

Three years running, UT Southwestern ranked No. 1 hospital in DFW



Patients are the focus of care at UT Southwestern — ranked No. 1 in Dallas-Fort Worth by *U.S. News & World Report*.

By Amy Stumbris

For a third consecutive year, UT Southwestern Medical Center is the No. 1 hospital in Dallas-Fort Worth and No. 2 in Texas, according to *U.S. News & World Report's* annual Best Hospitals listings released July 30. UT Southwestern also ranked nationally in seven specialties including heart and neurological care.

The announcement, which focuses on clinical care, follows recognitions of UT Southwestern earlier in the year from *U.S. News & World Report* as one of the top medical schools in the country and, for a second consecutive year, from *Nature Index* as one of the top 10 health care institutions in the world for publishing high-quality scientific research.

In addition to being ranked as the



- Diabetes & Endocrinology
- Urology
- Cardiology & Heart Surgery
- Ear, Nose & Throat

U.S. News & World Report also gave UT Southwestern nationally recognized high-performing ratings in five additional specialties – cancer, gastroenterology and GI surgery, ophthalmology, orthopedics, and pulmonary and lung surgery – as well as for procedures for abdominal aortic aneurysm repair, aortic valve surgery, heart failure, colon cancer surgery, lung cancer surgery, and chronic obstructive pulmonary disease.

“The innovative and data-driven care our dedicated physicians, nurses, and staff are able to provide at UT Southwestern University Hospitals

No. 1 hospital in Dallas-Fort Worth and No. 2 hospital in Texas, UT Southwestern received national rankings in the following seven specialties, placing each within the top 50 out of 4,500 medical centers evaluated by *U.S. News & World Report* for 2019-2020:

- Neurology & Neurosurgery
- Geriatrics
- Nephrology

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Dauer shares team-based vision for O'Donnell Brain Institute growth

By Steve Kaskovich

The renowned scientific culture at UT Southwestern was a major attraction for Dr. William T. Dauer, an acclaimed physician-investigator in dystonia and Parkinson's disease who was recruited in a national search to become the inaugural Director of the Peter O'Donnell Jr. Brain Institute.

But it was the deep commitment of UT Southwestern's leadership and community supporters to create a leading center for the study and treatment of brain disease that convinced Dr. Dauer of the unprecedented opportunity before him.

“The commitment of both the University and the surrounding community, with Mr. Peter O'Donnell at the forefront, is really unparalleled in any environment I know of,” Dr. Dauer said. “The dedication to make this an important priority – not just for one,



Dr. William T. Dauer

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IN MEMORIAM

H. Ross Perot Sr.: Inspiring leader and loyal UTSW benefactor

From Staff Reports

One of UT Southwestern Medical Center's most steadfast benefactors for more than three decades, legendary Texan H. Ross Perot Sr. passed away July 9 at the age of 89, leaving an enduring legacy.

An enormously successful businessman, political leader, and philanthropist, Mr. Perot was known for his loyalty and commitment to his country, community, and family – typifying the great American citizen. He was a man possessed of tremendous



Margot and H. Ross Perot Sr.

drive, enviable business acumen, and keen intellect, with a clear sense of when and how he might improve the human condition.

UT Southwestern benefited immensely from his generosity and leadership. Mr. Perot and his wife, Margot, and the Perot Foundation have contributed more than \$90

million to UT Southwestern, including more than \$50 million to the *Innovations in Medicine* campaign.

“Mr. Perot's extraordinary support for UT Southwestern enabled us to establish and provide exceptional educational opportunities for genera-

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Researchers find evidence a cancer drug may be extended to many more patients

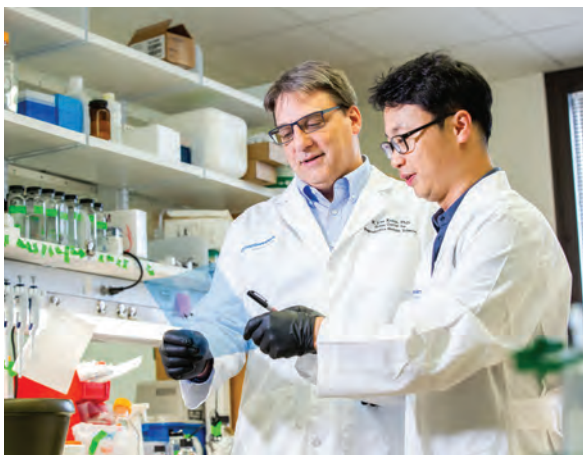
By Patrick McGee

A new molecular mechanism discovered by UT Southwestern researchers indicates that drugs currently used to treat less than 10 percent of breast cancer patients could have broader effectiveness in treating all cancers where the drugs are used, including ovarian and prostate cancers.

The new study also revealed a potential biomarker indicating when these drugs, called PARP inhibitors, can be unleashed in the fight against cancer.

“These findings could increase the patient population benefiting from these drugs by two-, three-, or fourfold. Up to 70

Please see PARP on page 3



Drs. W. Lee Kraus (left) and Dae-Seok Kim

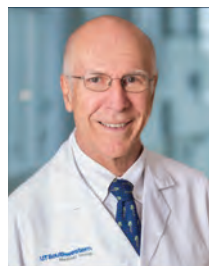
Herring, Lee honored as ‘Outstanding’ educators by UT System Board of Regents

By Nyshicka Jordan

Dr. John Herring, Professor of Orthopaedic Surgery at UT Southwestern and Chief of Staff Emeritus at Texas Scottish Rite Hospital for Children, and Dr. Won Lee, Associate Professor of Internal Medicine and a Distinguished Teaching Professor, have been recognized with the UT System's highest educational honor – the Regents' Outstanding Teaching Award – for their academic prowess and mentoring talent.

With their selection as recipients of 2019 Regents' Outstanding Teaching Awards (ROTA), UT Southwestern now has more than 50 faculty members who have been honored with this prestigious award, which recognizes outstanding teaching, mentoring, and personal commitment to students and the learning process.

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Dr. John Herring



Dr. Won Lee

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DISTINGUISHED HONORS

Early career faculty members Drs. Rodney Infante and Chad Newton receive support to further their research from the President's Research Council.

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GENEROUS ALUMNUS

Former faculty member and patient Dr. Donald Meier and his wife give \$500,000 to research the brain disease cerebral amyloid angiopathy.

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PROUD MOMENTS

The UTSW community celebrates Pride Month with a campus event and a graduate student flies to Germany to meet and learn from Nobel Prize winners.

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Evans receives Lifetime Achievement Award for work with patients, cancer groups

By Patrick McGee

Dr. Phil Evans is so deeply involved in work with nonprofit cancer groups that a luncheon with the National Breast Cancer Foundation seemed a routine item on his calendar. But the event turned out to be far from ordinary – Dr. Evans was surprised with a Lifetime Achievement Award.

“I was just floored. I couldn’t believe it. It was just such a surprise,” said Dr. Evans, Professor of Radiology and Chief of the Breast Imaging Division.

The Frisco-based breast cancer charity honored Dr. Evans in May for his decades of work with and on behalf of breast cancer patients, including his recent efforts to help raise \$40 million for a new breast center at Parkland Memorial Hospital, UT Southwestern’s primary teaching hospital. Scheduled to open in 2021, the center will more than double the number of breast cancer patients visits from 40,000 to 100,000.

National Breast Cancer Foundation founder and CEO Janelle Hail said Dr. Evans’ work on the fundraising campaign coupled with his reputation as a compassionate and attentive



Dr. Phil Evans, holding the Lifetime Achievement Award he received from the National Breast Cancer Foundation, with Foundation officers Douglas Feil, left, and Janelle and Kevin Hail.

doctor made him ideal for the award.

“For 40-plus years, Dr. Evans has devoted his career to improving the health of women. As a diagnostic radiologist, he has fought tirelessly to screen and diagnose women early while serving on the medical staff and also as a leader at one of our most prestigious partner hospitals, Parkland,”

she said.

The National Breast Cancer Foundation is one of many organizations that Dr. Evans has worked with to advance cancer care. He has served as President of the Society of Breast Imaging and the American Cancer Society and joined several committees of Susan G. Komen, the prominent breast cancer

Advancing breast cancer care

Improving breast cancer care is the ultimate goal for Dr. Phil Evans, who works closely with other physicians and within institutions. In 2013, *D Magazine* named him one of “The Dallas Dozen,” the magazine’s annual list of 12 influential people in Dallas. The magazine described that year’s distinguished group as people who “would rather be in the trenches getting things done.”

Such is the case with Dr. Evans’ work on the Planning Committee of the Wendy and Emery Reves International Breast Cancer Symposium. The event, hosted by UT Southwestern’s Harold C. Simmons Comprehensive Cancer Center, will spotlight recent progress in breast cancer research and clinical care.

Dr. Evans has recruited two speakers for the Sept. 20-21 symposium: Dr. Debra Monticciolo, President of the American College of Radiology, and Dr. Robert Nishikawa, an artificial intelligence expert at the University of Pittsburgh.

foundation based in Dallas.

“That’s the way you get things done,” he said.

Dr. Evans cites nonprofit work and patient groups as major partners in cutting the breast cancer mortality rate in recent decades. Breast cancer deaths dropped 39 percent from 1989 to 2015, according to the American Cancer Society.

His affable demeanor, well known among the nonprofit groups, extends into patient care.

Frisco resident Linda Neal, a patient of Dr. Evans for more than two

decades, said she trusted him so much she followed him from one hospital to the next and later had her own daughter become one of his patients.

“I just have absolute trust in him and his knowledge,” she said, explaining that patients appreciate his warm smile and calming voice. “His bedside manner is probably the best I’ve ever seen in any physician – ever.”

Dr. Evans holds The George and Carol Poston Professorship in Breast Cancer Research.

IN MEMORIAM

Dr. Joseph Sambrook: Former McDermott Center Director and Chair of Biochemistry

From Staff Reports

Dr. Joseph Frank Sambrook, a preeminent and internationally known molecular biologist involved in pioneering molecular cloning, died June 14 at age 80. Dr. Sambrook was recruited to UT Southwestern in the 1980s as Chairman of Biochemistry and later served as Director of the Eugene McDermott Center for Human Growth and Development.

The native of England was a member of the Genome Research Review Committee of the National Institutes of Health (NIH). He proudly served as Chairman of the NIH/Department of Energy Advisory Committee on DNA Sequencing and led UT Southwestern researchers at the McDermott Center in a pivotal role in the Human Genome Project.

Later in his career, he was a leading breast cancer researcher in Australia. A Fellow of The Royal Society and of the Australian Academy of Science, he was an influential leader in the field of the molecular genetics of cancer, best known for his landmark studies on viral DNA and the molecular biology of normal and neoplastic cells.

