes Medical Institute Investigator and a member of the American Academy of Arts and Sciences, American Philosophical Society, National Academy of Sciences, and National Academy of Medicine. In 2018, she received the Lasker-Koshland Special Achievement Award in Medical Science from the Albert and Mary Lasker Foundation.

"Dr. Steitz is the perfect role model for the Professorship, which honors a distinguished female scientist with groundbreaking research and a record of supporting women in their careers in science and medicine. We are extremely indebted to her for spending this valuable time inspiring all of us," said Dr. Carole Mendelson, Professor of Biochemistry and Obstetrics and Gynecology and

co-Chair of the Women in Science and Medicine Advisory Committee (WISMAC), which organizes the annual event.

WISMAC's goals are to raise the international visibility and recognition of women in science and medicine at UT Southwestern and to provide inspiration and career guidance for female trainees, faculty, and senior administrators.

The Ida M. Green Distinguished Visiting Professor commits to a 2½-day campus visit. The event also features a poster session showcasing the research of female trainees and faculty.

"This poster session highlights the outstanding research of our female trainees and faculty in basic science, clinical and translational research, health care education, and public health. The event would not be possible without the contributions of time and expertise by our judges," said Dr. Angela Shoup, Professor of Otolaryngology – Head and Neck Surgery and co-Chair of WISMAC.

Seventy-three UTSW faculty members judged 141 poster session entries and chose three winners for \$700 WISMAC travel awards.

The Green Visiting Professorship is sponsored and funded by Southwestern Medical Foundation. The late Mrs. Green championed careers for women in science and was the wife of Texas Instruments co-founder Cecil H. Green. WISMAC is a standing committee of UT Southwestern.

More online: To read the full story, which includes details on the poster session winners, go to *Center Times Plus* at utsouthwestern.edu/ctplus.

UTSW's first Innovation Tank for faculty rewards promising ideas

By Carol Marie Cropper

In the TV show "Shark Tank," entrepreneurs pitch ideas to a panel of investors, hoping to win financing and a mentor for their business project. At the recent Innovation Tank hosted by the Department of Internal Medicine, enterprising UT Southwestern physicians competed for \$10,000 – and institutional support and sponsorship as they develop their ideas for improving patient care.

Six faculty teams, culled from an original 23, made their final 10-minute presentations during a recent Internal Medicine Grand Rounds. Proposals ranged from a smartphone app to track outpatients' water retention to a communications course for physicians to improve discussions with seriously ill patients.

"Originally, the plan was to conduct the competition more like 'Shark Tank,' with five winning teams selected at the end," said Dr. Susan Matulevicius, Assistant Dean for Faculty Wellness and Associate Professor of Internal Medicine. "But, after holding the semifinal competition, leadership was so excited about all the ideas and passion of the faculty that they wanted everyone to get a prize."

That meant \$10,000 awards for each of the five finalist teams, as well as a \$10,000 People's Choice Award voted on by faculty and staff, and \$5,000 for each of the seven semifinalists – a total of 13 prizes, said Dr. Matulevicius. Dr.



Internal Medicine faculty award winners (from left) Drs. Rebecca Vigen, Sarah Wingfield, Jessica Voit, Caitlin Holt Siropaides, Jaclyn Albin, Swee-Ling Levea, Laila Castellino, and Kamalanathan Sambandam pose for a group photo.

David Johnson, former Chair of the Department of Internal Medicine, as well as departmental Vice Chairs within Internal Medicine, provided prize money from their Chair funds and endowments.

Winning teams will now develop and implement their ideas using their Innovation Tank funds.

Dr. W. P. Andrew Lee, Executive Vice President for Academic Affairs, Provost, and Dean of the Medical School, was on hand for the final presentations. "I am inspired by the level of innova-

tions being showcased," he told team members. "Innovations such as these are needed to help move forward the practice of medicine."

"This is really in the best tradition of clinical research," added Dr. Jonathan Weissler, Internal Medicine Vice Chair of Clinical Affairs and Professor of Internal Medicine.

"Just the whole idea of the Innovation Tank was really exciting," Dr. Jessica Voit, Assistant Professor of Internal Medicine, said of the inaugural event, which took place in December. Dr.

