# TulaneMed

# Art& Soul

Theater, music, tennis, and surprising new paths to medicine

**12** Preventing disease for our youngest patients

**18** In the tube Fourth-year medical students cheer and cry at Match Day on March 16.

PHOTOGRAPH BY JASON WHITE



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On the Cover

Medical student Jordan Eisenberg brings dramatic flair and a theater background to her study of medicine.

# Advances: Innovation and outreach

Tulane's largest fundraising campaign

## **Only the Audacious**

BY HANNAH TOPPING

Tulane University has announced its most ambitious fundraising campaign ever, and the School of Medicine will play an integral role in this historic effort. President Mike Fitts on Dec. 8, 2017, announced that "Only the Audacious, The campaign for an ever bolder Tulane" has a goal of raising \$1.3 billion.

At the launch event, Lee Hamm, MD, senior vice president and dean of the School of Medicine and the James R. Doty Distinguished Professor, spoke about the school's exciting future and how the campaign has the ability to transform research and teaching. "We look for having impact at many levels," Hamm said. "We want to discover the next treatment of cancer, the next cure of an emerging, infectious disease, and we want to train the next generation of physicians and scientists who will be leading research efforts throughout the country and taking care of patients."

The campaign will elevate every facet of Tulane and the School of Medicine. The four key initiatives include pioneering research, transformative teaching, opportunity and diversity, and building an environment to support excellence.



S. Michal Jazwinski, PhD

#### \$11.3 MILLION TO CENTER FOR AGING

The National Institutes of Health awarded a Biomedical Research Excellence (COBRE) grant to the Tulane Center for Aging. The grant means an additional five years of funding for the multidisciplinary project that began in 2012.

The COBRE award further establishes the Tulane center's research into aging and regenerative medicine, expanding its cardiovascular focus to emphasize musculoskeletal aging. The center will also examine chronic low-grade inflammation, a hallmark of many age-related diseases, such as osteoarthritis, atherosclerosis, Alzheimer's and macular degeneration.

S. Michal Jazwinski, PhD (above), holder of the John W. Deming, MD, Regents Chair in Aging and a professor of medicine at Tulane School of Medicine, is director of the Center for Aging.



People applied to Tulane School of Medicine this year—the greatest number in the school's history.



The art-filled "Walk to Welcome You" provides a soothing entry for patients heading into Tulane's newly renovated Bone Marrow Transplant Unit.

#### **Bone Marrow Transplant Unit**

# A more comfortable space for patients

The Tulane Medical Center Bone Marrow Transplant Unit has moved into newly renovated space, increasing the unit from seven beds to 16. The \$3.8 million renovation added patient-centric amenities like ambient lighting and furnishings that double as visitor beds.

Safety features such as impervious seating and flooring, an electronic positive pressure system to clean air continuously, and filtered water at all outlets are part of the updated unit, which is specially designed for the comfort and protection of transplant patients.

Louisiana-themed art, printed directly on easily cleaned sheet metal, is part of the new design.

The more welcoming, homey environment in the new unit helps patients be more compliant with their therapy than in the old unit, said Hana Safah, MD, medical director of the unit. "Now patients are more comfortable returning."

#### **Dermatology recognition**

#### DR. ERIN BOH'S PSORIASIS WORK

At the annual meeting of the American Academy of Dermatology (AAD), Erin Boh, MD, PhD, chair and professor of dermatology, received the 2018 Outstanding Physician/Clinician Award from the National Psoriasis Foundation. The award was given in recognition of Boh's research and clinical work in the area of psoriasis. She also received a presidential citation for her work on the AAD board of directors as chair of the member communications committee. Boh serves on the AAD board of directors.

#### Overheard

"The humanities have often been pushed to the side in medical school curricula, but our data suggests that exposure to the arts is linked to important personal qualities for future physicians."

<sup>-</sup>Marc Kahn, MD, MBA, MACP, Peterman-Prosser Professor and senior associate dean at Tulane School of Medicine. Kahn is the senior author of a study that shows the positive correlation between medical students' engagement with the humanities and higher levels of empathy, tolerance of ambiguity, wisdom and emotional intelligence.

Sex-specific sports medicine

## Returning active women to play

Mary K. Mulcahey, MD, director of the Tulane Women's Sports Medicine Program, keeps her focus on helping active women stay active in a way that best aligns with their goals and lifestyles.

"The psychological response to injury can significantly affect outcomes and return to play. Psychological effects are different for women than for men, and women may need a different approach in communication and treatment," said Mulcahey.

"The differences between men and women's injuries plus the sex-specific variation in response to injury supports the need for a medical team dedicated to the overall health care of women."

Mulcahey practices at the Tulane Institute of Sports Medicine and at Tulane Lakeside Hospital for Women and Children. Her clinical interests include arthroscopy of the shoulder and knee, sports medicine, shoulder instability, rotator cuff disease, ligament reconstruction of the knee, shoulder reconstruction including total shoulder and reverse total shoulder replacements, and fracture care.

Musculoskeletal health is the foundation of overall health, especially for women, according to Mulcahey. Her program works to ensure that patients build a strong foundation and have access to complete wellness across multiple disciplines, including OB/GYN, psychology, injury prevention and nutrition.



Mary K. Mulcahey, MD

Mulcahey received her medical degree from the University of Rochester School of Medicine in Rochester, New York, in 2006. She completed her orthopaedic residency and a fellowship in orthopaedic trauma at Brown University. She then had a fellowship in sports medicine at San Diego Arthroscopy and Sports Medicine Center. While in fellowship, she assisted with team coverage of the Major League Baseball San Diego Padres and San Diego State University. She then was in practice in the Department of Orthopaedic Surgery at Drexel University College of Medicine in Philadelphia for four years before joining the faculty at Tulane in 2017. While in Philadelphia, she was the ringside physician for professional boxing and mixed martial arts.

At Tulane, Mulcahey is associate professor in the Department of Orthopaedic Surgery of the School of Medicine.

"The differences between men and women's injuries plus the sex-specific variation in response to injury supports the need for a medical team dedicated to the overall health care of women."

-Mary K. Mulcahey, MD, director of the Tulane Women's Sports Medicine Program

#### Palliative care

#### EASING SUFFERING

Sonia Malholtra, MD, MS, FAAP, received a "Champion of Excellence" award from Heart of Hospice in 2017. Malholtra is assistant professor of medicine and pediatrics at Tulane School of Medicine and director of palliative medicine and supportive care at University Medical Center New Orleans.

Her medical education interests include teaching primary palliative medicine skills to medical students, residents, fellows and other allied health professionals. She has published in the *Harvard Review of Psychiatry* and has authored several book chapters on adult and pediatric palliative medicine including the American Academy of Hospice & Palliative Medicine's UNIPAC series.

Palliative medicine is an interdisciplinary subspecialty that provides comprehensive treatment of physical, emotional, cultural and spiritual needs related to serious illness or injury. The word palliate means "to ease;" the focus of palliative medicine is to ease the suffering that results from illness and to reduce caregiver stress.

# **VIEWPOINT:** The importance of ethics and humanities in medical training

BY FAITH DAWSON

Q. How do you hope to improve medical professionalism training? If you're going to fulfill medical school requirements for a curriculum in medical professionalism, you must have not only medical ethics, but also medical history—a perspective of where we came from; reflective narrative-those aspects of the English language that promote thoughtful analysis; and, observational skills-that teaching fine art promotes not only seeing but also perceiving with context and richness.

#### Q. So today's medical students should have an active pursuit

in fields like music or art? I would like to see at Tulane required coursework in all of the noted medical humanities. We owe it to our students to have medical ethics and also humanities as an integral part of their development so they can further develop their critical thinking skills, which will then benefit all of their patients.

# Q. How should medical personnel address bias or prejudice in patients?

When people act out with racist, sexist or cruel talk or jokes in healthcare settings, they are trying to make the listener uncomfortable, to say, "These 'outliers' [to me] are not welcome." Without our being cold or cruel, one needs to say, "This type of thinking is unwelcome here." It's a hard thing to do. The first time I had a patient who made a racial slur, I said, "You don't really mean that. I don't want to hear you speak like that in my office, because you're dehumanizing somebody, and we don't do that here."

