# -SURGERY Synopsis

# 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 Summer 2013 edition of Surgery Synopsis.

Summer is always a great time in Seattle. This summer was no exception: excellent weather, long days and cloudless skies have made some of us – I am afraid to say it – miss some "good rain." As we transition our academic year into the 2013-2014 period we reflect with pride on the achievements of our last academic year and look forward with anticipation to the renewal of our academic life that is about to start. As we look into the past, we are proud of the achievements in the clinical, educational and research areas we experienced in the 2012-2013. Thus, our summer edition this year has two parts, one looking at the immediate past and one looking at the immediate future.

#### Looking at the end of 2012-2013:

We say goodbye to the residents who completed their training: It is always a bittersweet time of year in the life of the Department. It is joyful to participate in graduation events and we feel gratified by the product of our teaching. This group of graduating chiefs is a fantastic group that flies now to other places to continue training in superb fellowships or to start their work as surgeons. The article recaps the graduation events and provides a look at what is next in their lives. We will miss them and we wish our graduating residents and fellows the very best as they move forward into the next phase of their careers.

UW Medicine

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# Rising to the Challenge: Medical Education in the 21st Century

In the summer issue of Surgery Synopsis we most strongly focus on our teaching mission.<sup>1</sup>

American medical education has been most strongly influenced by the 1910 Flexner Report: "Medical education in the United States and Canada: a report to the Carnegie Foundation for the Advancement of Teaching" by Abraham Flexner (pictured right). The Flexner Report effectively advocated a departure from the then model of medical training which was variable in quality, often had inadequate curricula and facilities, and was sometimes profitdriven. He believed that medical education should be based on rigorous, analytic thinking that emphasized the scientific underpinnings of medicine. Many of his recommendations were widely adopted and provided the context for the conduct of medical education for the next 100 years.



Abraham Flexner

<sup>1</sup>We have chosen as the focus of this article, the ACGME accredited residency programs that are adult-focused and primarily based at UWMC and HMC. We maintain a strong pediatric residency presence at Seattle Children's Hospital, led by **Dr. John Waldhausen, Professor and Chief of General Surgery, SCH**. We also have an accredited fellowship in Trauma/Critical Care and a number of other non-ACGME fellowship programs.

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## Chairman's Message — Continued from page 1

**Faculty Promotions:** Our faculty continue to be academically productive, earning them well-deserved promotions. Four faculty were promoted to Associate Professor in 2013. They are from four different divisions: Pediatric General Surgery, Plastic Surgery, Trauma, Critical Care and Burns, and Vascular Surgery. Each has contributed immensely to the Department. They are featured in this issue and we congratulate them upon this very important professional achievement.

#### Looking forward at the 2013-2014 period:

Our Residency Programs – Rising to the Challenges of the 21<sup>st</sup> Century: In this issue you will read about how our residency programs – over the years - have adapted to regulations and devised new training paradigms to continue to lead in the education and training of surgeons. You will be introduced to our program directors and the staff that work with them to make these programs successful. I am proud to be associated with such a committed and capable team.

Hello to our new Residents: We introduce you to our new group of residents in this issue. Along with their pictures, you will read some comments from them describing why they chose the University of Washington Department of Surgery training program.

**New Faculty:** The Department of Surgery continues to grow. As we have added new sites of practice and as our programs continue to grow, we have judiciously added new faculty. Eight new faculty joined in July; please read about them in this issue. We welcome them to our family and wish them the best.

**Dr. Ron Maier receives The 2013 Sheen Award:** Later this year, Dr. Ron Maier will be receiving the 2013 Rodman E. Sheen and Thomas G. Sheen Award. This is an award given to a physician that has made major scientific contributions to the science and the practice of medicine. Dr. Maier was chosen from among 3 top scientists in this country nominated by the Honors Committee of the American College of Surgeons. We congratulate him on receipt of this prestigious award. Dr. Maier's leadership and his mentorship of so many surgeons is appropriately recognized!

Harkins Distinguished Alumni Nominations: Please note that you can still place into nomination someone you believe deserving of the Harkins Distinguished Alumni Award. Criteria and the way to enter nominations can be found in this issue.

