Welcome to our 2023 spring edition of Surgery Synopsis. The Department of Surgery has a tripartite mission: Patient Care, Research and Education. Each of these areas is an essential part of academic surgery and critical to fulfilling our mission to “provide compassionate and high-quality patient care, train future generations of surgical leaders and conduct research in a collegial environment which embraces diversity and promotes inclusiveness.”

Performing life-saving surgeries and improving quality of life for patients is why we became surgeons. Taking the path of academic medicine meant we also wanted to work to move medicine forward with research and education. We wanted to take on the most difficult problems and make them better, prepare the next generation, and change the way we treat surgical disease. Our faculty do incredibly innovative things that save patients’ lives and advance medicine. I want to take a moment to say that working in academic medicine allows us to achieve the breakthroughs and a place to take the most complicated problems and solve them. An academic health center allows the full scope of our mission, the place where research and medical education can improve care for patients and a place where innovative procedures can be learned and taught.

In this issue each of our clinical divisions is highlighting rare, unique or novel procedures that we do in the Department of Surgery. I will let our readers learn more starting on page 3. I am proud beyond words when I look at these procedures that provide healing and a better life for so many patients.

Reviewing these articles, I am so proud of the amazing things our faculty are doing and have done in the WWAMI region, a quarter of the US landmass and the region where we are responsible for tertiary and quaternary care.

We also have taken our innovations and procedures globally, with our faculty performing operations, and even more important, teaching surgeons and trainees in other countries while working with other countries to improve their healthcare systems. We have many experiences with our faculty taking it global and a few recent examples. You can read these vignettes on page 11.

With the continued growth and complexity of our department, we have appointed some important additional leaders. These individuals, with the title of Vice Chair, add expertise and diversity to departmental leadership, complement the experience and strength of our division chiefs, and afford the opportunity to delegate portions of departmental decision-making. At the same time, we are developing additional leaders, creating a deeper “bench” of departmental leadership, strengthening leadership resilience, and providing opportunity for more diverse voices in fulfilling our mission.

Individuals applied for these positions and their applications were reviewed and appointments made with the guidance of internal search committees. We reviewed excellent candidates for these positions and appointed five new Vice Chairs who began three-year terms March 1, 2023. They join the existing Vice Chair of Finance and Administration position held by Susan Marx. The following individuals were appointed to the Vice Chair positions:

Vice Chair for Education: Dr. Jeffrey Friedrich
The Vice Chair for Education oversees all Departmental educational programs for students, residents, and fellows in the Department. Specifically, this individual will coordinate, strengthen, and further develop broad educational programs in collaboration with the Program Directors for the Medical Student Clerkship, Residency, and Fellowship
**Chair’s Message**

Dr. Douglas Wood, MD, FACS, FRCSEd

Sincerely,

To Know Dos—surgeon profile. We hope you will find news of our faculty being awarded grants, receiving awards, in the important areas within the Department. I am excited to work with these individuals in the leadership structure of our department. I am confident these positions will fulfill the goals of making our leadership stronger and allow specific focus on these important areas within the Department.

In addition to the stories noted above, you will find news of our faculty being awarded grants, receiving awards, in the media, and of course, the popular #GettingToKnowDoS. Enjoy this edition of Surgery Synopsis.

Sincerely,

Douglas E. Wood, MD, FACS, FRCS

The Henry N. Harkins

Professor & Chair

UW Department of Surgery
ECMO Saves Lives for Patients with Hypothermic Cardiac Arrest

Hypothermia is a core temperature below 35°C and is extremely common in trauma patients brought from the field, especially in winter months. Mild hypothermia can typically be managed with warmed fluids and blankets, but as the severity of hypothermia worsens, the body begins to shutdown with cardiac arrhythmias developing around 30°C, unresponsive pupils, coma, and depressed cardiac contractility leading to ventricular fibrillation below 28°C, ultimately leading to hypothermic cardiac arrest.

Hypothermic cardiac arrest is a unique condition as it is reversible, and overall survival to discharge is reported as high as 70% compared to 10% for other out-of-hospital cardiac arrests, with 90% of patients having a good neurologic outcome. A key component to this survival is the availability of, and access to, extracorporeal membrane oxygenation (ECMO). There are a variety of emerging indications for ECMO in adults, and the number of ECMO centers is increasing. ECMO provides cardiac and pulmonary support to restore perfusion if the heart is incapable of doing so.

ECMO has been used as a rescue therapy for patients in cardiac arrest with a presumed reversible cause, who fail to respond to conventional therapy. This is known as extracorporeal cardiopulmonary resuscitation (eCPR). Among all patients receiving eCPR, the best outcomes are in hypothermic patients, as even with prolonged CPR the brain is protected.

The ECMO program at Harborview Medical Center (HMC) started in 2016 by Dr. Eileen Bulger, Chief of the Division of Trauma, Burn, and Critical Care Surgery. The team includes faculty from HMC’s surgery division as well as Emergency Medicine faculty trained in critical care, and is coordinated by Patricia Anderson, MN, BSN, RN, CCRN. While ECMO is used for a number of indications at HMC, some of the most dramatic cases have involved patients with prolonged hypothermic arrest, including a woman submerged in Puget Sound, a hiker lost on Mount Rainier, and a number of homeless patients subjected to outdoor exposure in the winter.

A patient presenting to the emergency department in hypothermic cardiac arrest requires a coordinated response from multiple medical providers. At HMC, an ECMO activation call goes out to the team which includes an ECMO attending and fellow, cardiology, nursing, and respiratory therapists. The process for rapid cannulation has been developed and can be done at the bedside in the emergency department, cath lab, or operating room. Typically utilizing bifemoral cannulation due to ongoing CPR or a LUCAS device rendering the chest inaccessible, a large bore drainage cannula is placed into the femoral vein and a return cannula is placed into the femoral artery using ultrasound or fluoroscopic guidance. Once the cannulas are placed, the pump is started, and blood is pulled from the patient to the circuit where it is warmed and oxygenated and then returned to the patient. It is the most efficient rewarming system, with rates as fast as 10°C/hour. The pump flows until the core temperature is above 32°C, at which time the heart is shocked to establish a perfusing rhythm. The patient is admitted to the intensive care unit and then continuously rewarmed to a core temperature of 37°C. The native heart function is assessed with echocardiography and once recovered, the patient is taken to the operating room for removal of the cannulas with the assistance of vascular surgery.

The HMC ECMO team has cared for 15 cases of hypothermic arrest over the past seven years, with a survival to discharge rate of 73% and an average run time of two days. All survivors have been neurologically intact.

By: Erika K. Bisgaard, MD
Assistant Professor
Trauma, Burn & Critical Care Surgery
Counterclockwise Craniofacial Distraction Osteogenesis (C3DO)

One in 50,000 births results in a baby born with Treacher Collins syndrome (TCS). This rare condition affects areas of the face derived from the first and second branchial arches, such as the cheekbones, jaws, and ears. Patients with TCS have normal or above normal intelligence, but their condition can severely impact their life potential. In the media, it is best known for the main character with TCS in the book and movie Wonder. Due to the lack of growth of the facial bones, it has been reported that 25–91% of TCS patients have obstructive airway disease. In the most severe cases, patients remain tracheostomy-dependent despite multiple surgeries. Tracheostomy dependence puts the child under a continued risk of life-threatening events, requires hours of daily care and suctioning, and prevents children from enjoying activities like swimming or traveling away from tertiary sites of care. Until recently, there has been no recognized surgical technique to remove the tracheostomy reliably and safely.

In 2013, the craniofacial team at Seattle Children’s Hospital performed the world’s first Counterclockwise Craniofacial Distraction Osteogenesis (C3DO) procedure that resulted in successful resolution of severe airway obstruction. This novel technique corrects the facial skeletal deformity of TCS and expands the total upper airway volume by separating the entire face from the skull base through a scalp incision. It then slowly swings the face en bloc around a hinge at the nose-forehead junction using multi-vector external distraction frames. This complex all-day procedure requires a one-week hospital stay, a month of device turning, and then three months of healing with the frames in place before the child can be assessed for removal of the tracheostomy. It is only successful with the close collaboration of everyone on the 50-member craniofacial team which represents 16 disciplines across the University of Washington.

We waited five years to publish our results to ensure the outcomes were stable for this new procedure. Over the past decade, despite the rarity of the condition, over 20 patients have undergone the C3DO procedure and 90% have had their tracheostomy removed permanently. As news of this procedure has spread, families have come from across the country and world to stay in Seattle for six weeks to undergo treatment by our team. Other craniofacial centers of excellence are starting to learn the technique and offer it to their own patients. Long term C3DO morphometric results from our Seattle Children’s Craniofacial Imaging Analysis Lab (CranIAL) will be presented at the upcoming 20th Congress of the International Society of Craniofacial Surgery. This year we are hosting this largest gathering of international craniofacial experts in downtown Seattle from September 5-8th.