#### Q. What are the most pressing ethics issues for New Orleans?

As one walks from Tulane School of Medicine across Claiborne Avenue to University Medical Center and on to the VA, you see many people encamped in tents and sitting in wheelchairs. Most are not there by choice, and you know that these people are likely not receiving many (if any) healthcare needs. Part of the problem is people who feel vulnerable oftentimes feel locked out or shut out. We have an obligation to let them in—to care for them.

## Q. What end-of-life issues should people consider?

One of the biggest issues that society still faces is the resistance by patients to have meaningful discussions with their loved ones on their values and preferences on future endof-life care. By having these discussions, and documenting them with a living will and durable power of attorney for health care (freely available online), we can transform the quality of life for our future selves. We are allowed to say "no" to any treatment, at a time of our choosing, when competent. It helps us and our loved ones have conversations about what we want, or don't want, in the future.



David John Doukas, MD

holds the James A. Knight, MD, Chair of Humanities and Ethics in Medicine. He joined the School of Medicine in December 2017 to create and direct Tulane's Program for Medical Ethics and Human Values.

DAVID JOHN DOUKAS, MD,

# Research: Biodefense, trauma care

## New Vaccine Against Bacterial Pathogen

BY MARY ANN TRAVIS

A safe, non-infectious vaccine to protect against the "tricky" and dangerous bacterial pathogen *Burkholderia pseudomallei* is close to moving to the Good Manufacturing Practice stage and perhaps on its way to eventual Food and Drug Administration licensure.

Lisa Morici, PhD, associate professor of microbiology and immunology at Tulane School of Medicine, and other researchers are developing the vaccine with funding from the Defense Threat Reduction Agency of the U.S. Department of Defense.

Burkholderia pseudomallei occurs naturally in the soil in Southeast Asia and northern Australia. It can cause melioidosis, an elusive disease associated with spiking fevers, extreme pneumonia and difficult to treat abscesses. Melioidosis is often fatal due to misdiagnosis, and it is resistant to certain antibiotics.

Burkholderia pseudomallei has potential to be used maliciously as a weapon if it is aerosolized. In her lab, Morici is mainly

focused on a vaccine against Burkholderia pseudomallei for the biodefense community. However, she said, "Development of a vaccine for biodefense purposes could eventually be used to save lives in a public health setting."

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<image>

# Handbook for PTSD

BY CAROLYN SCOFIELD

They'll Never Be the Same: A Parent's Guide to PTSD in Youth (Central Recovery Press, 2018) is a handbook by Michael S. Scheeringa, MD, MPH, a psychiatrist and pioneering researcher in the field of posttraumatic stress disorder with more than 20 years experience.

It's important for parents to recognize the symptoms of PTSD and talk to their child's doctors about it. *They'll Never Be the Same* is an A to Z guide covering what PTSD is, how to make a good diagnosis and where to seek treatment.

"We have treatments that work," Scheeringa said. "We have evidence-based psychotherapies that work for most people and part of the book documents that when the diagnosis is missed and, even when it's recognized, it can take years before individuals seek treatment.

"Every child who goes through PTSD, their life is the 'new normal," Scheeringa said. "It's how to adjust to having your life changed because of this and how you interact with people, how you concentrate and function daily."

Scheeringa holds the Vanancio Antonio Wander Garcia IV, MD, Chair in Psychiatry in the Department of Psychiatry and Behavioral Sciences at Tulane School of Medicine. Medical student Matthew Behrens relaxes with music. He learned to play the kora, a 21-string lute-bridgeharp, while studying in West Africa.





# Art & Soul

Innovative programs built on creativity and public service help Tulane develop more well-rounded, compassionate doctors.

> BY CAROLYN SCOFIELD PHOTOGRAPHY BY CRAIG MULCAHY

What makes a good doctor? Are the only measures of achievement election to the Alpha Omega Alpha honor society or a match with one of the most prestigious residency programs? Or is it something more—as New Orleanians put it, the lagniappe—that makes Tulane doctors stand apart?

"We think we can teach people the science of medicine," says Marc J. Kahn, MD, MBA, MACP, Peterman-Prosser Professor of medicine and senior associate dean for admissions and student affairs at Tulane University School of Medicine. "What's harder to teach is the humanity. It's hard to teach empathy."

Tulane's School of Medicine offers two unique programs that allow future doctors to approach their medical studies through non-traditional tracks.

The Tulane Accelerated Physician Training Program, or TAP-TP, allows students to earn a combined bachelor's degree and medical doctorate in seven years. Students spend two years completing work toward their undergraduate degree, followed by a year working with a community organization before beginning medical school.

Creative Premedical Scholars is open to students who want to major in liberal arts at Tulane and pursue a career in medicine after graduation. Students have to maintain a GPA of 3.6 or above and complete a number of premedical course requirements by the end of their sophomore year, but they don't have to take the MCAT. If admitted, they are granted early acceptance to Tulane School of Medicine.

Kahn says both programs emphasize the art of medicine as well as a commitment to service for these future doctors.

#### SETTING A GOAL EARLY

Fourth-year medical student Erin Ricketts knew from a young age she wanted to study medicine.

"I came to Tulane because I wanted to be a doctor," Ricketts says. "I wanted to practice medicine, and I didn't necessarily want to spend a lot of time focusing on things other than medicine to start out with, especially if it would cost me a lot of money."

Ricketts spent a year working with a program that provided education and job training to at-risk youth. She wrote grants, designed and implemented educational programs for both afterschool programs and summer camps, and tutored in remedial math for middle school students.

That year of public service gave her insight she couldn't learn from a textbook.

"I learned a lot about people who don't have any access to any resources like healthy food or preventive programs like dentistry," Ricketts says. "I learned what inequality means from a ground level and what can be done and is being done to make things more equal. A lot of that I think I'll take with me as a physician."

Ricketts graduates medical school this spring and hopes to match with a program that combines internal and preventive medicine. The 23-year-old says she's excited to take the next step in her medical career and, because of TAP-TP, she'll have more time to pursue her goals.

"It will give me extra years when I'm young and healthy and can practice with patients," Rickets says. "I can also spend some time traveling or getting involved in projects that don't pay so well because I do have that extra time."

#### A'S & ACES

Joshua Pincus chose to come to Tulane because he loved the school and the city. He didn't know about TAP-TP before beginning his freshman year. Then an email came through his Tulane email account, announcing an information session for a "novel 2+1+4 bachelor degree/MD/public service program" to be held in the lounge of his residence hall.

Pincus applied, was interviewed and got accepted into the program two weeks later.

"It will save me a substantial amount of money and a year off

the typical eight-year track, all while adding an enriching life experience through the year of service," he says.

Pincus is currently in his service year and working with a nonprofit organization called A's & Aces, which focuses on teaching tennis and life skills to New Orleans public school children. Pincus works in public schools all over the parish, doing in-school programming with PE classes, as well as after-school and Saturday programming.

"The kids I get to work with every day are inspiring and very bright," Pincus says. "I am proud of them for the improvement they have made on the tennis court and in the classroom."

The lessons Pincus is learning during his year of service will follow him into medical school.

"I've had to adjust to working a full-time job for the first time in my life, which has forced me to improve my time-management skills as well as take on more responsibilities," he says.

#### **TULANIANS FOR LIFE**

Lauren Lim and her husband, Jack Hua, met in TAP-TP.

Hua grew up wanting to be a doctor, but Lim had other interests too. She liked the flexibility offered by TAP-TP. Students who begin in the program but decide not to go to medical school aren't penalized.

"We realize that we are taking in kids, some who are not even 18 years old, and we're asking them to commit to something that is rather rigorous," Kahn says. "Having said that, we haven't had many students drop out."

Lim continued on the TAP-TP track and was elected to the AOA honor society. She and Hua are both DeBakey Scholars, a program that offers Tulane medical students the opportunity to pursue and complete a research project culminating in a capstone presentation prior to graduation. They both also received Aron Merit Scholarships to help defray the cost of their medical educations. The couple matched at Tulane for their residencies.

"We're tied to Tulane for life," Lim says.

Two classes have graduated from TAP-TP, and Kahn says the majority of students have stayed in New Orleans to continue their medical careers.

