



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 Mary.Hamburg@uphs.upenn.edu.



Jeffrey Drebin

Message from the Chairman

With the start of a new calendar year our thoughts turn to spring and the renewal that comes with the changing seasons. And like the early buds of spring vegetation, construction booms are sprouting on all three of our primary medical campuses. At Pennsylvania Hospital (PAH) a new 18 story outpatient tower is being built to accommodate Department of Surgery outpatient practices as well as other Departments. Located at 8th and Walnut in close proximity to the hospital, this facility will offer state of the art outpatient radiology and laboratory services, as well as clinical space for patients to be seen by our faculty. With ongoing reconfiguration of the main hospital, PAH will be the first hospital in Penn Medicine to offer all single bedded inpatient rooms.

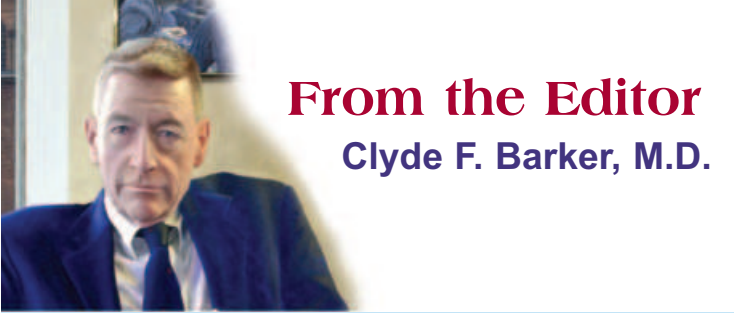
Penn Presbyterian Medical Center (PPMC) is also in the process of acquiring new outpatient space, which will be located across the street from the main hospital campus at 38th and Market. In addition to outpatient offices and testing services, ambulatory operating rooms are planned for this site. The expanded outpatient capacity at PPMC will be balanced by the construction of new space in the main hospital, including an expansion of the emergency room and several floors of new patient rooms, intensive care units and operating rooms. The completion of this space will allow the core of our Trauma program to migrate from the Hospital of the University of Pennsylvania (HUP) to PPMC, which will help balance the clinical load at each site.

At HUP the south tower of the Perelman Center for Advanced Medicine is being expanded upwards and outwards. This will include new clinical space as well as several floors dedicated to medical education. Those who have not been back to HUP in the past five or six years will undoubtedly find the building that has occurred on the site of the old Civic Center remarkable. The Perelman Center itself is architecturally striking and provides the site for essentially all outpatient activity for Department of Surgery faculty at HUP. It has been a huge “patient satisfier”, providing superb clinic space, the full array of radiology and outpatient testing services, outpatient operating rooms and on-site parking in one central location. It has been expanded over the past several years by the expansion of the west tower and the construction of the Smilow Center for Translational Research above the west tower clinical facilities. The south tower expansion is only the latest of a phased series of construction projects planned for the HUP campus.

Clinical activity has been unexpectedly soft this year, with resulting effects on revenue. In speaking with colleagues around the country this appears to be part of a national trend, and is consistent with a recent New York Times article citing an unexpected fall off in medicare utilization nationally. Making these types of capital investments in a challenging economy is not easy, but, I expect these projects, along with faculty activity to continue to advance clinical and translational surgical science, and will help us stay at the cutting edge of patient care in the years to come.

