

SURGERY

Synopsis

UW Medicine
DEPARTMENT OF SURGERY

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Chairman’s Message



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

Friends & Colleagues of the Department of Surgery:

I am pleased to present the Spring 2013 edition of *Surgery Synopsis*.

Surgery Synopsis Redesign: You will find that *Surgery Synopsis* has a new look. UW Medicine has rolled out a branding identity and our new template fits well in this new brand. I want to thank our editorial team, and in particular Michael Hilleary, Communications & Media Specialist, for this makeover. I think you will find it attractive, readable and a fresh look and I would love to hear comments from our readers.

Schilling Lecture and Resident Research Presentation Day: The Schillings would have been so proud to see their legacy in the form of the Schilling Research Day and the Schilling Lecture! With the new format that we started last year under the leadership of our Vice
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2013 Schilling Lecture: “Regenerative Medicine” & Research Presentations

On Friday, February 22, 2013, the Department of Surgery was proud to host **Anthony Atala, MD** (pictured right) as the 19th Annual Helen & John Schilling Lecturer. Dr. Atala is a practicing surgeon and researcher, and is a world renowned expert in regenerative medicine. His talk, “*Regenerative Medicine: New Approaches to Healthcare*,” addressed the increasing shortage of transplantable organs and discussed the history, science, and opportunities in the field of organ and tissue engineering as a solution for this crisis. As Director of the Institute for Regenerative Medicine, Dr. Atala leads an interdisciplinary team that is working to engineer more than 30 different replacement tissues and organs and develop healing cell therapies. His talk included a particularly moving success story in a patient, who as a newborn, received one of the first engineered bladders over 10 years ago. He also discussed a number of recent advances in the field, perhaps the most exciting of which is the use of 3D printers that use living cells to create transplantable organs.



Dr. Atala completed both his medical degree and residency in urology at the University of Louisville. In 1990, he went on to complete a two-year pediatric urologic surgery subspecialty training program at Children’s Hospital, Harvard Medical School in Boston, MA. He held a faculty position at Harvard Medical School from 1992-2004, after which he assumed his current position at Wake Forest School of Medicine as Professor and Chair of the Department of Urology and Director of the Institute for Regenerative Medicine. He has led or served on a number of national organizations focused on this research, including the National Institutes of Health Working Group on Cells and Developmental Biology, the National Institutes of Health Bioengineering Consortium, and the National Cancer Institute’s

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Chairman's

Message — Continued from page 1

Chair for Research, Dr. David Flum, including faculty presenting their research and with exciting new work by our residents and fellows the day was a total success. Dr. Anthony Atala presented “*Regenerative Medicine: New Approaches to Healthcare*” as his Schilling lecture is the jewel in this wonderful crown. I think you will enjoy reading about this day and again, we thank Helen Schilling and her husband John for the vision and the generosity they had for our Department and the school.

Featured Researcher: For this issue, we chose to feature Dr. Ben Starnes' research. He and his team are in the midst of a clinical trial that is making enormous changes to the way AAA's are managed by changing the way in which the stent graft is modified and implanted. They are approximately at the mid-point in the research project and the results are encouraging.

Resident and Faculty Team Produce Burn Videos: One of our residents, Jonathan Kohler, MD, and Dr. Tam Pham (Associate Professor in the Department of Trauma, Critical Care & Burns) teamed up some 7 years ago – on their own time - to begin a project that has just reached conclusion. With the help of Dr. Nicole Gibran, they turned a written document on the care of burns into a series of videos on burn care that is available on [YouTube](#) and [iTunes U](#) for all to view who may be interested in treating burns. Congratulations to them for their ingenuity and persistence. Read about it and then click into the videos.

UW Montlake Tower Expansion: In this issue we have included a story about the expansion of UW Medical Center into the Montlake Tower. It opened in October 2012. The expansion is important to care for the increasing number of patients in Oncology, Neonatal Intensive Care and Radiology and to keep the UW a full-service tertiary and quaternary care facility. The building is energy-efficient and surpasses Seattle guidelines by 30%.

There is much more within the issue, including the “Choosing Wisely” Recommendations from the Society for Thoracic Surgeons, of which Dr. Doug Wood is the President, the reinvigorated “Resident Corner,” faculty honors and awards and updates on the Department's Research Reinvestment Fund Awards.

I hope that you enjoy this issue of *Surgery Synopsis*.

Sincerely,

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

2013 Schilling Lecture — Continued from page 1



Drs. David Flum and Anthony Atala.

Advisory Board. In 2011 he was elected to the Institute of Medicine of the National Academy of Sciences.

Dr. Atala has won numerous awards for his work, including the U.S. congressionally-funded Christopher Columbus Foundation Award, bestowed on a living American who is currently working on a discovery that will significantly affect society; the Samuel D. Gross Prize, awarded every 5 years to a national leading surgical researcher by the Philadelphia Academy of Surgery; and the Innovation Award from the Society of Manufacturing Engineers for the creation of synthetic organs. He has published over 400 peer-reviewed papers and is a highly sought-after speaker, having given nearly 400 presentations in his career. Dr. Atala is Editor-in-Chief of *Current Stem Cell Research and Therapy* and *Therapeutic Advances in Urology*, and serves in varying capacities on a number of other journals. He is also named on 43 US patents.



Dr. David Flum presenting Schilling Lecture certificate to Dr. Anthony Atala.

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Dr. Anthony Atala presenting at the 2013 Schilling Lecture.