Voit was part of a team that won for a proposed computer tool to help medical staff ensure they are taking the best care of geriatric patients as they release them from hospital to home. "It pushed us to move forward on ideas that we had thought about," she said after the event.

Dr. Lee holds the Atticus James Gill, M.D. Chair in Medical Science.

Dr. Weissler holds the James M. Collins Professorship in Biomedical Research.

And the winners for best ideas are ...

- People's Choice Award: Offer a culinary medicine program for patients who have donated a kidney for transplant in order to reduce risks related to poor diet, high blood pressure, or weight gain – **Dr. Jaclyn Albin**, Assistant Professor of Pediatrics and Internal Medicine, and **Dr. Swee-Ling Levea**, Assistant Professor of Internal Medicine.

- Build in a prominent computer notice to let a physician ordering an echocardiogram (heart ultrasound) know how many other such tests the patient has had in the prior 12 months as a way to reduce unnecessary duplication – **Dr. Rebecca Vigen**, Assistant Professor of Internal Medicine.

- Develop a communications tool to coordinate and track the care of patients with endocarditis among specialties – **Dr. James Cutrell**, Director of the Infectious Diseases Fellowship Program and Associate Professor of Internal Medicine, and **Dr. Francesca Lee**, Associate Professor of Pathology and Internal Medicine, as well as Internal Medicine Assistant Professors **Drs. Laila Castellino** and **Richard Medford**.

- Create a smartphone app that can track water retention in outpatients and then suggest adjustments in their diuretic medications – **Dr. Kamalanathan Sambandam**, Director of the Nephrology Fellowship Program and Associate Professor of Internal Medicine.

- Offer a communications course for physicians who need to have difficult conversations with seriously ill patients – **Dr. Caitlin Holt Siropaides**, Assistant Professor of Internal Medicine.

- Build a computer tool to guide health care workers through the necessary steps as they transition geriatric patients from hospital to home – **Drs. Jessica Voit** and **Sarah Wingfield**, Assistant Professors of Internal Medicine.

Brain scans Continued from page 1

A study in *Nature Biotechnology* reported on the results of a trial in which more than 300 participants with depression were randomly chosen to receive either a placebo or an SSRI (selective serotonin reuptake inhibitor), the most common class of antidepressant. Researchers used an electroencephalogram, or EEG, to measure electrical activity in the participants' cortex before they began treatment. The team then developed a machine-learning algorithm to analyze and use the EEG data to predict which patients would benefit from the medication within two months.

Not only did the AI accurately

predict outcomes, further research suggested that patients who were doubtful to respond to an antidepressant were likely to improve with other interventions such as psychotherapy or brain stimulation. The findings, published last month, were validated in three additional patient groups.

Researchers' next steps include developing an AI interface that can be widely integrated with EEGs across the country and seeking approval from the U.S. Food and Drug Administration.

Data from the study derive from the 16-week EMBARC trial, which Dr. Trivedi initiated at four U.S. sites to establish biology-based, objective strat-

egies to remedy mood disorders. The project evaluated patients with major depressive disorder through brain imaging and various DNA, blood, and other tests. His goal was to address a troubling finding from another study he led (STAR*D) that found up to two-thirds of patients do not adequately respond to their first antidepressant.

"We went into this thinking, 'Wouldn't it be better to identify at the beginning of treatment which treatments would be best for which patients?'" explained Dr. Trivedi, also Chief of the Division of Mood Disorders and Director of the Center for Depression Research and Clinical Care, a cornerstone of the Peter O'Donnell Jr. Brain Institute.

Previous EMBARC studies identi-

fied various predictive tests, including the use of magnetic resonance imaging (MRI) to examine brain activity in both a resting state and during the processing of emotions. EEG will likely be the most commonly used tool, Dr. Trivedi said, because it's less expensive and – in most cases – will be equally or more effective.

However, a blood test or MRI may be needed for some patients if the depression is manifesting itself in a different way.

"There are many signatures of depression in the body," Dr. Trivedi said. "Having all these tests available will improve the chances of choosing the right treatment the first time."

According to data from the National Health and Nutrition Examination

Survey, antidepressant use in the U.S. has increased nearly 65 percent over a decade and a half – from 7.7 percent in 1999-2002 to 12.7 percent in 2011-2014.

UT Southwestern and Stanford have filed for a patent for the algorithm described in the *Nature Biotechnology* study.

