

the Bulletin

Spring 2019
**Sidney Kimmel
Medical College**



Special Edition

Reflecting on a Decade

Mark L. Tykocinski, MD, on celebrating his 10th year at Jefferson



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Cover: Illustration commemorating a decade of
Mark L. Tykocinski, MD, at Jefferson

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Contributing Photographers
David Brownstein
Emily Butkus
Ed Cunicelli
Karen Kirchoff
Joey McDougall

Videographer
Emily Butkus

Jefferson.edu/Bulletin
Ali Lubin
Heather Mahon

Communications Project Coordinator
Alison Pajonk

Address correspondence to:
Editor, Alumni Bulletin
Office of Institutional Advancement
Thomas Jefferson University
125 S. 9th St., Suite 700
Philadelphia, PA 19107-4216
215-955-7751
editor@jefferson.edu
Fax: 215-503-5084

Jefferson.edu/Alumni
Alumni Relations: 215-955-7750

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Dean's Column



My decade at Jefferson has been quite a ride.

As the 24th dean of a medical college with a two-century history, two things differentiated me out of the gate: I was an outsider and a physician-scientist.

Jefferson Medical College deans of the 19th century typically came from the ranks of the college's department chairs, and later in the century many were also Jefferson graduates. It was well into the 20th century that the first thoroughly non-Jeffersonians entered the picture—Deans William Kellow (1967–81) and Leah Lowenstein (1982–83)—making me, by our university archivist's count, just the third fully outsider dean in the medical college's history. I was also a bench scientist—a card-carrying molecular immunologist designing fusion protein pharmaceuticals for cancer and autoimmunity, sporting a biotech start-up. (In fact, with an active research lab in Jefferson Alumni Hall, it looks like I'm the first dean to practice at the bench while doing the dean's business.) Traditionally, our medical college deans had distinguished themselves as master clinicians and educators in the Osler mold. Two identifiable researchers were the anatomist and thoracic surgeon Dean

George Bennett (1950–58), and Dean Lowenstein, an investigator of kidney diseases.

Some Jefferson deans back then were outright anti-Flexnerian to the core. Dr. Virgil Holland Moon, incoming Pathology chair in 1927, recalled Dean Ross Patterson's telling admonition: "You will not be expected to do research work; in fact, I may say you will be expected NOT to do research work. A dog cannot chase two rabbits at the same time: Should he try to do this, both rabbits will escape. A man cannot do good teaching and carry on successful research simultaneously." Fair to say, the medical college of today sees it differently, doggedly encouraging our students to chase more than one rabbit.

Entering Jefferson in December 2008, I took stock, armed with an outsider's perspective. The first order of business was to reassure everyone of our deep respect for Jefferson's two-century legacy. But legacy would have to be coupled with transformation. There was extraordinary talent everywhere one looked on campus—SKMC deans, faculty, staff—yet there was plenty of work to be done under the hood on the administrative chassis if we were to ramp up growth and press for distinction. We rolled up our sleeves in the dean's office, introducing

systematic, six-year-cycle, departmental reviews; restructuring chair contracting; centralizing grants management; clarifying research productivity expectations; rolling out an incentive-based clinical faculty compensation plan; and much, much more. Bob Barchi—the forceful, clear-thinking president who transformed our Center City campus and recruited me from Penn—proved a masterful enabler.

As for the research enterprise, it was a tale of two cities. We had an array of outstanding, world-class scientists, yet we were experiencing unimpressive extramural funding. The root cause: a vanishingly small programmatic grant portfolio at a time when NIH was shifting dollars to team science. That prompted our multiyear journey to develop programmatic research themes—tightly defined hot topics where we could credibly build top-five national strengths. That strategy is already bearing fruit in areas ranging from small RNA discovery to mitochondrial pathogenesis; from G-protein-coupled receptor (GPCR) therapeutics to immunity to emerging infections; from synaptogenesis to stem cell therapeutics in the nervous system.

Wearing my other hat—president of Jefferson University Physicians (JUP)—I focused on clinical growth by building the practice and expanding distinctive, high-end clinical services. Our fearless Ogunkeye-plus-Keane-plus-Tykocinski JUP leadership trio garnered tangible results as we partnered with David McQuaid on the hospital side to materially advance Jefferson's clinical enterprise. Together we established the first formal clinical service line structure and soon started putting notches in the "win" column. Additionally, over a five-year period, we grew JUP from around 470 to over 650 faculty. No doubt this gave us heft for the mergers to come.

When Dick Gozon assumed the interim president mantle, he brought a daring willingness to think out of the box strategically. Then entered visionary Steve Klasko—boldness on steroids. Now, six years later, we are one of the fastest-growing academic medical centers in the country. A dynamic, new Jefferson Health has emerged, securing Jefferson's future and identifying Jefferson with innovation. Legacy plus transformation has been realized. Adding to the power and

prestige of our growth was the naming gift from a true American success story and Philadelphia champion, Sidney Kimmel. At the time, it was the fifth-largest gift of its kind.

As a new Jefferson unfurled, my role transformed. I stepped away from JUP, becoming instead the university's first-ever provost. This provost/dean model paved the way for bridging administrative chasms that had long siloed the medical college away from the others; research, faculty, and student and global affairs could all now be effectively coordinated campuswide. And then, in July 2018, we made a historic pivot as we neared our bicentennial—the merger with Philadelphia University. “Health Is All We Do” instantly gave way to “Redefining Humanly Possible.” And now, as a provost overseeing a much broader spectrum of professions across a multicampus university, I attend student fashion runway shows and architecture and industrial design competitions!

Within the medical college, this past decade has been defined by a handful of passion projects (see timeline on page 42). At the top of list: elevating co-curriculum as a key element of medical education and a signature SKMC archetype. The College-within-the-College led the way, with co-curricular tracks directed to global/population health and clinical translational research, and later, design. Under the subsequent banner of Medicine+, the overarching concept has been to nurture within our medical students crosscutting ways of thinking. A series of programs have unfolded: Medicine + Design (design thinking), Medicine + Humanities (reflective thinking), Medicine + Data Sciences (computational thinking), Medicine + Policy (relational thinking), and more to come.

Each Medicine+ co-curricular pathway is powered by unique partnerships. Take Medicine + Design. MEDstudio@JEFF was the original spark that spawned a web of links to the community of creatives in Philadelphia and beyond, by example, weaving both SKMC and then Philadelphia University into the MIT-led, Department of Defense-funded Advanced Functional Fabrics of America consortium, where we lead smart fabric applications for health. After prompting an assured SKMC admission linkage with

Princeton University for undergraduates immersed in design thinking, the Medicine + Design co-curricular pathway next catalyzed a groundbreaking merger with the storied Philadelphia University, known for its leading programs in design, textiles engineering, fashion, and architecture. Our medical students now work side by side with industrial design and textile engineering students in JeffSolves, creating solutions to real-world clinical problems and spawning start-ups in the process.


Reimagining the curriculum itself has been equally top of mind. JeffMD has taken shape over the past two years as a quantum leap forward for our educational programming. This is in keeping with the proud Jefferson tradition of minting exceptional clinicians and our aspiring toward a new breed of high-dimensional, humanistic physicians empowered by outstanding healthcare teams, artificial intelligence, and robotic enablers.

Yet another passion project is Jefferson's global centers. The concept is to concentrate our precious resources on a limited set of countries where we develop deep multi-institutional relationships around compelling value propositions. The Jefferson Italy Center has already launched a first-of-its-kind international dual MD program (see page 20), as well as a budding strategic partnership with the University of Bologna, the world's oldest. The Jefferson Japan Center has been powered by a Japanese philanthropist inspired by our forefront programming at the medicine-humanism interface. The Jefferson Israel Center has us tapping into the innovation ecosystem of a country that is No. 1 worldwide in start-ups per capita. And the Jefferson India Center positions us to lead the way in addressing pressing global health challenges, from maternal and child health to diseases of the eye.

The past decade has also ushered in a series of creative centers and institutes. Founding our Computational Medicine Center has put Jefferson on the map where big data meets biomedicine and the genome. This is but one component of a multipronged Jefferson push into the computational sciences realm, as we now innovate Population Health Intelligence, launch an Institute of Digital Health, and pioneer artificial intelligence applications

in radiologic and pathologic diagnostic imaging. Our nationally recognized Jefferson Center for Interprofessional Practice and Education continues to lead the way in innovating teamwork approaches in healthcare. And the list goes on.

While these initiatives speak for themselves, I am perhaps most proud of something less tangible: Jefferson's cultural transformation. Not long after I arrived, we turned the 50th anniversary of the first women to matriculate in our medical college into a yearlong celebration of women in medicine, sending a clear message about values. MEDstudio's “Beacon” installation on Lubert Plaza five years later sent yet another message—that a staid institution dating to 1824 can do eye-popping things. This award-winning sculptural installation at the heart of our campus was truly a beacon beckoning a culture of innovation. Introducing the Dean's Concert Series (2010) and the Dean's Student Leadership Forum (2011) was my way of subliminally messaging to our students the importance of attending to their inner selves. And above all else, in Sidney Kimmel Medical College the culture change has meant instilling in our faculty and staff a higher level of self-confidence born of the excellence permeating every corner of our university.

Perhaps there is some benefit after all to having an outsider look in from time to time, to encourage chasing more than one rabbit, and to remind all of the magnificence of their institution and its unbounded future. 



Mark L. Tykocinski, MD

Provost and Executive Vice President for Academic Affairs
Thomas Jefferson University
Anthony F. and Gertrude M. DePalma Dean
Sidney Kimmel Medical College

Jefferson Dedicated to Treating Body, Mind, and Spirit

Department of Integrative Medicine is first in the nation



Conventional medicine treats and cures diseases. Integrative medicine helps to heal the body, mind, and spirit, potentially boosting the effectiveness of traditional therapies.

Acknowledging the importance of integrative medicine in patient care, Thomas Jefferson University is launching the country's first academic Department of Integrative Medicine and Nutritional Sciences at the Sidney Kimmel Medical College. The new department formalizes the teaching of integrative medicine alongside other medical departments.

The initiative is supported by a \$20 million commitment from The Marcus Foundation Inc., which previously provided the funding to create the Marcus Institute of Integrative Health – Jefferson Health.

"The past decade has seen a surge in the number of medical colleges requiring courses in integrative medicine, mirroring the public's desire to seek out these therapies," says Mark L. Tykocinski, MD, Jefferson provost and the Anthony F. and Gertrude M. DePalma Dean of SKMC. "We're grateful for the Marcus Foundation's visionary investment, which will enable Jefferson to define the gold standard of excellence in evidence-based, patient-centric integrative care, research, and education."

The department features a novel curriculum focusing on the clinical applications of integrative medicine with an emphasis on functional biochemistry, nutrient-based therapies, mind-body neuroscience, novel mechanisms of healing, and emerging therapies.



The program includes a master's degree, several certificate programs, and a unique one-year fellowship in Integrative and Nutritional Medicine for physicians who have completed an Accreditation Council for Graduate Medical Education (ACGME)–approved residency program.

"Jefferson has been a key player in bringing integrative medicine into the mainstream, building a comprehensive program that's unparalleled anywhere in the world," says Daniel A. Monti, MD, MBA, senior vice president and CEO of Jefferson's Marcus Institute of Integrative Health and Ellen and Ron Caplan Professor and Chair of the new department. "Establishing the nation's first academic Department of Integrative Medicine is a natural evolution of Jefferson's long-standing leadership and a reflection of how far the field has come."

According to Stephen K. Klasko, MD, MBA, president of Thomas Jefferson University and CEO of Jefferson Health, the establishment of the department "will help future physicians break through the silos in medicine to understand a more holistic view of care, while fueling new research to make sure we present these options in a safe, well-researched, responsible way."



Jefferson Recognized as a Top Hospital

Jefferson has emerged as a healthcare leader both nationally and globally, according to a *Newsweek* survey of more than 40,000 healthcare experts and countless patients from 1,000 hospitals around the world.

As a renowned educational institution and healthcare system, Jefferson is currently counted among the top 100 hospitals in the world, and is ranked 23 out of the top 250 hospitals in the United States.

The data for this list was compiled from three sources: recommendations from medical experts, patient surveys, and medical performance indicators. These results were then verified by a medical journalist and his international network.

Newsweek recognized Jefferson, alongside the other 99 top hospitals, as uniquely qualified to adapt to the ever-changing landscape of healthcare without sacrificing the quality of care and compassion provided to patients.

Reducing Implicit Bias in Emergency Medical Care

Emergency departments treat myriad patients from diverse ethnic, cultural, and racial backgrounds. But as human beings, healthcare providers are susceptible to unconscious biases that may affect the care they give to patients.

To address the possibility of bias, Bernard Lopez, MD '86, MS, associate provost for Diversity and Inclusion and associate dean of Diversity and Community Engagement at SKMC, collaborated with researchers at the University of Pennsylvania on a training program for emergency medicine residents and then tested how well it worked. The results, published in *Academic Emergency Medicine Education and Training*, demonstrate how education can effectively change awareness and self-identification of bias, which could lead to reducing health disparities.

"We all have biases," says Lopez. "It's OK that we have them, but we need to work with them so we can improve our interpersonal interactions." Many biases

are unconscious or implicit, leaving individuals unaware that they have them. But these biases may nonetheless impact behaviors, especially in situations where split-second decisions are made.



The training program included an introductory talk on unconscious bias followed by the participants taking the Implicit Association Test. A facilitated discussion highlighted the relationship between implicit bias and care, and helped doctors identify biases within their medical practices and discover possible ways to mitigate those behaviors. After the intervention, emergency department caregivers raised awareness of their implicit biases by 33 percent, Dr. Lopez and his team showed.

Thomas Jefferson University and the Israel Innovation Authority Partner on \$1 Million Healthcare Innovation Competition

To improve healthcare-related technology solutions around the world, Thomas Jefferson University has partnered on an international project where four Israeli companies will receive a total of \$1 million toward research and development from the Israel Innovation Authority (IIA).

The goal is to co-develop, test, and pilot impactful technologies, products, services, and devices within the rich environment that exists at Jefferson, which then would be translated to other sites and settings. The project and partnership are a result of the newly formed Jefferson Israel Center and the university's and IIA's mutual interest to source, develop, deploy, and commercialize innovative technologies, products, services, and devices within the healthcare sector.



Through the project, Jefferson will create a seamless process for Israeli companies to test their concepts in a living laboratory, as well as provide access to Jefferson clinical, service line, administrative, and leadership staffs across a variety of care settings (i.e., inpatient, outpatient, ambulatory, urgent care, rehabilitation, and community).

Through Health Mentors Program, Students Seek to Improve Bus Seating

Physical therapy student Jennifer Coviello and SKMC students Kate Haskins and Erik Massenzio recently conducted an advocacy project through the Health Mentors Program—a unique experience for students from SKMC and the Colleges of Nursing, Pharmacy, and Health Professions at Jefferson—which helped shape policies around priority seating on public transit in Philadelphia.

"The program strives to break down silos that form in professional education, so that these students learn with, from, and about each other from the very beginning of their training," says Nethra Ankam, MD, Health Mentors Program faculty lead. "They meet in interprofessional teams

with a community member who has a chronic condition, learn about their life, visit their community and home, help set wellness goals, and then in the last module, work on an advocacy project. The point is to get health profession students to think about the person's needs, wants, and goals, and to learn some of the tools of advocacy."

Coviello, Haskins, and Massenzio paired with a volunteer health mentor who has dealt with osteoarthritis for many years. She shared her worries about the lack of seating regulation on buses with the team.

"She brought this idea to our attention after she hurt her foot and had to be in a boot for a few weeks," says Coviello. "Some individuals on the bus wouldn't give up priority seating even though they didn't need it."

The student team wrote a letter to SEPTA expressing their concerns, as well as providing some suggestions. SEPTA representatives invited them to formally present their ideas in front of the administrative board, and asked the students to work with their mentor to create a social media campaign about priority seating. They're also considering the team's recommendation to update SEPTA's "Dude, It's Rude" poster campaign and play recorded messages on a loop to remind passengers that the front seats remain reserved for those with special needs.

With Collaboration in Mind, Renovated Research Space Unveiled in Alumni Hall

Highlighted by an open, flexible floor plan, the newly renovated, state-of-the-art research space on 4 East in Jefferson Alumni Hall will be a physical embodiment of the university's research strategic plan.

The culture at Jefferson, and at many large research universities, has shifted over the past few years, said Steven McMahon, PhD, chair of Biochemistry and Molecular Biology at SKMC and the university's senior associate provost for Programmatic Science.

"I think this partly reflects our growing appreciation that the scope and pace of discovery are both elevated when scientists with complementary expertise bring those skill sets together to tackle a problem collaboratively," he said during the Jan. 28 ribbon-cutting ceremony. "For Jefferson, these programmatic focus areas include neurodegeneration within our Vickie and Jack Farber Institute for Neuroscience, certain forms of cancer within the Sidney Kimmel Cancer Center, fibrosis, mitochondrial function and disease, and more. Our policies, our investments, and even our architecture need to reflect this shift toward team science. In most circumstances, faculty also find this strategy more rewarding than working on a problem in isolation."





The 20,000-square-foot space symbolizes one piece of what makes the university special, said Stephen K. Klasko, MD, MBA, president of Thomas Jefferson University and CEO of Jefferson Health: “We spend a lot of our time thinking about what’s going to be obvious 10 years from now and doing it today across all four of our pillars: Academic, Clinical, Innovation, and Philanthropy.”

During his remarks, Mark L. Tykocinski, MD, provost and executive vice president of Jefferson and the Anthony F. and Gertrude M. DePalma Dean of SKMC, recounted the massive renovations that have taken place throughout the building over the past decade.

“We have an elite group of scientists, and top scientists deserve top space,” he said.

A Record 13 Medical Students Matched Into Ophthalmology Residency Programs

A record 13 SKMC students matched into leading ophthalmology residency programs. For comparison, medical schools across the country generally send an average of two or three students into the competitive ophthalmology specialty, says Charles Pohl, MD ‘87, vice provost of Student Affairs at Jefferson.

Most Jefferson students got into one of their top three choices, and they all matched into highly regarded programs, such as Wills Eye at Jefferson, Stanford University, Tufts University, Emory University, and Brown University. “These are the cream of the crop,” Pohl says.

Pohl attributes this match success to three main factors: the talents of SKMC students; the expertise of specialty-specific faculty from Wills Eye Hospital

to advise the students; and the stellar education they receive at Jefferson, including research mentorship in ophthalmology.

“This year’s outstanding residency match and the high number of graduating medical students choosing the field of ophthalmology are a testament to the franchise value of our brand—and of our specialty,” says Julia A. Haller, MD, ophthalmologist-in-chief and William Tasman, MD, Endowed Chair at Wills Eye Hospital, and professor and chair of Ophthalmology at SKMC. “Our partnership with Jefferson remains a tremendous, unique resource for talented, dedicated young physicians who year after year fall in love with the compelling, high-impact field of ophthalmology during their rotations at Wills Eye Hospital.”



Real-World Experience Propels Disaster Management and Medicine Program

Students enrolled in Jefferson's Master in Disaster Medicine and Management program, delivered as a partnership between Jefferson and the Department of Emergency Medicine of the Albert Einstein Health Network, complete a minimum of 100 hours of experiential learning—a defining factor that propelled OnlineMasters.com to name it one of the best online master's in emergency management programs in the nation.

For example, students have conducted hazard vulnerability assessments at the Wells Fargo Center, participated in a collapsed parking garage simulation, and studied emergency operations at the Delaware Emergency Management Agency.

"This blending of academics and live in-person engagement with organizations and response activities makes a difference," says Jean Bail, director of the program. "This development of skills and networks provides amazing opportunities."

During her hazmat training, alumna Cristina Pareja, '18 found the decontamination drills especially beneficial. "It helped me to clarify



concepts and to understand how emergency management works in real life," she says. "It was truly an enriching and knowledge-filled experience." Pareja serves as a case manager at Prevention Point, an organization that works to end overdose deaths in Philadelphia.

Program graduates have landed jobs in the government, hospitals, nonprofit organizations, and public health, Bail says.

Student success weighed heavily in OnlineMasters.com's methodology, along with academic quality and affordability. OnlineMasters.com analyzed every online master in emergency management program in the United States and consulted industry experts, hiring managers, current students, and alumni.

"Graduates emerge from this program with the skills to create preparedness plans and to respond to both natural and man-made disasters throughout the world," they wrote of Jefferson.

Jefferson Researchers Receive USDA Grant to Study Cold Brew Coffee

Despite the growing popularity of cold-brew coffee, scientists have published little research on its chemistry, which involves low-temperature, long-contact brewing, using grinds that have been soaked with room temperature water for eight to 24 hours. University investigators plan to explore this relatively uncharted territory, with help from a sizable grant from the United States Department of Agriculture's National Institute of Food and Agriculture.

Project director Niny Rao, PhD, associate professor of Chemistry; Megan Fuller, PhD, assistant professor of Chemistry; and Frank Wilkinson, PhD, associate professor of Biochemistry, have received \$93,780 to establish a foundational understanding of some key chemical metrics of both traditional and nitro-infused cold-brew coffees. Nitro-cold brew coffee—a boutique cold-brew beverage infused with nitrogen—has a mouthfeel similar to some craft beers. However, the introduction of nitrogen creates an anaerobic environment conducive to botulin toxin development.

The Jefferson investigators will measure total acidity, pH, chlorogenic acid and



caffeine concentrations, antioxidant capacity, and flavor for cold-brew coffee extracts using three types of roasts.

"The immediate output of this project is to expand the understanding of cold brew coffee chemistry, including the survivability of spoilage microorganisms," says Rao, noting she hopes their research will educate coffee drinkers and aid health officials to develop food safety inspection protocols. "The ultimate goal is to improve best practice standards in the cold-brew coffee industry to provide a better and safer experience to all consumers."

Last year, *Scientific Reports* published Rao and Fuller's research that found the hot brew method produced higher levels of antioxidants in coffee than the cold brew method.

Jefferson Institute for Bioprocessing Appoints Parviz Shamlou, PhD, as Executive Director

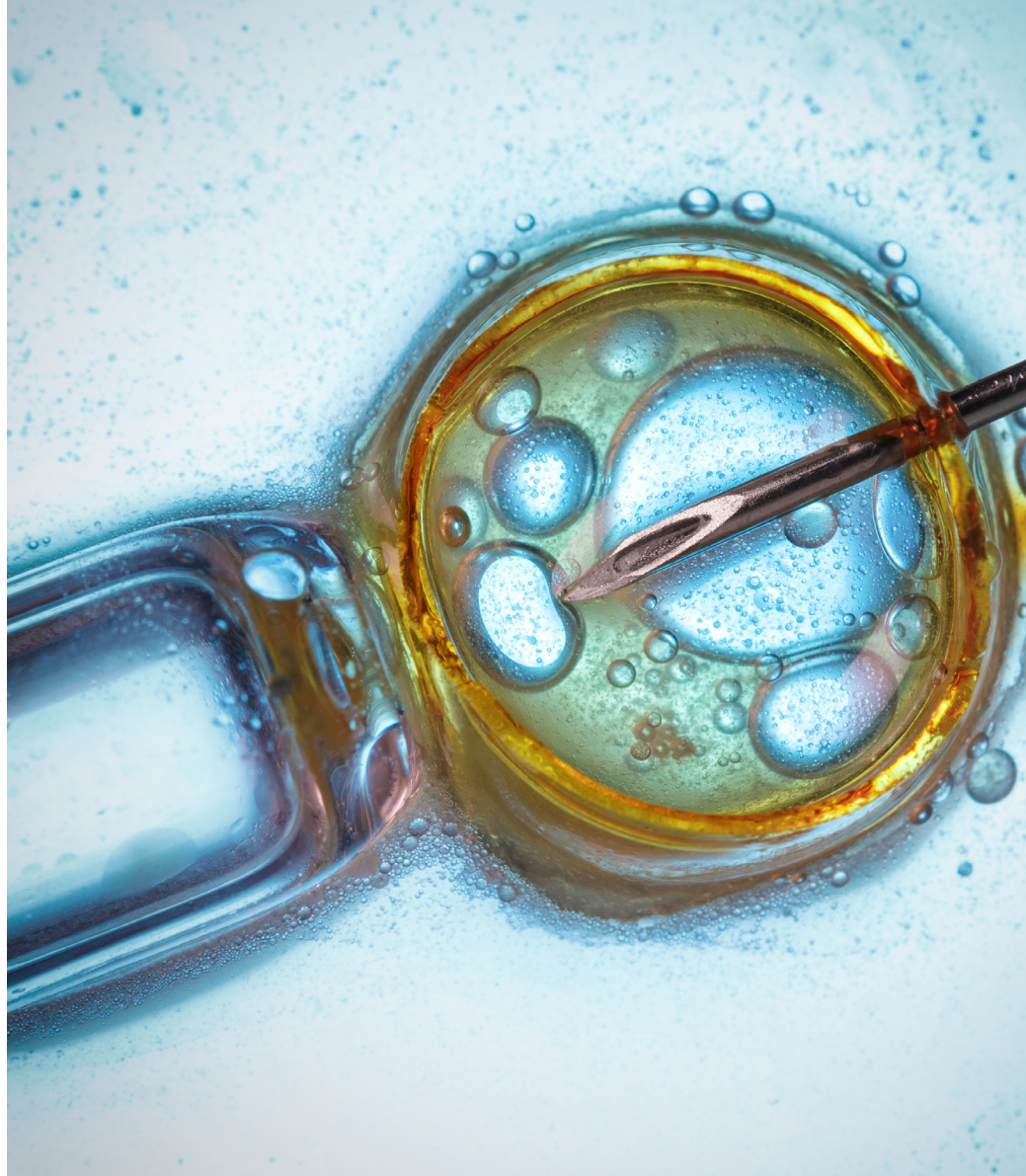
In January, Parviz Shamlou, PhD, became the inaugural executive director of the Jefferson Institute for Bioprocessing at Thomas Jefferson University. Formerly the George B. and Joy Rathmann Professor of Bioprocessing and director of the Amgen Center for Bioprocessing at Keck Graduate Institute in Claremont, California, Shamlou has led pioneering and collaborative bioprocessing research.