Figure 1 – The C3DO surgery involves separating all the facial bones from the skull base (yellow lines) and wiring them together around an orthodontic splint (blue). A wire hinge is placed at the root of the nose as a rotation point. Two devices are needed. One is a halo-based traction device mounted to the skull (purple), and the other is a pair of angled distraction devices attached to the lower jaw with pins that go from side to side.

Figure 2 – The halo based device pulls the face forwards (red arrows) and the paired devices keep the lower jaw joints in their correct place (blue arrows). Because of the wire hinge at the root of the nose, the entire face is able to gradually swing forward at a rate of 1mm/day as the parents turn the devices. This creates a dramatic increase in the upper airway and allows the patient to be tracheostomy-free for the first time in their lives.
Domino Delivery by UW Liver Transplant Team is a PNW First

The University of Washington liver transplant team accomplished a first-ever in the Pacific Northwest when it completed a domino liver transplant on January 14, 2023. A sequential or “domino” liver transplant involves two donors (one deceased and one live) and two recipients. A deceased donor starts the ripple effect by facilitating transplantation, in this case to a 30-year-old mother of three from Bellingham who had developed postpartum spontaneous coronary artery dissection resulting in life-threatening heart failure. As in all domino transplants, she also served as a living liver donor as her hepatic function was normal. Enthusiastically, she agreed to donate to a stranger who was on the UW liver transplant waiting list.

In all previously published domino liver transplants, the domino donor patient was undergoing liver transplantation due to a metabolic disease, such as amyloidosis or maple syrup urine disease. This particular domino transplant was unprecedented in that our domino donor had a completely normal liver, both geno- and phenotypically, other than the presence of robust pregnancy-induced liver hypertrophy (liver mass 2572 cm³, normal 1500-1700 cm³). Her liver transplant was being performed purely to facilitate heart transplantation by capitalizing on the liver’s proclivity and prowess in acting as a donor-specific antibody sump. Due to her pregnancy, she was profoundly sensitized (99% calculated panel reactive antibodies), which placed her at prohibitively high risk for hyperacute rejection. The novel concept to use a liver transplant from the same heart donor as the prominent component of a desensitization protocol was initially brought forward by UW cardiologist Shin Lin, MD, PhD, and operationalized by a collaborative team from the heart, liver, and kidney transplant services along with members of Bloodworks Northwest.

The allocation of a deceased donor liver to a high acuity patient with a normal liver and a tenuous outcome, brought up ethical considerations centered on donor organ stewardship. Could we justify removing a deceased donor liver from the donor pool—three patients die in the U.S. every day on the liver transplant waiting list—in such a high-risk patient? To circumvent this conundrum, Drs. Mark Sturdevant and Ramasamy Bakhvatsalam performed the three steps involved in the domino donation process, which ultimately yields two liver transplants for the one deceased donor. This was carried out by first performing a living donor total hepatectomy (Figure 1) followed immediately by the completion of the deceased donor liver transplantation. Drs. Jay Pal and Ionnis Dimarakis optimized the patient’s hemodynamics via cardiopulmonary bypass and after hepatic re-arterialization was completed, the heart transplant ensued.

In a separate operating room, the domino process was finished with the transplantation of a 49-year-old man with end-stage liver disease and multifocal hepatocellular carcinoma who was at risk for waitlist dropout due to his tumor burden and low ranking on the waiting list. His transplant (Figure 2) was performed by Drs. Ramasamy Bakhvatsalam and Mark Sturdevant, and he has done exceedingly well after being discharged just ten days after his historic operation. He enjoys normal liver function currently and has had no complications. The 30-year-old mother was discharged 32 days after the heart/liver transplant and is also doing well. Of note, her very high antibody level has gone to zero, which was the intent of the liver transplant.

Beyond the technical achievement, the completion of this domino liver transplantation reflects on the innovative spirit of the entire transplantation team and could only be performed by the extraordinary efforts of the operating room staff and transplant anesthesiology.
The Kono-S Procedure for Management of Crohn’s Disease

Despite significant advances in the medical management of Crohn’s disease (CD), up to 80% of patients will still need surgery in their lifetime. Surgery is not considered “curative” and the goal of surgical management is to treat complications related to CD and/or for symptomatic relief. Post-operative recurrences are common and up to 70-90% of patients will have endoscopically detected recurrences at the anastomosis within a year of surgery, predisposing them to development of symptomatic strictures. Repeat surgery is often required at the anastomotic site due to stenosis and obstructions.

The Kono-S anastomosis, a new anastomotic technique, was first described in 2003 by Dr. Toru Kono at the Asahikawa Medical University Hospital in Japan. The goal of this new functional end-to-end handsewn anastomosis (technique described in right column) is to minimize anastomotic strictureing compared to conventional anastomoses and thereby decrease the incidence of surgical recurrence in patients with CD. Initial data on 69 patients who underwent the Kono-S technique from 2003 to 2009 was presented by Dr. Kono at Digestive Disease Week in 2010.

The Kono-S anastomosis was introduced in the United States by Dr. Alessandro Fichera in 2009 at the University of Chicago, and brought to the Pacific Northwest in 2012 when Dr. Fichera joined the Department of Surgery. Drs. Fichera and Mukta Krane, Associate Professor, & Section Chief, Colorectal Surgery, Division of General Surgery, continued to perform the Kono-S anastomosis at the University of Washington and will be presenting their multi-institutional results this June at the American Society of Colon and Rectal Surgeons meeting. In the last 10 years, over 150 Kono-S procedures have been performed at the University of Washington, which is one of the largest experiences in the country.

The Kono-S procedure involves three unique steps which each have a role in decreasing the incidence of surgical recurrences at the anastomosis.

1. **Division of the Mesentery** - minimizing disruption of the vascular supply and innervation.

   ![Intraoperative Photo](INTRAOPERATIVE_PHOTO-CLICK-TO-VIEW)

   The bowel affected by CD is divided with the staple lines perpendicular to the axis of the mesentery. The mesentery of the involved segment of intestine is then divided at the mesenteric edge of the bowel wall using a vessel sealing device to avoid devascularization and denervation of the residual bowel.

2. **Creation of the Supporting Column** - maintaining the shape of the anastomosis and preventing distortion in the event of an anastomotic recurrence.

   ![Intraoperative Photo](INTRAOPERATIVE_PHOTO-CLICK-TO-VIEW)

   A supporting column is created immediately behind the posterior wall of the anastomosis preventing distortion of the lumen and alterations of the fecal stream.

3. **Construction of Wide Anastomosis** – an anastomosis is created on the antimesenteric side ensuring a large lumen.

   ![Intraoperative Photo](INTRAOPERATIVE_PHOTO-CLICK-TO-VIEW)

   A longitudinal enterotomy is created along the antimesenteric aspect of the bowel 1 cm from the supporting column. The incision is incised across the longitudinal axis of the intestine for 7-8 cm and closed transversely.

   The completed anastomosis is a functional end-to-end anastomosis but with a larger lumen than observed with a conventional end to end anastomosis.
Thoracic Insufficiency in Pediatrics: Benefits of Chest Wall Reconstruction

By: Caitlin A. Smith, MD
Assistant Professor

By: John Waldhausen, MD
Professor Emeritus

Congenital chest wall defects in children are an uncommon entity, and when encountered, represent a challenging surgical problem. Resultant thoracic insufficiency syndrome from these defects is defined as inability of the spine and thorax to maintain normal respiratory function and postnatal lung growth. This patient population is characterized by a heterogeneous group of chest wall and spine deformities that can lead to progressive restrictive respiratory disease. The goal of reconstructive surgery is to preserve thoracic function and volume both in the immediate post-operative period and over the course of the child’s lifetime. In general, surgical options described to improve thoracic insufficiency focus on correction of any spine deformities in combination with osteotomies when fused ribs are present. Sometimes, this approach may not actually result in improved thoracic capacity. Reconstruction ideally is also adjustable to account for growth over the course of the child’s life. Vertical expandable prosthetic titanium rib (VEPTR) is a type of titanium construct that has been able to achieve these goals for a series of patients with varying anatomical considerations. Due to the wide variety of underlying structural abnormalities that contribute to the clinical symptoms, a single surgical approach to these patients may not result in improvement of baseline pulmonary status. We present two cases below in which creative surgical solutions were required to improve the patient’s underlying pathophysiology.

**CASE #1**

The first patient is a now 23-month-old girl born with a significant portion of the left chest wall absent, creating flail chest physiology resulting in ventilator dependence. Multidisciplinary discussion ensued with surgery and pulmonary specialists to determine if any surgical options for chest wall stabilization could be performed to assist with vent weaning. Based on three-dimensional CT scan reconstructions, a custom VEPTR implant was designed and created. Two VEPTR implants were required to bridge the chest wall. The first was placed laterally and a second VEPTR was secured to the sternum to stabilize the anterior chest wall (Figure 1). Over time, this patient was able to wean to a level of home vent support with breaks from the vent daily and was ultimately discharged home.