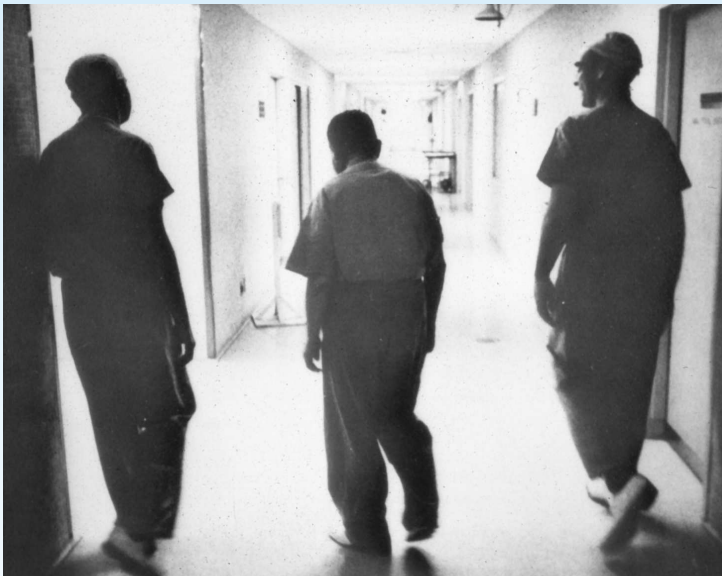
IN THIS ISSUE

From the Editor	2
Alumni History	3
Lung Perfusion Program	3
1,000 th Heart Transplant	4
New Surgery Chair at PAH	4
Unique New Biography	5
Young Leader	6
Alumni News	7
Vascular Reception	8



From the Editor
Clyde F. Barker, M.D.

The death of Robert Crichlow (page 3) marks the passing of one of HUP’s last Ravdin residents. Crich’s senior residency years were during Dr. Rhoads’ tenure as Chairman, thus he is one of 11 Rhoads chief residents who became a department chairman. However during Crich’s decade on the HUP faculty he worked on the “Ravdin service” as a member of the team that in Rav’s declining years allowed him to maintain his huge clinical practice. (see picture below of Crich beginning rounds with I. S. Ravdin and Rav’s son, Bob Ravdin). Crich, one year ahead of me in the residency, was one of my mentors and closest friends. He and his wife Marilyn were Dode’s and my neighbors in West Philadelphia while we were residents and as junior faculty we shared many experiences while living on the same block in Wynnewood. Our children were friends and were sledding together on a neighborhood hill when Bob’s son broke his neck (fortunately without serious neurological sequelae).



Bob Ravdin, I. S. Ravdin, Robert Crichlow

Years later, during a visit to Dartmouth, I saw what a fine job Crich had done in helping to transform a 2 year school with a small hospital into a major regional medical center. The chance for us to laugh about once painful “war stories” recalled for me the sense of humor that made Crich such a favorite at HUP. A recent reminder of this was a reference in his newspaper obituary

to a story he loved to tell: Crich, a serious opera buff and member of the board of the local opera company was once honored by the opportunity to treat the acclaimed tenor Luciano Pavarotti for what the newspaper obit termed “a minor ailment”. Crich had been delighted to share with Dode and me the full unsanitized version of the story. While in Hanover, New Hampshire for a concert, Pavarotti was suddenly overcome with severe perianal pain. Because he refused to go to the hospital Crich made a house call at the tenor’s hotel room, bringing with him equipment that he thought might be useful. Through an anoscope he discovered and extracted a sizable, sharp chicken bone. Apparently the source was a large meal consumed too hastily by the famous gourmand. The patient was immediately relieved by Bob’s procedure. A year later Crich was attending a performance by Pavarotti at New York’s Metropolitan Opera. Afterwards, he arranged to visit the tenor in his dressing room. He reminded his former patient of their previous encounter but the pompous Pavarotti refused to acknowledge any recollection of the event. Crich was disappointed but I thought that this made the story even better.



It is always a nice surprise to turn on the TV and see the face of a Penn Surgical Society Member. New Year’s Eve it was Dave Deaton’s face. Dave (Chief of Vascular Surgery at Georgetown) was being interviewed for his analysis of Hilary Clinton’s transverse venous sinus thrombosis apparently secondary to her head injury and concussion. In describing the rare condition and predicting that she would be okay, I thought Dave gave a good account of himself.

Erratum: In the last issue I congratulated Dan Kreisel for his election to the American Society of Clinical Investigation as the first Penn surgeon ever to be so honored. I was wrong. **Stan Dudrick** is also a member having been elected in 1978.



Alumni History

Robert Crichlow, M.D.