"One of the motivations for TAP-TP was to develop a pilot program to show that we could do this successfully," Kahn says. "We also wanted to capitalize on community service, which the university believes in and the medical school believes in, and we wanted to attract brainpower that stays locally."

#### MUSIC AND MEDICINE

Kahn estimates nearly half of this year's first-year medical students majored in something other than science for their bachelor's degree. Kahn and Salvatore Magione, MD, of Drexel University studied the impact of the humanities on medical school students.

"We asked students at five medical schools how much time they spent reading or writing fiction, dancing, playing music or going to concerts and the theater," Kahn says. "We found the higher the humanity score, the more empathetic, the more tolerant of ambiguity, the more wisdom and the less burnout these students experience."

Burnout is something Matthew Behrens hopes to avoid when he becomes a doctor. He wants to go into emergency medicine after he graduates and believes his years studying music will help.

Behrens came to Tulane to be part of the Creative Premedical Scholars program.

"Knowing that I had an acceptance when I was 19 or 20, all of my classmates that I talk to can't even believe how good of a deal that is," Behrens says. "I got to spend the next two years in undergrad studying what I wanted and doing interesting stuff."

Behrens majored in music and spent a semester studying abroad in West Africa. The Creative Premedical Scholars program requires students to write an honors thesis, and Behrens wrote his on the modernization of music and storytelling in Dakar, Senegal.

During his time in medical school, Behrens has participated in Tulane's Music in Medicine club, which holds open mic nights.

"I feel like the more places you can derive meaning in your life from, the healthier and more well-rounded you'll be," Behrens says.

#### THE THEATRE MAJOR

Jordan Eisenberg graduates this spring with a Bachelor of Arts in theatre. Her last semester before medical school is a busy one, preparing her for what's ahead.

Eisenberg recently landed the role of Mary the Maid in the Tulane production of *The Bald Soprano*.

"I think there's a great deal of connection between theater and medicine," she says. "One of the biggest things you do in theater is learn to work with a team. You're all working together to get to the same goal. You learn to work quickly on your feet. It's a different kind of problem-solving but it's the same fundamentals."

As a Creative Premedical Scholar, Eisenberg is grateful for the time she's been able to spend pursuing her passion for theater before she turns to her other love, medicine.

"I look at our rehearsal schedule and it's six days a week and if I was preparing to either take the MCAT or in my premed classes, I don't think I would have been able to handle doing those simultaneously," she says. "It allows me to immerse myself in it without being pulled in another direction."

#### STANDING APART

Kahn believes both of these non-traditional tracks improve the quality of the education here.

"These programs are consistent with the philosophy of the medical school," he says. "We want a commitment to public service since medicine is a service profession, and we have an interest in well-rounded people who use both halves of their brain." \*

With a public service mindset, future medical student Joshua Pincus teaches tennis—and life skills—to local kids.

ВСНО



FROM TODDLERS TO TEENS

# preventing disease tor our oungest batients

As national leaders in adolescent medicine, infectious disease and nephrology, Tulane pediatricians are uncovering new ways to fight disease—from kidney birth defects to HIV—for all stages of childhood.

BY KEITH BRANNON

# The tiny cluster of cells floating in a culture dish in pediatric nephrologist Samir El-Dahr's lab is about as big as a sesame seed.

The stem cells have been incubating for about 18 days in a pool of nutrients to form the beginnings of a kidney.

El-Dahr, MD, and his research team are coaxing them to develop into an organoid, a miniature organ in vitro with the same structure and function of a kidney, but at a much smaller scale.

"It's almost the size of a pinhead right now when we grow it," says El-Dahr, chair of the Department of Pediatrics and Jane B. Aron Professor. "But it has all the elements of nephrons in it."

El-Dahr is leading a \$1.4 million study funded by the National Institutes of Health to characterize the epigenome of stem cells to find a more effective way to reprogram them to differentiate into progenitors of kidney cells. Ultimately, the goal is to figure out how to grow a fully developed kidney that's viable for transplantation.

"Building kidney organoids from human stem cells is not science fiction anymore," El-Dahr explains. "Many labs, including ours, have done it. The next challenge rests on making the stem cell–derived organoids safe and functional. Our work will advance the knowledge and technology to rebuild a kidney from stem cells by knowing more about how to reprogram them." Kidney regeneration is just one of several federally funded studies ongoing within Tulane's Department of Pediatrics. For a group dedicated to Tulane's smallest patients, it has one of the most active research portfolios within the School of Medicine. Projects span from studies of Lassa fever and Ebola survivors in West Africa to one of the largest and longestrunning studies of children in the United States born with HIV.

The department is known for three primary research areas: nephrology, infectious diseases and adolescent medicine. Pediatrics brought in more than \$5 million in research funding last fiscal year, accounting for almost 40 percent of the department's budget. That includes more than \$3.2 million in NIH-funded research and almost \$1.9 million in research grants from other sources.

"We are the leader in pediatric research in the city, in the region and in the state," El-Dahr says.

#### **BUILDING A KIDNEY**

El-Dahr's research team, which includes Zubaida Saifudeen, PhD, and Ryosuke Sato, PhD, focuses on the cellular and molecular regulation of kidney development. Birth defects are more common in the kidney and urinary tract with an estimated one out of every 500 births exhibiting some abnormality in kidney development. The condition causes between 30 to 50 percent of end-stage renal disease requiring dialysis in children.

Children with severe disease may need a kidney transplant to recover, but the average wait for an organ is three and a half years. The science to grow a full organ is still underdeveloped. Researchers can only grow organoids that resemble fetal kidneys. To overcome this, El–Dahr's lab is working to better understand the epigenetic mechanisms that dictate how stem cells differentiate into nephrons.

"The problem is that right now we are able to go from stem cells to precursor cells to progenitors and from those to mature filters (or nephrons), but it's very inefficient," he says. "We think we can make the reprogramming process much more efficient. We've identified some obstacles that we can work on that would help the organoids mature while still in a dish to become more functional."

The goal isn't to grow a full kidney in a dish but rather to make more mature organoids that can be placed onto a



scaffold to grow into a fully functional organ that could be transplanted into a patient.

El-Dahr is optimistic that such a breakthrough is not far down the horizon.

"The field is moving very, very fast."

#### ADVANCING CLINICAL TRIALS

Basic science isn't the only focus for Tulane Pediatrics. It is also putting the pieces together to grow a world-class clinical trials program at Tulane Lakeside Hospital for Women and Children. Pediatrician John Carlson, MD, and child psychiatrist Stacy Drury, MD, PhD, are collaborating with LSU's Pennington Biomedical Research Center on a \$1.4 million NIH-funded Institutional Development Awards project to build state-of-the art pediatric clinical research networks in the state.

The network is linked to the Environmental Influences on Child Health Outcomes program, which supports new pediatric clinical trials at all of Tulane's clinical sites. The research focuses on upper and lower airway diseases, obesity, neurodevelopmental disorders and prenatal, perinatal and postnatal health as well as other pediatric clinical conditions.

"My responsibility has been to expand and build our clinical research infrastructure," says Drury, vice chair of research in pediatrics.

She sees growth opportunities in current areas of excellence within the department, such as the treatment of obesity-related diseases, irritable bowel syndrome, sickle cell anemia and neonatal intensive care.

Drury is also working to connect more patients to local clinical trials via a new tablet-based registry. In collaboration with Louisiana Public Health Institute, Drury is building the registry to let children seen at Lakeside Hospital have a chance to be part of the most up-to-date clinical trials to improve their health. Health in Our Hands has been active for adult patients but starting in June 2018, HiHO Kids, the pediatric version, will be available.

"The reason I want to build our clinical trials research is because I think that allows us to provide the best and highest level of patient care," Drury says.

#### 'MELTING IN MY ARMS'

One of the pilot projects supported by the clinical research grant is a study to see if one of the oldest tricks in parenting— singing to soothe a fussy baby—can also have clinical benefits.

While there have been music therapy studies in adults and older children, there's scant research on its effect on babies. Pediatrician Meghan P. Howell, MD, is studying how music therapy affects healthy newborns as well as babies born with neonatal abstinence syndrome (NAS) from drug exposure in utero.

