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SURGERY *Synopsis*

UW Medicine
DEPARTMENT OF SURGERY

INSIDE THIS ISSUE:

Chairman's Message

Carlos A. Pellegrini, MD, FACS, FRCSI (Hon.)
The Henry N. Harkins Professor & Chair

Friends & Colleagues of the Department of Surgery: In the spring months, I am privileged to hold a series of "Breakfasts with the Chair" events. These breakfasts bring together faculty by rank and have replaced the "all faculty" meetings that were the norm for years. We have been using this format for four or five years now and have found them to be well–attended and more meaningful to faculty (as well as myself) than were the traditional all–faculty meetings.

The format is simple: along with breakfast, we ask each individual to spend two minutes telling the group: "What is going well in the Department and in my professional life;" and "What issue is of particular concern or what challenges am I facing in my professional life." I have learned a lot from these conversations and it is information that helps to inform our leadership team as we create together a Department committed to Excellence.

This year, from the "Working Well" side of the conversation and across all ranks, faculty felt they had: 1) great colleagues to work

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Bright Future for Cardiothoracic Surgery in the UW System

The Division of Cardiothoracic (CT) Surgery is divided into three Sections that overlap, interconnect, and complement each other: Adult Cardiac Surgery, Pediatric Cardiac Surgery (also known as Congenital Heart Surgery) and General Thoracic Surgery are distinct subspecialties emanating from a common training and board certification in cardiothoracic surgery. The faculty in these areas each work with other specialties that interconnect and require an immense amount of cooperation and coordination. While it may appear complicated from an administrative point of view, these faculty know exactly what is expected of them and how to do it when caring for the patient.

Department of Surgery Cardiothoracic Division faculty

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Carlos A. Pellegrini, MD, FACS, FRCSI (Hon.)
The Henry N. Harkins Professor & Chair

with: colleagues who did excellent work, whom they respected and admired and were happy to call their friends; 2) they had great support from their Division leadership, as well as the Department as a whole; and 3) they had interesting, highly collaborative work – both clinically and academically. Each of the groups felt that our education program was strong – uniformly drawing the best residents and fellows to our programs. Overall, the consensus was that this is a strong Department with strong leadership, and one in which they were happy to be working. This is very gratifying and the kind of environment we strive to create.

Many of the challenges and concerns focused on our research mission: how to obtain research funding when research dollars from every quarter are shrinking; worries about promotion with fewer research opportunities; and, how to get optimal research support once a grant is awarded. This Department is certainly not alone in these worries; these are huge challenges across the School and across the nation. But, sharing these research challenges has led to some good changes within our Department. For instance, we have appointed an Associate Chair for Research, Dr. David Flum, whose responsibility it is to focus our attention on building a stronger research program. As part of this focused effort, a Department Research Leadership Committee was created. The Department's research mission statement is to help create "The Premier Home for Surgical Research." Much effort and ingenuity as well as some national climate change will need to happen in order for research funding levels to be raised sufficient to our research needs; but we are motivated to make that happen. The will to succeed is clearly here.

Another issue of concern raised was "how do surgeons define themselves in the era of Accountable Care Networks?" Faculty felt they needed to better understand the ACN landscape and wanted to actively engage in defining "surgery" and "the surgeon" in the world of Accountable Care. We will be expanding our knowledge and pursuing how to engage in this process over the course of this next year.

The main focus of this issue is our Cardiothoracic (CT) Surgery program at all locations; from newborns to the very elderly. It is timely to highlight this group since some of the issues we currently grapple with as a Department were tackled years ago by Cardiothoracic Surgery (the Division and the specialty). Out of necessity and the will to thrive, they have largely redefined themselves as a practice and specialty.

Most readers will remember that about 15 years ago cardiothoracic surgery underwent a tremendous change. As less invasive means of treating some heart conditions became the norm, it seemed like cardiothoracic surgery was on its way out. Our faculty, led by Drs. Verrier, Aldea, Mulligan and Wood, would not give into these circumstances; they knew there was need for CT surgery and the specialized skills they brought to very sick patients.

They figuratively rolled up their sleeves and spent time and energy strategically developing and determining a new identify for Cardiothoracic Surgery in the 21st century. They thought for the long-term, sought the necessary resources and buy-in, and recruited faculty passionate about changing the face of the specialty. Fifteen years later, it is with admiration that we look at the accomplishments of this remarkable group — a close-knit, collaborative band of brothers and sisters. These faculty have helped reshape the specialty, unlock therapeutic possibilities and reignite the educational program. Through their blood, sweat and perhaps some tears, they have conducted innovative research, developed new techniques and tools, provided exceptional and re-engineered clinical care, and advocated strongly for mandated, upstream disease screening guidelines. Through all these efforts they have positively affected the lives of the patient in front of them and throughout the world. We are proud of this group and salute them for the tremendous things they have – and will – accomplish.

You will also read about our extraordinary 2015 Schilling Lecture Day, at which, among the other activities, Dr. Alec Clowes was honored and a video of his life and work was shown. You can view this video by following this link.

Finally, in addition to our other regular features, we begin with this issue a new feature in *Surgery Synopsis* – providing readers with a list of recently published papers by faculty in our Department. This is certainly not an exhaustive list, but representative of our faculty at all career stages as well as the breadth and depth of their academic work and their many collaborations. You can look forward to viewing a sample of our faculty's written academic accomplishments in every issue of *Surgery Synopsis*.

I believe you will find this to be an interesting issue and I invite you to read it all. I hope you enjoy the Spring 2015 issue of *Surgery Synopsis*.

Sincerely,

Carlos A. Pellegrini, MD, FACS, FRCSI (Hon.)
The Henry N. Harkins Professor & Chair
Department of Surgery
University of Washington

Bright Future for Cardiothoracic Surgery in the UW System

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We invite you to read about groundbreaking clinical care; clinical research leading to innovative therapies; outcomes and health system research as well as basic and translational research; and the outstanding residency training program – spread across five campuses and involving some of the most brilliant faculty practicing in CT Surgery today. These programs, places and people comprise the world-class Division of Cardiothoracic Surgery.

Cardiac Surgery

Fifteen years ago, the future of cardiac surgery looked gloomy. Advances in technology resulted in less-invasive procedures becoming more common and popular from a patient point of view. Stents, performed by specialized cardiologists, were used instead of the standard surgical approach – Coronary Artery By-Pass Graft (CABG). CABG had previously been the only real recourse for many patients and were the mainstay of cardiac surgery, yet threatened to be replaced by percutaneous procedures.

In addition to these widespread changes, in 1999 UW Medicine lost the Group Health cardiac care contract, dramatically decreasing volume. Cardiac surgery at UWMC dropped from over 1,000 cases per year to approximately 500 per year, despite UW Cardiac Surgery's excellent risk-adjusted outcomes and reputation for clinical excellence and outstanding research.

Cardiac surgery leadership at the UW understood that these other modes of cardiac disease management were advances in the field and were here to stay. However, these new techniques did not address all problems that individuals with severe heart problems faced, and so UW Cardiac surgery also focused on services that only cardiac surgeons could provide. The sum of these efforts has led to the resurgence and growth of clinical cardiac surgery volume at UWMC, and a renaissance in care for cardiac patients and the specialty on the national level.

Understanding that a new future needed to be carved out, the Cardiac faculty, led by Dr. Edward Verrier, Professor *(pictured top right)*, and Dr. Gabriel Aldea, Professor *(pictured bottom right)*, Division of Cardiothoracic Surgery, determined a course of action they called "responsible innovation." Their guiding principle was to carefully assess new technologies, providing at UW only those that:

- Fit with the UW institutional and faculty profile and culture;
- Were based on clinical expertise and outstanding risk-adjusted outcomes;
- Aligned clinical, academic and financial incentives.

With this principle in mind they set about creating the cardiac service of the future. They focused efforts on:

- Collaborating with the community in order to establish relationships with independent cardiology groups and, by starting two new community based programs at Harrison Memorial Hospital and Northwest Hospital, increasing access to more routine surgery.
- Consolidating quaternary regional care at UWMC (including ventricular assist device (VAD) and Transplant, aortic pathology and complex valve interventions);
- Expanding the spectrum of care with new technologies that treated acute, complex cases.

They realized this plan would take time and resources to mature and advance. The Department saw the long-term wisdom of this and was able to provide the time and resources to support growth and development of the plan.

The investment has paid off.

Based on the work that had gone before, the UW Medicine Cardiac Surgery program was poised to grow and develop. And, it has. These changes have resulted in a 70% growth in cardiac surgery volume at UW, and renewed optimism and excitement exists for cardiac surgery.

We present to you some of the emerging and evolving treatments in cardiac care that UW Medicine's team have helped to make the gold standard of cardiac care.

"Based on the work that had gone before, the UW Medicine Cardiac Surgery program was poised to grow and develop. And, it has. These changes have resulted in a 70% growth in cardiac surgery volume at UW, and renewed optimism and excitement exists for cardiac surgery."

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Bright Future for Cardiothoracic Surgery in the UW System

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New Paradigms of Cardiac Care

Cardiac Valve Disease: Innovative Therapies

Cardiac valve disease has a prevalence of 5% that increases dramatically with age to over 12% by the age of 75 years. Along with coronary artery disease it represents a leading cause of disability, hospitalization, morbidity and death in the U.S. Many of these elderly patients have significant medical co-morbidities that make them either inoperable or high-risk for even the most modern open cardiac surgical interventions. Until recently there has been little in the way of successful therapies other than surgery for this condition.

UWMC was one of four institutions that led the evolution of alternative minimally invasive, catheter-based therapies for aortic stenosis in the US. Transcatheter Aortic Valve Replacement (TAVR) is original and cutting edge for multiple reasons. First, it requires unprecedented collaboration and full integration of multiple cardiovascular specialties into one unified heart team. Collaboration is absolutely essential in order to fully assess and treat each patient by simultaneously offering unique and complementary skill sets. TAVR offers a catheter-based intervention by an experienced team that is comprised of a cardiac surgeon, an interventional cardiologist and a cardiac anesthesiologist. This minimally invasive procedure is performed through a 5 mm incision and addresses both native and prosthetic valve dysfunction.

