The 2020 Spring issue of Surgery Synopsis is multi-focused. There is so much happening right now in our nation, in healthcare, and certainly within the Department of Surgery. In this issue we wanted to give you a flavor of how COVID-19 has affected our Department and our people, at the same time keeping our "regular" work moving forward while making progress on our strategic initiatives.

In recent months, COVID-19 has overshadowed nearly everything else in the Department of Surgery, in UW Medicine, and even in our daily lives. Though the times have been extraordinary and difficult, we have many reasons to feel grateful, to appreciate our community at UW, and our wider community in Seattle, for responding to crisis in responsible, intelligent, and mutually respectful ways.

Our staff have shifted to work from home, continuing to keep our department running smoothly and continuing to support our faculty and trainees and our clinical, educational, and research programs. Our residents and fellows have reorganized themselves into resilient clinical care teams that continue to support patient care while also creating separation and safety for themselves and our health care teams. Residents have volunteered to work in the ICUs and EDs and have provided an important foundation of support, enabling our healthcare system to meet the new clinical challenges of COVID-19 patients. Likewise our faculty have supported each other, making accommodations for colleagues at higher risk of coronavirus infection, shifting from elective to urgent care all while learning to become facile with telemedicine, and stepping up to serve in other parts of the healthcare system, practicing well beyond our usual comfort zone.

Currently we are working to ramp up the return to full surgery service, i.e., completing delayed urgent operations and scheduling elective surgery. Ramping up for a return to “normal” is not simply “flipping a switch,” it’s taking into account all that has changed and how we move forward with a new normal, a normal that will have some lasting changes from the pandemic, and hopefully a new normal that will be better than before. UW Medicine is following the credo of “don’t let a good crisis go to waste.” We are working to tackle system changes that we believe can make the OR/surgery services run more smoothly and efficiently as we return to our elective surgery schedule. This means we are working with our anesthesia and nursing partners in the ORs to make a more efficient and smoother process for patients as well as faculty and staff. This is on-going work and I am proud to be a part of this effort.

In my mind, this Department is full of heroes, and I could not be prouder to work with our Department of Surgery team. There is nothing like a crisis to test our mettle and to allow individuals to show their strength, compassion, ingenuity and resilience.

In this edition of Surgery Synopsis, we will tell in more detail, important changes, accommodations, and creative problem solving we’ve done to meet this crisis head on, including the enormous expansion of telehealth, which has proved critical to caring...
for our patients. We’ll take a closer look at how residents have banded together and responded to the crisis, and how Extracorporeal Membrane Oxygenation (ECMO) plays an increasing role in patients with critical respiratory failure. We have learned how to adapt solid-organ transplantation to new circumstances and how to deliver on-going cardiac services during the COVID-19 crisis.

Meanwhile, the Department continues to do work that keeps us at the forefront of clinical care, surgical education, and research. One example is simulation science. Healthcare simulation activities were started in the Department of Surgery in 2005. Dr. Carlos Pellegrini (Department of Surgery Chair 1993–2015) had the vision for a simulation center at UW Medicine, correctly perceiving this would be an important training tool and a rich source of research. From those early beginnings, we have now evolved to the WWAMI Institute of Simulation in Healthcare (WISH).

WISH is now led by Professor Robert Sweet, a Urologist with a joint appointment in the Department of Surgery. Since joining faculty in 2016, his leadership of WISH has resulted in extraordinary growth and expansion of simulation science at UW, both for education and for important research advances in healthcare. WISH’s mission is to improve the quality of healthcare education through technology by providing learners with a safe training environment where they can learn and practice their skills before ever using them on a patient.

A separate research arm, the Center for Research in Education and Simulation Technologies (CREST), is devoted to advancing the current state of medical training and patient education. CREST consists of a talented team versed in Simulator Development, Material Science, Digital Animation, Mechanical Engineering, Traditional Art, and Medical Training, all working alongside industry partners and hospital staff of all levels.

The team has created virtual reality surgical trainers, educational software, clinical apps, part-task trainers, simple tissue analogs and helps to conduct validation studies. CREST also works to develop these by acquiring tissue property data for our Human Tissue Property Database. CREST is doing such valuable work, and during COVID, they were able to pivot and make face shields, using their considerable engineering skills and 3-D printing expertise.

Over the past four years, WISH and CREST have grown and expanded their reach. The logical next step in the evolution of simulation was to create degree-granting programs and hire faculty in this innovative field. Dr. Sweet and the Department approached the Dean of the School of Medicine and received approval to create a new division within the Department of Surgery, the Division of Healthcare Simulation Science (HSS) as of January 2020. HSS is the ninth division in the Department with Dr. Sweet named as its inaugural Division Chief, with WISH and CREST included in the Division structure. WISH will continue to remain a UW Medicine priority and is a resource to all Departments in the School of Medicine and UW Medicine hospitals. We are pleased to include them formally into the Department and fully support their mission.

Despite the many challenges presented by COVID-19, we continue to attend to the important daily business or our department through the dauntless efforts of our faculty, residents and staff. We have several new faculty who have joined the Department since the last issue. These faculty continue to ensure we are able to provide the best care for patients, training for our residents and fellows and bring new avenues of research into the Department. Please find their bios on page 14.

Our faculty continue to publish important academic papers and provide information in public forums and the media. Read more about the Department’s contributions on page 26.
Dear Readers,

I don’t know what to say. I am jarred, horrified, and saddened by recent events of violence and racism directed towards black, indigenous, and people of color. Of course, these recent tragedies are not in isolation, they are not new, but they are a grim reminder of the pervasive impact of racism in our community, and of the disparity of experiences each of us have at work, with figures of authority, and within our society.

And I really don’t know what to say, but I feel it is important to speak up, to say something. Most of us are physicians and all of us work in healthcare. Our mission at UW Medicine is “To improve the health of the public.” This is not just the work of individual patient care. This includes caring about social justice, and standing up and not being silent in the face of injustice and racism.

I would point us all to a meaningful editorial in JAMA from Don Berwick, entitled “Moral Choices for Today’s Physician.” A couple of quotes from his article stand out to me...“What am I part of?" should supersede prerogative. It counsels a continual inquiry: Who depends on me? And how am I doing in their eyes?...defense of local stakes at the expense of fragile communities and disadvantaged populations goes far, far beyond health care itself. So does the physician’s ethical duty...The work of a physician as healer cannot stop at the door of an office, the threshold of an operating room, or the front gate of a hospital. The rescue of a society and the restoration of a political ethos that remembers to heal have become the physician’s jobs, too. Professional silence in the face of social injustice is wrong.”

I am reaching out to you—not because I have the words or the solution, but as a message that I see you. We are hurting with the continued violence against black, indigenous and people of color, and with the deaths of Ahmaud Arbery, Breonna Taylor and George Floyd. The images and the reality is jarring, and I know I cannot put myself in the shoes or in the hearts of my black colleagues and friends, and the black members of our community I do not know, but who suffer daily from the impact of racism. Their lives are in turmoil as they wrestle with the most recent evidence of deep injustice.

I was inspired by the courage of Chris Cooper, bird watching in Central Park, while I was outraged and stunned by video evidence of white privilege attempting to leverage institutional racism to intimidate, or possibly even kill Chris Cooper. I don’t know what I should say except that as I watch, I know that many of our faculty, residents, staff, and students carry this additional burden daily—the fear for their own families and for themselves. Words are not enough, but I’m writing to say that we stand with you in the horror of these deaths.

The diversity and inclusion we strive for in the Department of Surgery is not just the goal of a more diverse workforce, it is a solidarity as a community of UW Surgery. I stand with my black colleagues. I acknowledge the trauma and pain of their experience, and also acknowledge that I cannot know the depth of challenges they bear. I urge us all to support our colleagues and friends, to reach out, to not be silent, to openly demonstrate that we care and that we are not complacent. And I hope that those of us who are white will learn to not be dependent on our minority colleagues to teach us about racism. We need to learn, to study, to be accountable ourselves to understanding racism and being proactive to mitigate its effects in our department and in UW School of Medicine.

The personal well-being of my faculty, trainees and staff is my priority. I respect that some of you might need to grieve and be with your families and your communities. Please do not hesitate to reach out if I can support you.

I wish you all peace. Please let me know if there is anything I can do to support our community and for each of you. Thank you for the work you do.