Opening in spring 2019, the Jefferson Institute for Bioprocessing will provide state-of-the-art education and training in the fast-emerging field of biopharmaceutical processing, which advances new therapeutics to treat a range of acute and debilitating diseases. The Jefferson Institute for Bioprocessing is the only education and training institute for biopharmaceutical processing in North America to be established in partnership with the National Institute for Bioprocessing Research and Training (NIBRT), which is based in Dublin, Ireland.

Previously at Eli Lilly and Company, Shamlou was responsible for innovation and technology evaluation for development and commercialization of biotherapeutics, including insulin, human growth hormone, and monoclonal antibody molecules currently in development for treatment of Alzheimer's, rheumatoid arthritis, cancers, diabetes, and lupus.

Shamlou received his PhD in chemical engineering and was a postdoctoral fellow

at the University of Bradford in the United Kingdom. His first academic appointment was at University College London, where he co-founded the Department of Biochemical Engineering. He has served on scientific committees and boards, and as editor-in-chief of the peer-reviewed *Journal of Biotechnology and Applied Biochemistry*, and co-authored some 200 journal articles, book chapters, and conference presentations.



The Jefferson Institute for Bioprocessing, located at Spring House Innovation Park in Lower Gwynedd, Pennsylvania, includes state-of-the-art laboratory and research and development spaces. When fully operational, it is expected to serve 2,500 people annually, including programs for pharmaceutical professionals, workforce training through community college partnerships, and bioprocessing certifications through regional university partnerships. Importantly, the Institute will facilitate enrollment of 70 additional Jefferson students in bioprocessing engineering at the undergraduate through PhD levels.

Jefferson Receives Department of Labor Grant to Fight Opioid Crisis

Jefferson has received \$586,000 from the U.S. Department of Labor to support a workforce strategy to reduce opioid usage in Philadelphia. Through the

National Health Emergency Dislocated Worker Demonstration Grant, Jefferson will develop and conduct training for clinicians working on the front lines in the emergency department (ED).

Leading the unique project, Upskill-ED, is Priya Mammen, MD, MPH, director of Public Health Programs and clinical associate professor of Emergency Medicine at Jefferson.

"The contribution of the interprofessional team that staffs the ED is essential in providing a safety net and universal access to care for vulnerable populations," says Mammen. "To optimize the delivery of care, healthcare organizations must ensure that their staffs are equipped with the knowledge and skills to care for these patients, as well as optimize their employees' own well-being."

A trauma-informed department and organization trains providers in clinical skills, supports a culture of health among



its staff, and accounts for the inherently complex nature of the vulnerable populations it serves, including being sensitive and responsive to cultural and historical issues (i.e., social determinants of health), she says.

Upskill-ED will operate out of Jefferson's Institute of Emerging Health Professions, an educational think tank and incubator. Jefferson colleagues working with Mammen on the project include Stephen DiDonato, PhD, LPC, NCC, assistant professor in the College of Health Professions, and Kathy Shaffer, EdD, RN, MSN, assistant professor in the College of Nursing.

The Department of Labor committed more than \$22 million across six states for programs to help communities address the economic and workforce-related impacts of the opioid crisis. Overdoses involving opioids killed nearly 50,000 people in 2017 in the United States, and from 2002 to 2017, the country experienced a 4.1-fold increase in the total number of deaths, according to the National Institute on Drug Abuse. Philadelphia has the highest overdose rate in the country.

Philadelphia County, through Philadelphia Works, received \$2 million of the \$5

million awarded to Pennsylvania. Jefferson will collaborate with the other partner Philadelphia agencies, JEVS Human Services and District 1199c Training and Upgrading Fund, focusing on skills development, job readiness, and career services.

Jefferson Associate Dean for Faculty Development Named Gold Humanism Scholar

In November, the Arnold P. Gold Foundation named Dimitrios Papanagnou, MD, one of its 2019 Gold Humanism Scholars at the Harvard Macy Institute Program for Educators.

Papanagnou is associate professor of Emergency Medicine and associate dean for Faculty Development at Jefferson. His project focuses on "Fostering Provider Resilience and Empathic Patient Care in the Emergency Department."

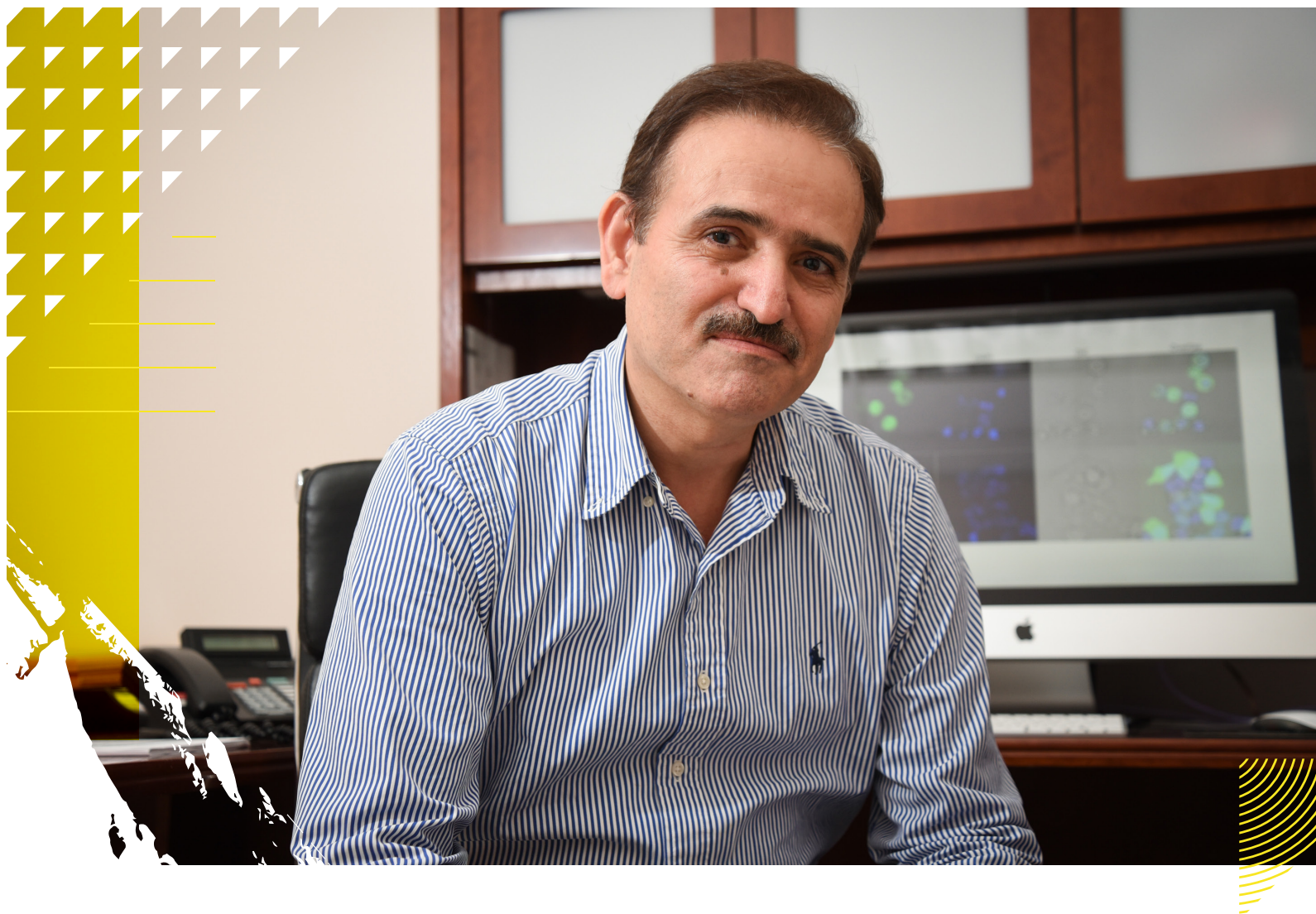
For this prestigious award, the Gold Foundation selects healthcare educators whose work helps develop or evaluate educational projects focused on humanistic patient care that can be replicated across a variety of healthcare settings. Papanagnou's project addresses burnout among healthcare providers

by bringing microtraining opportunities directly to the clinical workplace. The emergency department remains one of the most operationally complex settings within the hospital. Interprofessional clinical teams in the emergency department will undergo immersive experiences that will allow them to reflect, discuss coping strategies, build resilience, support teamwork, and better connect with their patients.

The Gold Humanism Scholars receive partial scholarships of \$5,000 to attend the Harvard Macy Institute Program for Educators in the Health Professions. This highly interactive faculty development program meets twice a year in Cambridge, Massachusetts. Gold Humanism Scholars learn innovative methods to teach and assess their projects, as well as to steer and champion their projects successfully through the maze of requirements.

Dr. Jouni Uitto Receives Prestigious Dermatology Award

Jouni Uitto, MD, PhD, chair of Jefferson's Department of Dermatology and Cutaneous Biology, received the Alfred Marchionini Gold Medal at the World Congress of Dermatology in Milano, Italy, in June. This is the most prestigious award in international dermatology, given every four years to an outstanding dermatologist who is not only a superb clinician and excellent scientist, but who also deserves major credit for their efforts in the international exchange and dialogue in the dermatology world.




National Academy of Inventors Honors Jefferson Researcher

The National Academy of Inventors (NAI) selection committee elected Emad Alnemri, PhD, Thomas Eakins Professor of Biochemistry and Molecular Biology, Sidney Kimmel Cancer Center – Jefferson Health, to fellow status, for demonstrating “a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on the quality of life, economic development, and welfare of society.”

Election to NAI fellow status is the highest professional accolade bestowed solely to academic inventors and innovators. The 2018 fellows, including Alnemri, were inducted on April 11 in a ceremony at the Eighth Annual Meeting of the NAI in Houston, Texas. With the election of the 2018 class, there are now more than 1,000 NAI fellows, representing more than 250 research universities and government and nonprofit research institutes. The 2018 fellows are named inventors on nearly 4,000 issued U.S. patents, bringing the collective patents held by all NAI fellows to more than 35,000 issued U.S. patents.

Alnemri is an internationally renowned leader in the field of programmed cell death (apoptosis). In the past 25 years, he has led groundbreaking research on the molecular pathways of apoptosis, resulting in the discovery of many human caspases, protease enzymes that cleave cellular proteins during apoptosis, and inflammation. His research on the function of inflammatory caspases led to the discovery of several inflammasome complexes that are important for production of inflammatory cytokines during inflammation and innate immune responses to pathogens. He has authored or co-authored more than 180 peer-reviewed publications, and his work has been cited more than 67,000 times, according to Google Scholar. He holds 34 U.S. and 11 foreign patents and has more than nine technologies that are sublicensed to Conatus Pharmaceuticals Inc., a publicly traded company.

Alnemri recently received a \$3 million grant from the National Institutes of Health and a \$300,000 grant from the Dr. Ralph and Marian Falk Medical Research Trust to study a novel caspase-3 substrate called DFNA5 he discovered two years ago. One of the aims of his new research is to examine the role of DFNA5-mediated cell death in tumor recognition by the immune system with the goal of developing more effective and durable anticancer therapies. 

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A Message from Elizabeth A. Dale



Jefferson Giving Day

You could argue the first Jefferson Giving Day was on March 17, 1872.

Back then, the young medical college had outgrown the clinic it rented in the Tivoli Theater. The Board of Trustees was looking into the feasibility of building its own freestanding teaching hospital. And the Alumni Association, which had been formed in 1870 with the icon Samuel Gross, MD 1828, as its first president, was keenly interested in supporting that effort.

At a special meeting of the Alumni Association and the Board on that day in March, alumnus A.C. Bournonville, MD 1828, said he would donate \$250,000 by June 1874 if others contributed as well. The room was electrified, and records state that in the space of 10 minutes, an additional \$10,000 was pledged to the building. Within two months, they had raised \$350,000 to build the first Jefferson

Hospital, designed in the idiosyncratic brick, Gothic style of Frank Furness, Philadelphia's great architect.

The modern Giving Day happened on April 4, and it was an equally spectacular success.

For 24 hours across all our campuses and online, Jefferson pride shone bright, proving that we are indeed truly better together. Hundreds of members of our community, including our volunteers, rallied together for one purpose: To make a difference at Jefferson.

It was a day of joy and festivities, with treats, music, prize drawings, and appearances from special guests like the Mummers, Eagles Pep Band, and even the Phillie Phanatic.

A total of 3,021 alumni, faculty, staff, patients, students, family, and friends came together to celebrate philanthropy and its impact by raising \$400,212 in support of

patient care, research, scholarships, and more. From that number, 39 percent of total funds raised were designated to the university, with four percent going specifically to scholarships. Jefferson alumni graciously made 20 percent of all gifts.

The day featured several challenge matches to encourage others to give. Our president, Dr. Stephen K. Klasko, pledged to give \$50,000 when we surpassed 400 donors. Alumnus Peter Scoles, MD '70, pledged \$5,000 if 50 people contributed to the Class of 1970 Scholarship Fund. There was a 1:1 match on all gifts to the Mitchell M. Weiss, MD '94 and Leslie L. Weiss, MD '93 Memorial Scholarship Fund. And renowned surgeon Gerald Marks, MD '49, created the Sidney Kimmel Medical College Surprise Challenge, which matched 1:1 all unrestricted gifts to the medical college.

You can revisit the day by going online to Jefferson.edu/GivingDay.

A special thank you to all the alumni who contributed to Jefferson's inaugural Giving Day. The event was successful because of you. 🙏

Elizabeth A. Dale, EdD, MPA

Executive Vice President and
Chief Advancement Officer
Office of Institutional Advancement

215-503-5138

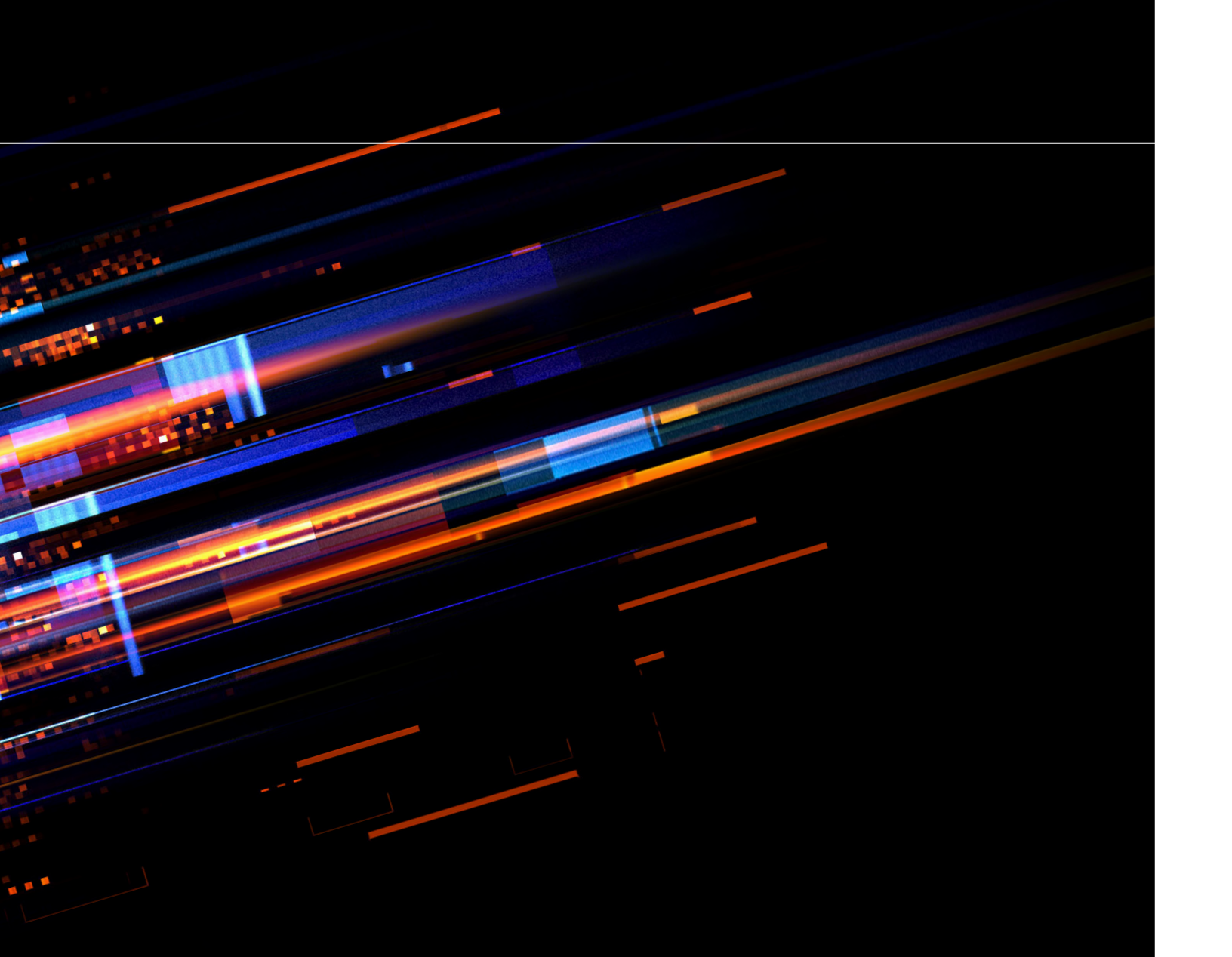
elizabeth.dale@jefferson.edu

[@elizabeth__dale](https://twitter.com/elizabeth__dale)

Please contact me if you'd like to learn more about the doors you can open and lives you can change. I'd love to hear from you.

Network Effects

By Zach Nichols

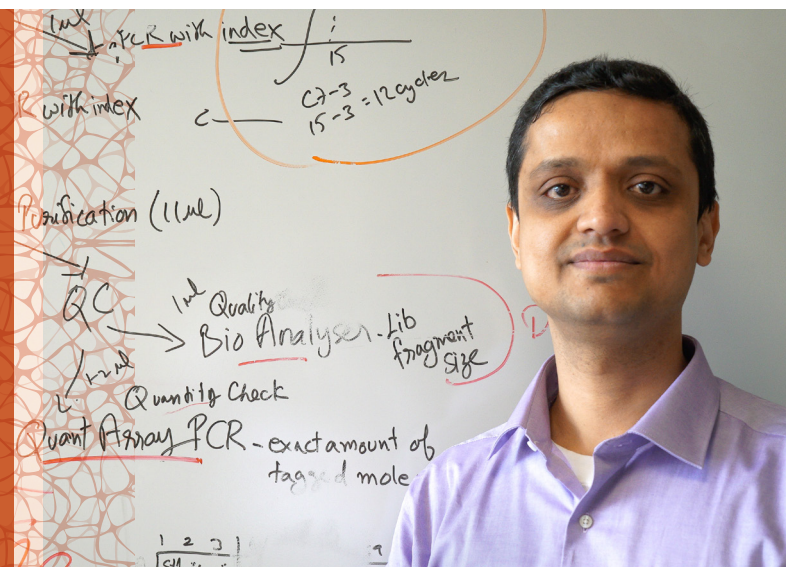


From the outside, it can be hard to imagine what Raj Vadigepalli's research is about. Yes, something about livers and neurons. Or regeneration, hypertension, and microRNA. We know he and his team study cells or tissues or organs—in vitro and in vivo—dissecting, sequencing, churning through vast quantities of data.

And yes, it is about all of the above (and below).

But as he is the first to tell you, the parts are not the point. "It's the connections and interrelationships that make a system," he says. "You can't understand things on their own, because each part is implied by the others."

Traditionally, the discipline of anatomy concerns itself with enumerating more and finer pieces and processes in search of some ultimate precision. But as vice chair of Research and a member of the Daniel Baugh Institute in the Department of Pathology, Anatomy and Cell Biology, Rajanikanth Vadigepalli, PhD, spends his time trying to understand how a body of many parts works together.



Raj Vadigepalli, PhD

A chemical engineer by training and sensibility, he views the body not as a patchwork of parallel cause-effect relationships, but as a set of delicately entwined systems nested within systems—dynamic, nonlinear, and above all complex. (Check out “A Series of Fortunate Events” in the previous issue for more on this field.) “The minute things are connected in a feedback loop, what causes what has no meaning,” he says, “They beat your intuition about what should happen next.”

To approach their objects of study, Vadigepalli and his team use high-powered computers to design their own dynamic models of tissues and organs, comparing their mock-ups against what they observe in the lab. Because the complexity is so great, simulation is an essential tool that enables them to view many-layered processes in one view. This iterative process of trial and approximation allows them to tinker their way to understanding, as they search for those minute variables making an outsized impact on their host systems.

These “control points” are the gateways between different bodily phases—between health and disease. The most obvious example of a phase shift in nature is water: Within a certain range of temperatures, it remains liquid, but if the temperature drops too much or goes too high, then it becomes solid or gas. There is continuity within each phase, but also a sharp qualitative change across boundaries.

In much the same way, the body is a collection of systems in various phases of activity: homeostasis, decay, regeneration. By comparing and contrasting disparate organ systems and functions, Vadigepalli and his team aim to generate a more holistic perspective on how it all fits together, and what each part shares in common with the others. To this end, Vadigepalli’s primary targets are liver failure and cardiac hypertension.

His interest in the liver mirrors that of his collaborator, Jan B. Hoek, PhD, vice chair for Technology, Innovation and Infrastructure, and a professor at the Baugh Institute. Hoek has spent his career immersed in the systematic study of the organ and the diverse array of cells that allow it to filter toxins and heal itself.

“Jan said, ‘If you’re looking for something that changes a lot over time, you should look at livers—they regenerate.’ I go, ‘It regenerates?’ I had no idea because I’m an engineer who had to audit the graduate curriculum when I first got here,” recalls Vadigepalli, who laughingly recounts the conversation that launched his interest in the organ.

“Meaning is at the convergence. It can only be found when you put everything together.”

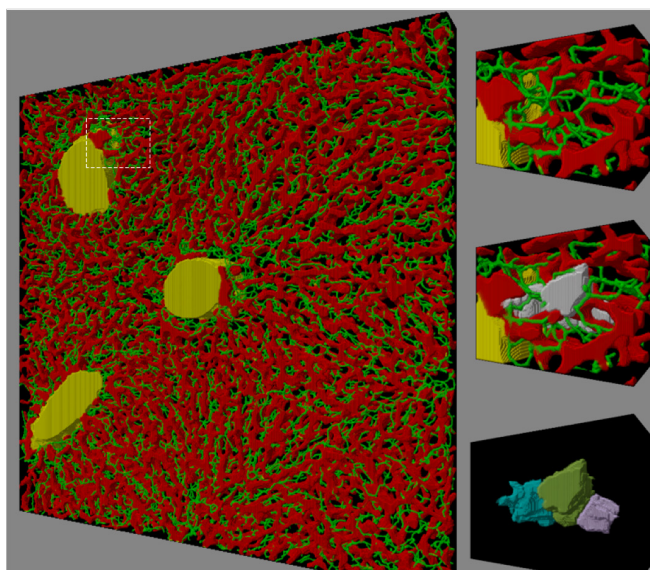
Taking a multiscale approach, the team analyzes the liver at the molecular, cellular, tissue, and organ levels, in order to understand how component parts flow together. This takes advantage of the fact that different processes occur in different places at different rates, offering a way of more easily teasing out cause-effect relationships from a complex of feedback loops.

What they have found is somewhat surprising. Typical views of alcoholic liver failure show an organ tolerating alcohol for a period until it ultimately decompensates catastrophically. Vadigepalli and company tell a slightly different story in which the damage is always there, accumulating over time, as cells become more sensitive to injury with each passing insult until a tipping point is reached and the larger system—the liver—can no longer regenerate.

