OHSU DEPARTMENT OF SURGERY

Vol. 7, No. 1 Spring 2022

The Education Issue

On
The
Cutting
Edge

Page 4
We Remember Dr. Jack Campbell

Page 6
Graduating Class of 2022

Page 10
Pioneering Women in Reconstructive
Surgery

Page 12

New Obesity Management Elective

Page 14

Surgery Clinical Experience Program

Page 16

Gender Surgery Fellowship

Page 18

Transplant Surgery Fellowship

Page 20

SERF and Firefly Lab

Page 22

VR in Surgery Education





Message from the Chair

To our esteemed Department alumni and friends: I hope this message finds you well. Here at OHSU and with the start of a new academic year, I'm able to report an equal sense of caution and awareness as we navigate this 3rd year of the Covid-19 pandemic. The virus that so drastically challenged our hospital capacity, bandwidth and traditional educational methods is seeing a steady transition. As we proceed forward as a University and as a community, we have high hopes for a more resilient future benefiting from the novel tools and skills acquired along the way. I hope this issue of *On the Cutting Edge* serves to bring you, our department, alumni, and friends, in on the educational progress, programs, and accomplishments of the department this past year, all of which have been remarkable during these challenging times.

Our Vice Chair for Education **Karen Brasel, M.D., M.P.H.**, continues to lead one of the largest general surgery residency programs in the nation. A welcome addition to her team this year was new assistant clinical experience director and hernia surgeon **Vahagn Nikolian**, **M.D.** Our graduating residents are filling the most competitive jobs in the region and are sought after for the most respected fellowships in the nation. Our graduating fellows are becoming national leaders in their respective specialties at very early stages in their careers.

Continuing on a celebratory note, this month we were able to commemorate our graduating chiefs in-person for the first time since 2019. The ceremony was held at The Nines Hotel located in downtown Portland and our 13 graduates were joined by department faculty mentors, education program directors and close friends and family. The atmosphere was jubilant as we recognized the tremendous accomplishments of our trainees and toasted to their bright futures.

Curriculum changes and new opportunities include an introduction of the new 2-week UME obesity elective course, led by Andrea Stroud, M.D., M.S. In addition, thoracic surgeon Ruchi Thanawala, M.D., M.S., is in the midst of a multi-institutional Surgical Education Research Fellowship project designed to improve feedback and evaluations for residents and trainees on



a national scale. Her startup company Firefly Lab, LLC, will be the platform for this process.

Our faculty remain steadfast in supporting our education programs and we have been able to recruit some critical additions to the department. Sandy Fang, M.D., joined our colorectal practice and is now spearheading our anal cancer program which supports not only our general surgery residency but our colorectal fellowship. Raphael Sun, M.D., came to us from Texas Children's Hospital and has initiated our fetal surgery program. Jennifer Tonneson, M.D., has joined our surgical oncology division to help expand out breast program. Blair Peters, M.D., completed a transgender fellowship with us and has joined our faculty in order to help meet the growing needs of that population and to support our plastic surgery educational programs. In addition, foregut surgeon Alia Qureshi, M.Sc., M.D., joined our general surgery division and has accepted the position of Interim Head of Bariatric Surgery following Farah Husain, M.D.'s departure. Finally, Svetlana Kotova, **M.D.**, joined our thoracic practice at PeaceHealth to help serve the population of SW Washington. We plan to add SW Washington as an educational site for our cardiothoracic program in the coming months.

Departmental changes that occurred this past year include the addition of an ASTS Abdominal Organ Transplant/Hepatobiliary Fellowship under the direction of **Kristian Enestvedt**, **M.D.** And after 10 years of leading our pediatric surgery fellowship and putting it on the national stage, **Jay Krishnaswami**, **M.D.**, transitioned leadership of this program over to pediatric surgery division head **Mubeen Jafri**, **M.D.**

In addition to our faculty recruits, all of our educational programs enjoyed outstanding interview seasons this past fall with a record number of applicants and wave of matches for the incoming year. As a department we continue to support, develop, and expand our diversity, equity, and inclusion efforts in order to provide the richest

environment possible for learning and personal growth.