With sadness and caring,
Doug

Douglas E. Wood, MD, FACS, FRCSEd  
The Henry N. Harkins Professor and Chair

#WHITECOATSFORBLACKLIVES

The Department of Surgery had supportive presence at the #WHITECOATSFORBLACKLIVES (WC4BL) event at the #BLACKLIVESMATTER protest march in Seattle, Washington on Saturday, June 6th, 2020. Many of our faculty, trainees and staff share their protest photos and personal thoughts on the WC4BL movement including Dr. Estell Williams, Assistant Professor, Division of General Surgery, who discusses her involvement in organizing the Healthcare March for Justice, following this message from Dr. Douglas E. Wood, The Henry N. Harkins Professor and Chair.
"Last Saturday, I along with my husband Edwin Lindo, co-organized a march for justice, attracting nearly 10,000 healthcare workers. It all began from a letter I penned explaining my life experiences and encounters with racism. The protest was a beautiful sight. While I still do not consider a single march a win, to see healthcare workers recognizing the connection with their community and making the connection that health extends beyond the walls of hospitals and clinics is a start. It was inspiring to so many and allowed people to connect that we are all seeking to make our world better. While I may feel the stagnation of progress, I am speaking up for change, because I refuse to suffer in silence any longer and feel so fortunate to have a department that stands with me." Dr. Estell Williams, Assistant Professor, Division of General Surgery

"There is nothing radical about justice. What healthcare has committed itself to justice—providing the care that every individual deserves. This commitment is not just for the one patient, it’s for the community that patient goes back to. When they are healthy, their community is healthy. What we saw on Saturday was over 10,000 healthcare workers demanding that all Black and Brown communities’ health is protected from Racism and Police Violence. Again, this is not a radical statement, it’s our job. We are proud to be in this work with you, but it did not end on Saturday. We all must continue to do the work at home, in our clinics and departments, and in the streets. That is what anti-racism and Justice require. I look forward to doing the work with you all!" Edwin G. Lindo, Associate Director, Critical Teaching and Equity, Center For Leadership And Innovation in Medical Education (CLIME), UW School of Medicine

"My faith in humanity was restored by seeing my UW Medicine and Department of Surgery family come out in droves in support of Black lives, in support of my life. I hope this is the beginning of the conversation; a conversation that is long overdue. A conversation that we should not be having in 2020." Dr. Lara Oyetunji, Assistant Professor, Division of Cardiothoracic Surgery

"Support for the protest to eradicate racism in our society was indeed appropriate and needed from all health professionals. Our support going forward to remove the structural barriers and eliminate the racial biases in our society is critically important along with an honest self-assessment and commitment to resolve our own health profession disparities and inequities. We must lead by example." Dr. Ron Maier, Professor & Chief, Division of Trauma, Burn & Critical Care Surgery

"This was a historic day for my family and for me. I have personally never marched for any cause but I felt it was important for our family to stand shoulder to shoulder with everyone to support our black friends and co-workers. Dr. Estell Williams said it best, “To be Silent is to be Complicit.” This statement, coupled with the powerful imagery of George Floyd’s murder and the inaction of the police just standing there profoundly affected me. We cannot be silent ever again.” Dr. Ben Starnes, Professor & Chief, Division of Vascular Surgery
"We are proud to join our fellow healthcare workers to march in protest of police violence and racism, and also to call attention to the persistent health disparities caused by institutional racism both within medicine and greater society. Furthermore, as parents we strive to emphasize to our son that it is imperative that we seek to actively dismantle the race-based system that simultaneously bestows unearned benefits to him while denying the same to others." Dr. Melissa A. Herrin (Cardiothoracic Surgery R3)

"As surgeons, our impact extends beyond what is cut or sutured. It was inspiring to see members of our department come together for such an important issue." Dr. Shane Morrison (Plastic Surgery Chief Resident) (Pictured back left)

"So proud to be a part of the UW Department of Surgery and to march with my colleagues in Solidarity." Dr. Kathleen Berfield, Assistant Professor, Division of Cardiothoracic Surgery (Pictured back right)

"I am humbled to be reminded of my white privilege and ashamed by my unintentional complicity with institutional racism. The events of recent days and the solidarity of thousands of people demonstrating together inspires me to be deliberate and proactive in my own support of racial equality. I will not be complacent. I will not accept the status quo. I will be an ally with my black friends and colleagues." Dr. Douglas E. Wood, The Henry N. Harkins Professor and Chair

"This was a very moving event; peaceful, yet incredibly powerful. We all feel the need to stand up against racial injustice and systemic racism, and to demand real change. We are all in this together. I am so proud of Dr. Estell Williams for her leadership." Dr. Nick Vedder, Professor & Chief, Division of Plastic Surgery (Pictured right with Dr. Ron Maier, Professor & Chief, Division of Trauma, Burn & Critical Care Surgery)

"It is important for me as a Seattle native to march and participate in protesting systemic racism in the city I love with the healthcare community. It’s not just about protest, it’s about change—changing the way we see, think and act. I see you and stand up for you." Susan Marx, Department Director, Administration & Finance

(continued on page 6)
#WHITECOATSFORBLACKLIVES

“It’s high time that we as a country face the issues of systemic racism and police brutality, the two of which are inextricably tied in our history. The protest was an important step in that direction, and serves as an inspiring call to action.” Dr. Arjune Dhanekula (Cardiothoracic Surgery R1)

“The people in these photos, some I know, thousands that I do not, are publicly stating that it is time to recognize our own biases and move past them to ensure an equitable healthcare system and society at large that has equity as a centerpiece.”

Dr. Jeffrey Friedrich, Professor, Division of Plastic Surgery
The Department of Surgery faculty and trainees, alongside many other UW Medicine professionals, are approaching COVID–19 from a multitude of facets. Several of our faculty and trainees share these approaches and experiences to the pandemic.

OR Procedures

Early in the pandemic response, we had several emergency general surgery cases on COVID–19 suspected patients. Drs. Daniel Kim, Clinical Assistant Professor in General Surgery Division, and Dr. Satish Bhagwanjee, Professor in the Department of Anesthesiology and Pain Medicine, worked quickly to develop a plan for the first few of these cases, but it soon became apparent that more formalized plans would be needed. There are a number of issues that come up when managing surgery in COVID+ patients, affecting everything from patient transport to airway management to OR supplies and personnel. We worked as a team with anesthesia and OR staff to develop a number of protocols for OR management of COVID–19 patients, including separate documents for transport, intubation and ventilatory support, and OR management. We also learned that the standard procedures around PPE did not apply well to OR personnel needing to don and doff appropriate personal protective equipment (PPE) while also performing normal sterile gowning and gloving. Working with infection control we developed a checklist for PPE during sterile procedures and have worked with WWAMI Institute for Simulation in Healthcare (WISH) to film and edit instructional videos so that surgeons and OR staff can do just–in–time training as needed. Together, these new procedures, policies and trainings have helped to create an environment that allows us to effectively deliver quality care while protecting the safety of both our patients and our providers.

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As the COVID–19 pandemic grew worldwide and reached Seattle, we suspected it was only a matter of time before it would affect our Department of Surgery residents. In accordance with the principles of social distancing and minimizing exposure risk, we implemented emergency restructuring of our residency teams at all of our institutions. At the University of Washington Medical Center – Montlake Campus, we grouped our resident teams into three arenas of patient care—inpatient care, operating room care, and outpatient care—a deviation from the traditional paradigm of subspecialty teams. The main focus in doing so was to protect our residents from exposure to COVID–19, comply with social distancing, and at the same time maintain our surgical workforce in order to continue excellent patient care. This revised team model also allowed flexibility for residents to be deployed to work on other units within the hospital based on increased patient care needs resulting from the COVID–19 pandemic.

Residents and faculty worked together to develop, implement and constantly adapt a plan that made this possible. Our work at the UWMC Montlake was recently published in JAMA Surgery, and we hope can be used as a model at institutions nationwide. As the COVID–19 pandemic, it will be difficult if not impossible to return to “normal.” We continue to extract lessons from this experience that will help us better shape the future of our training program.

Read the full article >>
Solid Organ Transplant
Patient Care in the Era of COVID–19

The emergence of the COVID–19 pandemic found medical services nationwide preparing for conditions we had never seen before. International experience demonstrated to us the first wave of management paradigms at a time when testing was not routine. We benefited from the early European experience, sadly with the news of health care providers contracting COVID and dying.

After phone meetings with hospital leadership and directors of all organ transplant programs, on March 17th the guidelines for care during this pandemic were instituted. The guidelines established testing for all organ donors (a positive test would rule out the use of these organs) and recipient patients (a positive test would prompt selecting another patient), admission options, identification of inpatient units (floor and ICU,) and flow of patients through discharge and outpatient follow up. With the exception of Living Donor Kidney Transplants, all solid organ transplants with organs from deceased donors (brain dead or deceased after circulatory death) would be considered urgent, and Living Donor Liver Transplants would proceed only for pediatric recipient patients at Seattle Children’s Hospital (SCH). Across the nation, many transplant programs came to a halt or temporarily ceased their operations. With guidelines in place, the UW Medical Center abdominal transplant programs have remained open throughout this entirety, performing 36 transplants over a six week period: 25 kidney transplants, 10 liver, and one Living Donor Liver transplant from a donor at UWMC to a child at SCH. Organ procurement and transplantation procedures have been performed without a case of COVID–19 transmission in any recipient patient or health care team member (either donor or recipient teams), and the outcomes have remained excellent. The transplants were performed in the standard fashion including immunosuppressive drug protocols. Sadly, organ donation has declined, and although reasons are speculative as to the causes, it has impacted organ availability and transplantation rates have dropped regionally and nationally.

I remain in deep admiration to our entire health care team at UWMC for their comprehensive sense of mission during this pandemic. It has been an essential source of strength during this great heave in effort to remain open for the care and transplant of patients needing organ transplantation. I will be forever grateful to them all.

Liver transplant from a donor at UWMC to a child at SCH. Organ procurement and transplantation procedures have been performed without a case of COVID–19 transmission in any recipient patient or health care team member (either donor or recipient teams), and the outcomes have remained excellent. The transplants were performed in the standard fashion including immunosuppressive drug protocols. Sadly, organ donation has declined, and although reasons are speculative as to the causes, it has impacted organ availability and transplantation rates have dropped regionally and nationally.