**CASE #2**

The second patient is a 17-year-old female with severe chest wall deformity, including costovertebral dysostosis with significant thoracic lordosis. She had severe symptoms of shortness of breath with worsening exercise tolerance and inability to walk up a single flight of stairs. Her severe restrictive lung disease was confirmed with pulmonary function tests and furthermore, an echocardiogram revealed cardiac and right pulmonary artery compression due to the narrow space between her spine lordosis and sternum (Figure 2). A novel hybrid procedure was proposed in which a pectus carinatum deformity was created with a Ravitch-type procedure. This was combined with an aortopexy to move the aorta anteriorly and relieve the compression of the pulmonary artery. The patient did well after repair and was discharged on post-operative day six. Ultimately, this patient’s post op VQ scan normalized and she had clinical improvement in her exercise tolerance and baseline symptoms (Figure 3).
Chronic thromboembolic pulmonary hypertension (CTEPH) is a disease process that affects approximately 1% of all patients that have clinically identifiable pulmonary emboli. Organization of these thromboemboli into webs of connective tissue causes partial obstruction of the pulmonary arteries and commences a process of vascular remodeling, vasoconstriction, and progressive pulmonary hypertension. Although there exists an assortment of pulmonary vasodilators with some benefits in patients with CTEPH, surgical therapy with pulmonary thromboendarterectomy (PTE) is the mainstay of treatment and the only option for cure.

The gold standard for diagnosis is pulmonary angiography, which will demonstrate unusual filling defects, webs, and bands within the pulmonary arteries. Angiography is required for classification of the distribution of disease: Type I disease (10% of patients) is a central major vessel clot; Type II (40% of patients) is the presence of thickened intima and webs within the main, lobar, and segmental pulmonary arteries; Type III disease (30% of patients) is confined to the segmental and subsegmental branches; while Type IV is distal vessel disease. This classification is important given that patients with Type III disease are high risk, tend to have poor post-operative outcomes, and may be candidates for balloon pulmonary angioplasty. Patients with Type IV disease are not candidates for surgery.

The goals of PTE are to prevent/alleviate right heart failure and to improve respiratory function by restoring blood flow to underperfused areas. The procedure is done via a median sternotomy using full cardiopulmonary bypass. The patient is cooled to 18°C for anticipated periods of deep hypothermic circulatory arrest. The right and left main pulmonary arteries are both explored starting with the right pulmonary artery (RPA), which is exposed between the underside of the aorta and the superior vena cava (Figure 1). An arteriotomy in the RPA is performed longitudinally and a microtome is utilized to find the correct endarterectomy plane which has a “pearly white” appearance and should strip off easily (Figure 2). This is the most crucial part of the operation given that a plane too deep will perforate the artery causing fatal bleeding at the time of reperfusion, and a plane that is too shallow will result in incomplete endarterectomy and inferior postoperative results. Both sides are always explored despite what the disease distribution appears to be on pre-operative imaging since CTEPH tends to be a bilateral disease. Periods of deep hypothermic circulatory arrest of up to 20 minutes per side are used when exposure cannot be maintained due to retrograde bronchial blood flow. Once the specimen is removed (Figure 3), the arteriotomy is closed and once both sides have been treated, the patient is rewarmed and weaned from bypass.

The 30-day post-operative mortality at high volume centers has been reported as low as 2.2%. Improvements in cardiopulmonary hemodynamics are evident early on and pulmonary artery pressures and pulmonary vascular resistance continue to fall throughout the post-operative period. The University of Washington, having done hundreds of PTEs, is one of the highest volume centers in the country and has some of the very best outcomes with regards to survival as well as functional improvement and elimination of symptoms.
Abdominal aortic aneurysms represent a “widening” of the largest artery in the body and are the 12th leading cause of death in the United States. A patient with an aortic aneurysm faces rupture and a high risk of death once the aneurysm enlarges to a certain size.

Endovascular methods of repair for aortic aneurysms have become widespread in the past 20 years and have been pioneered by a few surgeons in the United States. In 2007, Dr. Benjamin Starnes, The Alexander W. Clowes Endowed Chair, Professor and Chief, Division of Vascular Surgery, coined the term “Physician Modified Endograft” (PMEG) and did his first PMEG at the University of Washington. A PMEG involves the surgeon unsheathing a commercially available device at the time of the operation and modifying it to fit the patient by cutting windows, or “fenestrations,” in the side of the graft to preserve vital side branches, like the mesenteric and renal arteries. This requires precision planning based on 3-D reconstructed images from a high-resolution CT scan. Due to the unique nature of the procedure, he had to obtain an Investigational Device Exemption (IDE) from the FDA to be able to do these procedures and track subsequent outcomes. This was the first IDE of its kind in the United States and Dr. Starnes has enrolled over 200 patients in the trial to date.

In 2011, Dr. Starnes recruited Dr. Matthew Sweet, Associate Professor & Section Chief, UWMC, Division of Vascular Surgery, from Dartmouth to start a second IDE involving complex thoraco-abdominal aneurysms using similar methodology. In 2020, he recruited a third vascular surgeon, Dr. Sara Zettervall, Assistant Professor, Division of Vascular Surgery, from Beth Israel Deaconess in Boston, to participate in both IDE studies and to continue to achieve excellent outcomes.

The patient described herein is an 82-year-old man referred for evaluation of an asymptomatic 5.8 cm juxtarenal abdominal aortic aneurysm and not a candidate for standard endovascular repair. His 3-D reconstructed CT scan is depicted in Figure 1 and his pre-operative planning in Figure 2.

The procedure was conducted entirely percutaneously and took less than 65 minutes. The fluoroscopy time was only 17 minutes and the patient was discharged home the following day. The follow up CT scan at 6 months is displayed in Figure 3 with evidence of aneurysm sac regression.

Truly customized solutions for the endovascular repair of complex aortic aneurysms offer a minimally invasive procedure that extends the lives of many thousands of patients. The University of Washington Division of Vascular Surgery has led the way forward in this exciting new space.
VA Puget Sound Health Care System – A Unique Experience for Surgical Residents

Case 1. 60-year-old male veteran with history of paranoid schizophrenia and alcoholism was referred for an enlarging nonreducible inguinal “hernia.” An evaluation revealed a large palpable abdominal mass and unexplained weight loss, and subsequent CT imaging showed a large heterogeneous pelvic mass with mixed fat and solid components involving the bladder, sigmoid colon, left rectus muscle, and extending into the left inguinal canal without evidence of metastatic disease (Figure 1A). Following nutritional rehabilitation and mental health coordination of care, he underwent a combined abdominopelvic exploration and radical tumor resection with en bloc resections of the sigmoid colon, abdominal wall, and bladder with ileal diversion (Figure 1A). Pathology revealed a high-grade liposarcoma with a focal positive margin in the rectus muscle treated with radiation. The patient declined further adjuvant chemotherapy and enjoyed a return to his baseline functional status but was later found to have a new lung metastasis at one-year surveillance.

Case 2. 62-year-old male Alaskan veteran who underwent successful transhiatal esophagectomy for T3N1 esophageal cancer was found 11 years later to have a malignant ulcer within the gastric conduit with biopsies confirming poorly differentiated adenocarcinoma (Figure 1B). He was referred back to the VAPSHCS for definitive treatment options. With no evidence of metastatic disease, he underwent uncomplicated R0 resection of his gastric conduit. Esophageal continuity was restored using an extended left colon interposition graft with assistance from our thoracic surgery team (Figure 1B). The patient was able to return home to Alaska tolerating a modified oral diet.

Complementing their experience with advanced minimally invasive procedures including the DaVinci robotic surgical system, residents at the VAPSHCS uniquely benefit from a wide range of complex open abdominal and pelvic procedures. More recently, the Stryker SPY-PHI system has been introduced for intraoperative visualization using indocyanine green (ICG) fluorescence with near-infrared light (Figure 2). Common clinical applications include the assessment of colorectal and esophageal anastomoses, soft tissue flaps, organ borders, and cholangiography. The VAPSHCS Surgery Service Line remains dedicated to training current and future generations of surgeons at the University of Washington.
Dr. Douglas Wood Working to Develop Surgical Specialty Programs in Rwanda

By: Douglas Wood, MD
The Henry N. Harkins Professor and Chair

Dr. Douglas Wood, The Henry N. Harkins Professor and Chair, recently returned from his third trip to Rwanda as part of the American College of Surgeons (ACS) Operation Giving Back. The mission of Operation Giving Back (OGB) is to leverage the passion, skills, and humanitarian ethos of the surgical community to effectively meet the needs of the medically underserved.

In recent years, the ACS and the College of Surgeons of East, Central and Southern Africa (COSECSA) have been developing strategic partnerships to improve surgical education, address workforce shortages, and build a sustainable health care system.