Equally unique has been the rapidity with which the research and new technology was assessed and introduced. Because of the rigorous study design, thoughtful implementation and careful monitoring of these evolving technologies (fully coordinated and led by the surgical and cardiology specialty societies, industry and the U.S. Food and Drug Administration (FDA), this family of therapies has evolved from the experimental to "clinically approved" phase within 2 years with ever expanding indications and possibilities.

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Dr. Verrier's Role in Reigniting CT Surgery

When Dr. Ed Verrier, Professor, Division of Cardiothoracic Surgery *(pictured right)*, took over as cardiothoracic division chief in 1989, cardiac surgery was clinically strong, but other parts of the division needed help: there was little thoracic surgery occurring, educational programs needed more focused attention, research activity was minimal, and the division lacked a strong presence at other sites. During his tenure as chief, Dr. Verrier made a number of changes that brought significant improvements to each of these areas.

Academics and research were perhaps the easiest fixes, as Dr. Verrier came to UW with funding from the National Institutes of Health, which helped him recruit superior faculty and lay the foundation for a stronger academic culture. Improving the division's education program was more difficult – at the time the residency program served primarily as a service to run the coronary bypass surgery machine. Dr. Verrier focused on developing the educational skills of the faculty, assuming the role of both mentor and model for a dedicated surgical educator. He also encouraged faculty to take on leadership positions in the ACGME and the American Board of Thoracic Surgery. Mike Mulligan *(pictured top left)*, Ed Verrier, and Doug Wood *(pictured bottom left)* have subsequently earned national recognition as resident educators, and CT faculty continue to expand their leadership roles in state and national organizations. Finally, Dr. Verrier helped create the Visiting Scholar in Cardiothoracic Surgery, an annual event featuring clinical and research presentations, and which provides residents and fellows the opportunity to interact with distinguished faculty from other institutions.

The need to strengthen the thoracic program was driven by the growing need for multidisciplinary teams to tackle lung transplants and lung volume reductions. Ed Verrier recruited Doug Wood to develop the program. Since then, it has grown from 110 thoracic cases per year to 1,500 cases per year, and the faculty from two to six thoracic surgeons.

Dr. Verrier also sought to improve CT's presence at other sites. At the VA, for example, lower pay scales and a perception of VA clinicians as second-class citizens made it difficult to establish consistent care for VA patients. Dr. Verrier created contracts for equitable faculty pay and established longer resident rotations there. At SCH, a small, private cardiac and cardiology service run by Providence Health System was successfully transitioned to UW leadership, and SCH now has four dedicated congenital surgeons.

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The results are nothing short of spectacular. Despite patients' age (mostly in their 80s and 90s) the length of hospital stay has been reduced to 2–3 days from a previous 6–10 days, with full resumption of all physical activities and no restrictions.

Because the cardiac program at UW devoted time, resources and expertise to changing the landscape for people with cardiac valve disease, UW Medicine's Regional Heart Program is currently one of the top 5 busiest, most innovative and collaborative structural heart disease programs in the nation. The success of this program is made possible by the enormous efforts of a team of over 50 dedicated specialists under the leadership of Gabriel Aldea, MD (Chief of Adult Cardiac Surgery) *(pictured on page 3)*, Mark Reisman, MD (Chief of Interventional Cardiology), Burkhard Mackensen, MD (Chief of CT Anesthesia) and Liz Perpetua, ACP, PhD (Director Structural Heart Disease and Evolving Technologies).

Reisman

Mackensen

Perpetua

The program has grown from 20 patients per year to a volume of over 300 patients per year in 2015, and TAVR now represents the single most common isolated surgical heart procedure

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By the time Dr. Verrier stepped down as chief in 2009, CT Surgery at UW had become a locally dominant and nationally prominent division. Its faculty were participating in major national clinical trials, were effective advocates for shaping national policy, and its young surgeons benefited from training in a well-balanced program that was equally strong in both adult and congenital cardiac and thoracic surgery across multiple sites. Along the way, Dr. Verrier worked to help CT "become a family," and he credits the hard work of all in the division for CT's successes.

Doug Wood, Successful Advocate for Breakthrough Lung Cancer Screening

Every year, more people die from lung cancer than breast, pancreatic or colon cancers combined, in part because it is difficult to detect at early, curable stages. Whereas a palpable lump might provide early indication of breast cancer, there is nothing in the anatomy of the lungs that allows for a similar discovery of a mass in the lungs. Yet until recently lung cancer screening has not been covered by private insurers or Medicare. For the last several years, Dr. Doug Wood has led an uphill battle to change this policy, which culminated on January 1, 2015 with coverage required under the Affordable Care Act for privately insured patients and the announcement of the National Coverage Determination on February 5, 2015 that Medicare will now also provide coverage for these important screenings. Dr. Wood chaired the National Comprehensive Cancer Network Lung Cancer Screening Panel, which became the first U.S. group to recommend lung-cancer screenings based on the results of a 2011 screening study that showed a 20% decrease in mortality for lung cancer patients. The group collaborated with other national organizations to educate policy makers about the benefits of lung cancer screening, and in 2013 Dr. Wood testified before a U.S. Senate briefing to further advocate for their coverage.

Dr. Doug Wood testifies at a U.S. Senate briefing in 2013. Photo courtesy of Lung Cancer Alliance.

Dr. Wood's work on this issue was recently highlighted in UW HSNewsBeat. The article noted that the cure rate of lung cancer patients at all stages is currently only 16%, but if lung cancer is identified early that cure rate rises to 70–80%. Furthermore, patients seen in lung cancer screening programs have an 80–85% chance for a cure. This change in Medicare coverage will have a potential impact of up to 20,000 lives saved per year. No chemotherapy or surgical advances have the potential to impact cancer patients in this way. Of the February 5th announcement, Dr. Wood told HSNewsBeat, "This was one of the greatest days of my life. Nothing I've done professionally has had nearly the impact. This literally has the potential of saving tens of thousands of lives each year."

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performed at UWMC. The team is about to celebrate its 500th TAVR implant and is currently participating in four national clinical trials of the newest device options that advance this therapy to lower risk patients.

To this spectrum, the team has added the ability to repair leaky (regurgitant) mitral valves in inoperable/high risk patients with the MitraClip device, and soon will be one of only three national sites to implant catheter prosthetic mitral valves.

The team is rightfully proud of the careful, strategic, and collaborative approach that has made this spectrum of therapies such a success.

Evolution of Advanced Heart Failure Program

More than five million people in the United States are currently living with congestive heart failure (CHF), and another 550,000 are diagnosed each year. As Baby Boomers age, those numbers are expected to grow. Over the last several decades, the prevailing therapy for heart failure has evolved considerably with expansion of medical therapy, growth of heart transplantation, and the mainstream application of mechanical circulatory support (MCS).

Like many other programs, an advanced heart failure program requires a multidisciplinary approach to disease. Over the last 10 years in particular, the UW Advanced Heart Failure Program has blossomed. The surgical team, under the leadership of Dr. Nahush Mokadam, Associate Professor, Division of Cardiothoracic Surgery, includes all members of the cardiac surgery section, but is a focus of the clinical practices of Drs. Nahush Mokadam, Jason Smith, Assistant Professor, and Jay Pal, Assistant Professor, Division of Cardiothoracic Surgery. Additionally, key partnership with the Heart Failure Cardiology team is essential. This team is led by Dan Fishbein, MD and Claudius Mahr, DO. They lead Heart Transplant and MCS respectively and their combined team includes six other cardiologists. Further support for the program is provided by transplant and MCS coordinators, advanced

Fishbein

Mahr

Mokadam

Smith

Pal

practitioners, administrators, and support staff. Together, the current team includes more than 50 members!

The first heart transplant was performed at UW by Dr. Margaret Allen on November 18, 1985. Since that time, the Advanced Heart Failure team has performed more than 650 heart transplants, and in 2014 alone the group performed 38 heart transplants; more than any year previously. The UW has a median heart transplant survival of more than 15 years; among the best in the country. Additionally, due to the geography and relatively low population density of the region, the team has extensive experience in the fairly unique management of long ischemic times.

The MCS program at UW first began in 1997 under the leadership of Dr. Edward Verrier and is now under the surgical leadership of Dr. Nahush Mokadam. The program has implanted more than 450 devices for the treatment of advanced heart failure. In the last 20 years, they have introduced "Destination Therapy," which means that patients receive a left ventricular assist device (LVAD) and a planned permanent treatment, without the intent of subsequent transplant.

More recently, the MCS team began implanting Total Artificial Hearts for patients with severe biventricular failure and using Extracorporeal Life Support (ECLS) for patients with acute cardiopulmonary failure. These technologies have fundamentally changed how we manage advanced heart failure in both the short and long term. They are already producing remarkable results and hold immense promise.

By the end of 2015, it is anticipated this team will have implanted more than 100 patients with these devices, making UW one of the busiest programs in the country.

Clinical Research Drives Innovation in Cardiac Care

The Division of Cardiothoracic Surgery has historically had a strong research infrastructure. This has been conducive to participation in key clinical trials, collaborations with

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bioengineers, and elevation of its national and international reputation through significant publications.

One major area of inquiry is mechanical circulatory support with left ventricular assist devices. As noted above, these devices serve as a bridge to cardiac transplantation and have become an important therapy for patients in advanced stage heart failure. Dr. Nahush Mokadam is currently involved in several studies evaluating various aspects of these devices. In the near future, Dr. Jason Smith will begin a trial to evaluate the effectiveness of the OCS™ Heart, a portable heart perfusion system to be used to procure, preserve and assess donor hearts that may not meet current standard donor heart acceptance criteria for transplantation.

Looking to the future, the specialty can anticipate advances in device design that will promote minimally invasive implantation, improved biocompatibility, and prolonged durability. The ultimate goal is to achieve a real competitor for heart transplant, an achievement that appears to be very near. These efforts are a result of the exceptional level of dedication and commitment of the entire multidisciplinary team. It is truly among the best in the world.

Congenital Cardiac Surgery Program at SCH and Pushing Through to Adulthood

The Congenital Cardiac Surgery program has enjoyed considerable growth in the past two years. The arrival of Dr. Jonathan Chen, Professor, as Chief of that service and Chief of Pediatric Cardiac Surgery at Seattle Children's Hospital (SCH), together with his stalwart partners, Drs. Lester Permut, Associate Professor, Pediatric Surgery Division, Mike McMullan, Associate Professor, Pediatric Surgery Division and Muhammad Nuri, Associate Professor, Cardiothoracic Surgery Division, have provided just the right conditions for growth and development. In the last year, the regional pediatric congenital program performed 500 operations.