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

## Rising to the Challenge — Continued from page 1

In light of this shift in medical education paradigms, changes in the direction and focus of faculty efforts also occurred. Research development and publication, particularly in the latter half of the 20<sup>th</sup> century, became the standard by which faculty academic endeavors were measured. Patient care, teaching and public health issues were regarded as elements of faculty life; however, research productivity and publication served as the distinguishing factors. Consequently, the best and brightest faculty had a strong research focus with less formally recognized focus on teaching.

Many academic institutions realized that the pendulum had swung too far and teaching needed and deserved strong academic focus as well – it could not simply be an add-on. There needed to be increased research into the best methods for teaching adult learners and understanding and implementing adequate assessment and evaluation methodology. In other words, the art and science of teaching needed to be an equally important part of the three-legged stool of clinical care, research and teaching.

## In 1998, the <u>Accreditation Council</u> for Graduate Medical Education

(ACGME) began an initiative to improve resident physicians' abilities to provide quality patient care and to work effectively in current and evolving healthcare delivery systems.



This same group soon thereafter mandated the duty hours limitations to 80 hours per week. These changes, along with ever-increasing technological advances, legislative mandates to the healthcare delivery system and more emphasis on maximizing clinical dollars added to the reality that the way in which American medical education was conducted was changing. The 20<sup>th</sup> century model was no longer able to accommodate the current environment of medicine or the myriad of innovations and changes.

All these changes in policy and thinking left academic medical centers with the challenge of envisioning, recrafting and implementing new mechanics for medical education in the 21<sup>st</sup>century. The Department of Surgery has acted to find inventive, practical and effective ways to *(continued on page 3)* 

adapt our medical education program so that it trains the very best surgeons and continues as one of the very best in this country.

## Leadership and Recognition of Teaching

Since he became Chair twenty years ago, Dr. Carlos A. Pellegrini has been a staunch advocate of the Department's teaching mission. His leadership in this area has permanently changed the culture within the UW Department of Surgery. One example is the change to the Department's Faculty Appointments & Promotions (A & P) criteria. In the years 2005-2007 the Department A & P Committee undertook a review and revision of the Department's A & P criteria. The new A & P criteria were approved by the School of Medicine and have since been a reference point for other Departments as they review their own standards. The new promotion criteria now provide a flexible structure of activities in equal support of all three legs of our academic mission. The A & P Criteria state that to be promoted, faculty must: "contribute to all three missions (clinical care, teaching, and scholarship) but will achieve different balances among these three activities.... the faculty member should excel in at least two of these three areas and demonstrate achievement in the remaining area." Among other things, these changes acknowledge the importance of scholarship related to our education mission.

#### Training to Competency through Simulation



Another way in which the Department's programs have responded to the challenges of modern healthcare education is to use a simulated environment for teaching particular technical and

team skills. To that end, The Institute for Simulation and Interprofessional Studies (ISIS) was created in 2005. ISIS is a UW Medicine multi-disciplinary initiative administered by the Department of Surgery. Its mission is to provide leadership in the use of simulation technologies, to augment and improve the quality of healthcare education and to improve patient safety and outcomes. Within a safe and realistic learning environment, ISIS trains healthcare providers to be effective, efficient clinicians and adept communicators within teams. ISIS addresses the need to train professionals with medical and technical knowledge, with interpersonal skills and an interprofessional mindset. This combination of knowledge, skills and outlook is required for healthcare providers in the 21st century. For mor information on ISIS, please see <u>Surgery Synopsis</u> <u>issue 18:1</u>.

#### **Restructuring Residency Training Programs**

The vision of several of our faculty, particularly those involved in education in the Department's specialties of Cardiothoracic Surgery, Plastic Surgery and Vascular Surgery, is to increase the effectiveness and efficiency of our specialty training programs. These faculty have worked with the UW Medicine GME offices and the ACGME to become accredited in programs that lessen the time spent in residency. As an example, Cardiothoracic Surgery has implemented a restructured training program.

## In 2000, the <u>American Board of</u> <u>Thoracic Surgery (ABTS)</u> and the ACGME Residency Review Committee for Thoracic Surgery

approved the development of six-year integrated cardiothoracic surgery residency programs in which an individual matches



directly out of medical school for a cardiothoracic program. The first two years are spent in the general surgery residency program, learning surgical techniques; the final four years are spent in the cardiothoracic program. The "2 + 4" program shortens the ABTS certification process by one year. In addition, this change also provides the opportunity to address the continued evolution of care in the treatment of cardiothoracic disease. At this time the traditional model of residency training (5 +2 years) remains part of our Cardiothoracic Surgical residency/fellowship; we also offer the six-year integrated residency.