“Joe Sambrook was an erudite and creative scientist who was a mentor, friend, and colleague to many at UT Southwestern. His significant contributions to science are an inspirational legacy,” said Dr. David Russell, Vice Provost and Dean of Research.

Dr. Sambrook studied at the University of Liverpool before obtaining his Ph.D. in 1966 at the Australian National University. He then conducted postdoctoral research at the Medical Research Council Laboratory of Molecular Biology in Cambridge, England (1966-1967) and the Salk

Institute for Biological Studies in La Jolla, California (1967-1969).

In 1969, during his postdoctoral work at the Salk Institute, Dr. Sambrook met and impressed Dr. James Watson, co-discoverer of the structure of DNA and Director of the Cold Spring Harbor Laboratory. He worked there for the next 16 years.

Dr. Sambrook and his Tumor Virus Group at Cold Spring Harbor Laboratory identified and mapped the major genes of adenoviruses and SV40, determined their transcriptional control in infected and transformed cells, and demonstrated the mechanism of integration of these viruses into the genome of the host cell.

Building on this work, Dr. Sambrook was one of the first to design viral vectors to express cloned genes in eukaryotic cells, which were used in a collaboration with his wife-to-be, Dr. Mary-Jane Gething, to express cloned influenza virus hemagglutinin and other membrane glycoproteins and to make important contributions to the understanding of intracellular traffic and protein folding. Drs. Sambrook and Gething cloned the cDNA encoding the enzyme tissue-type plasminogen activator (tPA).

The couple joined the UT Southwestern faculty in 1985, leading research to improve thrombolytic agents for dissolving blood clots. This led to the design and synthesis of a new generation of tissue-type plasminogen activators that are still in clinical use today.

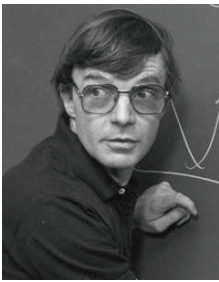
At UT Southwestern, Dr. Sambrook held The Sam G. Winstead and F. Andrew Bell Distinguished Chair in Biochemistry, was the Peter J. O’Donnell Distinguished Professor of Molecular Biology, and was Director of the Bugher Center for Molecular Cardiology. He stepped down as Chairman of Biochemistry in 1991 to lead the McDermott Center.

In late 1994, Dr. Sambrook returned to Australia to join the Peter MacCallum Cancer Centre in Melbourne as Director of Research. He founded and directed the Kathleen Cunningham Foundation Consortium for research into Familial Breast cancer (kConFab). He was one of two founding directors of Cancer 2015, a multiyear, large-scale program funded by the Victorian government on personalized treatment of cancer.

Among his many honors were appointment as a Distinguished Fellow of the Peter MacCallum Cancer Centre in 2000 and recognition by the Victorian Government Leadership and Innovation Award in 2009. He was awarded honorary doctorates by the University of Liverpool in 2007 and the Watson School of Biological Sciences in 2008.

Dr. Russell holds the Eugene McDermott Distinguished Chair in Molecular Genetics.

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



Dr. Joseph Sambrook

IN MEMORIAM

Dr. Eugene P. Frenkel: Longtime leader of Hematology and Oncology Division

From Staff Reports

Dr. Eugene P. Frenkel, an internationally recognized cancer researcher and admired clinician and educator who pioneered UT Southwestern’s Division of Hematology and Oncology, died June 21. He was 89.

Dr. Frenkel, a National Cancer Institute Investigator known for discoveries linking vitamin B12 metabolism and cancer, remained committed to translational cancer research throughout his career. He also was revered for his compassionate bedside care and was highly respected as an academic mentor who supported the career development of countless students, residents, fellows, and junior faculty during a remarkable 57-year career at UT Southwestern. Dr. Frenkel, Professor of Internal Medicine and Radiology, was a Master of the American College of Physicians, a distinction bestowed for the excellence and significance of contributions to the science and art of medicine.

“Dr. Frenkel’s contributions enhanced our scientific understanding of the association between cancer and neural function. His early research led to the discovery that vitamin B12 deficiencies had a destructive effect on the myelin sheath, a covering that surrounds and protects nerve fibers,” said Dr. Daniel K. Podolsky, President of UT Southwestern. “In other studies, he helped to define the basis of drug resistance in the treatment of patients with breast and genitourinary cancers. Just as importantly, for decades, he was a medical adviser to legions of Dallasites who came to depend on his wise counsel, even when he was not acting as their physician.”

Dr. Frenkel’s research success attracted support from the scientific community, including the National Institutes of Health (NIH) and American Cancer Society, while the high level of personalized care he provided to decades of grateful patients resulted in substantial philanthropic support given in his honor that not only furthered his own research through the Harold C. Simmons Comprehensive Cancer Center, but he also used to support and advance the careers of junior colleagues.

In 2006, Texas icon and energy entrepreneur T. Boone Pickens gave \$2 million through the T. Boone Pickens Foundation to create the Boone Pickens Fund for Cancer Research and Treatment Honoring Dr. Eugene Frenkel to support translational cancer research. Philanthropic gifts in his honor also created the Eugene Frenkel Outstanding Teacher of the Year Award and the Dr. Eugene P. Frenkel Cancer Research Fund. More recently, an anonymous donor established the Eugene P. Frenkel, M.D. Scholars in Clinical Medicine Program, to support the development of the next generation of academic physicians in disci-

plines related to the care of patients with cancer.

Dr. Frenkel held two distinguished chairs created in his honor – the Raymond D. and Patsy R. Nasher Distinguished Chair in Cancer Research, in Honor of Eugene P. Frenkel, M.D., created in 1990, and the Elaine Dewey Sammons Distinguished Chair in Cancer Research, in Honor of Eugene P. Frenkel, M.D., established in 2004. He also held the A. Kenneth Pye Professorship in Cancer Research. In 2001, the Sydney and J.L. Huffines Distinguished Chair in Cancer Research in Honor of Eugene Frenkel, M.D., currently held by Dr. Robert Collins, was created.

Projects and funds contributed in his honor include the J.L. Huffines Cancer Research Fund in Honor of Dr. Eugene Frenkel; the Edgar A. Robinson Family Fund in Cancer Research in Honor of Eugene Frenkel, M.D.; the John R. and Mary A. Watson Endowment Fund for Cancer Research in Honor of Eugene Frenkel, M.D.; the John Bunker Sands Fund for Cancer Research Honoring Dr. Eugene P. Frenkel; the Reece A. Overcash, Jr. Center for Research on Colon Cancer, in Honor of Dr. Eugene Frenkel; and the Dr. Eugene P. Frenkel Cancer Research Fund.

The Detroit native earned his medical degree from the University of Michigan Medical School (1953) before completing an internship at Wayne County General Hospital (1953-54), as well as an interrupted residency in internal medicine at Boston City Hospital (1954-55) and the University of Michigan Medical School (1957-59). The years between were marked by military service as an officer and flight surgeon in the Air Force.

Dr. Donald Seldin, UT Southwestern’s renowned Chairman of Internal Medicine, recruited Dr. Frenkel to UT Southwestern in 1962 as Chief of the newly created Division of Hematology and Oncology. Dr. Frenkel additionally served as Chief of the Nuclear Medicine Service from 1970 to 1982 at the Veterans Administration Medical Center at Dallas (now the Dallas Veterans Affairs Medical Center).

“Dr. Frenkel’s enduring legacy will be remembered by the many patients he so compassionately treated, the generations of medical students who benefited from his rigorous mentoring, and physicians and scientists worldwide who were influenced by his seminal work in medical oncology,” said Dr. W. P. Andrew Lee, Executive Vice President for Academic Affairs, Provost, and Dean, UT Southwestern Medical School.

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

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.

More online: To read the full story and watch a video, go to ct.utsouthwestern.edu/ctplus/stories/2019/eugene-frenkel.html.

CENTERTIMES

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PRC selects Infante, Newton for Distinguished Researcher Awards

By Patrick Wascovich

The UT Southwestern President's Research Council (PRC), a group of community members committed to learning about and advancing medical research at UT Southwestern, annually contributes funding to support the work of early career faculty. This year, the PRC selected two former trainees who are now faculty members – Dr. Rodney Infante and Dr. Chad Newton – to receive Distinguished Researcher Awards.

The awards will support the men's work aimed at discovering new therapies for cancer patients with cachexia and identifying unique molecular signatures in pulmonary fibrosis.

The annual awards provide research funding of \$75,000 to each recipient and are designed to honor and help further the work of early career researchers who are emerging leaders in their fields.

"We are grateful to the President's Research Council for its support of promising laboratory work aimed at benefiting patients that Dr. Infante is pursuing to advance treatment options for cancer patients and the research that Dr. Newton is conducting to better understand and ultimately treat those with pulmonary fibrosis," said Dr. Daniel K. Podolsky, President of UT Southwestern.

Dr. Infante, Assistant Professor in the Center for Human Nutrition, studies body fat regulation in cachexia and obesity. Cancer cachexia is a form of metabolic mutiny – a devastating wasting syndrome consisting of severe weight, fat, and muscle loss that is responsible for one-third of all cancer-related deaths while shortening by half the lifespans of those so affected. (See related story on page 4.)

"I am extremely honored that I was



Drs. Rodney Infante (left) and Chad Newton receive the PRC Distinguished Researcher Awards.

selected by the PRC," said Dr. Infante, who has a secondary appointment in Internal Medicine. "The PRC's support allows for aggressive approaches to solving a syndrome with no current effective interventions."

Dr. Newton, Assistant Professor of Internal Medicine, has discovered that underlying genomic markers may help physicians understand which pulmonary fibrosis patients are at high risk for poor outcomes. Pulmonary fibrosis, also called interstitial lung disease, is a disorder that has more than 200 potential causes, including exposure to mold, asbestos, radiation, and certain medications, as well as systemic diseases such as rheumatoid arthritis or lupus. Dr. Newton aims to define a novel and consistent classification of these diseases.

"I am absolutely honored to receive

such prestigious recognition and generous support from the President's Research Council," Dr. Newton said. "These funds will allow me to exponentially grow my patient cohort in order to accelerate the discovery of informative and impactful predictive markers. Currently, clinicians are unable to predict which patients will experience rapid disease progression and who may benefit from earlier and aggressive intervention."

Dr. Rodney Infante

Dr. Infante wants to better understand how cancers can cause cachexia wasting syndrome. Not only do these patients experience poor quality of life, but cachexia can hinder response to cancer care. Because no effective treatments exist, doctors often use non-approved medications of limited benefit.

Factors leading to cachexia could also be used to study body fat regulation in obesity, Dr. Infante said. His long-term goal is to discover new therapeutic targets to treat both conditions.