In 2016, the ACS Board of Regents developed strategies to address challenges in global surgical care. The Regents agreed to support efforts aimed at surgical workforce development in low-income countries, focusing initially on sub-Saharan Africa. Kigali, Rwanda was chosen as one of three sites for specialty surgery program development. In Rwanda the focus has been on creating sustainable programs in vascular, cardiac, thoracic, burn, trauma, plastic, and oral and maxillofacial surgery.

Dr. Wood, an ACS Regent since 2017, has helped lead cardiothoracic program development at King Faisal Hospital in Kigali by assisting the local CT surgeon, Dr. Maurice Musoni, with several initiatives: developing training for a sustainable local workforce, advocating for supply chain and technical improvements to support surgical care; and working to coordinate the efforts of multiple NGOs offering surgical care in Rwanda. On his trips to Kigali, Dr. Wood also helps in the surgical care of individual patients with complex thoracic problems.

“Dr. Musoni is a skilled cardiothoracic surgeon in a resource limited environment. He cares for patients with a wide variety of surgical problems, and it is both a privilege and a learning experience for me to help Dr. Musoni,” Dr. Wood explained. “We recently performed the first tracheal resection in Rwanda for a child with a tracheal tumor, treated another young child with a massive mediastinal tumor, and corrected a complex post-pneumonectomy bronchopleural fistula through a novel surgical approach. I have been interested in this region and looking for opportunities to ‘give back’ since traveling to the region as a general surgery resident. The partnership between ACS and the Rwanda Health Ministry is a real opportunity to support the growth of sustainable surgical programs, to grow the surgical workforce, and to help reduce the global burden of surgical disease.”

Drs. Maurice Musoni and Douglas Wood at King Faisal Hospital, Kigali, Rwanda
World Health Organization (WHO) Launches UW/Fred Hutch Strategy for Global Breast Cancer Management

By: Benjamin O. Anderson, MD
Professor, Surgery and Global Health Medicine

From 2002 to 2020, Dr. Benjamin O. Anderson, Professor, Surgery and Global Health Medicine, founded and led the Breast Health Global Initiative (BHGI), which developed the concept of “resource-stratified guidelines” for addressing comprehensive cancer care in low- and middle-income countries (LMICs). BHGI first published resource-stratified guidelines for breast cancer in 2005, and methodology was subsequently adopted by other guideline-developing organizations including the National Comprehensive Cancer Network (NCCN), the American Society of Clinical Oncology (ASCO) and the World Health Organization (WHO).

In July 2020, Dr. Anderson was recruited by WHO to establish the WHO’s first consolidated breast cancer effort. Joining the WHO Cancer Team first as a consultant and subsequently as the WHO Medical Officer, Dr. Anderson moved from Seattle to Geneva, Switzerland, where the WHO Global Breast Cancer Initiative was launched in March 2021. The objective of the initiative is to reduce breast cancer mortality by 2.5% per year and to avert 2.5 million breast cancer deaths globally by 2040. With the informative background developed and published by BHGI, Dr. Anderson and his team organized working groups of 250 global experts to publish the WHO Global Breast Cancer Initiative Framework, providing strategic guidance to the Ministries of Health to systematically improve breast cancer outcomes through the perspective of three pillars: early detection, prompt diagnosis and comprehensive breast cancer management to completion.

In recognition of his contributions to global oncology through BHGI, Dr. Anderson received the 2011 Partners in Progress Award from the American Society of Clinical Oncology (ASCO), the 2013 Inspiration Award from the National Consortium of Breast Centers (NCBC) and the 2019 Pioneers of Global Health Award from the Washington Global Health Alliance (WGHA). Most recently, Dr. Anderson was honored internationally with the 2023 Umberto Veronesi Memorial Award by the European School of Oncology during the 18th St. Gallen Breast Cancer Conference held in Vienna, Austria.

At the WHO World Health Assembly in May, the WHO Global Breast Cancer Initiative (GBCI) and the Geneva-based NGO City Cancer Challenge (C/Can) announced the launch of a partnership to implement the recently published GBCI Framework focusing on health system strengthening in low- and middle-income countries (LMICs). Unrestricted seed funding of $2 million USD is being provided to the partnership from four pharmaceutical companies (Amgen, AstraZeneca, Bristol Myers-Squibb, GlaxoSmithKline (GSK) and Merck Sharp and Dohme (MSD)). The initial funds will be used to design and operate a training course for countries to learn how to apply resource-appropriate strategies for breast cancer management, which can be tested in cities as cancer care hubs as part of a decentralized network for improving national breast cancer outcomes.
Cardiothoracic surgical care in Rwanda has historically been provided on a mission basis by visiting teams, and there is currently no mechanism for cardiothoracic surgical training within the country.

The Rwandan government has made capacity building in cardiothoracic surgery a priority and to that end, a collaboration was developed between the Rwandan Ministry of Health and “Operation Giving Back,” the American College of Surgeons’ humanitarian arm. The primary objectives of this collaboration are to create a strong clinical care program and simultaneously develop a sustainable cardiothoracic surgery residency program that creates a continuous pipeline of specialty expertise through Rwandan trained cardiothoracic surgeons.

Hospital partnerships play a critical role in providing a channel for bidirectional learning and the co-development of solutions in rapidly evolving global health systems. To foster an academic twinning partnership, the University of Washington (UW) Cardiothoracic Surgery Division hosted a clinical delegation from King Faisal Hospital in Kigali, Rwanda in the fall of 2021. The delegation consisted of a cardiothoracic surgeon, a cardiologist, a cardiothoracic anesthesiologist, a nurse manager and a perfusionist. They spent a week with individualized itineraries and explored the various facets of cardiothoracic surgery care and education at UW.

UW continues to support their clinical cardiothoracic program remotely and with periodic in-person visits. Utilizing our expertise in cardiothoracic surgery, cardiothoracic anesthesiology, critical care, and robust simulation-based surgical education, we will co-develop a cardiothoracic residency curriculum that is tailored to the Rwandan needs and resources. Once the Rwandan cardiothoracic residency program is developed and operational, we hope to establish a bilateral exchange program which will enrich the surgical education of both the UW and Rwandan trainees.
PARTNERS IN AFRICAN CLEFT TRAINING:
SUSTAINING INTERDISCIPLINARY CLEFT TEAMS IN SUB-SAHARAN AFRICA

By: Richard A. Hopper MD, MS
Professor & Chief, Pediatric Plastic Surgery, Marlys C. Larson Endowed Chair of Pediatric Craniofacial Surgery

Children and families seeking cleft lip and palate care in sub-Saharan Africa face substantial challenges that include access to early feeding support, surgery, speech therapy, and team care, often travelling long distances at great cost and risk. Medical providers face infrastructure and equipment challenges, in addition to a lack of medical care and shortage of surgeons. All these factors can cause a cascade of complications for newborns, including malnutrition, social isolation, and premature death. To improve and expand access to cleft lip and palate care beyond its hospital walls, Dr. Michael Cunningham from the Department of Pediatrics and Dr. Richard Hopper from the Department of Surgery partnered with Dr. Peter Donkor from Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana to establish the Partners in African Cleft Training (PACT) program in 2007.

PACT is a training program focusing on interdisciplinary care for African children with cleft lip and palate to improve outcomes and expand access to care through the education of local providers and establishment of regional training centers. The goal is to reduce the challenges of recruitment and retention of trained providers to regional cleft teams through sustained shared enthusiasm and educational interactions. Since 2008, a core group of Seattle Children’s Craniofacial team members have participated in 15 PACT workshops and have developed partnerships with cleft team providers in Ghana, Nigeria, Ethiopia, Liberia, and Kenya. The purpose of the workshops is for teams to work together in the clinic and operating room using only locally available resources, forgoing the sutures, instruments, lighting and loupes that we are familiar with in North America. This leads to a shared understanding of challenges faced by sub-Saharan providers and more sustainable improvements than training events using North American resources or those located outside of the African health care environment. Over 150 providers, including surgeons, speech and language pathologists, anesthesiologists, orthodontists, pediatricians, dieticians, and nurses from five African countries have received training through the PACT program. PACT has received international recognition for its effectiveness in creating a sustainable training model for African healthcare professionals to become self-sufficient in the interdisciplinary care of children with cleft lip and palate. Regional training programs for cleft surgery in Kumasi and postgraduate speech pathology training in Addis Ababa, have been established through the help of PACT activities. Additional impacts from this program include design of the NIFTY cup, an infant feeding cup for infants with cleft palate, and a retractor-mounted boroscope with battery-operated Wi-Fi to allow learner visualization of cleft palate repair in Africa.

During the COVID pandemic, PACT maintained contact between teams by providing a week-long virtual workshop with twice daily lectures and group interactions with cleft team providers from both continents. In 2021, quarterly virtual seminars were initiated and in 2022 a virtual classroom was developed in CANVAS to house learner assessments, team resources, and lectures. In January 2023, providers from Seattle traveled to Kumasi for the first post-COVID, in-person workshop alongside 58 providers from Ghana, Nigeria, Ethiopia, Liberia, and Kenya. The shared enthusiasm sustained by the COVID virtual sessions allowed us to plan for an exciting future for PACT and embrace our motto, “One Team, One Spirit”.

