Medical School Class of 2021 celebrates Match Day
Soon-to-graduate students learn where they will serve their residencies in virtual event

By Patrick McGee

The University of Texas Southwestern Medical Center celebrated Match Day for UT Southwestern Medical School students on March 18, 2021, in a virtual event for the first time due to the COVID-19 pandemic. The annual event, where medical students match for residency positions, was held virtually for the fourth consecutive year.

More than 200 UT Southwestern Medical School students participated in the Match Day event. The students matched to residency programs across the United States and around the world, including specialties such as internal medicine, pediatrics, and surgery.

The event began with a keynote speech by Dr. Temple Howell-Stampley, who was named Master of Cary College in 2021.

UTSW quality and safety improvements boost rankings—and save more than 500 lives

By Patrick McGee

Dr. Sterling Overstreet has noticed a tremendous change in the Emergency Department in recent years. It’s not the result of COVID-19—or even because of any physical changes to the ER space. Rather, it reflects a cultural shift at UT Southwestern Medical Center.

More than 1,200 UT Southwestern Medical School students participated in Match Day, where they learned where they will serve residencies in virtual event.

This image shows a blood vessel in fat tissue, surrounded by fat progenitor cells (in green).

Studies shed light on how, where the body can add beneficial fat cells

By Carol Marie Cosper

Gaining more fat cells could help in the fight against diabetes and other diseases. Two new studies from UT Southwestern provide insight into how and where the body adds those cells.

The studies, published recently in Cell Stem Cell, describe two processes that affect the generation of new fat cells. One reports how fat cell creation is impacted by the level of activity in tiny organelles inside cells called mitochondria. The other outlines a process that prevents new fat cells from developing in one fat storage area in mice—an area that can have health benefits for people with diabetes.

This week’s news highlights include:

- “Autism advances” by Dr. Elana S. Bangerter, who studies the effects of autism on the immune system.
- “Happily ever after” by Dr. J. Thomas Houston, who explores the impact of marriage on health.
- “COVID-19” by Dr. F. K. Peck, who discusses the latest research on the virus.

Please see page 4 for additional coverage, including videos and Match Day info.

Howell-Stampley named Master of Cary College

By Lori Sundeen Soderbergh

Dr. Temple Howell-Stampley has been named Master of Cary College at UT Southwestern Medical School, succeeding Dr. Arthur Sagalowsky, who retired from that role after 10 years.

Dr. Daniel K. Podolsky, President; Dr. Temple Howell-Stampley; and Dr. Sterling Overstreet have assumed this important position.

Throughout my formative years, I was naturally drawn to science and ultimately developed a passion for it. I also had a strong desire to be of service to others that was instilled in me by my mother. Medicine was my chosen path to unite both of those passions,” said Dr. Howell-Stampley.

Dr. Howell-Stampley has agreed to assume this important position.

“This semester, we have introduced a learning environment in which clinical and professional skills are taught and modeled by the mentors. The students also engage in team-based learning activities that further their knowledge of medical ethics and professionalism, both of utmost importance in the practice of medicine. The long-term goal is to develop excellent physicians who are caring, compassionate, and empathetic.”

“Mentorship matters,” Dr. Howell-Stampley said. “It has played an important role in my own life and I believe it’s my duty to give back to others.”

She oversees Cary College, both mentors and mentees, to ensure that the students develop strong professional and clinical skills while building solid support networks. The new role expands her own path of service.

More in the same issue:

- “State of the Campus” by Dr. Daniel K. Podolsky and other executive leaders share accomplishments of the past year and priorities going forward.
- “Autism research advances” by one study identifies a gene linked to autism while another uses songbirds to investigate speech development.
- “COVID-19” by Dr. Kizirian Cruz shares insights as a prominent NIH researcher at the forefront of COVID-19 vaccine development.

Please see page 7 for additional coverage, including videos and Match Day info.
OBESITY RESEARCH ADVANCES

Increased parasite abundance, mental health issues for those struggling with obesity

By Lori Sundeen Soderbergh

The COVID-19 pandemic is having a detrimental impact on substance use, mental health, and weight-related health behaviors among people with obesity, according to research findings from UT Southwestern and the UTHealth School of Public Health.