Lastly, I want to update your on leadership changes coming up this academic year. After a national search we will be interviewing 2 finalists this summer to fill the position of Division Head of Vascular Surgery. This coincides with the completion of the John Porter Endowed Professorship in Vascular Surgery to which we will have an official naming later this year. Next, under the leadership of trauma division head Martin Schreiber, M.D., a nation-wide search is currently underway to identify candidates to succeed Susan Orloff, M.D., as the next division head of Transplant Surgery. Likewise, I am happy to announce the completion of the Boris and Dorothy Rabkin Professorship in Transplantation and Hepatobiliary Surgery. We will be formally presenting this to Dr. Orloff as the inaugural holder of this professorship later this summer. Lastly, as we again lament the loss of Dr. Farah Husain to the University of Arizona at Phoenix, we have initiated a search for her replacement as division head of Bariatric Surgery. We will certainly keep you all informed of our progress along the way.

I hope you enjoy this edition of *On the Cutting Edge* and find it informative as we highlight our educational programs.

-Ken Azarow

Kumith Jacon

Colonel (retired) United States Army Mackenzie Professor and Chair Department of Surgery, OHSU It is with sadness and deep reverence that we announce the passing on Feb. 2, 2022 of **John** (Jack) Campbell, M.D.

Dr. Campbell was Oregon's first pediatric surgeon and a trailblazer in advanced pediatric healthcare. He served as interim chair of the Department of Surgery from 1985-1986 and was president of the OHSU Practice Plan (then the Faculty Practice Plan). Of national significance, Dr. Campbell was one of 18 founding members of the American Pediatric Surgical Association.

Dr. Campbell was recruited to the OHSU Department of Surgery by Mackenzie Professor and Chair **William Krippaehne**, **M.D.**, in 1967. During his career, Dr. Campbell played a significant role in establishing Doernbecher as the premier children's hospital in Oregon and achieving its nationwide recognition. He worked to establish Oregon's first neonatal intensive care center in 1968 and he saw the hospital through its transition into a Level 1 trauma center in the 1980's, which dramatically expanded the scope of patient care, both adult and pediatric.

In 1998, Dr. Campbell saw the completion of Doernbecher's new state-of-the-art medical complex on Marquam Hill to replace the original children's hospital. He served as Doernbecher's first Surgeon-in-Chief before retiring from OHSU in 2000.

Dr. Campbell will be remembered for the immense importance he placed on exchanging knowledge and teaching the next generation. His contributions to the field of pediatric surgery were foundational. Our thoughts go out to his family and beloved colleagues as we honor his legacy and mourn his passing.

Jack Campbell, M.D., with mentor and renowned pediatric surgeon C. Everett Koop, M.D., at the inaugural Department of Surgery Campbell Lectureship in 2008





Introducing the 2022 Graduating Class



Top row from left: Ivy Gardner, M.D., Elie Ramly, M.D., Sean Crowe, M.D., Shannon Howard, M.D., Peter Kilen, M.D., Saunders Lin, M.D., Nathan Knapp, M.D., Daniel Gardner, M.D., Katherine Watson, M.D.

Bottom row from left: Sarah Wonn, M.D., Elizabeth Gilliam, M.D., Alix Dixon, M.D., Raquel Bell, M.D.

ON JUNE 11TH, Department of Surgery faculty, education directors and administrators gathered at The Nines Hotel in downtown Portland to celebrate our 2022 graduating class of residents. After 2 years of virtually-held ceremonies, it was wonderful to be back together inperson celebrating the accomplishments of these remarkable individuals with their mentors and families.

Of our 13 graduates, we have 7 who will be moving on to specialty fellowships across the country and 6 entering into private or general surgery practice.

We wish them success as they embark on this next chapter with the tools and skills needed to advance an ever-evolving field.

Congratulations to the class of 2022!



Raquel Bell, M.D.

Medical School: OHSU

Future plans: General Surgery practice, NW Permanente

Sean Crowe, M.D.

Medical School: St. Louis University
Future plans: General Surgery practice, The Oregon Clinic



Alix Dixon, M.D., M.P.H.Medical School: Tulane University

Future plans: Trauma/Critical Care Fellowship, Univ. of Washington

Daniel Gardner, M.D.

Medical School: University of North Carolina
Future plans: General Surgery practice, Legacy Health



Ivy Gardner, M.D.

Medical School: Boston University

Future plans: Colorectal Fellowship, Atlanta, Georgia

Elizabeth Gilliam, M.D., M.P.H.

Medical School: Virginia Tech

Future plans: Pediatric Surgical Critical Care Fellowship,

Texas Children's Hospital



Shannon Howard, M.D.