Clinical scenes from the Partners in African Cleft Program
Drs. Eileen Bulger and Barclay Stewart partner with the ACS to support the Rwandan Ministry of Health

By: Eileen Bulger, MD
Professor & Chief, Trauma, Burn, & Critical Care Surgery, Surgeon-in-Chief, HMC

By: Barclay Stewart, MD, PhD, MPH
Assistant Professor

By: Hannah Wild, MD
General Surgery R4

Dr. Eileen Bulger, Professor & Chief of Trauma, Burn, & Critical Care Surgery, Surgeon-in-Chief at Harborview Medical Center, and Dr. Barclay Stewart, Assistant Professor, Division of Trauma, Burn & Critical Care Surgery, are working with the American College of Surgeons (ACS) Operation Giving Back (OGB) to support the Rwandan Ministry of Health in their efforts to strengthen subspecialty surgical, trauma, and burn care. Since the genocide of the Tutsi in 1994, Rwanda has orchestrated tremendous reconciliation and development, and has a vision for universal health coverage. Rwanda has long benefited from committed international partners and collaborative researchers, however, key gaps remain and are predominantly related to insufficient workforce and resources. Some of the identified gaps can be overcome, in part, with training and strategic planning. The Ministry of Health and King Faisal Hospital are collaborating with ACS OGB and the Committee on Trauma (COT) to advance several surgical subspecialties (e.g., Cardiothoracic Surgery, Trauma and Burns, Plastic and Reconstructive Surgery, Kidney Transplantation) and the systems required to achieve high-quality care.

Drs. Bulger and Stewart, with other members of the COT (e.g., Dr. Jeff Kerby, COT Chair) and existing international collaborators are working with Rwandan trauma care champions, including Drs. Agabe Nkusi and Faustin Ntirenganya, stakeholders from the prehospital care Service d’Aide Médicale Urgente (SAMU), Rwanda Biomedical Center Division of Injury and Disability, and multidisciplinary representatives of trauma care to achieve three major goals: promulgate trauma training courses for doctors and nurses, support the creation of context-appropriate standards for each level of the healthcare system, and outline a path toward internal designation of trauma centers. Additionally, they will provide technical advisory to trauma system strategic planning efforts, facilitate quality improvement courses, and support trauma surgical and critical care training programs as they develop.

This is a multiyear engagement, and Drs. Bulger and Stewart are honored to play a role in improving health in Rwanda by building capacity for providing advanced surgical, trauma, and burn care.

Dr. Hannah Wild to Present Research to the United Nations

Dr. Hannah Wild is a third-year General Surgery resident whose research focuses on improving humanitarian surgical care for civilian casualties in conflict settings. Through this work, she has established a longitudinal partnership with the United Nations Mine Action Service (UNMAS) seeking to strengthen ties between humanitarian mine action and trauma response in low-resource settings to reduce excess morbidity and mortality among civilian victims of explosive weapons. She will be presenting to the UN in Geneva during the 26th International Meeting of Mine Action National Directors in a main plenary session on victim assistance alongside the UN Special Rapporteur on Persons with Disabilities, as well as a side event dedicated to this research. The collaboration between UW and UNMAS is undertaken in response to the impact of the indiscriminate use of explosive weapons in densely populated areas on civilians in conflict globally. Broadly, this work explores how advances in trauma care in low-resource settings can be disseminated, implemented, and scaled through partnership with humanitarian mine action programs, which have a longstanding presence in hard-to-reach conflict-affected communities worldwide. The project’s first stages consist of an exploratory systematic review, qualitative analysis of key informant interviews with mine action sector experts, and modeling of potential intervention impact to inform the development of a collaborative framework. This work is undertaken in support of the recently-adopted Political Declaration on the use of Explosive Weapons in Populated Areas (EWIPA) and International Mine Action Standards 13.10 providing guidance on Victim Assistance in Mine Action. Dr. Wild is also a core member of the International Blast Injury Research Network and Pediatric Blast Injury Partnership.

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support us

The Department of Surgery is dedicated to providing patients with the highest quality of care. As a university medical center, our faculty continuously innovate procedures that advance the latest surgical technology, creating treatment options that might not be available elsewhere. Your philanthropic gift will help support us to continuously push the boundaries of medicine and improve the quality of life of our patients.

Colorectal Surgery
Colorectal Education and Research Fund - Supports the research and education in colorectal outcomes in the Department of Surgery.

Pediatric General Surgery
Herbert E. Coe Endowed Chair in Pediatric Surgery Operating Account - Fosters advancements in this field for the benefit of children, families, and the medical profession.

Plastic Surgery
Reconstructive Surgery Plastic Surgery Gift - Funds educational programs for students, residents, and faculty in the Division of Plastic Surgery.

Liver Transplant
Liver Transplant Service Gift Fund - Helps researchers in the Department of Surgery investigate the best methods for successful liver transplantation.

Trauma Surgery
Trauma Surgery Research Fund - Supports research in trauma surgery at Harborview Medical Center.

Vascular Surgery
Endovascular Training and Research Fund - Facilitates endovascular training and research in the Department of Surgery’s Vascular Surgery division.

Cardiothoracic Surgery
Cardiothoracic Surgery Division Teaching and Research Fund - Supports teaching and research in the Division of Cardiothoracic Surgery.

VA Puget Sound Health Care System
Schilling Traveling Fellowship - Enables surgical residents in the Department of Surgery to spend one to three years focused on their research development.

mark your calendar

ANNUAL DEPARTMENT OF SURGERY EDUCATION SEMINAR

Wednesday, June 7th
1:00pm-5:00pm
UW Tower Auditorium

2023 HEALTHCARE “SIM”POSIUM

2023 HARKINS SYMPOSIUM & DR. ALFRED A. STRAUSS VISITING LECTURER

Visiting Lecturer
Dr. Steven Stain, Department of Surgery Chair
Lahey Hospital & Medical Center
Friday, October 13th
Time and Location TBA

CLICK OR SCAN TO VIEW OUR UPCOMING EVENTS
Dr. Julie Ann Sosa

The Helen and John Schilling Endowed Lectureship was established by the late Helen Schilling to bring distinguished scholars to the Department of Surgery (DoS) at the University of Washington, and to enhance the Department’s commitment to the highest standards of patient care, teaching, research and scholarship. It was Mrs. Schilling’s wish that the lectureship be named in honor of her husband, John. This year the DoS had the honor to host Dr. Julie Ann Sosa, Professor and Chair of the Department of Surgery at the University of California–San Francisco, and the Leon Goldman, MD, Distinguished Professor of Surgery, as special guest lecturer for the 28th Annual Helen & John Schilling Lectureship held on Friday, March 31st.

Dr. Sosa presented “Tackling Controversy and Changing Practice, with Courage and Evidence, as a Resident!” relaying the inspiring story of a resident who changed practice in endocrine surgery several times over by rigorously assembling a body of evidence that challenged conventional wisdom. In this lecture she discussed how mentors are important to help identify the best questions and that being open to change – unlearning and relearning – is critical for success as a surgeon-scientist.

The Schilling Lecture concludes the Annual Research Symposium, an event that recognizes the quality, breadth, and depth of the research performed by the Department of Surgery’s research residents and fellows. This year’s Symposium included 18 presentations on a wide variety of basic and clinical research topics. These presentations were ranked by DoS research leadership on scientific merit and validity, presentation skills, and preparedness for questions and audience comments.

2023 RESEARCH SYMPOSIUM AWARDEES

1ST PLACE
Kajal A. Mehta, MD, MPH
General Surgery R4
“Implementation of an Enterally Based Resuscitation Bundle for Major Burn Injuries in an Austere Setting: Results from a Pilot Hybrid II Effectiveness-Implementation Randomized Trial”

2ND PLACE
Nina M. Clark, MD
T32 National Institute of Diabetes and Digestive and Kidney Diseases Research Fellow
“Implementation Evaluation of Tiered Tele-Triage Pathways for Burn Center Consultation and Transfer”

3RD PLACE
Lindsay K. Dickerson, MD
UW Tumor Immune Microenvironment (TIME) Research Fellow
“Therapeutic Modulation of Tumor-Infiltrating T Cell Function in Fibrolamellar Carcinoma”

Congratulations to all participants for their hard work. Click here to read the entire Schilling booklet.
The Department of Surgery Annual Research Symposium includes the honoring of a Distinguished Faculty Awardee. This award is made in appreciation of outstanding University of Washington surgeon-scientists and recognizes the career achievements of those who have distinguished themselves through excellence in scientific contributions, mentorship of colleagues, and training the next generation of surgeon-scientists. This year’s awardee was Dr. Raymond Yeung, Professor & Section Chief, Hepatopancreatobiliary Surgery, Division of General Surgery, in recognition of his remarkable career as a surgeon-scientist.