The study, published in Clinical Obesity, surveyed 189 patients with obesity (defined as a body mass index of 30 or higher) who underwent weight management and post-bariatric care clinic. Nearly half of the group reported using recreational drugs and alcohol, and 10 percent reported increased use since the start of the pandemic. Seventeen of the patients had tested positive for COVID-19.

Almost a quarter (24.3 percent) of the patients reported using opioids in the 30 days preceding the survey and nearly 10 percent reported using sedatives or tranquilizers. Patients were surveyed from June 1, 2020, to Sept. 30, 2020, after COVID-19 stay-at-home orders had been lifted in North Texas.

“Many patients with obesity are also challenged by mental health conditions, such as anxiety, depression, and trouble sleeping who are enrolled in the UT Health Dallas Weight Wellness Program, a multidisciplinary approach focused on the management and post-bariatric care clinic. Nearly half of the group reported using recreational drugs and alcohol, and 10 percent reported increased use since the start of the pandemic. Seventeen of the patients had tested positive for COVID-19.

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Southwestern Health Resources ACO listed No. 1 in U.S. for Medicare savings

Southwestern Health Resources (SWHR) Accountable Care Network saved Medicare more than $52 million in 2019, placing it at the top of organizations participating in the Centers for Medicare & Medicaid Services (CMS) Next Generation Accountable Care Organization (ACO) Model. Since joining the Next Generation program in 2017, SWHR has saved the program nearly $120 million.

Southwestern Health Resources, a clinically integrated health care network, was formed in 2015 by UT Southwestern and Texas Health Resources to broaden and simplify North Texans’ access to leading medical care by blending the strengths of the state’s largest health care providers.

SWHR is one of the 41 ACOs participating in the Next Generation ACO Model, which is Medicare’s highest-risk ACO model. SWHR’s results represent more than 20 percent of total savings generated by all Next Generation ACOs. These savings are in addition to other discounts and other built-in reductions established by CMS. SWHR also saved more than any of the nation’s approximately 550 regular Medicare ACOs.

SWHR coordinates care for nearly 100,000 Medicare beneficiaries in North Texas aligned through the Next Generation ACO Model – more than any other ACO in North Texas and the fourth largest in the nation. With this model, CMS sets predictable financial targets, enables providers and beneficiaries greater opportunities to coordinate care, and aims to attain the highest-quality standards of care. In accordance with the Department of Health and Human Services, this accountable care model is evaluated on its ability to deliver better care for individuals, better health for populations, and lower growth in expenditures.

“These successful results reflect the effectiveness of our clinically integrated network of academic and community doctors and hospitals,” said Dr. Andrew Ziskind, Senior Executive Officer of Southwestern Health Resources. “Being ranked No. 1 in the nation for the third year in a row further demonstrates the success of the physician-driven strategies SWHR has designed to build a stronger system of care. While we’ve achieved significant savings, we also have significantly improved the quality of care delivered to patients.”

SWHR has been among the country’s top-performing programs since 2015. It was approved in 2017 to participate in the Next Generation ACO Model.

Prior to this, SWHR achieved successful performance results as part of the CMS Medicare Shared Savings Program ( MSSP ), the national initiative to reduce costs by coordinating and delivering better health care for Medicare patients. This included delivering cumulative savings of $73 million during a three-year period (for 2014, 2015, and 2016), combined with maintaining a top-decile quality score in the top 1% nationally. SWHR’s quality scores improved 5 percent among established measures and 13 percent on preventive measures.

SWHR’s network includes UT Southwestern faculty, Texas Health Physicians Group members, and independent community physicians. Formerly called the UT Southwestern Accountable Care Network, the organization was among the first accountable care organizations to participate in the CMS Medicare Shared Savings Programs.