Dr. Trivedi holds the Betty Jo Hay Distinguished Chair in Mental Health and the Julie K. Hersh Chair for Depression Research and Clinical Care.

More online: Watch a video and read the full story on *Center Times Plus* at utsouthwestern.edu/ctplus.

Individualized physical therapy reduces incontinence, pain in men after prostate surgery

By Carol Marie Cropper

For decades, therapy to strengthen pelvic muscles has been the standard treatment for men dealing with urinary incontinence after prostate surgery. But a new study from UT Southwestern's Departments of Urology and Physical Medicine and Rehabilitation suggests that may not be the best approach.

The study examined records from post-prostatectomy patients with stress urinary incontinence who received physical therapy between 2009 and 2014. Researchers found most had some muscle "overactivity" – muscle tightness or spasms – rather than just muscle weakness, said Dr. Kelly Scott, an Associate Professor in the Department of Physical Medicine and Rehabilitation at UT Southwestern and first author of the study.

Using exercise in an attempt to strengthen a tight or spasming muscle can be counterproductive, making the muscle tighter instead of stronger, said Michelle H. Bradley, a physical therapist with the Comprehensive Pelvic

Rehabilitation Program in the Physical Medicine and Rehabilitation Department and a co-author of the study.

Of the 136 therapy patients whose records were reviewed for this study, 25 had only weak, or "underactive," pelvic floor muscles, 13 had overactive or tight muscles, and 98 had evidence of both, according to the study, now online and publishing soon in an upcoming issue of *International Urology and Nephrology*.

"That was actually a very surprising finding," Dr. Scott said of the large number of patients with both tight and weak pelvic floor muscles.

Tense muscles can be a protective mechanism after injury from surgery, she explained. Part or all of the prostate surrounding the urethra is removed in a prostatectomy, usually because of cancer. "But the study's findings are counter to the prevailing idea, which is that these men must have very weak muscles."

Almost every patient has incontinence immediately after a prostatectomy, Dr. Scott said, but that



Dr. Kelly Scott



Dr. Claus Roehrborn

percentage drops to about 5 to 20 percent within two years after surgery. Those who haven't seen improvement within two to six months should seek physical therapy, she said.

Standard treatment has focused on strengthening exercises. Recently, doctors and therapists have begun evaluating patients to determine the right therapy rather than assuming the problem was muscle weakness,

Dr. Scott said.

"This is perhaps the first study to look at the type of muscle dysfunction present in men after they've had this surgery. Are the muscles actually weak and need to be strengthened, or are they actually tight and just need to be relaxed and lengthened?" she asked.

After a therapist's evaluation, the men – all patients of Dr. Claus Roehrborn, senior author of the study

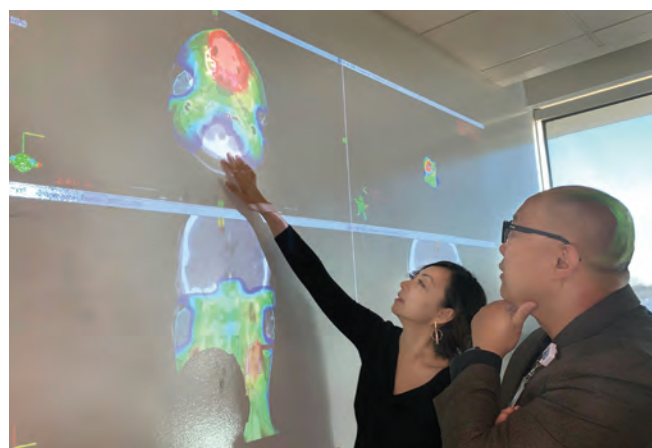
and a surgeon, Professor, and Chair of the Department of Urology – received therapy to either relax or strengthen their pelvic muscles.

In 87 percent, incontinence improved. Pain was also a problem for 27 percent of the patients, the study showed. The number with pain dropped to 14 percent by the end of therapy, which averaged slightly more than four sessions. In those who still had some pain, the reported level was reduced.

The research was funded by the David M. Crowley Foundation of Dallas.

Dr. Roehrborn holds the E.E. Fogelson and Greer Garson Fogelson Distinguished Chair in Urology and the S.T. Harris Family Chair in Medical Science, in Honor of John D. McConnell, M.D.

