



The Penn Surgery Society News is published quarterly for its members, colleagues and friends of the Department of Surgery. For submissions, inquiries or comments, please contact clyde.barker@penmedicine.upenn.edu.

Message from the Chair Barbers and Research

An infamous commentary entitled “Surgical research or comic opera: questions, but few answers” was published in *The Lancet* in 1996 by Richard Horton, the editor. Dr. Horton read a single issue that year of 9 top surgical journals. Of 175 original articles, 7% were randomized clinical trials while 46% were surgical case series. Because the vast majority were retrospective analyses, he questioned the validity of surgical research. His article has been cited 647 times. Admittedly, he allowed 8 subsequent Letters to the Editor rebutting his “study.” Some of these highlighted that surgical retrospective studies still have merit since they provide benchmarks for acceptable outcomes, disseminate best practices, and spark observations that can culminate in new discoveries and therapies.

In actuality, Dr. Horton merely built upon a quote from 1923 by Major Greenwell, an English epidemiologist and statistician who was one of the first to apply statistics to medicine. He stated, “I should like to shame surgeons out of comic opera performances which they suppose are statistics of operations.” This sentiment was echoed in the 1975 *JAMA* commentary by the cardiologist David Spodick entitled, “Numerators without denominators: There is no FDA for the surgeon.” He later bemoaned “the repeated reporting of biased data from uncontrolled or poorly controlled trials, giving an illusion of success due to sheer quantity of superficially favorable outcomes.”

Comic opera, also known as opera buffa (funny), contrasts with opera seria (serious). It evolved in Naples in the 17th century. Ironically, one of the most famous examples is Rossini’s *The Barber of Seville* (Figure), which premiered in 1816 and was based on the play by Pierre Beaumarchais. Briefly, the opera involves a woman, a count disguised as a pauper, love at first sight, and a wedding. Figaro was the barber (i.e., barber-surgeon), who in those days would cut hair, set fractures, pull teeth, and perform

bloodletting. Of course, Figaro was also the centerpiece of Mozart’s masterpiece *The Marriage of Figaro* (1786), based on another play by Beaumarchais.

So, do (barber-)surgeons perform “research buffa”? Well, 11 surgeons have won the Nobel Prize, but what about the remainder? Although surgeons have unparalleled perspectives on human physiology and pathophysiology, only 0.7% have NIH funding, and they account for a mere 1.5% of all NIH-funded investigators. Limitations specific to surgeon-led research include



that equipoise may not permit randomizing a patient to surgery versus another therapy, rapid advances in technology may exceed the timely ability to conduct a randomized clinical trial, funding sources for surgical trials are limited (as opposed to pharma sponsorship of drug trials), and healthcare systems in the post-pandemic era have become ever more reliant on proceduralists focusing on clinical care. Notably, over

the past 2 decades, the breadth of surgical research has transcended traditional laboratory investigation to include health outcomes, big data, quality, devices, disparities, and community/global outreach.

More recently, an editorial in *Nature* in 2017 implored that “More surgeons must start doing basic science.” It may be time to reconsider how best to train surgeons to conduct and succeed in research. In 1984, Dr. Barker implemented 2 years of dedicated research during the General Surgery residency program. Given that most now pursue fellowship training, this results in a 3-5 year gap between completing their research time and becoming a faculty member. For selected and interested individuals, additional research activity could be integrated into the senior years of clinical training.

Perhaps Dr. Horton (still the editor of *The Lancet*) did not realize that one of the hallmarks of a comic opera is that everything always ends happily ever after. Nevertheless, we need novel approaches to make sure the curtain does not drop on surgical research.



From the Editor

Clyde F. Barker, M.D.

For a week this June, newspaper front pages and CNN were filled with concern over *Titan*, the ultramodern submersible that disappeared with its five doomed passengers while diving to explore the wreckage of the *Titanic*. This reminded me of another lost shipwreck and the tale of an almost forgotten Penn surgeon I've been wanting to tell in the newsletter. This story spans not just a week but a century and a half.

In 1845, the famous Arctic explorer, 59-year-old Sir John Franklin, set out from London to cap his distinguished career by locating the fabled Northwest Passage. His ships *Erebus* and *Terror* were extensively refitted to withstand the Arctic's rigors. They were reinforced with iron plates to avoid being crushed by ice. Steam engines borrowed from locomotives were installed to supplement their sails. And they

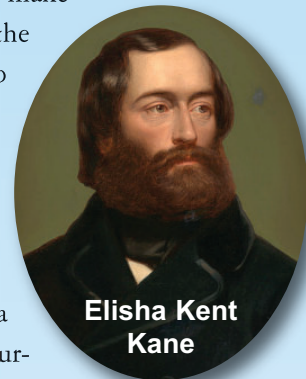


Sir John Franklin and his ships *Erebus* and *Terror*

carried a three-year supply of food, much of it in 8,000 tin cans. After reaching the Arctic, Franklin and his crew of 129 vanished and were never heard from again. Their fate was the most compelling mystery of the 19th century. For 150 years, it has inspired dozens of rescue missions at the cost of many lives. These missions all failed, but one of them was the making of a career for Penn's most celebrated surgeon ever, Elisha Kent Kane.

Kane was from a prominent Philadelphia family. His father was a federal judge and president of the American Philosophical Society. His brother was a distinguished civil war general.

Elisha Kane was a sickly child. He suffered multiple bouts of acute rheumatic fever and was told this had irreparably damaged his heart. He resolved that if his life was going to be short, it would be an adventure that would make him famous. During college at the University of Virginia, he studied to become a civil engineer, but was advised that because of his heart, a more sedentary life as a doctor would be necessary. After graduation from medical school at Penn in 1842 and training at Blockley and Pennsylvania Hospital, he signed up as a Navy surgeon. Family connections brought him the desirable position as chief medical officer to Caleb Cushing's diplomatic mission to China, the country's first attempt to secure trade agreements with that country. This job was not exciting enough for Kane so he took leave to explore the world. Over the next two years, his energy and curiosity took him to five continents. From Rio de Janeiro, he rounded the Cape of Good Hope to Bombay, viewed the Buddhist and Hindu temples of India and climbed the Himalayan peaks. In Ceylon, he hunted elephants. In this golden age of Egyptology, he obtained and sent part of an ancient statue back to Philadelphia's American Philosophical Society. With daring that bordered on recklessness, he swam across the crocodile-infested Nile. In the Philippines, he had himself lowered into the giant crater of the live Taal Volcano to collect scientific specimens. He became unconscious from the fumes and had to be lifted out. In Africa, he contracted "coast fever" and went home to recover.



Elisha Kent Kane

In 1846 back in Philadelphia, he found America at war with Mexico. Though now largely forgotten, this war was important. From it the U.S. acquired half of Mexico's vast territory, and used it to form the states of Texas, California, Utah, Nevada, New Mexico and parts of Colorado, Arizona, and Oklahoma. For our story, the Mexican war is notable because it made a hero of Elisha Kent Kane. Determined to take part in the war, he transferred from the Navy to the Army. Family connections then allowed him to persuade U.S. President Polk to assign him a dangerous and important mission. He was to carry through enemy-held territory a secret message from the president to General Winfield Scott. On the way, Kane was intercepted and attacked by the Mexicans. As he fought his way out, both he and the Mexican General Antonio Gaona were wounded, as was a young Mexican major, the general's son. After treating his own and the general's wounds, Dr. Kane found that the saber wound he had inflicted in a duel with the general's son was more serious — a laceration in

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From the Editor *(continued from page 2)*

the chest that was bleeding dangerously. Bending a kitchen fork to use as an instrument, Dr. Kane secured and ligated the severed artery, saving the major's life. The grateful general rewarded him and became a lifelong friend. American newspaper reporters magnified the story and relayed it to the Philadelphia Inquirer. Suddenly, Kane was a national hero.

When the war ended, Kane was swept up by "Arctic fever" and signed on as surgeon for an expedition to find Sir John Franklin, by then lost in the Arctic for three years. Kane's ship departed New York in May 1850. By fall, it was trapped in ice, forcing it to winter in the Arctic, its men suffering from scurvy, partially alleviated by Kane's supplementing their diets with raw meat. When summer released them from the ice, exploration of Beechey Island yielded unsettling evidence of Franklin's route — three graves. Kane's party did not disturb the graves but 110 years later, the buried seamen were exhumed for autopsies. Perfectly preserved in the frozen permafrost, they appeared eerily lifelike. In another surprise, assay of their bones and tissues revealed levels of lead more than twenty times higher than normal, levels that would be expected to cause acute lead poisoning.