From left to right: Drs. Joshua Hermsen, Sophia Horn (Congenital Fellow), Mike McMullan, Muhammad Nuri, Jonathan Chen and Lester Permut. Photo credit: Erik Stuhaug/Seattle Children's Hospital

Dr. Ed Verrier's leadership led to the creation of the adult congenital care program, which brings a vital focus and bridge to the needs of patients with congenital heart problems as they grow from childhood to adulthood. The adult program has now performed close to 100 adult congenital cases at UWMC.

Last year the congenital team was pleased to recruit Dr. Muhammad Nuri, Site Chief at the Mary Bridge location, and Dr. Joshua Hermsen, Assistant Professor and the Associate Surgical Director of the Adult Congenital Heart Disease Program at UW.

The team leads in the area of pediatric mechanical circulatory support and ventricular assist device design and implementation. In particular, extracorporeal membrane oxygenation (ECMO) has become a fully developed program and now boasts a fellowship directed by Dr. McMullan.

Members of the pediatric congenital team hold prominent national leadership roles in the areas of ECMO (Dr. Mike McMullan, Extracorporeal Life Support Organization) and transplantation (Dr. Jonathan Chen, United Network for Organ Sharing).

The heart transplant program at SCH is among the top five busiest in the nation. This group was also among the first to develop an Accreditation Council for Graduate Medical Education (ACGME) approved fellowship in congenital cardiac surgery in which Fawwaz Shah, MD, 2015 graduating cardiothoracic fellow at UW, will be the next participant.

The group's current research interests include:

- Clinical and experimental investigations related to ECMO;

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- Mechanisms of neuroprotection for pediatric deep hypothermic circulatory arrest;
- Stem cell scaffold design to evaluate potential for valve growth;
- The development of three dimensional heart models as a tool for preoperative planning and resident education;
- Mechanical circulatory support and transplantation remain a target of clinical research because of the group's clinical interest.

In the future, the team hopes to have a better understanding of the mechanisms and treatments for pediatric heart failure; pediatric neuroprotection, both short and long-term, as it relates to refinement of surgical techniques; and strategies to account for somatic growth and maturation as it relates both to the field and toward the transition to adulthood.

Development of the Cardiothoracic Surgical ICU

A development beneficial to both cardiac and thoracic patients has been the Cardiothoracic Surgical ICU. Many CT programs delegate post-operative care to traditional intensive care units (ICUs) or coronary care units, but in doing so they lose the benefit of surgical oversight and cardiothoracic expertise in the management of these critically ill patients. Yet the traditional model of direct surgical care of postoperative patients was increasingly compromised by advancing technology and acuity, as well as the competition and distraction of operating while caring for sick patients in the ICU. The UW CT faculty felt strongly that surgical expertise and continuity were needed in order to achieve the best outcomes for their ICU patients and a plan emerged for a Surgical Intensive Care Unit managed by Cardiothoracic Surgery and Cardiothoracic Anesthesia, with specially trained clinicians devoted to the 24/7 care of complex cardiothoracic surgery patients.

This unique model was developed by Drs. Doug Wood, Professor and Chief of the Division of Cardiothoracic Surgery, and Andrew Bowdle, Professor in the Department of Anesthesiology & Pain Medicine, and is co-directed by Drs. Aaron Cheng, Assistant Professor, Division of Cardiothoracic Surgery *(pictured right)*, and Peter Von Homeyer, Assistant Professor in the Department of Anesthesiology & Pain Medicine. The Surgical CT ICU has been very successful, demonstrating improved outcomes and increased levels of patient satisfaction. An important element of this success has been the establishment of the critical role of the Advanced Practice Providers (APPs). These dedicated and highly skilled practitioners play a vital role in assuring continuity and quality of care. The CT Surgical ICU plays an important role in education as well, with the first CT Surgical ICU fellowship in the U.S. dedicated to the specific training of CT intensivists.

"The Surgical CT ICU has been very successful, demonstrating improved outcomes and increased levels of patient satisfaction. An important element of this success has been the establishment of the critical role of the Advanced Practice Providers (APPs). These dedicated and highly skilled practitioners play a vital role in assuring continuity and quality of care."

Significant Developments in Thoracic Surgery

In 1991, UW thoracic surgeons performed 110 operations. By 1996, that had increased to over 1,000, and for the past 10 years the section of general thoracic surgery has performed over 1,400 procedures, with 900 of those occurring at UWMC. The UW thoracic surgery service is now the largest in the western US with faculty expertise in the widest diversity of procedures available today.

Dr. Douglas Wood *(pictured right)* was recruited from Massachusetts General Hospital in Boston to become the Chief of a new Section of General Thoracic Surgery in 1992 "to establish and develop the thoracic surgical activities at UWMC, HMC and the VA to a level of national

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stature." Under his leadership, this has been accomplished. Dr. Wood grew the clinical programs in the 1990s, adding important and influential faculty as the program grew, and setting the foundation for resident education and clinical research in thoracic surgery.

One of Dr. Wood's biggest successes was the 1999 recruitment of Dr. Michael Mulligan, Professor, Division of Cardiothoracic Surgery *(pictured left)*, from the University of Michigan. Dr. Mulligan assumed leadership of the section of general thoracic surgery in 2010 and thoracic surgery has continued to develop and flourish under his leadership. Dr. Mulligan is passionate about his work. As he says, "You have to be passionate about what you do. You can be good at it, but if you aren't passionate about it you don't bring the same level of care to your patients." Dr. Mulligan is also the Director of the Surgical End Stage Lung Disease Program and the Director of Minimally Invasive Thoracic Surgery.

Lung Transplantation

One of the principal goals of Dr. Wood's recruitment was to establish a new lung transplant program based at UWMC. Under Dr. Wood's leadership, the program thrived and grew, but so had all of thoracic surgery. Growth made it hard to provide the necessary focus and dedication for the lung transplant program's continued development. Dr. Mulligan was recruited to assume the leadership of the lung transplant program, and he has further built the program. It is now one of the largest and most successful programs in the country. Lung transplantation achieved an enormously important milestone with the development of the VA lung transplant program, only the second in the US.

Lung–Volume–Reduction Surgery

Lung–Volume–Reduction surgery (LVRS), a surgical treatment for emphysema, was initiated at the UW by Dr. Wood in 1994, and UWMC was one of the pioneering sites for this new therapy. The National Emphysema Treatment Trial (NETT) was a landmark study of LVRS, for the first time merging the support and resources of the Centers for Medicare and Medicaid Services (CMS) with the National Heart Lung and Blood Institute (NHLBI) in a prospective, randomized trial of a major new surgical procedure.

Dr. Wood was one of the national leaders in this trial that culminated in landmark papers in *The New England Journal of Medicine* and the development of national coverage policy for LVRS. In addition, the Agency for Health Research and Quality (AHRQ) sponsored a cost–effectiveness analysis of LVRS; the largest cost–effectiveness study ever performed in a clinical study. Dr. Wood was the primary NETT clinician involved in the cost–effectiveness study and subsequently worked directly with the CMS officials in developing the national coverage determinations for LVRS and site selection criteria. The UW thoracic program has the most LVRS experience in the country, and the highest current volume of these surgeries, with approximately 25 procedures performed per year.

Thoracic Surgical Oncology

All the thoracic surgeons within the UW Division of CT Surgery are involved in the thoracic oncology program. Like all of the cancer treatments at UW Medicine, the thoracic program is highly collaborative, encompassing medical and radiation oncology, pulmonary medicine, thoracic radiology, and pathology, as well as thoracic surgery across the UW Medicine and SCCA systems. Dr. Wood's clinical focus is lung, esophageal, mediastinal and airway tumors, with a particular interest in extended, complex operations for locally advanced lung cancer. Dr. Mulligan has developed national expertise in minimally invasive thoracic surgery and provides a high quality of minimally invasive surgery for patients with lung or mediastinal tumors.

Dr. Leah Backhus, Associate Professsor, Division of Cardiothoracic Surgery *(pictured bottom left)*, has been the full–time thoracic surgeon for the VA system. She is leaving UW in July and has accepted a position to return to Stanford University, her alma mater, to work in the VA system in California. Dr. Thomas Varghese, Associate Professor, Division of Cardiothoracic Surgery (*pictured bottom right)*, has been the director of the thoracic surgery program at Harborview Medical Center. He has accepted a position as Thoracic Surgery Chief at the University of Utah

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and will be leaving in July. They go on to pursue professional and personal goals in their new roles. They have added a lot to the program in their years here and will be missed. We wish them well. As their parting gift to Surgery Synopsis, they have written "reflections" of their time here, which can be found on page 11.

Dr. Aaron Cheng, in addition to his role as co-director of the Cardiothoracic Surgical ICU, manages a large variety of complex thoracic surgery consults and benign and malignant pleural pathology, and will be filling in at HMC as Dr. Varghese leaves for Utah. Dr. Farhood Farjah, Assistant Professor, Division of Cardiothoracic Surgery *(pictured right)*, along with his significant research focus on delivery of care to lung cancer patients, focuses clinically on minimally invasive thoracic surgery, including lung and esophageal cancer surgery.

Thoracic oncology is a banner program in the UW system. The thoracic oncology program is looked to as a leader in the UW/SCCA cancer programs in the development of clinical pathways, growth of clinical trials and cohesive engagement of true multi-disciplinary teams.

Research by faculty in this area is innovative and leading to exciting breakthroughs. Success rates of the thoracic oncology program has led the Seattle community, and the larger Pacific Northwest community, to view UW as the place to go for major tertiary and quaternary complex surgeries for conditions that otherwise might be considered inoperable.