More online: Read the full story on *Center Times Plus* at utsouthwestern.edu/ctplus.



Dr. Mu-Han Lin, left, consults with Dr. Steve Jiang about a radiation treatment plan developed by artificial intelligence. Dr. Jiang's team trained four deep-learning models to instantly generate dosage plans and shorten the time patients must wait before starting radiation therapy.

Williamson named Fellow of health professions organization

Dr. Jon Williamson, Professor and Dean of the UT Southwestern School of Health Professions, has been inducted as a Fellow of the Association of Schools Advancing Health Professions (ASAHP). The honor recognizes his long-term contributions to the organization and to health professions.



Dr. Williamson

The ASAHP, a national professional association for administrators, educators, and others, was established in 1967 in response to an urgent need for an organi-



zation focused on improving the quality and quantity of the health professions workforce.

"Over two-thirds of the health care workforce is comprised of allied health professionals, so it is important that we continue the use of evidence-based research in clinical practice and that we keep improving our education and training programs to best address current and future health care demands," said Dr.

Williamson, also a Distinguished Teaching Professor.

The ASAHP Fellows program recognizes members who have contributed significantly to the advancement of health professions as administrators, educators, clinicians, and researchers and aims to stimulate ongoing efforts for excellence within the health professions.

Dr. Williamson, Dean since 2015, also serves on the editorial board for ASAHP's flagship journal, the *Journal of Allied Health*. He first came to the UT Southwestern campus as a postdoctoral fellow in 1992.

Dr. Williamson holds the Arnold and Carol S. Ablon Professorship in Biomedical Science.

Radiation Continued from page 1

occur as the plan progresses.

Dr. Jiang said developing a sophisticated treatment plan can be a time-consuming and tedious process that involves careful review of the patient's imaging data and several phases of feedback within the medical team.

A new study from the MAIA Lab on dose prediction, published recently in *Medical Physics*, demonstrated AI's ability to produce optimal treatment plans within five-hundredths of a second after receiving clinical data for patients. Researchers achieved this by feeding the data for 70 prostate cancer patients into four deep-learning models. Through repetition, the AI learned to develop 3D renderings of how best to distribute the radiation in each patient. Each model accurately predicted the treatment plans developed by the medical team.

The study builds upon other MAIA research published in 2019 that focused on developing treatment plans for lung and head and neck cancer.

"Our AI can cut out much of the back and forth that happens between the doctor and the dosage planner. This improves the efficiency dramatically," said Dr. Jiang, also Vice Chair and Professor of Radiation Oncology and Director of the Division of Medical Physics and Engineering.

A second study by Dr. Jiang, also recently published in *Medical Physics*, shows how AI can quickly and accurately recalculate dosages before each radiation session, taking into account how the patient's anatomy may have changed since the last therapy. A conventional, accurate recalculation sometimes requires patients to wait 10 minutes or more, in addition to the time needed to conduct anatomy imaging before each session.

Dr. Jiang's researchers developed an AI algorithm that combined two conventional models that had been used for dose calculation: a simple, fast model that lacked accuracy and a complex one that was accurate but required a much longer time, often about a half-hour.

The newly developed AI assessed the differences between the models – based on data from 70 prostate cancer patients – and learned how to utilize both speed and accuracy to generate calculations within one second.

UT Southwestern plans to use the new AI capabilities in clinical care after implementing a patient interface. Meanwhile, the MAIA Lab is developing deep-learning tools for several other purposes, including enhanced medical imaging and image processing, automated medical procedures, and improved disease diagnosis and treatment outcome prediction.

The studies were supported with grants from the National Institutes of Health and the Cancer Prevention & Research Institute of Texas (CPRIT).

Dr. Jiang holds the Barbara Crittenden Professorship in Cancer Research.

COVID-19 Continued from page 1

health risk, particularly for seniors and those with underlying conditions such as heart or lung disease. By late March, the disease had resulted in more than 12,000 deaths worldwide.

As cases started to grow in the United States and officials began taking steps to slow the spread of infection, UT Southwestern leadership formed an Emergency Operations Center (EOC) to centralize decision-making in response to the crisis. Led by Dr. William Daniel, Vice President and Chief Quality Officer for the Health System, the EOC is composed of top leaders from across the institution who meet daily to address COVID-19-related issues and plan action.