Medical School: University of California, Davis

Future plans: General Surgery practice, Newberg, Oregon

Peter Kilen, M.D.

Medical School: University of New Mexico

Future plans: Trauma/Critical Care Fellowship, Univ. of New Mexico





Daniel Gardner, M.D.

Medical School: OHSU

Future plans: General Surgery practice, North Carolina

Saunders Lin, M.D.

Medical School: Texas A&M

Future plans: Pediatric Surgery Fellowship, University of Chicago





Elie Ramly, M.D.

Medical School: American University of Beirut

Future plans: Plastic and Reconstructive Fellowship, Brigham and

Women's Hospital

Katherine Watson, M.D.

Medical School: OHSU
Future plans: Colorectal Fellowship, University of Minnesota



Sarah Wonn, M.D.

Medical School: Medical College of Georgia

Future plans: General Surgery practice, Klamath Falls, Oregon

Graduating Chiefs with Mackenzie Professor and Chair Ken Azarow, M.D. (far left) and General Surgery Residency Program Director Karen Brasel, M.D., M.P.H. (far right)





The Nepal Cleft and Burn Center at Kirtipur Hospital in Kathmandu

Lori K. Howell, M.D.
Assistant Professor of
Plastic and Reconstructive
Surgery and Surgical Mentee
with ReSurge International





Pioneering Women in Reconstructive Surgery

At the beginning of last year, plastic and reconstructive surgeon **Lori Howell, M.D.**, was invited by ReSurge International to be a surgical mentee in their "Pioneering Women in Reconstructive Surgery" program. ReSurge is a nonprofit organization dedicated to making reconstructive plastic surgery accessible to all. The mission of the program is to empower female reconstructive surgeons in LMICs through education and leadership. Its curriculum is comprised of monthly lecture series given by the mentees as well as a formal mentorship program with one of its twelve international trainees.

Dr. Howell is currently partnered with **Pramila Shakya**, **M.D.**, a maxillofacial surgeon at the Nepal Cleft and Burn Center at Kirtipur Hospital in Kathmandu. They meet bi-monthly through Zoom for the past year to discuss challenging cases, the effect of the pandemic on their two countries/hospitals/families and other life experiences as they have gotten to know each other. Dr. Shakya joins the monthly virtual Craniofacial resident education conferences led by Dr. Howell and together they participate in ReSurge's "merged reality" project. This project uses smart glasses to connect from their two separate locations in Portland and Kathmandu and allows Dr. Howell to help guide and teach in real-time during Dr. Shakya's surgical procedures.



A new multi-disciplinary elective in obesity and metabolic disease management was developed by minimally invasive surgeons **Andrea Stroud, M.D., M.S.,** and **Ryland Stucke, M.D.,** this past year. The course is centered as an elective in the Department of Surgery, a two week training for students and residents with a focus on clinical encounters with patients in ambulatory, inpatient, and operative settings. The schedule includes 3-4 operative days, 5-6 clinical days (varying between inpatient and ambulatory) and dedicated mentorship/teaching time.

Obesity is a chronic disease that impacts the lives of many Americans and is projected to affect more that 50% of the adult population by 2030. However, obesity education is limited in US medical schools and surveys of practicing physicians report feeling underprepared to manage and treat obesity.

The rationale for including obesity in undergraduate medical education includes high disease prevalence, burden of the disease, and increasingly available treatment options.

Drs. Stroud and Stucke surveyed stakeholders to define core educational goals as a part of the course development. The elective course aims to introduce medical students to the modern, evidence-based treatment of patients with obesity through clinical experience with diverse inter-professional fields including endocrinology, surgery, nutrition, pediatrics, and psychology.

The feedback received from the inaugural students this past year has been excellent.



Ryland Stucke, M.D., and Andrea Stroud, M.D., M.S., developers of the obesity management elective course

As a primary care physician, I am more likely to see a patient who is overweight/obese than I am to see a normal weight patient. The skills that I have learned during the past 2 weeks empower me and make me feel confident in my ability to treat obesity better than I used to be able to.

-Kara Callahan, M.D., OHSU family medicine resident



Obesity Management allowed me to take a deep dive into a multidisciplinary approach to a medical diagnosis faced by many of my future patients – obesity. With the elective, not only did I learn the medical approach by working with different providers (physicians, nurses, nurse practitioners, medical students, and others), but I also got to experience how patients go through the process by talking to patients and attending focus group. I came away from the elective feeling much more prepared discussing different options to manage obesity with my patients. I highly recommend the elective to all of my peers. For those of us planning on going into primary care, this elective would be a great addition to our toolkit. For those planning on going into specialty care, the multidisciplinary approach of the bariatric team would provide an unparalleled model of high quality patient care."

