



# Penn Surgery Society NEWS

FALL 2014

The Penn Surgery Society News is published quarterly for its members, colleagues and friends of the Department of Surgery. For submissions, inquiries or comments, please contact [clyde.barker@uphs.upenn.edu](mailto:clyde.barker@uphs.upenn.edu).



## Message from the Chairman

I have had the opportunity to serve as the John Rhea Barton Professor and Chair of the Department of Surgery since February 2009. As part of the Perelman School of Medicine’s “six year review” process we have generated a summary of Departmental accomplishments, an abridged version of which I would like to share with our Penn Surgery Society members.

The Department of Surgery has been successful in its clinical, research and educational missions over the past five years, which have witnessed the progressive growth and expansion of surgical services at our three established hospitals (HUP, Penn Presbyterian Medical Center (PPMC), and Pennsylvania Hospital (PAH)) and the incorporation of a fourth hospital, Chester County Hospital, into Penn Medicine. The number of full-time faculty has grown from 107 in FY09 to 120 in FY14. The operative case volume has grown at a steady rate –surgical cases in FY2009 were 24,023 and were 25,532 in FY2014. Gross patient revenue in 2014 was \$174M and our total operating revenue was \$77.5M. In FY2014 the faculty generated 719,636 WRVUs. The Penn Medicine benchmark is the 65th percentile of surgical productivity (by specialty) in the University Health Consortium database, and we exceeded this benchmark by 11%. Clinical faculty growth has led to surgical volume growth and this volume has substantially contributed to the financial success of Penn Medicine. Departmental faculty have been particularly successful in innovative and complex tertiary care surgery, such as cardiac surgery, endovascular surgery, complex cancer surgery, reconstructive plastic surgery, and transplantation. In many cases this success has dovetailed with the growing role of interdepartmental service lines in patient care delivery, with Departmental faculty playing major leadership roles in the cardiovascular, cancer, pulmonary and transplant service lines.

Basic and clinical research activities by Departmental faculty continue to place the Department of Surgery among the top departments nationally in research funding. Extramural laboratory research funding within the Department was roughly \$12M in FY14 and clinical trial income exceeded \$4M - a 250% increase in clinical trial revenue compared with FY09. The Department’s research activities have faced the same challenges as other departments with regard to NIH funding. This has been exacerbated in some cases by the loss of externally funded mid-career and senior faculty to leadership positions at other institutions. Balancing loss of productive surgeon-scientists has been the success of a number of young faculty in developing and obtaining external research funding. Clinical research funding has also been a bright spot.

Education remains a core mission of the Department. In 2012 the General Surgery program was granted a 5 year accreditation cycle. This 5 year cycle was converted into a projected self-study date of June 1, 2022 as part of the Next Accreditation

*(continued on page 2)*

### Alumni Reception

100<sup>th</sup> Annual Clinical Congress of the American College of Surgeons

Tuesday, October 28, 2014

6:00 - 8:00 pm

Hilton San Francisco Union Square  
Golden Gate 2 - Lobby Level

### IN THIS ISSUE

Message from the Chairman	1-2
From the Editor	3
Alumni News	3-4
New Faculty	4 & 8
Christian Lambertson	5-7

## Message from the Chairman *(continued from front page)*

System. The Department also created 2 new direct pathway residency programs in Cardiothoracic Surgery and Vascular Surgery and transitioned its Plastic Surgery program from an independent program (5 years of General Surgery and 2 years of Plastic Surgery) to an integrated six year program adding Plastics into all levels of training. With the availability of the Measey Surgical Skills Suite at Penn Medicine – Rittenhouse (the former Graduate Hospital), the General Surgery program has developed a SIM Curriculum for PGY1 and PGY2 residents that provides them with laparoscopic simulation training as well as a curriculum to improve other technical and patient management skills.