Airway Pathology and Management

UW's thoracic surgery team have both interest and expertise in airway (tracheobronchial) pathology. Only a handful of specialists in the country perform complex tracheobronchial resection and reconstruction, and UW has the major airway surgery program in the western United States. Dr. Wood originally developed a large interventional bronchoscopy program that complements the surgical airway program at UW, and this has been further augmented by Dr. Mulligan's use of airway interventions to support patients with bronchomalacia or stenosis after lung transplantation. UW Thoracic surgeons receive referrals for these procedures from throughout the western US, making it the largest program in the country. This interest in bronchoscopic intervention and surgical therapy for emphysema has served as the basis for Dr. Wood's involvement in the evaluation of endobronchial therapy for emphysema. He is one of the principal investigators of the Spiration IBV™ clinical trial, which is evaluating the effectiveness of endobronchial valves for the palliation of severe emphysema.

> "UW's thoracic surgery team have both interest and expertise in airway (tracheobronchial) pathology. Only a handful of specialists in the country perform complex tracheobronchial resection and reconstruction, and UW has the major airway surgery program in the western United States."

Thoracic Research

In addition to his clinical and administrative work, Dr. Mulligan is a researcher with an R01 grant from the National Institutes of Health, and he maintains a lab in the Center for Lung Biology (UW's research complex in the South Lake Union facilities) that combines basic and translational research. His research is focused on understanding the mechanisms of lung ischemia reperfusion injury and then developing novel therapies for its prevention.

Dr. Mulligan is also conducting a trial to examine the effectiveness of a system for better preserving donated lungs that do not initially meet the standard criteria for lung transplantation. These donated lungs may actually be transplantable if there is more time to observe and evaluate the organ's function. This technology has the potential to dramatically increase the donor pool by allowing the safe transplantation of initially unacceptable donor lungs.

Dr. Farjah is a clinical epidemiologist and health services researcher with an interest in improving healthcare delivery and outcomes for individuals at-risk for or diagnosed with lung cancer. One of his primary goals is to better understand the utilization, outcomes, and value of diagnostic modalities used in screening, staging, and/or surveillance. He is also working to develop, validate, and implement risk-prediction models as a means of optimizing the performance and value of diagnostic tests and personalizing cancer care. Read more about his work on page 17.

(continued on page 11)

Bright Future for Cardiothoracic Surgery in the UW System

Continued from page 10

Cardiothoracic Education

UW is the sole cardiothoracic residency training program in the nation featuring a traditional two-year fellowship, six-year integrated residency, 4/3 joint training program with general surgery, CT ICU fellowship, and congenital fellowship training programs. Graduates have gone on to develop and lead major programs both regionally and nationally.

The UW program is considered one of, if not the leading CT residency program in the country and is highly sought after by medical school applicants for the integrated residency, and finishing general surgery residents applying to the traditional residency program. The decision to create a six-year integrated residency program represented a paradigm shift for the specialty, admitting first year residents for a concentrated path into cardiothoracic surgery over six years. This program has benefited from close links to the other surgery training programs in the Department of Surgery in general surgery, vascular surgery, and plastic surgery. CT faculty have often expressed that they are privileged to train the best residents in the country.

After stepping down as Chief, Ed Verrier has continued his leadership role in resident education, and is now Surgical Director of Education for the Joint Council on Thoracic Surgery Education (JCTSE). In this role he is developing a new Learning Management System with plans for global development.

Excited for the Future

The Division has benefitted enormously from the trust and support of the Department of Surgery. Without the vision and guidance of Dr. Carlos Pellegrini's leadership – his strong advocacy at the School level, and his infectious confidence in the Division's ability to become the powerhouse it is today – the Division might have languished when it faced its most significant challenges.

The CT program's excellence is not due to one or two superstar individuals, but rather its diverse and talented team – including strong collaboration with faculty in other divisions such as Cardiology and Vascular and General Surgery – who have cared for the thousands of patients presenting with cardiac and thoracic disease. And it is due to a unique culture of respect, engagement, and cohesiveness of a team that sincerely likes and appreciates the people that they work with each day. A focus on education keeps CT Surgery fresh and innovative, and a focus on patient-centered care keeps them grounded in the mission of why they do what they do – "To Make Tomorrows Possible."

Reflections

Dr. Leah Backhus, Associate Professor, Division of Cardiothoracic Surgery

"This summer I will be leaving the University of Washington and the Department of Surgery to take a position at Stanford University. Transitioning from residency training into practice and academia can be challenging, however, my six years here have been filled with formative experiences that have paved the path to my next pursuits. I have grown tremendously as a surgeon, educator, and research scientist, and it has been an honor to have been a part of such an elite group of professionals in a department with such a rich surgical history. I have benefited greatly from the mentorship of Carlos Pellegrini, Douglas Wood, Michael Mulligan, and David Flum. They provided the perfect balance of independence, guidance, and challenges that helped me successfully navigate the transition from trainee to faculty. I am forever grateful for their trust and encouragement. I have also benefited greatly from my own work as mentor and educator to our medical students, residents, and fellows. It has been extremely enjoyable and rewarding to work with trainees who are as enthusiastic as they are talented. Our residents have access to tremendous faculty and I am privileged to have played a small role in their training.

Additionally, I have enjoyed the opportunity to contribute to the changing cultural landscape within the School of Medicine. Under Dr. Pellegrini's leadership, the Department of Surgery has become an ardent advocate for diversity as a vital requisite for institutional excellence. Dr. Pellegrini has fostered a culture of inclusiveness, and he champions the growth and development of students, residents and faculty. In 2008, the UW hosted the Annual Meeting of the Society of Black Academic Surgeons (SBAS) and, four years later, I drafted a proposal to establish a standing scholarship to support attendance of our surgical trainees to SBAS. The proposal was accepted by Dr. Pellegrini and Department leaders, and to date we have supported four residents with

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Continued from page 11

Reflections *(cont.)*

overwhelmingly positive feedback from both attendees and SBAS leadership. The Department's Diversity Council has continued this work, establishing a sub-internship for visiting medical students from diverse backgrounds to gain exposure to our top-tier institution. This year we will welcome the 2nd round of recipients for this award. I have also had the honor to work in promoting diversity within our faculty ranks by establishing the Committee on Minority Faculty Affairs, a Standing Committee through the Office of the Dean. I served as committee chair for three years, and was a member of the UW SOM Diversity Strategic Planning Committee. I am proud to have participated in these endeavors, and look forward to continued successes by the UW SOM in this area.

It is often quoted that more than half of physicians leave their first job within 5 years. In that regard, I am not very unique. However, I doubt that same 50% will look back as fondly as I will at their time spent in that job. My family and I will be returning to our home state of California and joining our extended family and friends. The position at Stanford University offers a great opportunity for continued professional growth for myself as well as my husband. I will also be returning to my alma mater and so, in a sense, I will have come full circle. I will miss Seattle (rain and all!) and the University of Washington. So, as I sit in my new surroundings wondering "exactly how long is this drought going to last...?" I know I will look at the framed picture of the Seattle skyline that I will hang in my new office and reflect fondly on my time here."

Dr. Thomas K. Varghese, Jr.,
Associate Professor,
Division of
Cardiothoracic Surgery

Tales from the Front – A Reflection of My Time at UW

"It is the story of a tough and unique group of human beings who are committed to a vision of equality for the most vulnerable people in our society, a group who believes that everyone should be treated equally and well, regardless of who they are." – Dr. Audrey Young: 'The House of Hope and Fear: Life in a Big City Hospital'[1]

"The above quote is from the introductory chapter of Dr. Young's 2009 book of clinical vignettes from her internal medicine residency at Harborview. As I reflect upon my time as a faculty member, those words of wisdom stick with me, a creed that describes the mission throughout the UW Medicine system.

I joined the Division of Cardiothoracic Surgery at the University of Washington on July 9, 2007 – my first job as an Attending Surgeon after completing a Thoracic Surgery fellowship at the University of Michigan. I've directed the Thoracic Surgery service at Harborview since 2007 and performed thoracic surgical cases at Northwest Hospital since 2008. I've also had the unique privilege of having performed cases at the VA Puget Sound and UW Medical Center. One of my partners, Dr. Nahush Mokadam, coined the term "inside the park homerun" to signify visiting all four campuses on one day. I can attest this is an experience like no other.

In the early days I often got lost in the Harborview's maze of twisting hallways and patient beds that constantly and consistently lined the walls of the ER. There were daily announcements over the intercom stating that Harborview was at "Purple Level – II," which I discovered meant we were over the patient bed limit with boarders in the ER.

As I complete eight years I have difficulty recalling a single day we weren't over capacity. That's not surprising as I also can't recall a time when any service has turned away a patient. "We'll figure it out" is an often-repeated phrase among staff.

The Harborview Norm Maleng Building opened in 2008, followed by the Ninth and Jefferson Building in 2009. These modern buildings are among that nicest that I've ever seen at a County hospital. Beyond opening of buildings and expansion of services these new buildings afforded, it's the remarkable patient stories that stick with me. Numerous esophageal perforations came through the system, such as the 'Sloppy Joe patient' who literally had his last meal of Sloppy Joe scooped out from the chest. I remember the 'Mexican Professional

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Bright Future for Cardiothoracic Surgery in the UW System

Continued from page 12

Reflections *(cont.)*

Bull-Rider' who was thrown from the bull and stomped on, whose chest rib fractures needed surgical stabilization. From professional athletes to a professional sword-swallower, we've treated them all. Can a bullet cross the mediastinum and somehow miss all the vital organs? Sure. Can another bullet cross the mediastinum and hit everything in between? Of course it can.

Patient encounters have influenced my own behavior. For instance, treating several patients who progressed from dental abscesses to descending cervical mediastinitis, has resulted in my own extra diligence with oral hygiene and dental check-ups.

Beyond the sometimes unbelievable stories, there's incredible teamwork that goes into the care of all these patients. I am eternally grateful to the team of anesthesiologists, nurses, scrub techs, surgeons and residents who tirelessly work and advocate for the health of these patients. The teams are stewards in the face of adversity. They persevere through late hours, multiple rounds, and reassurances to family members, even in situations where the outcomes were not the best. For surgical residents, many deeds they do occur outside of the limelight, and yet are the most critical for patient outcomes. 'Thoracic Caffeination Rounds' were a time I got to know and appreciate these remarkable young surgeons.

So what defines us – the residents, faculty and staff at the University of Washington? I believe it's an unshakable optimism and belief that together we can achieve much more than we can do alone. We have a connection to our patients throughout the WWAMI region, and a desire to always advance science. And finally, there is never-ending support given to me by my mentors, incredible models of leadership and vision abundant throughout the Department of Surgery.