To avoid a second Arctic winter, the disappointed searchers gave up and sailed back to New York in August of 1851. Kane then busied himself with writing a book about the mission and delivering a series of well-

attended lectures about it. These activities increased his fame and helped fund a return to the Arctic that he was already planning.

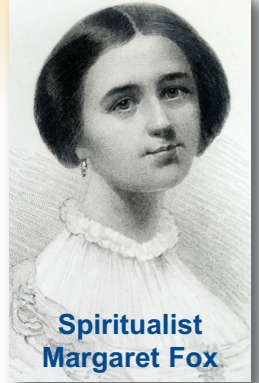
Meanwhile, a life-changing event took place by chance in 1852. He was introduced to a woman known as "the rapper."

This was Margaret Fox, who had become famous for conducting séances to communicate with the dead. In her performances before large crowds, mysterious rapping noises seemed to allow communication with the spirits.

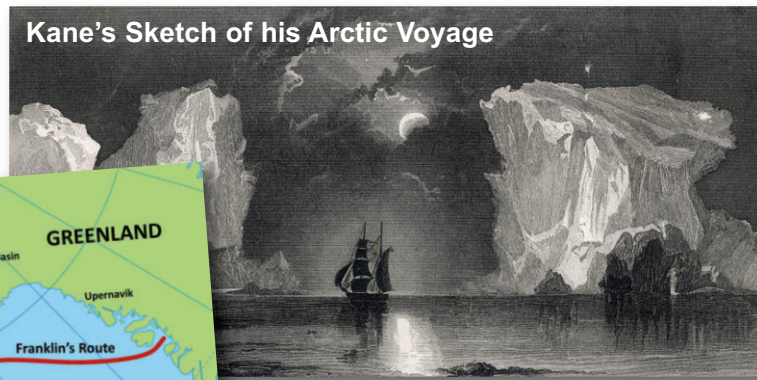
With her feet hidden under the séance table, she produced the rapping noises by cracking the joints of her toes. In this age of fascination with mesmerism, phrenology, and spiritualism, she had many believers. Kane the surgeon-scientist wasn't fooled. It repelled him as a hoax perpetrated by an accomplished con artist.

But to his surprise, on first sight of Fox, a comely young girl, he was smitten. Over the next five years, the couple carried out a poignant romance. Delicious rumors circulated that they eventually married — secretly. Because Fox's somewhat unsavory vocation and social position were not a match with Kane's, their union would embarrass or even discredit his stuffy family which did its best to hide the story. This effort was not successful. The public was enchanted and for the rest of Kane's life, their love affair was an important part of his mystique.

In 1853, although he was laid up by painfully swollen joints from an additional bout of rheumatic fever, Kane organized another expedition to find Franklin. This one he would command himself and look not only for Franklin and his ships, but also for the Northwest Passage, the magnetic north pole, and the open polar sea, a mythical body of warm water that was supposed to surround the pole. One member of his crew was another Penn surgeon, Isaac Israel Hayes. Later during the Civil War, Hayes shared with D. Hayes Agnew the position as director of Saterlee, the war's largest hospital.



Kane's Sketch of his Arctic Voyage



Reaching the Arctic, Kane was in his element, approaching everything with a spirit of curiosity, wonder and adventure. But unfortunately his ship the *Advance*

was soon trapped in the ice, forcing him to lay over for the winter. Maintaining his enthusiasm, he explored and mapped the coastline on foot and dogsled. Wanting to remember everything, he sketched it all — the geography, his crew, the natives, his dogs. But when spring came, the ice still failed to melt and he was forced to spend a second ice-bound winter. Food supplies began to run out and despite attempts to replenish them by shooting polar bears and walrus, the men developed scurvy and began to starve. Suffering brought out the worst in the tough sailors of his crew. As confinement in the icy crucible became unbearable, disagreements over escape started, became violent, and led to mutiny. Half of Kane's crew took off with much of the ship's precious food supply. But after struggling through the snow and ice for several months without finding a way out, the deserters returned to the ice-bound ship. Their second winter was more

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From the Editor *(continued from page 3)*

comfortable because, learning from the native Inuit, Kane had insulated its cabin for igloo-like warmth by plugging all openings with moss. The spring of 1855 came, turned to summer, and the ice still wouldn't melt. Contemplating the probability of a third ice-bound winter, Kane abandoned his ship and for 83 days led his men on a 1,300-mile trip to safety at Greenland's Upernavik, partly overland by sled and partly over the turbulent sea in small open boats.



Dr. Kane and His Crew Abandoning the *Advance*

Elisha Kent Kane, though failing to find Franklin, the Northwest Passage, the North Pole, or the fabled open polar sea, in some ways accomplished more than Franklin's other searchers. Establishing his credibility as a scientist, Kane mapped 960 miles of previously unexplored coastline, published valuable geographic, climatic, magnetic, and astronomical information, and described rare Arctic birds, fish, animals, and plants. He pushed his ship further north than anyone else ever had. He viewed, named, and sketched geographic formations like the 60-mile wide Humboldt Glacier that is the source of most Atlantic icebergs.

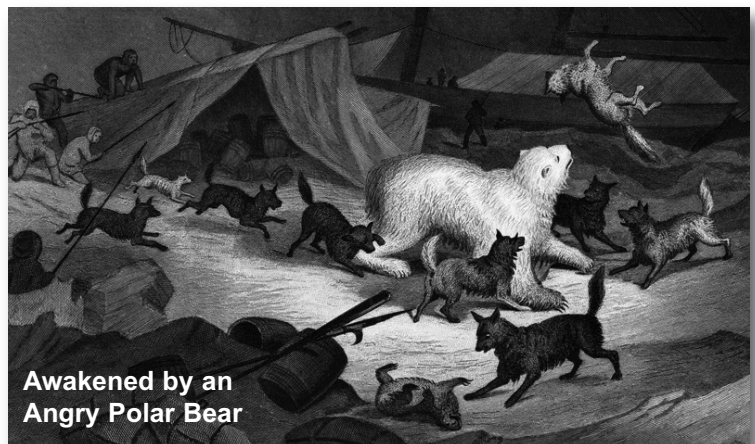
Back home from his Arctic adventure, Kane sat down to write another book. This riveting personal account illustrated by 700 of his unforgettable drawings is his legacy. Although it is **4** about a tragically failed mission, the book is not sad. Instead



Dr. Kane Writing the 19th Century's Best Seller

it is infused with excitement, adventure, humor, and optimism. It is enlivened by Kane's recollection of an icy swim to rescue his dogs fallen through thin ice, still tied to their sled as it sank; a near fatal encounter of men asleep in their tent when awakened by an angry polar bear; amputations he had to perform for frostbitten toes and feet; snow blindness; months of perpetual darkness because the sun wouldn't rise above the horizon; singing and games in the warm ship's parlor to combat the winter's boredom; playing with a pet monkey and laughing at his beloved Newfoundland dogs that found hiding places when called to leave the warmth of the ship to drag sleds in temperatures of 60-75 degrees below zero. Instead of glossing over the rebellion of his crew, he uses it to richen the plot and blames it on his own inexperience. It is the story of how a small, sickly, young commander faced down amazing hardships and "kept his cool" while using his medical knowledge, ingenuity, and grit to bring all but three of his men home alive. He presents the voyage not as a failed mission without tangible accomplishment, but as a noble quest against the overwhelming forces of hostile nature. No wonder the book was an irresistible classic. As a writer, Kane may not have been quite the caliber of Dickens, Longfellow, Poe, Thoreau, Conrad or