Southwestern Health Resources includes 29 hospital locations and more than 5,000 physicians and other providers. With more than 500 points of access to care, this provides for higher value and allows patients to access services across a full continuum of medical needs. The network coordinates care for approximately 700,000 people in 17 counties in North Texas. SWHR operates the nation’s highest rated Next Generation Accountable Care Organization for savings.

More online: Read the full story in the newsletter at UTSouthwestern.edu/newsroom.
Several medical students from the Class of 2021 reflected on their unprecedented time at UT Southwestern, described what a residency match means to them, and shared their reactions upon learning where they are headed next.

**Samantha Black**

Specialty: Family Medicine

Reaction: "I am beyond grateful to continue training at this fantastic institution."

**Petra Constable**

Specialty: Dermatology

Reaction: "This is amazing news for my professional career and my family! I am beyond grateful to continue training at this fantastic institution."

**Gray Unbach**

Specialty: Neurosurgery

Reaction: "I am just excited to know where I will be training and want to walk in Day One and focus on being the best resident I can be going forward."

**Tyler Huffaker**

Specialty: Internal Medicine

Reaction: "I was excited to see I matched at UT Southwestern because I feel like they expressed that they wanted me to be part of their team. I'm thankful to my mom, dad, siblings, and mentors. I could not have done this journey without them."

**Lucio Zapata Jr.**

Specialty: Dermatology

Reaction: "I was excited to see I matched at UT Southwestern because I feel like they expressed that they wanted me to be part of their team. I'm thankful to my mom, dad, siblings, and mentors. I could not have done this journey without them."

**Hai-Uyen Nguyen**

Specialty: Psychiatry

Reaction: "I'm ecstatic to continue my training next year at the University of Washington in Seattle. I'm so grateful to all of my mentors who have guided me through this application process, and I'm happy to be at a place where I'll receive great training."

**Match Day**

Continued from page 1

Match Day went entirely virtual for the second straight year due to the pandemic. Medical students shared the group celebration from private gatherings and shared their announcements via the Zoom event and social media.

For 2021, the top five residency specialties selected by UTSW graduates were:

- Internal Medicine
- Psychiatry
- Family Medicine
- Pediatrics
- Emergency Medicine

**Match Day results**

For more Match Day coverage, including videos, additional stories, and the full student spotlights, go to CenterTimesPlus at utsouthwestern.edu/ctplus.

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**Dr. Ginzburg holds the Marion 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 Denis and Bryan Wildenthal Distinguished Chair in Medical Science.**

**UTSW Match Results Class of 2021**

UT Southwestern medical students share excitement of residency match reveals
Forming sound memories: Birdsong helps identify role of autism-associated gene

Inactivating gene prevents birds from learning fathers’ songs, could shed light on speech development in humans

By Christen Brownlee

Inactivating a gene in young songbirds that's closely linked with autism spectrum disorder (ASD) prevents the birds from forming memories necessary to accurately reproduce their fathers' songs, UT Southwestern researchers suggest. These findings, published in Science Advances, may help explain the deficits in speech and language that often accompany ASD.

Mutations of this gene, FoxP1, are known to cause a specific subtype of autism associated with severe language impairment and intellectual disability. Dr. Todd Roberts, Associate Professor of Neuroscience, said learning vocalizations for both birds and humans consists of two different stages: First, birds and humans must form a memory of sounds. Next, they practice the sounds through imitation. To understand FoxP1’s role in this process, researchers have studied two groups. Half the birds spent their early lives with their singing fathers, the other half with their songless mothers later joined their fathers. Either before the birds formed memories of the songs or before they began practicing, Roberts and his colleagues used a technique called RNA interference to “knock down” FoxP1 in the birds’ high vocal center region of their brains. This technique used constructs created in the lab of study co-author Dr. Genevieve Konopka, Associate Professor of Neuroscience.

When the researchers analyzed the birds’ songs in adulthood, they found that only those with active FoxP1 during the song memorization phase were able to accurately reproduce their fathers’ songs. If this gene was knocked down during the practice phase, those birds still could correctly mimic the songs. However, birds in which FoxP1 was inactivated before memorization sang hap hazard songs that bore no resemblance to the ones their fathers sang.