Past honorees include Dr. Nicole Gibran (2022) and Dr. Ron Maier (2021). A perpetual plaque sits in the Chair’s office commemorating the annual award winners.

Raymond Sze Wang Yeung was born in Hong Kong, the second youngest of four siblings. He resided in Hong Kong until his middle childhood when the Cultural Revolution in mainland China forced many to flee and his family immigrated to Toronto, Canada. Settling in North York, Dr. Yeung quickly adapted to his new life and excelled in academics and piano. A voracious learner, he eventually skipped a grade and won a competition as the best pianist for his age group in all of Canada. Eventually, his journey took him to the University of Toronto, where he entered medical school two years into his undergraduate studies. The University of Toronto remained his home for medical school and residency. A last-minute fellowship opportunity at Fox Chase Cancer Center served as the catalyst for his research career.

At Fox Chase, Dr. Yeung met the late Alfred G. Knudson, MD, PhD, who would become his most influential mentor. With his assistance, Dr. Yeung discovered that the gene that caused dominantly inherited renal cell cancer in Eker rats was a mutant of the tuberous sclerosis type 2, or Tsc2 gene. This discovery defined the primary focus of his research for many years, which explored the genetic mechanisms of tumorigenesis with emphasis on tumor suppressor genes and hereditary cancers. Dr. Yeung’s laboratory utilized genetic, cell biologic and biochemical approaches to dissect the function of these genes. The quality of his scientific work was evidenced by nearly two decades of continuous NIH R01 funding and numerous publications in high-impact scientific journals.

Despite his ongoing success in defining TSC biology, Dr. Yeung wished to align his research and clinical work more closely. Therefore, nearly a decade ago, he made the courageous decision to transition his research focus towards studying the tumor microenvironment of cancers in the liver using tumor slice cultures (ironically, also abbreviated as TSC). This new direction has ultimately culminated in several large federal research grants and allowed Dr. Yeung to help launch generations of young surgeon-scientists’ research careers at UW. In his characteristically modest way, Dr. Yeung would claim no credit for these successes, but his influence and impact cannot be overstated.

Remarkably, beyond his research prowess, Dr. Yeung is also an expert liver surgeon with strong clinical acumen and superb technical skills. He manages to perform challenging liver resections with minimal drama, thus creating an excellent learning environment for the residents lucky enough to work with him. He founded the UW Medicine Liver Tumor Clinic, the first multidisciplinary clinic of its kind in the Pacific Northwest. He is also the section chief of Hepatopancreatobiliary Surgery, Director of the Center for Advanced Minimally Invasive Liver Oncologic Therapy (CAMILOT), Deputy Director of the Seattle Translational Tumor Liver Cancer Program, a UW Professor of Surgery and an Adjunct Professor of Medicine, Medical Genetics and Pathology. In these leadership positions, Dr. Yeung has consistently displayed vision, empathy, grace, selflessness, inclusiveness and persistence.
Rheumatic heart disease (RHD) remains a major cause of morbidity and mortality in low- and middle-income countries, such as Nepal. RHD is a sequela of an untreated streptococcal infection causing rheumatic fever, and results in valvular dysfunction in young patients. If untreated, this results in the development of heart failure and early mortality.

The mountainous geography and limited medical infrastructure in Nepal leads to underdiagnosis of rheumatic fever and rheumatic heart disease in rural communities with inadequate access to cardiac surgery outside of major population centers. Furthermore, the inability of most of the Nepalese population to afford or access cardiac care complicates the treatment of patients who develop heart disease.

Our current work takes a multifaceted approach to improve cardiovascular care for patients with limited access to specialty services. Using epidemiological data in collaboration with the Ministry of Health, we are working to identify hot spots of rheumatic fever, which will inform where clinical screening efforts should be focused for patients with rheumatic heart disease. Correlating this information with the subtypes of streptococcus species which are being collected from patients will allow us to better understand which communities are at higher risk for underreported rheumatic fever. Simultaneously, we are conducting educational programs for physicians and medical staff in rural communities to improve the detection of patients at risk for rheumatic heart disease, and working with a local non-governmental agency to provide access to specialized cardiovascular care at Tribhuvan University Teaching Hospital in Kathmandu.

To improve the quality of cardiac care, we have developed a cardiac surgical database at Tribhuvan University Teaching Hospital to allow analyses of post-cardiac surgery outcomes. Along with regular education of nursing staff and providers, we hope to improve the overall access to quality cardiac care in Nepal.

This work is supported by grant support from the Thoracic Surgery Foundation and Edwards LifeSciences Every Heartbeat Matters.

By: Jay Pal, MD, PhD
Professor, Lester and Connie LeRoss Endowed Professor in Cardiovascular Surgery
Division of Cardiothoracic Surgery

Left: Pokhara clinic triage area
Right: Rache Mureau-Haines, cardiothoracic surgery nurse practitioner, presenting to Tribhuvan University Teaching Hospital nurses in 2022

Left: Gurkha clinic opening
Right: Nepali resident case with Dr. Dave Campbell
A recent article from the Journal of Pediatric Surgery, written by surgery resident Dr. Denzel Woode; Drs. Jeffrey Avansino, Professor; Robert Sawin, Professor Emeritus; John Waldhausen, Professor Emeritus; and Kenneth Gow, Professor, from the Division of Pediatric General Surgery, and Dr. Edward E. Cornwell III, from Howard University, called for the fair recognition of the work of one of the true giants of the US surgical community, Dr. Asa G. Yancey.

Hirschsprung disease (HD) is a common condition that pediatric surgeons treat in a variety of ways. One such approach, the eponymous Soave-Boley technique, involves a pull-through of ganglioniated colon through a distal portion of aganglioniated rectum. However, this same approach was first described twelve years prior by Dr. Asa G. Yancey.

Dr. Yancey was a pioneering Black American general surgeon whose innovative contributions to the US surgical community have been largely overlooked. In 1952, he presented a paper entitled “A Modification of the Swenson Technique for Congenital Megacolon” in the Journal of National Medical Association. This journal was dedicated to unifying and amplifying the voices of Black health professionals in a time when there were few outlets for them to share their work. Dr. Yancey’s paper documented an adult with Hirschsprung’s disease, for which he performed the steps described in later papers by Drs. Franco Soave and Scott Boley. Sadly, the patient passed away nine days later due to malrotation and midgut volvulus, though this was not a complication of Dr. Yancey’s procedure. The civil rights movement of the time was a backdrop of social injustice and unequal access to healthcare for Black patients and healthcare providers. Dr. Yancey was able to innovate and lead in surgery, despite the limited resources available to him and his patients in Grady Hospital, which, at the time, served mostly the Black population of Atlanta and was segregated from the wider white community.

Dr. Yancey’s groundbreaking innovation in surgical technique to develop the current pull-through procedure for HD has been largely unrecognized, despite being documented 12 years before Soave and 16 years before Boley. We agree with Dr. Woode, et al.: it is time for Dr. Yancey to finally be recognized for his innovation. This modification to the Swenson technique should be renamed the Yancey-Soave-Boley procedure to honor Dr. Yancey’s legacy.
In your medical education journey, did you always want to be a surgeon?

I have always wanted to be a surgeon, and it all started when I had wrist surgery at age 10. I remember being wheeled into the operating room and instead of being scared, I was enthralled and going, “Whoa! This is so cool!” I even tried to resist the effects of the anesthetics because I wanted to stay awake to see what they were doing. I think that’s when my fascination with surgery started.

How did you end up in Cardiac Surgery?

When I came to the University of Washington (UW) for my general surgery residency training, I actually wanted to be a surgical oncologist because that’s what I had the most exposure to from my mentors in medical school. To position myself for a competitive fellowship program, I went to the National Institutes of Health for a surgical oncology research fellowship. The first six months of the two-year fellowship involved clinical rotations, and I rotated on Thoracic Surgery. As the fellow, I was involved in all aspects of the patient’s care, from the preoperative clinic appointment to being the first assistant during the surgery, managing them in the ICU and the floor and following them in clinic postoperatively.

I had such a great time and I thought to myself, “Hmm, thoracic surgery is surgical oncology, it is just above the diaphragm.” Luckily for me, I was able to join the 4/3 Cardiothoracic (CT) Surgery Integrated residency program here at UW and in doing so, I was able to finish my general surgery training while jumpstarting my CT surgery fellowship.

The plan was to become a thoracic surgeon but then I was exposed to the heart, and I fell in love with it. So, I did another small pivot, and that’s how I ended up in Cardiac Surgery. It was a tough decision, and I didn’t decide until six months before I finished my fellowship whether to go into cardiac or thoracic surgery.

Why did you choose to work for the Department of Surgery?

I had an amazing time here at UW during my residency and fellowship training. I mean it was hard, the training was challenging, but each step of the way I had great experiences and developed wonderful relationships.