"I have great expectations for Dr. Infante as a physician-scientist and I anticipate that with the proper support he will carry out innovative research that will have a major impact in his field," Dr. Jay Horton, Director of the Center for Human Nutrition, wrote in his endorsement to the PRC.

A Medical Scientist Training Program alumnus, Dr. Infante did his predoctoral work in the lab of Nobel Laureates Drs. Michael Brown and Joseph Goldstein and received his M.D. and Ph.D. degrees in 2012 before completing an internal medicine residency at Massachusetts General Hospital. He returned to UT Southwestern for a digestive and liver disease fellowship before joining the faculty in late 2017.

Dr. Chad Newton

A faculty member since 2017, Dr. Newton earned his medical degree and completed his internal medicine residency and pulmonary and critical care fellowship at UTSW. During his fellowship, he worked in the laboratory of former faculty member Dr. Christine Garcia, developing expertise in the biology and genetics of pulmonary fibrosis.

Pulmonary fibrosis has many potential causes, but in more than half of cases doctors are unable to pinpoint a specific cause. Symptoms can be easily misdiagnosed, and for many patients that means rapid, irreversible loss of lung function before the right treatment is found.

PRC support will allow Dr. Newton to use blood lymphocytes to discover unique molecular signatures that

differentiate subtypes of the condition; study molecular markers that predict rate of lung function decline across subtypes; and investigate molecular markers for lung function deterioration.

"Dr. Newton's outstanding training and research experience form a foundation of clinical and translational research skills that he can use to build upon as he incorporates these innovative techniques to discover informative and impactful clinical markers," said Dr. David Johnson, Chairman of Internal Medicine, in his nominating correspondence to the PRC.

Dr. Brown, Director of the Erik Jonsson Center for Research in Molecular Genetics and Human Disease, is a Regental Professor and holds The W.A. (Monty) Moncrief Distinguished Chair in Cholesterol and Arteriosclerosis Research, and the Paul J. Thomas Chair in Medicine.

Dr. Goldstein, Chairman of Molecular Genetics, is a Regental Professor and holds the Julie and Louis A. Beecherl, Jr. Distinguished Chair in Biomedical Research, and the Paul J. Thomas Chair in Medicine.

Dr. Horton, a Professor of Internal Medicine and Molecular Genetics, holds the Distinguished Chair in Human Nutrition, The Dr. Robert C. and Veronica Atkins Chair in Obesity & Diabetes Research, the Center for Human Nutrition Director's Endowed Chair, and the Scott Grundy Director's Chair.

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

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.

PARP Continued from page 1

percent of breast cancer patients could now be good candidates," said Dr. W. Lee Kraus, Director of the Cecil H. and Ida Green Center for Reproductive Biology Sciences at UT Southwestern. "We have found that PARP inhibitors can act by a mechanism that is different from those previously identified, which rely on BRCA-dependent DNA repair pathways."

This research helps explain why breast cancer patients can be responsive to PARP inhibitors even if they don't have BRCA gene mutations.

Contributors to the study, published in *Molecular Cell*, included lead author Dr. Dae-Seok Kim, Assistant Instructor of Obstetrics and Gynecology, and Dr. Cristel Camacho, Research Scientist. Dr. Kraus will discuss the impact of his research at the Wendy and Emery Reves International Breast Cancer Symposium in September, a premier event at UT Southwestern's Harold C. Simmons Comprehensive Cancer Center spotlighting the most recent progress in breast cancer research and clinical care.

PARP inhibitors were approved by the FDA in 2014 for the treatment of ovarian cancers containing BRCA mutations, rare genetic mutations that disable a DNA repair pathway in cancer cells. The FDA also approved PARP inhibitors for breast cancer treatment in 2018. In their current use, doctors prescribe PARP inhibitors to disable a second DNA repair pathway, making it difficult for cancer cells to survive.

Dr. Kraus' lab discovered that while this war on DNA repair is being waged, PARP inhibitors are also battling for dominance elsewhere in the cancer cell. It is an important, effective fight previously unknown to science. The PARP inhibitors also attack the machinery that makes proteins, called ribosomes.

"Cancer cells are addicted to ribosomes. Cancer cells grow fast and must make proteins to support cell division and other essential processes going on in the cell. If you can slow down or inhibit the production of ribosomes, then you can slow down the growth of the cancer cell," Dr. Kraus said.

New view of how drugs work

This new understanding changes the way that scientists and clinicians think about PARP inhibitors and their clinical applications, which previously have been focused on DNA repair pathways since the initial discoveries in 2005. It took more than a decade to get PARP inhibitors approved by the FDA. New applications of PARP inhibitors based on Dr. Kraus' discovery could reach patients much quicker because three PARP inhibitor drugs are already approved and in use.

"The historical view is that cancers need the mutated BRCA gene to be sensitive to PARP inhibitors. That's what most scientists and clinicians thought," Dr. Kraus said. "But what the field is now coming to realize is that's just not true."

The realizations Dr. Kraus mentioned come from recent laboratory science, preclinical studies, and clinical trials throughout the nation that show additional signs of PARP inhibitors' effec-

tiveness in the absence of BRCA mutations. A clear molecular explanation for these effects has been lacking – until now.

Potential biomarker identified

The new study maps out this molecular pathway in its entirety and identifies a potential biomarker, a clinical test that might indicate which patients may benefit from PARP inhibitors. The biomarker is based on a protein called DDX21 that is required for the production of ribosomes in small subcellular compartments called nucleoli. The presence and function of DDX21 in the nucleolus requires PARP-1, the target of PARP inhibitors. Treatment with PARP inhibitors blocks DDX21 function and causes it to leak out of the nucleolus and disperse throughout the nucleus, thus inhibiting ribosome production. High levels of DDX21 in the nucleolus indicate cancers that might be the most responsive to PARP inhibitors.

The Kraus team found the new pathway and potential biomarker by examining a wide spectrum of breast cancer cells, some of which naturally have low levels of PARP. The low-PARP-level cells behaved like cells in which PARP activity was reduced by PARP inhibitors. The discovery builds on 15 years of PARP research so intense that Dr. Kraus' laboratory team put a molecular model of PARP-1 on his birthday cake.

"We started by trying to identify new molecular mechanisms and pursued this line of inquiry. We didn't know where the study would lead," he said. "We started as pure basic scientists, but as the study progressed, the clinical relevance became more evident."

He is currently developing ovarian cancer research trials with Dr. Jayanthi Lea, Associate Professor of Obstetrics and Gynecology, and breast cancer research trials with Dr. Barbara Haley, Professor of Internal Medicine.

Dr. Carlos L. Arteaga, Director of the Simmons Cancer Center, asked Dr. Kraus to speak about this potential new application of PARP inhibitors at the Reves Symposium on Sept. 20 and 21.

"This is a stellar example of our commitment to translational research; Dr. Kraus sought and secured Institutional Review Board approval for clinical trials with PARP inhibitors before the article was even published. This speaks to the commitment of the Cancer Center to bringing the benefits of our basic science discoveries in cancer directly to patients," Dr. Arteaga said.

Dr. Kraus is a founder and consultant for Ribon Therapeutics Inc., which studies PARP inhibitors, and he holds a patent covering reagents used in this research.

Dr. Arteaga holds The Lisa K. Simmons Distinguished Chair in Comprehensive Oncology.

Dr. Haley holds the Charles Cameron Sprague, M.D. Chair in Clinical Oncology.

Dr. Kraus holds the Cecil H. and Ida Green Distinguished Chair in Reproductive Biology Sciences.

Dr. Lea holds the Patricia Duniven Fletcher Distinguished Professorship in Gynecological Oncology.



Watson Award joins 'Leaders in Clinical Excellence' program honoring clinical faculty

From Staff Reports

Last year ushered in UT Southwestern's inaugural Leaders in Clinical Excellence Awards program, designed to honor faculty who embody the very best in clinical and institutional excellence. This year will continue the tradition of celebrating excellence – with a prestigious addition.

The awards program now includes the Patricia and William L. Watson Jr., M.D. Award for Excellence in Clinical Medicine. Awards for both programs will be conferred at a campus event and celebration on Nov. 6.

"Exceptional clinical care is integral to UT Southwestern's mission of promoting health and a healthy society that enables achievement of full human potential," said UT Southwestern President Dr. Daniel K. Podolsky. "The Leaders in Clinical Excellence Awards recognize the strength of the UT Southwestern Health System, which stems from the expertise, commitment to innovation, and compassionate care delivered by UT Southwestern clinical faculty."

The Watson Award, the institution's highest honor for clinical excellence, was established in 2009 through a generous gift from Dr. and Mrs. Watson. It creates an annual opportunity to recognize a UT Southwestern faculty physician who exemplifies excellence in patient care and is a leader in advancing clinical innovations.

The Leaders in Clinical Excellence Awards honor exceptional contributions of clinical faculty – at any site of service – to the care of UTSW patients, to the education and training of the next generation of health care professionals, and to UT Southwestern overall. They are presented in six categories: Diversity and Humanism in Clinical Care Award, Institutional Service Award, Mentoring Award, Patient and Family Recognition Award, Program Development Award, and Rising Star Award, with nominations from June 24 to Aug. 12.

See the endowed Chairs held by Dr. Podolsky above.

Life-threatening genetic cholesterol condition could be identified through routine blood donations

By Lori Sundeen Soderbergh

What if your blood donation held clues to a dangerous genetic cholesterol condition that could also affect the health of your loved ones?

Cardiologists know that familial hypercholesterolemia (FH), a condition that causes extremely high levels of cholesterol at an early age, is genetic. When one person is diagnosed, other family members can be identified. However, only an estimated 10 percent of those with FH are diagnosed.

"For someone with FH, the risk of heart disease is higher because their clock started early. They've been bathed in high cholesterol since birth. At the same time, they may not know their kids are at risk," said Professor of Internal Medicine Dr. Amit Khera, Principal Investigator for the study. "Sometimes by identifying one patient with FH, we find as many as eight or 10 more

family members who are at risk."

The study in *JAMA Cardiology* concludes that blood donation programs represent a unique opportunity as a public health portal to screen for diseases such as FH. According to the American Association of Blood Banks, approximately 6.8 million people in the U.S. donate blood every year, and 32.3 percent are first-time donors.

Up to 1.2 million people in the U.S. are estimated to have FH. The standard treatment is diet and exercise, followed by the addition of statins in later childhood.

Dr. Khera's team worked closely with Carter BloodCare in Dallas to review 1,178,102 individual blood donation records. They found 3,473 people who met criteria for FH based on their cholesterol levels, similar to the estimated prevalence in the general population.