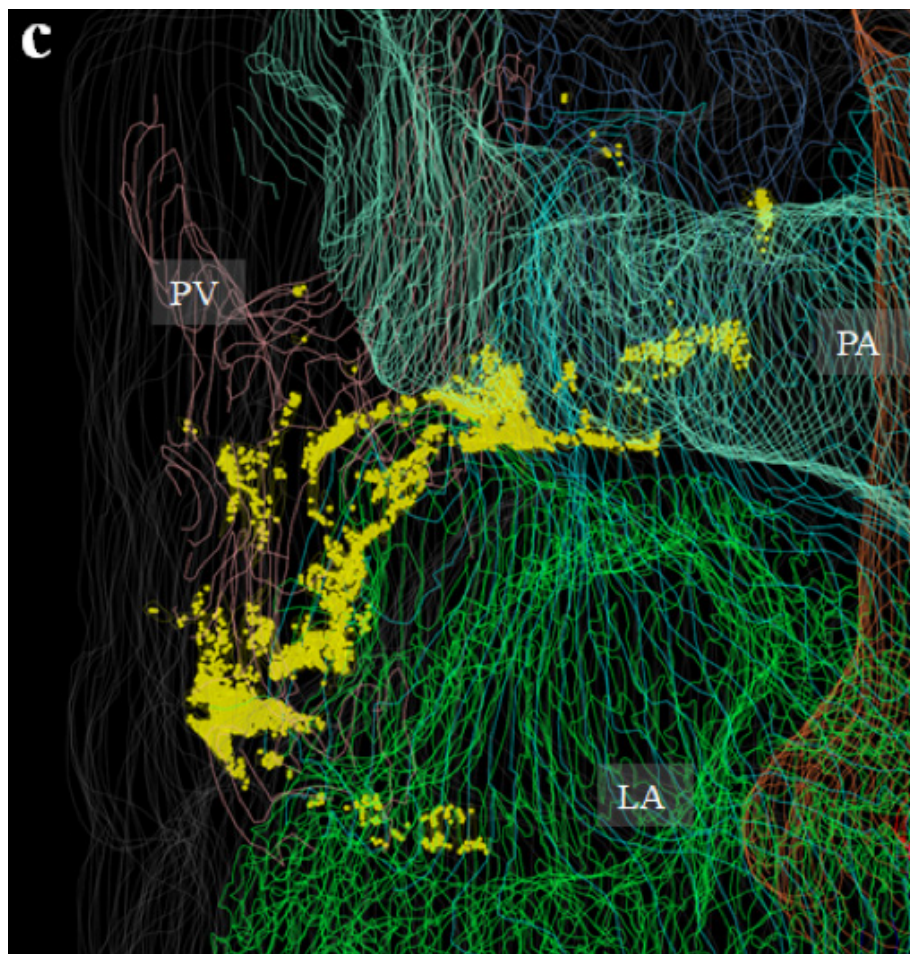
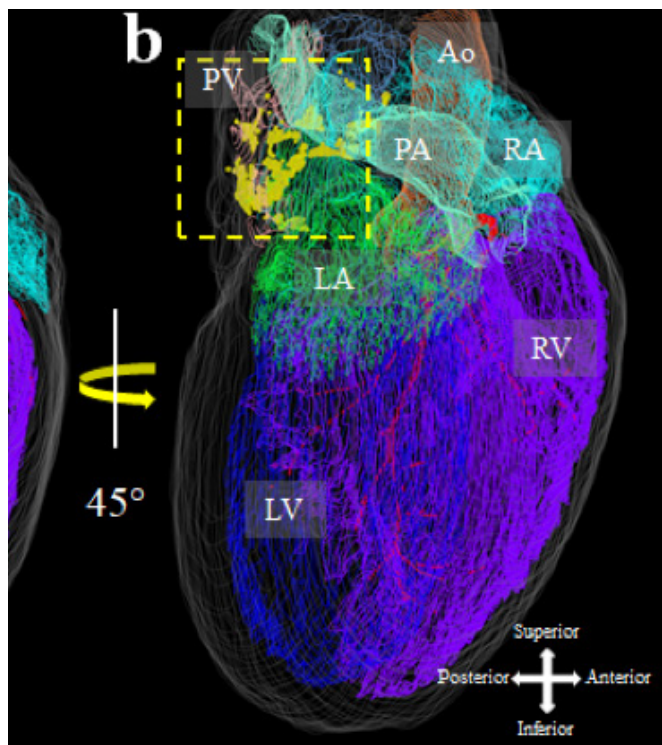
“That inflection point is what you think of as ‘the failure,’ but it’s been there all along,” he says. “It’s not an event in that sense. It’s a progressive thing, but the nonlinearity makes it look like an event at some point.” Vadigepalli and Hoek believe that in time, they will be able to develop ways of helping diseased livers regenerate, allowing for more transplant candidates and helping recipients improve their odds.

This dovetails with research Vadigepalli does on hypertension, which dates back to work he did as a postdoc with his mentor Jim Schwaber, PhD, a systems biologist who studies neuronal processes at the Baugh Institute.

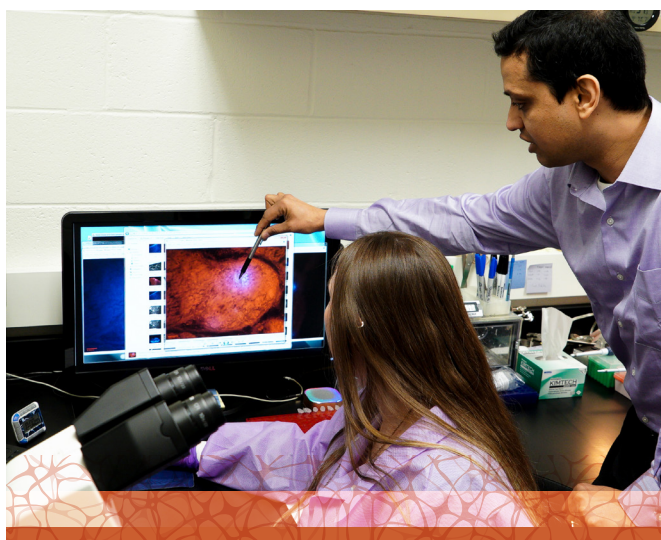
A chronic condition, essential hypertension is high blood pressure without any known cause, a more durable form of the disease that affects one in three American adults. Chronic hypertension is



High-resolution 3-D reconstruction of liver tissue



Models of the heart's nervous system



surprisingly resilient, resisting all sorts of interventions because, according to Vadigepalli, “half the time, the body changes to accommodate a drug, causing it to lose effect, and once that happens, it’s not the same system anymore.”

But Vadigepalli and Schwaber believe they have found some good alternatives by analyzing populations of neurons in the brain stem that are associated with cardiac activity. By sequencing the RNA profiles of these cells, they have developed a picture in which neuronal inflammation may be to blame. In animal experiments, the team was able to block a few key microRNA fragments during a sensitive period in the cells’ life cycles, curing the lab animals in the process. “The key was to find a place to press and the network effect takes over,” Vadigepalli says, amplifying the initial correction and sending the body into an altered phase—lower blood pressure, health.

These “network effects” are also part and parcel of how Vadigepalli and his colleagues at the Daniel Baugh Institute think about science, leveraging each other’s deep expertise in order to derive a result that goes beyond individual achievement. “I have never written a single principal investigator grant in 15 years,” he says. “Everything I have done has been a collaboration.”

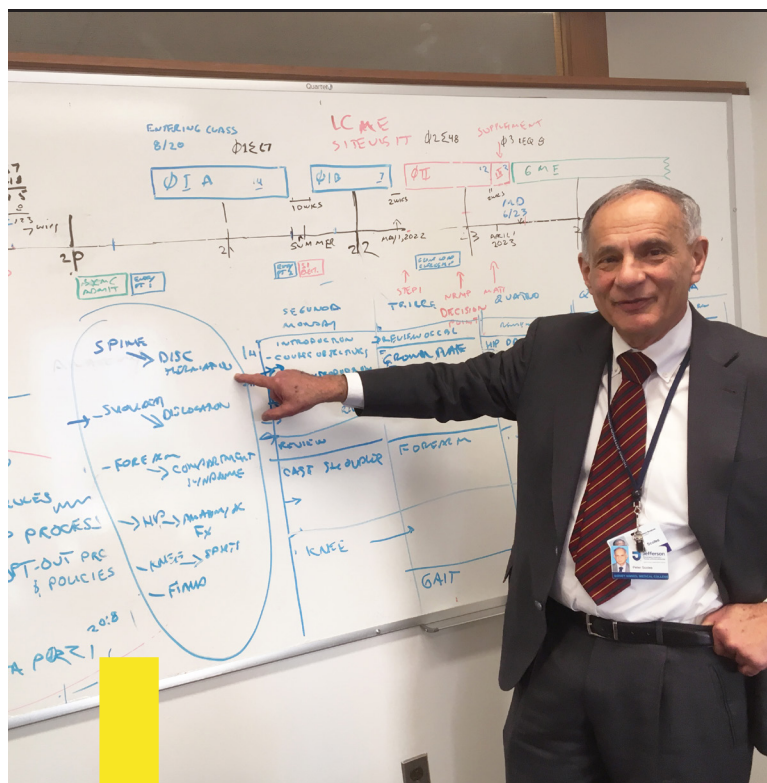
Evoking architecture, Vadigepalli says it is the crossbeam, not the pillars, that enables a structure, the connections between parts that create stability. His research—both the topics he chooses and the way he works—is a testament to this.

“Meaning is at the convergence. It can only be found when you put everything together.” 🏗️

Q&A with Peter Scoles, MD

PULLING DOWN THE BARRIERS

by Peter Nichols



Medicine is a skill doctors bring to how they approach others, so medical education should be more than the science.

Tell us about your work as vice dean for Academic Program Development.

I've worked in medical education for more than 40 years. In that time, I've developed the concept that education is a continuum—each piece should be linked to every other piece. This is a vision I share with Dr. Tykocinski. I have the unique opportunity at Jefferson to combine our undergraduate medical education programs with our graduate medical education programs and to bring the educational process of the physician into a unity. The collaboration with Catholic University is one aspect of that continuum project. It brings a unity to U.S. education and to European Union education, which hasn't previously existed.

What is it that you're trying to unify?

In most of the world, with few exceptions, the medical degree is a technical or professional degree. Immediately after high school, you enter a six-year curriculum that focuses exclusively on medical knowledge and skills. The U.S. medical education program is unique. We have four years of college, followed by four years of medical school. The richness we have in our undergraduate curricula involves humanities programming, and that's absent in the international medical education environment. The new collaboration will give a select group of Catholic University students access to that portfolio.

Last fall, Thomas Jefferson University announced a first-ever partnership that would enable medical students at Catholic University of the Sacred Heart in Rome to earn a baccalaureate degree from Jefferson and medical degrees from SKMC and Catholic University—all in six years. Graduates of the program would be able to practice in the United States and the European Union. "For the first time, a European student can come to the U.S., study here, and then take the credits back for a European degree," notes Peter Scoles, MD '70, vice dean for Academic Program Development. "That's the big significance."

Scoles is professor of Orthopaedics at SKMC. Before Jefferson, he was senior vice president for Assessment Programs at the National Board of Medical Examiners. Prior to that, he was assistant dean at Case Western Reserve University College of Medicine. He is a retired captain in the U.S. Navy. We talked to Scoles about his work at Jefferson and the new partnership with Catholic University.

I have the unique opportunity at Jefferson to combine our undergraduate medical education programs with our graduate medical education programs and to bring the educational process of the physician into a unity.



How do the humanities enrich medical education and make a better doctor?

The humanities aren't a course—they're a way of life. They're an approach to yourself and how you relate to others. Medicine is a skill doctors bring to how they approach others, so medical education should be more than the science. The humanities shape doctors who not only are prepared to listen, but who expect to listen. It's part of who they are. They synthesize what they hear, reflect on it, and then are able to say, "Based on all these things, here's what I think we ought to do next. What do you think?" That's probably a different experience than the one you have in a physician's office right now. Our incoming classes increasingly are being composed of students selected because they have scientific abilities as well as a background in other kinds of things. That's what the life of the humanities is about.

Tell us about the agreement Jefferson reached with Catholic University.

In the European Union, the content of the curriculum for a medical degree is highly regulated. Anybody who has a medical degree has completed these particular 360 credit hours, and the degree is transportable across borders within the E.U. A U.S. medical degree is not transportable into the European Union, and credits earned at a U.S. university cannot be credited toward an E.U. degree. What we've done is establish the protocols for credit transfer between the two universities, Jefferson and Catholic University, and we've obtained permission from the Italian Ministries of Education to do this. That hasn't happened before.

European law and U.S. practical procedure make this a one-way path. At the present time, it would be very difficult for a North American student to enroll in our joint program with Catholic University. The next step is to change that and make it a two-way path.

How does the program work?

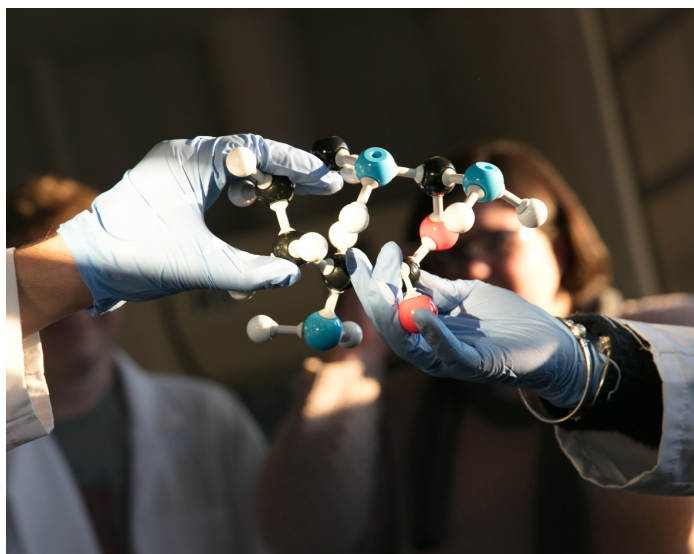
A student who's accepted into this program starts at the Catholic University of Rome and spends one full academic year there. At the end of that first year, they come to the East Falls campus of Jefferson for the summer and take three or four humanities or humanities-related courses toward a baccalaureate degree. They then go back to Rome for their second year of medical studies and return again to East Falls in the summer to take nine credit hours in a principally nonscientific curriculum. Then they go back for their third year at Catholic University. If they meet the academic requirements and pass the first step for our U.S. medical licensing examination, they transfer to Jefferson University and spend a full year, the fourth year of their curriculum, at East Falls taking courses for the baccalaureate degree. At the completion of that year, they'll be awarded a BS from Jefferson and enroll in the last half of our medical curriculum. They'll spend years five and six at Sidney Kimmel Medical College and receive a Jefferson MD in May. Then they go back to Rome for two months to finish the capstone requirements for a Catholic University medical degree.

This will be a very highly selective cohort of four to six people, proficient in English and enthusiastic enough to do something very different. They must be willing to have their horizons expanded. It's not for everybody.





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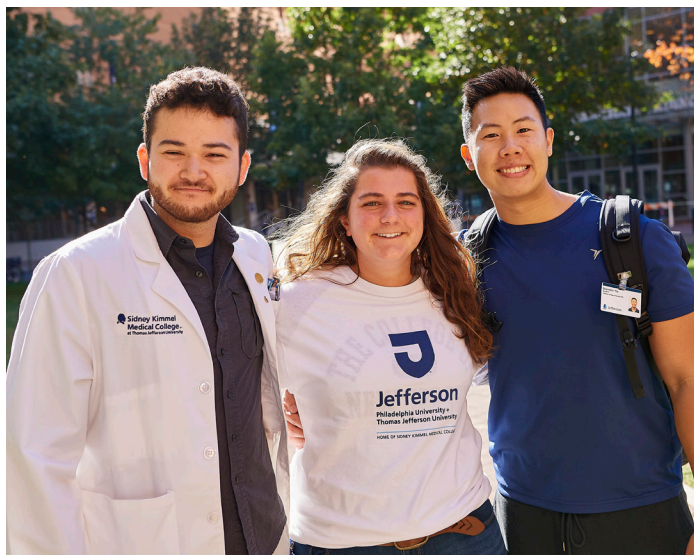


Q What's in it for Jefferson?

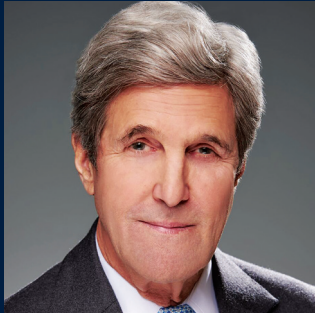
Everybody has their own vision. What I think is in it for Jefferson is the opportunity to delve deeply into the international educational environment and to begin to anticipate a world 20 years from now when all these barriers go away. We get to help shape that future. It's an opportunity for us to be a leader in the development of an international curriculum.

Even now, the resources our students use to learn aren't only what we teach them in our classrooms. They go home. They get online. They use resources from scholars all over the world, and they form their own social-media learning groups that easily contain a student from Thailand and a student from Hungary. They can't comprehend that there are obstacles. They say, "How can this be? We're doing this already." That's going to make all this stuff go away when they become leaders. We have to anticipate that and make it ready for them. That's what this is about for us. J

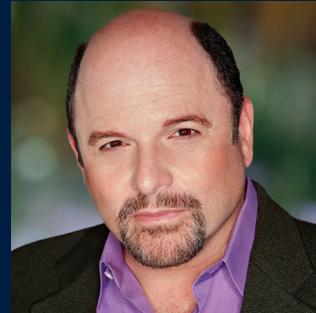
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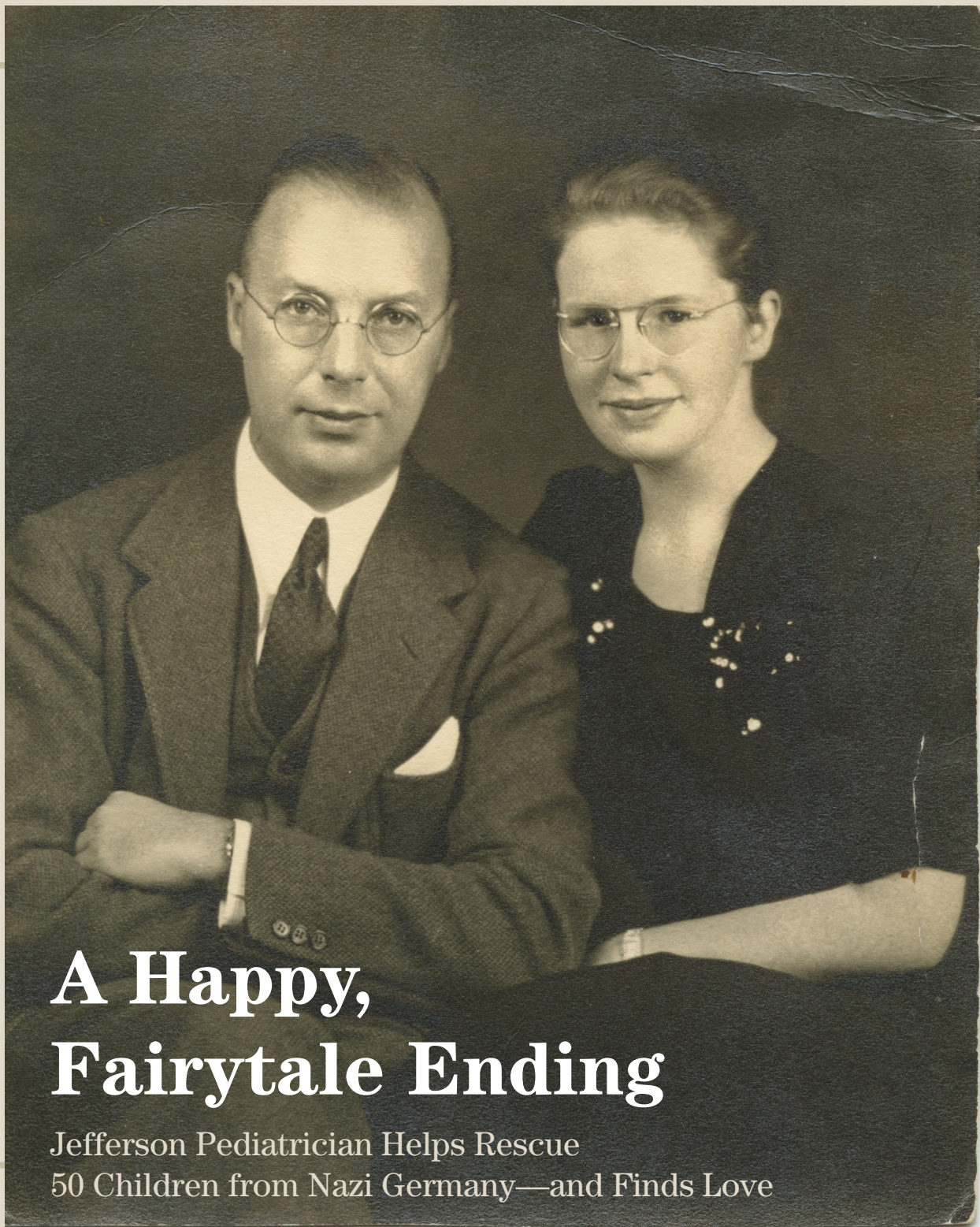
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A Happy, Fairytale Ending

Jefferson Pediatrician Helps Rescue
50 Children from Nazi Germany—and Finds Love

BY PETER NICHOLS



Gilbert and Eleanor Kraus (center) and the 50 children aboard the SS *President Harding*.
Courtesy of PerlePress Productions

As night descended over Europe in the spring of 1939, in the brief twilight between Kristallnacht and the outbreak of World War II, a risky, against-all-odds rescue mission was underway to bring 50 Jewish children out of Nazi Germany and to America. With no official government backing or protection, Philadelphians Gilbert and Eleanor Kraus, along with Robert Schless, MD 1916, undertook the long-shot effort with support from the fraternal organization Brith Sholom.

Gil Kraus was a well-heeled and well-connected Philadelphia lawyer with a reputation for being tough, resourceful, and relentless. His wife, Eleanor, was a homemaker, formidable in her devotion and pluck. Schless was a pediatrician who took care of the two Kraus children. He was also fluent in German. All three were Jews.

Schless had matriculated into Jefferson Medical College directly from high school in 1912. During World War I, he served with the Royal Army Medical Corps at a base outside London and later enlisted in the U.S. Navy, becoming one of the nation's first flight surgeons. Following the war, he became chief of Pediatrics at Philadelphia's highly regarded Jewish Hospital, now Einstein Healthcare Network.

Schless was tall and slender, easygoing and mild-mannered. He wore gold wire-rimmed glasses and favored meticulously knotted bow ties. He had a reputation for caring about injustice and misfortune, and for taking action at a personal cost. During

the Depression, while he was acting chief of the city's Bureau of Charities and Correction, he once took out a \$5,000 personal loan to cover the payroll for his workers.

When the Krauses told him about their plan to rescue 50 Jewish kids, Schless, who had recently been widowed, had three sons of his own, not to mention a medical practice. The couple suggested he take a few days to think about whether he wanted to be a part of the unlikely operation. "I've already decided," he told them. He was in.

"No one in his right mind would go into Nazi Germany right now. It's not safe, especially for Jews."

By this time, news stories were reporting that it was illegal for Jews in Germany and Austria to own a business or factory. They were deprived of civil rights and police protection, subjected to arrest and mob violence, robbed of property, ejected from employment, and barred from public relief. Many had no money to emigrate even if they could get a visa. Joseph Goebbels was demanding an international solution to the "Jew problem."

"Gil, this is really crazy!" Eleanor protested when he first broached the idea. "No one in his right mind would go into Nazi Germany right now. It's not safe, especially for Jews." As they labored through dense thickets of paperwork and red tape before embarking on their journey, a State Department official lowered his voice and cautioned, "I do not think you should go to Germany. In fact, I urge you most strongly not to go." Perhaps the greatest measure of the threat they faced was the fact that thousands of parents were eager to hand over their children to strangers who could take them away to safety.

Perhaps the greatest measure of the threat they faced was the fact that thousands of parents were eager to hand over their children to strangers.

Immersing himself in America's rigid immigration laws and strict refugee quotas, Gil noticed that approved visas sometimes went unclaimed. He proposed using these "dead" visas for the children and offered to travel personally to Nazi Germany to select and transport them back to America, all with funding from Brith Sholom. At no point did he try to sidestep rules or go around procedures of the immigration system, although he had to be shrewd about who to approach, due to intense anti-immigration sentiment and government officials who were openly anti-Semitic. Sympathetic authorities couldn't guarantee that visas would be available or that Nazi functionaries would cooperate. The rescuers departed with little more than an unofficial nod and their own bravery, doggedness, and blind faith. At no point, from beginning to end, was there any certainty of success.

After arriving in Berlin, the group made its way to Vienna, where conditions for Jews were deteriorating alarmingly. Buildings were

draped with swastikas, and images of Hitler hung in shops. The Gestapo monitored their movements. Signs proclaiming "Juden verboten" greeted them everywhere. Mostly they ignored them, although not without trepidation. In their hotel rooms, they heard marching troops and the sound of heavy tanks and mounted guns at night.

As word spread about the rescue mission, families lined up outside a Jewish community center. With the help of Hedy Neufeld, a former medical student who would no longer be able to practice because she was Jewish, they began interviewing parents and children. Since they both spoke German, Neufeld and Schless asked most of the questions.

"It was as if we had drawn up in a lifeboat in a most turbulent sea," Eleanor wrote in her diary. "Each parent seemed to say, 'Here, yes, freely, gladly, take my child to a safer shore.'" Schless advised taking only healthy children who could endure the long voyage and those old enough to withstand separation from parents. Most would be left behind.

Even as they made their selections, back in Berlin all the paperwork was in order, but embassy officials still couldn't assure the rescuers that there would be visas. They decided to proceed as planned and bring the 50 children back to the capital by train, and then, if luck held, on to the port city of Hamburg.

The children, each with a small suitcase, and parents gathered in the dark at the Vienna train station hours before the scheduled departure. Storm troopers and attack dogs were positioned among the families on the platform.

"The parents stood in completely orderly and quiet fashion," Eleanor wrote. "Their eyes were fixed on the faces of their children. Their mouths were smiling, but their eyes were red and strained." Jews were forbidden to give the Nazi salute, and parents risked being arrested if they waved goodbye. As the train pulled away, they simply watched their children disappear from sight.

ROBERT AVROM SCHLESS, *Aleph Yod He*
Age, 21.

Occupation, Pediatrics, poetry and pretty nurses.

Residence, Philadelphia, Pa.

Previous History, Central High School of Philadelphia, 1912.

Present Illness, Member of the Graham Pediatric Society; Assistant in Children's Dispensary of Jefferson Hospital, 1914-15; Editorial Staff of "Jeffersonian" in 1912-13.

Chief Complaint, 9 A. M. classes. Who likes to give up a warm bed and comfort for hard benches and gluteal keratosis? For further information ask Bob or his inseparable pal, Abe Gross.

Physical Examination, Broadway dancing master.