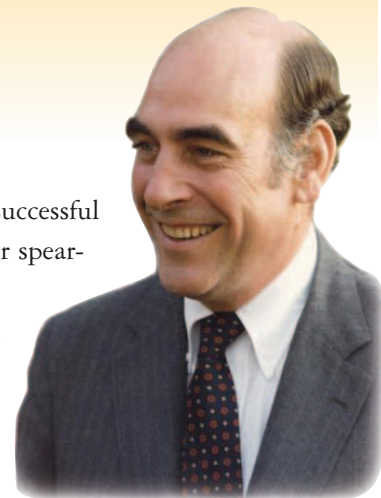
Robert W. Crichlow, Emeritus Chairman of Surgery at Dartmouth died at age 80 on November 13, 2012. Dr. Crichlow was a graduate of Haverford College and the School of Medicine of the University of Pennsylvania. After internship and surgical residency at the Hospital of the University of Pennsylvania he was appointed to the Penn Surgery Faculty in 1963. In 1972 he advanced to the rank of Associate Professor here before accepting a faculty position at Dartmouth later that year. He became Department Chairman at Dartmouth in 1980, serving 15 years in that role until his retirement in 1995.

During his decade as a prominent member of the HUP faculty he focused his clinical and research activities on oncology. He was particularly interested in male breast cancer on which he wrote extensively. He also did basic laboratory research on the use of tumor markers including carcinoembryonic antigen for detection of colon cancer. In addition he worked with Dr. Rhoads on nutrition of surgical patients. They established positive nitrogen balance by infusing massive volumes of glucose solutions along with diuretics necessary to get rid of the fluid. These studies were

the important prelude to the successful hyperalimentation program later spearheaded by Stan Dudrick.

As Chairman at Dartmouth Dr. Crichlow established new programs for his department in vascular surgery, pediatric surgery and transplantation as well as a Level I Trauma Service. He had a prominent role in expanding Dartmouth's Medical School from a 2 year school to an MD degree granting institution and in establishment of the Dartmouth-Hitchcock Medical Center. He was a prominent leader in New England Health Care, serving as Secretary and later as President of both the New England Surgical Society and the Eastern Surgical Society.

After his retirement in 1995, Dr. Crichlow developed a chronic progressively debilitating neurological disorder eventually necessitating the full time care of health services as well as devoted care by Marilyn, his wife of 56 years.



First Success of Donor Lung Perfusion Program

Penn Transplant surgeons led by Edward Cantu are successfully using a new technique that repairs damaged donor lungs that would otherwise be unusable. For the first time they have successfully transplanted reconditioned lungs into a patient. The 66 year old patient was the first in the region to receive lungs treated by this new procedure.

Known as ex vivo lung perfusion (EVLP), the new technique is applied to donor lungs outside of the



body before transplantation with the goal of expanding the pool of organs suitable for transplantation. Equipment for the initial phase of the new technique was funded by HUP's 2012 Philadelphia Antiques Show.

Chronic lung disease affects 35 million Americans and causes 400,000 deaths per year. Lung transplantation is the only life-saving therapy for patients with end-stage lung disease, however, the procedure has limited availability because only 15-20% of donor lungs are safe for transplantation. This shortage of donor

lungs results in the death of 20 percent of lung transplant candidates awaiting transplant.

Donor lungs are susceptible to injury from excess fluid accumulation, bacteria, and other damage from intensive care unit-related complications, often rendering them unsuitable for transplantation. EVLP is a new method that allows the transplant surgeon time to accurately assess and optimize function of lungs that would otherwise be

discarded. This new technique could potentially more than double the number of transplantable lungs.

The process involves a 3- to 4-hour period during which the donated lungs are placed inside a sterile plastic dome and attached to a ventilator, pump, and filters. The lungs are maintained at normal body temperature and perfused with a bloodless solution that contains nutrients, proteins, and oxygen. This can reverse lung injury and remove excess water in the lung.