-Linh Taylor, OHSU medical student

An update from Surgery Clinical Experience Director Mackenzie Cook, M.D.





Change on the Horizon

This past academic year has been one of great upheaval for the School of Medicine in general and the UME Surgery Clinical Experience Program in particular. Although we have seen many changes driven by the pandemic, including case volume limitations and reduced in-person interactions, we are fortunate to have a stellar program team, including clerkship coordinator **Marci Jo Ashby**, a long-standing team member and rock of the organization.

We entered the 21-22 academic year with several changes on the horizon for the clinical experience program, the first being the appointment of new Associate Surgery Clinical Experience Director **Vahagn Nikolian**, **M.D.** Dr. Nikolian was recruited to the department in 2019 and brings a wealth of experience with telehealth, education scholarship and virtual mentoring.



Vahagn Nikolian, M.D. Associate Surgery Clinical Experience Director



The second change was a pivot away from tiered grading (i.e. A, B, C, F) to Pass / No Pass grading with a progressive emphasis on a competency-based summative evaluations.

As part of this, the final assessment of the clerkship now includes an oral examination, similar to the board certifying exam, as well as a simulated patient encounter focused on surgical consent and family interactions. It is a dynamic and exciting time in undergraduate medical education and the students remain motivated, curious, caring and engaged. They are a joy to teach and the future of medicine is bright!



Gender Surgery at OHSU

Gender Surgery Fellowship Director **Jens Berli**, **M.D.**

Inaugural gender surgery fellow and now plastic surgery faculty **Blair Peters**, **M.D.**



This past year was significant for our gender surgery program. 2020/2021 marked the inaugural year of the gender surgery fellowship program in both the Department of Urology and Plastic Surgery. We are proud to be 1 out of 3 academic programs within Plastic Surgery in the nation offering a fellowship in gender affirming surgery. However, its close collaboration with Urology makes our program especially unique with fellows cross-trained between both programs. Graduates **Christi Butler, M.D.**, (Urology) and **Blair Peters, M.D.**, (Plastic Surgery) set the bar extraordinarily high as our inaugural fellows and we were pleased to offer Dr. Peters a faculty position in 2021.

Another recent highlight was our launch of the first phalloplasty/
tendon/nerve cadaver lab (sponsored by Integra) in the
VirtuOHSU where our residents learned to elevate the large
radial forearm flap required for phallic creation; followed
by advanced tendon and nerve transfer dissections led
by our hand and nerve faculty **Angelo Lipira**, **M.D.**,
and **Joel Solomon**, **M.D**. We plan to expand this course into a
phalloplasty symposium by the end of 2022 together with the

World Professional Association for Transgender Health.



New Transplant Fellowship Program

Led by Program Directors **Kristian Enestvedt**, **M.D.**, and **Susan Orloff**, **M.D.**, the new **OHSU ASTS Transplant and Hepatobiliary Surgery Fellowship** was launched this past year. Our first successful match and incoming fellow will join us this summer. The fellowship supports the only multi-organ transplant program in the state of Oregon.

The aim of our fellowship is to provide outstanding clinical training in transplantation with broad exposure to the essentials of deceased donor procurement of liver, kidney and pancreas grafts and the recipient procedures for these organs. In addition, fellows meet requirements for certification in living donor nephrectomy and specialty training in Hepatobiliary surgery. A core faculty of 7 surgeons are dedicated to providing a complete, rounded, and rewarding fellowship experience.

This 2-year transplant fellowship trains surgeons on both the Kidney/Pancreas and Liver/Hepatobiliary services. Fellows can expect to graduate with over 300 major cases and close to 100 operative transplants. In addition, fellows complete integrated rotations on the surgical oncology service with a focus on multimodal treatment of colorectal liver metastases, pancreas cancer, and exposure to robotic surgery.

The OHSU transplant program has a history spanning more than 60 years, and performed the first kidney transplant on the West coast. We are committed to training superb technical surgeons who have the judgement and leadership skills necessary to make significant contributions to Transplant and HPB surgery. Our approach is centered on an apprenticeship model and we look forward to having fellows as members of our clinical faculty.