Prognosis, He's going to be a "big" little pediatricist some day, has quite a reputation already as a baby specialist. Keep your eye on Bob—"Babies cry for him."



Robert Schless' Yearbook

Robert Schless (seated), aka "Uncle Bob," gives English lessons as the children cross the Atlantic.

Courtesy of PerlePress Productions



In Berlin the next day, 50 exhausted and homesick children entered the American embassy to be interviewed again. Gil returned from bringing the first batch upstairs to be examined by embassy officials. "What about the visas? What about the visas?" Eleanor pleaded. He sat down beside her and leaned close. "There are 50 visas waiting for us," he whispered. "All our worries are over."

The next day, the children with their rescuers boarded the *SS President Harding* and set sail for New York City. During the voyage, Schless gave daily English lessons to the children, and they began calling him Uncle Bob, although some still called him Herr Doktor. Ten days after leaving Hamburg, the ship sailed past the Statue of Liberty carrying the largest group of "unaccompanied" children saved from the Holocaust, which claimed some 1.5 million children.

At no point, from beginning to end, was there any certainty of success.

Halfway through the ocean voyage, Schless confided to Eleanor Kraus, "I made a very great mistake in leaving Hedy behind. I am in love with her and want to marry her."

Eleanor had sensed their growing fondness and was miffed that Schless had taken this long to sort out his feelings. He sent Neufeld a ship-to-shore cable that included a marriage proposal.

The next morning, he met the Krauses at breakfast and reported that Neufeld had said, "Yes."

Within weeks of arriving in America, Schless turned around and set sail for Vienna, where he married Neufeld in July 1939. While he was abroad, Brith Sholom held its annual convention, where Philadelphia congressman Leon Sacks hailed the rescue of the 50 children. He singled out Schless as a "true healer in the suffering of humanity."

The couple returned to the United States not long after, and Schless resumed his pediatric practice. He was living with Hedy in Bern, Switzerland, when he died in 1972 at the age of 77.

Eleanor Kraus kept a record of her observations and feelings during the improbable rescue mission. Amid the miracle of 50 lives saved was yet another miracle of love that blossomed in a time of fear and menace.

"It seemed like a wonderful and magical ending," she wrote. "It was a happy, fairytale ending." 🍀

The main source for this story is 50 Children: One Ordinary American Couple's Extraordinary Rescue Mission Into the Heart of Nazi Germany by Steven Pressman.

From Farm Boy to Jeffersonian

Reflecting on the Past—Anticipating the Future

Celebrating 10 Years at Jefferson

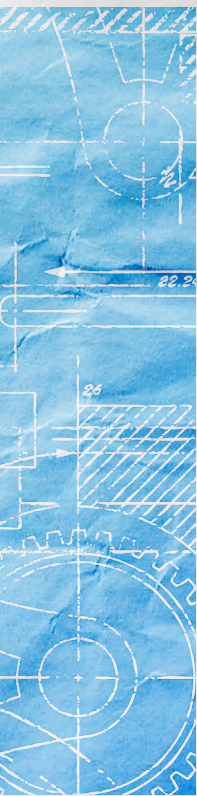
Mark L. Tykocinski, MD

Provost and Executive Vice President for Academic Affairs

Thomas Jefferson University

Anthony F. and Gertrude M. DePalma Dean

Sidney Kimmel Medical College



By Cindy Lefler

Mark L. Tykocinski, MD, is a firm believer in the adage “When one door closes, another opens.” But in Tykocinski’s case, those doors are literal, not figurative. The scientist-turned-administrative leader credits his professional success to a few perfectly timed open doors and his willingness to walk through them into the unknown.

“You don’t necessarily need to know where you’re going to end up in life. What you really need is some general direction and the flexibility to allow for a couple of different endings,” he says. “When you allow for some variation, life becomes a lot more interesting—and all kinds of exciting things open up along the way.”

That trust in the universe led him to a stellar career in research, and to Jefferson, where he is celebrating 10 years as a leader and pioneer in discovery and academics.

Sitting in his sunlit office surrounded by Jefferson artifacts, Tykocinski explains what has always driven him to work hard, and how that drive brought him to Jefferson, where he is now dean of Sidney Kimmel Medical College (SKMC), as well as provost and executive vice president of Academic Affairs at Thomas Jefferson University (TJU).

When asked where the story of Mark Tykocinski begins, he leans back in his chair, smiles, and declares, “I’m just a farm boy.”



From Farm Boy to Forrest Gump

If you told a young Mark Tykocinski that he would end up as a medical school dean and university provost, he probably wouldn't have believed you. A self-proclaimed "naïve child of immigrants," he grew up with doting parents who provided an abundance of love, but little academic or career mentoring.

Tykocinski's parents were Holocaust survivors. Natives of Poland, they endured Auschwitz and met in a displaced persons camp after the war. They married in 1947, immigrated to the United States in 1950 with their young daughter, Annette, and settled on a chicken farm in Lakewood, New Jersey, where Tykocinski was born in 1952. He says one of his most vivid childhood memories is that of standing on a crate, helping his mother candle eggs. Eventually, his father gave up farming to become a successful house and apartment developer in northern New Jersey.

In spite of the hardships his parents suffered during the war, he says the family led "an amazingly normal life." His mother and father spoke mostly Polish and Yiddish at home, so Tykocinski learned much of his English from televised baseball games in the days of Willie Mays and Mickey Mantle. He attended a Hebrew day school until eighth grade, then went on to a dormitory at the Manhattan Talmudical Academy, a private, non-coed high school in New York City.

Being a "child of the '60s and '70s," he says he didn't think much about what he wanted to be when he grew up, and had no career path charted out. Fate took over and "things just fell into place" as the years progressed.

"In fact, most of my life really has unfolded like a Forrest Gump story," he says.

Doors Number One and Two

With no blueprint for his future, Tykocinski graduated valedictorian of his class in 1970, and was one of two from his school that year to enter Yale—the first-ever graduates from the Manhattan Talmudical Academy to do so. He had also been accepted to Harvard, "but some person, not sure who, mentioned that there were campus riots at Harvard, so I figured I should go to a place that had a chance of staying open," he explains, adding wryly, "Clearly I was making informed decisions."

His unexpected path to medicine began toward the end of his first year in college over a dinner at his sister's apartment at the other end of Yale's campus. At one point, Annette turned to him and asked one simple, direct question: "So, Mark, what do you think you want to major in—what do you plan on doing?" He admitted he hadn't really thought about a career, but was considering majoring in philosophy. Ever the pragmatist, she pointed out that university faculty positions in philosophy were few and far between, and suggested, "Did you ever think of becoming a doctor?"

He hadn't been thinking of that at all, but now that she mentioned it, the question then became where to start. Annette once again made a suggestion: "Work at a lab and see if you like it." When he told her he was planning on spending the summer in Boston, she quickly responded, "I'm sure you can find a lab in Boston."



1: Annette (sister) with Mark L. Tykocinski (MLT)
2: Guta, Joseph, Mark, and Annette Tykocinski
3: MLT at camp in the Poconos

That summer, Tykocinski rented a room in the basement of a Brookline, Massachusetts, home, and somehow found his way to the campus of Harvard Medical School.

"Fortunately, there was no security in those days, so I literally strolled into the first building I saw. It turned out to be the Harvard School of Public Health," he remembers. "I started walking down the hallway, but all the doors were closed. Finally, down at the far left, there was an open door, with a gentleman sitting behind the desk. I knocked on the door lightly, and he looks up with a 'Yes?' I say, 'Hello, I'm an undergraduate at Yale and I want to work in a lab.' He quickly sizes me up, and says, 'This could be your lucky day. We just got a grant...'"

The gentleman turned out to be Bernard Lown, MD, renowned for pioneering the direct current defibrillator, and for his groundbreaking research on how psychological factors play into heart disease. Beyond science, Lown authored an influential book in the medical education world, *The Lost Art of Healing*, and in 1985 shared the Nobel Peace Prize with Soviet cardiologist Yevgeniy Chazov for co-founding International Physicians for the Prevention of Nuclear War.

"And so, Bernard Lown became my lifetime mentor," Tykocinski says.

He ended up working with Lown for three summers, analyzing electrocardiographic tracings to map diurnal variation of abnormal heart rhythms, and wrote his first research paper at Lown's summer home on Sebago Lake in Maine.

"It was the house that did it," Tykocinski jokes of his decision to dedicate his career to research. "Every day we'd sit on the porch of this beautiful house overlooking the lake, writing the paper, and I thought, 'Wow, if this is what scientists do, well, I could really get into this.' Of course, that was a bit disconnected from reality." He laughs and shrugs. Still, it was the "aha moment" that changed the course of his life.

When it was time to apply to medical school, Tykocinski looked for institutions close to home; his mother had passed away when he was 16, and he now wanted to be near to his father. He ended up at New York University (NYU).

The road to his chosen specialties—immunology and pathology—also began by chance, in his fourth year of medical school. He wanted to do an extended research elective in the laboratory of a lecturer he admired. When he sought out that professor's office in the Pathology department, a note on the door read: "Out for the next few weeks." And so, pressed to lock in an elective, Tykocinski took a walk down another corridor, past another series of closed doors.

"I'm walking down the hall, and I see a door to another lab open—Michael Lamm's lab. I thought to myself, 'He gave a pretty good lecture—I think I'll go in there and talk to him.'" So he did. Michael Lamm, MD, a pioneer in the field of secretory immunology, invited Tykocinski to work in his lab. The immunology seed had been planted.

After medical school, Tykocinski began a medicine residency at Columbia-Presbyterian Medical Center (now NewYork-Presbyterian Hospital), but changed course after the first year and transferred back to NYU for two years of anatomic pathology residency, which he determined to be a better path for a hard-core basic science research career. Next, he and his wife, Judy, moved to Washington,

D.C., so he could pursue a fellowship in the Laboratory of Immunogenetics at the National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIH). From 1981 to 1983, he cloned and sequenced genes of the immune system, in the early days of cloning technology.

Life is Like a Box of Chocolates

For Tykocinski, the next 35 years would be full of surprises and unexpected opportunities.

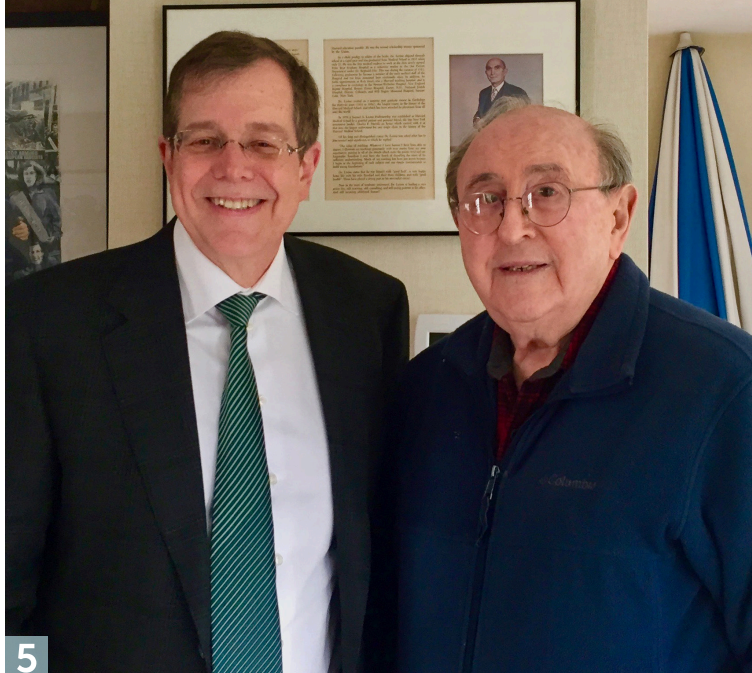
The year 1983 presented Tykocinski with "another Forrest Gump moment" when he unexpectedly ran into former mentor Michael Lamm at a conference in New Orleans and Lamm made him an offer he couldn't refuse. Lamm had left NYU to chair the Department of Pathology at Case Western Reserve University in Cleveland, and he invited Tykocinski to join him there as an assistant professor.

"The contract letter was one paragraph," He laughs. In it, Lamm promised to give him what he needed to be successful; he kept his promise, and more. "He gave me the freedom to do anything—to think out of the box, and to start doing really exploratory kinds of projects. That set the tone for the rest of my career."

Over the course of his 15 years at Case Western, he worked his way up to tenured professor in pathology and oncology. His early projects there led to a new class of gene expression vectors—by now distributed to hundreds of labs worldwide—and he established and served as director of the Gene Therapy Program at the Case Comprehensive Cancer Center. His pioneering studies introduced terms such as protein painting, cell surface engineering, coinhibition and artificial veto cells, and his NIH-funded investigations into cancer immunotherapy and tumor cell vaccines proved foundational—and way ahead of their time.



4: Joseph, Mark, Elana, Dana, and David Tykocinski



5

Now, Tykocinski was taking his place on the national scene. He served on, and then chaired, a key NIH study section in the cancer field, and served on numerous academic and national committees. In 1995, he received the Warner-Lambert/Parke-Davis Award from the American Society for Investigative Pathology, which honored outstanding research contributions by members under the age of 43. Three years later, the University of Pennsylvania came calling. They were searching for a chair for the university's third-largest research department—Pathology and Laboratory Medicine.

"At first I thought it was a joke—I didn't think I was even qualified for a faculty position there," he says. After consulting with Michael Lamm, and at Judy's urging, he accepted the position; within four months, they and their four children were driving down the Schuylkill toward their new home in Merion Station, Pennsylvania.



6

While Tykocinski was excited for the opportunity, he remembers the transition wasn't easy, particularly for his oldest child, Gabriella, a junior in high school at the time. After only a week on the Main Line, she took him on a guilt trip by declaring, "Daddy, I hope this job is really good for you because you've destroyed our lives." But within two months, Gabriella had come around, telling her father, "I can't believe we were living in Cleveland. I mean, Philadelphia is such a better city!"

"It all worked out." Tykocinski smiles.

During his 10-year tenure as the Simon Flexner Professor and Chair of the Department of Pathology and Laboratory Medicine at Penn, Tykocinski proved himself a mover and shaker in his field on both the local and national levels.

He assembled an elite faculty in his department at Penn, with the brilliant researchers Peter Nowell, MD (the Philadelphia chromosome and the genetic basis of cancer); Mark Greene, MD (antibody therapies for breast and other cancers); Carl June, MD (CAR T-cell therapy for cancer); and Jim Wilson, MD (tissue-targeting, adeno-associated virus gene expression vectors). It sported leading research programs in immunobiology, neurodegenerative diseases, and small RNA biology. The residency program was recognized as one of the nation's best, and the clinical laboratories were growing and thriving.



7

At the invitation of, and working closely with, Penn Provost Robert Barchi, MD, PhD, Tykocinski led the strategic planning for life sciences for the university and oversaw the complete overhaul of Penn's Center for Technology Transfer.

During the Penn years, Tykocinski became president of the American Society of Investigative Pathology and the Association of Pathology Chairs, served as an external reviewer for numerous pathology departments across the country, and participated on a range of national and local scientific and academic committees. "I was plugged into the whole academic pathology community, and, frankly, I loved it. We were doing great things," he says.

Then, out of the blue in 2008, came another call.

Barchi had moved from Penn to become president of TJU in 2004—and several years later was searching for a new dean for the medical school. Tykocinski was high on his list.

5: Bernard Lown with MLT in Newton, Ma., home

6: Michael Lamm with MLT

7: Avraham Hochberg (scientific collaborator at Hebrew University) with MLT

“You don’t have to know where you’re going to end up in life.”

“I had no aspiration to be a dean. It was something I hadn’t really thought about,” Tykocinski reflects. At first, he turned down the search firm’s outreach. But the phone call started him thinking.

“It was clear that I had built all that I was going to build at Penn. By the time I completed my stint there, we were the number one NIH-funded department of pathology in the country, and we were accounting for the lion’s share of Penn’s commercialization activity ... I called Bob and asked if the job was still open.”

Although discussions were well along with two other candidates, Barchi set up a meeting with Tykocinski at a local deli. Then a second meeting. And after being interviewed by a reconvened search committee, Tykocinski had the job—and a vision for the future of Jefferson.

Becoming a Jeffersonian

On December 1, 2008, Tykocinski walked through the door to his office in the College Building as the Anthony F. and Gertrude M. DePalma Dean of Jefferson Medical College, senior vice president of TJU, and president of Jefferson University Physicians (JUP). He immediately set out to revolutionize medical education and healthcare.

His first order of business was to fine-tune key administrative components of the medical college and the practices. He believed that things as seemingly mundane as creating standard chair and faculty contracts, implementing more formal departmental review processes with defined internal and external review committees, and active hands-on financial oversight by the dean would bring greater efficiency and efficacy to operations.

At the same time, rolling up his sleeves and working in concert with hospital leadership, Tykocinski orchestrated the launch of Jefferson’s first structured clinical service lines. “John Ogunkeye, Bill Keane, and I were a hard-charging JUP leadership team, while having some laughs in the process ... and David McQuaid proved an exceptionally strong partner on the hospital side,” he says. Also key was Brian Squilla, MBA, who followed Tykocinski from Penn as chief of staff, making the medical college tick.

One example of the overwhelming success provided by the overhaul was the neurosurgery department. At the time Tykocinski arrived, the Department of Neurosurgery had all but disappeared. They were stretched thin with less than a handful of neurosurgeons and a dedicated chair carrying much of the clinical load. He vowed to double the size of the department; instead, he multiplied it several times over, and in the process helped the team create a 35-hospital neuroscience network.

By 2017, Jefferson ranked second in the country for total number of neurosurgical procedures; in 2018, *Neurosurgery* named Jefferson’s Department of Neurological Surgery the most academically productive neurosurgery residency program in North America.

Tykocinski similarly helped elevate other lines of service at the hospital, contributing to its recognition year after year in *U.S. News & World Report’s* Best Hospital rankings.

“We took the clinical side of the practices and the enterprise to the next level,” Tykocinski said. “In doing so, we set the stage for a man of action, and a visionary president, like Steve Klasko (Stephen K. Klasko, MD, MBA, president of Thomas Jefferson University and CEO of Jefferson Health), to come in and take some really bold next steps.”

By the time Tykocinski stepped down as president of JUP in 2014, he had taken the group from 470 doctors to more than 650. That same year, he became the first-ever provost and executive vice president of Academic Affairs at TJU.

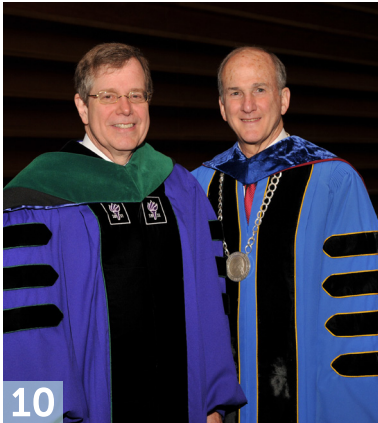
Combining the roles of medical college dean and university provost made sense to him under Klasko’s plan to reimagine Jefferson as a leader in healthcare and health profession education. In his dual role, spanning the gulf that had separated the medical college from the other schools became doable.

An item high on Tykocinski’s “to-do list” was to radically overhaul the curriculum at the medical college (renamed Sidney Kimmel Medical College in 2014). He turned to the students to provide the name for the new curriculum: JeffMD.

JeffMD, an updated method of educating future doctors, follows in the path of other medical schools across the country that have moved from large, lecture-based courses to curricula that integrate hands-on medicine and basic science with interactive case-based seminars, problem-based tutorials, scholarly inquiry, and skills and communication training. But JeffMD goes much



8: Jacob Rachmilewitz and Michal Dranitzki-Elhalel (former postdocs) with MLT in Hadassah Medical Center, Jerusalem



9: Elana, Gabriella, Dana, and David Tykocinski

10: Bob Barchi with MLT

11: John Ogunkeye and Bill Keane with MLT

12: Judith Rodin and Peter Nowell with MLT at Penn

13: Brian Squilla with MLT at Penn

14: Sidney Kimmel and David McQuaid with MLT

But changing curriculum wasn't enough—at the same time, he sought to elevate co-curriculum, crosscutting knowledge domains that offer students distinctive educational pathways and methods to differentiate themselves as the field of medicine evolves at a lightning pace. Co-curriculum has emerged as a signature strength of SKMC, ahead of the pack on the national scene.

Tykocinski offers a snapshot chronology: "It started soon after I arrived at Jefferson, when we launched the College-within-the-College (CwiC) program with Susan Rattner, MD, as lead, featuring tracks in translational research and global/population health, and later design."

Co-curriculum was cast in an even larger framework in SKMC. "Several years ago, I coined the term 'Medicine+' ... yes, we train our students in medicine, but it is the crosscutting ways of thinking and knowledge domains that will empower them in the new healthcare frontier," he says. "Our students today will be in the heart of their careers in 2050 and beyond. By then, it seems likely that 50 percent or more of what physicians do today they won't be doing then, as they practice in teams, powered by machine intelligence ... so it really behooves us to ask, 'What is the physician of the future going to be doing, and how do we train these students to do it?'"

While he admits he doesn't have a crystal ball, he says one can make educated predictions about the kinds of skills physicians will need in the 21st century.

"One of those things is to train students to view the world through a 'human lens'—sensitize them to interface with their environment and surroundings in new ways, new ways of seeing, brimming with creativity," he says. To help with that kind of training, Tykocinski recruited Peter Lloyd Jones, PhD, who founded LabStudio in his department at Penn, and launched MEDstudio at Jefferson. Bridging medicine with architecture, design, and smart fabrics became part of the Jefferson gestalt, and MEDstudio-sponsored projects showcased Jefferson's embrace of those bridges.

Medicine + Design programming at the medical college was expanded by Bon Ku, MD, MPP, a practicing emergency room physician, an associate professor at SKMC, and an expert in health and design thinking. JeffDESIGN emerged as a first-of-its-kind medical school program that teaches future physicians to apply human-centered design to healthcare challenges. The co-curricular track embeds medical students in design thinking sessions to find better ways to deliver care and develop the next generation of medical devices. Projects include using 3-D printing to improve surgical outcomes, redesigning hospital spaces for efficiency and patient comfort, and improving lives of the physically handicapped—in short, exploring the ways infrastructure, community, and physical environment can all positively impact health.

The program got rave reviews, but Tykocinski and Ku felt the need to take it one step further. They reasoned: Why not groom students in design thinking before they arrive at medical school? So they looked to partner with a respected university that didn't have a medical school.

Princeton University agreed to a joint venture where second-year undergraduates would immerse themselves in course work that ties into design, and would work with SKMC students on special design projects. In return, Jefferson would assure admission to a number of those students. The program showed positive results from the get-go, and is continuing to grow.

further than others, infusing the curriculum with a variety of subject threads that creatively span the four years, as well as adding tracking options. In 2017, the first class of JeffMD students received their white coats; two years later, the curriculum is proving to be a great success.

"Given that we're the fifth-largest medical school in the country, rolling out a small group-intensive curriculum was a big undertaking ... sort of a moonshot," Tykocinski says. He gives a great deal of credit to Steven K. Herrine, MD, vice dean of Academic Affairs/UME at SKMC, and Deborah Ziring, MD, associate dean of Undergraduate Medical Education, who led the design and implementation of the revised curriculum.

But never satisfied with the status quo, Tykocinski saw as a next logical step offering design-primed JeffMD students a pathway to cap off their co-curricular training with a master's degree in industrial or strategic design. For this, the team set out to find a university willing to establish an accelerated program in conjunction with the medical college. Enter Philadelphia University.

"When they put this place on my radar, despite all my years in Philadelphia, I'd never heard of it," he recalls. Both Jones and Ku had been separately cultivating working relationships there, so Tykocinski and Klasko decided to take a road trip.

"As I walked into the (PhilaU) building with Steve to meet their president, I sort of nudged him and said, 'This is an impressive place. Wouldn't it be great if we could somehow join together?'" A few months later, Klasko called Tykocinski: "Remember that visit to PhilaU and what you said? Well, it looks like we could get it together with them!"

The rest, he says, is history—and the future.

In July 2017, Thomas Jefferson University and Philadelphia University merged to create a professions-focused university designed to deliver high-impact education and value for students in medicine, science, architecture, design, fashion, textiles, health, business, engineering, and more.

As Jefferson continues to grow in size and stature, Tykocinski says it's important to remain grounded and "stay true to the original concept of JMC founder George McClellan, MD, and create a more humanistic training ground for physicians"—one that takes them from the bedside and into the community.

"What truly distinguishes our medical college is the level of student engagement in community service," Tykocinski proudly offers, ticking off just a few examples of the outreach in which Jefferson faculty, staff, and students are involved: JeffHOPE (celebrating its 25th anniversary this year), a student-run organization of SKMC that works to improve access to healthcare for the homeless and underserved populations of Philadelphia; Refugee Health Partners, another student-run organization that works with refugee communities in the city to improve and advocate for the health and well-being of refugees through community outreach programs; and Give Kids Sight Day, which offers free eye exams for children from some of the poorer areas of Philadelphia.

Radical overhaul of academics, strengthening healthcare service lines, and bolstering old outreach programs, while instituting new ones to meet the community's needs, were only part of Tykocinski's plan. He knew that the future of medicine hinged on information. Tykocinski saw the future—and it was bursting with data bits.

"This is the century for data sciences," he says. "One of the things our strategic academic framework calls for is building and doubling down on computational thinking as it applies to our specific areas of interest—like design, textiles, architecture, and healthcare. These are computational intersections where we can truly excel."

For example, Tykocinski says, while at Penn, he had a vision of taking computational biology to the next level and marrying it to clinical diagnostics. Computational biology—the development and application of data-analytical and theoretical methods, mathematical modeling, and computational simulation techniques to study biological, ecological, behavioral, and social systems—is unquestionably a key new frontier in the biomedical space.