We continue to recruit excellent residents to our training programs, most of whom continue with additional fellowship training prior to pursuing academic careers. Post-residency fellowship programs in Cardiac, Colorectal, Critical Care/Trauma, Plastic, Transplantation and Vascular Surgery are also highly competitive, and have not had a significant negative impact on residency training. Enthusiasm for surgery as a career among graduating Penn medical students is, in part, a reflection on the success of our education programs.

**Patient Safety, Quality and Risk Management:** Under the leadership of Steve Raper, MD the Department Vice Chair for Quality and Risk Management (and who recently obtained his JD and passed the Bar Exam while maintaining his busy surgical practice), a Surgery quality dashboard has been created that tracks results and complications across all three entities. The Department's malpractice claim experience has had among the most significant decreases of any clinical department at Penn Medicine in recent years, with a corresponding decrease of several million dollars annually in malpractice expense. Our Press-Ganey scores have improved substantially in recent years, and we've recently learned that HUP will be acknowledged at the American College of Surgeons annual meeting as one of three meritoriously performing American College of Surgeons National Surgical Quality Improvement Program (ACS – NSQIP) hospitals.

Despite these successes, the Department faces several important challenges in the coming years including: Development of a comprehensive growth strategy including involvement of faculty at multiple Penn Medicine outpatient satellite facilities and integration of faculty from Chester County Hospital, and potentially other regional medical centers, into the Department; continuing to improve patient satisfaction and quality metrics, and sustaining and improving **2** the malpractice experience of recent years; continuing to

support faculty diversity through successful recruitment and career development of female and underrepresented minority faculty members; competing with other regional and national programs that have targeted the same "high end" surgical services that have been so successful at Penn and facing financial challenges resulting from external forces, such as bundled payments and the two midnight rule. In addition to these clinical challenges, we face challenges to our education program, including the safe and effective adherence to work-hour regulations for our housestaff and adoption of milestone-driven evaluation and advancement programs for trainees. We also must continue to support and grow basic, translational and clinical research activities by faculty and housestaff and increase the integration of our research activities with other departments, centers and institutes.

I have the good fortune to work with outstanding Vice Chairs, Division Chiefs, Chiefs of Surgery PPMC and PAH and our superb Chief Operating Officer, Deb Rose. The Finance Committee, directed by Vice Chair of Finance, Joseph Serletti, meets on a monthly basis to review the finances of the Department and advise the Chair on financial policy. The Surgery Professionalism Committee is co-chaired by Ron Fairman and Jon Morris. This committee meets when professionalism issues arise and is advisory to the Chairman. Jon B. Morris, M.D. serves as the Vice Chair for Education and is the Director of the General Surgical Residency Program in the Department. Philanthropic gifts to the Department have increased from commitments of \$2.4M in FY09 to \$7.4M in FY14. The Department is fortunate to have a sizable endowment that is used to support faculty and resident research and academic activities; the overall net asset value of the Surgery endowment has increased from \$106M to \$155M at the end of FY14. The total number of endowed professorships in the Department currently stands at 17. In addition, we are completing the funding of the Rosato-Measey Professorship and we expect to name the Rosato-Measey Professor in FY15.

I am proud of our accomplishments over the past five years, and recognize the challenges we will face going forward. I am confident that the Penn Surgery faculty and our Departmental leadership will be equal to the task. I expect to provide a similarly positive summary to the Penn Surgery Society in six more years – look for it in the fall 2020 newsletter. I want to close by thanking our many Penn Surgery Society Members for their friendship and their support of the Department, and a special thanks to Dr. Clyde Barker for editing this newsletter and leading the Penn Surgery Society.



## From the Editor

Clyde F. Barker, M.D.