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COVID–19 Critical Care

Harborview Medical Center (HMC) formally activated its Incident Command (IC) center on Monday, March 2nd and its work continues to this day. My role has been to lead the critical care platform at HMC and to represent it at the various UW Medicine IC subcommittees. The initial focus of the HMC IC was on the safety of our employees and bedside providers. For critical care, this meant establishing our COVID ICU platforms with engineering, personal protective equipment (PPE) training, and aligning our care/testing practices to those recommended by both federal and professional organizations. Many protocols and policies were created internally using UW content experts due to the early nature of our regional exposure.

Our second focus was on surge planning using the “space, stuff, staff” structure. Critical Care at HMC began identifying spaces to expand beyond the existing 89–bed ICU footprint. Immediate coordination began with our staffing offices, engineering, and ICU leaders to develop a step-wise surge model for the expansion up to 163 ICU beds. Our plan required care in non–traditional environments with critical care teams caring for patients within a defined hospital geography, not by admitting diagnosis. The procurement of resources was a coordinated effort over the entire enterprise with a significant emphasis on PPE, ventilators, and communication technologies between providers, patients, and families at home. Finally, staff surge planning was a significant focus of our efforts. Creating and scheduling 2–8 new critical care teams

mandated coordination between HMC, UW Medicine IC, and the Graduate Medical Office’s at UW School of Medicine.

Society for Vascular Surgery's COVID–19 Town Hall

Dr. Sherene Shalhub, Associate Professor
Division of Vascular Surgery

Dr. Shalhub moderated the Society for Vascular Surgery's (SVS) COVID–19 Town Hall in May 2020 along with Dr. Kim Hodgson, SVS President. The event was devoted to the "Clinical Challenges in Managing Vascular Patients with COVID–19."

The meeting was designed to address the spectrum of challenges vascular surgeons face in caring for patients with COVID–19, including: maintaining personal protection; preventing transmission among patients and staff; providing vascular access for critically ill patients; managing vascular access complications; diagnosing and treating emergency manifestations of vascular disease; managing deep venous thromboses; managing thrombotic complications in non–vascular patients; considering thrombotic prophylaxis algorithms; and having strategies to provide proper care while minimizing vascular lab tech exposure.

Dr. Shalhub shares “The SVS town halls have been a great opportunity to hear from SVS leadership and members about their experiences and thoughts regarding the impact of COVID–19 on vascular surgery. We recently analyzed the data from the “COVID–19 Pandemic Practice, Anxiety, Coping and Support Survey for Vascular Surgeons,” which was sponsored by the SVS Wellness Committee, and identified several areas where vascular surgeons can be supported at institutional, regional, and national societal levels. Town halls are one way to address these concerns. For example, many found the donning and doffing of personal protective equipment (PPE) to be stressful; we immediately leveraged this information to have some of the time during the town hall to discuss the process, especially from hospitals with large volumes of patients infected with COVID–19.”

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Cancer Care During COVID–19: Overcoming Social Distancing

Early actions taken by the Governor of Washington State along with public adherence to social distancing have significantly flattened the coronavirus curve. This has allowed some of us to continue to take care of urgent surgical diseases such as cancer in accordance with national guidelines. In order to meet the requirements of social distancing and personal protective equipment (PPE) preservation while maintaining the same standard of care, we adopted a number of changes, among which the use of telehealth has been a game changer for our Hepato–Pancreato–Biliary (HPB) surgical practice.

In response to the COVID–19 crisis, government agencies including CMS and HHS have broadened access to telehealth services for patient encounters. With relaxation of some key requirements associated with telemedicine under the 1135 waiver, physicians and other providers can make use of online videoconferencing from any location, including across state lines. In addition, first time consultations are acceptable, and the services are reimbursed at parity with that of in-person visits. Since mid-March, the UW Telehealth service in conjunction with their counterparts at Seattle Cancer Care Alliance have worked tirelessly to roll out a HIPAA–compliant digital communication platform for all providers, thus enabling us to conduct virtual face-to-face consultations with minimal technological and regulatory hurdles to overcome. Our clinic teams including patient care coordinators, medical assistants, nurses and advanced practice providers agreed on a plan of attack to reach out to our new referrals and return patients using telehealth. In the last few weeks since the COVID–19 response, >90% of our patient encounters have been converted to this digital format, initially using HIPAA–compliant provider-specific Zoom IDs, and subsequently into our Epic scheduling templates with unique Zoom IDs for individual appointments. The latter facilitated the entire team of providers and staff to interact with the patients during their virtual visits, making the experience seamless and efficient.

What have we learned? Even in its rudimentary form, telehealth lives up to its hype of being accessible and convenient. Minor glitches aside, we were successful in connecting with many patients in the comfort of their own homes located throughout the state and beyond. The Zoom platform accommodates any number of participants to facilitate multi-disciplinary discussion during tumor board conferences as well as patients’ consultations, thus affording efficient access to specialty care. Additional advantages for patients include time and money saved from traveling, taking off work, parking, and related incidentals. For practices that do not rely heavily on detailed physical exams such as HPB oncology, telehealth is a wonderful tool for physicians to offer their services to anyone in need at just a click away. Clinics and their staff at UWMC–Montlake have taken extraordinary measures to launch telehealth and to make changes to the scheduling templates, virtual rooming and nursing care as they embrace the new technology. The COVID–19 crisis has granted us firsthand experience playing in the digital communication sandbox, and we are still in the exploratory phase of this experiment trying to make the pieces of the puzzle fit our individual needs. With strong advocacy from the medical profession and the hospital alliances to keep telehealth widely available, we aspire to deliver more efficient, effective, economical, and environmentally friendly healthcare.
On February 29th, 2020, Dr. Edward D. Verrier retired from the Department of Surgery after a long and storied career as a true triple-threat clinical surgeon, teacher, and scientist. February 29th is a rare day, occurring only once every four years, but Dr. Verrier’s retirement is once-in-a-lifetime. His impact and influence within the Department as well as his national leadership in surgical education, make Dr. Verrier stand out as one of the leading cardiothoracic surgeons of a generation.

Dr. Verrier (Ed) completed his undergraduate degree at the University of Notre Dame. (There are several other notable Fighting Irish graduates within the Department). He then completed medical school at Tufts University School of Medicine followed by general surgery and cardiothoracic surgery training at the University of California, San Francisco (UCSF). Ed developed a strong foundation in basic science research during his time as a research fellow in the Cardiovascular Research Institute at UCSF. An important mentor and influence for Ed was Dr. Paul Ebert, Chair of Surgery at UCSF, an international leader in congenital cardiac surgery and former Executive Director of the American College of Surgeons. After completion of his clinical and research training, Dr. Verrier was recruited to UCSF to serve as Chief of Cardiac Thoracic Surgery for the San Francisco VA Hospital. He was enormously successful as a clinical cardiothoracic surgeon as well as a federally funded surgeon scientist at UCSF. Of note, he also developed a friendship with one of his colleagues, Dr. Carlos Pellegrini, (UW Surgery Chair 1993–2015), who was developing a national reputation as an outstanding academic general surgeon.

Dr. Verrier was recruited as Chief of the Division of Cardiothoracic Surgery at the University of Washington (UW) in 1989—a mere 5 years after completion of his fellowship training and one of the youngest cardiothoracic surgery chiefs in the country.

When Ed accepted the chief position at UW, the program was strong in clinical cardiac surgery, had very little thoracic and no congenital cardiac surgery, consisted of a cardiothoracic fellowship program on probation, and had no academic profile. UW cardiothoracic surgery was definitely a “fixer-upper,” a program with promise within a great institution, but a program with a lot of deficits that needed attention. This would be a daunting task for even a senior surgeon, but Ed approached program development at UW with his characteristic optimism and enthusiasm, methodically identifying goals, creating strategies and tactics, all with the vision of turning UW cardiothoracic surgery into a nationally prominent program. Dr. Verrier recruited new faculty to round out the clinical programs, established his own funded translational research program into a foundation for resident research training and faculty development, and he “walked the walk” in demonstrating a commitment to surgical education that leap-frogs UW cardiothoracic surgery into one of the top five training programs in the country.

The triple-threat is a hard thing to achieve in academic surgery because it is challenging to stand out as a clinician and educator while also being successful as a surgeon scientist. As a clinician, Ed is renowned within our institution and within our region as a “surgeon's surgeon.” He's the master technical surgeon other surgeons send their toughest cases to. Ed was the surgeon who always had the 6th time redo, adult congenital cardiac operation—which is very high-stakes and incredibly complex. He cared for these patients with compassion and grit, mixed with the right measure of self-confidence and creativity that helped him solve seemingly unsolvable problems. As a scientist, Dr. Verrier continued a federally-funded translational research laboratory for the majority of his career, training countless research fellows and was sought after as a role model for academic cardiothoracic surgeons. As UW cardiothoracic surgery built a reputation under Dr. Verrier, his leadership was also increasingly sought for major national positions in...
Highlights include Ed’s election as President of the Thoracic Surgery Directors Association, President of the Western Thoracic Surgical Association (WTSA), Vice-Chair of the Thoracic Surgery Residency Review Committee, The Golden Heart Honoree for the American Heart Association, and the David J Dugan Distinguished Service Award from the WTSA, to name a few.