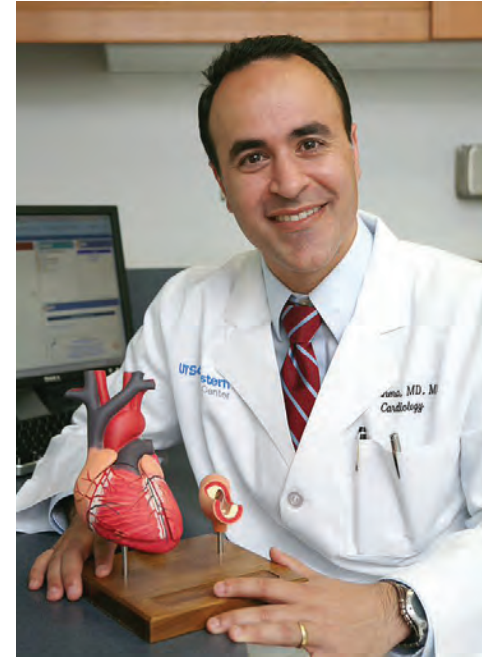
The UT Southwestern cardiology team plans to

develop a process for following up with people who are identified, connecting them with the appropriate medical care including family screening, and to continue studying the effectiveness of these interventions.

"The blood donor screening program could be a novel strategy to detect and notify people with potential FH, particularly younger people in whom early detection and treatment is especially impactful, as well as to guide screening of family members," Dr. Khera said.

Dr. Khera holds the Dallas Heart Ball Chair in Hypertension and Heart Disease.

More online: To read the full story on *Center Times Plus*, go to ct.utsouthwestern.edu.



Dr. Amit Khera

Burroughs Wellcome Fund supports UTSW investigators

The Burroughs Wellcome Fund (BWF), an independent private foundation dedicated to advancing the biomedical sciences, has selected two UT Southwestern investigators to receive five-year awards that begin this year.

Dr. Rodney Infante, Assistant Professor in the Center for Human Nutrition and of Internal Medicine, will receive support through the Fund's Career Awards for Medical Scientists (CAMS) program, while Dr. John Schoggins, Assistant Professor of Microbiology, was selected through the Investigators in the Pathogenesis of Infectious Disease (PATH) program. The BWF's 2019 awardees will be recognized Oct. 2-3 at the Fund's office in Research Triangle Park, North Carolina.

The CAMS program was established in 2007 and has now dispensed \$102.9 million to support the work of nearly 150 scientists across the country. Dr. Infante is the sixth UTSW faculty member so recognized.

The BWF has supported research in infectious disease since 1981, funding modern molecular approaches to understanding what have been called the great neglected diseases – malaria, the pathogenic fungi, and human parasites – that primarily affect people in underdeveloped countries. In 2000, the PATH track turned its attention to the larger issues of human-pathogen interactions in these infectious diseases and others, opening the door for funding work in bacterial and viral diseases. In all, UTSW has had 11 investigators selected within this enlarged scope.

BWF, which is governed by a board of distinguished scientists and business leaders, was founded in 1955 as the corporate foundation of the pharmaceutical firm Burroughs Wellcome Co. In 1993, a gift from the Wellcome Trust in the United Kingdom enabled BWF to become fully independent from the company, which was acquired two years later by Glaxo.

The Fund's primary goals are to help early career scientists develop as independent investigators and to advance basic biomedical sciences fields that are undervalued or in need of particular encouragement.

Dr. Rodney Infante: Career Award for Medical Scientists

By Patrick Wascovich

Dr. Rodney Infante, who studies cancer cachexia, has been named a 2019 recipient of a Career Award for Medical Scientists by the Burroughs Wellcome Fund (BWF). He is among 13 scientists selected for this research grant, which provides support of \$700,000 over five years.

Dr. Infante, Assistant Professor in the Center for Human Nutrition and of Internal Medicine and a UTSW Medical Scientist Training Program alumnus, studies body fat regulation in cachexia and obesity. Dr. Infante did his predoctoral work in the laboratories of Nobel Laureates Drs. Michael Brown and Joseph Goldstein and received his M.D. and Ph.D. degrees in 2012. As a graduate student, he had multiple first- and senior-author papers published, including some on 12-transmembrane domain protein (NPC1) now regarded as classics in the field of cholesterol transport. (See related story on page 3.)

"I am extremely excited to be selected for such a prestigious award," Dr. Infante said. "The type of support provided by the Burroughs Wellcome Fund is critical for an early career investigator such as myself."

Cancer cachexia syndrome is a form of metabolic mutiny – a devastating wasting syndrome consisting of severe weight, fat, and muscle loss that is responsible for one-third of all cancer-related deaths while shortening by half the lifespans of those so affected. Factors leading to cachexia could also be used to study body fat regulation in obesity, Dr. Infante said. His long-term goal is to discover new therapeutic targets to treat both conditions.

"Dr. Infante is an outstanding physician-scientist with an exceptionally bright future," said Dr. David Russell, Vice Provost and Dean of Research. "The proposed research offers unique discovery opportunities and all the necessary resources for success in the project are at hand. Dr. Infante's career has been characterized by creativity, productivity, hard work, and superb training, and there's every reason to believe that he will continue on an exponential vector."

Dr. Brown, Director of the Erik Jonsson Center for Research in Molecular Genetics and Human Disease, is a Regental Professor and holds The W.A. (Monty) Moncrief Distinguished Chair in Cholesterol and Arteriosclerosis Research, and the Paul J. Thomas Chair in Medicine.

Dr. Goldstein, Chairman of Molecular Genetics, is a Regental Professor and holds the Julie and Louis A. Beecher, Jr. Distinguished Chair in Biomedical Research, and the Paul J. Thomas Chair in Medicine.

Dr. Russell holds the Eugene McDermott Distinguished Chair in Molecular Genetics.



Dr. Rodney Infante

Dr. John Schoggins: Investigator in the Pathogenesis of Infectious Disease

By Deborah Wormser

Dr. John Schoggins, known for his studies on antiviral immunity, has been named a 2019 Investigator in the Pathogenesis of Infectious Disease. He is among 11 early career scientists selected for the Burroughs Wellcome Fund (BWF) award, which provides research funding of \$500,000 over five years.

The Assistant Professor of Microbiology investigates the innate immune response to viral infection by studying a family of nasty pathogens called flaviviruses that can cause life-threatening diseases such as West Nile encephalitis, congenital Zika syndrome, and dengue fever. In one study, his lab used CRISPR technology to screen for proteins involved in the body's defense. That study revealed a human gene encoding a protein that blocks viral replication. In 2016, his group showed that the Zika virus directly infects brain cells and evades immune system detection.

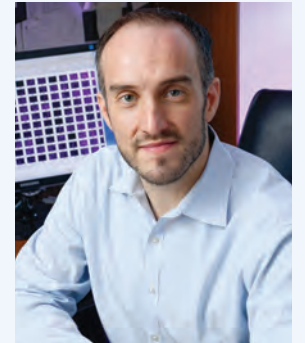
"I am thrilled to be chosen for this honor," Dr. Schoggins said. "Support from the Burroughs Wellcome Fund will allow us to implement innovative approaches to understand how the immune system controls viral infections."

He said the BWF support will enable his team to combine cell culture models with biochemical, genetic, and molecular approaches to develop a more holistic view of how mammals mount an innate immune response to limit viral infection.

"Dr. Schoggins is a bold scientific innovator who precisely meets the spirit and substance of the Burroughs Wellcome program in the Pathogenesis of Infectious Disease. I am thrilled that his pioneering work has been aptly recognized by the BWF scientific advisory board," said Dr. Michael Norgard, Professor and Chair of Microbiology. "Dr. Schoggins' progressive ideas regarding innate immunity against viruses engender fresh viewpoints on how to discern new antiviral mechanisms by the clever, integrative use of the latest methods in molecular genetics and animal models of infection. He clearly is at the cutting edge of some major new discoveries."

Dr. Norgard holds the B.B. Owen Distinguished Chair in Molecular Research.

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



Dr. John Schoggins

Rankings Continued from page 1

continues to be reflected in high levels of patient satisfaction and most importantly in the outcomes we are able to achieve," said Dr. John Warner, Executive Vice President for Health System Affairs, which includes William P. Clements Jr. University Hospital and Zale Lipshy University Hospital, along with its associated networks of clinics and outpatient services.

Recognition comes as UT Southwestern continues to expand access

to its distinctive academic medicine through new facilities and innovative partnerships that improve efficiencies and lower the overall cost of care. Projects include:

- A \$480 million expansion of its flagship Clements University Hospital will add 300 beds for a total of 760, making it among the largest in the nation. Scheduled to open in 2020, the 12-story third tower will expand Emergency Department care, provide

neurological care through the Peter O'Donnell Jr. Brain Institute, and include two floors dedicated to inpatient cancer care for UT Southwestern's Harold C. Simmons Comprehensive Cancer Center, the only National Cancer Institute-designated Comprehensive Cancer Center in North Texas and one of just 50 in the nation.

- In late 2019, the four-story UT Southwestern Medical Center at Frisco multispecialty clinic complex will open. It is part of a collaborative 20-acre medical and 132-bed hospital campus with Texas Health Resources. The Frisco initiative complements current off-campus regional medical

centers in Richardson/Plano, Park Cities, Las Colinas, and Fort Worth.

- The recently opened nine-story West Campus Building 3 holds more than 305,000 square feet of outpatient clinical space, along with a state-of-the-art simulation center for training the health care professionals of tomorrow. Another nine-story tower planned for 2022 will expand outpatient care for the Simmons Cancer Center, along with a new Radiation Oncology Building.

In addition to UT Southwestern's hospitals being ranked No. 1, Southwestern Health Resources, the integrated network formed with its partner

Texas Health Resources, encompasses four of the top five ranked hospitals in Dallas-Fort Worth: UT Southwestern, Texas Health Presbyterian Hospital Dallas (No. 3), Texas Health Harris Methodist Hospital Fort Worth (No. 4), and Texas Health Harris Methodist Hospital Southwest Fort Worth (tied for No. 5).

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.

Study sheds new light on urinary tract infections in postmenopausal women



From left, Drs. Kim Orth, Nicole De Nisco, and Philippe Zimmern look over samples of bacteria.

By Patrick Wascovich

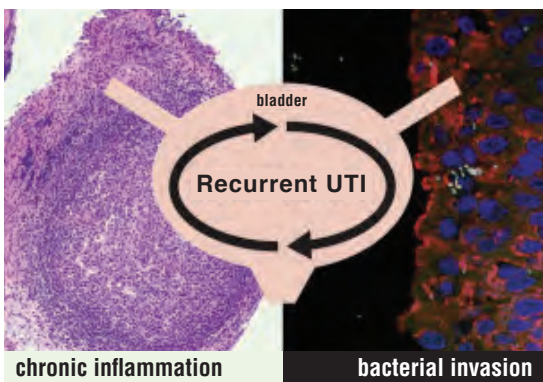
A UT Southwestern study suggests why urinary tract infections (UTIs) have such a high recurrence rate in postmenopausal women – several species of bacteria can invade the bladder walls.