I was recently invited to speak at a seminar marking the Penn Trauma Service's upcoming move to new spacious quarters at Presbyterian Hospital after its first 27 remarkably successful years at HUP. In preparing some remarks, I reviewed the rich history of Penn trauma and military surgeons and familiar stories about General I. S. Ravdin, Surgeon General C. Everett Koop, Bill Fitts, Bill Schwab and John Pryor. I also recalled the contributions of other Penn alumni or faculty whose relationship to these fields was more obscure, such as John Morgan, Benjamin Rush, D. Hayes Agnew and John Shaw Billings. It then dawned on me that Christian Lambertson, the Penn doctor who was arguably the most significant contributor to these fields, is usually entirely absent from such lists. This is quite remarkable since among his many citations are those from the Green Berets, the Navy Seals and NASA.

I first heard of Chris Lambertson while I was in grade school. At the time, my older brother and Chris' other Penn medical school classmates were so proud of his wartime exploits that they bragged about him to their families. Chris Lambertson was not a surgeon. But his remarkable career and close relationships with HUP surgeons more than justify featuring him in our newsletter. Lambertson was a pharmacologist and scientist, but often worked with HUP surgeons in care of their patients. Despite his senior status in a basic science department, he also had an appointment in Medicine and was a familiar figure in the hospital. His approachability made him a great friend of young doctors.

This year marks the 250th anniversary of the founding of Penn's Medical School. The celebrations were kicked off by a birthday cake on the college green hosted by Dean Larry Jameson, CEO Ralph Muller and University President Amy Gutmann. I'm sure there will be many more commemorative events during the course of the year. For Surgery I doubt that there will be as many relating to Surgery as there were for the School's 200th. Not many of us are left who would remember the fuss made over that anniversary. Dr. Ravdin who controlled the World of Surgery as well as Penn's School of Medicine, had arranged for virtually all National and International Surgical Societies to hold their annual meetings in Philadelphia in 1965. This probably incomplete list included the American Surgical Association, the Society of University Surgeons, the Society of Clinical Surgery, the Halsted Society, the International Society of Surgeons, the International Cardiovascular Society, the American Society for Thoracic Surgery, the American Association for Surgery of Trauma, the American Society for Plastic and Reconstructive Surgery and the Clinical Section of the AMA.

An upcoming meeting worth mentioning is the Academic Surgical Congress (February 3-5, 2015). Since 1988 this has been a joint meeting of two older Surgical Societies, the Society of University Surgeons and the Association of Academic Surgeons. In the last few years, Penn surgical faculty and residents have increasingly participated. A reception hosted by Dr. Drebin for our Society is becoming a tradition. At this year's meeting one of our alumni, Marshall Orloff, will receive the prestigious Lifetime Achievement Award of the Society of University Surgeons. So far only eleven surgeons have received this award. Four have been Penn Surgical Society members: James Thompson, Clyde Barker, Alden Harken and Marshall Orloff.

## Alumni News

Faculty, Residents, Alumni of Penn Surgery  
email your news to Clyde Barker  
[clyde.barker@uphs.upenn.edu](mailto:clyde.barker@uphs.upenn.edu)

- ◆ On October 25 at a dinner during the 2014 Congress of the American College of Surgeons **L. Henry Edmunds, Jr., MD**, the Julian Johnson Professor of Surgery, will be honored by the Society of Thoracic Surgeons for completing 15 years as Editor of the *Annals of Thoracic Surgery*. Hank's efforts during that time resulted in this becoming the dominate journal in the field. Before devoting full time to the journal Hank was for 20 years Chief of Cardiothoracic Surgery at HUP.



- ▶ **Howard Snyder, MD**, received the 2013 Pediatric Urology Medal awarded to those who have made outstanding contributions to the specialty of Pediatric Urology by the American Association of Pediatrics. In addition he was awarded an American Urological Association Presidential Citation for outstanding contributions in reconstructive pediatric urology and the treatment of hypospadias. Howard also has the distinction of being a member of the Board of Regents of the American College of Surgeons.



(continued on page 4) **3**



# Alumni News *(continued from page 3)*

- ◆ **Louise Schnauer, MD**, On October 1, CHOP announced the establishment of the Louise Schnauer Endowed Chair in Pediatric Surgery. **Holly Hedrick** was named the inaugural chair holder.