While always an outstanding surgeon and scientist, perhaps Dr. Verrier is best known for his commitment to outstanding surgical education and his seminal leadership that has indelibly improved cardiothoracic surgical training in the United States and has made a positive mark on surgical training at UW. While many careers are highlighted by titles, grant funding, papers published, and honors, Ed is most proud of the residents he has trained. This is what he loved most in surgery and what continued to keep him excited, engaged, and enthusiastic through his amazing career as a surgeon educator. He influenced everyone around him, promoting deliberate practice, the intention of helping residents to operate starting on day one and a disciplined approach to progressive resident autonomy that has helped launch the careers of leading cardiothoracic surgeons around the country.

Dr. Verrier served as Division Chief for the Division of Cardiothoracic Surgery for 20 years and then had an opportunity to lead and revolutionize cardiothoracic surgery training. With a call to action to modernize and improve surgical education, the major thoracic surgery organizations committed to a new paradigm of collaboration and innovation, creating the Joint Council of Thoracic Surgical Education (JCTSE). Ed was selected amongst the highest caliber candidates nationally to be the Surgical Director of the JCTSE. During his tenure, he substantially upgraded the national level of education for thoracic surgery, including developing the thoracic surgery “brain,” an online curriculum, and a concept of “flipping the classroom” for thoracic didactic conferences. He made repeated and substantial contributions to the academic literature in education, including being selected as American College of Surgeons’ Gibbon Lecturer, where he presented on “The elite athlete…. The master surgeon.”

Dr. Verrier is one of those rare individuals who won our John K. Stevenson Resident Teaching Award as a specialty surgeon. He was also awarded the UW School of Medicine’s (SOM) Bruce Gilliland Teaching Award. This award is the highest UW SOM teaching award, given to the one of over 3,000 faculty members who has had the broadest impact on student and resident education. Dr. Verrier also won the Thoracic Surgery Residents Association’s Socrates Teaching Award for the best national educator in thoracic surgery and last year was inducted into the highly prestigious American College of Surgeons’ Academy of Master Surgeon Educators.

It is difficult to overstate the profound legacy Ed has left after 31 years of incredible leadership at UW Medicine. He had the vision and the will to take a middling clinical cardiac surgery program and turn it into a world-class academic and clinical cardiothoracic division, especially renowned for surgical education. His commitment to excellence in everything he does has made a permanent impact on our department, UW Medicine, and cardiothoracic surgery. Those of us who have learned from Ed, benefited from his mentorship and have followed his ideals while working alongside him, will miss his daily presence, but we can feel grateful for the lasting influence he has had on our lives. Congratulations for an amazing career Ed!
It is with great pleasure we announce and welcome our new faculty members. Each new faculty member introduces an added level of experience, quality, and service to the Department of Surgery.

**Dr. Michelle Cowan**
**Associate Professor**
**Division of General Surgery**

After completing her undergraduate training at the University of North Carolina at Chapel Hill, Dr. Cowan spent three years working at the National Institutes of Health where she studied T-cell development and subsequently attended the Virginia Commonwealth University Medical College. She completed a general surgery residency at the University of Chicago followed by a fellowship in Colon and Rectal Surgery at Washington University in St. Louis. Since then, she has spent the last several years practicing as a colon and rectal surgeon at the University of Colorado and the Rocky Mountain VA Hospital. During that time, she was an active member and invited speaker for the American College of Surgeons, American Society of Colon and Rectal Surgeons, and the Crohn’s & Colitis Foundation, and was named the Chief of Surgical Endoscopy, helping to develop endoscopy curriculum for general surgery residents. She brings with her an expertise in the care of inflammatory bowel disease, multidisciplinary care of rectal cancer, and minimally invasive and endoscopic techniques for colon and rectal surgery.

As the daughter of Navy officers, Dr. Cowan has moved around quite a bit, however has never lived in the Pacific Northwest and is excited to explore the area with her two Labradors. In her free time, she also enjoys scuba diving and watching ice hockey.

**Dr. David Mauchley**
**Associate Professor**
**Division of Cardiothoracic Surgery**

Dr. Mauchley’s primary areas of interest are pediatric cardiac surgery, neonatal heart surgery, mechanical circulatory support in children and cardiac transplantation and his primary site of practice is Seattle Children’s Hospital. He grew up in Moscow, ID, and received his bachelor’s degree from the University of Idaho, then went to medical school at the University of Washington. Dr. Mauchley completed general surgery and adult cardiothoracic surgery residencies at the University of Colorado—Denver and spent one year completing his training at Children’s Hospital—Colorado. During his general surgery training, he spent two years in a basic science fellowship studying the inflammatory mediators of esophageal reflux. After completing his training, he spent 3.5 years as an assistant professor of surgery at the University of Alabama at Birmingham where the focus of his practice was pediatric and adult congenital cardiac surgery. Dr. Mauchley is excited to return to the northwest to continue his career closer to home. Outside of work he enjoys spending time with his family, biking, hiking, and snowboarding.

**Dr. Sara Rasmussen**
**Associate Professor**
**Division of Transplant Surgery**

Dr. Rasmussen is trained in Pediatric and Abdominal Transplant surgery. She earned her bachelor’s degree from the University of Virginia and matriculated medical school at West Virginia University, where she earned her MD and PhD. Her doctoral research investigated mechanisms of retroviral reverse transcription and assembly, and she was awarded a National Cancer Institute Pre–Doctoral Training Award.

Following medical school, Dr. Rasmussen obtained General Surgery training at Virginia Commonwealth University in Richmond and she completed her Pediatric Surgery fellowship at Johns Hopkins. In 2011, she joined the faculty at the University of Virginia (UVA), where she also completed a fellowship in Abdominal Transplant Surgery.

During her tenure at UVA, Dr. Rasmussen was the Surgical Director of the Pediatric Abdominal Transplant Program, and she worked closely with colleagues in Liver Transplant at the University of Pittsburgh Medical Center Children’s Hospital of Pittsburgh to re-open the pediatric liver transplant program at UVA, where in less than 4 years they successfully transplanted 23 children.

Dr. Rasmussen had a successful research program in methods of Undergraduate Medical Education at UVA before she pivoted back to translational research in the effects of endogenous retroviruses (continued on page 15)
on the pathogenesis of human cancer, using bioinformatics and bench work in her investigations. She was also a clinical and academic mentor to many undergraduate and medical students, and surgery residents.

Dr. Rasmussen is excited to join the Division of Transplant Surgery as the Surgical Director of Liver Transplant at Seattle Children’s Hospital. She is joined by her husband, Julian, and her three children Catriona, Gareth, and Rhys Siobhan.

Dr. Mark Sturdevant
Associate Professor
Division of Transplant Surgery

Dr. Sturdevant’s interest lies in adult and pediatric liver transplantation with a particular focus in living donor and split liver transplantation in addition to complex hepatobiliary surgery, including the use of minimally–invasive techniques.

He has experience in the resection of abdominal tumors involving the hepatic hilum and inferior vena cava, liver resections requiring vascular reconstructions, and bile duct resections and reconstructions. In addition, Dr. Sturdevant performs both kidney and pancreas transplants, live donor nephrectomy, and general surgical procedures particular to those with end–stage liver (including portal decompression procedures) and kidney disease.

His primary sites of practice will be University of Washington Medical Center – Montlake Campus, Seattle Children’s Hospital, and the VA Puget Sound Health Care System. Born and raised in Sioux City, Iowa, Dr. Sturdevant stayed close to home to complete his bachelor’s degree in biology, his medical degree, and a one–year student fellowship in surgical pathology at the University of Iowa.

His general surgery training was completed at the Carolinas Medical Center in Charlotte and his transplant training started with an abdominal transplant fellowship at the University of Minnesota. He has since held faculty positions in the Divisions of Transplant at The Mount Sinai Hospital in New York City, the University of Pittsburgh, and most recently he spent four years as a Consultant Surgeon in adult and pediatric liver transplantation and hepatopancreato–biliary surgery at the King Faisal Specialist Hospital & Research Center in Riyadh, Saudi Arabia. He is excited to add in any way to the breadth of the transplant and hepatobiliary care currently offered at UW.

After moving to Seattle from the Arabian Peninsula, he is very much looking forward to taking in the colors and coolness of the Pacific Northwest.
1. How has COVID–19 personally affected you?

NC: The biggest effect it has had on me is limiting my ability to regularly take care of my patients. I’m fortunate in that I don’t know anyone personally who has gotten extremely ill or hospitalized, but I know of friends of friends who have. Although it’s disrupted work, it’s allowed me to spend more time at home. We have a 9 month–old daughter, Lily, and the one positive effect of COVID–19 is that I’ve been able to spend more time with her than I normally would be able. It’s sort of like a second paternity leave.

SS: We understand you sometimes bring Lily to early morning virtual work meetings. NC: Yes! [laughs] She wakes up at 6:00am so I take her and let me wife sleep in a bit. That means she occasionally makes an appearance at the General Surgery faculty meeting.

2. What made you decide to become a surgeon?

NC: I always knew I wanted to be a doctor. I was one of those 5 year–olds who would tell classmates at show and tell I wanted to be a doctor, but I didn’t really know what kind until I started to learn more about medicine in general. When I was about 13 or 14 years old, one of my cousins who was very close with was going through medical school and living with us because his school was in the same city. He was interested in general surgery and so I heard a lot about that from him. That’s what started my interest in it and then when I was in medical school it became more clear that was what I wanted to do.