While funding limitations prevented him from bringing that initiative to fruition at Penn, he was determined to establish it at Jefferson. Tykocinski sought out a renowned researcher, Isidore Rigoutsos, PhD, who had worked at IBM's Thomas J. Watson Research Center and co-founded the company's Computational Biology Center in 1992. Tykocinski offered him a new position, Rigoutsos accepted, and in 2010, the Computational Medicine Center at Jefferson was created.

Another part of the plan entailed extending Jefferson's reach internationally. While Jefferson faculty collaborate in literally dozens of countries around the world, Tykocinski has pushed for focus, channeling resources and energies on a more limited set of countries, which would be designated as Jefferson Global Centers. The first ones encompass four countries on three continents.

The first global center—the Japan Center for Health Professions Education and Research at Jefferson—was established in 2012, following years of relationship-building by Dean Emeritus Joseph S. Gonnella, MD, and the more recent leadership of Charles Pohl, MD. It brought together TJU with the Noguchi Medical Research Institute, focused on their common interest in the nexus of medicine and humanism. Beyond Japan, the global centers

15: Julie McDonald and Matthew Weber (MLT lab scientist) with MLT

16: Brian Squilla with MLT at NIH in Bethesda, Md.

17: Deans Concert Series in Lubert Plaza

18: Tobi Kahn (lifetime friend) with MLT in Cape Cod





“When I look
back I just feel
very fortunate
for a lot of those
doors.”

initiative has extended to Italy, India, and Israel, benefiting from highly effective country-specific executive directors—Ignazio Marino, MD, Richard Derman, MD, and Zvi Grunwald, MD, respectively.

The Jefferson Israel Center opened at a ceremony in Jerusalem in June 2018, the culmination of five years of public and private partnerships between Jefferson and Israeli universities, hospitals, technology innovation centers, and government agencies. This April, Tykocinski received the 2019 Lifetime Achievement Award from the Philadelphia-Israel Chamber of Commerce for his diverse endeavors in Israel. The award is given annually to a corporation or private Delaware Valley citizen who has contributed to the fostering of economic and educational ties with Israel.

Roots and Wings

Tykocinski's office offers a private glimpse into some of what he holds most dear in his life. Shelves are stuffed with scientific books and mementos of his decade at Jefferson. Strewn about his desk, in no particular order, are family photos—lots of them. His wife, four children, and six grandchildren stand in silver, Lucite, and gold-trimmed frames. Two smaller photos sit in prominent view: a handsome man in black and white, his late father, and a faded-with-age color picture of a lovely smiling woman—the mother he lost too young. The walls are filled with photos he discovered in the Jefferson archives—a set of Robert Frank originals—along with a painting by his lifetime friend and noted artist, Tobi Kahn.

A whiteboard beside Tykocinski's desk, covered in scientific scribbles, stands as evidence that this scholar is not yet ready to give up his first love—research. While he admits he doesn't have a lot of time to devote to it, he simply cannot step away from it, and keeps a small lab going on campus, led day to day by his long-term scientific colleague, Matthew Weber, PhD.

The dry-erase marker scrawls sweeping across the board represent the mechanism for a new fusion protein Tykocinski's lab is developing, with a provisional patent already filed earlier this year. It wouldn't be Tykocinski's first patent—in fact, he has dozens linked to his science, some of them connected to the Israeli biotech company he founded in 2007, KAHR Medical, to create fusion protein pharmaceuticals for cancer treatment. Tykocinski serves as chair of the company's scientific advisory board, and is in the early stages of creating a second biotech start-up.

Tykocinski's expertise in fusion protein research extends past the lab, beyond patents, outside of business enterprises—and into the pages of textbooks. Pulling a tome from the shelf, he explains that he was lured into writing the first chapter of a book called *Micro- and Nanoengineering of the Cell Surface* when one of the authors told him that he is the “father of the field.” He laughs. “For most of my career, I didn't know that what I was working on was actually a ‘field’ ... nor did I see myself as the father of anything beyond my four children!”

He slides the book back onto a shelf brimming with other keepsakes—a stethoscope from the Alumni Association, a microscope from the Jefferson archives, photos, plaques, awards, a glass figurine of an eagle that represents the qualities of leadership (a gift from former TJU President Richard Gozon). With every object he touches, he launches into professor

mode, lecturing on the historical background of each piece and its importance to himself and Jefferson.

Finally, he lifts a frame from the shelf; it contains a weathered paper dated October 30, 1824. He is animated in telling the tale of Jefferson's founding, as he takes on the persona of George McClellan, recounting the story of his "Paul Revere ride" across the state to Jefferson College, to circumvent the University of Pennsylvania's attempt to thwart his efforts to start a new medical school in Philadelphia.

"And this is the original charter of Jefferson Medical College! This incredible university that we are so proud of has its origins on this single piece of paper." Tykocinski smiles, puts the framed document back on the shelf, and says almost apologetically, "I love history and historical artifacts."

It is the desire to honor the history of this "incredible university" that inspires him to continue to build on the successes of Jefferson, both academically and clinically. "I see us as a university aspiring to elevate the professions to a truly elite level; our strategic plan gives us a road map to build on our legacy strengths and to realize our dreams for an institution that meets the needs of students who will confront a radically different future state," he says of TJU.

As for SKMC: "I want us to be recognized as a true leader in envisioning medical education for the 21st century. After all, we were the first medical school in the nation to introduce bedside teaching, and throughout our 200 years we have been at the forefront of many innovations in medicine and medical education."

"I like the dreams of tomorrow better than the history of the past."—Thomas Jefferson

Looking back on all he has put into place since arriving at Jefferson—both locally and globally—Tykocinski assesses his accomplishments as "pretty good for 10 years." He notes not many deans stay at an institution for a decade; in fact, by the Association of American Medical College's latest calculation, the average tenure of a medical school dean in the United States is 3.6 years.

But for Tykocinski, 10 years is only the beginning; there is much more for him to do here. He sees in Jefferson even

greater potential for becoming an institution that will serve as the vanguard for the future of education, healthcare, and discovery. He works toward that goal every day—and his schedule reflects it.

A day in the life of Mark Tykocinski can be quite frenetic. One minute he will be deep in scientific discussions, the next he will be talking about master facility plans; just a few hours after discussing financial budgets and strategic national and international partnerships, he'll dash off to a session of the Dean's Student Leadership Forum, the program he created to give himself face time with selected students and mentor them on leadership skills and perspectives. He serves on committees a bit too numerous to count, all the while keeping an eye on the latest trends in medicine, research, and education.

"It's a pretty wild existence," he admits. "But I have never experienced boredom ... and at this rate, I probably never will."

However, just to keep any possible ennui at bay, Tykocinski has a new project in his back pocket. "In my free time, I'm writing a book," he says with a chuckle. Seriously. He's writing a book.

In June he was invited to give an endowed lecture at Johns Hopkins on the future of medical education, which prompted him to collect his thoughts on the subject. After the well-received speech, several attendees suggested he "write this stuff up." He put pen to paper, thinking he'd write an article based on the lecture, but by the end of his summer writing in Woods Hole, he had more than 100 pages of deep outline. He quickly realized the piece was going to be more than an article, it was going to be a book.

19: Installation of Yellin gate in Lubert Plaza

20: MLT on streets of Paris

21: MLT's desk in Office of the Provost

22: Sandy Timen, Marty Rabinowitz, Tobi Kahn, Steve Winter, and Gary Gross (lifetime friends) with MLT

23: Ted Christopher, Xin Ma, and MLT with former Jefferson trainees in China





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Ever the glass-half-full kind of guy, Tykocinski lays out an optimistic view in his book—of the future physician, of medical education, and of healthcare.

“Too many people are doom and gloom these days when it comes to the role of humans in the age of machine intelligence,” he says, explaining that there are those who predict the role of the physician will be minimized or eliminated as machines take over.

“I see it as the exact opposite. I believe our future is incredibly bright—but it requires us to envision the physician of the future in an entirely different way,” he says, explaining that the doctor of tomorrow will need to be less of a diagnostician and more of a healthcare team coordinator, a consultant to the patient, and a humanistic care provider.

He views humanism in medicine as something far deeper than just empathy. “Empathy is surely part of the picture, but it’s really only a small piece of a much broader perspective that includes asking important questions such as: What will the physician of the future be doing? What are the competencies of that physician in an age of machine intelligence and robots? What are the essential human qualities of the future physician? What training does this call for?” he says. These are all questions he addresses in the book.

Although he hasn’t found a publisher just yet, he’s sure that door will open—just as others have over the years.

Tykocinski says he has enjoyed every step of the journey that has led him to where he is today. If he had to cite one regret, it’s that his mother—especially given all that she suffered during the war—didn’t live long enough to see any of what he has accomplished.

“Being the child of Holocaust survivors is pretty much what has shaped me as a person; there was always this subliminal sense that I had to make my parents’ survival worthwhile,” Tykocinski says. “Growing up, no matter what happened in my life, I didn’t feel as though I could complain because anything I could complain about would pale against what my parents went through.”

He is appreciative of the love and nurturing his parents gave him when he was young, and also for the freedom they gave him to set his own paths in life—even if he had no idea at the time where those paths would lead.

“When I reflect on my life, I realize if I had been much more conscientious and much more directed and much more specific in what I wanted, I may well not have gotten to where I am now. When you narrow the potential endings, you essentially preclude all the other different possibilities,” he says.

For Tykocinski, the possibilities are always endless, and always a source of wonder and gratitude.

“When I look back,” he says, “I just feel very fortunate for a lot of those doors—many of them random—that just seemed to open and allow me to get to where I’ve managed to get to in my life.”

He now looks toward the future with optimism, eagerness, and anticipation. Because, who knows? Down another long corridor, another open door might be waiting. 🚪



To see a video featuring Dr. Tykocinski, visit Jefferson.edu/Bulletin



- 24: Dana (daughter) with MLT at Penn graduation
- 25: Elana (daughter) with MLT at Penn Med graduation
- 26: Gerald Marks (JMC alumnus) with MLT
- 27: David (son) with MLT at Yale graduation
- 28: Gabriella (daughter) with MLT at Penn Med graduation
- 29: Stephen Klasko and Neil Cooper with MLT at PICC Gala
- 30: Judith (wife) with MLT at Nobska Beach in Woods Hole, Ma.
- 31: Gabriella, David, Dana, and Elana Tykocinski



YEARS OF
TYKOCINSKI

2008

Mark L. Tykocinski, MD, Named Anthony F. and Gertrude M. DePalma Dean of Jefferson Medical College, Senior Vice President of Thomas Jefferson University, and President of Jefferson University Physicians

2009

Center for Urban Health Founded

First Academic Medical Practice/Residency Program in the U.S. to Become National Committee for Quality Assurance Level 3 Patient-Centered Medical Home (PCMH)

Post-Tenure Review Policy Instituted

Measey Surgical Simulation Suite Opened for Advanced Surgical Skills

Autoimmunity Center of Excellence Launched

Inaugural Faculty Days Program in Jefferson Medical College (JMC)

Department of Family Medicine Renamed "Department of Family and Community Medicine"

Intern Invasive Skills Program Developed by Rector Clinical Skills and Simulation Center (RCSSC)

Department of Nursing within the College of Health Professions Restructured as "Jefferson School of Nursing"

Division of Cognitive Neurology Established in Neurology

Division of Neuro-Oncology Established in Neurology

RCSSC Accredited by American College of Surgeons as Level 1 Education Institute

RCSSC Simulation Support for Jefferson College of Pharmacy Initiated

Six-Year Cycle JMC Department Review Process Launched, with Structured Chair Contracting

Jefferson Neuroscience Network Launched

Intra-Arterial Chemotherapy for Retinoblastoma Program Launched

Jeff Players Video-Trigger Tape Modules for Medical Education Introduced by RCSSC

Project HOME Expanded with Pathways to Housing Partnership



Cytogenetics and Molecular and Genomic Pathology Laboratories Established

Curtis Institute of Music Partnership Established

JMC Wellness Curriculum Developed

**Mark L. Tykocinski, MD,
Inducted as Fellow of The College
of Physicians of Philadelphia**

Herbert Kean Center for Facial Aesthetics Founded

Inaugural Give Kids Sight Day

2010

Department of Neuroscience Established

Jefferson Center for Interprofessional Practice and Education (JCIPE) Biannual Newsletter *"Collaborative Healthcare – Interprofessional Practice, Education, and Evaluation"* Inaugurated

Inaugural Complex Head and Neck Care and Education (CHANCE) Mission to Haiti

First Robotic-Assisted Hepatic Surgery at Thomas Jefferson University Hospital (TJUH)

**Computational Medicine Center
Founded**

Inaugural Ceremony for The Jefferson Chapter of the Gold Humanism Honor Society (GHHS)

Inaugural Philadelphia Surgery Symposium, Hosted by Surgery, in Conjunction with the Gibbon Surgical Society

Inaugural JMC Faculty Awards Dinner at the Union League of Philadelphia with Expanded Suite of Awards

Hosted 10th Institute of Electrical and Electronics Engineers International Conference on Bioinformatics and Bioengineering

Landmark *"Professionalism in Medicine"* Textbook Published

First-Ever Thomas Jefferson University (TJU) Faculty Senate Established

First Live Donor Liver Transplant at TJUH





Transfusion Medicine Section Created in the Department of Pathology, Anatomy and Cell Biology

Nonsurgical Selectives Introduced into the JMC Curriculum

College-within-the-College (CwiC) Co-Curriculum Archetype Established in JMC, with Population Health and Clinical Translational Research Tracks

GHHS Service Days Established

JMC Diversity Council Established

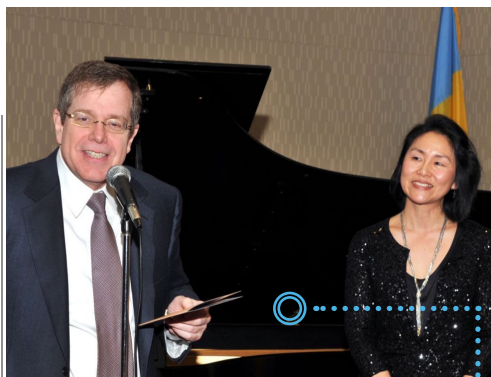
Jefferson Senior Adult Oncology Center Founded

Jefferson Center for Head and Neck Surgery Founded

Jefferson Thyroid and Parathyroid Center Founded

Jefferson Liver Tumor Center Founded

Jefferson at the Navy Yard Opened



Inaugural Dean's Concert Series

Association of American Medical Colleges Faculty Forward Implemented at JMC

2011

Brian Squilla, MBA, Appointed JMC Dean's Chief of Staff

Faculty Hiring and Contracting at JMC Standardized

Procedural Delphi Methodology Checklists Introduced by RCSSC for Invasive Procedural Skills

RCSSC Received Society of Simulation in Healthcare Accreditation as an Educational Institute

30,000th JMC Student Graduated

JMC Student Erin Lally Summited Mount Everest

Wills Vision Research Center at Jefferson Founded

Spinal Cord Injury Research Program Created in Neuroscience

George McClellan Surgical Honor Society Created for Third-Year Medical Students

JMC Delaware Branch Campus Established

Jeff HEALTH's Rwanda Project Established

Senior Medicine Introduced into JMC Curriculum

PCMH Model of Care for Center for Refugee Health Implemented

Jefferson Academy of Distinguished Educators Founded

JMC "50 and Forward" Yearlong Celebration of 50th Anniversary of First Women to Matriculate at JMC



U.S.-Israel Healthcare Information Technology Conference Hosted, in Partnership with Jefferson College of Population Health and America-Israel Chamber of Commerce

Cutaneous Lymphoma Center Founded

Rothman Institute Hosted First International Philadelphia Spine Research Symposium

Dean's Student Leadership Forum (SLF) Established in the Medical College

2012

Jefferson Japan Center Launched as First Jefferson Global Center





Jefferson Health Named a Thomson Reuters Top 5 Large Health System

Division of Genomic Pathology Created

Health Professions Academic Building Opened at 901 Walnut St.

JMC Gateway to Internship Elective Introduced

GHHS Chapter for Residents Established

Farber Institute of Neurosciences 10th Anniversary Celebrated

Professionalism in Medicine Lectureship Established

Psoriasis Center Founded

Doctor Pharmacy Degree Program Fully Accredited

Robert Barchi, MD, PhD, Departed as TJU President to Become President of Rutgers University

Tom Lewis Retired as President and CEO of TJUH

Richard C. Gozon Named Interim President of TJU



David McQuaid Named President and COO of TJUH

Neurology Shifted to Third Year in JMC

Computer Classrooms Created

Jefferson Alumni Hall (JAH) Research Labs Wave 1 (3W, 2W-Gross Anatomy Teaching) Renovated

Postbaccalaureate Pre-Professional Program Launched



TJU Institutional Faculty Development Team Formed

JCIPE Teamwork Observation Guide First Piloted

Clinical Service Line Quarterly Report-Outs (QRO) Tracking Launched

GHHS Service Award Initiated

Drexel Named JMC Consortium Partner

2013



Louis and Fannie Tolz Program for Weizmann-TJU Collaboration in Systems and Computational Biology Launched

Joan and Joel Rosenbloom Research Center for Fibrotic Diseases Founded

Laser Surgery and Cosmetic Dermatology Center Established

Inaugural Berkowitz Humanism in Medicine Lecture

Philadelphia-Israel Chamber of Commerce Yitzhak Rabin Public Service Award to TJU and TJUH

Partnership with Fleisher Art Memorial Established for Teaching Medical Students How to Draw

Partnership with the Pennsylvania Academy of Fine Arts and the College of Physicians of Philadelphia Mütter Museum Established for Teaching Medical Students Observational Skills

Jane and Leonard Korman Lung Center Created

Jefferson China-America Ultrasound Scholar Training Program Established

WorkReady Philadelphia Program Partnership Launched with TJUH

RCSSC Led the Mid-Atlantic Consortium for OSCE-Case Development

Comprehensive Concussion Center Founded

Jefferson Gastroesophageal Center Founded

Emergency Radiology Division Established in Radiology

TJU First Participated in Philadelphia Science Festival

Introduction to Design at NextFab RAPID Fabrication for 40 First Year JMC Students

ExamSoft Introduced in JMC

Rothman Institute Hosted First International Consensus Meeting on Orthopedic Infections

Neurology Clerkship Moved to Year Three

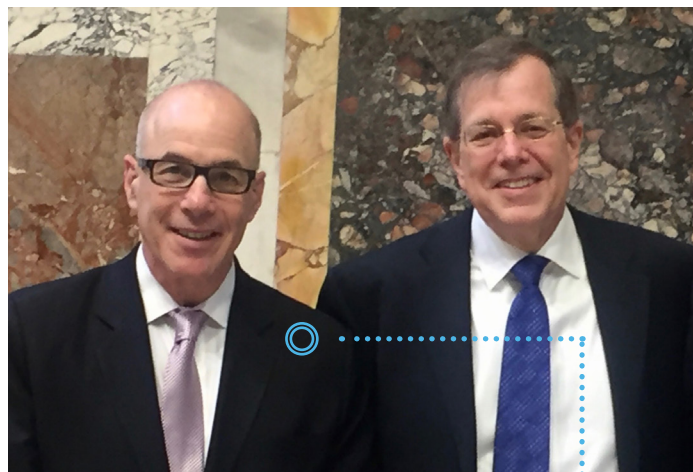
JMC Office of Diversity and Minority Affairs Launched

University Leadership LIVE Program Introduced for JMC Students

BY THE NUMBERS

New Fellowships Established since 2008

- Ultrasound Fellowship Created in Emergency Medicine
- Emergency Medicine Fellowship in Point-of-Care Ultrasound Launched
- Fellowship in Rhinology and Skull Base Surgery Established
- Bariatric Surgery Fellowship Established
- First Pediatric Weight Management Fellowship in the Nation Established
- Jefferson Surgical Critical Care Fellowship Established
- Jefferson Functional Neurosurgery Fellowship Established
- Fellowship in Head and Neck Cancer and Reconstructive Surgery Established
- Fellowship in Facial Plastic and Reconstructive Surgery Established
- Emergency Medicine Fellowship in Medical Education Founded
- Emergency Medicine Fellowship in Observation Medicine Launched
- Emergency Medicine Fellowship in Medical Simulation Launched
- Emergency Medicine Fellowship in Health Design Launched
- Palliative Care Fellowship Program Launched
- Rheumatology Nurse Practitioner Fellowship Program Launched



**Stephen K. Klasko, MD, MBA, Named
President and CEO of TJU and TJUH**

MEDstudio@JEFF Launched, Coupling Medicine to Design/Architecture Research and Education

Student-Initiated Physician Executive Leadership (PEL)
Program Launched

Mitochondrial Imaging Research and Diagnostic Center
(MitoCare) Founded

Inaugural Sukkah in JAH Courtyard

Princeton University Undergraduate Student
Shadowing Initiative Launched in JMC

Black and Blue Ball for Fellow JMC Student Gregory Snyder





Mastery Charter School-Lenfest Partnership Launched with JMC

Breakthrough Philadelphia of Partnership Launched with JMC

First Transcatheter Aortic Valve Replacement (TAVR) performed at TJUH

2014

JMC Student Admissions Policy Revamped

First Robotic Abdominoperitoneal Resection by the Colorectal Surgery Team at TJUH

Jefferson Center for Injury Research and Prevention Founded

JAH Research Labs Wave 2 (5E) Renovated

First Design Thinking Class Taught to JMC Students

MEDstudio@JEFF Speaker Series Launched, Engaging Advanced Functional Fabrics of America, Think Brownstone, Sherpaa, and Drexel ExCITE

JCIPE TeamSAFE Launched

Gateway Requirement Introduced for JMC Students

Inaugural JMC Student Leadership Symposium, Sponsored by SLF

Multidisciplinary Cutaneous Lymphoma Center Established in Dermatology

Physician Assistant Program (CC) Admitted First Class

Gold Foundation Grant Secured for Evaluating Drawing to Foster Students' Observational Skills

Partnership Established Instituto Valenciano de Infertilidad and Reproductive Medicine Associates of Philadelphia (IVI-RMA)

Partnership Developed with the Lantern Theater Company of Philadelphia for Teaching Medical Students How to Write Short Plays to Foster Empathy, Resilience, and Tolerance for Ambiguity

Jefferson Transplant Institute Created

Bariatric and Metabolic Surgery Program and Minimally Invasive and Robotic Surgery Center Established

Jefferson Medical College Renamed "Sidney Kimmel Medical College" (SKMC) with Kimmel Foundation \$110 Million Naming Gift

Clinical Enterprise Reunited with Reintegration of TJUH into TJU



SKMC Humanities Year One Program Introduced

Mark L. Tykocinski, MD, Named Provost and Executive Vice President for Academic Affairs and Dean, Sidney Kimmel Medical College, as First TJU Provost



2015

Innovation and Design Application (IDeA) Program Launched with Princeton University, as First Medicine+ Assured Admission Linkage

MS in Population Health Launched—First of its Kind

Design Thinking Program Launched, as First Design Thinking Curriculum for a Medical School

SKMC Educational Dashboard Developed

Neurohospitalist Service Created

Vickie and Jack Farber Institute for Neuroscience Restructured to Include Clinical Neurosciences

Martin Luther King, Jr. Day Designated as University Holiday

Bound Journals Removed from Scott Library

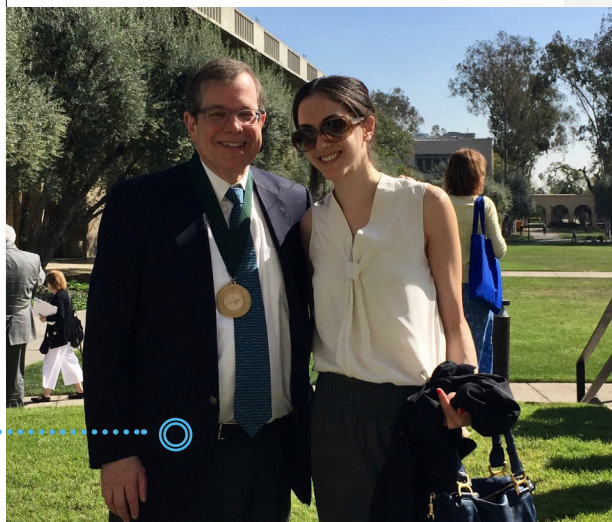
Department of Oral and Maxillofacial Surgery Founded

Case-Based Learning Piloted in SKMC Foundations of Clinical Medicine Course as Prelude to JeffMD

Programmatic Research Theme Pilot Funds First Granted

Mark L. Tykocinski, MD, Elected a 2014 Fellow of the National Academy of Inventors

First Annual Blue Lights Campaign, on Iconic Buildings in Philadelphia, Pittsburgh, and Harrisburg, for Colon Cancer Awareness



SKMC Deans' Transformational Science Awards First Granted

Center for Teaching and Learning Founded

iPads Introduced into SKMC Curriculum

SKMC Office of Student Life and Engagement Created

SKMC Faculty Hiring Policy Revamped

Institute on Medicine as a Profession-Macy Foundation Grant Secured on the Use of Theater to Foster Empathy and Tolerance of Ambiguity in Medicine

Structured Suite of Humanities Offerings to Medical Students First Offered – Playwriting and Theater, Poetry, Reflective Writing, Drawing, Visual Thinking Strategy, Opera, History of Medicine, Medical Cineforum

Research Administration Center of Excellence Launched for Centralized Grants Management

Interactive Curricula Experience (iCE) Launched

Associate Provost for Programmatic Research Position Created
Delaware Comprehensive Sickle Cell Research Center Founded

Nemours Center for Cancer and Blood Disorders Established

Physician Executive Leadership (PEL) Program Launched as SLF Student-Led Initiative