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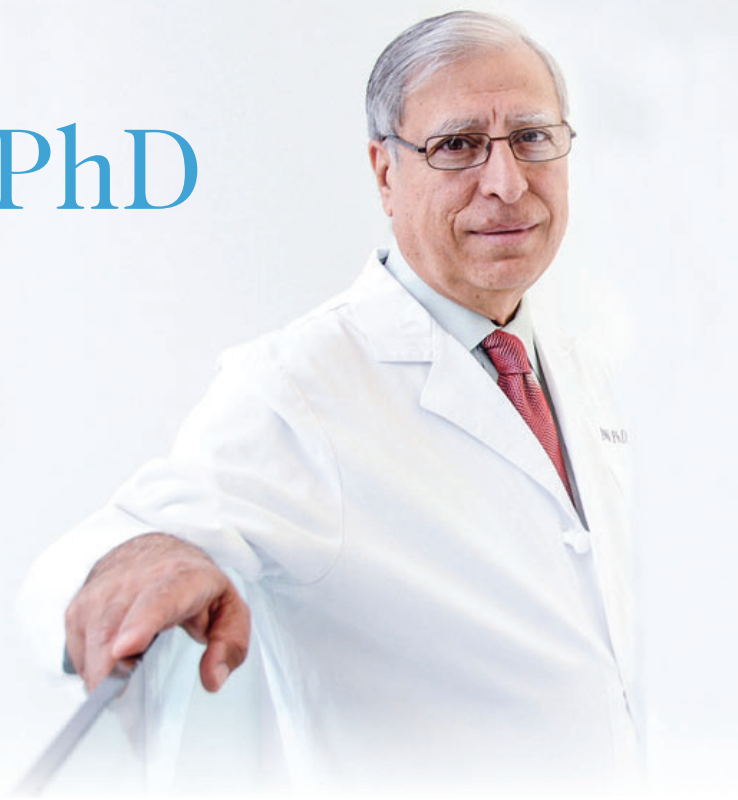
Awakened by an Angry Polar Bear

The *Inaugural* Ali Naji, MD, PhD Research Day

Contributed by Rachel Kelz, MD, MBA and Sunil Singhal, MD

June 15, 2023, marked the inaugural Ali Naji, MD, PhD, Research Day for the Department of Surgery. Named in honor of our internationally renowned transplant surgeon and immunologist, Dr. Ali Naji, we celebrated surgical research being performed by the faculty, residents, and medical students. The day commenced with exceptional Grand Rounds presentations by 13 surgical residents returning to clinical work after their dedicated research years (summaries starting on page 4). In the afternoon, residents, faculty, medical students and advanced practice providers presented posters from almost 40 projects spanning topics from basic science to clinical trials and population health outcomes work to implementation science. Six finalists competed with oral presentations for two prizes. The day culminated in an award ceremony to acknowledge the most promising investigations by the medical students and the residents.

Anna Garcia-Whitlock, MD, PhD, received the Best Resident Presentation in Basic Science for her work entitled "*Glucagon Blockade Can Prevent and Treat Hyperglycemia in Stress-Induced Hyperglycemia.*" **Danielle ('Dani') Brown** received the Best Medical Student Presentation in Clinical Science for her work entitled, "*Effect of Serious Mental Illness on Surgical Consultation and Operative Management of Older Adults with Acute Biliary Disease: A Nationwide Study.*" (continued on page 6)



Dr. Ron DeMatteo speaking to the crowd at the poster competition awards ceremony.



Finalists: Rachel Kelz, Will Johnston, Rucha Alur, Julia Gasior, Ali Naji, Sarah Ginzberg, Dani Brown, Anna Garcia and Sunil Singhal

Naji Research Day *(continued from page 5)*

Ali Naji, MD, PhD, is the Jonathan E. Rhoads Professor of Surgical Science II and Director of the Penn Pancreatic Islet Transplantation Program. He completed his surgical training and vascular surgery fellowship at University of Pennsylvania. He also completed his PhD in Immunology before joining the faculty. His research efforts in the immunology of diabetes and his pioneering work led to FDA approval for islet transplantation as a first line therapeutic option in Type 1 diabetes.

The following are the summaries of the research findings.

Gina M. Biagetti, MD

"Genetics of Physical Activity and Atherosclerotic Disease"

Gina worked in the laboratory of Dr. Scott Damrauer in the Division of Vascular Surgery and Endovascular Therapy. Her research focused on leveraging genetic databases to better understand lifestyle patterns of physical activity and its role in disease development and progression. Utilizing large genome-wide association studies of various traits related to activity, she performed structural equation modeling to develop a latent trait of a 'lifestyle of physical activity'. This model has been applied in a Phenome-wide association study to understand activity's contribution to circulating metabolites and proteins and is currently being used in systems biology experiments to better understand the underlying biology contributing to these lifestyle patterns. In collaboration with the Salt Lake City VAMC, she also helped develop a Natural Language Processing (NLP) tool to extract ultrasound data on carotid stenosis in nearly 1 million veterans. The NLP results will be used to understand the epidemiology of carotid stenosis and its progression.



Zoe Gan, MD

"Pathophysiology of Urinary Incontinence in Nulliparous Female Elite Athletes"

Zoe worked with Dr. Ariana Smith in the Division of Urology. For her primary project, she recruited undergraduate female athletes from Penn's Division 1 varsity teams to participate in surveys, focus groups, pelvic exams, and dynamic pelvic MRIs in order to explore the context and



pathophysiology underlying urinary incontinence (UI) in this high-risk population using a mixed methods approach. Preliminary focus group themes revealed that while several athletes experienced cultural normalization of UI, concerns about future continence and interest in better management strategies were common. Imaging analysis is ongoing, including assessment of athletes' pelvic floor muscles, bladder neck position, and urethral ligaments. As part of this project, Zoe underwent training with the Mixed Methods Research Lab (MMRL) at Penn on focus group moderating and qualitative research analysis. Additional projects explored the relationship between physical activity, lower urinary tract symptoms, and pelvic floor muscle exercises in community-based women. She also completed a Certificate in Biomedical Informatics and has ongoing projects at CHOP including machine learning for video urodynamic studies, as well as outcomes for congenital abnormalities of the urinary tract.

Anna Garcia-Whitlock, MD

"Elucidating the Drivers of Stress-induced Hyperglycemia After Trauma and Hemorrhage"

Anna completed a PhD in Cell Biology, Physiology, and Metabolism in the lab of Dr. Paul Titchenell, Associate Professor of Physiology in the Institute for Diabetes, Obesity, and Metabolism. Anna's project identified novel mechanisms driving stress-induced hyperglycemia, a state of elevated glucose levels in critical illness that has been associated with delayed organ failure and death in trauma. Notably, she trained with the Penn Rodent Metabolic Phenotyping Core and the NIH Isotope Tracer Course to gain expertise in designing the sophisticated infusion experiments required to test her hypotheses. While in the Titchenell Lab, Anna also collaborated with the Rabinowitz Lab at Princeton to use advanced tracer and metabolomics approaches to study the role of the serine/threonine kinase AKT in regulating skeletal muscle glucose flux. Anna's PhD was funded by the Measey Surgeon Scientist Training Program and a 3-year appointment to the Diabetes Research Center's T32. She also completed the ITMAT Certificate in Translational Science and was awarded an NIH Loan Repayment Award.



Naji Research Day *(continued from page 6)*

Sara Ginzberg, MD

"Impact of Adverse Patient Events on Surgeons and Trainees"

Sara worked with Dr. Heather Wachtel in the Division of Endocrine and Oncologic Surgery and obtained a Master of Science in Health Policy Research degree. Her master's thesis project was a mixed-methods investigation of the psychological impact of adverse patient events on surgeons and surgical trainees. She demonstrated that adverse patient events are an under recognized source of distress for trainees and faculty alike, and that female trainees and those from minority racial/ethnic backgrounds more frequently reported negative personal consequences. She suggests that surgical departments and training programs may benefit from creating formal avenues to help restore their members' well-being in the wake of adverse patient events, and that these structures may be particularly helpful for underrepresented groups.



Sara also obtained a Concentration in Healthcare Quality and Safety. With this training, she conducted several projects that have sought to improve guideline-concordant, high-quality surgical care through the lens of health equity. She spearheaded the HUP Cedar Surgery Quality Improvement Group and is co-leading an effort to expedite the evaluation and treatment of breast abnormalities with Dr. Lola Fayanju, an initiative sponsored by the Penn Medicine Nudge Unit.