UTI treatment is the most common reason for antibiotic prescriptions in older adults. Because of the prevalence of UTIs, the societal impact is high and treatment costs billions of dollars annually.

“Recurrent UTI (RUTI) reduces quality of life, places a significant burden on the health care system, and contributes to antimicrobial resistance,” said Dr. Kim Orth, Professor of Molecular Biology and Biochemistry at UTSW and senior author of the study, published in the *Journal of Molecular Biology*.

The investigation demonstrates that several species of bacteria can work their way inside the human bladder’s surface area, called the urothelium, in RUTI patients. Bacterial diversity, antibiotic resistance, and the adaptive immune response all play important roles in this disease, the study suggests.

“Our findings represent a step in understanding RUTIs in postmenopausal women,” said Dr. Orth, also an Investigator of the prestigious Howard Hughes Medical Institute. “We will need to use methods other than antibiotics to treat this disease, as now we observe diverse types of bacteria in the bladder wall of these patients.”



The study showed that in recurrent urinary tract infections, several species of bacteria can invade bladder walls, leading to a vicious cycle of chronic inflammation and infection.

Since the advent of antibiotics in the 1950s, patients and physicians have relied on antibiotics for UTI treatment.

“As time went on, however, major antibiotic allergy and resistance issues have emerged, leading to very challenging and complex situations for which few treatment choices are left and one’s life can be on the line,” said Dr. Philippe Zimmern, Professor of Urology and a co-senior author. “Therefore, this new body of data in women affected by RUTIs exemplifies what a multidisciplinary collaboration can achieve going back and forth between the laboratory and the clinic.”

UTIs are one of the most common types of bacterial infections in women, accounting for nearly 25 percent of all infections. Recurrence can range from 16-36 percent in premenopausal women to 55 percent following menopause. Factors thought to drive higher UTI rates in postmenopausal women include pelvic organ prolapse, diabetes, lack of estrogen, loss of *Lactobacilli* in the vaginal flora, and increased colonization of tissues surrounding the urethra by *Escherichia coli* (*E. coli*).

The latest findings build on decades of clinical UTI discoveries by Dr. Zimmern, who suggested the collaboration to Dr. Orth, along with other UT System colleagues.

“The bacteria we observed are able to infiltrate deep into the bladder wall tissue, even past the urothelium layer,” said first and co-corresponding author Dr. Nicole De Nisco, an Assistant Professor of Biological Sciences at UT Dallas who initiated this research as a postdoctoral fellow in Dr. Orth’s lab. “We also found that the adaptive immune response is quite active in human RUTIs.”

Future studies will focus on determining effective techniques to remove these bacteria and chronic inflammation from the bladder, finding new strategies to enhance immune system response, and pinpointing the various bacterial pathogens involved in RUTIs.

The study was funded by the National Institutes of Health, The Welch Foundation, Once Upon a Time ..., and the Cecil H. and Ida Green Chair in Systems Biology Science.

Dr. Orth holds the Earl A. Forsythe Chair in Biomedical Science and is a W.W. Caruth, Jr. Scholar in Biomedical Research.

Dr. Zimmern holds the Felecia and John Cain Chair in Women’s Health, in his honor.

Zimmern honored with Cain Chair in Women’s Health for urology work

By Nyshicka Jordan

Through the years, many women suffer from urinary tract infections, urinary incontinence, or pelvic prolapse – conditions that can become chronic and reduce their quality of life.

“Fifty percent of women will have a bladder infection at least once in their life. For urinary incontinence, about 35 to 40 percent of women experience this condition, and prolapse will happen to about 15 to 20 percent of women,” said Dr. Philippe Zimmern, Professor of Urology at UT Southwestern.

To support women’s urologic health research – and hopefully lead to new and better treatments – the Felecia and John Cain Chair in Women’s Health, in Honor of Philippe Zimmern, M.D. has been established. The inaugural holder is Dr. Zimmern.

“I wish that I could just take Dr. Zimmern and multiply him all over the country – that is really my dream,” said Felecia Cain. The Cain Foundation has established other endowments at UT Southwestern, in addition to this newest one.

In 1994, Mrs. Cain was diagnosed with the bladder condition interstitial cystitis. Over five years, she saw multiple doctors for chronic pain, but felt little relief until she was referred to Dr. Zimmern. Like many other patients he had treated, Dr. Zimmern discovered, Mrs. Cain had been misdiagnosed.

“I think previous doctors had a preconceived idea about what I had based on past medical exams. But with Dr. Zimmern, I felt like he listened to me,” she said. “When I first went to him, he treated me with as much kindness, professionalism, and grace as he does today.”

After tests ruled out interstitial cystitis, Dr. Zimmern determined that Mrs. Cain had other urology issues. Since receiving the proper diagnosis, Mrs. Cain has recommended Dr. Zimmern to other women, who have experienced relief as well.

Later, the Cain Foundation along with Mrs. Cain’s husband, John, established the Felecia Cain Fellowship to attract and train other doctors wishing to specialize in women’s health related to urology, a urological subspecialty also known as female pelvic medicine and reconstructive surgery and that requires passing a board exam.

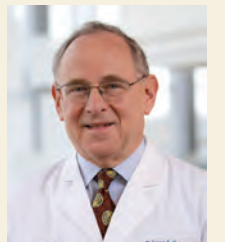
With the success of the two-year fellowship program, the Cain Foundation sought another way to support Dr. Zimmern’s work. A donation established the new chair, allowing Dr. Zimmern to focus more on translational research.

Dr. Zimmern has various research collaborations in the works, including with UT Arlington on a project to detect and repair vaginal prolapse in early stages, with UT Dallas to study urinary incontinence related to aging and multiple childbirths, and with the National Institutes of Health (NIH) to investigate treatment for antibiotic-resistant urinary tract infections, or UTIs. Among the NIH projects, Dr. Zimmern is looking closer at recurrent UTIs in postmenopausal and diabetic women. One of the problems researchers are trying to combat is antibiotic resistance, which has made it difficult to treat bladder infections in women as they age.

“The antibiotics we give to women have been given since the 1960s and have run their course. People have developed allergies and resistance to them. We have patients for whom nothing works anymore, so we’re desperately looking for other forms of treatments for these infections,” he said.

Dr. Zimmern is hopeful the support from the Cain Foundation will encourage more health organizations to support urology research.

“I am personally enormously indebted to the Cains and the Cain Foundation for all that they have done for me because since we met and they’ve started to support my academic work, both teaching and research, my life has really been transformed for the better. Every day I come here and I am thankful for what they have done for me,” he said.



Dr. Philippe Zimmern

Award Continued from page 1

“Both Dr. Herring and Dr. Lee are exemplary scholars and educators, and we are truly delighted that the Board of Regents has recognized their commitment to our students and other learners,” said Dr. Daniel K. Podolsky, President of UT Southwestern. “Their dedication and talents as teachers make it possible for UT Southwestern to prepare the future physicians and scientists who will improve the health and well-being of our community and those beyond.”

The 2019 Regents’ Outstanding Teaching Awards were presented to 27 UT System faculty members during the Board of Regents meeting Aug. 14 in Austin. Honorees received a certificate, a medallion, and \$25,000 in appreciation for their impact on students and their institutions.

“This awards program is an investment in both faculty and students, because when it comes to student success – and subsequently real-world success – recruiting and retaining great

faculty is the key,” UT System Chancellor James B. Milliken said. “I’m grateful to the Board of Regents for its continued commitment to great teaching, and I’m thankful that these exceptional educators are serving our students and Texas.”

Dr. John Herring

Dr. Herring, who served as Chief of Staff for Scottish Rite Hospital for Children for 34 years and now is Chief of Staff Emeritus, has helped train nearly 200 fellows and an estimated 400 orthopedic residents during his 40-plus-year career as a scholar and educator.

Dr. Herring also served as Chairman of the Pediatric Committee of the American Academy of Orthopaedic Surgeons and President of the Pediatric Orthopaedic Society of North America, which honored him with the Award for Distinguished Achievement, the Arthur H. Huene Memorial Award, and the Stuart L. Weinstein Clinical

Scientific Paper Award. A Fellow of the Royal College of Surgeons in Ireland, he is editor of the third and fourth editions of *Tachdjian’s Pediatric Orthopaedics* textbook and received the American Academy of Orthopaedic Surgeons Achievement Award, among many others. He was recipient of the prestigious Russell A. Hibbs Award for Clinical Research from the Scoliosis Research Society, Fort Worth Scottish Rite Foundation Inc.’s Anson Jones Award for outstanding societal contributions, and the American Medical Association’s Benjamin Rush Award.

“All of us are beneficiaries of more than a few wonderful teachers who have influenced us at various stages of our lives. They inspire as well as inform, and by example help us to be better people,” Dr. Herring said. “I am very proud to think that I have had that sort of influence on so many – ‘students’ of all ages that I have encountered throughout my career. To be considered a good teacher is a great reward.”

Dr. Won Lee

Dr. Lee, who also serves as Medical Director of the Clinical Center for Sleep

and Breathing Disorders at UT Southwestern, is well recognized as a dedicated educator. He received the 2011 Outstanding Teaching Faculty Award from UT Southwestern’s Department of Internal Medicine Residency Program and the 2013 Outstanding Teaching Faculty of the Year Award from the Division of Pulmonary and Critical Care Medicine. In 2015, the UT Southwestern Medical School revised its curriculum and Dr. Lee became Director for the Respiratory Course – subsequently voted by medical students as the top-ranked course in 2016, 2017, and 2018.

As testament to his dedication and mentoring accomplishments, in 2017 he was inducted into the UT Southwestern Academy of Teachers (SWAT). The Academy represents an elite group of UT Southwestern educators who strive to provide an academic and organizational environment that fosters excellence in teaching at all levels, rewards superb teachers, stimulates innovation in education, and promotes scholarship in education.

Dr. Lee is Associate Program Director of the Sleep Medicine Fellow-

ship Training Program, has been frequently awarded Best Doctor by *D Magazine*, and has national expertise in management of neuromuscular pulmonary disorders, chronic respiratory failure, and sleep disordered breathing. He has research interests in simulation education training – in all areas of education and health care.

“I am honored to contribute to innovative educational initiatives throughout UT Southwestern, particularly during a time of expansive growth for the Health System and the Medical School,” Dr. Lee said. “I especially value the opportunity to serve as a true clinician-educator – as a physician with expertise caring for patients along with serving as an educator in various training programs within the institution. I find great personal satisfaction in teaching; I’m truly lucky to do what I do.”