Children with NAS are often underweight and suffer painful withdrawal symptoms, including extreme irritability and excessive crying. The NAS project is linked to a multicenter national study based out of the Icahn School of Medicine at Mount Sinai in New York City.

"The study opens up the discussion on how we can use different psychosocial interventions to help with NAS," Howell says.

She is working to enroll 150 infants, including NAS patients from the Neonatal Intensive Care Unit (NICU), and partnering with music therapists from Loyola University's music department.

Therapists will sing a lullaby like "Twinkle, Twinkle Little Star," or perform different vocalizations based on reactive cues from the infant. They can also play recorded songs that include soothing nature sounds like ocean waves. Before, during and after the session, researchers monitor the baby's heart rate, respiratory rate, oxygen saturation and other vital signs. They are studying whether the interventions affect heart rate, sleep patterns, fussiness and the amount of medicine needed to manage withdrawal symptoms.

Howell began collecting baseline data on babies last year. On the first session, the parents were in the room with the music therapist.

"The father was holding the baby, and he made a comment to the music therapist. He said, 'I just feel like the baby is melting into my arms. I can just feel him relax," Howell says. "And so the parents have said when they've been able to be there and participate that they felt like the baby was calmer."

Howell is also tracking outcomes for Tulane's NICU graduate clinic, a multidisciplinary follow-up care program for babies who spend extended time in neonatal intensive care. The program helps families as they navigate care options once they leave the hospital.

"We link them in with subspecialists and provide some maternal mental health screenings and maternal support as the parents make that transition from the NICU," she says.

#### **PROTECTING TEENS**

Tulane pediatric research is also connected to the New Orleans community. It's home to one of the largest NIH studies aimed at finding better ways to protect highrisk teens and young adults from contracting HIV.

Section chief of adolescent medicine Sue Ellen Abdalian, MD, leads one of two major sites for Adolescent Medicine Trials Network's Comprehensive Adolescent Recruitment & Engagement Strategies (ATN-CARES) study, a community intervention in New Orleans and Los Angeles that targets high-risk youth between 14–24 years old.

New Orleans has one of the highest rates of HIV infection in the country. In 2015, youth aged 13–24 accounted for 32 percent of all new HIV diagnoses in the city, according to state health officials.

Abdalian's team is recruiting 750 at-risk HIV negative youth, particularly young men who have sex with men and transgender women. The study offers free sexually transmitted disease screenings every four months and HIV tests. Study counselors check in with participants periodically via text messaging. They also get automated texts that offer health and wellness tips. Each week, participants are asked seven text questions about illnesses and risky encounters. If answers raise a red flag, a counselor will reach out and may ask them to come in for a new test.

Participants are randomly assigned to groups that get a mix of other support such as a life coach, a peer support group or both between testing visits. They are also offered referrals for services like pre-exposure prophylaxis (PrEP), a daily HIV medicine that can significantly reduce the chances of HIV infection. The goal is to test which supports can best prevent new infections.

Should a participant become HIV positive, they will be offered immediate treatment, health care and enrolled in another study to test the impact of early antiretroviral therapy. Current HIV therapies can knock viral levels down to undetectable, but the virus hides in reservoirs in the body. These allow HIV to roar back if patients stop taking their medication.

"Our hypothesis is that if we can find adolescents who have been infected with HIV and diagnosed within three months of their infection—and we treat them with just the standard of care—that they will not establish this viral reservoir," says Jasmine Fournier, program manager for ATN-CARES. "Then maybe they could go off of medication at some point and not have a viral rebound. So it would be like a remission, or perhaps in the future with new technology they could be completely cured of HIV."

The team is also working on another text message intervention aimed at youth who have been HIV positive for a while but have suppressing the virus. Often they aren't taking their medication regularly or have other complications, Abdalian says.

"We send them messages about taking care of themselves in every way including eating well, reducing stress, taking medication and protecting themselves and others if they're sexually active," she says. "They're all sorts of different kinds of health messages. It's not just about HIV."

One of the biggest health obstacles is often youth's sense of invincibility. The idea that HIV/AIDS is something that happens "to other people" or that "it can't happen to me" is still a common refrain, Abdalian says.

It makes it particularly painful when a patient she's worked with for months to prevent infection still ends up testing positive.

"It breaks my heart every time," she says. Worse are the rare cases when they lose a patient who develops AIDS from stopping their medication. It happens at least once a year, says health services manager Leslie Kozina, RN, CCRC, health services manager for the New Orleans Adolescent Medicine Trials Unit at Tulane.

"We work with them for a long period to try to do the right thing for their own bodies. And for whatever reason, they just can't do it," she says. "There's no reason to die from HIV at this point. But if you don't take your medicine, you get sick ... eventually."

While those are the hardest parts of working in HIV prevention, there are triumphs as well. Tulane participated in the two federal studies to test the safety and efficacy of PrEP for youth between the ages of 15–22. Kozina recently counseled two participants and let them know that the data from those studies were going to the Food and Drug Administration in an effort to make PrEP the standard of care to prevent HIV in high-risk young adults.

She explained to them that they were helping move medicine forward—and protecting other teens like them across the county.

"They did something important. I was happy to tell them this and they were really happy. We were jumping up and down," Kozina says. "And, you know, the thrill of that is ... I think that's the best reward I've ever gotten in my 20 years here." \*

#### Meghan P. Howell, MD

MUSIC THERAPY

**150** Infants will be enrolled

Using lullabies to monitor how different vocalizations affect:

- heart rate
- sleep patterns
- fussiness
- medications needed to manage withdrawal system





#### Sue Ellen Abdalian, MD

HIV PREVENTION

#### 750

At-risk HIV negative youth being recruited for HIV intervention program

#### 32%

Of all new HIV diagnoses in New Orleans represent youth aged 13-24 (2015)

# National spotlight

Tulane pediatric infectious disease researchers are leaders in high-profile NIH investigations.

#### **HIV/AIDS STUDY**

Russell Van Dyke, MD, professor and chief of the section of pediatric infectious diseases, co-leads the Pediatric HIV/AIDS Cohort Study (PHACS), the largest longterm study of U.S. children born with HIV. The study follows more than 450 participants to understand the long-term effects of HIV infection and treatment in adolescents and young adults.

#### LASSA FEVER DRUGS

For more than a decade, James Robinson, MD, professor of pediatrics, has led NIHfunded projects to study how the immune system fights Lassa fever. With collaborators within Tulane and other universities, he is working on a \$12 million NIH study to test a promising drug treatment and develop a vaccine against the deadly disease endemic in parts of West Africa. A Tulane bariatric surgeon shares how the esophagus is the critical link to helping patients eat less—or more. N THE T

BY FAITH DAWSON ILLUSTRATION BY GREG MABLY The dichotomy of the surgical practice of Christopher DuCoin, MD, MPH, is defined by his two most common procedures. In morbidly obese patients, DuCoin's bariatric surgical intervention helps them eat less and thereby keeps their weight under control; in patients with esophageal or gastric conditions, surgery can actually help them eat more.

These opposing benefits are part of the challenge of DuCoin's practice: The esophagus, a seemingly "benign tube" that connects the mouth and the stomach, is more than just a passageway.

DuCoin is an assistant professor of general surgery and surgery clerkship director at Tulane University School of Medicine, as well as chief of the Minimally Invasive Gastrointestinal Surgery Section and director of the bariatric surgery program at Tulane Medical Center.

He specializes in bariatric surgery and surgery of the foregut, including minimally invasive procedures and other procedures, from hernia repair to complex esophagectomy.

Most of DuCoin's practice is made up of two types of surgeries: bariatric surgeries to promote weight loss (sleeve gastrectomy and bypass surgery); as well as esophageal and gastric surgery in three modalities: endoscopic, robotic and laparoscopic procedures, which address cancer, hernias and strictures like achalasia.

Bariatric surgery can help people with morbid obesity become more confident and active. Weight-loss surgeries have improved dramatically in the last 20 years, and patient preparation, which can take as long as six months, improves results as well.

"Bariatric surgery has become safer than having your gallbladder taken out. For elective surgery, it's one of the safest procedures we offer," DuCoin says. "A lot of that comes from better patient selection, better preoperative evaluation and workup, and treatment of diseases such as cardiac and pulmonary diseases, before the patient even goes to the operating room."