Bans on UTSW-related international and domestic out-of-state travel were put in place, effective through at least April 30.

Many UT Southwestern research laboratories scaled back activity, with nonessential visits from research participants suspended and the number of researchers working in a lab initially limited to one person at a time. Effective March 23, lab activities were restricted even further except for high priority research related to COVID-19.

To reduce the risk of infection, free up health care workers, and make room for potential COVID-19 patients at William P. Clements Jr. University Hospital, elective surgeries through April 10 have been rescheduled and nonurgent office visits pushed past June 1.

Medical School education moved to remote learning as campus gatherings on March 16 were limited to no more than five people.

That same day, thousands of UT Southwestern employees were directed to work from home if possible.

On March 17, Clements University Hospital and UTSW clinics restricted entry by closing some entrances and screening visitors and patients for signs of the virus. Visitors deemed a risk were turned away and those admitted were limited to one visitor per patient, with children under age 12 not allowed. At nonclinical campus buildings, use of an employee badge became necessary to gain entry.

As preparations were made to treat the expected influx of COVID-19 patients, UT Southwestern erected a tent near Clements University Hospital's ambulance bay to serve as a triage site for patients arriving with upper respiratory symptoms. On March 20, drive-up COVID-19 testing became available in the Paul M. Bass Administrative and Clinical Center parking lot for patients referred by UTSW physicians.

And, like medical facilities around the country, UT Southwestern searched for additional sources for the protective masks, gloves, and other equipment that will be in high demand if the pandemic continues.

As the EOC kept the campus informed on the fast-evolving situation through a daily newsletter prepared by the Communications staff, UT Southwestern's medical experts also provided



Medical students Sam Kusin (left) and Hersh Trivedi volunteer their time to organize and catalog test kits sent from clinics around campus, some of which can be used for COVID-19 testing.

information to the larger community.

Dr. Ahmad Raza, Professor of Psychiatry at the Peter O'Donnell Jr. Brain Institute, appeared on KERA FM public radio to discuss how to deal with anxiety during the pandemic. Dr. John Schoggins, Associate Professor of Microbiology, described a study he co-authored that identified a protein that might slow COVID-19's attack on lung tissue to reporters from the UPI news service and other media. And Dr. Trish Perl, Professor of Internal Medicine and Chief of the Division of Infectious Diseases and Geographic Medicine, provided information in *The New York Times* and other outlets about hand-washing as a tool to prevent infection.

Amid the many changes and preparations on campus, there was also innovation and celebration.

This year's Match Day – when graduating medical students across the country learn where they will do their residency training – went virtual. Unable to hold the large gathering of students, family members, and faculty that is a happy tradition at UT Southwestern, the soon-to-be doctors and UTSW officials instead connected via an app called Zoom to share the moment together online.

Summing up the situation in a message to faculty later that day, Dr. Podolsky said: "We will be defined not only by this crisis, but how we respond to it."

Dr. Daniel holds the William T. Solomon Professorship in Clinical Quality Improvement at UT Southwestern Medical Center.

Dr. Perl holds the Jay P. Sanford Professorship in Infectious Diseases.

Dr. Podolsky holds the Philip O'Bryan Montgomery, Jr., M.D. Distinguished Presidential Chair in Academic Administration, and the Doris and Bryan Wildenthal Distinguished Chair in Medical Science.

Dr. Schoggins is a Nancy Cain and Jeffrey A. Marcus Scholar in Medical Research, in Honor of Dr. Bill S. Vowell.

First medIDEAS festival makes some noise in Frisco

By Rick Press

The sounds of science filled the halls of UT Southwestern Medical Center at Frisco on Saturday, Feb. 8, as hundreds of wide-eyed children and their parents enjoyed an afternoon of medical discovery and amusements at the inaugural medIDEAS festival.

- A steady chorus of “oohs and ewwws” emanated from the Otolaryngology table, where you could take a peek deep inside your ear and see it on a nearby iPad.

- The loud “thwacks” of whack-a-mole reverberated from the Dermatology display, where volunteers shared skin cancer prevention tips and sunscreen.

- And cheers erupted from the “It Takes Guts” Gastroenterology game every time a certain popular brown, smiling emoji was tossed successfully into a plastic potty.