When I graduated from fellowship, I had another opportunity to choose UW and I did so because of the people. Just by virtue of being here for the last 14 years, I know so many people—from my surgical colleagues across multiple specialties, to the ICU and OR nurses, to our perfusionists, to the clinic staff, to our cafeteria staff and custodial staff—there are people I just stop and chat with every day. I’ve been incredibly blessed to make meaningful connections, and when I’m at work it doesn’t feel like I’m at work—my work family is an extension of my family.

How did you start working for the VA?

The VA was an integral part of my residency and fellowship training, and I spent 2-3 months at the VA every year and always enjoyed it. As I was finishing my fellowship program, there was a need for a cardiac surgeon to jumpstart the cardiac surgery program at the VA and it wasn’t a difficult choice to make.

Why is it important to you to serve the veteran population?

The vets are a special group of people. It never ceases to amaze me how grateful they are, when really, we are supposed to be the ones grateful to them for their sacrifices. It is very easy to take care of a group of patients who are always grateful for what you do for them.

It is also really nice to practice medicine without all the other factors, such as will the patient’s insurance cover their surgery, will they cover this particular testing that I ordered, or can I get my patient the rehab that they need? You get to just enjoy the medicine, enjoy the patients, and enjoy what you do.

(continued on page 22)
In a recent episode of “Coffee and Cardiology” you noted that “there are less than 20 board certified, female, Black cardiac surgeons.” What does it mean to you to be a leader in the field, and what impact has your presence had on current trainees?

Interestingly, I don’t consider myself a leader in the field. Honestly speaking, I’m still so junior in the field, and deep down at heart I sometimes feel like I’m just that 10-year-old girl who believed she could do anything she wanted. I believed I could be a surgeon, and that’s all that there was to it.

A huge part of that, I recognize is because of growing up in Nigeria, everybody looked like me. I could easily see myself in the doctors, the lawyers, the teachers, and having a dad who was a surgeon, I never questioned my ability and my decision at an early age to become a doctor.

Fast forward to immigrating to the U.S. at 17 years old: the self confidence that I could be whatever I wanted was already instilled in me, so I just did what I set out to do. After two decades of living in the U.S., I recognize how lucky I was and it is a privilege that not many people have; to be able to have that sort of confidence in yourself, that you can do it, at a very young age. I am hoping that my presence here, despite not considering myself a leader in the field, serves as a reminder to anyone, even a 10-year-old girl, that they can do it too. That’s the impact I hope my presence has.

What is the best career advice you’ve ever received?

I was a resident assistant in college, and as part of the training they introduced the “Fish! Philosophy,” which, interestingly, was born out of Seattle at the Pike Place Fish Market, and it has stuck with me ever since. There are four parts to it: play, be there, make their day and choose your attitude.

*Play* means find a way to have fun in what you do every day, and I do that a lot in the operating room.

*Be there* means to be present. I have 101 things I need to do, and while they’re still in there in the cloud in my head somewhere, right now I am right here in the present time with you.

*Make their day*—it really makes you feel good to make someone else’s day.

The last one is *choose your attitude*, and it is the most important one for me because that is one thing that you can control. I can choose my attitude and say, “Look, I’m tired today,” and I can be grumpy and make people around me miserable, or I can just say, “Today’s going to be a good day. Let’s make the best of it.” I have chosen my attitude a lot over the last 21 years. It’s not really career advice, it’s sort of life advice.

Tell us about your most memorable patient or surgery.

That’s an easy one. I was a few weeks into being an attending when I had a Type A dissection patient come in. It was the week before Thanksgiving and the patient and his wife had flown in from Cape Cod to help their daughter, who just had a baby. This was my first time doing the surgery as an attending and being the one in charge, so I was already stressed out. Then his wife started telling me that they had been together for over 30 years and that this was the love of her life, and to please save him. I thought to myself, “This is so much pressure! And he is a new grandpa! And it’s a week before Thanksgiving!” Well, the surgery went well and he did great!

Every year on our “anniversary” he sends me a letter and tells me how he is doing along with updates (and artwork) from his grandkids.

What is something you’ve accomplished this past year that you’re most proud of?

My daughter. I feel like I am a pretty even keel person at baseline, but operating while pregnant with her made me a better surgeon. She would get super active whenever I was stressed out and kick me; that reminded me that whatever I was feeling she was feeling, and it wasn’t enough to project being calm on the surface—I actually had to be calm on the inside too. Now that she is out and I don’t get to carry her with me everywhere, I still try to remember the lessons learned from our days operating together.
What have you found most challenging in your surgical career?

It has been challenging being in a field that is not only male-dominated, but where there aren’t many people who look like me. It starts to wear on you after a while. I have to constantly remind myself that I’m here for a reason and I belong here.

Where did you travel on your most memorable vacation?

Machu Picchu. This was in 2014 at the end of my research fellowship and just before returning to residency. I got to go to Brazil for the World Cup, and from there flew to Peru to hike the Inca trail to Machu Picchu. It was an experience I will not forget, and I’m glad I went the traditional way of hiking the historic trail to the mysterious “Lost City of the Incas.” It was physically challenging, worse than running a marathon, but it was 100 percent worth it.

What are you known for professionally or personally?

My wanderlust! I love traveling and getting to know different cultures. And my personal love for travel aligns with my professional goal of helping to develop global cardiac surgery programs.

What is your personal motto?

There’s a quote Maya Angelou made famous that goes, “People will forget what you said, people will forget what you did, but people will never forget how you made them feel.” I try to be mindful of how I make people feel.

Rapid Fire

What is the last book you read?

Never Split the Difference by Chris Voss.

What TV show are you watching?

Law and order: SVU.

What is your go-to snack?

All things chocolate.

What is your guilty pleasure?

Massages.

Who is your inspiration and why?

That’s easy, my dad. I learned from him at an early age that being a surgeon is not a big deal, it’s just what you do. It doesn’t say anything about who you are. He was not a surgeon outside of work and he treated everyone with kindness and respect, regardless of their position in life.

If a movie was made about your life, who would play you?

Hopefully a girl who is yet to be discovered. I wouldn’t want any famous person to play me. I would want someone who has seen a famous actress say, “I can do that” and go on to do just that.
Dr. Douglas Wood
Received the National Comprehensive Cancer Network 2023
Rodger Winn Award

Dr. Douglas E. Wood, The Henry N. Harkins Professor and Chair, received the Rodger Winn Award for his work with the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology (NCCN Guidelines*). “Started in 2009, the Rodger Winn Award is given to an NCCN Guidelines panel member each year who exemplifies Dr. Winn’s leadership, drive, and commitment to the development of evidence-based guidelines tempered by expert judgment. The recipient provides a voice for the mission of the NCCN, to improve and facilitate quality, effective, equitable, and accessible cancer care for all patients. Specifically, the award recognizes service in the development of clinical practice guidelines, promotion of collegiality in NCCN activities, commitment to excellence, and dedication to multidisciplinary care.”

“I am truly honored and humbled by this recognition,” said Dr. Wood. “I am so appreciative of the incredible NCCN staff that I am privileged to work with, and the other volunteers that I learn from year after year. The work we do together at NCCN is so important to minimize unjustified practice variation, support clinicians to keep up to date with rapidly changing practice, educate and empower patients about their treatment options, and improve cancer care nationally and worldwide.”

Dr. Wood has been a member of the Non-Small Cell Lung Cancer Panel since 1999, four years after its first guideline, and has served as Vice-Chair of this panel since 2013. He founded and has chaired the NCCN Lung Cancer Screening Guideline Panel since its inception in 2009. Under Dr. Wood’s leadership, NCCN published the first evidence-based lung cancer screening guidelines. The panel also was the first to recognize the need to assess more diverse patients with a high risk of lung cancer and positively influence healthcare policy, particularly the approval of lung cancer screening by the Centers for Medicare and Medicaid Services. Dr. Wood is the third surgeon and first cardiothoracic surgeon to receive the Rodger Winn Award.