#### **"TIGER COUNTRY"**

In early December, DuCoin had eight surgeries scheduled over the course of one day.

"Surgery is something I enjoy so much that someone could say, 'Wow, what an exhausting day;' I guarantee you, I went home and was exhilarated and felt great. It's something I look forward to."

The following week, he had a six-hour esophagectomy scheduled. "I've already mentally rehearsed the case probably nothing short of 20 times. I go through the steps in my head: everything from positioning the patient, to what I think it will look like, to how I'll approach the procedure, various incisions. I go through it over and over and over."



Only so much of a surgeon's knowledge can come from textbooks or classroom instruction, he adds. Clinical education and experience contribute to the formation of a successful surgeon.

"You don't just go in with a Plan A, and this is one of the things that fascinates medical students a lot about surgeons: Rarely does Plan A actually work. Usually you have to have a Plan A, a Plan B, a Plan C, a Plan D, a Plan E. You have to have all these backup plans and scenarios," DuCoin says.

As a surgeon, DuCoin says he pursues innovative treatments and solutions; as much as half of his practice, he estimates, consists of treatments he learned while in fellowship or from his research while at Tulane.

In Frankfurt, Germany, DuCoin trained in peroral endoscopic myotomy (POEM) and brought that technology to Tulane, performing the first procedure in the region. POEM addresses patients with achalasia, a condition in which the esophagus doesn't carry food toward the stomach. Through POEM, DuCoin uses an endoscope to facilitate an incision in the distal esophagus, which loosens the muscle and restores peristalsis in the patient.

# "I can remember in training being mesmerized by a relatively simple case ... that the surgeon had so many algorithms on how to get through it."

-Dr. Christopher DuCoin, MD, MPH

Now he performs about five POEMs per month. DuCoin says he receives referrals from other hospitals in the city, as well as around the region.

The esophagus, situated near major organs and blood vessels, rests in a highrisk area of the thorax, what a trauma surgeon colleague called "tiger country."

Consider the esophagectomy for cancer patients. "A big cancer surgery involves usually a procedure on the stomach where you actually rebuild the stomach into the new esophagus," DuCoin says. "You're operating on the chest to remove the [cancerous] esophagus; and you actually operate on the neck, where you hook the stomach up to the bottom of the oropharyngeal or upper esophagus."

#### INFLUENTIAL MENTORS

DuCoin graduated from Tulane in 2003 with a bachelor's degree in neuroscience and a master's degree in epidemiology from the School of Public Health and Tropical Medicine in 2005.

After he graduated from medical school and completed a fellowship in minimally invasive surgery, he was drawn back to New Orleans, he says, by the opportunity to make a difference in a region that needed more surgeons.

"Because of my public health degree, [I thought,] where could I make the biggest impact with the skill set that I possess? It was New Orleans," he says. "Coming back to Tulane was just the cherry on top; I was excited that the job was at Tulane."

The Tulane practice has since grown to two surgeons since his arrival, with plans to add two more at University Medical Center and Southeast Louisiana Veterans Affairs Health Care System. The section is also planning for a minimally invasive and bariatric surgery fellowship for August.

DuCoin partially credits his career to serendipity—the good fortune of being mentored by people in the field.

"I had great mentors, even as a medical student, and these consisted of physicians who are now prominent national figures in esophageal and gastric surgery and bariatric surgery."

Last year, DuCoin passed along some of his surgical knowledge during a mission trip to León, Nicaragua. He and a group from New Orleans Medical Mission Services (NOMMS) traveled to Central America, where they brought muchneeded surgical equipment and supplies. They also taught surgeons in the region new and innovative procedures.

DuCoin performed a range of open general-surgery procedures such as thyroidectomies and liver surgeries, teaching the local surgical residents and medical students. However, when DuCoin performed a laparoscopic appendectomy, a standard procedure in the United States, 19 Nicaraguan surgeons traveled across the country to observe.

NOMMS, a group founded in 2001 by New Orleans physicians, brings medical and surgical supplies that are not always available in the countries they visit.

"It's a challenge operating in such a limited setting and it really tests your skill set. Yet, it's amazing to see how we all operate so alike while training and practicing surgery in different parts of the world," DuCoin says.

#### THE NEXT GENERATION

As clerkship director, DuCoin sees thirdand fourth-year medical students in the surgery rotation.

"I think the students have a good experience, they get good mentorship here, they enjoy surgery," he says. "I enjoy the mentorship and teaching. I can remember in training being mesmerized by a relatively simple case ... that the surgeon had so many algorithms on how to get through it. That's why I'm here; my role as a teacher is to help teach the surgeons coming behind me."

Medical students are prone to "aha moments," when the power of surgery comes across for them.

"They see the effect of surgery—that's the aha moment; it's not the complexity in the OR. What was killing the patient the cancer—is gone; what was killing the patient—their morbid obesity—is resolving. ... The postoperative effects of the procedure is the hook," for many students.

DuCoin says he himself still has aha moments—particularly when a surgery goes exactly, precisely as planned. Those times are rare, and the field evolves so rapidly that, he predicted, in a decade surgeons would have a whole new repertoire of procedures to choose from.

The thought excites him, he says. "It's like a painter getting to paint a new painting. I'd hate to have to paint the same painting every day," he says. "I love the idea that we'll be changing the canvas." \*

# ROUNDS



## Tribute Philip J. Kadowitz, PhD

It is with sadness that I report that Philip J. Kadowitz, a dedicated scientist, prolific writer and a valued friend and colleague, died on July 18, 2017. Phil had been on the faculty of the Department of Pharmacology at Tulane University for 36 years.

He graduated with a degree in pharmacy from Rutgers University in 1963 and received his PhD in 1968 from Marquette University. Phil completed his postdoctoral training at the universities of Manitoba and lowa from 1968–1971. He started at the Tulane School of Medicine on the pharmacology faculty in 1971 as an assistant professor and rose to the rank of full professor in 1979.

Phil was active in teaching, service and research until his recent illness. Phil had adjunct appointments and research collaborations in the departments of surgery, anesthesiology and physiology as well as with investigators throughout the university, LSUHSC and Ochsner Hospital.

He was an extremely productive scientist with many highly cited articles, and he is ranked among the top 1 percent of published researchers in the world. Phil trained 26 graduate students and over 15 postdoctoral fellows.

BY DAVID W. BUSIJA, PHD Chair of the Department of Pharmacology Tulane School of Medicine

#### Letter from Dean Lee Hamm



#### SCIENCE AND THE ART OF MEDICINE

With the cloning of the human genome and development of new drugs targeted to specific genetic features of an individual patient to be used to treat disease, the progress in the science of medicine has never been more obvious. Accordingly, in this issue of *TulaneMed*, we discuss groundbreaking science being done at Tulane focused on the embryogenesis of the kidney. However, in this issue we also address that part of medicine directed more towards the right side of the brain, namely the role of the arts.

One program unique to Tulane is the Creative Scholars Program, which grants early acceptance to medical school to academically talented premedical undergraduates who major in the humanities or fine arts prior to coming to medical school. This program aims to train a more humanistic physician. Researchers at the School of Medicine have recently shown a correlation between medical student exposure to the arts and positive physician traits such as empathy, tolerance of ambiguity, and wisdom, while also showing less burnout.

The School of Medicine wants to train and attract well-rounded physicians who understand both the science and art of medicine, which have often been considered separate in modern times. The great physician, Sir William Osler, though, best defined the art and science of medicine as "twin berries on one stem." At the School of Medicine, we embrace this sentiment.

DZec Hamme AD



# CLASS NOTES

#### 1940s

Robert M. Shepard Jr., MD (M '41) is 98 years old!

#### 1950s

George W. Beddingfield, MD (M '56, R '61) is writing a new novel, *Opioid*, which will be published in 2018. Robert H. Brumfield Jr., MD (A&S '55, M '58, R '62) retired for the fifth time from the practice of orthopedic surgery and as professor of orthopedic surgery. He still exercises (strength, balance, aerobic) two and a half hours, six times per week. Max D. Cooper, MD (M '57, R '60) The Japan Prize Foundation has announced that Dr. Cooper is a laureate of the 2018 Japan Prize. Cooper is being awarded the prize in the category "Medical Science and Medicinal Science" for the discovery of the dual nature of adaptive immunity, which identified the cellular building blocks of the immune system as we understand it today.