Jeff STEP-UP (Summer Training and Enrichment Program for Underrepresented Persons) Launched

Cristo Rey Philadelphia High School Partnership with TJUH Initiated

Jefferson Leadership Academy Launched

Inaugural Provost's Council

Interprofessional Student Hotspotting Learning Collaborative Launched

MEDstudio@JEFF Hosted First Philadelphia Design Event at The Center for Architecture and Design, American Institute of Architects, Philadelphia

Sidney Kimmel Honored at 12th Annual Jefferson Gala

Project HOME's Stephen Klein Wellness Center Opened

BY THE NUMBERS

Professorships, Deanships, and Directorships Established since 2008

- Thomas Eakins Endowed Professorship – Cancer Biology
- Thomas Eakins Endowed Professorship – Biochemistry
- Jewell L. Osterholm, MD Professorship in Neurological Surgery
- Roger B. Daniels Associate Dean of Professionalism in Medicine
- Beatrice F. Nicoletti Professorship in Nephrology
- The Lubert Family Professorship in Cardiology
- George Fritz Blechschmidt, MD Professorship in Clinical Skills
- Jane and Leonard Korman Professorship in Pulmonary Medicine
- J. Edward Berk Professorship in Medicine
- Ralph J. Roberts Professorship in Cardiology
- W. Paul and Ida H. Havens Professorship in Infectious Diseases
- Joseph M. and Marie H. Field Professorship in Spinal Surgery
- Demetrius H. Bagley, MD Professorship in Endourology
- Walter H. Annenberg Professorship in Joint Replacement Surgery
- John M. Fenlin, Jr., MD Professorship in Shoulder and Elbow Surgery
- Lynne and Harold Honickman Professorship in Neurology
- Robley Dunglison Professorship in Pulmonary Research
- Leandro M. Tocantins, MD – Farid I. Haurani, MD Directorship of the Cardeza Foundation for Hematologic Research
- Herman I Libshitz, MD Professorship in Thoracic Radiology
- Drs. Charles J. and Theresa P. Yeo Professorship in Alimentary Tract Surgery
- Ellen and Ron Caplan Directorship of the Marcus Institute of Integrative Health
- Victor Heiser, MD Endowed Professorship in Population Health
- James J. Maguire, Jr. Professorship in Spine Research
- Paul F. Bray, MD Professorship
- The Professorship in Quality and Safety in Women's Health
- Anthony J. DiMarino, Jr. MD Professorship
- Anthony Alfred Chiurco, MD Professorship
- The Green Family Foundation and John and Patricia Walsh Professorship in Emergency Medicine
- Kalbach-Newton Professorship in Cancer Research
- Herbert A. Rosenthal, MD'56 Professorship in Cancer Research
- Richard W. Hevner Professorship in Computational Medicine
- Navvis Professorship in Population Health
- Louis R. Dinon, MD Teaching Chair of Clinical Cardiology
- The Friends of Robert Perkel Professorship in Humanities in Medicine
- Lynne K. Honickman Director of Jefferson Signature Services
- Harold A. Honickman Physician Director of Jefferson Signature Services
- D. Walter Cohen, DDS, and Claire H. Reichlin Professorship in Dental Biosciences





Hearst Health Prize for Excellence in Population Health Established
TJU-University of Minho Joint Neuroscience Symposium Hosted on Campus

Hebrew University and TJU Research Collaborative Launched

Abington Health System Merged with Jefferson Health

Performance with Lantern Theater Company of Short Plays Written by SKMC Students and Faculty: "Funny, Sad, True, and Mad: A Theatrical Exploration of the Medical Life"

Atlantic Health System Joined as a Clinical Affiliate

Institute of Emerging Health Professions (IEHP) Launched



Jefferson Clinical Research Institute Founded

CwiC-Design Introduced as Third CwiC Co-Curricular Offering

New Clinical Faculty Compensation Plan Implemented

CPD@JeffLEARN Faculty Learning Management System Implemented

TJU Schools Renamed as Colleges

Jefferson Weinberg ALS Center Founded

iCE platform for iPads Launched for SKMC Curriculum

Inaugural Dr. Asano Medical Humanities and Health Program

MS in Forensic Toxicology Launched

PhD+ Launched

Annual Meeting of the Prestigious Halsted Society Hosted by Jefferson Surgery

Future Health Professionals Community Outreach Program Launched

Saturday Academy Community Outreach Program Launched

School Partnerships Community Outreach Program Launched

Jefferson College of Nursing (JCN) Designated as a National League for Nursing Center of Excellence in Nursing Education

SKMC Entered the American Medical Association Accelerating Change in Medical Education (AMA ACME) Consortium

Liaison Committee on Medical Education Accreditation for SKMC, Full Eight-Year Term

MEDstudio@JEFF Invited to Judge American Institutes of Architects' 2016 Better Philadelphia Challenge

Inaugural Jefferson Health Hack

Inaugural JeffSolves MedTech Session

Thomas A. Klein Program in Quality and Safety in Women's Health Established

Multistage JAH 1st Floor Renovation Project Completed - Eakins Gallery and Study Lounges, Elevator/Entrance

Comprehensive Parkinson's Disease and Movement Disorders Center Founded



New Classrooms on College 2 Opened

2016

SKMC Graduation Competencies Reformulated

SKMC Flexible Curriculum Inaugurated

Graduate Medical Education (GME) Executive Committee for Jefferson Health Established

Inaugural SKMC GHHS Regional Conference

Institute of Emerging Health Professions (IEHP) Community Health Worker Training Program Launched

Men's Genetic Risk Clinic Created as First in Nation

ALS Treatment Center of Excellence Launched

Jefferson Stem Cell and Regenerative Neuroscience Center Founded

Jefferson Integrated Magnetic Resonance Imaging Center Founded



TJU Joined MIT-Led Advanced Functional Fabrics of America Consortium, as Inaugural Partner



Yellin Gate Installed in Lubert Plaza

Health Design Lab Created, as First Maker Space in a Medical School

IEHP Center for Medicinal Cannabis Education and Research (CMCER) Launched – First of Its Kind

Inaugural Endowed Professorship Dinner

Inaugural Distinguished Joseph S. Gonnella, MD, Lecture for Excellence and Innovation in Medical Education

RCSSC In Situ Simulation Skills Program Extended to Remote Clinical Sites

Gold Foundation Grant Secured for Evaluating Caricature-Making to Foster Students' Observational Skills

Integrated Program in Human Health with Washington and Jefferson Launched as a Medicine + Humanities Assured Admissions Track

Nation's First Academic Platform for Telehealth Research Established, via Jefferson's National Academic Center for Telehealth

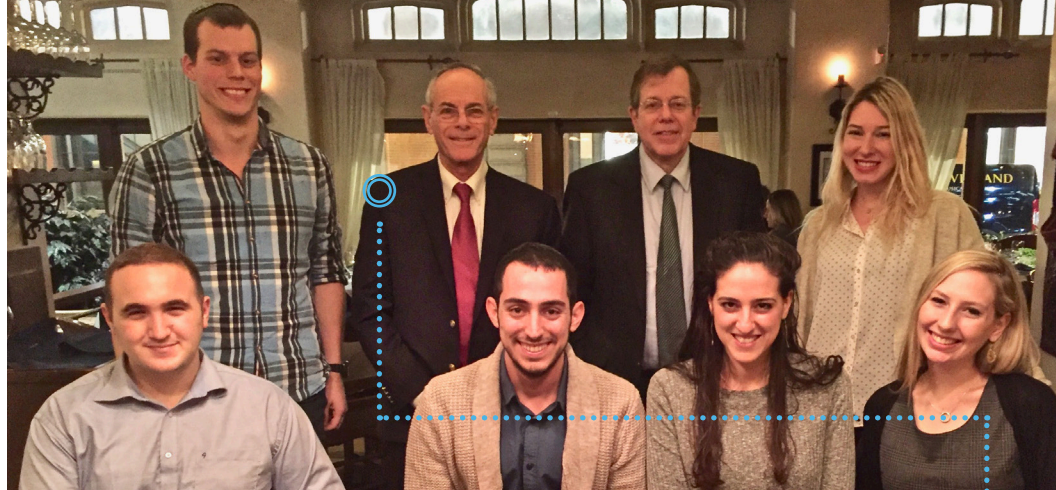
OT STEP-UP and STEP-UP Medicine Community Outreach Programs Launched

Susan Rattner, MD, Retired as Vice Dean for Academic Affairs in SKMC

Steven Herrine, MD, Appointed Vice Dean for Academic Affairs in SKMC

Aria Health System Merged with Jefferson Health

MIT/AFFOA Innovation Award First Place to MEDstudio@JEFF for Design Thinking Studio on Sound-Deployable Fabric Device to Protect Soldiers



RCSSC Simulation Support for JCN Expanded

Scientific Advisory Faculty Forum (SAFF) Launched

College-within-the-College for Medical Humanities Launched

Maternal Addiction, Treatment, Education, and Research (MATER) Program Recruited to OB-GYN

First St. George's, University of London and SKMC Program in Medicine Students Arrived to Campus

Simultaneous Curriculum for Advanced Learning in Preparation for Entering Life as a Surgeon (SCALPELS) Educational Program Launched in Surgery

Jefferson Parkinson's Disease Center Founded

3-D Printing in Medicine Launched

Medicine + Design Translated into Courses, Workshops, and Classes

IEHP "Perfusionist-Plus" Training Program Launched

IEHP Online Telehealth Facilitator Training Course Launched

JCN H.E.R.E. Curriculum Launched

Office of Research Conduct and Compliance Established

Inaugural Dr. Yoshihisa Asano Humanities and Health Series Lecture

10th Student of International Collaborative MD-PhD with U. Minho-Portugal Admitted

MEDstudio@JEFF's and Jenny Sabin Studio's The Beacon Installed in Lubert Plaza in Conjunction with DesignPhiladelphia

MEDstudio@JEFF Partnered with Arts + Business Council on CreativeXchange Experiential Workshops

Medical Spanish Longitudinal Program Established

MS in Basic Biomedical Sciences, SKMC and Jefferson College of Life Sciences, Launched

Population Health Postdoctoral Program Launched

First Hebrew University-IDF Tzameret Medical Students Hosted for Elective Clinical Rotations

Center for Ultrasound-Guided Musculoskeletal Interventions Founded

BY THE NUMBERS

Portrait Unveilings since 2008

- Robert L. Barchi, MD, PhD
- David Binswanger
- Janice P. Burke, PhD, OTR/L, FAOTA
- Roger B. Daniels, MD
- Anthony J. DiMarino, Jr., MD
- Vickie and Jack Farber
- Geno J. Merli, MD
- Karen Moss Glaser, PhD
- Barry B. Goldberg, MD
- Fred Gorstein, MD
- Richard C. Gozon
- Gerald B. Grunwald, PhD
- Brian Harrison
- William M. Keane, MD
- Sidney Kimmel
- Lorraine C. King, MD
- Josephine Mandeville
- Gerald J. Marks, MD, FACS, FASCRS
- Mary Ann McGinley, PhD, RN
- David L. Paskin, MD
- Vijay M. Rao, MD
- Fredric Rieders, PhD
- Richard H. Rothman, MD, PhD
- Raphael Rubin, MD
- Stanton Smullens, MD, FACS
- Robert Strauss
- Howard Weitz, MD
- Charles J. Yeo, MD, FACS



CMCER Relunched as The Lambert Center for the Study of Medicinal Cannabis and Hemp

Laboratory for Urban and Social Innovation (LUSI) Founded in College of Architecture and the Built Environment (CABE)

Inaugural Mark L. Tykocinski, MD, Endowed Lecture Series

2017

Inaugural Global Jefferson Day

First MS in Population Health Intelligence Launched

International Holocaust Remembrance Day Sponsored by Italian Consulate on Campus

Inaugural Jefferson Center for Interprofessional Practice and Education (JCPIE) Educational Program in The Virtual World – “Enhancing Services to Homeless Populations (ESHP)”

Industrial Hemp Research Project Initiated

Jefferson Synaptic Biology Center Founded

Cognitive Disorders and Comprehensive Alzheimer’s Disease Center Founded

First International Consensus Conference on Prostate Cancer and Genetic Risk Hosted on Campus

Jefferson/National Jewish Health Jane and Leonard Korman Respiratory Institute Launched



First Citywide Netter Symposium on Arts and Medicine Hosted on Campus

Dietrich V. Asten Lecture Series Launched

Philadelphia University Honorary Degree Conferred to Mark L. Tykocinski, MD – Last to Be Bestowed

Historic Neutra-Designed Hassrick House Purchased in East Falls

IEHP Jefferson Certified Medical Assistant Academy Launched

Philadelphia County Medical Society (PCMS) Strittmatter Award to Mark L. Tykocinski, MD





Annual "Faculty Days" Extended Across All Colleges

Jefferson Matrix Biology and Pathology Symposium on Fibrosis and Fibrotic Diseases Hosted with American Society for Matrix Biology

PT StepUp Community Outreach Program Launched

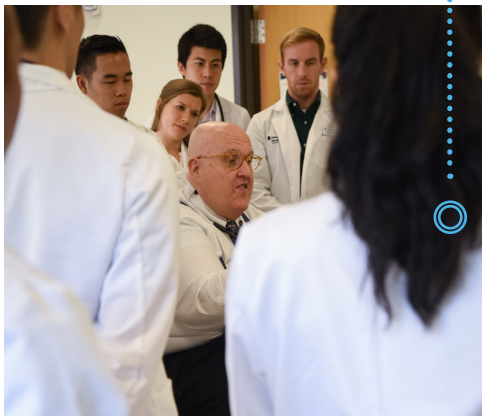
Nursing STEP-UP Community Outreach Program Launched

Philadelphia University and TJU Merged

Philadelphia Trauma Training Conference Sponsored

SKMC JeffMD Curriculum Launched

Enterprise Policy and Guidelines for the Responsible Conduct of Research Implemented



Objective Structured Assessment of Technical Skills and Objective Structured Clinical Examination Clinical Skills Support Tailored by RCSSC for JeffMD

Kathleen Gallagher Appointed COO of Academic Pillar

JeffMD Humanity Thread and Scholarly Inquiry Track Launched

MEDstudio@JEFF's POST.CODE Created as a Summer School, Bridging Medical and Architecture Students

MS in Real Estate Development Launched

MS in Construction Management Launched

Office of Applied Research Established

Jefferson Academic Board Founded

Kennedy Health System Merged with Jefferson Health

Asano Humanities Certificate Requirement for SKMC Students Initiated

JCIPE's Jefferson Teamwork Observation Guide App Piloted

The Pew Center for Arts & Heritage Grant Received for Collaboration with ARTZ Philadelphia and Theater of Witness

MS in Human Genetics and Genetic Counseling Launched

Nursing BSN Introduced at Abington-Dixon

Philadelphia Collaborative for Health Equity Launched

Inaugural Confronting Racism, Bias, and Social Injustice in Healthcare Lecture Series

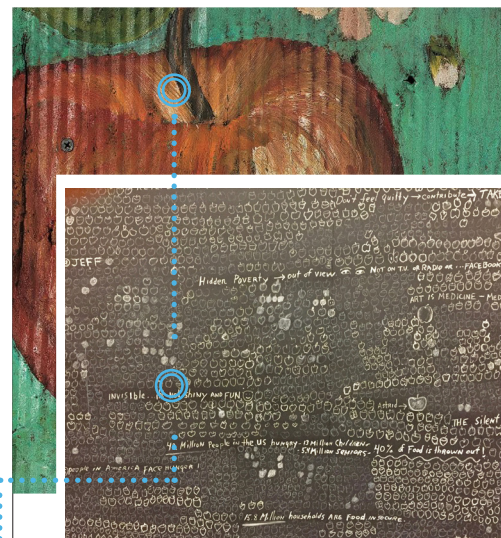
Center for Heritable Connective Tissue and Skin Diseases Founded

MEDstudio@JEFF's Graphic Medicine Chalkboard Mural Showcased Hunger in Philadelphia

Inaugural GME Research Poster Day

Race and Medicine Elective Created

\$30 Million NIH Contract to Department of Microbiology and Immunology for Tetravalent Vaccine Against Hemorrhagic Emerging Infectious Viruses



Squamous Cell Carcinoma Tumor Ecology and Microenvironment (STEM) Working Group Established

Book Launch for *LabStudio: Design Research Between Architecture and Biology* by Jenny E. Sabin and Peter Lloyd Jones, Showcasing MEDstudio@JEFF and SKMC Dean

ABET Accreditation for Engineering Secured

First SKMC JeffMD Class Chose Scholarly Inquiry Tracks

SKMC MD Compass Co-Curricular Career Development Program Inaugurated

Administrative Nodes Management Structure Introduced by Provost

2018

Magee Rehabilitation Merged with Jefferson Health

Student Information System (SIS) Optimization Project Launched

First Eight-Year Accreditation for JCP

Clinical Research Governance, Jefferson Clinical Research Institute (JCRI) and Sidney Kimmel Cancer Center (SKCC)

Jefferson Institute for Bioprocessing (JIB) Planning Initiated

Clinical Experience Curriculum Launched in JeffMD

Partners in Innovation, Education, and Research (PIER) Clinical Trials Consortium Launched



CoLab Philadelphia Inaugurated for Community Design-Thinking Outreach

SKMC Office of Student Assessment Opened

Jefferson Latina Women's Clinic Opened in Conjunction with Puentes de Salud to Provide Obstetrical Services to Underserved Immigrants

SKMC Alumni Association Restructured with New Bylaws

Inaugural Jefferson Humanities Forum – "Fusion: Innovation Across Disciplines"

Inaugural Enterprisewide Resident Graduation Ceremony and Awards

Scholars Program with Swarthmore College Launched as a Medicine + Policy/Population Health Assured Admissions Track

Mark L. Tykocinski, MD, Delivered the 4th Annual Fred and Janet Sanfilippo Visiting Professor Lecture at Johns Hopkins – "Future of Medical Education: Osler-Flexner Redux"

Jefferson Israel Center Founded

Philadelphia Orchestra Tour of Israel Sponsored

Navvis Endowed Chair in Population Health Established

Solis-Cohen Auditorium Converted to Classrooms

Second JCIPE Educational Program in the Virtual World Hosted, "Alzheimer's Virtual Interprofessional Training (AVIT)"

Scholars Program with Haverford College Launched as a Medicine + Policy/Population Health Assured Admissions Track

First Presidential Symposium on Firearm Violence Hosted on Campus

Jefferson College of Rehabilitation Sciences (JCRS) Founded

Jefferson College of Life Sciences (JCLS) Founded

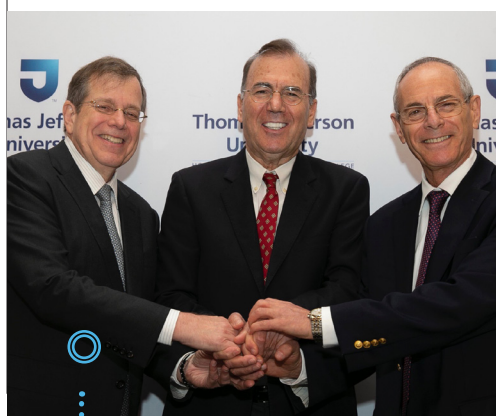
Jefferson College of Humanities and Sciences (JCHS) Founded

Asplundh Cancer Pavilion Opened

Shared Resource Partnership Established with Gene Editing Institute at Christiana Care Health System

Shared Resource Partnership Established with Princeton University Institute for the Science and Technology of Materials for Structural Biology and High-End Imaging

Moved Emergency Medicine Clerkship to Year Three



Marie E. Pinizzotto, MD '88, MBA and Carol A. Ammon, BSN '77, MBA Alumni Center Opened in JAH

Jefferson Trauma Education Network (J-TEN) Launched

Office of Continuing Medical Education (CME) Transitioned to Office of Continuing Professional Development (CPD), Unifying Continuing Professional Education for Medicine, Nursing, and Pharmacy

MS in Medical Physics Launched

Pre-Nursing Pathway Established

Student Pharmacist Enrichment Program Launched

LabArchives Electronic Documentation Initiated

Girls Who Code Community Outreach Program Launched

Atlantic Health System Regional Campus Dedicated with Longitudinal Integrated Curriculum

New Bylaws for the Colleges and Schools of the Merged University Approved

Profession-Tracked Honors Institute Launched with New Curriculum

Medical Physics Master's Program Launched as First in Philadelphia

First Course in Digital Health and Data Science Created for SKMC JeffMD

JeffHope 25th Anniversary Celebration

Institute for Graduate Dental Biosciences Founded in Oral and Maxillofacial Surgery (OMFS)

Kay and Harold Ronson Health and Applied Science Center Groundbreaking

Neu Center for Supportive Medicine and Cancer Survivorship Founded in Otolaryngology

Swank Autism Center Founded

New Classrooms on Curtis 2 Opened



First International Dual MD with Cattolica University Announced

Inaugural Jeffrey L. Benovic Award and Lectureship

Jefferson Competency Assessment Tool (JeffCAT) Introduced



SKMC Assured Admissions with Yale University Launched for Several Medicine+ Tracks

SKMC Assured Admissions with University of Rochester Launched as a Medicine + Computational Sciences Track

2019

Jefferson Center for Digital Health and Data Science Founded

Celebration of the Life and Legacy of Richard H. Rothman, MD, PhD

First Department of Integrative Medicine and Nutritional Sciences in an Allopathic Medical School Launched

MS in Population Health Pharmacy Launched

JAH Research Labs Wave 3 (4E) Renovated

First Faculty Mission to Israel with CABE and Kanbar College of Design, Engineering, and Commerce (DEC) Faculty Leaders

First Annual PINK PLUS Women's Cancer Symposium Held, Promoting Multiorgan Screening

SKMC Transition-to-Clerkship program Launched

Inaugural Universitywide Annual Faculty Awards Dinner

First Discipline-Specific Doctorate in Midwifery Cohort in U.S. Graduated

Philadelphia Israel Chamber of Commerce Lifetime Achievement Awarded to Mark L. Tykocinski, MD

MS in Historic Preservation to Launch

Inaugural Cycling With the Provost Ride on the Schuylkill River Trail



Communication and Media Lab to Open

Arlen Specter Center to Affiliate with College of Humanities and Sciences

Jefferson College of Life Sciences (JCLS) 50th Will Be Celebrated

Jefferson Institute for Advanced Study (JIAS) to Be Inaugurated

PA Program (EF) to Relocate to Voorhees, N.J.

Center for the Preservation of Modernism to Be Established



2019 Gala Reception

Presenting the Lifetime Achievement Award

Mark L. Tykocinski, MD



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Alicia and the Big Bad Cat

Medical Student Learns to Make Friends with Uncertainty and Imperfection

BY PETER NICHOLS

Alicia Jiang, a high-energy, fast-talking, third-year student at SKMC, is in her second semester of rotations at Morristown Medical Center in New Jersey. "It's great getting the experience we need to become good doctors," she says, "but I'm not gonna say it isn't stressful because, of course, everyone's judging you."

Jiang calls herself a "very suburban kid," a high achiever who's always excelled and occasionally worried over an A-minus. "A lot of us medical students are Type A," she observes. "We wanna do the best we possibly can." That competitive and perfectionist streak is what got her into the Penn State-Jefferson Premedical-Medical Program, where she's earning both her BS and MD degrees over six years.

“
A lot of us medical students are Type A. We wanna do the best we possibly can.
”

But Type A qualities can sometimes be a hindrance too, especially on rotations when students are putting their medical knowledge to use for the first time while coming up against the uncertainty that

shadows all medical practice. Nearly every day during rounds, students present to the clinical team what they've learned about their patients, then make a diagnosis and outline a care plan.

Jiang likes talking to patients and finds trying to help them enormously satisfying. She even enjoys the challenge of solving diagnostic puzzles. But having to come up with a medical verdict in real time when faced with an open-ended array of possibilities rather than a multiple-choice questionnaire is intimidating.

"That's not how it works in real life," she says. "You don't get four choices: It's a lot harder." Still, she has to present to the team; she has to say something because that's how learning happens on rotations.

"I don't like saying stuff when I'm not sure about it," she confides. "So then I fumble and don't say anything. That can be worse than saying the wrong thing."

One of the ways she handles the stress is by writing and illustrating storybooks for kids—not so much as an intentional coping strategy but simply because it's fun. Jiang is president of the Story Initiative, a student-run organization that works with





One of the ways she handles stress is by writing and illustrating storybooks for kids—not so much as an intentional coping strategy but simply because it’s fun.

California. She and her SKMC friends came up with the idea, contacted the orphanages, found a website that did inexpensive self-publishing, and wrote and illustrated the books. The Story Initiative pretty much follows that model today.

“I like to create things,” Jiang says. “I like to draw. I like to design things and make them look pretty, and I like to write fun, easy stories. When you’re writing stories for 7-year-olds, they don’t care about perfection.” They’re not judging you on the correctness of your narrative or the fitness of your characterizations or the quality of your art. “We just write something that’s fun to read and has fun characters,” she continues. “It’s a low-key and relaxing thing.”

Until it isn’t. Sometimes Type-A Jiang slips in and spoils the fun.

It takes about a semester to create a book. Story Initiative staff emails spreadsheets to orphanage directors, who fill in information about the kids: name, age, gender, favorite movie, favorite book and character, what they want to be when they grow up, and other details about their lives. The authors are then assigned a child, and using the individual’s data, they decide how to write a story that fits the child.

orphanages around the world to create personalized books for their kids.

The Story Initiative was founded four years ago by Nataliya Bahatyrevich, MD ‘18, who’s currently a surgery intern at UC Davis Health in Sacramento,

When she takes on a storybook, Jiang does the illustrations but partners with a classmate to work out the plot and design the book. “One of my favorite books is the first one I did,” she says, *Falina the Mouse and the Big Bad Cat*. “It was a new experience, so I threw myself completely into it.”