Leadership Positions for General and Preliminary Surgery Residency Programs

Last summer the Department of Surgery announced new interim positions for our General and Preliminary Surgery Program Director, UW Medical Center - Montlake Associate Program Director, and UW Medical Center - Northwest Associate Program Director. We were fortunate to have Drs. Rebecca Petersen, Associate Professor, Division of General Surgery; Saurabh Khandelwal, Associate Professor, Division of General Surgery; and Nick Cetrulo, Clinical Assistant Professor, Division of General Surgery, assume these roles to lead and support our education programs. They worked closely together with our other General Surgery Associate Program Directors (Drs. Lisa McIntyre, Professor, Division of Trauma, Burn & Critical Care Surgery; Deb Marquardt, Assistant Professor, VA Puget Sound Health Care System; Caitlin Smith, Assistant Professor, Division of Pediatric General Surgery; and Rebecca Maine, Assistant Professor, Division of Trauma, Burn & Critical Care Surgery) as well as with our experienced team of dedicated education staff to assure a stable transition in our program leadership, assess the program and implement important changes, and revamp our recruitment process with a lens on further improvements in diversity, equity, and inclusion. Dr. Douglas Wood, The Henry N. Harkins Professor and Chair, reviewed each individual, considering input from residents, faculty, education staff, and other constituencies, to make decisions establishing permanent roles in each of these positions. The Department is pleased to announce the following appointments to our General and Preliminary Surgery Residency Programs:

**Program Director**

Drs. Rebecca Petersen
Associate Professor
Division of General Surgery

**Associate Program Director**

(UW Medical Center - Montlake)

Dr. Saurabh Khandelwal
Associate Professor
Division of General Surgery

(UW Medical Center - Northwest)

Dr. Nick Cetrulo
Clinical Assistant Professor
Division of General Surgery
Dr. Kristine Calhoun Joins Association for Surgical Education’s Academy of Clerkship Directors

The Association for Surgical Education (ASE) accepted Dr. Kristine Calhoun, Professor, Division of General Surgery, Vice Chair, Faculty Affairs & Development, to its Academy of Clerkship Directors (ACD). The ASE ACD was established in 2015 to recognize Surgery Clerkship Directors for their commitment to excellence in undergraduate surgical education. Dr. Calhoun was recognized for this achievement at the ASE Awards Banquet on April 14, 2023.

Dr. Venu Pillarisetty Announced New Associate Medical Director for Surgical Oncology at the Fred Hutch Cancer Center

Dr. Venu Pillarisetty, Professor, Division of General Surgery, was appointed associate medical director for Surgical Oncology at the Fred Hutch Cancer Center, beginning April 2023. Dr. Pillarisetty joined the Department of Surgery in 2009 upon completion of a surgical oncology fellowship at Memorial Sloan-Kettering Cancer Center. He is an active investigator performing basic and translational immuno-oncology research in the UW Tumor Immune Microenvironment (TIME) Lab. Dr. Pillarisetty previously served as a leader in the Continuous Performance Improvement Department of the former Seattle Cancer Care Alliance (SCCA), and worked with providers and their teams throughout the organization to develop problem-solving skills and understand the framework for unit-based leadership.

The role of associate medical director for Surgical Oncology was previously held by Dr. David Byrd, Professor & Associate Chief, Division of General Surgery. The Fred Hutch Cancer Center would like to extend their utmost gratitude for his decades-long leadership in many roles for SCCA and now Fred Hutch. Dr. Byrd has demonstrated an ability to lead by encouraging others through his wisdom, kindness, and thoughtfulness. Dr. Byrd will continue to care for patients with skin and breast cancer and endocrine neoplasms.

Dr. Saman Arbabi Named Harborview Medical Center Director of Trauma Services

Dr. Saman Arbabi, Professor & Chief of Trauma, Division of Trauma, Burn & Critical Care Surgery, has been named by the Harborview Medical Executive Board and Harborview Board of Trustees to serve as the Harborview Medical Center (HMC) Director of Trauma Services.

Having served in many leadership positions both within Harborview and the Washington State Trauma System, Dr. Arbabi brings a wealth of experience to this role. He has served as the HMC Director of Emergency Surgical Services since 2013, Chair of the HMC Transfusion Committee since 2015, President of the Medical Staff from 2017-2018, and Medical Director of the Trauma/Surgical ICU since 2020. From 2015-2019 he served as the Chair of the Washington State EMS and Trauma Steering Committee, and he has served as the State Chair and Region Chief for the American College of Surgeons Committee on Trauma.

On the national level, Dr. Arbabi is recognized as an accomplished researcher and serves on the Scientific Advisory Council of the Coalition for National Trauma Research. He also serves on the Verification Review Committee of the American College of Surgeons Committee on Trauma and is an active member of the American Association for the Surgery of Trauma.

Dr. Arbabi is an outgoing and energetic leader who is highly respected for his commitment to the mission of HMC, his collaborative style and his determination to continually improve the quality and processes of care. He is widely recognized for his teaching skills and academic accomplishments.
**Publications**

"Veno-venous Extracorporeal Membrane Oxygenation for COVID-19: A Call For System-Wide Checks to Ensure Equitable Delivery For All"
ASAIO Journal | March 2023
Dr. Barclay Stewart
Assistant Professor
Division of Trauma, Burn & Critical Care Surgery

"Patterns in Location of Death From Firearm Injury in the US"
JAMA Network | March 22, 2023
Dr. Lauren Agoubi
Research Resident
Dr. Deepika Nehra
Assistant Professor
Division of Trauma, Burn & Critical Care Surgery

"Proceedings from the Second Medical Summit on Firearm Injury Prevention, 2022: Creating a Sustainable Healthcare Coalition to Advance a Multidisciplinary Public Health Approach"
Journal of the American College of Surgeons March 6, 2023
Dr. Eileen Bulger
Professor & Chief, Surgeon-in-Chief, HMC
Division of Trauma, Burn & Critical Care Surgery

"Acquiring Tissue for Advanced Lung Cancer Diagnosis and Comprehensive Biomarker Testing: A National Lung Cancer Roundtable Best-Practice Guide"
CA: A Cancer Journal for Clinicians | March 1, 2023
Dr. Farhood Farjah
Associate Professor, Endowed Chair in Lung Cancer Research
Division of Cardiothoracic Surgery

"Unmet Needs in Thoracoabdominal Repair"
Endovascular Today | March 2023
Dr. Sara Zettervall
Assistant Professor
Division of Vascular Surgery

**Honors & Awards**

Dr. Deepika Nehra, Assistant Professor, Division of Trauma, Burn & Critical Care Surgery, and research team, was awarded the UW Population Health Initiative's Tier 1 Pilot Grant Program that encourages new interdisciplinary collaborations among investigators for projects that address critical components of grand challenges the UW seeks to address in population health.

Dr. Grant O'Keefe, Professor, Division of Trauma, Burn, & Critical Care Surgery and surgery teammate Dr. Chihiro Morishima, Professor, UW Department of Laboratory Medicine and Pathology, were awarded the 2023 ITHS Translational Research Partnership Award for New Interdisciplinary Academic Collaborations for their project entitled "Early detection of post-traumatic sepsis."

Dr. Tam Pham, Professor & Chief, Burn Center, Division of Trauma, Burn & Critical Care Surgery, The David and Nancy Auth-Washington Research Foundation Endowed Chair for Restorative Burn Surgery, was selected as the March 2023 "Harborview Hero for Kids!" as part of the "Harborview Cares for Kids" campaign. Dr. Pham received nominations from colleagues highlighting his dedication to go above and beyond to make Harborview Medical Center systems work well for children and their families.

Dr. Jonathan Sham, Assistant Professor, Division of General Surgery, was selected as the 2023 recipient of the Donald E. Bocock Endowed Research Development Award in Pancreatic Cancer. This award recognizes a junior level researcher making significant contributions to research related to pancreatic cancer.

Dr. Robert M. Sweet, Professor & Chief, Division of Healthcare Simulation Science, was selected to receive the 2023 Society of Laparoscopic and Robotic Surgeons EXCEL Award. The society's highest honor is awarded to a surgeon, in any specialty, in recognition of outstanding contributions in the fields of laparoscopy, endoscopy, minimally invasive surgery and robotic surgery.
“Some Automakers Charge Extra for Automatic Crash Notification. These Don’t Make You Pay More for This Lifesaving Feature”
Consumer Reports
April 20, 2023
Dr. Eileen Bulger, Professor & Chief, Surgeon-in-Chief, HMC
Division of Trauma, Burn & Critical Care Surgery

“Women Share Their Experiences in Male-Dominated Fields”
UW Medicine - The Huddle
March 20, 2023
Top row: Drs. Judy Chen, Assistant Professor, Division of General Surgery and Mukta Krane, Associate Professor, Section Chief, Colorectal Surgery, Division of General Surgery
Bottom row: Dr. Elina Quiroga, Associate Professor, Division of Vascular Surgery and Dr. Estell Williams, Assistant Professor, Division of General Surgery, Vice Chair for Diversity, Equity and Inclusion

“The Doctor Is Out: Supporting Inclusion for LGBTQ+ Surgeons”
American College of Surgeons-Bulletin
March 8, 2023
Drs. Harveshp Mogal, Associate Professor & Section Chief, Complex Abdominal Oncology, Division of General Surgery and Douglas Wood, The Henry N. Harkins Professor and Chair

“When My Husband Had Surgery, Our Social Network Made All the Difference (for Both of Us)”
The Wall Street Journal
March 11, 2023
Dr. Deepika Nehra, Assistant Professor, Division of Trauma, Burn & Critical Care Surgery

Podcast: “Genetic Testing Among Patients with High-Risk Breast, Ovarian, Pancreatic, and Prostate Cancers.”
Speaking of SurgOnc®
February 14, 2023
Dr. Meghan R. Flanagan, Assistant Professor, Division of General Surgery