As I advance to the next phase in my career, it is these traits that I've learned from all of you, and hope to carry forward in the years ahead."

References

1. Young, Audrey. The House of Hope and Fear: Life in a Big City Hospital. Seattle, WA: Sasquatch Books, 2009.

Save the Dates

WASHINGTON AND OREGON STATE CHAPTERS OF THE ACS COMBINED ANNUAL MEETING
June 12-15, 2015
Suncadia Resore
Cle Elum, Washington
www.wachapteracs.org

AMERICAN COLLEGE OF SURGEONS CLINICAL CONGRESS
October 4-8, 2015
Chicago, IL
www.facs.org/education/clinical-congress

HARKINS SOCIETY RECEPTION AT THE ACS
Tuesday, October 6, 2015
Chicago, IL
More information TBA

66TH ANNUAL ALFRED A. STRAUSS LECTURE
Friday, October 16, 2015
4:00pm, Hogness Auditorum
Health Sciences Building
Room A-420
Speaker: Dr. Thomas M. Krummel
Emile Holman Professor and Chair, Department of Surgery
Director, Surgical Innovation Program
Stanford University School of Medicine

HARKINS SURGICAL SYMPOSIUM
Friday, October 16, 2015
7:30am-2:00pm
UW Tower Auditorium

22ND ANNUAL HELEN & JOHN SCHILLING LECTURE
Friday, February 26, 2016
3:00pm, UW Tower
Melina R. Kibbe, MD
Professor of Surgery
Northwestern University

Please see the Department of Surgery's monthly Grand Rounds schedule under Special Events on our website: www.uwsurgery.org

2015 Schilling Lecture

Walter J. Pories, MD, FACS
Professor of Surgery,
Biochemistry and
Kinesiology
Brody School of Medicine
East Carolina University
North Carolina

On Friday, February 27, 2015, the Department of Surgery was pleased to host Walter J. Pories, MD as the 21st Annual Helen & John Schilling Lecturer. Dr. Pories is Professor of Surgery, Biochemistry and Kinesiology at East Carolina University and Director of the Metabolic Surgery Research Group. His talk, titled "Surgical Research! Really?" provided an overview of the development of bariatric surgery and discussed the mechanisms underlying the remission of diabetes and the metabolic syndrome. The lecture chronicled the journey of surgeon–researchers trying to treat weight loss and diabetes with surgery, and included practical anecdotes from his own experience building the East Carolina Department of Surgery.

Dr. Pories graduated from Wesleyan University in Middletown, Connecticut and received his MD with Honor at the University of Rochester, where he also completed his surgical training in general and cardiothoracic surgery. He served on the faculty of the University of Rochester, Case Western Reserve until 1977 when he became the founding Chairman of Surgery at East Carolina University (ECU), a position he held for 19 years. Dr. Pories' major clinical interests have been in nutrition, pediatric and bariatric surgery. His notable accomplishments include the discovery that zinc is an essential element and required for wound healing, the development of animal feeds, and the addition of trace elements to parenteral and alimentary formulations. Dr. Pories was the first to describe the use of suction to promote wound healing and the first to perform a cysterna–chili/vena cava anastomosis for congenital absence of the thoracic duct. He was also the first to delineate the full and durable remission of type 2 diabetes following the gastric bypass. He is the recipient of a number of research honors, including the Goldwater Award in Nutrition, the McGovern Award, the ECU Lifetime Research Achievement Award and the O. Max Gardner Award, among others. He retired from the U.S. Army with the rank of Colonel after 24 years of service with a Legion of Merit and a Presidential Citation for the performance of the regiment under his command in the first Gulf War.

From left to right: Dr. David R. Flum, Dr. Walter J. Pories, Dr. Carlos A. Pellegrini and Dr. Ron V. Maier

Dr. David R. Flum presenting Dr. Walter J. Pories with an official Department of Surgery fleece jacket.

Dr. Pories' Schilling Lecture was preceded by the annual Department of Surgery Research Symposium, which included 16 oral presentations and 14 posters by Department of Surgery residents and fellows on a wide variety of basic and clinical research topics. The day also included talks by Drs. Adam Goldin, Associate Professor in the Division of Pediatric General Surgery *(pictured bottom left)*, and Giana Davidson, Assistant Professor in

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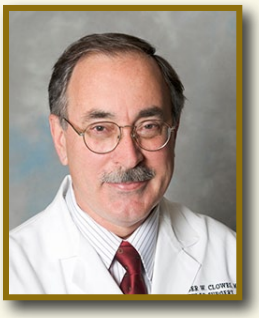
2015 Schilling Lecture

Continued from page 14

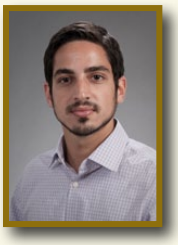
the Division of General Surgery *(pictured bottom right on page 15)*. Their presentations gave an in-depth look at their own research as well as an overview of other research happening in their divisions.



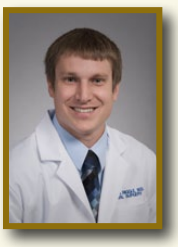
One of the highlights of the day was a special tribute to Dr. Alexander Clowes, Professor and V. Paul Gavora and Helen S. and John A. Schilling Endowed Chair in Vascular Surgery *(pictured left)*. A video showcasing his life and work was shown and an award was presented to him in honor of his 35 years of leadership and service to the Department of Surgery and to its research mission. Dr. Clowes commented that he is proud of what Dr. Benjamin Starnes has accomplished since taking over as Vascular Division Chief in 2007, and that research in the department is thriving.

Both the plenary and poster sessions were adjudicated by Dr. Pories and Department of Surgery research leadership. Participants were ranked on scientific merit and validity, presentation skills, and preparedness for questions and comments from the audience. Congratulations are in order to the top three individuals in each session:

Plenary Session



1st place
Ravi Sood, MD
"Genome-Wide Association Study of Post-Burn Hypertrophic Scarring Identifies a Novel Protective Variant"
Faculty mentor: Nicole Gibran, MD

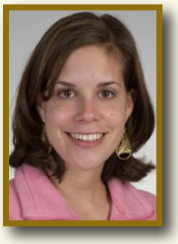


2nd place
Kevin Riggle, MD
"Enhanced Cyclic-AMP Induced Protein Kinase A Activity in Fibrolamellar Hepatocellular Carcinoma"
Faculty Mentor: Kimberly Riehle, MD

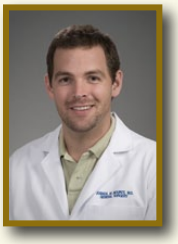
3rd place
Shakirat Oyetunji, MD
"Lysyl-Like Oxidase 2 (Loxl2) is an Oncogenic Driver of Malignancy Regulated by Mir-145 in Tobacco-Associated Esophageal Adenocarcinoma"
Faculty Mentor: **David S. Schrump**, MD
(National Cancer Institute)

Poster Session

1st place
Jonathan Sham, MD
"Evaluating the Mechanisms of Improved Glucose Homeostasis after Bariatric Surgery in Ossabaw Miniature Swine"
Faculty Mentor: David Cummings, MD
(Department of Medicine)



2nd place
Callie Thompson, MD
"Risk Factors for Burn Wound Infection: Data from the Inflammation and the Host Response to Injury Study"
Faculty Mentor: Nicole Gibran, MD



3rd place
Joshua Mourot, MD
"Improvement in Pulmonary Function Following Laparoscopic Gastric Bypass for Patients with Interstitial Lung Disease"
Faculty Mentor: Saurabh Khandelwal, MD

The Helen and John Schilling Endowed Lectureship was established by the late Helen Schilling to bring distinguished scholars to the Department of Surgery 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 in honor of her husband, Dr. John Schilling, who served as Chair of the Department of Surgery from 1975-1983.

Visit the Department of Surgery website to read more about the lectureship, view the abstract booklet or watch Dr. Pories' lecture. Please mark your calendars **Friday, February 26, 2016** for the 2016 Schilling Lecture and Research Symposium with guest lecturer Dr. Melina R. Kibbe, Professor and Vice Chair for Research, and the Edward G. Elcock Professor of Surgical Research in the Department of Surgery at Northwestern University *(pictured right)*.

The Harkins' Corner:
Your Department of Surgery Faculty & Alumni Organization

Dr. Giana Davidson

Dear Surgical Colleagues,
The Henry Harkins Surgical Society aims to foster mentorship for current UW residents and fellows by building a strong community among UW faculty and previous graduates.

This month I had the pleasure of meeting Dr. Kimberly Costas, a 2003 graduate of UW. Multiple alumni and faculty I spoke with remembered Kimberly as "an outstanding surgeon," and someone who has had remarkable achievements in her practice in Everett, WA. I appreciated having the opportunity to talk with Kimberly about her accomplishments as a thoracic surgeon, and know you will find her work at Providence Regional Medical Center to be very impressive and inspiring. Based on Kimberly's experiences, I would certainly recommend that residents and fellows reach out to her for mentoring as they are creating their career path. Thank you Kimberly for sharing your work with us!

Sincerely,

Giana Davidson, MD, MPH
President, Henry Harkin's Surgical Society
www.harkinssociety.org

I am a thoracic surgeon in a hospital-owned cardiothoracic surgery practice at Providence Regional Medical Center Everett (PRMCE) in Snohomish County. I am the only thoracic surgeon in a partnership of four cardiac surgeons. I finished general surgery residency at University of Washington in 2003, and spent a year as a cardiothoracic surgery registrar at the Royal North Shore Hospital in Sydney, Australia, living just north of the St. Edwards train station. I returned to the U.S. in 2004 to complete a cardiothoracic surgery fellowship at the University of Rochester in upstate New York in 2006. My first job after fellowship was at Providence and I have been there ever since.