Amit Iyengar, MD, MSE

"Understanding Myocardial Metabolic Derangements in Neurogenic Stress Cardiomyopathy"

Amit worked primarily in the laboratory of Dr. Pavan Atluri in the Cardiac Surgery Division. His benchtop research was focused on identifying differing patterns of cardiac metabolism present in a variety of small-animal models of non-ischemic cardiomyopathy. He validated several models of cardiac dysfunction and performed targeted metabolomic and adjunctive assays. He was also heavily involved in clinical research throughout the Cardiac Surgery division, performing important outcome studies in transplantation, mitral, and aortic surgery from both institutional and national-level data sources. In addition, he participated in several resident and medical student educational efforts, serving as a supervising research mentor for 8 medical students and contributing to a nationally-recognized technical skill simulator for basic cardiac surgical



skills. His work culminated in over 15 publications during his research time alone, along with several prestigious merits including the Resident Research Fellowship Award from the Thoracic Surgery Foundation, the Benson R. Wilcox Award from the STS, the Hans G. Borst Award from the EACTS, and an annual travel grant from the ASCVTS.

John J. Kelly MD

"Referral Centers for Acute Type A Aortic Dissection"

John worked in the clinical research laboratory of Nimesh D. Desai, MD, PhD, within the Penn Aorta Center and Division of Cardiovascular Surgery. He also obtained a Master of Science in Health Policy Research at the University of Pennsylvania (Penn MSHP). His thesis project, titled "Referral Centers for Acute Type A Aortic Dissection," investigates whether patients who present with an acute Type A dissection benefit from urgent transfer to a large referral center as opposed to undergoing surgery at a smaller, non-referral center. John's other clinical research projects included bicuspid aortic valve repair, aortic root replacement, aortic arch surgery, malperfusion in Type A aortic dissection, and anticoagulants in Type A aortic dissection using both institutional and national data. Additionally, building on his prior experience in documentary filmmaking, John filmed and edited numerous surgical videos, which he presented at institutional, national, and international educational sessions and scientific meetings. Lastly, John also had the opportunity to serve as the resident board member for the Delaware Valley Society of Thoracic Surgeons (DVSTS) and as a course co-director for the Fifth North American Aortic Valve Repair Symposium (AVRS), which was held in Philadelphia in September 2022. These experiences provided invaluable insight into the planning and organization of scientific meetings within academic cardiac surgery.



Valerie L. Luks, MD, MHS

"In Utero Gene Editing to Address Lethal Congenital Lung Disease"

Valerie worked in the laboratory of Dr. William Peranteau in the Center for Fetal Research at CHOP. Her work primarily focused on in utero gene therapy of congenital lung disorders with specific focus on the fate of fetally edited cells after postnatal injury. Despite novel



Naji Research Day *(continued from page 7)*

treatments, patients with congenital pulmonary disorders remain at increased risk of lung injury at birth from mechanical ventilation, high oxygen requirements, and infections. She demonstrated that after in utero gene editing and subsequent post natal exposure to hyperoxia, mouse pulmonary epithelial cells not only retained their editing, but also the capacity to proliferate and undergo appropriate cell repair and replacement. These findings suggest there is no selection disadvantage following CRISPR/Cas9-mediated gene editing and demonstrate the long-term genotypic stability of pulmonary progenitor cells after genomic manipulation. She additionally developed a cytosine base editing approach to cure the most common mutation that causes surfactant protein C deficiency. She was able to demonstrate genotypic and phenotypic correction in human cell lines as well as engineer a translatable lipid nanoparticle delivery platform encapsulating the editing constructs for pre- and post-natal delivery to a mouse model.

John S. Riley, MD, MS

"Fetal Gene Editing and Maternal Immunity"

John worked in the Center for Fetal Research at the Children's Hospital of Philadelphia under the mentorship of William Peranteau, MD. He investigated the interplay between the maternal and fetal immune systems and how it might affect the safety and efficacy of a fetal gene editing approach for the treatment of inherited metabolic liver diseases. Combining murine immunology studies with translational analysis of human serum collected from premature deliveries and in utero transfusions, he demonstrated that pre-existing maternal immunity to adeno-associated viral vectors is a titer- and gestational age-dependent barrier to fetal gene editing, while immunity to Cas9 endonuclease (the enzyme that cleaves DNA in the CRISPR-Cas9 system) is not. These findings represent an immunologic advantage for fetal gene editing compared to adults and will determine maternal testing protocols and inclusion/exclusion criteria for future clinical trials.



Sanford E. Roberts, III, MD

"The Impact of Established Primary Care Use on Post-Operative Mortality Following Emergency General Surgery Procedures"

Sanford worked with Dr. Rachel Kelz in



the Center of Surgery and Health Economics while also earning a Master of Science in Clinical Epidemiology. His work primarily focused on the intersection of preoperative care and racial health disparities within surgery. His work is supported by an NIH R01 administrative supplement and an NIH loan repayment grant. In the current presented study, he evaluated the impact of preoperative primary care utilization on post-operative mortality following emergency general surgery. He showed that primary care utilization was strongly associated with reduced post operative mortality for both Black and White patients. The group is continuing that work used discrete choice experiments to determine how best to facilitate primary care utilization among Black communities. During his lab time he also co-founded the Physician Track program, a pipeline program aimed at encouraging West Philadelphia Black male high school students to pursue careers as a physician.

Claire B. Rosen, MD

"Ethics and Health Services Research in Emergency General Surgery"

Claire worked in the in the Center for Surgery and Health Economics under the mentorship of Dr. Rachel Kelz. Her research focused on the intersection between medical ethics and surgical care delivery. Her projects ranged from quantitative studies to examine longitudinal outcomes of older, emergency surgery patients to qualitative studies of surgeon practice behaviors. Each project was designed to deliver new data to practicing physicians, and patients, that considered patient independence as a critical outcome of surgical management of older adults. In addition to her academic pursuits, Claire led a team to develop a bedside app to translate her quantitative work into a usable format for clinicians. Her publications included a featured article in the Journal of the American College of Surgeons and a podcast interview on the Operative Word. Claire's work was supported by an F32 training grant from the NIH, National Institute on Aging. Claire earned her Master of Science in Medical Ethics and was a 2022 Medical Fellow in the Fellowships at Auschwitz for the Study of Professional Ethics.



Naji Research Day *(continued from page 8)*

Cimarron E. Sharon, MD

“Identifying Patterns of Recurrence and Survival for Patients with Advanced Melanoma”

Cimarron worked with Dr. Giorgos Karakousis and Dr. John Miura in the Division of Endocrine and Oncologic Surgery. Her work primarily focused on outcomes studies for patients with skin and soft tissue malignancies. Cimarron’s main research interests were in identifying advanced melanoma patients who are most likely to benefit from immunotherapy, and in decreasing and predicting recurrences. First, she utilized the National Cancer Database to study the impact of adjuvant immunotherapy on overall survival for patients with stage III melanoma, only demonstrating a survival advantage for patients with IIC disease. Second, she performed a 5-year follow-up for resectable stage III/IV patients treated with neoadjuvant PD-1 inhibition, finding that patients who achieve a complete pathologic response from immunotherapy can develop recurrences, typically after 3 years of follow-up. Lastly, her ongoing research includes analyzing positive lymph node samples from patients with clinical stage IIB/C melanoma in order to identify immune signatures predictive of recurrence.



Jacqueline Soegaard Ballester, MD

“Leveraging Systems-based Clinical Informatics Approaches to Drive Improvements in Surgical and Cancer Care”

Jacqueline worked with Dr. Heather Wachtel in the Division of Endocrine and Oncologic Surgery. She also obtained a Masters of Biomedical Informatics and board certification in Clinical Informatics. Supported by a T32 training grant, her work focused on the application of clinical informatics for the improvement of surgical science and care.



She conducted a multispecialty retrospective assessment of the utility and burdens of preoperative history and physical update visits mandated by federal regulations. This study identified that these visits impact operative planning in only 11.6% cases, impose substantial time and travel burdens on patients, and that 99.2% would have been suitable for telehealth. These findings support policy revisions to provide greater flexibility in update visit timing and modality. She also led the design, development, and implementation of several novel health system informatics solutions. These included 1) EHR documentation

templates and dynamic real-time dashboards to support synoptic operative reporting as required for compliance with new standards set forth by the ACS Commission on Cancer (CoC), 2) an EHR order panel with integrated decision support for promoting guideline-concordant thyroid nodule management, and 3) a clinical emergencies dashboard to support in-hospital emergencies that will be integrated into existing emergency alert messaging.