The book tells the story of Falina, who longed to venture out of the mousehole to explore and play in the daylight. The other mice caution her to go out only at night because during the day “the big bad cat” with his “sharp claws and terrible jaws” roams the house.

“And do you know what his favorite food is?” they tell her. “It is a little mouse just like us.”

Falina isn’t intimidated. She’s curious and just wants to have fun. The story recounts, in words and pictures, her brave adventure and the lesson she learns.

Jiang worked on the illustrations for the book in a study lounge during the second semester of first year. First, she labored over getting the mouse drawings just right, and then she worked on getting the colors perfect.

“I would spend all my time there with all the watercolor paper and all the watercolors spread out,” she says. “What’s really funny is that I was working on this book during the two weeks before our neuroscience exam. Everyone else was freaking out about the test, and I was freaking out about the storybook.”

Sometimes orphanages send emails with photos of the kids reading their books or holding them and smiling. What started as a relaxing, creative outlet that helped Jiang put aside the rigors of medical school turned into a service project that helps orphans feel better while learning to read.

“Just looking at the photos makes me so happy,” she says.

"Seeing them has shifted my focus to where I want to keep this organization going. I think it would be such a loss if the Story Initiative didn't exist at Jefferson."

In subsequent storybooks, Jiang's focus has moved from simply making a fun story with good illustrations toward the kids who read and enjoy them. "I feel like the child is always close by," she says. "When we get emails from orphanage directors, it just warms your heart to hear them say thank you, and I'm like, 'No, thank you for giving us the opportunity—we wanna help these kids too.'"

A similar shift is underway for Jiang as her clinical experience deepens. Some residents and attendings are skillful teachers. Others sometimes pounce on errors in a way that makes the medical students feel like cat food.

"They don't expect you to know or be sure about everything," she says. "But even when I know that objectively, I still get stuck sometimes. I'm working on trying to get past it. When you do it continuously every single day, you start to realize it's not that bad. It's OK if you get it wrong."

That's what Falina found out about the big bad cat when she finally worked up the courage to venture out of the mousehole during the day. His claws were not as sharp as she'd imagined, and his jaws weren't as terrible as she'd been told. There was no reason to hide in a hole anymore.

Says Jiang, "I'm still trying to figure that out." 🐾

| Art by Alicia Jiang



To see a video featuring Alicia, visit [Jefferson.edu/Bulletin](https://www.jefferson.edu/Bulletin)





IF =

IN THE ER AND AT HOME,
JENNIFER WHITE, MD, MAKES
A LIVING AND KEEPS HER KIDS
ALIVE BY ASKING HERSELF ONE
QUESTION: "WHAT IF?"

THEN

SHE CRASHES HER CAR AND NO ONE ELSE IS INVOLVED—WE INVESTIGATE

MY HEAD IS SPINNING—REMEMBER TO SLOW DOWN

HE FAINTS—GET THE AED

THERE IS A FAMILY HISTORY—TEST EVERYONE

BY ZACH NICHOLS





ennifer White, MD's path to Jefferson began in 2012 when her heart stopped.

A dedicated runner balancing motherhood and emergency medicine with weekly mileage goals, she was the picture of vitality. Always able to keep pace on the race course and in the hospital, White became alarmed when she had a fainting episode in the middle of an exercise class.

Some might dismiss a few seconds' lapse as exhaustion or dehydration, but she was suspicious and went to see a cardiologist, who put White through her paces with a stress test.

"They were like, 'You're the healthiest person I know.' I'm like, 'I know!'" she says. "But I looked at my own readings, and it looked really weird. I realized I was missing something."

The cardiologist prescribed beta blockers to help keep White's heart in rhythm. But with a naturally low resting heart rate, she didn't tolerate them, so she and her doctors decided on a pacemaker. During the procedure, she went into cardiac arrest and had to be shocked back into rhythm. An implantable cardioverter defibrillator (ICD) was added to the hardware in her chest, and life started to look like one of the clinical riddles she had to solve each day in the emergency room. The fresh question mark in her chest inspired her to seek answers, which led her to get tested and find out that she carried a gene for Long QT syndrome and—because the trait is 50 percent heritable—so did her two sons.

For kids, sudden cardiac death occurs at a higher rate than death from cancer.

Long QT is part of a family of congenital diseases called channelopathies, which affect the ion channels of the heart's nervous system, our inborn pacemaker. Because it affects function instead of structure, the malady of misfires can be detected only through genetic testing or telltale signatures on an electrocardiogram (EKG).

The QT interval, or QTc, is the part of an EKG's line reading that measures the "reset" period of the heart when its nervous system "recharges" and prepares to fire again. A QTc that is too long can cause overlap between heartbeats, with one beginning before the previous one ends, resulting in a dangerous arrhythmia. These can be triggered by fever, exercise, sleep, excitement, certain medicines, and everything in between.

"For kids, sudden cardiac death occurs at a higher rate than death from cancer," White says, and that is likely an underestimation.



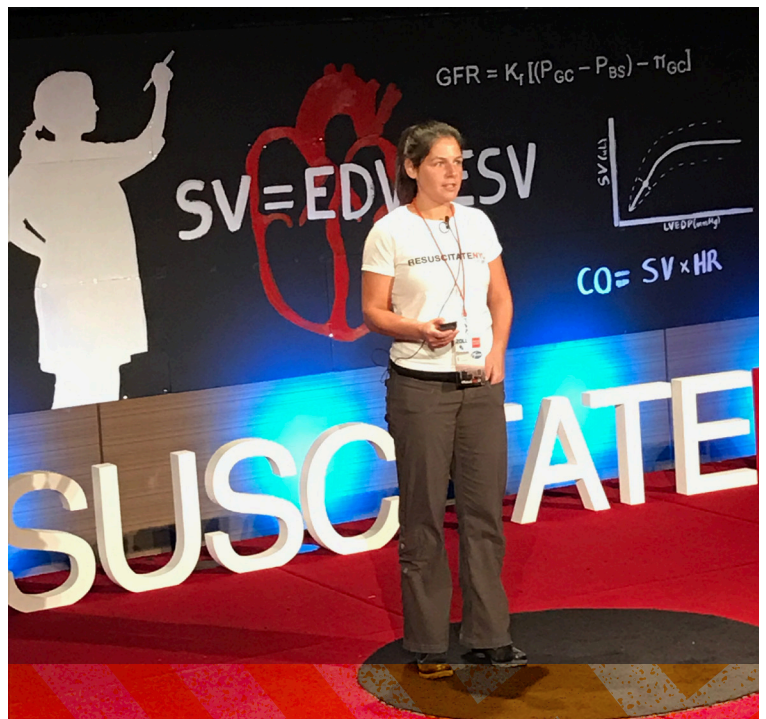
Two years ago, she was recruited to Jefferson. She was looking for a place that would help her advance her life's work of tackling the condition her family faces, along with the many other causes of childhood sudden death.

"It was between Jefferson and a New York hospital," she says. "They said, 'We'll see,' and Jefferson said, 'Let's do it.'"

Historically, resistance to detection has made channelopathies appear as a pall of bad luck that falls over a family with a litany of premature deaths, miscarriages, and unexplained car- and swimming-related accidents. In the rush and swirl of the ER, it can be hard to suss out mischance from pathology.

From her vantage as the first provider seeing an undiagnosed patient, White sees the effects of this quiet complexity firsthand when caregivers focus too much on initial perceptions or information. This can lead to a premature conclusion of the diagnostic process. "The paramedics say that was a seizure," she says. "They bring in 'the seizure,' and it gets put down as seizure as the chief complaint. The patient goes to neurology, but all the while they had a malignant rhythm and the seizure was really a near-death spell."

Thomas Jefferson University Hospital's emergency room, where White is associate medical director and assistant program director of the Emergency Medicine residency, treats an average of 200 patients each day. On a given shift, she sees 30 to 40 patients,



treating, teaching, directing traffic, and making rapid-fire decisions: Are they "sick" or "not sick"? What do they have? What initial tests need to be completed? Can they go home or do they need to be hospitalized?

"I have to be mindful of all the cues, or I might miss a critical story or symptom," White says. It helps to remember that the torrent of patients is made up of individuals, each manageable, and each interaction structured by teamwork, best practices, and well-honed clinical intuition.

There is specificity within the variety, dozens of eureka moments as new clues present themselves and diagnoses jump out from a CT scan or a simple conversation. "I do 'if-then' for a living," she says of the context-sensitive pathways she takes from presentation to action.

This conditional sensibility follows her home from the ER, where there are four kids to look after: Harper (8), Logan (11), Sam (13), and Emma (15).

Unlike White, Logan and Sam don't have ICDs or pacemakers, though they wear MedicAlert bracelets and take beta blockers. Instead of internal devices, the family relies on the buddy system and a web of contingency plans and subplans to cover any "if."

They own two automatic external defibrillators (AED), one for home and one that travels to activities and sporting events because



each of the White kids is an athlete. At school, the nurse knows that if Logan or Sam passes out at recess, then she should come running with the AED. When the kids were younger, the family hosted AED and CPR parties to familiarize neighbors and friends—potential first responders—with the lifesaving tools.

Parents of children with channelopathies are often shocked to find out how much White does with her kids. As avid skiers, there's not much they don't do. "It's probably one of the things that makes me the most nervous," she says, citing the remote locations and the layers of clothing she'd have to go through to access her kids' chests.

"Understandably, many [parents] won't let their kids do much," she says. "But I'm thinking pretty practically about what my family does. It's all about time to AED placement." She knows how to avoid potential triggers, the fevers and meds that could send the boys' hearts offbeat. She also knows there are plenty of startles that are impossible to plan for—because they are by definition a surprise.

Once, when Sam was younger, White let him go down a big waterslide by himself. From the bottom, she watched him enter the tube, then waited for him to come out. Only he didn't. "I was asking myself, 'Do I run up the eight flights to the top?'" says White. "It turned out the slide wasn't wet enough, and his suit had gotten stuck, so a lifeguard had to help him out."

It is these moments of terror that drive White to learn more and share what she's found. They're also what inspired her to seek out Roy Hoffman, MD, MPH, medical director for the Philadelphia Department of Public Health's Fatality Review Program and a pediatrician at one of the city's district health centers.

Distinct from autopsies, death reviews offer insight into the context of fatalities and are a way to keep in touch with the health of vulnerable groups like the homeless, mothers, children, and infants. "One of the most important things in public health is surveillance," Hoffman says. "You can't see if something is a trend or if something is getting better or worse unless you know what the underlying rate is."

Together, White and Hoffman want to better understand children who are dying unexpectedly in Philadelphia—where two to three infants die each month from a sleep-related death—and what they can do about it.

The United States has startlingly little data on rates of sudden death of children, which is why the Centers for Disease Control and Prevention launched the Sudden Death in the Young (SDY) Case Registry study. Now in its second five-year round of grantmaking, it aims to create a national database of demographic and genetic information, a long-term plan designed to set a benchmark against which local interventions can be compared.

Philadelphia is one of about a dozen sites in the country that recently have been awarded the latest grant to closely track sudden deaths in children and youth. The Philadelphia Department of Public Health is now expected to identify and investigate all child medical deaths that are "unexpected." A child who dies from a previously undiagnosed brain aneurysm would qualify, as would a 5-month-old who dies in a crib. SDY doesn't look at



In Philadelphia, two to three infants die each month from sleep-related causes.

homicides, suicides, or most accidental deaths. These extenuating circumstances raise the question of what caused the mishap in the first place. Was it bad luck or some underlying, unknown medical issue? Hoffman estimates that more than 60 Philadelphians per year meet the SDY criteria.

White anticipates about 30 percent of these cases will be the result of cardiac channelopathies, which are typically diagnosed through a molecular autopsy, essentially a postmortem genetic test.

Physicians and public health officials can identify the genetic causes for many varieties of channelopathies, including Long QT, but there are likely other genetic factors that SDY will help to uncover. This is the study's long view: To establish patterns and develop a picture of what "normal" looks like, so the work of managing a coordinated approach can begin.

"In the clinic, it's very direct because my typical intervention with a child who presents with a problem is asking, 'What's wrong and what can I do right now?'" Hoffman says. "But when I put on my public-health hat, my 'patient' is a whole population, so I'm

typically looking ahead to see what I can prevent." This can be as simple as White's AED parties or as complex as making family genetic testing more widely available to at-risk populations.

Hoffman and White are working to synthesize these distinct medical realms, the populations, and the individual patient. Their plan is to use molecular autopsies not only as a research tool but as a way to stop tragedies in the making. By working backward from the "index case," the first documented patient, clinicians can rapidly test the rest of the immediate and extended family to determine who has the trait.

White has seen this if-then process in Jefferson's ER. An 80-year-old patient came in with a facial fracture he sustained in a fall. While the patient was being treated, he went into torsades de pointes, a kind of tachycardia that often accompanies Long QT. After resuscitation, White says, "We took a history and found a couple of sudden deaths, which initiated cascade testing for his entire family."

For White, knowing why a patient dies—or could die—suddenly is more than closure: It's an opening. Here, knowing is the battle, taking the "sudden" out of "sudden death," and transmuting it into an identifiable medical condition with a definite treatment plan.

Says White, "This is why I'm in emergency medicine." 



To see a video featuring Dr. White, visit Jefferson.edu/Bulletin





HEART STUFF



Gastroenterologist and Daughter
Help to Heal a Broken World With a
Magazine for Kids

By Peter Nichols

Composing what sounds like a medical note about a patient visit, Cuckoo Choudhary, MD, wrote, "Saw a beautiful 90-year-old lady in my clinic today. ... It turned out that my patient had an illness that would necessitate me placing a feeding tube in her stomach."

The next sentences, in parentheses and italics, seem like an aside: *"(Children, a feeding tube is something that can be placed in a person's stomach if they are not able to eat. ... It does not have to be permanent and can stay in for as long as the doctor thinks the patient needs it. It does not cause pain.)"*

Then the medical narration picks up again: "So we discussed all that with the patient and the daughter ..."

But the direct address to kids turns out to be the real point: Feeding tubes help and don't hurt. The apparent medical note was part of a short article, "Reminiscences of a Doctor," that Choudhary had written for the May 2016 issue of the kids' magazine *Baal Chaupaal*.

Choudhary is a gastroenterologist and associate professor at SKMC. She's also on the editorial board as executive director of the quarterly magazine, which primarily publishes the writing and art of children.

"THERE WAS JUST A LOT OF BROKEN. BROKEN PIECES OF CHALK, BROKEN PENCILS, AND BROKEN NOTEBOOKS."

"'Baal chaupaal' are Hindi words that mean 'where children put their views down,'" she explains. "Hindi is the national language of India, but the magazine publishes submissions from children around the world." Its readership is global too. Most of its articles are in English, although some are in Hindi.

The magazine's founder and editor is SKMC first-year student Pankhuri Jha, who happens to be Choudhary's daughter. When Jha was still a child, she wanted to do some kind of service project. "I knew I wanted to volunteer," she says. "I didn't know if I wanted it to be in New Jersey [her home] or within the U.S. International wasn't even on my radar."

She Googled "volunteer opportunities for 13-year-olds." There were lots of hits for summer camps, YMCAs, and "safe" places like that. Jha sent out some 50 email inquiries that started with "Hi, I'm Pankhuri. I'm 13 years old. I'm a freshman in high school."

She got one response. It came from India.

In the summer following her freshman year, Jha traveled to Ummeed Aman Ghar, a shelter for homeless boys rescued from the streets of New Delhi. For a suburban American teenage girl who spoke little Hindi, the setting presented certain risks. "I still don't really know what happens on those streets," she says.

She was too young to go there alone, so Choudhary went too. "I didn't go as a doctor," Choudhary explains. "I went as a mom."

With translation help from her mom, Jha tutored the boys in math and English. "There was just a lot of broken," she recalls. "Broken pieces of chalk, broken pencils, and broken notebooks. The wood that made up the shelter was creaking. You had to be careful where you walked. A lot of ashy legs and arms, and torn clothing. A lot of hunger."

Choudhary was struck by the enthusiasm of the children, despite the brokenness of poverty. "They wanted to learn," she observed. "The desire to learn has little to do with what you have." It was yet another kind of hunger that wasn't being fed.

Jha felt it too. The boys called her "didi," Hindi for big sister. "Pankhuri Didi, help me with this," they would plead. After six weeks of responding to their pleas and learning all their names, it was hard to leave.

Back in America, Jha struggled to come up with a tangible way to stay in touch with the boys. She kept hearing the chorus of voices: "Didi, we don't have a way to express ourselves." "Didi, we want people to know us." "Didi, I want to be a writer."



"I DIDN'T GO AS A DOCTOR; I WENT AS A MOM."

Maybe a magazine, she thought. She discussed the idea with her mom, and together they landed on the concept of *Baal Chaupaal*, a kid-friendly publication by kids and for kids.

The first issue was published in 2012 with submissions from the boys of Ummeed Aman Ghar. Today, the magazine receives writing and artwork from children in many countries. Its success isn't the outcome of some grand scheme. "It started as a mom-and-pop thing," Choudhary notes.

"It's still very haphazard," Jha adds. "It was never a plan. A lot of the international submissions and things like that came by word-of-mouth. Thank God for social media. Thank God for Facebook." Jha used to set up tables at school socials and sporting events to get the word out. Now she plans on tapping the hearts and networks of her SKMC classmates.

Choudhary and Jha are keenly sensitive to the deprivations of underprivileged children, and as editor, Jha has to find ways of mending what she calls "broken sentences."

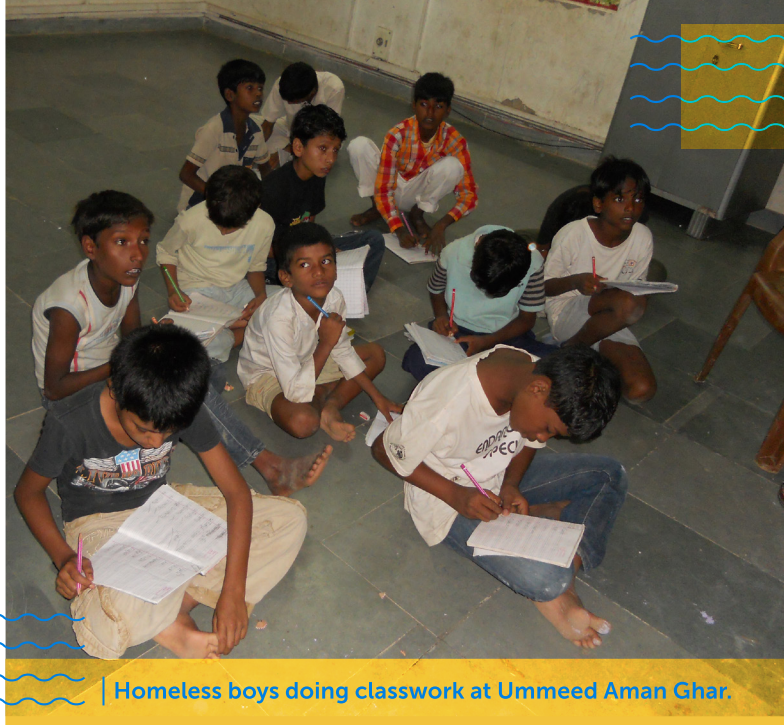
"The sentences are broken because those kids didn't get the education they deserve," she says. "Nobody ever taught them that a sentence should have a noun and a verb and a period at the end, and the first word should start with a capital letter." She makes corrections where she can, without shaming and in consultation with the writer. But her top priority is to let the writers have their voice. The brokenness is part of the expression.

"THEY WANTED TO LEARN. THE DESIRE TO LEARN HAS LITTLE TO DO WITH WHAT YOU HAVE."

"I think it's about being vulnerable and 100 percent honest," Jha says. "These problems are real. If broken sentences are the way to get it across, I hope *Baal Chaupaal* helps."

Choudhary works hard to help gather submissions and broaden connections for the magazine, especially now that the editor is a medical student. "This is near and dear to my heart because it's for the children and by the children," she says. Kids are told what to do all the time and made to follow rules. Rarely do they get a chance to be heard. and rarely do adults listen.

But it's even bigger than that, Choudhary insists: "Children are the future citizens of the world." In that sense, *Baal Chaupaal* is about all of us and who we are becoming, and how broken our future might turn out to be.



Homeless boys doing classwork at Ummeed Aman Ghar.

When she can snatch a spare moment in her busy days, Choudhary likes to jot down a few lines of poetry. "I have a big collection of short poems," she says. "Many are about very small things that I write about patients and my life in medicine. This is the literary aspect of medical practice. It's my heart stuff."

If she were explaining it in *Baal Chaupaal*, she'd likely say, "(Children, nearly all doctors get the science of medicine. It's the listening that's really hard.)"

"The patient has to know that you're listening to them," Choudhary says. "They should feel like they're the most important thing and that you have nothing else to do that day. Sometimes that's hard advice to follow."

Choudhary makes a point of not turning her back on patients to type on the computer during visits and often ends up working at home on patient charts.

But in "Reminiscences of a Doctor," she breaks her own rule. "I was facing the computer," she confides, "pretending to type my note and trying very hard to hide and hold back my tears."

In writing about the patient visit for *Baal Chaupaal*, Choudhary was moved by the tender bond between the mother and the daughter who came with her to the clinic. But there was something else—something bigger than medicine but still connected with medical practice that was pulling at her.

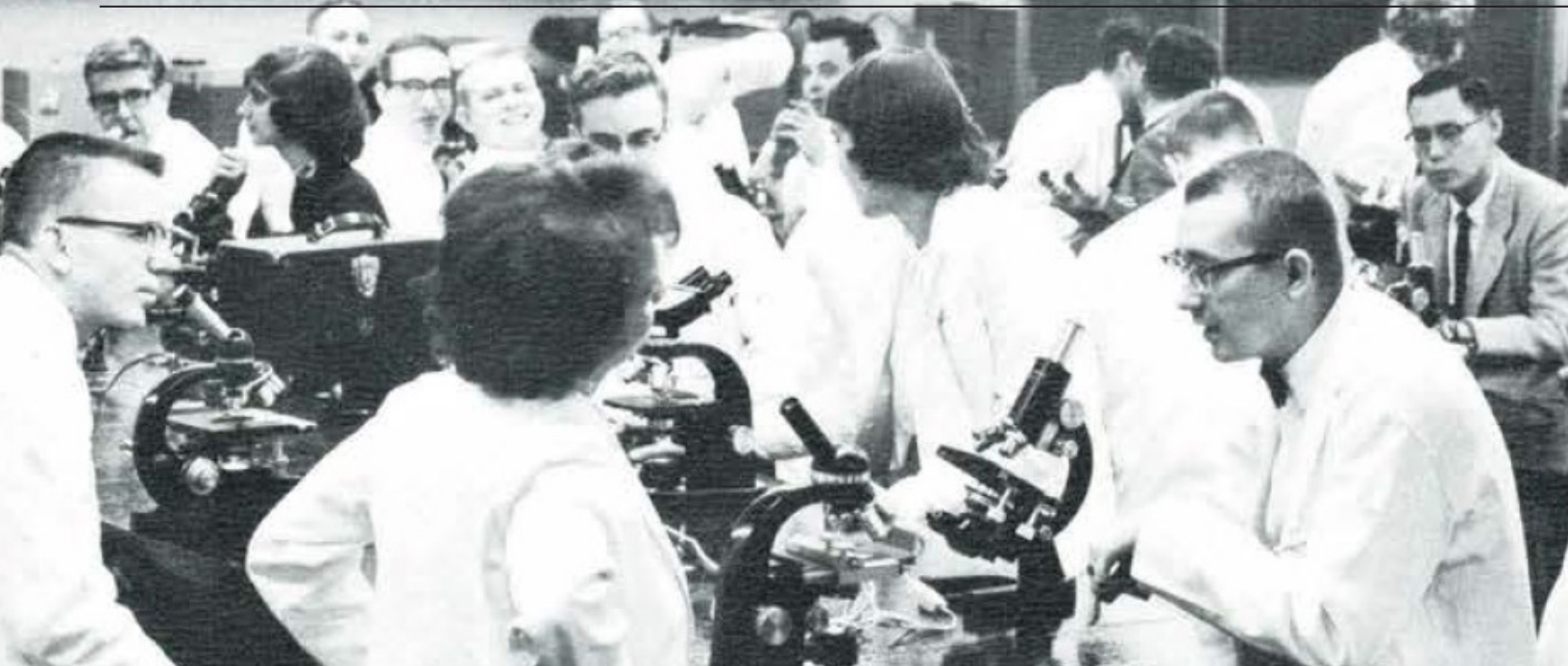
"Many would have referred to [my patient] as old," she wrote. "And that would not have been totally inappropriate. But to me, she ... looked experienced, with tons of history written on her face. So much so that I got lost in it."

Choudhary read the lines of that history and listened some more. She could see the patient suffered from something greater than a strictly medical malady. Then the doctor entered the old woman's diagnosis in her patient note: poverty. 📖



To see a video featuring Dr. Choudhary, visit Jefferson.edu/Bulletin

Class Notes



'56 John W. Holdcraft

"I am 97 and still doing well and proud of my daughter, Suzanne Holdcraft, class of 1983, and granddaughter, Emily—she is class of 2010."

'57 Ronald M. Match

Ronald sends his wishes to his classmates for "a happy and healthy 2019."

'60 Thomas K. Howard

"After 40-plus years of practice of orthopaedic surgery, we are moving to a retirement home in New Oxford, Pa."