Louise Schnauer (1925-2011) was for many years a favorite attending of HUP residents rotating at CHOP or taking their fellowships there. A graduate of Wellesley College and Women's Medical College of Pennsylvania, she completed her internship at Union Memorial Hospital in Baltimore.



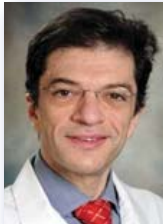
In the early 1960s, she helped establish the first pediatric surgical unit at Johns Hopkins. She came to CHOP in 1971 where she became C. Everett Koop's closest colleague. After Dr. Koop left CHOP to become U. S. Surgeon General, she worked closely with Scott Adzick. She was internationally known for her work in separating conjoined twins and her expertise in surgical treatment of biliary atresia.

In 1999, the American Academy of Pediatrics named her its Arnold M. Salzberg Awardee for outstanding mentorship of pediatric surgical trainees.

In 1995 while still in active practice at age 70, Louise made a generous gift to CHOP which created the Louise Schnauer Endowed Fellowship in Pediatric Surgery.

Holly Hedrick is very worthy to be the first Louise Schnauer Chair holder. She is well known for her work within CHOP's Center for Fetal Diagnosis and Treatments and for her own experience separating conjoined twins. She is also the surgical director of the Extracorporeal Oxygenation Program, and co-director of the Pulmonary Hypoplasia Program. Dr. Hedrick had part of her training under Dr. Schnauer as a fellow and like Dr. Schnauer, is a particularly committed and gifted teacher.

- ◆ **Daniel Kreisel, MD, PhD**, (HUP Chief Resident 2003) has been promoted to full Professor of Surgery, Pathology and Immunology at Washington University in St. Louis.



years as a research fellow in Vascular biology at the Beth Israel Deaconess Medical Center. In 2014 he finished 2 years as a vascular fellow at HUP.



Scott's research employs genomic techniques to characterize biological pathways and cellular mechanisms in vascular disease. He studies DNA sequencing in two important groups: individual patients with severe and/or early onset vascular disease, and families with highly penetrant vascular disease. This should identify mutated genes underlying the patients' disease and allow them to be isolated for study in *in vitro* and *in vivo* model systems. He is also using proteomic techniques to identify biomarkers that could be used to detect and monitor progression of vascular disease without the need for imaging studies.

- ◆ **Major Kenneth Lee, IV, MD, PhD** -



Assistant Professor, Gastrointestinal Surgery - Ken finished his HUP general surgery residency in 2013. After a year of special training at Washington University in hepatobiliary and pancreatic surgery he returns to HUP in the GI Division. He has a strong basic research background having obtained his BPh in molecular biology (Summa Cum Laude) from the University of Pittsburgh. He then worked with Jim Markmann and other scientists at Penn obtaining both his PhD and MD in 2007.

Ken has accumulated many awards including the Perloff and Reemtsma awards as resident. His research has resulted in awards from the Society of University Surgeons and the American Transplant Congress.

- ◆ **Brian P. Smith, MD** -



Assistant Professor, Traumatology, Surgical Critical Care and Emergency Surgery - Brian is a Philadelphia native. He earned his Bachelors Degree in Biology at Ursinus College before attending medical school at Temple. He completed his general surgery residency at Temple. During that time he earned a Masters Degree in Clinical Research and Translational Medicine. In 2014 he completed a 2 year fellowship in Trauma and Critical Care at HUP. He won the 2009 American College of Surgeons Committee on Trauma Resident Research Paper Competition. In 2012, Brian

## New Faculty

- ◆ **Scott M. Damrauer, MD** - Assistant Professor Vascular Surgery - Scott is a graduate of Harvard University. He completed his general surgery training at the Massachusetts General Hospital in 2012, also spending 2

*(continued on back page)*

# Christian Lambertson, Penn Scientist, Physician, and War Hero

The early part of Christian Lambertson's career could easily serve as the plot for a gripping adventure novel or film. *The New York Times* began his obituary: "When American commandos slipped into the sea off the coast of Burma in World War II and swam underwater to attach explosives to Japanese vessels, Captain Christian Lambertson often led them. After all, he had trained them to dive and had invented the breathing device that allowed them to stay under the waves."