“Our results suggest that FoxP1 is key for forming the song memories in these birds that are critical for imitation later in life,” said Dr. Roberts, a member of the Peter O'Donnell Jr. Brain Institute. “A similar deficit in humans could play a parallel role in speech development often focused on helping children learn the motor skills necessary to produce sounds. However, Dr. Roberts said, helping children form speech memories may be more important. In the future, he said, it may be possible to avoid speech deficits by replacing the missing FoxP1 protein using gene editing or altering FoxP1’s-regulated signaling using pharmaceuticals.

Dr. Konopka is a Jon Houghton Scholar in Autism Research. Dr. Roberts is a Thomas O. Hicks Scholar in Medical Research.

More online: Read the full story in the newsroom at UTSouthwestern.edu/newsroom.
Simulation helps refine pediatric care guidelines for COVID-19

By Christen Brownlee

Simulation exercises helped to refine pediatric guideline for UT Southwestern Emergency Medical Services (EMS). The researchers started with 14 guidelines written for UTSW/Children's Health. CBS-2021-02-26T10:58:21Z

Exhaustion resistant CAR-T cells to fight solid tumors

By Christen Brownlee

Removing a key gene could help T cells effectively attack solid tumors.

Cancer-fighting immune cells known as CD8+ T cells can be exhausted, which happens when they are overworked. To determine if anything can be done about that, Dr. Poojary and his colleagues confirmed that two genes – Cbl-b and Tim3 – on the surface of T cells that infiltrate tumors are activated when T cells become exhausted and block the spray of infectious droplets.

The COVID-19 pandemic required us to find new ways to provide the best care for our patients while protecting health care workers and educating these workers quickly on new procedures.

“Exhaustion resistant” CAR-T cells for solid tumors

Dr. Dauer has spearheaded groundbreaking research that explores the underlying causes of tumor development, and treatment of dystonia. "We created the research prize for this purpose – to speed discoveries and testing of new therapies to help people living with dystonia,” Dr. William T. Dauer said.

“Cbl-b-deficient CAR-T cells do not express PD1 and Tim3 and become exhausted, which helps to kill tumor cells.”

Our study is a major step forward in developing CAR-T cells to fight solid tumors.”

Dr. Dauer holds the Lois C. A. and Darwin E. Smith Distinguished Chair in Neurological Mobility Research.

Simulations in the study included different scenarios based on the past year's events, including wearing protective equipment, block the spray of infectious droplets. The COVID-19 pandemic required us to find new ways to provide the best care for our patients while protecting health care workers and educating these workers quickly on new procedures, Dr. Nichols said. “We’ve shown that simulations provide the opportunity to accomplish this goal.”

For almost 50 years, Dr. James Atkins, Professor of Internal Medicine and a cardiologist, has played an integral role in Dallas emergency medicine. He has been a leader in advancing emergency medicine services at UT Southwestern, served the Dallas Fire Department EMS program for four decades, and chaired Emergency Care Accreditation of Educational Programs for the Emergency Medical Services Professions. A member of the Texas EMR Hall of Fame, Dr. Atkins has received awards from the American Heart Association, the Food and Drug Administration, and the National Heart, Lung, and Blood Institute. Notably, he was honored with him his Outstanding Contribution in EMS Award.

"The COVID-19 pandemic required us to find new ways to provide the best care for our patients while protecting health care workers and educating these workers quickly on new procedures," Dr. Nichols said. “We’ve shown that simulations provide the opportunity to accomplish this goal.”

Simulations exercise helped to refine pediatric guideline for UT Southwestern Emergency Medical Services (EMS). The researchers started with 14 guidelines written for UTSW/Children’s Health. CBS-2021-02-26T10:58:21Z

"Our study is a major step forward in developing CAR-T cells to fight solid tumors," Dr. Poojary said. "Simulation exercises provided the limitation of some current immunotherapy strategies for cancer."

More online: Read the full story in the newsroom at UTSouthwestern.edu/newsroom.