Key D. McMurrain Jr., MD (A&S '55, M '58) is living on 278 acres about 25 miles from downtown Atlanta.

Lewis A. Raney, MD (M '58) has retired after 50 years of ENT and head and neck surgery. Ira D. Rothfeld, MD (A&S '53, M '56) is

actively practicing in his 52nd year since opening his office. He is an otolaryngology consultant for the United Nations and the New York City Police Department. He remains an assistant clinical professor at the Mount

#### Sinai Medical School. Joel B. Steinberg, MD (A&S '56, M '59, R '62, F '63) retired from University of Texas Southwestern Medical School and was named professor emeritus in the

professor emeritus in the Department of Pediatrics. He continues to teach.

#### **1960s** Marshall A. Burns, MD

#### (M '61, R '63, F '65)

was recently appointed to Philips Healthcare Panel for Computerized EKG (formerly Hewlett Packard), the first cardiologist in 12 years to be selected. He has 25 years of experience in computerized EKG, mostly with Marquette/ GE.

#### W. Howard Kisner Jr., MD (A&S '61, M '65)

is enjoying retirement at age 78. He enjoys golf, elk hunting, big game fishing and getting CMEs.

#### James Patrick O'Neal, MD (M '68) was

appointed commissioner and state health officer for the Georgia Department of Public Health on July 7, 2017. Russell W. Steele. MD (M '67) received the 2017 Outstanding Teaching award from the University of Queensland Ochsner Clinical School and was a visiting professor for 2017 at the University of Queensland School of Medicine in Brisbane, Australia.

#### **1970s**

James H. Diaz Sr., MD, DrPH (A&S '71, M '75, PHTM '90, '95, '01, R '95) continues as the sole author of the six-chapter section on

 ectoparasitic diseases
in Mandell, Douglas and Bennett's Principles and Practice of Infectious
Diseases with a ninth edition in press.
Thomas S. Guillot
Jr., MD's (M '79, R '87, R '89) daughter
is currently doing a pediatrics/ENT fellowship at Children's Hospital in Washington, D.C.

#### Gordon L. Love, MD (M '78, R '83) is the vice chair of clinical pathology at Louisiana State University School of Medicine and laboratory director of the University Medical Center laboratory in New Orleans. Michael E. Maffett,

**MD (M '72)** is retired and spends half his time at Lake Burton, Georgia.

#### P. Michael McFadden, MD (M '74, R '79)

was recently named a Lifetime Achiever by Marguis Who's Who, the world's premier publisher of biographical profiles. An accomplished listee, McFadden celebrates many years' experience in his professional network, and has been noted for achievements, leadership qualities, and the credentials and successes he has accrued in his field. McFadden is a professor of cardiothoracic surgery and the surgical director of lung transplantation at the Keck School of Medicine at the University of Southern California. Gwenesta B. Melton. MD (M'79) continues to teach rheumatology, including to medical students at Campbell

University School of Osteopathic Medicine, fellows at Duke University Medical Center, and residents in the Fayetteville and Lumberton, North Carolina, hospital systems. **Robert H. Miller, MD** (A&S '69, M '73, **B '96)** retired on Dec. 31, 2017, from his position as executive

#### Otolaryngology. James A. Morock Sr.,

American Board of

director of the

#### MD (M '71, I '72, R '75), a nephrologist in Alexandria, Louisiana, recently received the ACP 2018 JAM Laureate Award. Morock was certified by the American Board of Internal Medicine

in 1975 (internal medicine) and in 1980 (nephrology). He became a member of the American College of Physicians in 1976 (cont.)

#### TULANE DESIGNATIONS

A&S: College of Arts & Sciences B: A. B. Freeman School of Business E: School of Engineering F: Fellowship G: Graduate School I: Internship M: School of Medicine NC: Newcomb College PHTM: School of Public Health and Tropical Medicine R: Residency SLA: School of Liberal Arts SSE: School of Science and Engineering



#### TMAA OUTSTANDING ALUMNUS: E. WESLEY ELY JR., MD, MPH

E. (WES) WESLEY ELY JR., MD, MPH (A&S '85, M '89, PHTM '89) is the 2018 recipient of the Tulane Medical Alumni Association's Outstanding Alumnus Award, the highest award given by the association.

Ely is a subspecialist in pulmonary and critical care medicine and a professor of medicine in the Division of Allergy, Pulmonary, and Critical Care Medicine at Vanderbilt University School of Medicine. He conducts patient-oriented, health-services research. He is also a practicing intensivist with a focus on geriatric ICU care, and the associate director for research for the VA Tennessee Valley Geriatric Research and Education Clinical Center.

Ely's research has focused on improving the care and outcomes of critically ill patients with ICU-acquired brain disease (manifested acutely as delirium and chronically as long-term cognitive impairment). He has built the ICU **Delirium and Cognitive Impairment Study** Group, amassing several thousand patients into cohort studies and randomized trials that were used to build the methodology for ICU-acquired brain-disease research. His team developed the primary tool (CAM-ICU, translated into 30-plus languages) by which delirium and health-related quality-of-life outcomes are measured in ICU-based trials and clinically at the bedside in ICUs worldwide. Ely has been continuously federally funded (National Institute on Aging and/or Veterans Affairs) for 15 years. He has over 300 peer-reviewed publications and over 50 published book chapters and editorials.

Ely received the TMAA award at the Tulane Alumni Association gala at The National World War II Museum on March 24. and was elected to Fellowship in 1996. He was in private practice in New Orleans East for 28 years, 23 years with the Internal Medicine Group, and four and a half years in solo practice. Post-Katrina (2005), he and his wife, Cheryl, moved back to Alexandria.

Paul A. Pradel, MD (M '75) and his wife, Jean, retired from the practice of internal medicine and hospital medicine in Fort Smith, Arkansas. They are moving to Lake Conroe in Montgomery County, Texas.

#### 1980s

Harrison C. Putman

III, MD (M '75, I '76,

R'80) is in his second

term on the board of

of Facial Plastic and

the American Academy

Reconstructive Surgery.

He is an associate clinical

professor at Southern

School of Medicine, as

a facial plastic surgery

Ronald H. Wender,

**MD (M '73)** is in his

41st year as chairman

of anesthesiology at

Cedars-Sinai Medical

It is also his 41st

anesthesiology.

year as chair of the

Center in Los Angeles.

academic programs in

Illinois University

instructor.

#### Andrew J. Auerbach, MD (M '81) has

joined the faculty of the Department of Emergency Medicine at UTHealth-San Antonio. Martha B. Boone, MD (R '87, R '91) published a novel, set in 1982, The *Big Free*, which describes the medical humor and drama in the life of one of the first women surgeons in the busiest trauma surgery program in New Orleans. Boone is a private practice urologist in an Atlanta suburb. She obtained her surgical training at Charity Hospital in New

of the first 100 women urologists in the world. The Big Free is her first published work of fiction and combines medical humor and historical fiction in an urban hospital. Warren R. Bourgeois III, MD's (E '78, M '82, R '87) son Jason (L'13) married Elvira Chiccarelli (M '16) on Oct. 3. His daughter Camille is a member of Tulane School of Medicine Class of 2018. **Madelaine Turegano** Feldman, MD (NC '77, M '82, F '88) was selected by CityBusiness as one of the 2017 top

Orleans. She was one

50 women in New Orleans. She also spoke to the World Health Organization in Geneva as the chair of the Alliance for Safe Biologic Medicines.

Wayne A. Foran, MD (M '87) is SCPMG partner-anesthesiologist at Kaiser-Permanente Downey.

#### Patrice T. Gaspard, MD (NC '76, M '80)

is retired from 20 years of pediatrics practice with Kaiser Permanente. She is spending time between Atlanta and Destin, Florida. **Steven C. Littlewood,** 

**MD (M '84, R '89)** is in (cont.)



#### Gifts matter

# Tulane alumna gives back to annual White Coat Ceremony

#### White Coat Ceremony



BY MARY SPARACELLO



Dr. Pamela Okada (M '90), a pediatric emergency medicine physician, joins her daughter, Lauren Okada Eng (M '21), a first-year medical student, at the Class of 2021 White Coat Ceremony at Tulane School of Medicine. Twenty-seven years ago, **Dr. Pamela Okada, MD** (M '90) arrived with her husband, Mark, at Tulane University School of Medicine as a 23-year-old Californian who had just gotten married 10 days earlier.