The medIDEAS community event, formerly known as Science Saturday, was envisioned as an entertaining, hands-on way to connect with Collin County residents and introduce them to UT Southwestern’s new medical campus in Frisco, which opened Dec. 3. The event, focused on engaging the community and highlighting UT Southwestern’s role as a leading academic medical center, brought to life the institution’s commitment to excellence in research, clinical care, and education.

By all accounts, the festival was a hit.

“We love all the science activities,” said Sohyla Avari of McKinney, who brought her 14-year-old son, an aspiring researcher. “I’ve been trying everything, too, because I want to be a good role model, of course!”

In the expansive physical therapy gym, mother and son tested their balance and grip pressure, and then took a few swings on the golf simulator. They also gave their cognitive skills a workout on the BITS (Bioness



Two young attendees don hazmat gear at a booth manned by Office of Safety and Business Continuity volunteers, who led demonstrations involving lab equipment safety, radiation protection, and flu prevention at the medIDEAS festival in Frisco.

Integrated Therapy System) big screen, racing against the clock to map out a numbered trail and pop red, white, and blue bubbles in sequence.

BITS is one of many unique treatment tools at UT Southwestern Frisco.

“UT Southwestern has really rolled out the red carpet in Frisco with this equipment and therapy gym,” said UTSW physical therapist David Renner, who happily guided festival-goers through the visual and memory recall games. “The Frisco area has been starved for something like this, where the intersection of physicians and physical therapy comes together to benefit the patient.”

Many of the activities were geared toward kids – take a selfie dressed like a doctor, get a cast put on and then cut off, try on a hazmat suit. But there were also some more cerebral displays, such as:

- The “Brain Art” gallery exhibited



An attendee uses a mock X-ray revealing the inside look of a human hand.

UT Southwestern employees’ mixed-media interpretations of the brain.

- Information tables highlighted the ConTex concussion registry, bone

marrow donations, and mindful meditation, with cool giveaways such as portable ice packs.

- And at “The Muscle Mambo,” Dr.

Reed Williams, Assistant Professor of Physical Medicine and Rehabilitation, demonstrated diagnostic ultrasound, which uses sound-wave technology to examine muscles, joints, and tendons in real-time.

Frisco resident Theodore Barrett, 91, came to medIDEAS with his grandson, Noah Belveal, a biologist and researcher, and as they browsed through the Brain Art gallery, he joked: “At my age, it’s great to have UT Southwestern so close. I should probably move in here!”

UT Southwestern Frisco hosted the inaugural medIDEAS, but the plan is to hold future installments at sites across North Texas, including at UT Southwestern Medical Center at RedBird in southern Dallas.

“UT Southwestern created medIDEAS to share the excitement of our medical advances through community outreach,” said Dr. Mark Goldberg, Associate Vice President of Institutional Advancement at UT Southwestern with a focus on the Peter O’Donnell Jr. Brain Institute. “The hands-on, family-friendly festival provides great opportunities for kids and adults to interact directly with our experts and trainees. It’s also a great experience for our many volunteers from across the Medical Center.”

More than 100 UTSW volunteers enjoyed connecting with the community in Frisco, including Dr. Socorro Chamblee, a Faculty Associate in Otolaryngology – Head & Neck Surgery, who diligently peeked in ears at the “Can You Hear Me Now” table.

“This is a great way to show people we have a presence here,” said Dr. Chamblee, who was in private practice in McKinney for 17 years before joining UTSW Frisco in December. “We are seeing so many interesting and challenging cases. And I think events like this help raise awareness of just what it means to have an institution like UT Southwestern, with all of our specialists, in your backyard.”

STARS, Uplift celebrate 10-year science fair partnership

By Nyshicka Jordan

She may be just 14 years old, but Shreenaya Prabu is tackling a huge global problem – how to curb the millions of tons of plastic that end up in oceans and landfills. Shreenaya thinks part of the solution might be found in bioplastics, or renewable materials that are produced from organic sources such as vegetable fats or oils.

On Jan. 25, she put her theory to the test in a project, “Plastics of the Future,” which she entered in the Uplift Education Science Fair. Uplift Education operates 37 public charter schools in North Texas and for 10 years has partnered with UT Southwestern’s STARS (Science Teacher Access to Resources at Southwestern) Program to host the science fair on campus and provide judges.