At Penn Medicine, she was selected to be an Innovation Fellow at the Penn Center for Cancer Innovation, and served as a resident representative for the Perioperative Safety Committee, the HUP Cedar Surgical Quality Improvement Working Group, and the Cancer Service Line EHR Optimization Committee. She also gave lectures on informatics to medical students and incoming residents. Nationally, she served as a resident representative on the ACS Health Information Technology Committee and CoC Surgery Standards Programs, and a student editor for Applied Clinical Informatics. Finally, she was a founding member and inaugural resident representative for the new Surgical and Procedural Informatics Working Group for the American Medical Informatics Association.

Alexander K. Warshauer, MD

“Healthcare Management and Organizational Effectiveness”

Alex spent his career development time obtaining a Master of Business Administration from Wharton with dual majors in Healthcare Management and Organizational Effectiveness. This two-year curriculum included foundational work in communications, marketing, accounting, economics, strategy, and finance. The Healthcare Management major included an overview of the US Healthcare system with a special focus on current issues, reforms, future directions, and practical leadership of healthcare organizations. The Organizational Effectiveness major included work on negotiations, power and politics in organization, management science, people analytics, and strategic implementation. He also took additional coursework at the Penn Carey Law School to gain a better understanding of the regulatory environment in healthcare and took a deeper dive into malpractice law.



To put these lessons into practice, Alex served as the Resident Executive Council Chair as well as a member of the UPHS Housestaff Governing Council, where he advocated for his coresidents to program leadership and hospital administration.

Accomplishments and Career Plans of the 2023 Graduating HUP Chief Surgical Residents

As Contributed by the Residents

Dr. Kevin Connor Eddinger was born to Michael and Donna Eddinger in Allentown, Pennsylvania, and grew up as an only child in nearby Center Valley, Pennsylvania. In high school, he excelled on the rifle team and made an appearance on a local scholastic quiz-bowl television program. In 2008, he matriculated at Penn State where he studied Chemical Engineering. He graduated with a Bachelor of Science degree in 2012, and subsequently attended The University of Pennsylvania for medical school. During medical school, he performed research with the Division of Transplant Surgery, helping to author several papers on the impact of HIV, hepatitis C, and diabetes on patient and graft outcomes following renal transplantation. Although he briefly considered Neurology after his clerkship, he ultimately decided to pursue Surgery, and went on to complete sub-internship rotations with Drs. Drebin, Fraker, Kucharczuk, and Harbison. At graduation, he was awarded the Dr. I.S. Ravdin Prize.



He was thrilled to match at his first choice for residency, Penn Surgery. He took an early liking to Vascular Surgery, due in large part to the influence of his future mentor, Dr. Benjamin Jackson. Kevin spent his lab years working with Dr. Jackson, developing novel computational methods for mapping, modeling, and predicting growth and rupture of abdominal aortic aneurysms. Following graduation, Kevin will be moving cross-country to complete fellowship in Vascular Surgery at the University of California, San Francisco. He is immensely grateful to all those who have supported him throughout the journey, especially his family, friends, and co-chiefs.

Dr. Ian W. Folkert was born in New York, New York, and spent his childhood in City Island and then Pelham, New York. He studied Classics at New York University, graduating Phi Beta Kappa with a Bachelor of Arts. Ian moved to Philadelphia in 2009 to attend medical school at the University of Pennsylvania



School of Medicine. Certain that he would become an internist, he scheduled his surgery rotation first to “get it over with.” His experiences on the HUP surgical services quickly changed his mind, and soon he was pursuing a career in academic surgery, graduating with the William T. Fitts, Jr. Memorial Prize. Ian was thrilled to remain at Penn for his residency training. During his first several years in residency, Ian developed an interest in surgical oncology and cancer research, thanks in large part to his many supportive mentors in the division. He was given the opportunity to enter the Biomedical Graduate Studies program as a PhD student while in the lab, the first Penn resident to participate in the Measey PhD Program. During his brief 5-year hiatus, he won an American College of Surgeons Resident Research Scholarship, studying innate immune responses in soft tissue sarcomas. He earned a PhD in Cancer Biology, which he plans to use in his career as a surgeon-scientist to help develop new immunotherapies for patients with GI and peritoneal malignancies. During his time at Penn, Ian met his wife, Hilary, during a surgery consultation, and they have now been happily married for 5 years. After 14 years at Penn, Ian will be heading south to Houston, Texas, to pursue a Complex General Surgical Oncology Fellowship at MD Anderson Cancer Center. He is incredibly grateful for the support of all the faculty, his co-residents, friends, family, and wife throughout this decade-long journey.

Dr. Matthew A. Goldshore was raised in Chappaqua, New York, and studied Biochemistry and Science Education at the University of Texas at Austin. Matt received his MD and MPH from George Washington University and completed a PhD in perinatal social epidemiology at the Johns Hopkins Bloomberg School of Public Health. He fell in love with the operating room and, in particular, with pediatric general surgery after rotating with Dr. Andrea Badillo at Children’s National Medical Center in Washington, DC. He did a sub-internship at Penn under Dr. Jeffrey Drebin and after meeting Dr. Jon B. Morris and Laura Huth in the Division of Surgery Education, knew that 3400 Spruce Street was home.



While in the lab, Matt completed a Pediatric Surgical Critical Care fellowship and worked with Tom Reynolds and Dr. Holly L. Hedrick to develop the Clinical Outcomes Data Archive (CODA), an innovative clinical epidemiologic tool to better understand the

life course of children and families impacted by congenital diseases.

Matt believes that anyone who needs surgery deserves access to high-quality care. With this value in mind, Matt worked with Dr. Carrie Z. Morales and Dr. Jon B. Morris to develop the Center for Surgical Health, an academic-community partnership housed in the Department of Surgery whose mission is to improve the surgical health of underserved individuals and under-resourced communities. Thanks to the remarkable CSH team led by Lauren Rossi, CSH has supported almost 800 Philadelphians throughout the perioperative continuum.

Matt, his partner Marco, and their two dogs Hank and Melon, are thrilled to continue training at the Children’s Hospital of Philadelphia where Matt will be a Pediatric General, Thoracic and Fetal Surgery fellow and Marco will continue his post-doctoral work on fetal gene editing in the Center for Fetal Research.

Dr. Andrew Hanna was born in Boston, Massachusetts, to immigrant physicians from Egypt. His mother an anesthesiologist and his father a surgeon, he was destined to end up in the operating room. Graduating with dual majors in Economics and Neuroscience from Johns Hopkins University, he initially wanted to be a neurosurgeon but decided against it after seeing his 875th craniectomy on the neurosurgery service. He was, however, fortunate to have excellent surgical oncology mentors at the University of Maryland who quickly brought him into the fold of general surgery and who helped him match at the University of Pennsylvania for residency. As a junior and mid-level resident he fell in love with the field of surgical oncology and grew in his skills as a surgeon under the guidance of his many mentors within the Endocrine and Oncologic Surgery Division as well across the many other excellent surgical services. As a research resident in the lab of Dr. DeMatteo, he focused on genomic and bioinformatic analysis of tumor biology and immunology and co-authored several basic science publications. As a true go-getter during this research time, he also met, dated, proposed to, and married his now wife in less than 10 months, culminating in a beautiful wedding ceremony and reception attended by many of his co-chiefs and Penn faculty on the eve of the COVID-19 pandemic shutdown, likely resulting in an undocumented super spreader event. Much of his time as a



PGY4 and chief resident has been spent feeling way over his head learning complex operations and guiding junior residents. As he now graduates and heads to Memorial Sloan Kettering Cancer Center for his complex and general surgical oncology fellowship, he still feels completely in over his head...but he knows he will always have his Penn surgery family to lean on and prop him up when needed.