"We knew we were in the right place at the right time," said Okada, who is a pediatric emergency medicine physician. She had chosen to attend Tulane because of its "family feel," with encouraging professors opening their doors to students and supportive classmates helping each other succeed.

And now, Pamela and Mark Okada have generously supported one of the most extraordinary experiences that Tulane provides for incoming medical students—the White Coat Ceremony.

"Tulane gave me the chance to be a doctor," said Okada. "So we feel that it's our job to provide those opportunities for other students to thrive."

At the White Coat Ceremony, incoming medical students receive their first doctor's white coats in a tradition-filled event attended by close family members, friends, faculty and alumni. Marc J. Kahn, MD, MBA,

MACP, Peterman-Prosser Professor of Medicine and senior associate dean of admissions and student affairs, helps run the annual ceremony. He said, "The White Coat Ceremony is a wonderful way to introduce brand new students to the profession and the Tulane School of Medicine community." In addition to receiving the iconic short white coats medical students wear to see patients, they also receive their first stethoscope, a gift from the Tulane Medical Alumni Association.

In fall 2017, Okada had the remarkable experience of watching her daughter, Lauren Okada Eng, a firstyear medical student, cross the stage at the White Coat Ceremony.

"It was amazing to see her so happy and surrounded by a group of amazing, bright, talented classmates and future colleagues," said Okada. "We know that she is in the best place, my alma mater. It was very touching."

#### Every year since the first White Coat Ceremony at Tulane in 1995, organizers have made it an event to remember. This past year, faculty and alumni were encouraged to provide a small donation to support the event. With the donation came the opportunity to write a short note that was anonymously placed in the pocket of the white coat of an unsuspecting new medical student. This personal touch added to the emotion of the event.

The School of Medicine continues to encourage alumni, faculty and families to support the White Coat Ceremony financially to help increase the impact of one of the most special events of the medical school year.

# "Tulane gave me the chance to be a doctor."

-Dr. Pamela Okada, M'90

general otolaryngology with a large group practice. He likes to bicycle—and tries to keep up with three children: a daughter in college in nearby Sonoma, a son in geomorphology/ engineering in the Maryland/D.C. area, and a daughter, Alden Littlewood, MD, who is a PG2 resident in psychiatry at LSU-New Orleans.

#### Marc J. Salzman, MD (M'84) was named

by the innovators at Aesthetics Biomedical, a leading aesthetics device development and innovation corporation, to the company's KOIN: Knowledge **Opinion Innovation** Network. Salzman is a well-respected, boardcertified plastic surgeon with a successful practice in Louisville, Kentucky. He has been using Aesthetics Biomedical's leading product, The Vivace, microneedling with radio frequency, with remarkable results. Aesthetics Biomedical launched The Vivace, a best-in-class device, in early 2016.

#### **Oliver Sartor, MD** (M '82, R '86) is

still enjoying New Orleans! In January 2008, Sartor joined Tulane University as the C. E. and Bernadine Laborde Professor of Cancer Research in the departments of Medicine and Urology. In July 2010, Sartor was named medical director of the Tulane Cancer Center

#### 1990s Karen B. DeSalvo,

MD (M '92, PHTM '92, R '94, '96), who served as National Coordinator for Health Information Technology (ONC) from 2014 to 2016 and U.S. Assistant Secretary for Health from 2014 to 2017, will join the faculty at the Dell Medical School at the University of Texas-Austin. A longtime leader in public health and information technology, DeSalvo was commissioner of health for the city of New Orleans (she worked to help wire the city's healthcare infrastructure following Hurricane Katrina), before being appointed by President Obama to lead ONC—and, later, to coordinate the U.S. Department of Health and Human Services' response to the 2014 Ebola outbreak.

#### Scott A. Ely, MD (M '91, PHTM '91)

is a professor in hematopathology at Cornell for 21 years. He is now the director of pathology for Bristol-Myers.

#### Susan F. Ely, MD

(M '91, PHTM '91) is senior medical examiner (forensic pathologist) for the New York City Office of Chief Medical Examiner, and fellowship program director. Marc A. Futernick, MD (M '96) is

practicing emergency medicine at California Hospital Medical Center, a trauma center in downtown Los Angeles. He is a regional director and chairman

of the board for VEP Healthcare. He recently celebrated 22 years of marriage with **Christy** (L'95). His son Ben will graduate from UCLA School of Law this spring, and his son Matt is a junior in high school. William U. Heard, MD (M '92, PHTM '92) accepted a position in 2016 as associate professor, Division of Hospital Medicine, The

University of North Carolina-Chapel Hill School of Medicine. Matt M. Longjohn, MD, MPH (M '99, PHTM '03)—who was identified in 2016 by the Obama White House as one of the top 100 innovators in health care in the U.S.—has now stepped down as vice president and national health officer at the YMCA of the USA, where he was the first physician executive in YMCA's 173-year history. Longjohn recently launched a campaign for a seat in the U.S. House to represent Michigan's 6th Congressional District. Mark A. Wren, MD (M '91, PHTM '91) was named in 2017 as president of the Texas Physical Medicine and Rehabilitation Society.

#### 2000s

Jennifer A. Baima, MD (M 'o2) was codirector of the cancer rehab precourse for the American Academy of Physical Medicine and Rehabilitation in 2017.

#### 2010s

Kayleen A. Bailey, MD, MPH (M '13, PHTM '13) was in residency at Children's Hospital, Montefiore, from 2013-15. She is married to Erik B. Romanelli, MD,

MPH (M '13, PHTM '13) who completed an anesthesia residency at Montefiore Medical Center, Bronx, New York, in 2017. Romanelli is now in an obstetric anesthesia fellowship in Columbia-New York Presbyterian. They had their first baby, Tula (named after Tulane) Maralina, on Jan. 21,

#### Ryuk J. Byun, MD

2016

(M '13) is employed as an Investment banker (healthcare mergers and acquisitions) at Lazard 2015–17, and received his business degree from the University of Chicago Booth School of Business in 2015.

Holley Green Davis, MD (M '13) completed her internal medicine residency at St. Louis University Hospital in 2016. She is now a hospitalist at St. Mary's Hospital in St. Louis. Joshua M. Evron, MD (M '13) completed an internal medicine residency at the University of Michigan in Ann Arbor in 2016. He is now a hospitalist at the University of Michigan. Karin Soby Gilkison,

### MD (M '10, PHTM

'10) moved back to the Gulf Coast as a gastrointestinal doctor at Keesler Air Force Base. She just welcomed Bennett Cole Gilkison as a little brother to

#### 2-year-old Beckham Ford Gilkison. Justin F. Hayes, MD

(SSE '07, M '13) is completing a fellowship at the University of Alabama at Birmingham in infectious diseases this June. He has accepted a faculty appointment at the University of Arizona College of Medicine and, in addition, will be the medical director of antimicrobial stewardship at Banner University Medical Center-Tucson.



Graduates of Years Ending in 4 or 9

REUNIONS SPRING 2019 If your class year ends in 4 or 9, is coming up in Classes of '59, '64, '69, '74, '79, '84, '89, '94, '99, '04, '09, '14

Plan your trip to New Orleans to celebrate with your classmates

Hayes, senior director of Medical chayes@tulane.edu for information

Lauren D. Hayward, MD (M '13) completed a pediatric residency at UCSF in San Francisco in 2016. She is now a pediatrician in private practice in Flagstaff, Arizona.

#### Lee M. Jablow, MD (M'13) completed residency and chief residency in emergency medicine at Cooper Hospital in Camden, New Jersey, in 2016. He is now assistant director, Department of Emergency Medicine, at Chestnut Hill Hospital, Philadelphia.

Marissa N. Karpoff, MD (M '13) completed an internal medicine residency at Mount Sinai in 2016. She is now a hospitalist at Memorial Sloan Kettering Cancer Center.