(continued on page 6)

1,000th Heart Transplant at HUP

In late 2012, we were privileged to be a part of a unique milestone, the successful completion of the 1,000th heart transplant at Penn. Dr. L. Henry Edmunds began the program at Penn with the first successful heart transplant in April of 1987. Since that time, under the sequential leadership of Drs. DiSesa, Acker, Rohinton Morris, and Woo, the program has expanded, and now performs 50-60 heart transplants annually. Penn's cardiac transplant program is the largest in the region and the 4th or 5th busiest in the nation. Because of the shortage of donor hearts, only 2,000 heart transplants are performed in the entire United States annually.

The field of cardiac transplantation has evolved significantly over the past several decades. Indications have expanded, as has the maximum age for eligibility. Surgical techniques have improved and become more efficient. Peri-operative care has advanced. Pharmacologic management, particularly in anti-rejection therapy, has advanced significantly. National patient survival for one, five, and ten year periods post-transplant have improved significantly over time. Notably, Penn's outcomes exceed national benchmarks. Penn's longest survivor, transplanted in 1988, is doing well and soon will be celebrating the 25th anniversary of his

cardiac transplant.

Advancing in parallel with biologic cardiac replacement, mechanical circulatory support has undergone remarkable transformation. A total artificial heart is now readily available. Ventricular assist devices have evolved from large first generation, pulsatile intra-abdominal devices to moderate sized second generation pre-peritoneal axial flow devices, to small third generation centrifugal flow intra-pericardial devices. Newer generation, tiny intra-cardiac and intra-vascular devices are under active research and clinical investigation. These devices have played a major role in the treatment of heart failure patients and greatly impact the landscape of cardiac transplantation by both stably bridging otherwise unstable non-candidates to become healthy cardiac transplant candidates as well as serving as an alternative destination therapy, thereby effectively extending the limited cardiac donor pool to patients more ideally suited for transplantation. Penn's robust mechanical circulatory support program has grown significantly and is on the verge of performing more VADs annually than cardiac transplants, an overall national trend which Penn is leading.

~ Joseph Woo

New Surgery Chair at Pennsylvania Hospital

Dahlia M. Sataloff, MD, FACS,

has been appointed to succeed Bob Fry as chair of the Department of Surgery at Pennsylvania Hospital. Dr. Sataloff has been a member of the PAH surgical staff since 1985. In 2005, she was named Director of the Integrated Breast Center and Vice Chair of the Department of Surgery at PAH. Also a long standing faculty member of the Perelman School of Medicine at the University of Pennsylvania, Dr. Sataloff was named Clinical Professor of Surgery in 2006.

Dr. Sataloff has dedicated her practice to breast surgery and the treatment and management of benign and malignant breast diseases. She is the author of more than thirty scientific papers and three books. The recipient of multiple awards, Dr. Sataloff has been consistently recognized as one of Philadelphia Magazine's "Top Docs" for the treatment of breast disease and Castle Connolly's America's Top Doctors for



Cancer.

Dr. Sataloff graduated with honors from the University of Michigan Medical School and completed her residency in General Surgery at Pennsylvania Hospital. Board-certified in General Surgery and a Fellow of the American College of Surgeons, she is a member of many professional societies including the American Medical Association, the American Society of Breast Disease, the American Society of Breast Surgeons, the American Society of Clinical Oncology, the Society of Surgical Oncology, and the Association of Surgical Education. She also serves as peer scientific reviewer for the Archives of Surgery and is

a member of the Eastern Cooperative Oncology Group.

As Chair of the Department of Surgery at Pennsylvania Hospital, Dr. Sataloff succeeds Bob Fry, who will continue as Chief of the Division of Colon and Rectal Surgery.

Unique New Biography of a HUP Trauma Surgeon

The 2009 Fall issue of the Newsletter contained this brief news item:

Major John Pryor, M.D., Associate Professor in the Division of Trauma and Surgical Critical Care, was killed by enemy fire in Iraq on December 25, 2008. John was serving his second tour as a combat surgeon with the United States Army. He was deployed on December 6th and had been on location with a forward surgical team.