I have a very rich and extraordinarily rewarding career. Although I have a broad general thoracic surgical practice, my interest is lung cancer, and I have worked to develop a comprehensive program from detection to treatment to surveillance. I created a dedicated thoracic surgery unit staffed with nurses skilled in invasive monitoring and chest tube management, introduced the VATS lobectomy program in 2008, developed the Multidisciplinary Lung Cancer Clinic with coordinated medical, radiation and surgical oncology visits tailored to each patient's needs, and introduced endobronchial ultrasound in 2010. I opened the Low Dose CT lung cancer screening program for lung cancer in December 2012, and am now the system-wide point person for lung cancer screening efforts at Providence. I have also been the principal investigator in several clinical lung cancer trials, particularly with regard to antigen specific cancer immunotherapeutics. I am actively involved in several quality initiatives including a national quality study called ProvenCare, and a Providence system-wide collaborative known as the Thoracic Surgery Initiative. Currently I am developing a robotic thoracic surgery program at PRMCE.

There is an amazing amount of pathology in the counties north of Seattle, and what makes my practice special are the people in the community. I have now been practicing long enough that I have operated on patients' friends, neighbors and family members. My patients are kind, honest and down to earth, and so are the nurses, support staff, and physician colleagues I work with on a daily basis. The culture in my practice is one where quality holds high importance and is supported by the "Just Culture" mentality of the physician-led administration. I am also lucky to have wonderful partners who have helped me grow my practice.

One of the best aspects about practicing in the Seattle area is the fact that my mentors are just down the road. It's not uncommon for me to call Drs. Doug Wood or Eric Vallieres to discuss a tough case. I have been fortunate to continue to work with Dr. Wood on the ProvenCare Lung quality improvement initiative for resected non-small cell lung, and with Dr. Vallieres on the Providence-Swedish Thoracic Surgery Initiative. I am thankful for the time I spent at UW and the fact I am still part of that community.

Kimberly E. Costas, MD
Graduate from UW General Surgery in 2003

Researcher Profile: Farhood Farjah, MD, MPH

Dr. Farhood Farjah

Lung cancer is the leading cause of death from cancer among men and women, and it is responsible for more deaths than breast, prostate, and colorectal cancer combined.

There are many misperceptions about this disease fueling pessimism and neglect. For instance, many perceive lung cancer to solely be a disease of smokers, but lung cancer in patients who have never smoked is the sixth most common cause of cancer death in the U.S. Many also believe that lung cancer is incurable. This belief is fueled by the fact that overall five-year survival rates have been dismal (~15%), and these survival rates have been constant for over three decades despite significant advances in diagnostic and therapeutic tools. The reason for poor overall patient outcomes has been presentation of disease at a late stage when curative intent therapy is no longer feasible.

However, a landmark study — the National Lung Screening Trial — published in 2011 has ushered in a new era of early-detection and cure through annual screening of high-risk patients with low-dose computed tomography. Recently, the US Preventative Services Task Force endorsed lung cancer screening effectively requiring all commercial insurers to cover the costs of screening, and shortly thereafter the Center for Medicare and Medicaid Services followed suit. These policy changes will have a substantial positive impact extending beyond a few hundred thousand lung cancer patients each year to millions of at-risk persons. More than any other time in history, the spotlight on lung cancer now extends along the entire cancer continuum from prevention to survivorship with significant implications for population health.

Dr. Farhood Farjah, Assistant Professor, Division of Cardiothoracic Surgery, is interested in improving the delivery of health care to populations at-risk for lung cancer, lung cancer patients, and lung cancer survivors with an eye towards improving individual and population health.

> **"Dr. Farhood Farjah is passionate about research examining how doctors deliver care to lung cancer patients in the United States. The goal of his work is to improve care delivery so that all patients have the best possible outcome. Other goals of his work are to increase the quality and value of thoracic oncologic care."**

Understanding the effectiveness, safety, and costs of lung nodule evaluation

The benefits of early detection of lung cancer must be weighed against the risks of excessive testing, particularly since only 10% of people with an incidentally detected pulmonary nodule have lung cancer. Under-evaluation may result in a missed opportunity to cure lung cancer; over-evaluation unnecessarily exposes people to the risks of diagnostic procedures and increases the costs of care. Practice guidelines intended to optimize nodule evaluation recommend varying intensities of diagnostic work-up depending on risk.

A recent study found that only 55% of individuals with an incidentally detected lung nodule received guideline concordant nodule evaluation. The investigators recommended designing system-level interventions to increase guideline concordance. However, doing so assumes that practice guidelines will lead to better outcomes — an assumption that may not be valid. Better understanding the relationship between practice guidelines and outcomes would help determine whether resources should be invested in improving guideline concordance or developing new strategies to evaluate nodules — for instance with risk-prediction models, biomarkers, and/or centralized, multi-disciplinary nodule clinics.

Until recently, an important barrier to studying the relationship between guideline concordance and outcomes was an inability to identify a cohort of individuals with lung nodules. Researchers at Kaiser Permanente (KP) recently developed a natural language processing (NLP) algorithm to scour CT radiology reports to identify health plan members with a lung nodule. Dr. Farjah received funding and support through the Cancer Research Network (CRN) Scholars Program and a CRN Pilot Grant to evaluate the performance of this NLP algorithm at another CRN site — Group Health (GH). Findings from this investigation revealed that NLP is reliable and portable across CRN sites and that its principal value is decreasing the burden of chart abstraction by up to 75%. The implication of this work is that a multi-center study investigating the effectiveness, safety,

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and costs of guideline concordant nodule care is feasible. Dr. Farjah is currently seeking funding to conduct this investigation in collaboration with scientists from GH, KP, and the Fred Hutchinson Cancer Research Center (FHCRC).

Predicting nodal disease in individuals with suspected or confirmed lung cancer

Of the 224,000 patients with newly diagnosed non-small cell lung cancer (NSCLC) each year, two-thirds (~158,000) will not have metastatic disease on presentation. For these patients, it is imperative to determine the extent to which (if any) cancer has spread to lymph nodes because the decision to recommend one of several vastly different treatment options (e.g. surgery alone versus definitive chemo-radiation) hinges on nodal status. Findings from CT and positron emission tomography (PET) are used to predict nodal disease and guide the use of invasive staging procedures (e.g. mediastinoscopy, endobronchial ultrasound-guided biopsy, etc.).

Practice guidelines have been developed to direct the use of invasive staging procedures based on radiographic findings. Although recommended selection criteria are highly sensitive (100%), they have poor specificity (35%) resulting in unnecessary use of invasive procedures in up to two-thirds of patients who are truly node-negative. In the absence of better imaging modalities, other ways to improve prediction are through better use of existing information and/or the use of novel risk factors for nodal disease.

Dr. Farhood Farjah consults with his patient at the Seattle Cancer Care Alliance (SCCA). Watch the video here.

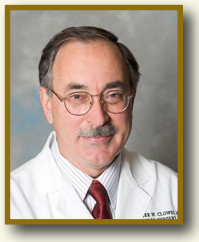
Risk-prediction models are one way to make better use of existing information. During his clinical fellowship at Memorial Sloan Kettering Cancer Center (MSKCC), Dr. Farjah developed and internally validated a prediction model for nodal disease based on six clinical risk factors available prior to treatment in a population of NSCLC patients without evidence of distant or mediastinal disease by PET. This model was recently externally validated in a similar population from the University of Washington Medical Center (UWMC). Simulation shows that had the prediction model been used in practice at UWMC, the accuracy of patient selection for invasive staging procedures would have been substantially higher and the use of invasive procedures would have been substantially lower (by 50%). The practical implication of this finding is that use of the risk-prediction model may increase the value of care. Funding is being sought for a pilot randomized trial comparing the use of risk-prediction to guide invasive staging versus usual care with an intent to eventually conduct a multi-center, pragmatic randomized trial in collaboration with participants from CERTAIN's Washington State Lung Cancer Quality Improvement Collaborative.

In order to develop a prediction model for the much broader population of 150,000 patients without metastatic disease, a novel risk-factor would have to be identified that would complement or outperform PET findings — the overwhelmingly dominant predictor of nodal disease. Vascular endothelial growth factor (VEGF)-C is a marker of nodal disease that can be measured in plasma. Basic research demonstrates that VEGF-C is essential for lymphangiogenesis — a mechanism by which epithelial tumors are believed to spread to lymph nodes. Epidemiologic research shows elevated plasma levels of VEGF-C in node positive NSCLC patients compared to node-negative patients, individuals with benign nodules, and health volunteers.

A unique collaboration with investigators from the FHCRC Lung Biorepository (Dr. David Madtes) and the Mulligan Lab (Dr. Michael S. Mulligan) allowed for a pilot study of patients with suspected or confirmed, non-metastatic NSCLC staged by PET. The goal of this investigation was to determine whether VEGF-C improves the predictive performance of PET, and the study findings showed that it did. This pilot study led to funding from the CHEST Foundation to develop a prediction model for nodal disease using *multiple* radiographic risk factors and VEGF-C, and to determine whether the prediction model outperforms practice guideline selection criteria for invasive staging. This study is currently underway and is expected to be completed in 2016.

Honors and Awards

Faculty



Dr. Alexander Clowes, Professor, Division of Vascular Surgery, received the Society for Vascular Surgery (SVS) Lifetime Achievement Award. This award is the highest honor that the SVS bestows on one of its members. Selection for this honor recognizes an individual's outstanding and sustained contributions both to the profession and to SVS, as well as exemplary professional practice and leadership. Numerous nominations were received citing Dr. Clowes' many contributions and "unparalleled impact on the art and science of vascular disease management." All nominations noted his receipt of the prestigious National Institutes of Health (NIH) Merit Award and his influence on vascular science for years to come through the training and inspiration of young vascular scientists.

The SVS is a not-for-profit professional medical society, composed primarily of vascular surgeons, that seeks to advance excellence and innovation in vascular health through education, advocacy, research, and public awareness. SVS is the national advocate for 4,500 specialty-trained vascular surgeons and other medical professionals who are dedicated to the prevention and cure of vascular disease.

Dr. Joseph Cuschieri, Professor, Division of Trauma, Burn, and Critical Care Surgery and Director of Surgical Critical Care, received the 2015 UW Medicine/HMC Cares Award. He was nominated by Dana Kyles, HMC Assistant Administrator. "Dr. Cuschieri rearranged his OR schedule to accommodate an organ donation event. These cases are typically complex and require a high level of coordination for both the recovery and transplant teams."

The UW Medicine Cares Award is a means of honoring Harborview Medical Center staff, providers, and teams that consistently exemplify the UW Medicine Service Culture Guidelines. The award is presented biannually, in the Spring and Fall, to four providers, four healthcare professionals, and two HMC teams at each of UW Medicine's entities.