Katherine Rose Franklin

HPB, Transplant-HB, Thoracic and Vascular Fellowship Program Coordinator

Katherine Rose Franklin is the newest member of our department education team, joining Education Manager Erin Anderson and coordinators Molly Barron and Rachel **Bassett.** Her role includes management of both the Hepato-Pancreatico-Biliary Fellowship and the new Transplant and Hepatobiliary Fellowship. In addition, she coordinates the ACGME-accredited Thoracic and Vascular Surgery Fellowships,

as well as providing backup support for the general surgery residency program. She is currently assisting in the accreditation of a new vascular surgery residency program.

Prior to joining the education team, Katherine Rose was the Administrative Coordinator for the Division of Abdominal Organ Transplantation for over 7 years. It was in that role that Katherine Rose took on fellowship coordinator responsibilities with the initial management of our HPB Fellowship. She saw the program through many years of successful matches, re-accreditations, and ongoing maintenance and support. Since 2014, Katherine Rose has supported 15 fellows, with a batch of new trainees arriving this summer.

Education ream spotlight Katherine Rose was instrumental in supporting the launch and accreditation of the new ASTS-accredited Liver-Kidney Transplant and Hepatobiliary Surgery Fellowship. Her now full-time fellowship coordinator position allows her to stay active within the program and continue to support the training efforts of the transplant team.

It's a testament to Katherine Rose and our entire education team that our fellowship and residency programs continue to recruit and graduate some of the best in the nation.

Firefly Lab, LLC

The latest from cardiothoracic surgeon Ruchi Thanawala, M.D., formerly an ASE Surgical Education Research Fellow



Dr. Ruchi Thanawala recounts her experience with the SERF program and resulting start-up:

The ASE Surgical Education Research Fellowship program played a significant role in my career development as a surgical education and informatics researcher and as a thoracic surgeon. My initial research fellowship was completed at Northwestern University in 2014, with a very small group of surgical residents and surgeons entering into informatics at that time. I earned my Masters in Clinical Informatics and in 2016 was selected for the ASE SERF program.

My interests in surgical education research started early and were inspired by my surgical simulation training. Back then, I observed a need for better connection between the worlds of informatics and surgical education. I noted the under-representation of surgeons in the informatics arena as well as the growing role of informatics and data science in surgical training and practice.

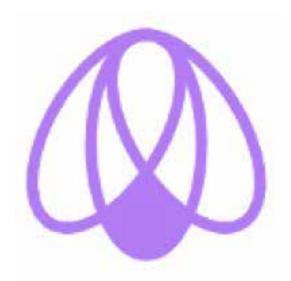
I started the SERF program in 2016 with a project that centered on a platform to improve resident case logging by using data within the EHR system to improve case logging timeliness and accuracy. The platform, Firefly Lab, and the project were in its nascency though in a live, working form.

It was through the SERF program's exceptional group of surgical educators and mentors that I was able to develop Firefly Lab into what it is today: a multi-institutional project and a start-up company that has expanded to broader goals of surgical education such as evaluations and feedback, targeted content, prescriptive learning curricula based on Bayesian learning models. The positive impact of the SERF program on my career has been measurable.

Additionally, Firefly has recently been awarded a patent by the US Patent and Trademark Office for inventions created in the development of the platform and the informatics applications.

Having recently joined OHSU's division of cardiothoracic surgery and section of thoracic surgery, I have been able to bring my work and platform to our Department of Surgery to contribute to the strong culture of surgical education innovation and research.





Firefly Lab, LLC, is revamping surgical education at OHSU

Timeliness, quality, and quantity of operative feedback and evaluations for surgical residents and training ASE SERF DOGSTANTS designed to equip individuals with the skills programs are a challenge nationally. The Department of Surgery has established a committee to assess a revitalization and revamping of the process El Programie des research scheck directions is designed with the death of the programme of the state of the s and methods by which surgical residents are provided feedback and evaluation in all aspects of their training. The Firefly platform is a part of this process. Our goals are to improve our mapping of surgical training on multiple scales ranging from an individual resident to nationally across training programs.

Change Reality Jsing VR to

Surgery resident Albert Lwin, M.D., has been working on a low-fidelity virtual reality platform since medical school. His recent collaborative grant award from the ASE/APDS is providing the support he needs to see the project through.