Much attention was appropriately given to John's remarkable service to his country and his tragic death. Many of his friends and colleagues and several Army Generals were among the nearly thousand mourners attending his memorial service held at the huge Cathedral Basilica of Saints Peter and Paul. In dedicating to him a building at Fort Dix, Generals William Monk and Dean Sienko spoke of his compassion, professionalism and commitment to others. Philadelphia Magazine named him "2009's Best Philadelphian." In 2012, the Eastern Association for the Surgery of Trauma established an Annual Distinguished Service Award in his name.

Perhaps surpassing these honors and certainly exceeding them in detailing the story of John's accomplishments and philosophy is a new biography written by his brother, Richard. David Hoyt (Executive Director of the American College of Surgeons) devoted his entire column in the November, 2012 College Bulletin to a review of the book. Its intriguing title is *Alright, Let's Call it a Draw: The Life of John Pryor*. Richard, an emergency physician himself has compiled John's extensive journal entries, e-mails and correspondence, his own memories, family anecdotes of John's childhood, and interviews with John's college friends and professional colleagues.

As Dr. Hoyt writes in his review the remarkably moving literary tactic chosen by his brother is to let John tell his own story.

The first chapter is especially gripping. It begins "My name is John Pryor. I'm a surgeon. I'll be 43 next month AND I JUST GOT KILLED. In another book review Ken Mattox, John's trauma surgeon friend points out "it is rare that anyone writes his own biography after death but John has done so with the collaboration of his brother."

The book contains John's own accounts of his harrowing experiences both in Iraq and in US trauma bays. In an article published in the Philadelphia Inquirer John recalled an unsuccessful battle to save a young marine horribly wounded by a roadside bomb. In agonizing detail he recalls the boy's wounds, his frantic maneuvers to control the bleeding, the repeated and ultimately failed resuscitations, the post mortem closure of wounds, the body bag, John imagining his accompanying the dead marine's body on its journey home and his apology to the boy's family that his surgical efforts were not enough.

In another piece written for the Washington Post, John describes an analogous struggle to save a Philadelphia street warrior and his frustration that every day more young Americans are shot to death in our cities than are killed on the worst days in Iraq.

These experiences left John with a premonition of his own death even causing him to prepare his family for it by giving them detailed instructions.

Dr. Mattox characterizes these sections of the book as graphic, painful reading but notes that it also contains much about the humanism, professionalism, dedication, drive, vision and leadership that made John such a compelling individual. John Pryor's efforts in pursuing his compassionate objectives came at a high price but in another sense they were fulfilling (thus the book's title "Let's Call it a Draw").

In their reviews, Drs. Hoyt and Mattox rate the book as a "page turner about the human spirit and the struggles that confront individuals, families and societies." It is a detailed probing of the genome of a trauma surgeon who was committed to the pursuit of excellence in dealing with the pain, injury and death of his patients and of himself. Despite its sad ending this book will fascinate and inspire John's many friends.

It is available from Amazon.



Young Leader

Edward Y. Woo, M.D.

Profiled here is one of the Department's outstanding young leaders, Ed Woo. After college at Penn, Ed graduated in 1996 from the University of Pennsylvania Medical School at the top of his class and as winner of the I. S. Ravdin Prize as the best student in Surgery. During his general surgery residency at HUP he spent 2 productive research years with Larry Kaiser and Karl June, publishing several papers in basic science journals on the inhibition of T cell proliferation by regulatory T cells obtained from lung cancer patients. This work was recognized by the Jonathan Rhoads Research Award. As a chief resident Ed also won the Leonard Perloff Teaching Award and the Keith Reemstma Award as HUP's top surgical resident. After a year as a vascular fellow under Ron Fairman, Ed was appointed Assistant Professor of Surgery in our Department, advancing to Associate Professor in 2010. Since 2007 he has been Program Director of the HUP Vascular Fellowship, since 2008 Director of the Non-Invasive Vascular Lab and since 2010 Vice Chief of the Division of Vascular Surgery.