Dr. Catherine (Catie) Lancaster Mavroudis was born in Washington, D.C., and raised in Cairo, Egypt, and New Delhi, India. When she was in the fifth grade, she decided that she wanted to be a doctor when she grew up. She returned to the U.S. for the tail end of high school, after which she attended Boston College and graduated with a Bachelor of Science in Biochemistry as a member of the Honor's program and a Scholar of the College. She then headed south to Emory University for medical school, where she fell in love with General Surgery and, later, with Penn as a visiting sub-intern. During her residency at Penn, she tried to convince herself of every subspecialty under the sun, but kept being drawn back to bread and butter General Surgery. On one of her forays into the various surgical specialties, she met her future husband, Constantine, on Ravdin 6, while rotating on Thoracic Surgery. She subsequently spent two years in the lab pursuing health services research under the mentorship of Dr. Rachel Kelz, and obtaining her Masters in Business Administration with a major in Healthcare Management from Wharton. Catie and Constantine celebrated their wedding during the height of the Covid-19 pandemic, and welcomed their daughter, Eleni Catherine, during Catie's PGY6 year. Catie is extremely grateful to the Penn faculty for their teaching and mentorship, to her co-chiefs for their camaraderie and hilarious text threads, to all of the residents for their commitment to patient care, to her family for their endless support and patience with her schedule for the last decade, and to her husband and daughter for bringing more joy to the everyday than she thought possible. Following graduation, she looks forward to welcoming baby number two in August and starting her career as a General Surgeon at Inspira, in Vineland, New Jersey, in October.



Graduates *(continued from page 11)*

Dr. Ciaran Sualdam O'Brien was born in Toronto, Canada, and raised in Northern Westchester, New York. He attended St. John's College, where he completed a great books program focused on philosophy, literature, and the history of math and science. He then went to Bryn Mawr College Post Baccalaureate Pre-Medical program, where he met his wife Sophia. He worked in the New York Obesity Nutrition Research Center and then he and Sophia matriculated at Columbia University College of Physicians and Surgeons. While studying at Columbia he developed a keen interest in general and vascular surgery, was honored to join Alpha Omega Alpha, and was recognized with the Alfred M. Markowitz award for his dedication to patient care, teaching, and scholarship. On one of his golden weekends he married Sophia and they soon welcomed their first daughter, Aoife, to the world. He was lucky to match at Penn for surgery residency, where he has learned a tremendous amount about surgery, solidified his interest in vascular surgery, and welcomed his second daughter, Saoirse. Passionate about education, Ciaran was recognized with the William Y. Inouye Resident Award and the Penn GME Resident Teaching Award during residency. During his lab years he worked under Matthew Howard Levine studying therapies to alleviate ischemia reperfusion injury. He is honored to stay at Penn for his vascular surgery fellowship.



Ciaran is grateful to the faculty of Penn Surgery for all of the time and patience they have invested in teaching the residents, to his co-residents for their constant support and dedication to the patients, his family for their unending support and understanding, and to the countless patients he has worked with over the past seven years.

Dr. Adrienne Bruce Shannon was born and raised in Fishers, Indiana. She attended Vanderbilt University where she obtained a Bachelor of Arts in Molecular and Cell Biology, Chemistry, and Child Development and graduated cum laude with induction into Phi Beta Kappa. She then attended Georgetown University School of Medicine, where she was drawn to surgery, despite always thinking she would become a medical oncologist. In the pursuit of finding a program strong in surgical oncology, she happened to apply for a fourth-year sub-internship

at the University of Pennsylvania and was honored to be selected as one of Dr. Giorgos Karakousis's first visiting students on the Endocrine and Oncologic Surgery service. After a wonderful month on this service, she realized that Penn Surgery was her first choice for residency and was elated to match in the University of Pennsylvania's program. During residency, she dedicated two years to researching clinical outcomes in melanoma, soft tissue, and gastrointestinal cancers under the mentorship of Dr. Karakousis. Her research amounted to over forty publications and several awards for top abstract at the Society of Surgical Oncology, American College of Surgeons, and American Academy of Dermatology annual meetings. For her work investigating predictive factors associated with lymph node metastasis in mucinous appendix cancer, she was awarded the Appendix Cancer Pseudomyxoma Peritonei Research Foundation Travel Award. Additionally, her work examining the role of sentinel lymph node biopsy in thin (T1a) cutaneous melanoma not only won the Society of Surgical Oncology's inaugural Dale Han Memorial Scholarship but has since been incorporated into the National Comprehensive Cancer Network's revised guidelines, effectively changing the management of thin cutaneous melanomas. During her research years, Adrienne and her husband, Matthew, welcomed their 2-year-old son, Wells, and more recently, they welcomed their 3-month-old daughter, Isla, in March. Of all of the titles and roles that Adrienne has had during this residency, perhaps the greatest has been mother; her babies are her greatest joy. Adrienne is forever grateful to all of the Penn Surgery faculty, particularly Drs. Karakousis and Miura, for their teaching and guidance, as well as to the wonderful people that she has had the pleasure to work alongside at the University of Pennsylvania. She is also honored to graduate alongside a group of co-chief residents



that are so inspiring and accomplished. Following completion of residency, Adrienne and her family will be moving to Tampa, Florida so that she can begin her Complex General Surgical Oncology fellowship at Moffitt Cancer Center in hopes of becoming a melanoma and soft tissue surgical oncologist.

Graduates *(continued from page 12)*

Dr. Jordan Benjamin Stoecker was born and raised in southeast Michigan. Jordan was blessed with two older brothers heavily invested in his development into a young man. From being forced in front of a hockey net for target practice (courage) to body slamming him on the trampoline (respect) to literally stealing food off his plate at meals (equality), his older siblings' commitment towards Jordan's 'betterment' was unmatched. Jordan's younger sister has also been supportive, and given her kindness, she need not be ridiculed in a public forum. After his idyllic childhood, Jordan attended the University of Michigan where he earned a bachelor's degree in chemical engineering and then completed medical school at Case Western Reserve University in Cleveland. Jordan was immediately drawn to general surgery given its reputation as a chill, laid-back specialty with a short training period. Matching to the University of Pennsylvania for residency was a surprise for Jordan, who gracefully took it in stride, crying only for several weeks. Shortly after starting residency, Jordan was very fortunate to meet his future wife Dana, who has since convinced him that Philadelphia is 'not



that bad'. During his two-year research fellowship, he performed translational vascular surgery research under the mentorship of Dr. Ben Jackson and completed a Masters of Science in Clinical Epidemiology at the University of Pennsylvania under the mentorship of Dr. Grace Wang. During the COVID-19 pandemic he organized the HUP COVID

Procedure Service, and he greatly appreciates everyone who volunteered on the service during that stressful time. Jordan is exceedingly grateful for everyone who has helped him get to this point, especially his faculty mentors, his co-chief residents, and his wife Dana. Following graduation, Jordan will be pursuing a fellowship in vascular surgery at the Massachusetts General Hospital, where he hopes they appreciate sarcasm.



The 2023 General Surgery Graduating Chiefs with Ron DeMatteo, Chair, Department of Surgery, Jon Morris, Vice Chair of Education and Ken Lee, Program Director (front row) Catie Mavroudis, Andrew Hanna, Matt Goldshore, Jordan Stoecker, Adrienne Shannon (back row) Ron DeMatteo, Ciaran O'Brien, Ian Folkert, Jon Morris, Kevin Eddinger and Ken Lee.

Career Paths of 2023 HUP Fellowship Graduates

Adeolu Adeboye, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Staff Trauma Surgeon, Director of Surgical Education
HCA Bayonet Point Hospital, Hudson Florida

Carl A. Beyer, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Staff Trauma Surgeon, MacDill AFB and Assistant Professor of Surgery, University of South Florida, Tampa, Florida

Mauer Biscotti, MD (Cardiac Surgery)
Fellow, Cardiopulmonary Failure and Mechanical Circulatory Support, Columbia University, New York City, New York

Jacqueline Blank, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Associate Professor of Surgery, Division of Trauma and Acute Care Surgery, Medical College of Wisconsin, Milwaukee

Matthew Carpiello, MD (Vascular Surgery)
Private Practice, Rockland County New York

Caitlin Cohan, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Associate Physician, Department of Trauma Surgery
Kaiser Permanente South Sacramento Medical Center
Sacramento, California

Cyrus Farzaneh, MD (Colon and Rectal Surgery)
Kaiser Permanente Roseville Medical Center
Roseville, California

Charles D. Fraser, MD (Cardiac Surgery)
Fellow, Congenital Cardiac Surgery Fellowship
Colorado Children's Hospital, Aurora, Colorado

Jay Fuletra, MD (Robotics - Urology)
Midlantic Urology, Philadelphia Area

Michael Holland, MD (Microvascular Surgery - Plastic Surgery)
Private Practice, Laguna Beach, California