Dr. Atala's Schilling lecture was preceded by the annual Resident Research Symposium during which 21 Department of Surgery residents and fellows presented their research on a variety of basic research and health science topics. Dr. Atala helped rank the residents on the quality of their presentations, and the depth and strength of their scientific understanding and analysis. Congratulations are in order for this year's winners:



1st place: **Rebecca Plevin, MD**, "*The Role of LPS Structure in Monocyte Activation and Cytokine Secretion.*" Dr. Plevin's research interests developed after working in the trauma ICU and observing the varied responses patients had to infectious insults

following traumatic events. Her presentation regarding lipopolysaccharide structure is one component of her larger ongoing investigation into the multiple cell pathways that are involved in the immune response.



2nd place (tie): **Thurston Drake, MD**, "*Is Appendicitis a Ticking Time Bomb? Time to Treatment and the Risk of Perforation After Patients Reach the Hospital.*" One of Dr. Drake's primary research interests involves the challenges of diagnosing appendicitis and

the reasons for wide variation in disease progression among patients. His study examined the relationship between risk of perforation and elapsed time from presentation to surgery as a means of evaluating the traditional theory that luminal obstruction leads to perforation without timely intervention.



2nd place (tie): **Timo Hakkarainen, MD**, "*Skin Antiseptic Agents and Surgical Site Infection: a Report from Washington State's Surgical Care and Outcomes Assessment Program.*" Dr. Hakkarainen's major research interest is in comparative effectiveness and the extent to

which even small surgical interventions enhance outcomes and patient quality of life. His Schilling presentation addressed the effectiveness of chlorhexidine in isopropyl alcohol for reducing SSI in clean-contaminated procedures and the overall usefulness of expensive skin preparation agents.



3rd place: **Daniel Mulloy, MD**, "*Ex Vivo Reconditioning of Non-Heart-Beating Donor Lungs in a Preclinical Porcine Model: Delayed Perfusion Results in Superior Lung Function.*" Dr. Mulloy discussed the application of advances in mechanical circulatory support to the field

of lung transplantation in an effort to improve lung-graft preservation. He plans to continue to push the expansion of ex-vivo lung perfusion to allow more frequent use of lungs from non-heart beating donors and greatly expand the pool of available lung grafts.

In addition to the resident research presentations, there were three talks highlighting faculty research:



Nicole Gibran, MD, "*UW Medicine Burn Center Research Program.*" Dr. Gibran is a Professor of Surgery and Director of the UW Medicine Regional Burn Center at Harborview Medical Center. She presented an overview of the ongoing research in the Burn Center as well as her own personal research interests.



Charles Mock, MD, PhD, MPH, "*Strengthening the Prevention and Treatment of Injuries Globally.*" Dr. Mock is a Professor with the Departments of Surgery and Epidemiology and also holds an adjunct appointment as Professor of Global Health.

Dr. Mock presented an overview of his research in the global arena, focusing particularly on his time in Ghana and then at the World Health Organization (WHO).

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Department of Surgery Grant Activity Report

In the fourth quarter of 2012 our department's researchers received 10 awards totaling \$1.8 million, three of which were new and competing renewals:

Principal Investigator	Title	Sponsor
Nicole Gibran, MD	Northwest Regional Burn Model System Center	US Department of Education
Nicole Gibran, MD	A prospective, open, non-controlled clinical investigation to evaluate the adequacy of a new donor site dressing in surgical burn patients	Molnlycke Health Care AB
Nam Tran, MD	A Prospective, Single-blind, Randomized, Phase III Study to Evaluate the Safety and Efficacy of Fibrin Sealant Grifols as an Adjunct to Hemostasis during Peripheral Vascular Surgery	Grifols, Inc

In the first quarter of 2013, there were an impressive 19 new and competing renewal applications from our department. We will continue to provide the department's grant awards in future newsletter publications.

Congratulations to these investigators for their continued efforts and successes in an ever more difficult funding environment.

Other News in the Department of Surgery...

- **Monica Morrison, PA-C**, Transplant Physician Assistant was recently nominated for the Maria Hall Award for excellence in patient and family centered care. This award recognizes staff and volunteers who put patient and family centered care values into action.
- Hear the word "**Harborview**" and what do you think? The trauma center for the area's most critical cases. You're right. It's that - but it's so much more. Read the [Bellevue Reporter article](#) on **Harborview Medical Center**.

2013 Schilling Lecture — *Continued from page 3*



Thomas Varghese, MD, MS, "*Strong for Surgery: Changing Clinical Practice.*" Dr. Varghese is an Associate Professor in the Division of Cardiothoracic Surgery and Director of Thoracic Surgery at Harborview Medical Center. He is the Medical Director of the Strong for Surgery program, a novel, patient-centered approach in Washington State focused on improving outcomes by engaging patients in the pre-surgical clinic to modify surgical risk factors. Dr. Varghese presented details of the program as well as future directions.

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, John.

Alumni Corner — *Continued from page 6*

and prepared to do that. We get excellent clinical exposure and technical training at UW, and I rely on that training every day; it has served me well. If any of you have questions about general surgery community practice or if you'd like to spend some time with me in my practice, I encourage you to contact me. My email address is heatherkalani@gmail.com.

I hope everyone enjoys the end of the academic year, and I hope our paths cross in the future!"

Clinical Trial: Physician-Modified Endovascular Grafts — *Continued from page 8*

are proving that the modifications to the device are very effective. The study results will be submitted for product approval to the FDA and the governing agencies of other countries.

Dr. Starnes has recruited Dr. Matthew Sweet (Assistant Professor in the Division of Vascular Surgery) into the research study and others of his team are learning to do modifications to the stents as well. Dr. Starnes is thus far thrilled with the outcomes and with his team. He states that the team makes all the difference; without his co-investigators and the expert assistance of his Research Nurse Coordinator, Ms. Billi Tatum, along with the administrative support of the Department of Surgery, this life-saving device and technique might never have won approval.