During WWII while Chris Lambertson was a Penn medical student, he invented SCUBA the self-contained rebreather equipment for prolonged underwater swimming. The invention was at first termed LARU (Lambertson Amphibious Respiratory Unit). Lambertson later gave it the name SCUBA, by which it is now universally known. While completing his medical school class work, Lambertson perfected and tested his invention in a pond on the Penn campus. He was then recruited by the Army and the Office of Strategic Services (OSS) to train U.S. frogmen and later Navy Seals in underwater swimming. His training and equipment enabled them to conduct covert missions such as preinvasion survey and clearing of enemy coastlines and underwater demolition.

The young Chris Lambertson's inspiration for inventing SCUBA was an early medical school course in respiratory physiology. In this course students studied a variety of adverse respiratory conditions such as hypoxia which they produced by holding their breath, and reduction of blood levels of CO<sub>2</sub> which they induced by hyperventilating. During medical school vacations at the Jersey shore Lambertson with his two cousins devised related experiments while diving and swimming underwater. At first, they attempted to prolong underwater swimming with a homemade rebreathing rig consisting of a mouthpiece and bag connected to the surface by a long garden hose. Through the hose his cousins used a bicycle pump to deliver fresh air to Lambertson while he swam. Later, this primitive air delivery system was replaced with a cylinder



**Christian Lambertson - Inventor of SCUBA,  
Father of Underwater Combat**

of compressed oxygen. This too proved unsatisfactory because exhaled CO<sub>2</sub> was trapped and accumulated in the air bag. With the advice of his medical school physiology professor Lambertson solved this problem by obtaining anesthesia equipment that contained a CO<sub>2</sub> absorbent device between the mouth piece and the breathing bag. A Cleveland based company that manufactured the anesthesia equipment became interested in Lambertson's device for potential use in lifesaving accidents. They offered Lambertson a summer vacation job to work

on it which he was glad to accept since it paid \$30 per week, a handsome salary in those days.

While working for this company, Lambertson performed underwater tests of his device in Lake Erie. He found that his equipment allowed him to do 30 minutes of light work while submerged at a depth of 60 feet. Remaining underwater for that long without a heavy diving suit and helmet was a feat unheard of at the time. But there were inherent dangers. In related experiments performed in an air tight chamber rather than underwater Lambertson experimented with his equipment on a canary, a dog and himself. After a few minutes the canary and the dog became unconscious and when Lambertson leaned over to check on the dog he fell unconscious to the floor. Fortunately help was quickly on hand to save his life.

This was only one of several occasions in which Lambertson flirted with death as he modified and tested his equipment always using himself to test its safety. For the rest of his life, he stressed that doctors should first test on themselves any dangerous new equipment or treatment. Other close calls were 4 episodes of oxygen toxicity including one that induced a seizure. Because he had learned to recognize the early symptoms of oxygen toxicity he was able to inflate his flotation device just before he lost consciousness.

Only the dean of the medical school knew of Lambertson's  
(continued on page 6) **5**

## Christian Lambertson *(continued from page 5)*

vacation activities. But the remarkable feat of deep water diving for 30 minutes was too spectacular to keep secret. Lambertson was encouraged to publish his experience. Appearance of the resultant paper in the *Journal of the American Medical Association* made him a local celebrity and also attracted national attention.

In 1941 and 1942, because of the obvious promise of his invention for wartime military use Lambertson was invited to conduct several trials for the U.S. Navy, the Office of Strategic Services (OSS) and the British Admiralty. Surprisingly, the Navy was not interested, choosing to continue using conventional heavy diving suits and helmets. An aspect of the Lambertson device that was unique and particularly attractive to the OSS was that the CO<sub>2</sub> scrubber (absorbent) not only allowed safe reuse of the oxygen in the self contained system but in addition left no tell tale exhaust air bubbles to betray the presence of a diver to observers on the surface. As a result of the trials Lambertson was recruited by the OSS for continuing perfection of his equipment and for training military divers in its use.