Kendall Lawrence, MD (Cardiac Surgery)
Assistant Professor of Surgery, Division of Cardiovascular
14 Surgery, Hospital of the University of Pennsylvania

Sean Li, MD (Microvascular Surgery - Plastic Surgery)
Clinical Assistant Professor of Plastic Surgery
Hospital of the University of Pennsylvania

Nicole A. Meredyth, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Assistant Professor, Acute Care Surgery Division
Northwestern Medicine, Chicago, Illinois

Shyam Murali, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Adjunct Assistant Professor of Emergency Medicine in Surgery
University of Pennsylvania; Trauma and Critical Care at
Grand View Hospital, Sellersville, Pennsylvania

Grace M. Niziolek, MD (Traumatology, Surgical Critical Care and Emergency Surgery)
Assistant Professor of Surgery
Washington University in St. Louis, Missouri

Pedro Piccinini, MD (Microvascular Surgery - Plastic Surgery)
Montefiore Medical Center, Bronx, New York

Matthew Pontell, MD (Craniofacial Surgery - Plastic Surgery)
Assistant Professor of Plastic Surgery
Vanderbilt University Medical Center, Nashville, Tennessee

Irfan Rhemtulla, MD (Microvascular Surgery - Plastic Surgery)
Christiana Health Care System, Newark, Delaware

Kara Rothenberg, MD (Vascular Surgery)
Kaiser San Leandro, San Francisco, California

Oren Shaked, MD (Transplant Surgery)
Assistant Professor of Surgery, Division of Transplant Surgery
Oregon Health and Science University (OHSU), Portland

Sean Van Aken, DPM, AACFAS (Lower Extremity - Plastic Surgery)
Heritage Valley Health System, Beaver, Pennsylvania

Steven Woodward, Jr. (Breast Surgery)
Breast Surgeon, Luminis Health, Annapolis, Maryland

Welcome New Residents

Categorical General Surgery Program



Iulia Barbur
Johns Hopkins



Juliana Castrillon
Columbia



Charles Crepy D'Orleans
Emory



Kathleen Davin
Penn



Nate Diehl
Chapel Hill



Melody Gomez
Columbia



Yash Kadakia
Univ. of Texas -
Southwestern



Nithya Kanagasagar
Case Western Reserve



James Wester
Northwestern

Plastic Surgery Program



Emily Gudbranson
Stonybrook University



Phoebe McAuliffe
Yale



Dillan Villavisanis
Icahn - Mount Sinai



Max Shin
Penn



Omar Toubat
Keck - Univ. of
Southern California

Thoracic Integrated Program

Urology Program



Katie Lattanzio
Penn



David Ostrowski
Penn



Matthew Rabinowitz
Johns Hopkins



Greg Whittemore
Columbia



JungEun 'Greg' Ahn
University of Virginia



Perry Kerner
SUNY - Downstate

Vascular Program

New Residents *(continued from page 15)*

Preliminary General Surgery Program



Abimbola Abiola
Obafemi Awolowo
University



Fasih Ahmed
Aga Khan



Ali Ali
Royal College
of Surgeons



Mickel Attia
University
College Cork



Sotonye Douglas
Quinnipiac University



Argyrios Gyftopoulos
University of Athens



Jonathan Jung
University
of Glasgow



Nuria Lluis
Universidad Miguel
Hernández



Ayesha Noor
Aga Khan



Mohomed Salem
Alexandria University

Post Fellowship Appointments - 2021 General Surgery Chiefs

- ◆ **Seth J. Concors, MD** *(Fellowship, Surgical Oncology, MD Anderson Cancer Center Houston, Texas)*
Assistant Professor of Surgical Oncology
Emory University, Atlanta, Georgia
- ◆ **Elizabeth M. Sonnenberg, MD** *(Fellowship, Transplant Surgery, University of Michigan, Ann Arbor, Michigan)*
Assistant Professor of Surgery
Division of Transplant Surgery
Hospital of the University of Pennsylvania
- ◆ **Phillip M. Dowzicky, MD** *(Fellowship, Trauma and Surgical Critical Care, Hospital of the University of Pennsylvania)*
Assistant Professor of Surgery
University of Chicago Medicine, Chicago Illinois
- ◆ **Robert A. Swendiman, MD** *(Fellowship, Pediatric Surgery, Primary Children's Hospital, Salt Lake City, Utah)*
Assistant Professor of Surgery
Division of Pediatric Surgery
University of Utah School of Medicine
Salt Lake City, Utah
- ◆ **Jennifer H. Fieber, MD** *(Fellowship, Breast Surgery Oncology, Hospital of the University of Pennsylvania)*
Clinical Assistant Professor
Division of Surgical Oncology
University of Florida, Gainesville, Florida
- ◆ **Salman Zaheer, MD** *(Fellowship, Cardiac Surgery, Johns Hopkins Hospital, Baltimore, Maryland)*
Completing his final year of his Cardiac Surgery fellowship
at Johns Hopkins
- ◆ **Victoria M. Gershuni, MD** *(Fellowship, Advanced Gastrointestinal and Minimally Invasive Surgery, Barnes Jewish Hospital/Washington University, St. Louis, Missouri)*
Assistant Professor of Surgery
Division of Gastrointestinal Surgery
Hospital of the University of Pennsylvania

Alumni News

Faculty, Residents, Alumni of Penn Surgery
email your news to Clyde Barker
clyde.barker@penntmedicine.upenn.edu

- ◆ **Ibrahim Abdullah, MD** (HUP chief resident 2008) has been appointed Chief, Division of Pediatric Cardiothoracic Surgery and Director of Pediatric Heart Transplantation & Pediatric Extracorporeal Membrane Oxygenation and Co-Director of the Pediatric Heart Center at the Children's Hospital at Montefiore, Bronx, New York.



- ◆ **Amit Iyengar, MD, MSE** (PGY4) won the prestigious Hans Borst Award for the top Aortic Surgery Paper *Mitral Regurgitation in Acute Type A Dissection: Management and Outcomes* by a young investigator at this year's European Association of Cardio-Thoracic Surgery (EACTS) Annual Meeting. Nimesh Desai is his mentor.



- ◆ **John J. Kelly, MD** (PGY4) was recently awarded the Best Abstract Presentation Award for his paper titled *Bicuspid Valve Reimplantation in 210°-150° Orientation for Very Asymmetric Commissural Angles* at the EACTS Aortic Forum.



- ◆ **Heung Bae Kim, MD** (HUP Chief Resident 2000) was appointed the inaugural Robert C. Shamberger Professor of Surgery at Harvard Medical School Endowed Chair.



- ◆ **Alan J Wein MD, PhD(hon)** is the recipient of the Ellis Island Medals of Honor which recognize the best of America in their celebration of patriotism, diversity, and the contributions immigrants continue to make to our nation's economic and social success.



- ◆ **Daniel Hashimoto, MD, MTR** was awarded the McCabe Fellow Award to help provide important start-up funding to junior faculty. **Victoria Gershuni MD, MTR, MSGM** and **Alex Fairman, MD** won a McCabe Pilot Awards.



New Faculty

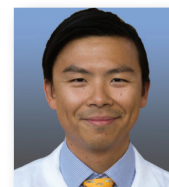
- ◆ **Karl F. Godlewski, MD** was appointed Assistant Professor in Surgery at CHOP in the Division of Urology. MD - Rush Medical College, Chicago; Residency - Urology, Hospital of the University of Pennsylvania; Fellowship - Pediatric Urology - Children's Hospital of Philadelphia.



- ◆ **Kendall M. Lawrence, MD** was appointed Assistant Professor, Division of Cardiovascular Surgery. MD - Wake Forest University; General Surgery Residency - New York Presbyterian Weill Cornell; Fellowship - Thoracic Surgery, Hospital of the University of Pennsylvania.



- ◆ **Sean Li, MD** was appointed Clinical Assistant Professor of Surgery, Division of Plastic Surgery, Virtua. MD - Virginia Commonwealth University School of Medicine; Plastic Surgery Residency - University of California, San Diego; Fellowship, Microvascular Reconstruction - Hospital of the University of Pennsylvania.