I like problem solving and one of the things I like most about general surgery is that I can intervene to fix a discrete problem and know that I’m creating a direct and positive change in people’s lives.

SS: If you didn’t go into general surgery, what would have been your second choice? NC: While I was going through medical school residency, I would have said anesthesiology because I like the acute events and nature of it. You’re in charge of a patient’s life for a very short but incredibly important amount of time. But now I would say radiology because I find it so interesting how we have such amazing technology to identify and diagnose problems.

(continued on page 17)
SS: What if your career choice wasn't in medicine? NC: Maybe a veterinarian because I love to spend time with animals, but on the other hand, I like animals too much to think of the details of being a vet. Now I would probably start a taco/food truck with my wife while living in Hawaii and raising our daughter on the beach. My wife and I are actually practicing making bagels with the goal of selling them at our farmers market. So maybe a bacon, egg and cheese bagel truck.

3. What's the best career advice you've ever received? How about the worst?

NC: The best: don't allow every person's direct opinion of you to affect how good you are at what you're doing, whether it's a compliment or a criticism, especially in medicine. If you don't have the self-understanding or the self-confidence to know what you're doing is right, you're going to be so reliant on other people telling you you're right that you're never going to be able to make critical, difficult and independent decisions. I was given this advice while in my third or fourth year of medical school and I think it's so important regardless of what field you go into. Related to that: recognize that everybody's human. So, if someone criticizes you for what you did that day, take what is constructive from it, but don't allow their negative reactions to you wholly define your worth. You don't know if that person got in an argument with their spouse that day or maybe their child is sick at home, etc. Take the opportunity to improve but don't internalize the negativity. That goes for compliments too. Take the feedback but don't live for that approval.

SS: What's the worst career advice you've ever received? NC: To tell people you can do everything, like going into an interview and saying “Oh, I can do this, this and this. I can do everything you need me to do perfectly.” It's never true and it sets up a false expectation for what you can accomplish. I was told once to go into an interview and say I was interested in and willing to do everything, when it just wasn't accurate. Thankfully I was able to recognize the folly in that advice.

4. Where's the last place you traveled? What did you do there?

NC: We went to Boston to visit my family for Christmas and before that we traveled to the San Juan Islands and stayed in Friday Harbor—we loved it. It was one of the things we did during our first year in Seattle that made us fall in love with the area. The only event we had booked was a whale watch, which we ended up canceling because my wife was pregnant and we didn't want her to get sea sick. We explored some of the island, went to some of the restaurants and went to the Krystal Acres Alpaca Farm. We love going to places like that and just wandering around and talking to some of the locals to learn about the area. SS: Where are you planning to travel next? NC: We are planning to go to Orcas Island once COVID-19 restrictions are lifted. We want to be able to bring along the baby and dog and make it more of an outdoorsy trip. For our 10 year wedding anniversary, my wife is going to take me where she lived in Japan for two years after she graduated from college as part of the Jet Program. We're also planning to visit Tokyo on that trip as well. I'm really looking forward to it.

SS: What's your favorite place you've visited? NC: When my wife and I finished medical school we spent ten days in Barcelona, Spain. It was special because we were engaged at the time and it was one of those trips you don't get to do very often.
5. What was the last book you read?
NC: “The First Fifteen Lives of Harry August” by Claire North. It’s about a guy who believes he lives his life over and over again but every time he dies, he is born again into his three–year–old self. SS: So it’s reincarnation but into the same person over and over, he doesn’t come back as Napoleon or Queen Cleopatra? NC: Exactly. He claims he dies at different times each time comes back; once when he was really old and one time he died when he was younger and once was from suicide. It’s really weird but very interesting.

6. What’s the most recent show you’ve binged–watched?
NC: “Brooklyn Nine–Nine” with Andre Braugher and Andy Samberg. We’ve watched it from the very beginning and while it’s getting a little formulaic like many other TV shows eventually become, it’s a really funny, light–hearted show. My other favorite things to binge–watch are all of the cooking and baking championships on the Food Network like the Halloween or the Spring baking championships. Then my wife and I try and bake the dishes in the shows—my wife is actually a fantastic baker. There is a woman who won one of these Halloween baking championships and teaches classes in the Seattle area and we’ve taken three classes instructed by her.

7. Who is your favorite musician?
NC: Unfortunately, most of them are dead, but I would say Tom Petty and Prince. My favorite current living musician… I probably listen to Dr. Dre the most. When I’m in the operating room I mostly choose hip–hop. I do love jazz and classical. I actually played jazz on the saxophone and bass guitar all through high school SS: Is there any style of music you won’t listen to? NC: No, but I can’t listen to classical music in the operating room or I’ll fall asleep. I’ll even listen to country. I’m not sitting at home listening to it but if someone really wanted to listen to it, I wouldn’t object. I did my fellowship in Charlotte, North Carolina and had to learn to accept it. One of the doctors I worked with had a Sirius radio station for Canadian country and listened to it every single time he operated.

8. What is something we’d never guess about you?
NC: I have multiple, large tattoos. That’s a good question because that is something that nobody guesses about me. I have a tattoo of my dog and cat on my left shoulder. I have a humpback whale on my right shoulder that goes down my arm a little bit and my entire right leg has different dinosaurs in various scenes.

9. Where did you live before the Seattle area? What are the biggest differences you see?
NC: I moved all over but was in Boston for the majority of my life. Then I was in Philadelphia for residency for five years and was in Charlotte for one year in fellowship. Philly is my favorite since it’s where my wife and I started our life together away from where we met in Boston; it’s where we really established our life as a couple. Philly holds a lot of amazing memories mostly around that. SS: What are the major differences you’ve noticed between Philly and Seattle? NC: People are much friendlier in Seattle. For example, when you walk into a store in Philly or Boston, the clerks will literally turn around and go fold clothes rather than ask you if you need assistance. It also seems to be a little less oppressive here in terms of freedom around lifestyle and expression. People here are more accepting of how you live your life. I much prefer the weather here as well. I hated the hot summers and cold winters on the East Coast.

10. What’s the best piece of non–professional advice you’ve ever received?
NC: The best piece of advice is even when you feel like you want to do nothing, do something because something always helps and it’s better than nothing. An example is volunteering—you may feel what you’re doing is small and meaningless but it’s not meaningless to someone.

11. What is your fondest childhood memory?
NC: One of my childhood memories I love most may sound a little silly, but being in New England we’d go skiing in Vermont and we’d always visit this dairy farm where they had Holstein cows. I remember being a little kid loving going to this farm, petting the animals and seeing nature. I grew up in the city so being on that farm felt like I was out in the wilderness and was so tranquil. That is something that has really stuck with me.

12. What is your favorite Amazon purchase?
I have a flannel Snuggie I purchased from Amazon that I love to wear when I sit outside. Also a 36” piece fondant and cake decorating set.

Visit Dr. Cetrulo’s UW Medicine Provider Profile >
department of surgery—in the media

FACULTY

Dr. Eileen Bulger, Professor & Chief, Trauma, Division of Trauma, Burn & Critical Care
KOMO News  |  May 9, 2020
"Number of COVID–19 patients drops by half at UW Medicine facilities"

Drs. Judy Chen, Assistant Professor, Meghan Flanagan, Assistant Professor, Venu Pillarisetty, Associate Professor, Raymond Yeung, Division of General Surgery and Jorge Reyes, Professor & Chief, Division of Transplant Surgery
UW Medicine  |  The Huddle  |  January 20, 2020
"The Good Luck Rituals of Medical Experts"

Drs. Giana Davidson, Associate Professor and Douglas E. Wood, The Henry N. Harkins Professor and Chair
UW Medicine  |  Newsroom  |  May 19, 2020
"Study: Pandemic halts, delays 28 million elective surgeries"

Dr. Sam Mandell, Assistant Professor, Dr. Eileen Bulger, Professor & Chief, Trauma, Division of Trauma, Burn & Critical Care
KOMO News  |  May 18, 2020
"Hospital machine touted as 'last best option' to treat COVID–19 patients"

Dr. Michael Mulligan, Professor & Chief, Division of Cardiothoracic Surgery, Section Chief, Thoracic Surgery
ACCELERATE–The Campaign for UW Medicine
"Saving Grace"

Dr. Robert Sweet, Chief, Division of Healthcare Simulation Science
UW Medicine  |  The Huddle  |  May 27, 2020
"UW Medicine Researchers Collaborate to 3D Print PPE Supplies"

Dr. Estell Williams, Assistant Professor, Division of General Surgery
KUOW News  |  June 8, 2020
"Physician balances pandemic and activism: 'We need to think of racism as a disease'"

Dr. Douglas E. Wood, The Henry N. Harkins Professor and Chair
The Seattle Times  |  March 29, 2020
"With surgeries delayed, patients wait with anxiety—some in pain—as hospitals make way for coronavirus cases"

RESIDENTS

Dr. Amer Nassar, General Surgery Chief Resident
KUOW Newsroom  |  April 21, 2020
"I'm a surgeon in Seattle. A bleeding trauma patient amid the coronavirus pandemic was my nightmare"

Seattle photographer, David Ryder, spent a day photographing hospital workers at UW Medical Center – Montlake who are on the front lines of the COVID–19 pandemic in Seattle for Reuters. Two of Department of Surgery’s medical staff were included in his photo set: Dr. Jonathan Sham, Assistant Professor, and Tamar Solomon, PA–C, Teaching Associate, Division of General Surgery.