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.

Velez selected as Associate Dean for Graduate Medical Education



Dr. Larissa Velez

By Steve Kaskovich

Dr. Larissa Velez, who has led the Emergency Medicine Residency Program at UT Southwestern since 2011, has been selected as the new Associate Dean for Graduate Medical Education.

She succeeds Dr. Bradley Marple, who guided the growth of graduate medical education (GME) at UT Southwestern for nearly a decade. Dr. Marple, who stepped down as Associate Dean to focus full time on his role as Chair of Otolaryngology – Head and Neck Surgery, will continue to serve as an Institutional GME Consultant.

As Associate Dean for Graduate Medical Education, Dr. Velez is responsible for the broad spectrum of residency

and fellowship programs at UT Southwestern. The appointment took effect Aug. 1.

"I am passionate about graduate medical education and I am honored to take on this leadership role," Dr. Velez said. "My priorities for the position include developing and supporting best practices for GME programs in collaboration with the UT Southwestern Health System and affiliated partner hospitals; recruiting and retaining a high-quality, diverse workforce; creating professional development opportunities for program directors, coordinators, and core faculty; and supporting an educational environment that promotes wellness."

Dr. Velez, who joined the UT Southwestern faculty in 2001, is a Distinguished Teaching Professor and serves as Vice Chair for Education in the Department of Emergency Medicine. Under her leadership as Assistant Director and then Director of the Emergency Medicine Residency Program, it has become one of the largest emergency medicine training programs in the country.

She has received the Emergency Medicine Department's Teaching Excellence Award three times and last year was honored with a Leaders in Clinical Excellence Mentoring Award for her work with residents and junior faculty. Dr. Velez also has been actively involved in graduate medical education on the national level through organizations such as the Society for Academic Emergency Medicine and the Council of

Emergency Medicine Residency Directors.

"Dr. Velez has distinguished herself as an exemplary mentor and role model for the way she works with medical students, residents, fellows, and faculty," said Dr. W. P. Andrew Lee, Executive Vice President for Academic Affairs, Provost, and Dean, UT Southwestern Medical School.

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

Dr. Marple holds the Arthur E. Meyerhoff Chair in Otolaryngology/Head and Neck Surgery.

Dr. Velez holds the Michael Wainscott, M.D. Professorship in Emergency Medicine.

Five graduate students honored with NSF fellowships

From Staff Reports

Five UT Southwestern graduate students have been awarded three-year grants from the National Science Foundation Graduate Research Fellowship Program, or GRFP.

The Program supports outstanding graduate students pursuing research-based master's and doctoral degrees in STEM fields. Established in 1952, the GRFP is the oldest graduate fellowship of its kind and is highly selective, with only about 10 percent of applicants chosen. Past GRFP awardees include 42 Nobel Laureates and over 450 members of the National Academy of Sciences.

Here are snapshots of the grant winners and their research:

- **Haley Barlow**, working in the Genetics, Development and Disease Graduate Program in the Department of Molecular Biology, associated with the Hamon Center for Regenerative Science and Medicine, is studying the molecular mechanisms that govern lumen formation in growing blood vessels. Her research has the potential to support or block blood vessel growth in disease. **What does she love about science?** "Whether I'm expounding an obscene amount of detail to a room of fellow scientists or breaking down how DNA helps make us who we are to a group of second graders, I get a huge burst of energy from discussing science."

- **Annie Y. Heble**, working in the Organic Chemistry Graduate Program, is trying to develop a nanotechnology platform to encapsulate enzymes in porous silica nanoparticles that shield them from interaction with the body, such as allergic reactions or rapid deactivation. **On giving back to the community:** "I am passionate about extending outreach to younger minority populations, especially women and those who come from low-income backgrounds."

- **Matthew McDougal**, working in the Molecular Microbiology Graduate Program, studies the mechanisms by which innate immune responses control viral pathogens. Insight into how proteins restrict viral infection may provide a foundation for the development of new therapies targeting viral infections. **On inspiring future generations:** "I plan to start a program in which graduate students partner with AVID (Advancement Via Individual Determination) programs at high schools in the Dallas area to inform students of the exciting advances in science and to help promote STEM research and careers, focusing on high schools with many at-risk students."

- **Mauricio Antonio Marquez Palencia**, working in the Cancer Biology Graduate Program, focuses on understanding the role of metabolic and epigenetic factors that may trigger metastatic breakout in mice harboring latent disseminated tumor cells (DTCs) from HER2-positive breast adenocarcinomas. Knowledge about these mechanisms will provide a wealth of information for how to better eradicate DTCs and thereby prevent overt metastasis. **As a bilingual student:** "I knew firsthand that science is a language by itself, and even more challenging for students with English as a second language. My tutoring in community college focused on biology, general chemistry, and organic chemistry; my goal was to help my classmates understand basic science material and excel in their studies."

- **Spencer Shelton**, working in the Cell and Molecular Biology Graduate Program at the Children's Medical Center Research Institute at UT Southwestern, is investigating the role of mitochondrial DNA variations in melanoma metastatic potential. **On effecting change:** "I felt a need to become involved and encourage policymakers to promote the American scientific enterprise. Through my involvement in Science Policy, Education, and Communication (SPEAc), my goals are to educate other students about science policy and increase scientists' participation in policymaking."



Haley Barlow



Annie Y. Heble



Matthew McDougal



Mauricio Antonio Marquez Palencia



Spencer Shelton

Perot Continued from page 1

tions of future physician-scientists and deliver impactful research and care that has left a lasting impact on Texas and the nation," said Dr. Daniel K. Podolsky, President of UT Southwestern.

Born in Texarkana, Texas, on June 27, 1930, Mr. Perot began his service to his country in 1949, when he enrolled in the U.S. Naval Academy at Annapolis, Maryland. He thrived at the Naval Academy, becoming class president in his junior and senior years. While there, he met his future wife, Margot Birmingham. The pair married in 1956 and later had five children: Ross Jr., Nancy, Suzanne, Carolyn, and Katherine.

After serving in the U.S. Navy, Mr. Perot worked for IBM before forming his own company, Electronic Data Systems (EDS) in 1962. Mr. Perot sold EDS to General Motors in 1984 and four years later founded Perot Systems, purchased by Dell for \$3.9 billion in 2009.

Mr. Perot may be best known as one of the most successful independent candidates for the U.S. presidency, winning nearly 19 percent of the popular vote in 1992. He ran for President again in 1996 as a Reform Party candidate. Mr. Perot also authored several books, including *Ross Perot: My Life & the Principles for Success* and *United We Stand: How We Can Take Back Our Country*.

Early UTSW loyalty

Mr. Perot had philanthropic goals in addition to his entrepreneurial and political ambitions, and he set his sights on supporting "world-class" institutions. Mr. Perot was impressed with UT Southwestern's advancement from its humble beginnings in the 1940s and was aware of the increasing number of faculty members gaining admission to the esteemed National Academy of Sciences.

That prestige reached a new level on Oct. 14, 1985, when Dr. Michael Brown and Dr. Joseph Goldstein won the Nobel Prize in Physiology or Medicine for their discoveries concerning the regulation of cholesterol metabolism. Never before had a Nobel Prize for Physiology or Medicine been awarded for research conducted exclusively within the state of Texas. It was a pioneering discovery that would lead to the development of statin drugs, which help regulate cholesterol, improve the quality of life for millions of people, and save lives.

With this achievement, UT Southwestern captured Mr. Perot's attention. He honored the two Nobel Prize winners with a dinner that drew 300 community leaders. The celebration marked the beginning of significant local support for UT Southwestern's biomedical education and research.

"One of the great blessings to befall Mike Brown and me after we won the Nobel Prize in 1985 was getting to know Ross Perot," said Dr. Goldstein, Chairman of Molecular Genetics. "Prior to the Nobel Prize, the then-President of UT Southwestern, Dr. Charles Sprague, approached Mr. Perot for a donation to the Medical School. Mr. Perot's response was that he didn't know much about the Medical School since he had never read about it on the front page of *The New York Times*. Fortunately, the *Times* reported our Nobel Prize on its front page with our pictures. Mr. Perot did not waste a minute in placing a congratulatory call to Dr. Sprague, which was the beginning of 30 years of generous philanthropic support for the M.D./Ph.D. program and many other research endeavors on our campus."

MSTP program support

Over the next few years, Mr. Perot became more involved with the Medical Center. The Perots and their Foundation provided generous support of UT Southwestern's Medical Scientist Training Program (MSTP) as well as the research of Nobel Laureates Dr. Brown and Dr. Goldstein and their protégés. The MSTP, which trains the next generation of leaders in academic medicine by offering a combined M.D./Ph.D. degree, is an important part of Mr. Perot's legacy at UT Southwestern.

Mr. Perot's support of the program was more than financial. He personally attended MSTP functions and spoke to potential candidates. In 1996, the Perots provided additional funding to strengthen training for these medical scientists and to enhance biomedical research. When Mr. Perot made his initial contribution in 1987 to support the program, he said, "This is an investment in people and intellect that will bring enormous rewards in the years to come. These funds will help train young scientists who might well



The Gulf War syndrome research of Dr. Robert Haley, (left) was supported by Ross Perot Sr. (right) and Sen. Kay Bailey Hutchison.

make important medical breakthroughs in the future."

"Ross Perot's support made it possible for hundreds of bright young people to train to be scientists as well as physicians, earning Ph.D. degrees as well as M.D. degrees," said Dr. Brown, Director of the Erik Jonsson Center for Research in Molecular Genetics and Human Disease. "Some of our brightest faculty got their start in the Perot program. Mr. Perot insisted on only one thing: We had to recruit the 'best and the brightest.' To make certain that we met this requirement, he attended our final recruiting dinner each year. He navigated the room, shook hands with the applicants, and engaged them in deep discussions. Then he gave a stirring motivational speech, telling the applicants that they had a sacred duty to use their gift of intelligence to benefit humanity. His words touched the hearts of even the most jaded college seniors."

Commitment to veterans

As a man deeply committed to those who served in our Armed Forces, Mr. Perot often reached out to seek help for those who had been wounded or were otherwise in need. He vigorously supported the Medical Center's Gulf War syndrome research efforts after hearing stories of soldiers who returned from the Gulf War becoming sick or disabled for unknown reasons. In recognition of his contributions to "liberty and national security," Mr. Perot received the coveted Eisenhower Award from the Business Executives for National Security organization.