50 years later at a medical school class reunion Lambertson told his classmates more of the story. After he was recruited to train US frogmen (and later the Navy Seals) to use his device in covert underwater missions he was given a letter by the medical school dean, William Pepper. It stated that for secret reasons he

could be absent from medical school for any period of time with no questions asked. He said that he almost failed Ob-Gyn because they wouldn't believe his cover story.

As a HUP intern in 1944 Lambertson met in the hospital's maternity waiting room with OSS and British personnel to plan undersea maneuvers. Then with his frogmen Lambertson was sent to England, Europe and to the China, Burma, India War Theater where in the dark they swam underwater for pre-invasion clearance of coastlines and to attach explosives to enemy ships. They also ferried supplies and  
**6** weapons to resistance fighters and rescued downed fliers.



**Christian Lambertson as a Penn Medical Student in 1942**



**1942 Lambertson practices and perfects his equipment while swimming in a Penn campus pond.**

As a physician Lambertson was not expected to go on these dangerous missions. But a superb young athlete and swimmer, and a person never satisfied to let others do his job, Lambertson became an active participant in these harrowing maneuvers and others such as piloting a one man submarine. He was also the first to exit and re-enter a submerged submarine. For these activities he was awarded the Legion of Merit and the OSS Distinguished Service Award. In 2000, the Navy Seals designated him "Father of U.S. Combat Swimming."

As the war ended, Lambertson was discharged from active service in the Army and OSS, but he continued to develop new equipment, methods and training for underwater military activity. Back in civilian life, Lambertson began a distinguished faculty career at Penn that was to last 6 decades. Since he was not only Professor of Pharmacology, (his home department) and of Veterinary Medicine, but also Professor of Medicine, he was a familiar figure in the halls of the University Hospital. Surgical residents such as myself were privileged to become his friends and colleagues as they had the somewhat questionable pleasure of diving with him through several atmospheres in his artificial submarine to help him and his team employ hyperbaric oxygen in treatment of patients with gas gangrene. Sometimes I think I can still feel the pain and hear popping in my ears.

With a small cadre of his generation, Lambertson became a legendary figure and leader at HUP. Others with the stature to place them in this category would be limited to only a few such as Jonathan Rhoads, Brooke Roberts, Bill Fitts, Nipper Schnabel and Fran Wood. In the decades after WWII, they set the tone and standards for the modern Penn Medicine.

Of this group of physicians, only Lambertson was actually a professional scientist. His lasting contributions were classic studies in pulmonary physiology. Memories of his personal  
*(continued on page 7)*



experience with O<sub>2</sub> toxicity while diving had stimulated an abiding curiosity concerning the underlying mechanisms of central nervous system O<sub>2</sub> toxicity. His early faculty years came at a fortuitous time. With a grant from the Office of Naval Research, Lambertson turned the doors around in an altitude chamber to convert it into a pressure chamber that could simulate deep water conditions. In experiments conducted in this chamber, he studied the effects of hyperbaric O<sub>2</sub> and inspired CO<sub>2</sub> on cerebral blood flow and O<sub>2</sub> consumption.

Dr. Lambertson's versatility is apparent from casual perusal of his more than 100 publications, most of them in high impact journals. One that caught my eye was titled *From Submarines to Satellites*. In the 1950's and 1960's as the U.S. moved into exploration of space, because of Lambertson's expertise in respiratory physiology under adverse conditions he became a leader in the initial planning for our country's manned space flights. A few of his roles in this new field were:

1. Chairmanship of the National Academy of Sciences' Committee on Man-in-Space
2. Membership on the President's Space Panel and NASA's Space Advisory Board



**Christian Lambertson Professor of Pharmacology**

3. Membership on NASA's Lunar Base Planning Group and its Medical Advisory Board on the Hubble Telescope Repair. These activities were recognized by the Aerospace Medical Association Award and a commendation from NASA.