ASE/APDS: Collaborative Grant Initiative

Project Title: Efficacy of Virtual Reality (VR) Instruction on Learning American College of Surgeons Trauma Evaluation and Management Program (ACS TEAM)

The goal of this study is to provide validated educational tools and metrics that rely less on in-person attendance. In order to do so, we plan to evaluate the use of a low-fidelity virtual reality platform as a substitute for in-person SBME. If effective, the outcomes of this study would provide evidence that there is a role for low-fidelity virtual reality platforms when in-person SBME would not be possible due to resource, space or time limitations. These developments will be opportune as institutions seek ways of enhancing remote learning due to COVID-19 restrictions. Furthermore, when in-person SMBE is possible, the study would support the development and inclusion of supplemental virtual reality content for on-demand practice and review across the learner continuum.

PI: Erin Gilbert, M.D., M.C.R.

Team:

Karen Brasel, M.D., M.P.H.

Albert Lwin, M.D., M.P.H.

David Warner, M.D.

Trevor Crafts, M.D.

Blake Beneville, MS4

Heather Hoops, M.D.

Joe Tobias, M.D.

Ranish Patel, M.D.

Edward Ward, MS4

Elizabeth Dewey, Senior Biostatistician





Dr. Albert Lwin shares his story and motivation for focusing on VR training

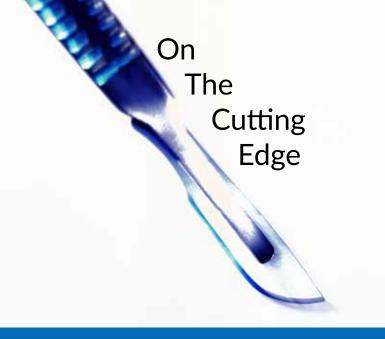
Born in Myanmar, I moved to the US when I was 5 years old. My family would often return to Myanmar during the summers to visit extended family. From an early age, it was clear that Myanmar was not the US. The opportunities and privilege I often took for granted in the US was non-existent to my relatives living in Myanmar. When I got accepted into medical school, I felt a responsibility to change that reality. I spent my time during medical school traveling to Myanmar on projects to address gaps in medical access and training.

One of those projects was to increase access to training. As instructor time and resources are limited, the idea was to reserve their time for teaching higher level skills, while utilizing low-cost video players and models to familiarize students with introductory skills. This work brought to light the lack of simulation centers and the associated equipment and training models in resource limited countries.

This evolved into our current project – using low-fidelity, low-cost Virtual Reality as a supplement for simulation training.

Supported by Dr. Gilbert, Dr. Brasel, and Dr. Hoops, we hope to study the utility and effectiveness of virtual reality for simulation training. If effective, the modality will allow for ease of repetition and dissemination of simulation content when a simulation center is not available or existent. This has become particularly relevant with the COVID-19 pandemic and need for social distancing.







School of MEDICINE

Fax: 503 494-5615

OHSU Department of Surgery Mail code: L223 3181 S.W. Sam Jackson Park Rd. Portland, OR 97239 Tel: 503 494-7758

[Address]

Non-Profit Organization
U.S. Postage
PAID
Permit No. 722
Portland, Oregon

OHSU School of Medicine | Department of Surgery

Department Chair

Kenneth Azarow, M.D.503 494-7758

Division Chiefs

Vascular Surgery, Interim

Susan Orloff, M.D.503 494-7810 Abdominal Organ Transplantation Alia Qureshi, M.D.503 494-2681 Bariatric Surgery, Interim Howard Song, M.D., Ph.D......503 494-7820 Cardiothoracic Surgery V. Liana Tsikitis, M.D., M.C.R., M.B.A.....503 494-6900 Gastrointestinal and General Surgery Mubeen Jafri, M.D.503 494-7764 **Pediatric Surgery** Juliana Hansen, M.D.....503 494-7824 Plastic and Reconstructive Surgery Flavio Rocha, M.D......503 494-5501 Surgical Oncology Martin Schreiber, M.D.503 494-5300 Trauma, Critical Care and Acute Care Surgery Cherrie Abraham, M.D.503 494-7593 Questions or comments? Email *On the Cutting Edge* Editor Sara Szymanski at szymanss@ohsu.edu – we'd love to hear from you.

Oregon Health & Science University is a nationally prominent research university and Oregon's only public academic health center. It educates health professionals and scientists and provides leading-edge patient care, community service and biomedical research.