Jonathan Sham, a physician in surgical oncology, poses for a portrait at the University of Washington Medical Center – Montlake during the coronavirus disease (COVID–19) outbreak, in Seattle, Washington, U.S. April 15, 2020. “We are called to take care of the patients with cancer who can’t wait until after the pandemic to get treatment, he says.” REUTERS/David Ryder

Tamar Solomon, a physician assistant in surgery, poses for a portrait at the University of Washington Medical Center – Montlake during the coronavirus disease (COVID–19) outbreak, in Seattle, Washington, U.S. April 15, 2020. “I’m in awe of all the hard work and dedication this hospital has put forth,” she says. REUTERS/David Ryder

Visit David Ryder’s blog — david@ryderpictures.com
David Hananel joined the Department of Surgery together with several colleagues from the University of Minnesota Center for Research in Simulation and Education Technologies (CREST) as part of the recruitment of Dr. Robert Sweet, Chief, Division of Healthcare Simulation Sciences, and the transition of CREST to UW. He has been with CREST now for 9 years, most of that time as Director, and was recently also appointed as Lecturer in the new Division of Healthcare Simulation Science, which brings together CREST and the WWAMI Institute for Simulation in Healthcare (WISH) under the leadership of Dr. Sweet.

Mr. Hananel was born in Istanbul, Turkey and moved to Berlin, at the time West Germany, to study Electrical Engineering and then came to the US to continue his studies in Computer Science. He has been deeply involved in healthcare simulation since its early years, going back over 25 years when he was working in device development for minimally invasive surgical procedures in Cincinnati in the 90’s. Some of the projects he was involved in required re-training of surgeons when the use of new technology required skills significantly different from their original training. At the time, the only re-training opportunities involved porcine cases and his quest to find alternatives set him on a path that eventually led him to join a Swedish company with government funding that was working on a Virtual Reality (VR) platform for arthroscopic shoulder surgery.

Shortly after Mr. Hananel’s introduction to the VR platform, and recognizing the need to incorporate educational content into what otherwise would be just an interesting game to play, he began working with Dr. Ajit Sachdeva, at the time at Hahnemann University in Philadelphia, to learn more about adult education principles and educational design methodologies. The result of these encounters is the now standard outline for medical simulator content, following sound educational principles seen on many commercial products.

Mr. Hananel went on to work for a number of healthcare simulation companies in various roles, always collaborating with Academic Medicine as a source of inspiration and direction. Mr. Hananel joined CREST as Associate Program Director in 2011, almost ten years after first meeting Dr. Sweet, then a resident at University of Washington, who shared his passion for simulation in healthcare education.

The reason to switch from industry to academia was two-fold: to gain access to government research funds to push state-of-the-art simulation further, faster, and to start establishing the science of healthcare simulation and train others in the field. That desire for research funds became reality when CREST expanded a working relationship on a largescale study with the Department of Defense (DoD) to a number of ongoing projects for the team that followed them to UW.

A series of smaller projects opened the door to one of the most significant development projects in healthcare simulation to date: the Advanced Modular Manikin (AMM). The project was a 5-year effort that began in Minneapolis and finished at UW, led by Dr. Sweet as Principal Investigator (PI) and Mr. Hananel as Systems Architect and UW PI. The first of its kind, the AMM provided a modular, distributed, interoperable platform for healthcare simulation. It resulted in a set of open standards, and work funded by the DoD has been published as open source so that any interested party can build upon the platform and create new simulation products based on this effort at no cost to them.

With the successful completion of the AMM program, Mr. Hananel is now looking forward to the next few projects for CREST, targeting many levels of care ranging from first responders to rural surgeons building upon that platform. In addition to that, Mr. Hananel is working to develop curricula for a new Master’s Degree in Healthcare Simulation Science. Mr. Hananel is hoping that with the energizing and collaborative spirit here at UW, this focus on the Science of Healthcare Simulation will lead to many new breakthroughs and truly establish it as a Science.
A recent nationwide surge in liver transplantation activity reached an historic peak in 2019 when over 8,300 transplants were carried out. The University of Washington (UW) abdominal transplant team was in step with this trend and in 2019 completed 114 transplants, the highest number since 2006. Despite these accomplishments, there has been no demonstrable decrease in wait list mortality at the national level and the path to life-saving liver transplantation remains long, arduous, and uncertain for many patients. UW leadership has responded to this predicament with a reemphasis on the development of its living donor liver transplant (LDLT) program. LDLT is the predominant modality for liver transplantation in many parts of the world, but historically has had limited impact in the United States. Over the last several years, no liver transplant program in the Pacific Northwest has performed an adult-to-adult LDLT but patients and their families have expressed an interest in pursuing its well-known benefits and advantages.

A key component of UW’s LDLT program is living liver transplant surgeon, Dr. Mark Sturdevant, who was recruited here in February. Dr. Sturdevant, Associate Professor in the Division of Transplant Surgery, is the newly appointed Surgical Director of the UW Liver Transplant Program and Program Director of LDLT. Prior to joining Department of Surgery faculty, he spent four years at the King Faisal Specialist Hospital & Research Center, a highly respected and high-volume LDLT center in Saudi Arabia that performs upwards of 180 LDLTs annually in adults and children. This came after a 5-year tenure at the Starzl Institute at the University of Pittsburgh, which currently has the busiest LDLT program in the nation. With this depth of expertise and technical proficiency, Dr. Sturdevant is well-suited to enhance the longstanding work being done in partial liver graft surgery by Drs. Jorge Reyes, Professor & Chief, and Patrick Healey, Associate Professor & Section Chief, Pediatric Transplant Surgery, who both have decades of experience in the field of split liver transplantation in adults and children. Dr. Kiran Bambha, Associate Professor in the Division of Gastroenterology, Department of Medicine, and medical director of LDLT, brings further expertise to the program and will play a pivotal role in optimizing donor and recipient selection, which is a preeminent requisite for the success of any LDLT program. Skilled clinical teams in infectious diseases, social work, psychiatry, and other medical subspecialties, along with ancillary services, are already in place to provide our living liver donors and recipients with comprehensive and thoughtful care.

A robust LDLT program at UW will not only provide an additional, and often superior, option for those with standard indications for transplant, but may also serve as the one viable treatment path for patients often left with little to no recourse in a system which is so heavily influenced by limited deceased donor availability. Included in this group are high acuity, low-MELD patients along with those burdened with certain malignancies, such as advanced hepatocellular carcinoma, hilar cholangiocarcinoma, and metastatic liver disease (unresectable colorectal and neuroendocrine tumors), who are unlikely to reach a cure without a total hepatectomy and liver transplant. For these, and other unique patient populations, the LDLT program at UW cannot come soon enough. Reaching these patients and their referring providers through outreach and education is of paramount importance as LDLT up to now has not been a tangible option for patients in our region of the country. LDLT recipient candidates and their families will also be empowered on how to advocate on their own behalf by participating in the new UW Living Donor Champion Program. Interested family members will work with a wide array of UW transplant team members to develop the LDLT knowledge base, interpersonal skills, and responsible social media proficiency to reach the willing and eager liver donors who are often found in plain sight.
Dr. John Waldhausen accepted the position of Division Chief of Pediatric Surgery at Seattle Children’s Hospital (SCH). This position was previously held by Dr. Robert Sawin until he stepped down last year and Dr. Waldhausen has done a tremendous job as Interim Division Chief since that time. Dr. Waldhausen previously held the position of Division Chief of Pediatric General and Thoracic Surgery at SCH since 2006. With this promotion, Dr. Waldhausen’s positions will merge with an analogous position both at SCH and UW Medicine. He will report to Dr. Douglas E. Wood, The Henry N. Harkins Professor and Chair, for academic, clinical, educational and faculty matters and will report to the SCH Surgeon–in-Chief for matters of SCH activities and operations.

Dr. Waldhausen has been an integral part of SCH surgery since 1992 when he came to Seattle for his pediatric surgery fellowship. He joined the faculty in 1994 and rapidly rose through the University of Washington (UW) academic ranks, being promoted to full professor in 2005. In addition to working in close partnership with Dr. Sawin as Surgeon–in-Chief, Dr. Waldhausen served as Program Director of the Pediatric Surgery Fellowship from 2004 to 2017, when he then turned over this important education position to Dr. Patrick Javid, Associate Professor.

Dr. Waldhausen has been an active member of the SCH hospital staff, serving on innumerable committees and providing leadership throughout his SCH tenure. Dr. Waldhausen’s recognition and leadership extends far beyond SCH and UW. Locally, he was elected and served as President of the Seattle Surgical Society. Regionally, he is the current President of the North Pacific Coast Surgical Association. Nationally, he is currently the President–Elect of the American Pediatric Surgical Association, the premier academic surgical society for pediatric surgeons. He is a Past–President of the Association of Pediatric Surgery Program Directors and Past Director of the Pediatric Surgery Board of the American Board of Surgery.

I am pleased to announce the appointment of Dr. Joe Cuschieri to serve as the incoming Harborview Associate Medical Director for Surgical Services, effective May 7, 2020.