Dr. Woo has an interest in all areas of vascular surgery but especially in treatment of aortic aneurysms and carotid stenosis. He is an expert in endovascular techniques that allow minimally invasive approaches for these and other vascular diseases. Examples of these techniques include stenting of aneurysms of both the abdominal and thoracic aorta and angioplasty and stenting of renal, carotid, and lower extremity arteries. Dr Woo is also very experienced with traditional open procedures for vascular abnormalities that cannot be treated by minimally invasive methods, such as carotid endarterectomy, open aneurysm repair and lower extremity bypass.

Dr. Woo has participated in and led major clinical trials in the vascular surgery field such as evaluation of aortic and carotid stents. Since 2005, he has been the Principal Investigator on 16 clinical trials of a wide variety of endovascular devices. On these

and other topics, Ed has published some 73 peer reviewed publications as well as 30 chapters and reviews.

In addition to his clinical practice which is one of the Department's largest and his commitment to clinical research Ed is one of the Department's star teachers. He consistently wins accolades

from the students, residents and vascular fellows and he is widely sought as a lecturer on vascular disease and treatment locally, nationally and internationally. Since 2004 he has been an invited speaker nationally and internationally at over 100 scientific conferences, universities and other institutions. He is a member of the editorial advisory board of Endovascular Today.

His prominence in the field of vascular surgery has been recognized by his election as a Distinguished Fellow of the Society for Vascular Surgery and by memberships in the Association of Academic Surgery, the International Society for Vascular Surgery, the Society for Clinical Vascular Surgery and the American College of Surgeons. He is Chairman of the bylaws Committee of the Eastern Vascular Society and has been President of the Delaware Valley Vascular Society. Since 2009, he has been named as "Top Doc" annually by Philadelphia Magazine and since 2011 as one of America's Top Doctors by U.S. News and World Report.

Ed's spectacular performance as a clinical expert in his complex field as well as his major contributions as a teacher and clinical investigator identify him as one of the Department's stars.



Lung Perfusion Program

(continued from page 3)

During the process, function is evaluated continuously by key indicators, such as oxygen exchange, airway pressure and lung compliance. Once determined suitable, the lungs are promptly transplanted into a waiting patient.

"The EVLP technique is being used in Europe and Canada but only in a handful of centers worldwide. Penn is one of only six sites in the United States participating in the FDA investigational multicenter clinical research trial

designed to compare outcomes from lung transplants reconditioned by the ex vivo technique with those using the traditional method of preservation.

Since the inception of Penn's lung transplant program in 1991, nearly 800 successful lung transplants have been performed. In recent years, surgeons at Penn Medicine have performed more than twice the number of lung transplants done at any other transplant program in the Philadelphia region.

Alumni News

Faculty, Residents, Alumni of Penn Surgery
email your news to Mary Hamburg
mary.hamburg@uphs.upenn.edu

- ◆ The Bucksbaum Institute for Clinical Excellence selected vascular surgeon **Ross Milner, MD**, as the first Bucksbaum master clinician, a three year appointment. The Bucksbaum Institute at the University of Chicago is designed to improve clinical decision making and doctor-patient communication.



Ross is an authority on aortic aneurismal disease and co-director of the Center for Aortic Diseases at the University of Chicago School of Medicine. As a master clinician, he will serve as a role model for both student and faculty scholars in the Institute. "Ross Milner was chosen for his clinical judgment, his exemplary doctor-patient relationships and his teaching skills with trainees and colleagues," said Mark Siegler, MD, the Lindy Bergman Distinguished Service Professor of Medicine and executive director of the Bucksbaum Institute. "He combines superb surgical talents with a knack for connection with everyone he meets, plus obvious enthusiasm for sharing his knowledge." Congratulations, Ross!

- ◆ During the recent annual meeting of the Southern Surgical Association, **Bill Schwab, MD** was installed as a member and **Dan Dempsey, MD** was elected to membership. These two Philadelphia surgeons are to be congratulated since very few Yankees ever achieve membership in this elite society, the scientific program of which approaches the level of excellence of that of the American Surgical Association.