Dr. James Park, Associate Professor, Division of General Surgery, received the Donald E. Bocek Endowed Research Development Award in Pancreatic Cancer. The Bocek endowment was established by Ms. Clarice Bocek in honor of her late husband, Donald. One award is given annually to a junior-level researcher working in the field of pancreatic research at UW Medicine. Awardees come from a variety of fields, including, but not limited to, gastroenterology, surgery, radiology, and genome sciences.

Dr. Carlos Pellegrini, *The Henry N. Harkins Professor & Chair*, was appointed as a new member to The Joint Commission Board of Commissioners and Executive Committee and the Joint Commission Center for Transforming Healthcare's Board of Directors. Dr. Pellegrini along with the other appointees will provide policy leadership and oversight to help The Joint Commission and the Joint Commission Center for Transforming Healthcare achieve their missions to improve patient safety and quality of care.

"We are pleased to welcome these health care experts and leaders to The Joint Commission and the Joint Commission Center for Transforming Healthcare," said Mark R. Chassin, MD, FACP, MPP, MPH, president and CEO, The Joint Commission. "These respected individuals will bring together their vast and unique backgrounds and perspectives in health care to help our governing bodies improve the accreditation and certification services and quality improvement initiatives that we provide to nearly 21,000 health care organizations and programs across the United States."

Dr. Pellegrini was also conferred with an honorary fellowship by the West African College of Surgeons (WACS) for his achievements in and service to surgical education. WACS promotes postgraduate education and training in surgery in West Africa.

Professor Olajide O. Ajayi, past president of WACS, quoted a former resident in the honorary fellowship citation saying, "it is the overall professional conduct of this great man which has most impacted

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us all – his patients, staff, trainees, and colleagues. It is the way he will listen at a moment of need, it is the unforeseen gesture of kindness, it is handwritten note that he is never too busy to write, and it is the confidence of knowing that he will always be your best advocate. This is what I learned from Dr. Pellegrini."

Dr. Sherene Shalhub was accepted into the Rising Stars Career Development program. The program is sponsored by the UW Institute of Translational Health Sciences (ITHS) and provides promising early stage investigators from the WWAMI region with a high-quality, targeted and structured translational science career development package over the course of two years. The program includes $15,000 in research funding, mentoring, peer-to-peer networking, and publication and grant application review services, with the goal of obtaining K or R-series funding from the National Institutes of Health.

Dr. Mika Sinanan, Professor, General Surgery Division and president of University of Washington Physicians (UWP), was one of 19 winners for *Seattle Business* magazine's annual Leaders in Healthcare Awards for 2015. Dr. Sinanan won silver award for medical group executive. UWP is a group of nearly 2,000 UW Medicine faculty physicians and other healthcare practitioners. Dr. Sinanan, a practicing surgeon, has been leading efforts to improve UW Medicine access and improve quality by reducing costs. He told *Seattle Business* he believes patients come to see doctors not hospitals. "Part of my job is to keep that front and center with hospital directors," he said. "My colleagues are aware that anything I suggest, I have to live with myself. I have a hands-on perspective on how to manage work flow of ambulatory care."
Read more about the award >>

Dr. Gale Tang, Assistant Professor, Division of Vascular Surgery, was awarded $140,000 by the American Heart Association (AHA) Washington Affiliate for her project "Modulation of p27 to enhance collateralization." Atherosclerotic cardiovascular disease is the number one killer in the United States through heart attacks caused by blocked arteries to the heart. Patients who survive heart attacks often have continued chest pain due to poor blood flow to the heart, and many patients also lose legs to amputation because of progressive blockage in the arteries leading to poor blood flow to the legs. Dr. Tang's research is focused on improving the development of collateral arteries, the body's natural response when blood flow through arteries is blocked. Improved collateral development would allow patients to recover and stay symptom-free even when important arteries to the heart or legs are blocked by atherosclerosis. This two-year multidisciplinary study will involve faculty from the Departments of Bioengineering and Medicine (Division of Metabolism, Endocrinology & Nutrition), and will examine a gene called p27, which affects how humans react to arterial injury. Specifically, Dr. Tang and her team will explore where this gene acts to affect collateral development – in the bone marrow cells or in the cells of the collateral artery wall – as well as examine whether specific cells grow faster, die less often, or create special proteins that enhance collateral artery growth in the absence of p27. The long-term goal of this work is the development of therapies that change the levels of p27 in the appropriate cells in order to improve collateral artery development. Dr. Tang anticipates that such treatment will help patients recover more fully from heart attacks and prevent amputations from blockages in the arteries going to the legs.

Dr. John Waldhausen, Professor and Chief of the Division of Pediatric General and Thoracic Surgery, and the Pediatric Surgery Training Program Director, was elected to a three-year term as Secretary of the American Pediatric Surgical Association (APSA) Board of Governors. The APSA was established in 1970 and is the nation's largest professional organization dedicated to the pediatric surgical specialty. Its mission is "to ensure optimal pediatric surgical care of patients and their families, to promote excellence in the field, and to foster a vibrant and viable community of pediatric surgeons." APSA carries out this mission through a number of different avenues including advocacy for national pediatric surgical standards of care, encouraging innovation and discovery, and member education.

Residents

Dr. **Jonathan G. Sham** was awarded the Alavi-Mandell Award for his publication "Glypican-3 Targeting F(ab')2 for 89Zr-PET of Hepatocellular Carcinoma," which appeared in the December 2014 issue of the *Journal of Nuclear Medicine*. The award is presented by the Society of Nuclear Medicine and Molecular Imaging to young investigators who played a primary role in high impact

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Honors and Awards

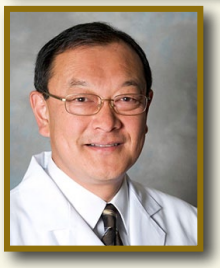
Continued from page 20

projects and will be awarded at their annual conference in June of 2015. The project described the development of a novel PET radiotracer that specifically targets liver cancer, as well as various modifications that optimize its clinical feasibility. Dr. Sham worked on the project as a fellow in the NIH-funded T32 program in Nanotechnology and Physical Science Training Program in Cancer Research under mentors James Park, Associate Professor in the Division of General Surgery, Satoshi Minoshima, Professor in the Department of Radiology, and T32 Principal Investigator Miqin Zhang, Department of Materials Science and Engineering.

Dr. **Meghan Flanagan** was selected to be recognized as a Patient Safety Hero. A Patient Safety Hero is one whose actions "go above and beyond one's job." This recognition is part of the UW Medical Center's observance of Patient Safety Awareness Week (March 8—14, 2015).

Dr. Flanagan was nominated by fellow General Surgery resident Katherine Flynn-O'Brien, MD. Dr. O'Brien wrote, "Despite being a busy surgical resident, Meghan has gone above and beyond to promote patient safety. She has been a member and leader of the Housestaff Quality and Safety Committee for two years. She has pioneered projects critical to patient safety, including the Patient Safety Innovations Project (PSIP) during the 20013-2014 academic year, which created and implemented an electronic and automatic ORCA Problem List Manager tool. This tool helps providers maintain an updated and comprehensive problem list for their patients, which improves patient safety and handoff communication. Meghan was instrumental to the PSIP's success: this tool is functioning for all of UWMC today. Additionally, Meghan is working hard to implement a standardized handoff tool in the post-operative care unit (PACU) to facilitate effective and efficient communication between care providers in the post-operative setting to minimize omission of information errors. Similar tools have been shown to reduce adverse patient events around the nation. Meghan is an advocate, leader, and (by far) one of the strongest resident voices in patient safety. Her work goes beyond the effect of one patient, touching hundreds already (through PSIP) and hundreds more (through the PACU handoff checklist). She is utmost deserving of a Patient Safety Hero Award."

Other Surgery News



Kanwar Thind, an undergraduate student at University of Washington, and Sunny Uppal, recent UW graduate, were each awarded SVS Student Research Fellowships for projects they will undertake this summer with Dr. Gale Tang, Assistant Professor in the Division of Vascular Surgery *(pictured on page 20)*. The award was established by the Society for Vascular Surgery Foundation and consists of a $3,000 stipend, $450 toward attendance at the 2015 Vascular Annual Meeting, and a two-year subscription to the Journal of Vascular Surgery. The students were nominated by Drs. Gale Tang and Thomas Hatsukami, Professor in the Division of Vascular Surgery *(pictured above)*, for their projects, "Role of MMP2 in p27 knockout vascular smooth muscle cell migration" and "Effect of hypoxia on p27 knockout vascular smooth muscle cell phenotypes." Both projects will further understanding of the role of p27 on arterial remodeling in response to injury.

"Global oncology is an emerging focus in global health. A core question is how cancer early detection, diagnosis and treatment can be best adapted within existing healthcare systems with limited resources, particularly in low and middle income countries (LMICs). **The Breast Health Global Initiative (BHGI)**, directed by Dr. **Ben Anderson**, Professor in the Department of Surgery and based at **Fred Hutchinson Research Center**, developed an evidence-based analytic approach called "resource-stratification," in which cancer care systems and tools are prioritized and sequenced to provide guidance on how functional cancer management systems can be created in LMICs.

BHGI was recently acknowledged in a high level global publication. The **Council on Foreign Relations** invited an independent task force to address the rising crisis of non-communicable diseases in LMICs. This task force issued a new **report** entitled *"The Emerging Global Health Crisis: Noncommunicable Diseases in Low- and Middle-Income Countries."* In this report **(page 66)**, the Task Force identifies the work of BHGI and recommends that the U.S. "mobilize support" for developing other disease guidelines modeled after our resource-stratified approach:

"The Task Force calls on U.S. leadership to help mobilize support for development of resource-level-appropriate guidelines for the management of treatable and curable cancers. Breast cancer provides a good model. With the support of the Susan G. Komen Foundation and NCI, the Breast Health Global Initiative was formed and has since produced a comprehensive set of resource-specific, stage-specific guidelines for breast cancer management (Anderson, 2008). These guidelines provide the basis for prioritizing scarce local government resources and the blueprint for future investments. Similar guidelines are needed for leukemia and other treatable and curable cancers."