Dr. Cuschieri is Professor of Surgery, Adjunct Professor of Neurosurgery and Adjunct Professor of Orthopaedics and Sports Medicine. He is recognized as an outstanding surgeon at Harborview with a focus on trauma care and inflammatory bowel disease.

Prior to assuming this position, Joe has served as Medical Director for the Trauma/Surgical ICU and is the Director of the Department of Surgery Trauma Fellowship.

Over the past year Joe has taken an increasingly active leadership role related to improving operating room team coordination and efficiency. His work, along with a large number of others, began with the Vizient initiative and has become even more involved with the COVID–19 response.

In this capacity, Joe’s role will be under the auspices of the Medical Director’s Office. He will work in collaboration with the Surgeon–in–Chief, the Chiefs of Service and other OR leaders to achieve a wide range of efficiency and quality goals related to surgical services.

Please join me in welcoming Dr. Cuschieri to this new position.

Susan Marx, Department of Surgery Director of Finance and Administration, was nominated by the Department of Surgery, and supported by the School of Medicine, for the University–wide 2020 David B. Thorud Leadership Award. The Thorud Award is a prestigious award that acknowledges exceptional leaders who: demonstrate quality work that sets an example while including others, values and respects the well–being of people in achieving large–scale goals, and exhibit an openness to new ideas and partnerships. Dr. Douglas E. Wood, The Henry N. Harkins Professor and Chair, who took the lead in nominating Susan, stated, “this was a really easy call for all of us.”

Dr. Wood went on to say, “Susan’s drive and personal ethos require her to be an ‘expert’; therefore, she puts in the time and hard work to become that expert...This quality of grounded, practical expertise allows her to speak with rightful authority and enables faculty, Chairs and senior leadership throughout UW Medicine to trust her judgment.” Members of Susan’s senior leadership team echoed these sentiments, writing, “Susan cultivates people who offer unique perspectives and from diverse backgrounds with the understanding that a range of ideas and talents add dimension and strength to the Department.”

Dr. Carlos Pellegrini, Professor Emeritus and former Department Chair & UW Medicine CMO, said of their time working together, “During her time in positions of increasing responsibility, she continuously displayed the highest

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degree of integrity, complete alignment with the mission of the department and willingness to make the extra effort to advance our vision."

The Department has benefitted tremendously from Susan’s leadership. We are proud of her accomplishments and delighted that her hard work is getting the recognition it so rightfully deserves.

**UW Distinguished Staff Award**

Fifty-three members of the Radiological Release Response Team, including Dr. Nicole Gibran, Professor, Division of Trauma, Burn & Critical Care Surgery, collectively received The Distinguished Staff Award for their efforts to control the impact of the Cesium137 leak at Harborview Medical Center’s Research & Training building. The leak occurred on May 2, 2019 as federal contract workers were removing an irradiator used to sterilize blood. Dr. Gibran and the Radiological Release Response Team mobilized and worked with officials to map out a safe plan that would protect staff, technology, research specimens and resources. Together the Team and authorities were able to develop logistics for research scientists to reenter the building to remove their research work and relocate to offsite temporary laboratory spaces. This included specimens from Dr. Gibran’s entire life work, which were stored on the 5th floor of the R&T building.

The award recognizes the exemplary work done through the collaborative leadership of the Radiologic Release Response Team, whose quick actions and teamwork protected lives and preserved numerous scientific advances.

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Swim Across America

Swim Across America is a national advocacy and philanthropic organization which funds innovative and cutting-edge clinical trials and cancer research. This year, two Department of Surgery faculty members received highly competitive Young Investigator Awards, which grant $75,000 to junior faculty to pursue basic, translational, or clinical cancer research.

Dr. Jonathan Sham, MD, Assistant Professor, Division of General Surgery, is collaborating with Dr. William Ratner, Professor, Department of Bioengineering, on their project “Novel Drug-eluting Biopolymer to Reduce Pancreatic Fistula and Improve Outcomes After Pancreatic Surgery.” Together they are developing a novel biopolymer that can be used during pancreatic surgery to reduce the rates of pancreatic fistula, which is a major cause of perioperative morbidity, mortality, and decreased long-term survival, and results in over $38M in increased healthcare costs in the United States each year.

Dr. Meghan Flanagan, Assistant Professor, Division of General Surgery, is working with a multi-disciplinary group of researchers and clinicians at Seattle Cancer Care Alliance and Fred Hutchinson Cancer Research Center on their project, “Association of HSD3B1 (1245C) genotype with recurrence among post-menopausal women with estrogen receptor-positive, HER2-negative breast cancer.” This work aims to evaluate the association of a novel genetic mutation with aromatase inhibitor resistance and breast cancer recurrence among post-menopausal women with estrogen receptor-positive (ER+), HER2-negative breast cancer. If found to be associated with recurrence and aromatase inhibitor resistance, testing for this mutation may become routine and will have treatment implications for hundreds of thousands of women diagnosed with ER+ breast cancer annually in the United States.

Dr. Kris Calhoun, Associate Professor, Division of General Surgery, has been selected to serve as the Academic Co-Chair on the University of Washington (UW) School of Medicine’s (SOM) Patient Care Committee. As Academic Co-Chair and in partnership with Executive Co-Chair, Dr. Mark Whipple, Associate Professor in the Departments of Otolaryngology–Head & Neck Surgery and Biomedical Informatics and Medical Education, Assistant Dean for Curriculum UW SOM, Dr. Calhoun will set agendas, lead meetings, ensure adequate and appropriate documentation of meetings and decisions, convene task forces and special groups as needed, serve as liaison to the Curriculum Committee, oversee or delegate oversight as appropriate the work of appointed committees and sub-committees, and report recommendations from the Patient Care Phase Committee to the Curriculum Committee.

In response to her selection as Co-Chair, Dr. Calhoun expresses “I am excited to be appointed Co-Chair for the Patient Care Committee within the SOM, which oversees all of the required clerkships at the

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3rd year level. This is my second year as surgery clerkship director, so being co-chair will allow me to make sure the voice of the surgery clerkship is heard and work towards making positive changes for our students. Interest in surgery as a career continues to grow, so having a surgeon's voice on this committee will be key as we move forward."

THE AMERICAS HEPATOPANCREATOBILIARY ASSOCIATION (AHBPA) ANNUAL MEETING

On March 3rd, members of the UW hepatopancreatobiliary (HPB) section of the General Surgery Division attended The Americas Hepatopancreatobiliary Association (AHBPA) annual meeting in Miami, FL. Attendees included Dr. James Park, Associate Professor, Dr. Matias Czerwonko, (General Surgery R2), Tamar Solomon, PA-C, Teaching Associate, Dr. Kevin Labadie, Research Resident Dr. Jonathan Sham, Assistant Professor. (Pictured in order below.)

The UW HPB section had a tremendous showing at the meeting: Tamar Solomon won one of the Society's Advanced Practice Provider Travel Awards in recognition of her outstanding clinical contributions to the team and its patients; Dr. Czerwonko presented his research on using digital 3D liver models to aid in surgical planning; Dr. Sham was inducted into the society and awarded a Certificate of Completion for finishing his combined Complex General Surgical Oncology and HPB Fellowship; and Dr. Labadie won the Young Investigator's Award for most outstanding oral presentation for his liver cancer research with Dr. Park on immune-PET scans detecting subcentimeter hepatocellular carcinoma.

2020 UW ROBOTIC SIMULATION SPRING OLYMPICS

After three months of fierce competition, the 2020 UW Robotic Simulation Spring Olympics came to a close. The competition aims to increase participants' robotic surgery skills through mastery of five simulation modules, and this year's competition pitted each resident class against the other. There was a strong turnout of residents with neck and neck competition between the classes. The gold medalists of the 2020 Spring Olympics and winners of a $500 cash prize was the R5 Chief Resident class!

The R1s captured the silver medal and the R2s were close behind claiming the bronze. The competition also featured a “fastest fingers” element for those with a perfect 100 score on all five modules. Dr. Jay Zhu, General Surgery Chief Resident, claimed the title with a combined time of 564.7 seconds. Dr. Justin Kaufmann (General Surgery R2) came in second at 996.6 seconds, followed by Dr. Amer Nassar, General Surgery Chief Resident, at 1087.7 seconds.

A big thank you to Dr. James Park, Associate Professor, Division of General Surgery, for coordinating the event, and to Dr. Zhu for creating the weekly leaderboard and boosting competitive spirits with his commentary.

VISHAL KAPOOR MEMORIAM

We mourn the loss of University of Washington (UW) Plastic Surgery alumnus, Vishal Kapoor, MD, who passed away on February 8, 2020. Two of his fellow alumni, Rob Schlenker and Elise Min were his associates in his Beverly Hills practice; Elise had joined the practice just a few months ago.

Vishal "Sonu" Kapoor was born on November 22, 1972 in India to his mother, Dr. Vishwa Kapoor and father, Dr. Devendra Kapoor. He and his sister, Ritu Singh, grew up in India, London, New York, and Southern California. He attended the University of California at San Diego for his undergraduate degree in biochemistry and continued his studies at Tufts Medical School in Massachusetts. He completed his residency in 2004 followed by a facial aesthetic surgery fellowship with Dr. John Owsley in San Francisco. From there he moved to Beverly Hills where he developed a very successful practice while continuing to mentor residents and graduates from the UW Division of Plastic Surgery. Vishal was a wonderful supporter of UW Plastic Surgery, having founded the Vishal Kapoor Fund for Plastic Surgery Education a number of years ago, and which has been extremely important in supporting our residents and our program—a tremendous legacy.