- ◆ **Linton Whitaker, MD** delivered the Annual Jonathan E. Rhoads Oration of the Philadelphia Academy of Surgery on December 3, 2012. His title was *Terroir and the Cultivation of Quality*.



- ◆ The **Annual Jonathan E. Rhoads Medal and Lecture** (jointly sponsored by the Department of Surgery, the Philadelphia College of Physicians and the American Philosophical Society) will be delivered at 6:30 p.m. at the Philadelphia College of Physicians, February 26 by Ann Schuchat, Assistant Surgeon General USPHS and Acting Director, Center for Global Health. All are encouraged to attend.



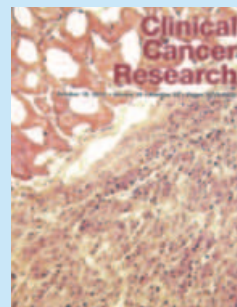
- ◆ The **First Annual Donald Liu Memorial** Lecture will be delivered by Kenneth S. Polonsky, MD, Richard T. Crane Distinguished Service Professor, at the University of Chicago, March 7, 2013. Memorial Service at Rockefeller Memorial Chapel 12:00 p.m; Reception at Knapp Center For Biomedical Discovery 1:30 p.m; Donald C. Liu Memorial Symposium at Knapp Center For Biomedical Discovery 3:00 p.m. RSVP by February 28, 2013 at <http://drluimemorial.uchicago.edu>. See the Penn Surgery Society web site for more detailed information.



- ◆ This year's recipient of the The Julius A. Mackie Distinguished Graduate Award is **Michael Choti, MD, MBA**. Mike was a HUP Chief Resident in 1990. He is the Jacob C. Handelsman Professor of Surgery, and Chief of the Handelsman Division of Surgical Oncology at Johns Hopkins. His lecture will be presented on Thursday, May 16th at 7:15am in the Flyers/76ers Surgery Theatre at the Hospital of the University of Pennsylvania.



This year, 1.6 million Americans are expected to develop cancer. 820,000 of them will undergo surgery to remove their tumors which remains the most effective therapy for most solid tumors. The most important prognostic indicator for cure is complete resection, leaving no residual disease. However, accurate intraoperative detection of tumor cells is challenging. Incomplete resection is the most common cause of local failure. To overcome this problem, **Dr. Sunil Singhal** has developed a technique to enhance visualization of tumor cells using near-infrared imaging. This allows him to identify residual malignant cells at the tumor margins and in micro-metastatic satellite nodules. In his recent publication illustrated on the front cover of *Clinical Cancer Research*, he showed detection of residual tumor deposits in surgical wounds using an infrared imaging agent, indocyanine green. He identified margins of tumors with 0.7 mm precision, well beyond the capacity of conventional imaging techniques suggesting that near-infrared examination of the surgical wound after resection could reliably locate residual disease. Phase I/II clinical trials of the method are ongoing for lung (PI: Sunil Singhal) and breast cancer (PI: Julia Tchou).





Penn Surgery

Department of Surgery
Attn: Mary Hamburg
4 Silverstein/HUP
3400 Spruce Street
Philadelphia, PA 19104

W I N T E R 2 0 1 3

PENN Vascular Surgery Alumni

are invited to the 4th Annual
Penn Vascular Alumni Reception
Thursday, May 30

*The Society for Vascular Surgery Meeting in San Francisco.
Join us in the PACIFIC H room located in the Marriott Marquis
San Francisco at 6:30 pm.*

See you there!

Editors:

Clyde F. Barker, M.D.

Donald Guthrie Professor of Surgery

Mary Hamburg

Alumni Coordinator

Graphic Design:

Robin Noel

Graphic Artist/Web Administrator

Advisory Board:

Jeffrey A. Drebin, M.D., Ph.D.

Chairman, Department of Surgery

Clyde F. Barker, M.D.

Donald Guthrie Professor of Surgery

James L. Mullen, M.D.

Vice Chair of Administration

Website:

<http://surgery.site-ym.com>