- ◆ **Joshua Cassedy, MD** was appointed Penn Medicine Clinician, Division of Traumatology, Surgical Critical Care and Emergency Surgery, Grand View Hospital. MD - University of Pittsburgh School of Medicine; MPH - University of Pittsburgh School of Public Health; General Surgery Residency - Lehigh Valley Hospital.



- ◆ **Amanda Gifford, MD** was appointed Penn Medicine Clinician, Division of Traumatology, Surgical Critical Care and Emergency Surgery, Grand View Hospital. MD - Lewis Katz School of Medicine at Temple University; General Surgery Residency - St. Luke's University Health Network; Surgical Critical Care Fellowship - St. Luke's University Health Network.



Alumni News *(continued from page 17)*

- ◆ **Shyam Murali, MD** was appointed Penn Medicine Clinician, Division of Traumatology, Surgical Critical Care and Emergency Surgery, Grand View Hospital.
MD - Texas A&M University System Health Science Center College of Medicine; Emergency Medicine Residency - Mercy St. Vincent Medical Center; Trauma Fellowship - Hospital of the University of Pennsylvania.



Promotions

- ◆ **Alexander F. Au, MD**
Division of Plastic Surgery
Promoted to Associate Professor of Clinical Surgery in the Academic Clinician track.
- ◆ **Edward Cantu, MD, MSCE**
Division of Cardiovascular Surgery
Promoted to Professor of Surgery in the Clinician Educator track.
- ◆ **Scott M. Damrauer, MD**
Division of Vascular Surgery
Promoted to Associate Professor of Surgery with tenure.
- ◆ **John P. Fischer, MD, MPH**
Division of Plastic Surgery
Promoted to Professor of Surgery in the Clinician Educator track.



- ◆ **Joseph F. Harryhill, MD**
Division of Urology
Promoted to Clinical Professor of Urology in Surgery in the Clinician Educator track.



- ◆ **Joseph A. Napoli, MD, DDS**
Division of Plastic Surgery
Promoted to Professor of Clinical Surgery in the Academic Clinician track.



- ◆ **Hansell H. Stedman, MD**
Division of Gastrointestinal Surgery
Promoted to Professor of Surgery with tenure.



- ◆ **Heather Wachtel, MD**
Division of Endocrine and Oncologic Surgery
Promoted to Associate Professor of Surgery in the Clinician Educator track.



Departed Faculty

- ◆ **Satoshi Furukawa, MD** was appointed Professor of Cardiothoracic Surgery, Dell Medical School University of Texas, Austin.
- ◆ **Brendan Keating, PhD** has been appointed a member of the faculty, Department of Surgery at New York University.



From the Editor *(continued from page 4)*

Tennyson, who all wrote about the Franklin search, but his gripping version came close. One of the 19th century's most successful books, it rapidly sold 150,000 copies. One reviewer said it was written with the pen of a poet.

For the brief period remaining in his life, the frail, chronically-ill Philadelphia doctor was the most celebrated figure of this romantic antebellum era. Fanciful children's books, a U.S. postage stamp, novels by Jules Verne and others, and dozens of his widely attended lectures added to his fame. Named for him were U.S. Navy ships, Arctic landmarks, schools,



18 redwood trees, and even craters on the moon.

In 1857, Kane realized that his heart disease was catching up with him. Needing to sleep sitting up in a chair to help him breathe, he refused to slow down. In London raising funds and planning with Franklin's wife a third expedition in search of her husband, he collapsed with another bout of rheumatic fever. Seeking warm weather to help him recover, he traveled to Cuba. Before long, a stroke rendered him speechless and hemiplegic. As a doctor, he must have known that the probable cause was an embolus from vegetations on his damaged heart valves, and that it was fatal. After a brief rally, another stroke left America's great, tragic hero dead at the age of 37.

(continued on page 19)

From the Editor *(continued from page 18)*

As the entire nation mourned him, Cuba's president accompanied his body to New Orleans. On every riverbank, thousands gathered to salute it as it made its way up the Mississippi to Cincinnati. From there the train to Philadelphia took four days, slowed by throngs on the tracks. At every stop, there were more bands and more speeches. Kane's funeral cortege lasted nearly a month, and was like nothing before or since, rivaled only by Lincoln's funeral trip in 1865. For three days, he lay in state at Independence Hall. The extent of this demonstration of grief is hard to explain. To his accomplishments, it was out of proportion. To his spirit, perhaps not.

Within a decade of Kane's death, at least forty other missions were out looking for Franklin, most sponsored by the British government and four funded by Lady Franklin who refused to give up, offered a £20,000 reward, and spent the remainder of her considerable fortune on the search. None helped much to explain Franklin's fate which became the stuff of dreams and legend.

But obsession with the Franklin mystery just wouldn't go away. What happened to him and where were his ships? Despite all the searches, no one knew. Three graves found on Beechey Island were the first solid evidence of Franklin's path. Three hundred miles south on King William Island, the next piece of the puzzle was a cryptic note found under a cairn of stones. Written by Franklin's doomed ship captains in 1848, it fixed the year of their leader's death as 1847 but not its cause or location. It also told of 24 additional mysterious deaths. But that was where the trail ended. The rest of the detective story depended entirely on the half-remembered legends of Kane's friends, the Esquimaux (Inuit). Their account is all we know about the abandonment and sinking of Franklin's ships, and the death march of his starving men, tortured by scurvy, addled and convulsing from lead poisoning, and eventually resorting to cannibalism. Was Kane, though confronted by the same hardships, successful in avoiding Franklin's disaster because he was smarter, because he befriended and followed the Inuit's advice, or because he used dogs instead of his exhausted men to drag his sleds? Or was it because he was not dependent on food

in tin cans and he was a doctor better able to avoid scurvy or lead poisoning? Or was he just luckier?

The clue most helpful in charting the rest of Franklin's course, the location of his ships, and the death of his 129 men came not from any of his many searchers but from legends the Inuit passed down from one generation to the next for 150 years. Their unwritten story was that of an abandoned ship, a parade of starving men, and of finding their bodies alongside a gigantic pile of the tin cans Franklin counted on to provide a three-year supply of food. Ironically the cans were discarded as useless because faulty preparation allowed their contents to spoil. Canning of food was new at the time and Franklin's tins were sealed with lead that could leach into the can. Decades later came the realization that the canned food must have been full of this poison, accounting for more misery and disability of his men. Yet even now, the mystery abides. Ongoing studies argue that zinc deficiency, Addison's disease, or botulism may have been at fault.

In the 21st century, the search for Franklin went on. In fact, it intensified when the Canadian government took over the cause. Eventually in 2014, a trail guided by the Inuit legends led Park Canada's icebreakers, modern sonar equipment, helicopters, and remotely operated underwater robots to the sunken wreck of HMS *Erebus*, and two years later, to the hull of HMS *Terror*. Whether ongoing examination of these ancient ships can tell us more, we will only know when Arctic weather allows thorough exploration of their holds and cabins. Underwater archeologists might someday find the ship's written logs or even the remains of Sir John Franklin, and lay them to rest with the bust of him now displayed in Westminster Abbey, with its epitaph by Tennyson:

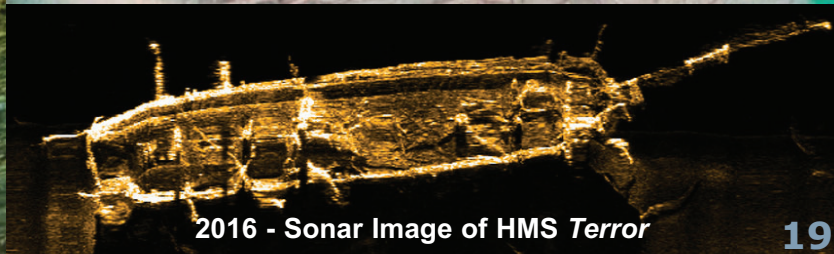
*"NOT here: the white north has thy bones, and thou,
Heroic sailor-soul,
Art passing on thy happier voyage now,
Toward no earthly pole."*



2016 - Exploring the HMS *Terror*



2014 - History Discovered, Hull of HMS *Erebus*



2016 - Sonar Image of HMS *Terror*



Penn Surgery

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SUMMER 2023

Save the Date

Monday, October 23, 2023

Penn Surgery Society Reception
Omni Seaport Hotel, Boston - 6:00-8:30 pm
Conference Room - Momentum C

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