Patient complexity, technology and possibilities for treatment within cardiothoracic surgery have evolved tremendously over the decades, offering patients many more options for treatment. Similarly, care of patients

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with cardiothoracic disease has become more dependent upon a multi-disciplinary team approach, involving primary care physicians, cardiologists, pulmonologists, and others. The next generation of cardiothoracic surgeons must be proficient in traditional procedures as well as facile using new approaches. The integrated program seeks to provide education that meets all of these needs in a quality-driven, efficient and costeffective way.

## Handling "Hand-offs" and Workflow Efficiency

Another frontier in surgical education where the UW Department of Surgery leads its peers is the field of resident work-hours, communication, and handoffs. In 2003, with an 80-hour limit to the resident work-week looming, the department took innovative action. The department reviewed processes among its residents that created rework, redundancy and wasted time. The department also looked into the possibility of a new risk with limited work-hours: increased handoffs of patient care from one resident to another. Studies have shown that increased handoffs introduce risk into patient care.

Erik Van Eaton, MD (pictured right), then a junior resident, proposed that time savings and increased handoff reliability could come from a single new project: Computerized Resident Sign-out (CORES). The system would automate the management of patient lists for rounds, including automatically printing vital signs, laboratory values, and other data on both rounding



Van Eaton

summaries and paper progress note templates. An old and time-consuming tradition of hand-copying these data was thus safely eliminated. In addition, the system standardized the way in which handoff notes were passed from resident to resident, including unfinished tasks and concerns. Automatically updated, ubiquitously available from any hospital computer and from home, the system became abbreviated as "CORES." It was quickly adopted by virtually all resident-run inpatient services at Harborview Medical Center and the University of Washington Medical Center. It spawned additional research across the country with respect to how patient information is best managed and how to optimize handoff safety and workflow efficiency. The effective use of clinical computing tools to enhance clinical care and patient safety became a field of particular expertise at the University of Washington. Dr. Van Eaton completed an NIH fellowship in Biomedical Informatics, and continued to explore new opportunities in this area. The CORES system was licensed by UW to a technology start-up company and is currently installed in two dozen hospitals around the United States.

New research at the intersection of resident work and computerized health technology include an online system for residents to manage and learn from peer-review of morbidity and mortality cases called "QMaster"; and a mobile-optimized central repository for local protocols and algorithms, to which residents submit local guidelines for internal peer review, called Online Clinical Care Algorithms & Messages (OCCAM). Both projects are in development, under the direction of Dr. Van Eaton, and have been funded by the "University of Washington Changing Care Models in the Inpatient and Outpatient Setting" with additional support provided by UW Medicine Information Technology Services and the Department of Surgery.

## Ensuring OR Experience

One of the consequences of the mandated work hours and growing complexity of patient care systems is that residents can have difficulty getting enough time and experience in the OR. To mitigate this, the Department and surgical education directors worked with our hospital partners to help reduce the amount of non-essential resident work. Eliminating work flow inefficiencies gave more time for residents to focus on the experiences they need to become skilled surgeons and caregivers. To do this has not only required more efficient systems, but sometimes adding support in the form of Advanced Care Practitioners to assist with patient care activities and administrative individuals to handle more of the non-caregiver paperwork.

#### Directing the Programs and Training the Teachers

We have a dedicated group of faculty who direct our education programs. They not only stay current on all the changes mandated for residency programs to remain accredited, but have also educated themselves in adult learning theory and pedagogy. As an example, our last faculty retreat in October 2012 focused on how to

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give effective feedback to trainees. They have the best interests of the learners at heart and work with our entire faculty in ways big and small to ensure a strong successful learning environment.

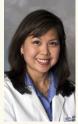
### <u>General Surgery Residency and Medical</u> <u>Clerkship Programs</u>



Karen Horvath, MD, Professor and Associate Chair of Education for the Department of Surgery is the Director of the General Surgery Residency Program. She puts her brain, heart and soul into making this an outstanding surgical residency program. The results speak to her passion. Year after year, the Department of Surgery General Surgery Residency is considered one of the top 10 programs in the country.