"We would never have redirected our ongoing research priorities to Gulf War illness had Ross Perot not called our attention to the problem and urged us to provide an independent scientific opinion," said Dr. Robert Haley, a Distinguished Teaching Professor and Chief of the Division of Epidemiology. "It had been widely accepted that over 100,000 members of the all-volunteer Army had returned home from the brief war disabled by 'deployment stress,' and only the publication of strong counter-current scientific evidence of brain effects from toxic chemicals could have rekindled broad research toward what is now the leading theory."

Most recently, the Perot Foundation established the Perot Foundation Neuroscience Translational Research Center at UT Southwestern. This latest expression of the Perot family's generosity is supporting translational research at the Peter O'Donnell Jr. Brain Institute to move science more quickly from the laboratory to the patient's bedside and transform research discoveries into improved and innovative drugs, devices, and treatments.

"Mr. Perot was a true friend to the Medical Center and a remarkable man whose inspirational leadership touched all who knew him," Dr. Podolsky said. "He will be deeply missed."

Dr. Brown, a Regental Professor, holds The W.A. (Monty) Moncrief Distinguished Chair in Cholesterol and Arteriosclerosis Research, and the Paul J. Thomas Chair in Medicine.

Dr. Goldstein, a Regental Professor, holds the Julie and Louis A. Beecher, Jr. Distinguished Chair in Biomedical Research, and the Paul J. Thomas Chair in Medicine.

Dr. Haley holds the U.S. Armed Forces Veterans Distinguished Chair for Medical Research, Honoring Robert Haley, M.D., and America's Gulf War Veterans.

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.

More online: To read the full story, including profiles of the honorable mention recipients, go to *Center Time Plus* at ct.utsouthwestern.edu.

More online: To read the full story, go to utsouthwestern.edu/newsroom/articles/year-2019/h-ross-perot.html.

Lives helping others: Meiers give \$500,000 for cerebral amyloid angiopathy research

By Julie Henley

Dr. Donald E. and Patsy Meier are no strangers to living charitably. The retired medical missionaries have dedicated their lives to the surgical education of underserved communities.

Now they want to give back even more, inspired by Dr. Meier's diagnosis in 2015 with cerebral amyloid angiopathy (CAA), a degenerative condition of the brain that has no effective therapies. The couple have made a generous \$500,000 gift to support CAA research at UT Southwestern's Peter O'Donnell Jr. Brain Institute that will screen for new drugs and test potential new treatments for the disease.

Dr. Meier spent 12 years building local pediatric and global surgery programs. He retired as Professor Emeritus from the Division of Pediatric Surgery at the Texas Tech University Health Sciences Center El Paso Paul L. Foster School of Medicine. One year into retirement, he experienced a CAA-induced massive cerebral hemorrhage that left him unable to walk, speak, or raise his arms. This event, followed by two grand mal seizures, prompted the couple's move back to Dallas in 2017 to seek care at UT Southwestern, where Dr. Meier once trained as a resident and served on the faculty. Since then, he has regained much of his physical mobility, speech, and hope.

"Don Meier's trust in UT Southwestern as he has made a journey from resident to faculty, and now patient and donor, is a true inspiration to us," said Dr. Daniel K. Podolsky, President of UT Southwestern. "We are grateful for the Meiers' generosity, and their confidence in our faculty is a further catalyst for UT Southwestern researchers' efforts to develop tomorrow's life-changing therapies."

"My husband's experience with CAA prompted us to look for answers," Mrs. Meier said. "At the time of Don's diagnosis, the only substantial research being conducted on CAA was at a hospital across the country. When we learned that all of his tests would be referred there, we were inspired to support CAA research at UT Southwestern. The disease can be hereditary, and we feel a responsibility toward our children to do all that we can."

CAA has the potential to cause devastating brain hemorrhages, ischemic strokes, and progressive cognitive impairment in older patients. "Although CAA shares characteris-



Dr. and Mrs. Meier in front of their church in Dallas



Dr. and Mrs. Meier at a celebration in their honor given by the King of Ogbomosho, Nigeria, in 1984

tics of both stroke and Alzheimer's disease, it is still a relatively unstudied condition," said Dr. Mark Goldberg, Professor of Neurology and Neurotherapeutics and Associate Vice President for Institutional Advancement at UT Southwestern with a focus on the Peter O'Donnell Jr. Brain Institute. "The Meiers' generous support will help our team better understand the disease and lay the necessary groundwork for future clinical trials."

The Meiers have spent a lifetime laying such groundwork for others, working as missionaries around the globe. Their longest humani-

tarian appointment lasted nearly two decades in Ogbomosho, Nigeria, where Dr. Meier trained local residents and Mrs. Meier served as the head operating room nurse. Together, they built a sustainable health care practice that the local physicians could pass on to future generations of practitioners.

"During 17 years in Nigeria, I never conducted an operation without supervising a resident and encouraging them to do the same for others," Dr. Meier said. "The highlight of my whole life was watching people whom I taught go on to teach others."

After returning from West Africa, the Meiers continued working to reduce health disparities in low-income areas both abroad and stateside. Dr. Meier was recently awarded the American Pediatric Surgical Association's first Surgical Humanitarian Award and is writing a memoir about their life's work providing health care to limited-resource populations.

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.

Dauer Continued from page 1

two, or three years but for the enduring future – to change the lives of people with brain disease, I think will be the key ingredient for success."

Dr. Dauer joined UT Southwestern as Director of the O'Donnell Brain Institute and Professor of Neurology and Neurotherapeutics and Neuroscience on July 1. In the new role, he is responsible for integrating the work of scientists and clinicians in fields that include neurology, neuroscience, neurosurgery, physical medicine and rehabilitation, neuroradiology, and psychiatry.

"Dr. Dauer's arrival on campus marks a significant milestone for the O'Donnell Brain Institute, which aims to accelerate discoveries into the underlying causes of brain disorders by facilitating synergies across many disciplines," said Dr. W. P. Andrew Lee, Executive Vice President for Academic Affairs, Provost, and Dean of UT Southwestern Medical School. "The recent groundbreaking for a new Research Tower for the O'Donnell Brain Institute on North Campus and the ongoing expansion of William P. Clements Jr. University Hospital, where the new third tower will serve as the O'Donnell Brain Institute's clinical home, represent UT Southwestern's commitment to the study and treatment of brain diseases, the last frontier in medicine."

Dr. Dauer came to UT Southwestern from the University of Michigan, where he was Director of the Movement Disorders Group and Director of the Morris K. Udall Center of Excellence for Parkinson's Disease Research.

Building teams across disciplines, among both scientists and clinicians, will be a key focus of the O'Donnell Brain Institute as it seeks to uncover the fundamental causes of brain disease and translate discoveries into treatments.

"UT Southwestern has a uniquely outstanding scientific culture," Dr. Dauer said. "It's really the perfect place to bring together the best minds in the country, or even the world, to work on brain science with the important goal of improving the lives of people with brain diseases."

In an interview during his first week on campus, Dr. Dauer shared his thoughts about the O'Donnell Brain Institute's mission and the future of brain science.

What are your priorities as Director of the O'Donnell Brain Institute?

The long-term priority is to be the leading center for caring for people with brain disease, including both neurologic and psychiatric illness.

In the short term, there are really three pillars, each of which is essential to meet our long-term goal. One is creating outstanding clinical care, with teams of individuals who talk to each other to provide integrated care for patients. Integrated care means that when a patient with a neurologic or psychiatric disease comes to a clinic, they won't just see a physician and then go back and forth to see all the ancillary people who are important to their care. A variety of services will be co-located; so, for example, a physician, social worker, and

physical therapist will work together to build the best plan for the patient.

The second pillar is harnessing the tremendous scientific excellence of UT Southwestern, ranging from molecular to behavioral to human subject investigation. We will nucleate groups of the best scientists in the world to tackle key areas that are ripe for human translation. This will include scientists who will be located in the new O'Donnell Brain Institute Research Tower as well as a vigorous effort to create an exemplary clinical trials unit that will allow us to be a magnet for human subject research, including "first-in-brain" human studies.

The third pillar, which really will enable the other two, is to enrich the tremendous scientific community that already exists here to amplify brain research. That will include efforts to recruit key faculty in areas that are primed for advancement, as well as attracting and supporting the best trainees to neuroscience and brain disease studies. We'll focus on the people who are working today, but this is a large problem and so we also need to build the best minds for tomorrow.

What progress is being made in brain science and why are you optimistic that there will be significant breakthroughs?

This is a tremendously exciting time for brain science. There have been a number of very important advances in the last decade that are helping us understand how the brain works and also how diseases disrupt that function, which gives us key clues to devise therapies to either lessen suffering or to

prevent it altogether.

One of the exciting advances has been to use new neuroimaging techniques to look inside the brain, both in humans and animals in experimental research. Related to that are a suite of new tools that allow us to manipulate specific sets of brain cells. For example, in Parkinson's, there are a few particular sets of brain cells out of billions that are really key to producing the symptoms. The ability to study those in isolation is something new that could never be done before.

Similarly, there are new techniques that allow us to deliver proteins or genes into the nervous system in a highly focused way. In recent years, a retinal disease that causes blindness and a neuromuscular disease that causes death in infancy have been dramatically changed or sometimes cured with gene therapy. In fact, some of the most exciting work in Duchenne muscular dystrophy is happening here at UT Southwestern, led by Dr. Eric Olson, Chair of Molecular Biology and Director of the Hamon Center for Regenerative Science and Medicine.

Ultimately, we want to prevent the onset of disease and not have to deal with symptoms later. An essential element of the O'Donnell Brain Institute and cause for great excitement is the understanding of the fundamental molecular features of brain disease. In neurodegenerative disease in particular, there have been fundamental advances over the last 10 years, as exemplified by the work of Dr. Marc Diamond with Alzheimer's disease, where we are beginning to understand how molecules can take on a different shape, become toxic,

CLASS NOTES

IN MEMORIAM

MEDICAL SCHOOL

George Clyde Curry, M.D. ('62)

Charles Lee Sledge, M.D. ('67)

Jesse Raymond Thomas, M.D. ('78)

Geri Grace Brown, M.D. ('88): The Geri Brown, M.D. Lectureship in Digestive and Liver Diseases has been established through generous donations in honor of Dr. Brown.

SCHOOL OF HEALTH PROFESSIONS

Avis Deloris Huffstutler Sylvester ('75)

Pamela Gay Hale Abernethy ('87)

MEDICAL SCHOOL

Class of 1969: Ralph McCleskey, M.D., former Medical Director of Cardiac Rehab and Heart Failure at Hendrick Medical Center in Abilene, Texas, was elected 2019 Distinguished Alumni at McMurry University in that city. Dr. McCleskey was also selected for a one-man photography show at Amy Graves Ryan Gallery in Abilene.