In 1968, Dr. Lambertson was appointed Director of Penn's newly established Institute for Environmental Medicine where he continued his fundamental research and teaching and in addition supervised the use of hyperbaric oxygen therapy in clinical medicine. Since then the use of hyperbaric oxygen therapy (HBOT) in clinical medicine has grown substantially in the number of conditions treated and treatment centers. In addition to its use in preventing or treating decompression sickness of divers (the bends) HBOT is effective in preventing or reducing delayed neurological sequelae from carbon monoxide poisoning. It is also widely used in the treatment of diabetic ulcers, radiation injury and severe infections. Today, there are approximately 15 conditions approved for treatment by hyperoxia, and there are treatment facilities in most regions of the country. The foundation of this widespread application of HBOT is grounded on the work of Chris Lambertson.

Lambertson is one of the most honored American physicians and scientists. A small sampling of his more than 30 awards and honors include:

- Membership in the National Academy of Engineering
- The University of Pennsylvania's Alumni Award of Merit and its Distinguished Graduate Award
- Honorary Doctor of Science Degree from Northwestern University
- Citation of the Governor of Pennsylvania
- From the Secretary of the Navy the Meritorious Service Award and the Military Oceanography Award
- Public Service Medal Awards from the US Coast Guard and from the Department of Defense
- US Navy SEAL Association Lifetime Achievement Award
- US Special Forces Green Beret Award
- A Lifetime Achievement Award from the US Naval Academy
- Commendations from the Chief of Naval Operations
- The American College of Physicians Fellowship Award

Two years ago I was privileged to present Chirs Lambertson with his last major honor, the John Scott Award, a lifetime achievement award from the City of Philadelphia. From his wheel chair he talked about his continuing fascination with oxygen, its uses and its toxicity. At age 93, this larger than life character could still command an audience.



# Penn Surgery

Department of Surgery  
Attn: Clyde Barker, MD  
4 Silverstein/HUP  
3400 Spruce Street  
Philadelphia, PA 19104

FALL 2014

## New Faculty *(continued from page 4)*

received the H. Taylor Caswell Award from the Temple University Department of Surgery for outstanding teaching as Chief Surgical Resident. His research interests include management strategies of traumatic injuries and genetic determinants of the inflammatory response.

- ◆ **Gregory E. Tasian, MD. MSc**, Assistant Professor CHOP - Greg is an Assistant Professor of Urology in Surgery at Penn and an attending urologist at The Children's Hospital of Philadelphia (CHOP). He is a graduate of Baylor College of Medicine. He also earned a MSc at Oxford for 2 years study in neuroscience and a MSCE degree from the University of Pennsylvania. Dr. Tasian completed a urology residency at the University of California, San Francisco and a pediatric urology fellowship at CHOP. Dr. Tasian has particular expertise in the surgical and medical management of children with kidney stones as well as pediatric genitourinary malignancies. He has published and lectured exten-



sively, is a nationally recognized expert on the determinants of nephrolithiasis in children and is actively developing individualized treatments to decrease kidney stone recurrence among adolescents.

- ◆ **Dana A. Weiss, MD**, Assistant Professor Urology CHOP. Dana earned her BA/MD degrees from Yale University. She completed her internship and residency in Urology at the University of California at San Francisco before coming to CHOP for her fellowship in Pediatric Urology in 2012. In 2013, Dr. Weiss was awarded the prestigious Urologic Care Foundation Research Scholar Award. In line with her research investigating the neurologic and physiologic basis of voiding and bladder outlet obstruction, Dr. Weiss will also be involved in caring for patients with neuropathic and non-neuropathic bladder dysfunction. She uses minimally invasive and robotic-assisted techniques for genitourinary reconstruction.