#### Nichole Griffin Kinard, MD (SSE '06,

M '07, M '13, R '15) completed a family medicine residency at Resurrection Health in Memphis, Tennessee, in 2016. She is now on staff at Resurrection Health and ER physician in Memphis.

Brittany N. Kishel, MD (M '13) is a

hospitalist in Portland, Oregon, working for Legacy Health.

#### Andrea C. Knievel, MD (M '08, M '13)

is a battalion surgeon/ general medical officer, in Fairbanks, Alaska.

#### Michael J. Marino, MD (M '11, R '14)

recently started a new position as senior associate consultant at the Mayo Clinic in Phoenix in the Department of Otorhinolaryngology and the Division of Rhinology

and Endoscopic Skull Base Surgery.

#### Iris S. Nagamine, MD (M '09, M '13, PHTM '13) is a hospitalist with Dignity Health, Las Vegas, since 2016.

Marc A. Neeland, MD (SSE '07, SSE '08, M '13) is practicing

internal medicine as a hospitalist for Piedmont Healthcare in Atlanta from 2016-present. **David J. Newton, MD** (M '13) completed his family medicine residency 2016 and is now practicing at Madison Valley Medical Center.

#### Adam M. Rodman, MD (M '13, PHTM '13)

completed his internal medicine residency at Oregon Health and Science University in Portland, Oregon, in 2016. He then completed a fellowship in global health at Beth Israel Deaconess Medical Center in Boston in 2017 (though he was in Botswana and not Boston).

#### Philip G. Schmalz,

MD (M '13) is currently a cerebrovascular/ neuroendovascular fellow at Beth Israel Deaconess Medical Center, Harvard Medical School. James E. Siegler III,

#### **MD (M '13)** is an instructor/research fellow at the University

of Pennsylvania. Forrest B. Swann,

### MD (E '06, M '07,

M '13, R '15) completed an ophthalmology residency in 2017 and is now employed as a cornea and refractive specialist at the Eye Institute of West Florida in Tampa, Florida.

#### Benjamin S. Telsey, MD, MPH (M '13, PHTM '13) completed a pediatrics residency at Madigan Army Medical Center in Tacoma, Washington, in 2016. He is currently the lead pediatrician at Brian Allgood Army Community Hospital at Yongsan Garrison in Seoul, South Korea, and

#### planning to leave in July 2018. Christopher P. Terndrup, MD (SLA '08, M '13) completed an internal medicine/ urban health primary care residency at Johns Hopkins Hospital in Baltimore, Maryland, in 2016. He is an assistant professor of medicine, general internal

medicine and geriatrics, at Oregon Health and Science University. Jennifer C.

#### Winchester, MD (M '13) completed a

family medicine residency at Utah Healthcare Institute in Salt Lake City. She works in adult primary care for Kaiser Permanente in Springfield, Virginia.

#### In Memoriam

- '37 John C. Suares Sr., MD
- '40 Marlin B. Hoge, MD
- **'41** J. Harvey Johnston Jr., MD Morris Schapiro, MD
- '44 Rex J. Bunker, MD Ernest W. Carrigan Jr., MD William J. Langlois Jr., MD Felix A. Siegman, MD
- **'45** J. Brooks Brown, MD Frank M. Covert III, MD
- '46 Fariss D. Kimbell Jr., MD
- **'47** Aynaud M. Hebert, MD Erwin Hecker, MD
- **'48** J. Carter Denton, MD James E. Kraft, MD
- '49 Asaichi S. Hieshima, MD
- **'50** Charles W. Brice Jr., MD David Katz, MD
- **'51** Raymond A. Carlson, MD John A. Fisher, MD Ronald B. Mitchell, MD Julian H. Sims, MD Ernest C. Williams, MD
- **'52** Jesse Q. Sewell III, MD Jack E. Thielen, MD
- **'53** Robert F. Carter Jr., MD Cornelius G. Whitley, MD
- **'54** William T. Mitchell Jr., MD Charles B. Wilson, MD
- **'55** Haskell H. Bass Jr., MD William F. Osborn, MD Terry T. Rees Sr., MD
- **'56** Dana G. King Jr., MD George G. Sterne, MD
- '57 David L. Harden, MD Tom Louis III, MD Robert C. MacKay, MD John W. Moore, MD Wiley H. Jenkins, MD

- '58 James M. McCready, MD C. Norman Owensby, MD Jerry C. Pickrel, MD Ray M. Smith, MD Leonard B. Wamnes Jr., MD
- **'59** Ralph W. Lazzara, MD Charles F. Smith, Jr., MD William P. Stallworth, MD
- **'60** John M. McCuskey Jr., MD Martin P. Rappaport, MD
- **'61** Emmanuel P. Rivas III, MD William P. Weidanz, PhD
- '62 Kenneth B. Pearce, MD
- '63 Esly M. Barreras Jr., MD M. Sue Ivens, PhD Joseph D. Villard Jr., MD
- **'64** James E. Mathews, MD Kermit L. Roux Jr., MD
- **'65** Jim C. Kizziar, MD Donald R. Rankin, MD
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- '69 John B. Bass Jr., MD
- '72 Caleb W. Herndon, MD
- '73 G. Adrian Dean, MD
- **'74** Kamil E. Bahou, MD
- **'75** Robert S. Easton Jr., MD
- '78 John E. Flemming Jr., MD
- '83 Marissa Lopiano Teysson, MD
- **'98** Lloyd S. Jolibois Jr., PhD Jacques S. Whitecloud, MD

# STANDOUTS: A career devoted to lifesaving vaccines



JOHN CLEMENTS, PhD by katy reckdahl

Professor John Clements, PhD, is retiring from Tulane School of Medicine in June, after chairing the Department of Microbiology and Immunology since 1999. Over the past 35 years on the Tulane faculty, he has helped to secure \$40 million in grants, including one that paid for five new "ballroom labs" he designed in the J. Bennett Johnston building. After Hurricane Katrina, Clements played an instrumental role leading a team into New Orleans that rescued decades worth of research from Tulane laboratories.

#### Q. As a child growing up in Fort Worth, Texas, were you a budding scientist?

Truth be told, by fifth grade, I had decided I wanted to be a Marine after watching John Wayne in the movie *Sands of Iwo Jima*. But I was always interested in science. In ninth grade, I built a Van de Graaff generator, creating a highvoltage current that makes your hair stand on end. In 10th grade, I determined the charge of an electron by replicating the Millikan oil drop experiment. Q. You attended college in Arlington, near Fort Worth. First, I served in Vietnam. I did six years of active duty in the Marines. When I got home, I enrolled in the University of Texas–Arlington. After I graduated, I got a technician job in a microbiology lab that was trying to come up with a vaccine for cholera. That was in 1975 and I've been working on vaccines ever since.

## Q. How did you end up at Tulane?

I got my first faculty appointment at the University of Rochester in Rochester, New York. It was way too cold for a boy from Texas. So I started looking around for another job. Tulane has a great reputation. It did even back in 1982, back in the old, old days. Also, my mama is from Iowa, Louisiana, not far from DeRidder. So I knew a little bit about Louisiana. And I love New Orleans. It was a good fit for me.

#### Q. What should we know about the vaccines that you worked on?

What we really work on are things called adjuvants, things you add to vaccines to make them work better. Just think Tony Chachere's—it makes everything you put it on a little bit better. Well, that's what adjuvants do, they amplify the body's immune response to a vaccine's antigens. Q. The adjuvants you work on can improve access to vaccines by helping to reduce the amount of antigens needed in vaccines or allowing them to be delivered differently? Yes. Our primary focus is vaccines against diarrheal diseases for children in developing countries. These diseases do not affect children in developed countries, so they are not attractive targets for large pharmaceutical companies. Along with numerous other organizations, we explore novel ways to develop low-cost, safe, effective vaccines for these children.

## Q: I'm told you enjoy mentoring.

Junior investigators are always asking questions that I would not have thought to ask. The answers allowed us to move forward in directions that I would not have moved on my own. Betzi Norton and Jacob Bitoun in our department will continue working on the same things that I'm working on now, in their own way. It's a natural progression. And because of them, my science won't end when I retire. That's a great consolation to me.

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