'60 Leonard Vinnick

"My career as a physician has been an exciting journey that began at Jefferson in 1956. After several years of training, fellowships, and research, I joined a private practice in Stamford, Conn. After practicing endocrinology and internal medicine for over 50 years, I am excited to announce that I retired at the end of 2018. In retirement I hope to spend time assisting the poor and underprivileged as I have in the past. I especially look forward to traveling with Helene, my wife of 60 years, and spending time with my children and eight grandchildren."



| From the archives.

'64 James C. Barton

"Bill Freeman and I enjoy each other and see each other at County Medical Society meetings. I still work 20 hours a week to keep up with retirement fund losses. Everyone we know talks about downsizing and retirement villages. They will have to take our home from my cold, dead hands."

'85 Brenda Fahy

Brenda was recently appointed president of the American Board of Anesthesiology (ABA). She has been involved with the organization since 2003, when she joined as a volunteer examiner, and over the years she has been active in many positions, including as a member of the board of directors and as vice president. In her new role, she will set the strategic initiatives of the ABA. Read about her appointment at <https://anest.ufl.edu/2018/10/10/brenda-fahy-md-fourth-female-aba-president/>.

'87 Steven A. Maser

Steven was named vice president and medical director of the soon-to-be-opening Regional Health Orthopedic & Specialty Hospital in Rapid City, South Dakota. He will also provide leadership for musculoskeletal services throughout the Regional Health enterprise, a soon-to-be six-hospital system in western South Dakota.



Dear fellow Jeffersonians,

The restructured SKMC Alumni Board had its inaugural meeting via teleconference on Tuesday, January 29, 2019. The diverse group representing various class years, disciplines, and geographic locations across the United States met for 1.5 hours, and the dialogue was invigorating. The group was charged to reimagine the SKMC Alumni Association while maintaining our treasured historic past. Three follow-up meetings were scheduled, culminating in an in-person meeting during Alumni Weekend. I could not be prouder of our group, and I feel confident that the future of our Alumni Association is in great hands.

Please visit Jefferson.edu/SKMCAlumniBoard to learn more about the members of the SKMC Alumni Board.

If you are interested in getting involved, or just have suggestions, we would love your input. Please contact me or Cristina Geso in our Office of Alumni Relations at Cristina.Geso@jefferson.edu or 215-955-7750. And look for this column in *The Bulletin* for updates on our Jefferson family. 📺

Nicholas J. Ruggiero II, MD '01 FACP, FACC, FSCAI, FSVM, FCPP

Director, Structural Heart Disease and
Non-Coronary Interventions

Director, Jefferson Heart Institute Vascular
Laboratory

Associate Director, Cardiovascular Diseases
Fellowship

Associate Professor of Medicine

Sidney Kimmel Medical College

Thomas Jefferson University

President, Sidney Kimmel Medical College
Alumni Association

Nicholas.Ruggiero@jefferson.edu



To see a video about the new SKMC
Alumni Board, visit Jefferson.edu/Bulletin



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—Leonard A. Erdman, MD '50

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- The gift must be made on or before December 31 for the 2019 tax year.
- Transfers must be made directly by your IRA administrator to Jefferson.
- Gifts must be outright. The rollover must be from a traditional IRA, not a 401(k), 403(b), or other retirement plan.

Benefits

- You can transfer up to \$100,000 annually from your IRA to Jefferson; spouses can each transfer up to \$100,000.
- Rollovers are free of federal tax.
- Rollovers qualify for your "required minimum distribution" for the year.
- You can reduce your taxable income, even if you do not itemize deductions.
- You can designate your gift to any area or program at Jefferson.

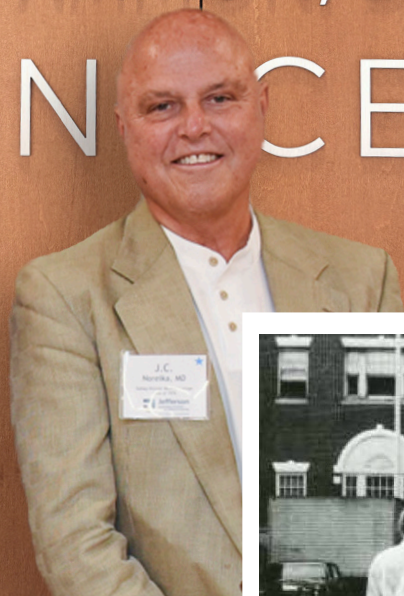
To learn about making a gift through your IRA and other planned giving opportunities, contact:

Lisa W. Repko, JD

Vice President, Thomas Jefferson University and
Planned Giving
215-955-0437
lisa.repko@jefferson.edu

Class Agent

MARIE E. PINIZZOTTO, MD '88, MBA & CAROL A. AMMON, BSN '17, MBA ALUMN CENTER



J.C. Noreika, MD '76

It's been over 46 years since we first sat in lecture rooms in Jeff Hall. Many of us are now in the process of a different transition, moving beyond day-to-day clinical lives into well-deserved retirements. Blessed with the luxury of time and no need to further delay gratification, I hope to help reconnect friends and classmates who remain important tesserae in one another's life mosaics.

Please join me in learning, reminiscing, and communicating with colleagues, frat brothers, lab partners, and friends. The goal is to bring together a virtual community through social media and the internet to share news, memories, and laughter so vividly associated with those years at 11th and Locust in Philadelphia. 🍷



WHAT'S NEW?

To submit a class note or obituary for *The Bulletin*, contact the Office of Institutional Advancement:

By Phone
215-955-7751

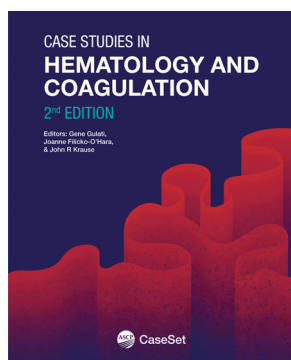
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Case Studies in Hematology and Coagulation, Second Edition

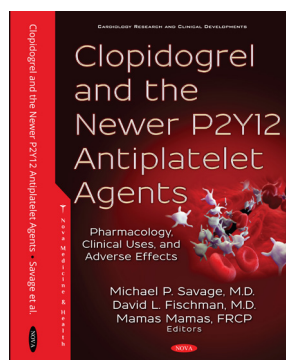
Gene Gulati, PhD, Joanne Fillicko-O'Hara, MD, and John R Krause, MD
American Society for Clinical Pathology Press (2019)

Case Studies in Hematology and Coagulation is a compendium of 250 cases (adding more than 170 pages over the first edition) contributed by more than 200 hematologists, oncologists,

hematopathologists, and pediatric hematologists, many of whom are well known globally for their expertise—with several on the faculty of Thomas Jefferson University, including editors Gene Gulati, PhD, emeritus professor, Division of Hematopathology, and Joanne E. Fillicko-O'Hara, MD, associate professor of Medicine and Medical Oncology.

Each case study is approached with clinical history and initial laboratory test results followed by differential diagnosis, with pointers for additional workup to arrive at the diagnosis, and completed with a brief guide to management and a succinct discussion of the salient features of the entity represented by the case. Authors cover common, uncommon, rare, benign, and malignant disorders in the areas of hematology, hematopathology, and coagulation.

The second edition offers 50 new cases in addition to updates, as needed, to the 200 cases in the first edition. The book is designed to serve as an educational resource for residents, fellows, and faculty with limited experience. Students as well as teachers can benefit from the way the subject matter of each case is presented in this book.



Clopidogrel and the Newer P2Y12 Antiplatelet Agents: Pharmacology, Clinical Uses, and Adverse Effects

Editors

Michael P. Savage, MD

David L. Fischman, MD

Mamas Mamas, FRCP

Published April 2019, Nova

Cardiovascular disease is the leading cause of death in the developed world, and clopidogrel, with more than nine million prescriptions written annually, is one of the most commonly used medications to treat it. Newer, more potent oral and intravenous P2Y12 antiplatelet agents are now available. This timely book provides a comprehensive review of the pharmacology, clinical uses, randomized trial results, guidelines, and adverse effects of clopidogrel and some of the newer P2Y12 inhibitors, especially prasugrel, ticagrelor, and cangrelor.

Co-editor Michael P. Savage, MD '80, is the Ralph J. Roberts Professor of Cardiology at Jefferson, and co-editor David L. Fischman, MD, is professor of cardiology at Jefferson as well as co-director of the Cardiac Catheterization Lab. For their book, the editors call on a renowned group of international experts, which includes many Jefferson faculty and fellows, to create a comprehensive resource for clinicians, scientists, pharmacologists, and all healthcare professionals involved with the management of cardiovascular disease.

In Memoriam



Louis F. Plzak, Jr., MD, FACS

Louis F. Plzak, Jr., MD, FACS, MD, FACS, emeritus professor of Surgery, died February 14, 2019. Plzak came to Jefferson in 1972, after serving on the faculty of Harvard and subsequently in the Surgeon General's office performing research on blood transfusion, for which he received the Army commendation medal. He performed and taught adult and pediatric cardiac, vascular, and general surgery, and is remembered not only for his technical ability but also for his equanimity in the operating room. He is survived by his wife, Catherine (Hayward) Plzak, MD '79, and daughter, Jean Plzak Haab, MD '94.

'45 Ralph J. Veenema

Ralph J. Veenema, 97, of Cromwell, Conn., died December 14, 2018. Following medical school, Ralph interned at Paterson General Hospital in Paterson, N.J. In 1946 he was commissioned a captain in the U.S. Army Medical Corps and served during World War II at Army hospitals in Alexandria, La., and Jackson, Miss. In 1948 he joined the staff at Columbia Presbyterian Medical Center in New York City, where he received urological and surgical training. He completed residencies in surgical pathology at Columbia University College of Physicians and Surgeons, in urology at the Veterans Administration Hospital in

the Bronx, and in urology at Presbyterian Medical Center in 1952. For the next 37 years he continued on staff at Columbia Presbyterian Hospital. At the time of his retirement in 1987, he was urology surgical attending at Presbyterian and professor emeritus of Urology at Columbia University College of Physicians and Surgeons. Ralph was a member of many professional medical associations and authored many scientific studies, papers, and presentations on clinical and basic research in cancer of the urinary bladder and prostate cancer.

Ralph was predeceased by his wife, Henis. He is survived by his children, Shirley, Lois, Ralph, and Kenneth; 13 grandchildren; seven great-grandchildren; brother, Melvin; and nieces and nephews.

'48 Donald George Birrell

Donald George Birrell, 94, of Oakmont, Pa., died December 6, 2018. After an internship at Lancaster General Hospital, he completed a residency in obstetrics and gynecology and became board certified in that specialty. Don served in the U.S. Army in World War II and the Korean Conflict, then settled in Oakmont with his family. Among many positions he held throughout his career, he was president of the Hospital Staff at Magee Woman's Hospital and a clinical professor at the University of

Pittsburgh School of Medicine. Don, an avid golfer, won the Vice President's Cup and the Secretary's Cup about 30 years apart. He loved to tell stories and play cards, and enjoyed playing the drums and listening to music.

Don was predeceased by his wife, Patricia. He is survived by his children, Andrew, Jeffrey, and Janice; seven grandchildren; and a great-granddaughter.

'53 Emil S. Trellis

Emil S. Trellis, 89, of Pittsburgh, died on November 23, 2018. He retired from his psychiatric practice in 1992 after a long and satisfying career. He is survived by his wife of 66 years, Barbara; three children; and three grandchildren.

'55 Richard H. Schwarz

Richard H. Schwarz, 86, of Huntington, N.Y., died November 9, 2017. Following Jefferson, he completed a residency at Philadelphia General Hospital and served in the U.S. Air Force in Mississippi. Upon returning to Philadelphia, he joined the staff of Philadelphia General Hospital and the Hospital of the University of Pennsylvania, where he was founding director of the Maternal-Fetal Medicine Division. In the era before Roe v. Wade, in 1968 Dick published

a definitive book on septic abortion and wrote related papers on complications of sepsis. When cesarean delivery rates began to rise, along with post-cesarean infection rates, he was senior author of the first double-blind study of prophylactic antibiotics, in 1972.

In 1978, Dick became chair of Obstetrics and Gynecology at Downstate Medical Center in Brooklyn, N.Y. He assumed leadership positions in numerous organizations, including the American College of Obstetricians and Gynecologists, and received awards and recognition for his achievements in the field throughout his career. At Downstate, he also served as provost, dean, and finally acting president of the Medical Center, and later as chair of Obstetrics and Gynecology at New York Methodist Hospital and vice chair for Clinical Affairs at Maimonides Medical Center in Brooklyn.

Dick is survived by his wife, Patricia.

'58 Francis V. "Frank" Kostelnik

Francis V. "Frank" Kostelnik, 85, of Springtown, Pa., died September 29, 2018. After residency at Sacred Heart Hospital in Allentown, Pa., he became the director of the Pathology Department, a position he held for 35 years before retiring.

Frank was preceded in death by his sisters, Helen, Irene, Annamae, and Mary. He is survived by his wife, Elizabeth; sons, Kevin and Keith; grandchildren, Kelsey, Calla, Jack, and Xander; and brother, George.

'58 Austin Murray

Austin Murray, 84, of Malibu, Calif., died December 30, 2017. After graduating from Jefferson Medical College, he completed an internship, a residency in general surgery at VA Hospital, and an ophthalmology residency at Jefferson, where he practiced for 38 years. In 1989, Austin was a contributing author to *Tradition and Heritage: A History of Thomas Jefferson University*, edited by Frederick B. Wagner, Jr., MD. Austin was a member of the American Academy of Ophthalmology and a fellow of the American College of Surgeons. An avid reader and tournament bridge player, he loved music, travel, cars, and especially people.

Austin is survived by his wife, Joan; children, Tiffany, Tracey, and Austin; grandchildren, Gisele, Julian, Luna, and Larkin; and siblings, John and Marcia.

'68 Larry Emanuel Kun

Larry Emanuel Kun, 72, of Dallas, died May 27, 2018. After graduating from Jefferson, he completed residency in radiation therapy at Penrose Hospital, Colorado Springs, Colo., followed by two years at the National Cancer Institute as a clinical associate. He then spent time as an assistant radiotherapist at the Rotterdam Radiotherapy Institute in Rotterdam, the Netherlands. He began his career at the University of Vermont, moved to the Medical College of Wisconsin, and in 1984, at the age of 36, was recruited to St. Jude Children's Research Hospital as the chair of radiation oncology. In 2013, he was named the executive vice president and clinical director at St. Jude. He remained at St. Jude until the age of 70, when he moved to the University of Texas Southwestern/ Dallas to be closer to his family.

At St. Jude, Larry built an extraordinary department of radiation oncology and built and subsequently led one of the premier pediatric brain tumor programs in the world. He was named the principal investigator for the Pediatric Brain Tumor Consortium (PBTC), committed to facilitating the development of new treatments for children affected with this disease. He was recognized with the American Society for Radiation Oncology Gold Medal in 2007 and, in 2008, delivered the Pediatric Oncology lecture at the American Society of Clinical Oncology. He was awarded the Janeway Medal from the American Radium Society and the Pioneer award from the Children's Brain Tumor Foundation.

'80 John R. Starynski, Jr.

John R. Starynski, Jr., 61, of Minocqua, Wis., died March 7, 2019. After graduating from Jefferson, he completed a residency in orthopaedic surgery at Geisenger Medical Center in Danville, Pa., in 1985. He joined the Orthopaedic Group of Western Maryland in Cumberland, Md., where he practiced for more than a decade. He practiced orthopaedics for 30 years, most recently at Gundersen Moundview Hospital and Clinics in Friendship, Wis.

It was during his residency that John discovered skydiving. He accomplished more than 750 jumps and achieved his skydiving instructor rating. He also became a pilot, and was a member of the Experimental Aircraft Association. He was known for his dry wit and compulsive love of photography, aviation, math, and all things involving the equity markets.

John was preceded in death by his parents, John and Shirley. He is survived by his wife, Marilyn Pontone; children, Andre and Nina; siblings, Donna, Sharon, Gregg, and Richard; and numerous nieces and nephews.

'83 Glenn A. Mackin

Glenn A. Mackin, 64, of Center Valley, Pa., died December 25, 2018. After graduating from Jefferson, he completed a residency at Evanston Hospital in Evanston, Ill., and was certified in internal medicine, completed a residency at Boston City Hospital in neurology, completed a fellowship in multiple sclerosis at Brigham and Women's Hospital, and completed a fellowship in neuromuscular diseases and electromyography at the University of Pennsylvania. Glenn was a neurologist at Lehigh Valley Health Network for the past 20 years, after originally working at the University of Colorado Health Sciences Center in Denver.

Glenn served for many years as an officer of the American Academy of Neurology. He founded the amyotrophic lateral sclerosis (ALS) clinic at Lehigh Valley Health Network 15 years ago, and was recently recognized by the ALS Association Greater Philadelphia Chapter for his achievements in the field of ALS. Glenn's interests in history and politics continued throughout his life. He enjoyed gardening, keeping the backyard birds well fed, traveling extensively with his family, and summer vacations in Barnegat Light, N.J. Nothing gave him greater joy than spending time with his wife and daughters.

Glenn is survived by his wife, Lynn; daughters, Sarah and Emily; mother, Evelyn; and a number of cousins, nieces, and nephews.

'86 Andrea Magen

Andrea Magen, 58, of Cleveland Heights, Ohio, died March 13, 2019, following a long illness.


'45 Raymond Grandon



Raymond Grandon, 99, of New Cumberland, Pa., died December 9, 2018. After graduating from Jefferson Medical College, he interned at St. Luke's Hospital in Bethlehem, Pa., served as captain in the U.S. Army Medical Corps, and completed a residency in internal medicine at Harrisburg Hospital—where he was instrumental in getting the program accredited. He opened a private internal medicine practice in Harrisburg in 1950, where he worked until he retired in 2015; at the time, at 96 years old, he was one of the oldest working doctors in the United States.

A pioneer in cardiac rehabilitation, Raymond was known for his many achievements, among them helping found the first successful cardiopulmonary rehabilitation center in the nation and setting the standard of exercise therapy rather than bed rest following a cardiac arrest. He also was an early advocate for pacemaker implantation, which he brought to Harrisburg—making it the second place in the United States to offer it—and he organized the country's first televised heart operation in the 1950s, which was filmed at Presbyterian Hospital in Philadelphia and broadcast to WTPA in Harrisburg. Throughout his long career, Raymond served in leadership positions at many local and national professional medical organizations, including the American College of Physicians and the Jefferson Medical College Alumni Association, and he received many awards.

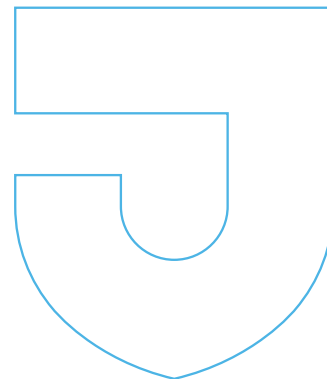
A longtime teacher and supporter of medical education and continuing education, Raymond established with his wife the Dr. Raymond C. and Doris Grandon Professorship of Health Policy at Jefferson, which is currently held by David Nash, MD, founding dean of the Jefferson College of Population Health.

Ray is survived by his wife, Doris; children, Raymond, Suzanne, and David; grandson, Matthew; and numerous nieces and nephews. 

By the Numbers

2019

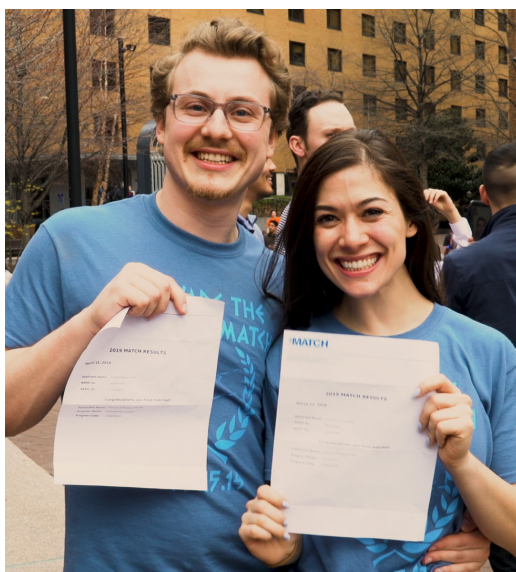
Sidney Kimmel Medical College Residency Match Day



211 students
matched

81 matched at PA
hospitals

63 students
matched at
TJUH



SKMC
matched
13 students

successfully into an ophthalmology
program, a record among medical
schools

Highest Matches for Jefferson

51 students | Internal Medicine

27 students | Emergency Medicine

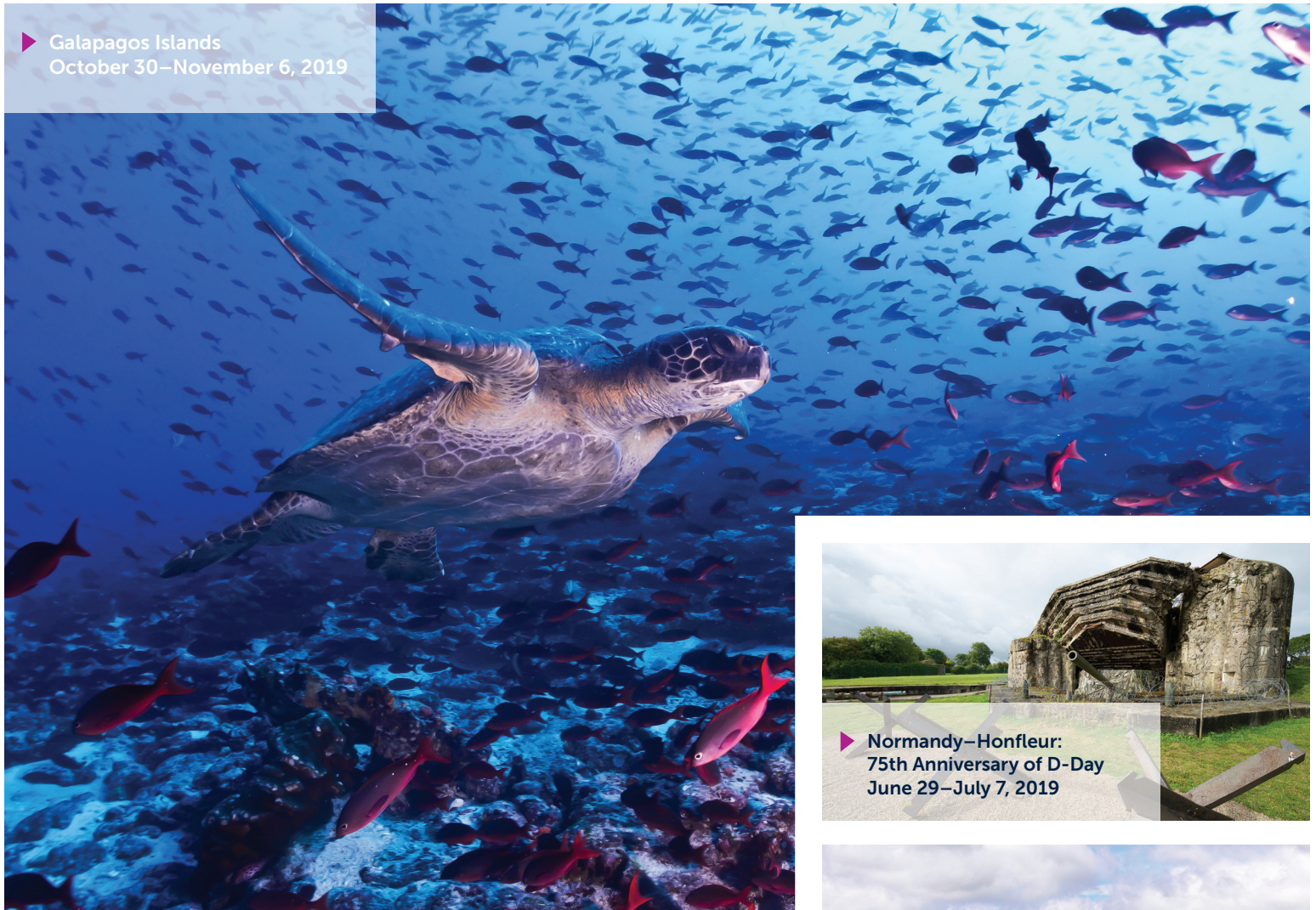
23 students | Family Medicine

22 students | Pediatrics



To see a video featuring Match Day 2019,
visit Jefferson.edu/Bulletin

► Galapagos Islands
October 30–November 6, 2019



Join Jefferson alumni to explore, learn, and experience the world!

As part of our commitment to lifelong learning, the Office of Alumni Relations is excited to offer Jefferson alumni an opportunity to see and experience the world through group travel programs. A varied itinerary of travel destinations has been selected for 2019 that combines educational forums and excursions to places of historical and cultural interest, with the opportunity to enjoy unplanned experiences and unique adventures. These trips offer the highest-quality travel experience through our partnerships with experienced travel providers.

For a list and information on each destination, please visit Jefferson.edu/AlumniTravel.

To request an individual brochure for a specific destination, please contact the Office of Alumni Relations at 215-955-7750.



- Discover Southeast Alaska
July 26–August 2, 2019
- Baltic and Scandinavian Bliss—Oceania Cruises
August 13–24, 2019
- National Parks and Lodges of the Old West
August 28–September 6, 2019
- Italian Riviera
August 31–September 8, 2019
- Wines of the Pacific Northwest—River Cruise,
American Queen Steamboat Company
September 15–23, 2019
- Majestic Vistas: Venice to Rome—Oceania
Cruises
October 27–November 4, 2019



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Save the Date

OCTOBER 25–26

20 Alumni 19 Weekend

SIDNEY KIMMEL MEDICAL COLLEGE