Class of 1988: Peter A. McCullough, M.D., M.P.H., was selected as this year's Helen Dunham Cardio-Renal Lecturer and in May delivered cardiovascular and nephrology grand rounds and led discussion groups with fellows in both divisions at Brigham and Women's Hospital in Boston. Dr. McCullough, a founder and President of the Cardio Renal Society of America, has published in more than 1,000 scientific publications and received more than 500 citations in the National Library of Medicine for advances in internal medicine, cardiology, and nephrology.

FORMER HOUSESTAFF

Residency alumnus Michael Weisberg, M.D., has written and released a medical thriller novel, *The End*, which takes places in the Dallas medical profession.

For the latest updates on alumni events and news, visit engage.utsouthwestern.edu/alumni and follow @utswalumni on Facebook.

Please send your Class Notes contributions or address changes to the Office of Development and Alumni Relations, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390-9009, email alumni@utsouthwestern.edu, or call 214-648-4539.

and harm brain cells.

There is a lot of talk about creating synergies within the O'Donnell Brain Institute. What does that mean?

It's important to understand that science is increasingly a team effort. Many scientific disciplines have grown up and are sufficiently sophisticated that it's impossible for one person to figure it all out. What we need to do is assemble groups of people with varying expertise – in basic molecular function, in brain circuit function, in computing – to work together on common problems of brain function and health.

Similarly, in the clinical arena the key goal will be to create integrated care, where a variety of services, including research, will be co-located so the patient is cared for by a team. The key is to provide not only the best care for the patient but to build systems that optimize the patient experience and allow them to access care in the most efficient way possible.

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

Dr. Diamond, Director of the Center for Alzheimer's and Neurodegenerative Diseases, holds the Distinguished Chair in Basic Brain Injury and Repair.

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

Dr. Olson holds the Pogue Distinguished Chair in Research on Cardiac Birth Defects, The Robert A. Welch Distinguished Chair in Science, and the Annie and Willie Nelson Professorship in Stem Cell Research.

UTSW Pride Month celebration event filled with history and hope

By Ashley Green-Jones

On the 50th anniversary of the Stonewall uprising, which sparked the beginning of the modern fight for LGBT rights, UT Southwestern hosted its first Pride Month celebration on South Campus.

The event, held in the D1.602 Lecture Hall, featured an inspirational song, a brief history of the LGBT rights movement, and an illuminating overview of the hurdles and strides in LGBT patient care.

Dr. Marc Nivet, Executive Vice President for Institutional Advancement, opened the program and expressed gratitude that our institution is continuing to recognize the diversity of the campus and the community we serve.

"It really is wonderful to see the turnout that we have today and to see UT Southwestern continue on the perpetual journey of inclusive excellence," Dr. Nivet said.

The celebration revved up as Chris Jacobson-Chism from Cathedral of Hope church gave a rousing performance of "Visible," an original ballad he wrote encouraging the LGBT community to shine. Cathedral of Hope, located in Dallas, is known to have the world's largest gay congregation, with over 4,000 members.

Dr. David Weigle, Assistant Dean for Graduate Medical Education and Executive Sponsor of the LGBT Business Resource Group, introduced the keynote speaker, Dr. Roberto de la Cruz.

Dr. de la Cruz, Executive Vice President and Chief Medical Officer at Parkland Memorial Hospital, is a native of Puerto Rico and member of the LGBT community. He began his presentation, "LGBTQ+ Health: Where We Are Today,



Dr. Roberto de la Cruz, a native of Puerto Rico, shares a timeline of significant moments in LGBTQ history.

About Roberto de la Cruz

Dr. Roberto de la Cruz is the Executive Vice President and Chief Medical Officer at Parkland Memorial Hospital. He has participated in AIDS/LifeCycle, a seven-day, 545-mile bike ride from San Francisco to Los Angeles that benefits the San Francisco AIDS Foundation and the Los Angeles LGBT Center, and continues his activism in the LGBT community at Parkland.

Parkland hosts two transgender clinics that serve 300 patients. In 2013, Parkland banned discrimination on the basis of gender identity, gender expression, or genetic information. UT Southwestern policy prohibits discrimination on the basis of sexual orientation, gender identity, or gender expression.

Where We Can Be Tomorrow, and How You Can Help Us Get There," by walking the audience through a timeline of significant moments in the medical, political, social, and pop culture history of the LGBT community in America. One of the most significant milestones

was the Stonewall uprising in 1969, the LGBT community's response to a brutal police raid on the Stonewall Inn, a gay bar in New York City.

Dr. de la Cruz also briefly touched on the HIV/AIDS epidemic but focused mainly on the stigmas and barriers that



Chris Jacobson-Chism from Cathedral of Hope church belts out his inspiring original song, "Visible."

can affect LGBT patient care on both the patient and physician side.

"In the past, a major structural barrier in the medical field was lack of recognition of same-sex partners," Dr. de la Cruz said. "Lack of provider training in the late '80s – particularly for transgender patients – contributed to physicians feeling uncomfortable with providing care to the LGBT community, although this number has declined substantially."

In the LGBT community, those who identify as transgender experience higher rates of joblessness, poverty, and lack of health insurance than their lesbian, gay, or bisexual counterparts, he said.

"Transgender patients are at the greatest risk of all," Dr. de la Cruz said. "These individuals also have a high

prevalence of HIV, STDs, victimization, mental health issues, and suicide."

Dr. Elizabeth Paulk, Professor of Internal Medicine and Chair of the LGBT BRG, closed the program by encouraging attendees to pick up the provided LGBT educational materials and symbols of support in the lobby, such as Pride-themed rainbow ribbons and lapel pins.

Dr. Paulk holds the Distinguished Professorship in Palliative Care, in Honor of Steven Leach, M.D.

More online: To read the full story and see more photos, go to ct.utsouthwestern.edu/ctplus/stories/2019/pride-month-celebration.html.

A researcher's Valhalla: Grad student attends Nobel Laureate gathering in Germany

By Carol Marie Cropper

Whitney Costello's life reads a bit like *Oh, the Places You'll Go!* by Dr. Seuss.

The UT Southwestern graduate student researcher grew up in Norman, Oklahoma, and started out thinking she would become a meteorologist before veering into molecular biophysics instead.

That change in direction has led her to study in Italy, to work as a researcher in China, and most recently to participate as one of about 600 promising students from around the world in the rarefied air of the Lindau Nobel Laureate Meetings, held each year in Germany.

The event took place the first week of July on the picturesque island of Lindau in Lake Constance, near Germany's southern border with Austria and Switzerland, with the Alps as a backdrop.

Ms. Costello wasn't the only member of the UT Southwestern community in attendance. Dr. Johann Deisenhofer, UTSW Professor Emeritus of Biophysics and an emeritus member of the Cecil H. and Ida Green Comprehensive Center for Molecular, Computational, and Systems Biology, was among nearly 40 Nobel Laureates speaking at the event. Dr. Deisenhofer, who shared the 1988 Nobel Prize in Chemistry, gave a talk about photosynthesis, the topic that won him his prize after he uncovered the structure of the reaction center involved in that natural process.

The Lindau Meetings began in 1951 as a way to bring together college undergraduates, Ph.D. students, and postdoctoral researchers to meet and attend lectures and panel discussions by Nobel Laureates. The event is designed to foster dialogue between Nobel Laureates and young scientists.

"It's a great opportunity to network with scientists all over the world," Ms. Costello said. "You never know what collaborations will come. And it's not every day that you get to be in a room with 30 people and a Nobel Laureate. It's a truly amazing experience."

"Whitney is training on the cutting edge of a new and exciting field and technique that sits squarely at the interface of physics, physical chemistry, and biology, and she has the scholarly attitude, intellectual talent, and personal determination to make a mark," said Dr. Luke Rice, Associate Professor of Biophysics and Biochemistry and Chair of the Molecular Biophysics Graduate Program, who sent Ms. Costello's nomination to Lindau. "Whitney is also admirably engaged as an advocate for women in science. We are so proud that she was selected to attend the Lindau Meetings."



Graduate student Whitney Costello got a chance to meet some of the world's top scientists at the Nobel Laureate Meetings in Lindau, Germany, in early July. Also attending was UTSW Nobel Laureate Dr. Johann Deisenhofer, one of the event's speakers. The Meetings are held each year on an island in Lake Constance, Germany.

During her six days at Lindau, Ms. Costello attended many lectures, including Dr. Deisenhofer's talk and one by Dr. Steven Chu, co-recipient of the 1997 Nobel Prize in Physics for work in laser cooling and atom trapping.

She also was chosen to speak about her own research at the prestigious Max Planck Institute of Biophysics in Frankfurt.

But, for her, the highlight was the lunch she sat down to at an Italian restaurant with just a handful of students and Nobel Laureate Dr. Ada E. Yonath. Dr. Yonath, who grew up in Israel, won the Nobel Prize in Chemistry in 2009 for her studies of the structure and function of the ribosome – studies made possible after she cracked the code on how to create the first ribosome microcrystals and later published a three-dimensional structure of the elusive cell particle that builds life's proteins.

"She's a very great biophysicist. People told her she'd never solve the structure of the ribosome, and she did it," Ms. Costello said. "It's really nice to see her passion for the ribosome after all these years. She still really loves it."

For Ms. Costello, who serves as the graduate student representative on UT Southwestern's Women in Science and Medicine Advisory Committee, it was reassuring to hear Dr. Yonath



Dr. Klaus von Klitzing, of the Max Planck Institute for Solid State Research in Stuttgart, Germany, won the 1985 Nobel Prize in Physics and was one of the Meetings' speakers.

talk about her family, including a granddaughter who invited the respected scientist to speak to a kindergarten class about the ribosome.

Ms. Costello was always good in math and science but felt too much of an introvert to ever become a doctor.

An inspiring high school physics teacher and a stint working on a college research project led her to switch her major from meteorology to physics as an undergraduate at the University of Oklahoma.

"It's very difficult to predict weather patterns," she added.)

Watching her grandmother and grandfather die while she was in college – both from neurological diseases – is what drove her to focus on biophysics, a field that uses the math of physics to describe and understand biology, she said. "I felt no one should have to suffer like that," she said of her grandparents.

In her current research, Ms. Costello studies amyloid proteins in the cellular context. Amyloid protein aggregates are associated with Alzheimer's, the disease that killed her grandmother. She is looking at how yeast organize amyloid prion proteins without creating the problem of the huge, unorganized aggregates sometimes seen in humans that may lead to cell death.

Does Ms. Costello plan to return to Lindau soon?

"No. No. If you go back, it must be as a Nobel Laureate," she said. "I think some luck is involved with that."

Dr. Deisenhofer is a Regental Professor.
Dr. Rice is a Thomas O. Hicks Scholar in Medical Research.