Horvath

It routinely matches with top choices. Many of the residents continue at the UW, pursuing Fellowships and/ or becoming faculty. She is ably assisted by HMC Site Program Director, Associate Professor Lisa McIntyre, MD; Seattle Children's Site Program Director, Associate Professor Kenneth Gow, MD; the VA Puget Sound Site Program Director, Associate Professor Dana Lynge, MD, and Northwest Hospital Site Program Director, Assistant Professor Rebecca Petersen, MD. Dr. Roger Tatum, Associate Professor and Chief of VA Surgery leads the Department's Medical Clerkship program. Dr. Hugh Foy, Professor at HMC, is head of the Wind River College – one of the six colleges of the School of Medicine.



McIntyre



Gow



Tatum



Fov

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Petersen



Wood

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(Left to right) Back row: Jen Stuart, Josh Powell and Gina Coluccio. Front row: Denise Lin, Suzanne Mills and Karynne Tsuruda. (Anna Nonis not pictured.)

The superb administrative team that assists the General Surgery Residency and Medical Clerkship programs is led by **Gina Coluccio**, Manager of General Surgery Residency. Other members of our administrative support team includes: **Denise Lin**, Program Coordinator; **Jen Stuart**, Program Specialist; **Karynne Tsuruda**, Program Specialist and Dr. Horvath's assistant; **Anna Nonis**, Medical Clerkship Coordinator (UWMC); **Josh Powell**, Program Operations Specialist (filling Anna Nonis' position while she is on maternity leave); and **Suzanne Mills**, Medical Clerkship coordinator (HMC). These individuals alleviate the tremendous administrative burden of running a large program and help to ensure program compliance and success.

#### <u>Cardiothoracic Residency and</u> <u>Fellowship Program</u>

**Dr. Douglas Wood,** Chief of Cardiothoracic Surgery is the Program Director for the Integrated CT Residency and Fellowship Program. He is capably assisted by **Nahush Mokadam, MD**, Associate Professor (UWMC); **Thomas Varghese, MD**, Associate Professor (HMC); and **Lester Permut, MD** Associate Professor, Seattle

Children's Hospital. Dr. Permut works with the pediatric congenital heart fellowship. Their administrative partner is Delloney Wallyce, CT Residency Program Manager.





Permut

D. Wallyce

#### Plastic Surgery Residency Program

The Plastic Surgery Residency program director is Dr. Jeffrey Friedrich, Associate Professor in the Division of Plastic Surgery. Kari Keys, MD, Assistant Professor is the newly appointed Associate Program Director. Mark Cumpston is the Plastic Surgery Residency Program Manager. The Plastic Surgery program has seen significant change over the past few years. The number of faculty in this Division has grown substantially over the last 5-7 years. In addition to our traditionally strong plastic surgery presence at Harborview (trauma and the burn center), a world-renowned plastic and reconstructive surgery center was established on the UWMC campus and a craniofacial center at Seattle Children's Hospital. With the coincident large increase in operative volume and educational opportunities, the Plastic Surgery Residency program was one of the few in the country to be approved for program expansion, moving from three to four residents per year. The Plastic Surgery program has also recently became fully integrated.







Kevs

Cumpston

### Vascular Surgery Residency and Fellowship Program

Benjamin Starnes, MD, Professor and Chief of Vascular Surgery, is the Program Director of the Integrated Vascular Surgery Residency and Fellowship Program.

Moving forward, Niten Singh, MD, our newly arrived Associate Professor (arrived 7/1/2013), will be the Associate Program Director. Their administrative partner is Anne Wallace-Gold, without whose help Dr. Starnes would not have been able to run such an effective program as well as wear all the other "hats" his position requires.







# Senior Education Champion

## Dr. Ed Verrier, Professor and past Chief of Cardiothoracic Surgery, has long been an advocate of transformation in residency education. He was the program director of the CT Residency and Fellowship program for many years; when he left the role as Program Director, it was to take the role of Surgical Director of Education of the Joint Council on



Verrier

Thoracic Surgery Education (JCTSE). This national organization leads efforts to redefine the cardiothoracic surgery education model and indirectly the larger surgical education model. The passion of Dr. Verrier personally is to improve this University's educational program and education programs nationwide.

These individuals - and many others - deserve praise and thanks from the Department, the School, the University and, above all, the trainees.

Medical Education continues to evolve and the University of Washington's surgical education program continues to innovate to meet the challenges that will keep it as a national leader in educating the next generation of surgeons.