Department of Surgery Grant Activity Report

In the 3rd quarter of FY15, Department of Surgery Principal Investigators received 8 awards totaling $1.3 million! The majority of this funding resulted from the new and competing awards listed below.

Congratulations to the following investigators:

Principal Investigator	Sponsor	Title
Thomas Hatsukami, MD	Philips Healthcare (United States)	B74 Prediction of Early Aneurysmal Degeneration following Type B Aortic Dissection with PET-MRI
ISIS: Brian Ross, PhD, MD	Health Research & Educational Trust (HRET)	HRET Implementation of TeamSTEPPS in Primary Care
ISIS: Brenda Zierler, PhD, RN	Josiah Macy Jr. Foundation	Train-the-Trainer Interprofessional Faculty Development Program
Gale Tang, MD	American Heart Association (AHA) Washington Affiliate	Modulation of p27 to enhance collateralization
Douglas Wood, MD	SPIRATION, Inc.	A Prospective, Randomized, Controlled Multicenter Clinical Trial to Evaluate the Safety and Effectiveness of the IBV® Valve System for the Single-Lobe Treatment of Severe Emphysema
Raymond Yeung, MD	LAM (Lymphangioleiomyomatosis) Foundation	Serum Metabolites in LAM

Additionally, congratulations are in order to the 5 Department of Surgery faculty who were Co-Investigators on 7 new awards totaling $1.2M in collaboration with our partner departments. Of those, 5 were new awards:

DOS Co-Investigator	Sponsor	Title
Danielle Lavallee, PharmD, PhD *(PI: Dagmar Amtmann, Rehab Medicine)*	Patient-Centered Outcomes Research Institute (PCORI)	Extending PROMIS Pain Item Banks: Pain Self-efficacy and Pain Catastrophizing (PCORI-Outcomes)
Nahush Mokadam, MD *(PI: Kei Togashi, Anesthesiology)*	Society of Cardiovascular Anesthesiologists (SCA)	Randomized Study of the Clinical Impact of Surgical Correction of Tricuspid Insufficiency in Implantable VAD patients
Nahush Mokadam, MD *(PI: Daniel Fishbein, Cardiology)*	CardioKinetix, Inc.	Parachute IV PercutAneous Ventricular RestorAtion in Chronic Heart FailUre due to Ischemic HearT DiseasE
Raymond Yeung, MD *(PI: Ian Crispe, Pathology)*	Seattle Foundation	Viable human liver tissue slices for hepatitis research
Raymond Yeung, MD *(PI: Edward Lin, Medicine)*	Institute for Systems Biology/ National Cancer Institute (NCI)	Single cell analysis strategy for monitoring drug responses of tumors

Publications

Cardiothoracic Surgery Division

Pagani FD, Acker MA, Camacho MT, Dewey TM, Force SD, McGee EC, McGrath MF, Myers BF, **Mokadam NA**, Smedira NG, Toyoda Y, Wallace AF, Weyant MJ. Clinical statement on the requirements for surgeon certification for implantation of durable ventricular assist devices (VADs). *Ann Thorac Surg.* 2013 May;95(5):1834–9. PMID: 23458401

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General Surgery Division

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(continued on page 24)

Publications

Continued from page 23

Halldorson J, **Bakthavatsalam R**, **Montenovo MI**, **Dick A**, **Rayhill S**, Hemming A, **Perkins J**, **Reyes J**. Differential rates of ischemic cholangiopathy and graft survival associated with induction therapy in DCD liver transplantation. *Am J Transplant*. 2015 Jan;15(1):251–8. PMID: 25534449

Transplant Surgery Division

Montenovo MI, **Dick AA**, Hansen RN. Donor hepatitis C sero-status does not impact survival in liver transplantation. *Ann Transplant*. 2015 Jan 22;20:44–50. PMID: 25608491

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VAPSHCS Surgery Division

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Allum WH, Bonavina L, Cassivi SD, Cuesta MA, Dong ZM, Felix VN, **Figueredo EJ**, Gatenby PA, Haverkamp L, Ibraev MA, Krasna MJ, Lambert R, Langer R, Lewis MP, Nason KS, Parry K, Preston SR, Ruurda JP, Schaheen LW, **Tatum RP**, Turkin IN, van der Horst S, van der Peet DL, van der Sluis PC, van Hillegersberg R, Wormald JC, **Wu PC**, Zonderhuis BM. Surgical treatments for esophageal cancers. *Ann N Y Acad Sci*. 2014 Sep;1325:242–68. PMID: 25266029

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Department of Surgery in the Media

Dr. Ramasamy Bakthavatsalam, Associate Professor, Division of Transplant Surgery

Wenatchee woman set to indirectly donate kidney to sick Wenatchee man

http://www.wenatcheeworld.com/news/2015/feb/20/kidney-swap-wenatchee-woman-set-to-indirectly-donate-kidney-to-sick-wenatchee-man/

Dr. Alessandro Fichera, Professor, Division of General Surgery

Five Minutes With Dr. Alessandro Fichera

www.sccablog.org/2015/03/five-minutes-with-dr-alessandro-fichera

Dr. David Flum, Professor, Division of General Surgery and Associate Chair for Research

Treat appendicitis only with antibiotics? Surgeon weighs in

http://hsnewsbeat.uw.edu/story/treat-appendicitis-only-antibiotics-surgeon-weighs

Antibiotics Resurface as Alternative to Removing Appendix

http://www.nytimes.com/2015/05/19/health/antibiotics-resurface-as-alternative-to-removing-appendix.html?ref=science&_r=1

Dr. Charles Mock, Professor, Division of Trauma, Critical Care and Burns

New book ID's 44 surgeries 'essential' to human health

http://hsnewsbeat.uw.edu/story/uw-book-id%E2%80%99s-44-surgeries-%E2%80%98essential%E2%80%99-human-health

Dr. Peter Neligan, Professor, Division of Plastic Surgery

UW Medical Center seeks face-transplant program

http://www.seattletimes.com/seattle-news/health/uw-medical-center-seeks-face-transplant-program/

Face transplants approved for UW Medical Center

http://www.seattletimes.com/seattle-news/health/uw-gets-approval-to-perform-face-transplants/

Drs. Brant Oelschlager, Professor, Chief of General Surgery Division, Mika Sinanan, Professor, Division of General Surgery, and Andrew Wright, Associate Professor, Division of General Surgery and Director of the UWMC Hernia Center and Northwest Hospital

Scalpel. Clamp. Sutures.

What Does It Take to Become a Surgeon? Part I

http://uwtv.org/watch/JVoYQQGPJAk/

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Department of Surgery in the Media Continued from page 24

Dr. Eileen Bulger, Professor,
Division of Trauma, Critical Care and Burns
First Responders – Saving Lives When Minutes Matter! Part II
http://uwtv.org/watch/nILVtqD2cqg/

Dr. Saurabh Khandelwal, Assistant Professor,
Division of General Surgery
Tackling Twin Epidemics: New Innovations to Fight Obesity and Diabetes, Part III
http://uwtv.org/watch/As6vP6PsrA8/

Drs. Benjamin Starnes, Professor and Chief of Vascular Surgery Division, and Carlos Pellegrini,
The Henry N. Harkins Professor & Chair
Behind the Knife Surgery Podcasts (Episodes 2 & 3)
http://www.behindtheknife.org/

Dr. Tom Varghese, Associate Professor,
Division of Cardiothoracic Surgery
In Surgery, Practice Makes Perfect
http://www.marketplace.org/topics/health-care/surgery-practice-makes-perfect

Dr. R. Eugene Zierler, Professor,
Division of Vascular Surgery
Named Among Top 25 Radiology Professors by Medical Technology Schools
http://www.medicaltechnologyschools.com/ultrasound-technician/top-sonography-professors

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ATTENTION DEPARTMENT OF SURGERY ALUMNI!

Let us know what you are up to now!

If you would like to share news about your career and family or reflect upon your residency experience in UW Department of Surgery, we want to hear about it to publish in *Surgery Synopsis*.

Please send your updates and photos to surgeditors@uw.edu.

Surgery Synopsis Reader Feedback

Below are comments we received from readers regarding our Winter 2015 issue:

"Carlos, this is great. The piece on Dr. Schaller is amazing."
Don Theophilus, Chief Advancement Office and Vice President, UW Medicine Advancement

"This was a great *Synopsis*—I loved the slide deck on the Department of Surgery and your comments on leadership–they really rang true and feel "uniquely UW." You've been a phenomenal leader and have pointed us to a really great place. I have always felt privileged and honored to walk through the doors of the UW and to be able to call it my home–I am grateful to you for allowing me to develop a career here. Congrats on a great look back–now I'm looking forward to looking forward with you!"
Dr. David Flum, Professor and Associate Chair for Research, Department of Surgery, University of Washington

"I believe that if you focus on making people feel positive, engaged and energized when they consider why they come to work, one unleashes their talent and they make it happen. That's exactly why I love my job—Thank you!"
Enina Bogdani, Administrative Assistant, Department of Surgery, University of Washington

"Great *Synopsis*! Roger Moe was a quiet, unassuming genius. And, as I'm sure you can imagine, great with residents. He had all our respect."
Dr. John Kenagy, Kenagy & Associates, LLC

"Thank you for the very fine *Synopsis* of the Department of Surgery. It was both informative and a pleasure to read. My congratulations to you and your staff for the continued success of the program. Marjorie and myself were saddened to hear of the passing of old friends from my past residency days, Bob Condon and Bob Schaller. They both were "good people" contributed a lot."
Dr. Milford S. Ofstun, R' 63

"Fabulous issue, lots of accomplishments. Special congratulations to Leah Backhus for a great program."
Dr. Paula Carvalho, Academic Section Head, Pulmonary and Critical Care Medicine, VA Medical Center, Boise, ID, and Professor of Medicine, University of Washington

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We welcome feedback from our readers. Please submit your comments to surgeditors@uw.edu.

NOTE: The newsletter editorial team will decide in its discretion whether to publish submitted comments in this column and may edit the comments for publication.

UW Medicine

DEPARTMENT OF SURGERY

Surgery Synopsis is an in-house newsletter published on a quarterly basis to highlight the academic and research activities of the University of Washington School of Medicine Department of Surgery. This publication is distributed to the Department's faculty, residents, staff, and friends.

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