We all have wonderful memories of Vishal. Surgery Residency Program Director, Karen Horvath, MD, recalls, “Vishal was one of my favorite residents of all time! To this day, I have a Vishal Kapoor story I tell the residents (continued on page 25)
while I’m operating. He was a legend. Dr. Nick Vedder, Professor and Chief, Division of Plastic Surgery, adds “many of us, including myself, remember Vishal as an endearing, enthusiastic and generous person. He always went out of his way to support everyone around him. I don’t think I can ever recall seeing Vishal without a smile on his face. He was an inspiration to us all.”

Dr. Jonathan Hutter, Clinical Assistant Professor, Division of Plastic Surgery, shares “Vishal joined me as a PGY4 plastic surgery resident in 2001, initiating the trend of remarkable program expansion under Dr. Nick Vedder. His joining forever changed our program. Vishal brought humor, perseverance and selflessness to a rigorous and sometimes stressful environment. He would jump to cover anyone’s call at any time. I followed him in Dr. Frank Isik’s research lab as a PGY5, continuing work on a stem cell paper that we co-authored and is still quoted in the literature today. Vishal showed me the ropes and helped me throughout the process, which culminated in earning the Snyder Award for best paper at The Plastic Surgery Research Council. In keeping with his selflessness, Vishal was the first to congratulate me for presenting our shared work. That same year, he won the Golden Scalpel Award for best reconstructive case at the Washington Society of Plastic Surgery meeting. During it all, I best remember his love of travel, art, food and life. Everyone whose lives he touched knows his generosity, enthusiasm and big heart.”

Vishal is survived by his children, Taj and Bella, who live with their mother, Kavita Amar. Our deepest sympathies go out to his family. We will all miss him dearly.

Jonathan J. Hutter, MD
Clinical Assistant Professor, Plastic Surgery
(co-resident with Vishal)

Nicholas B. Vedder, MD
Professor & Chief of Plastic Surgery
Dr. Benjamin Anderson, Professor, Division of General Surgery, announced the publication of the consensus statements and manuscripts from the 6th Breast Health Global Initiative Global Summit on Improving Breast Healthcare (BHGI) through Resource–Stratified Phased Implementation (Seattle 2018). This supplement, published in the journal Cancer, is the culmination of months of collaborative work by experts in breast and women’s health, cancer control, implementation science, economics, disparities, policymaking, public health, patient advocacy and health systems, with authors representing all resource settings across five continents.

Dr. Anderson explains, “This Cancer publication is the culmination of the BHGI mission going back to the first BHGI Global Summit held in Seattle in 2002. It has been an honor and privilege to engage with the 150 contributors and participants in the preparation of this supplement, which addresses core questions about how to implement breast care programs in limited resource contexts. While we were unable to bring together BHGI leadership for the planned publication launch at the Consortium of Universities for Global Health (CUGH) meeting that was canceled due to the COVID pandemic, we are planning a virtual launch with CUGH later in 2020 to share this information with the global health community that is still learning how global oncology fits within the global health agenda.”

Dr. Kenneth Gow, Professor, Division of Pediatric General Surgery, was elected a Fellow of the American Surgical Association (ASA) in April 2020. Dr. Gow expresses, “The ASA is considered by many to be of the most prestigious associations to join as a surgeon and therefore a great honor in my career thus far. I look forward to meeting and learning from great leaders in the field of surgery on how to lead others.”

Dr. Elina Quiroga, Associate Professor, Division of Vascular Surgery, was awarded the UW School of Medicine 2020 Minority Faculty Mentoring Award for providing encouragement and support for the career and development of minority mentees. This award recognizes the need for excellence in mentoring under-represented faculty groups to achieve diversity and inclusion—key elements that can unleash creativity and innovation so the health care needs of our region are met.

Dr. Quiroga expresses, “I am truly humbled and honored to receive the 2020 Minority Faculty Mentoring Award from the UW School of Medicine, Committee on Minority Faculty Advancement, Center for Health Equity, Diversity and Inclusion and Office of the Dean. I’m fortunate to have learned from outstanding mentors myself, and it is thanks to them that I have the privilege and opportunity to work with mentees myself. There is much work ahead to address racism and health care injustice in medicine, and I am fortunate to work in a place that encourages action and continuous progress in identifying and dismantling inequity in care, culture, and policy.”

This annual award is supported through the Office of the Dean, Office of Academic Affairs, the Center for Health Equity, Diversity and Inclusion and the Committee on Minority Faculty Advancement.

Drs. Ron Maier, Professor & Chief and Kathleen O’Connell, Assistant Professor, Division of Trauma, Burn & Critical Care, published “Trail blazers without blades: Surgeons as Palliative Care Physicians in Response to COVID-19” in the Annals of Surgery.

Dr. O’Connell explains, “In this manuscript, we acknowledge the growing global need for palliative care services within the context of COVID-19 and the negative implications for surgical patients (i.e. delays in goals of care conversations due to limited band width of the palliative care service). We highlight the opportunity for surgeons with an interest in palliative care to establish a role as a surgical palliative care champion within their group and provide resources for skill acquisition and community integration.”

(continued on page 27)
Dr. Dara Horn, Research Resident in the T32 Postdoctoral Research Fellowship in Trauma, Injury and Inflammation under Principal Investigator Grant O’Keefe, published “Predictors of Mortality, Limb Loss, and Discharge Disposition at Admission Amongst Patients With Necrotizing Skin and Soft Tissue Infections” in the Journal of Trauma and Acute Care Surgery. (February 2020)

Using the Harborview Medical Center’s Necrotizing Skin and Soft Tissue (NSTI) registry, Dr. Horn sought to validate a number of previously identified predictors of mortality. In addition, because mortality in NSTI has declined over time, she also sought to identify risk factors for outcomes pertinent to patient quality of life, including limb loss and skilled nursing facility discharge. She found patient characteristics and comorbidities, laboratory data, and infection site and etiology were important indicators of adverse outcome. Of note, she demonstrated that patients with perineal NSTI had significantly lower odds of death compared to those without perineal involvement. She also found that among limb NSTI, patients who were transferred from another institution had significantly greater odds of amputation. She hopes this study will further inform triage and operative decisions and help guide future goals of care discussions.

Dr. John Monu, General Surgery R4, published “Evaluating Knowledge, Attitudes, and Beliefs About Lung Cancer Screening Using Crowdsourcing” in the Journal CHEST. (February 2020)

Dr. Monu examined the multifaceted problem of underutilization of lung cancer screening. Lung cancer screening is recommended by the United States Preventive Services Task Force (USPSTF) for high-risk current and former smokers. Using an online crowdsourcing platform to recruit individuals eligible for lung cancer screening according to USPSTF criteria, Dr. Monu explored various factors to develop an understanding of how they contribute to low screening rates. This study assessed high-risk individuals’ knowledge, attitudes towards, and beliefs related to lung cancer screening. Dr. Monu found that a minority of individuals at high risk for lung cancer are aware of screening, however, the majority believe that early detection of cancer saves lives. Additionally, these individuals would pursue screening if it was recommended by their primary care physician. These findings suggest that patient and physician-facing interventions to increase knowledge pertaining to lung cancer screening, in combination with continued provision of smoking cessation information, may increase willingness to screen among individuals at high-risk for lung cancer.

Dr. Francys Verdial, General Surgery Chief Resident, published two articles in CHEST Journal:

“Safety and Costs of Endobronchial Ultrasound-Guided Nodal Aspiration and Mediastinoscopy” (March 2020)

There remains debate over the best invasive diagnostic modality for evaluating mediastinal nodal pathology and stage lung cancer. We compared the risks and costs of endobronchial ultrasound (EBUS)-guided nodal aspiration and mediastinoscopy in a large national cohort. We found that, when performed as isolated procedures, EBUS is associated with lower risks and costs compared with mediastinoscopy. In this study, we focused on one side of the coin, risk and cost, to better understand how these procedures compare in these two important areas in the real world. Future studies comparing the effectiveness of EBUS versus mediastinoscopy in the community at large will help determine which procedure is superior or if trade-offs exist.

“Multidisciplinary Team-Based Management of Incidentally Detected Lung Nodules” (April 2020)

Over 1.5 million Americans are diagnosed with an incidentally detected lung nodule each year. While practice guidelines attempt to balance the benefit of early detection of lung cancer with the risks of diagnostic testing, adherence to these guidelines is low. Our research group sought to better understand lung nodule care delivery in the context of a multidisciplinary specialty clinic. We asked, “What is the rate of guideline adherence in our multidisciplinary lung nodule clinic and when do we deviate from guidelines? Can our experience be used as a model for navigating complex care decisions?” We found that guideline-concordant care was recommended in approximately two-thirds of patients and that the most common reason for recommending guideline-discordant care was concern for two different diagnoses that would each benefit from early detection and treatment. Our data suggest that a multidisciplinary nodule clinic may serve as a system-level intervention to promote guideline-concordant care, while also providing a multidisciplinary basis by which to deviate from guidelines to address the needs of this heterogeneous patient population.
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