“My partner and I were interested in this project because we are very passionate about the environment and this is the only place we have to live – there is no planet B for us,” Shreenaya said.

Shreenaya, a ninth grader at Uplift North Hills Preparatory in Irving, and her partner, Baani Sandhu, earned first-place honors in the high school division.

The teens experimented with rice, spinach, and parsley powders to determine which would be the strongest as a potential plastic substitute for items such as cutlery.

“Our hypothesis was actually incorrect in that we thought spinach would prove the most successful because it’s high in cellulose, which is flexible, and we thought it would hold the most weight. But we found that rice was the best, because it was



Ananya Gogula won the UT Southwestern STARS Award and first place in the primary school division for her project “Microplastics on Our Plates!”

rigid,” Shreenaya said.

Shreenaya, who intends to continue studying bioplastics, is interested in becoming a scientist or an environmental engineer.

“My goal is to make a difference and find renewable ways to replace products that are harmful to the environment,” she said.

Another plastic-centered project caught the attention of UTSW faculty and student judges in the primary school division. Fifth grader Ananya Gogula, 10, won the UT Southwestern STARS Award and first place for her project, “Microplastics on Our Plates!”

Ananya, also a student at North Hills, in part studied the amount of microplastics in face washes marketed as natural versus those produced with nonnatural ingredients.

“Every day around the world

people are using face wash, but little do we know that one bottle can have millions of tiny microplastics in it and they can go down the drain and contaminate our water and food supply,” Ananya said.

She said her experiment taught her a valuable lesson: “Just because something is marketed as natural that doesn’t necessarily mean it’s natural. It can still contain microplastics.”

The students’ scientific curiosity makes the Hockaday School and North Hills alumna Tiffany Son proud. Ms. Son, a third-year medical student at UTSW and former STARS summer research program alumna, helped judge the primary school division. (Besides medical students, other UTSW student judges were graduate students and postdoctoral fellows.) Judges scored projects on criteria that

included originality, how students applied science, and their ability to explain their research.

“Some of the projects completely blew me away. I definitely didn’t do anything of that caliber when I was their age,” Ms. Son said. “I think that one of the most valuable aspects of the fair is the exposure it provides to the kids. Some of the students said their dream was to become a doctor, and it was so heartwarming to be a role model for them, as I was once in their shoes, and to encourage them never to be afraid of striving for their goals.”

Educators said that the interactions students have with UTSW students, researchers, and doctors is precisely why the partnership between STARS and Uplift Education is important and that showing children how to apply science early in their academic learning is crucial to developing a lasting interest in science.

Additionally, STARS leaders, whose free year-round programs serve middle and high school students, value the opportunity to introduce children to the STARS Program through the fair.

“Science can’t advance unless you talk about it, and I think just being on campus might inspire a lot of students,” said Lynn Tam, Assistant Director of STARS. “We believe our programs are a pipeline and hopefully students from the science fair will take part in STARS or even come back to UT Southwestern later in life and volunteer to motivate the next generation of STEM students.”

The use of science fairs is a core part of the Uplift Education curriculum. The charter school group requires all students to enter science projects in their individual school fairs. The winners from those schools compete

By the numbers: 2020 Uplift Education Science Fair

- 10th year of the STARS-hosted Uplift Education Science Fair
- 202 projects
- 250 student participants
- 19 participating schools
- 26 UTSW student and faculty judges
- 5 UTSW Scholar Session presenters
- 700 attendees

at UTSW. The students who place in the top three spots, plus honorable mentions in their grade level division at the Uplift Education Science Fair, then competed in the Dallas Regional Science and Engineering Fair at Fair Park in February.

In addition to providing science education, Uplift Education CEO Yasmin Bhatia said the science fairs help students develop critical thinking and communication skills.

“At UT Southwestern they learn to speak to adults they have never met and share the ideas about their projects. I am proud they are able to present themselves so well when they come to a big stage like this,” Ms. Bhatia said.

In the last 10 years, Ms. Bhatia said, she has been pleased to see the quality of the science projects advance and has seen more winners from across all the Uplift schools, as opposed to when winners were concentrated in the same schools in earlier years.

“I think it shows that all children can really achieve at this level when encouraged to participate in this process,” she said.