FALL 2012

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News from the Roberta and Stephen R. Weiner Department of Surgery at Beth Israel Deaconess Medical Center

INSIDE SURGERY

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Helping Patients Get Back Their Lives

BIDMC a national leader in diagnosing and treating tracheobronchomalacia

For all of his 46 years, Tom Garceau had enjoyed good health. But that ended abruptly one winter morning in 2010, when he suffered a bout of severe coughing that lasted an interminable 30 minutes. "I coughed so hard, I passed out several times," says Garceau, now 48, who lives and works in New Hampshire.

Thanks to the care he received at the Department of Surgery's Chest Disease Center, Tom Garceau is once again able to live his life to the fullest. He especially enjoys walking his two dogs.

Thinking at first it was just a bad cold, Garceau, who has never smoked, went to his primary care doctor and, over the course of many months, to a number of specialists. Despite a variety of diagnoses, tests, treatments, and even several hospitalizations, Garceau's relentless cough persisted. "I couldn't go for more than a few minutes without coughing, and I'd often get lightheaded. I couldn't watch TV without disrupting my family, carry on a conversation, or even drive because of the risk of passing out. It was disrupting my entire life," he says.

Eventually, in early 2012, Garceau — by then, at wits' end — was referred to **Sidhu Gangadharan, MD**, Chief of the BIDMC Chest Disease Center (Division of Thoracic Surgery and Interventional Pulmonology).

TBM is under-recognized

Many conditions can cause persistent cough, but because of Garceau's history, Gangadharan suspected tracheobronchomalacia (TBM). TBM is a condition of unknown cause in which the walls of the trachea and bronchi — the central airways — are weak and floppy. The Chest Disease Center evaluates and treats more patients for TBM than anyplace else in the U.S., and is widely considered the national leader in TBM care and outcomes research.

The most common symptom of TBM is shortness of breath. But many patients also have a distinctive seal-bark cough, recurrent infections, and build-up of secretions in the lungs. "TBM is under-recognized because many of the symptoms can be due to other respiratory conditions like asthma or COPD [chronic obstructive

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Beth Israel Deaconess Medical Center

A teaching hospital of Harvard Medical School

Cheever Professor of Surgery Sidney Levitsky, MD, alongside a bust of David Williams Cheever, MD.

Looking Back

David Williams Cheever, MD

David Williams Cheever, MD (1831-1915), was a member of one of the preeminent medical families of Boston whose grandfather, father, and son were all well-known Boston surgeons. Dr. Cheever graduated from Harvard Medical School and trained under Dr. Oliver Wendell Holmes, Sr.

In 1864, at age 32, Dr. Cheever joined the newly established Boston City Hospital as one of the founding faculty. He built a vibrant surgical teaching program for Harvard Medical School known as the Harvard Surgical Service, which was later renamed the Fifth (Harvard) Surgical Service. In 1973, the entire Fifth (Harvard) Surgical Service was moved from Boston City Hospital to New England Deaconess Hospital by William V. McDermott, MD.

A pioneering surgeon and man of immense dedication and integrity, Dr. Cheever served as the second Chair of Surgery at Harvard Medical School, succeeding Henry J. Bigelow, MD, of Massachusetts General Hospital. He was editor of the *Boston Medical and Surgical Journal* (a predecessor of the *New England Journal of Medicine*), and in 1889 served as President of the American Surgical Association.

An endowed Harvard Medical School Professorship of Surgery was named after Dr. Cheever in 1963 by the Cheever family and friends. The first Cheever Professor of Surgery was Dr. McDermott (1969-1987). **Sidney Levitsky, MD**, Senior Vice-Chairman of the Department of Surgery, has been the Cheever Professor of Surgery since 1989.

A bronze bust of Dr. Cheever is now on display in the Department of Surgery. The bust was created in 1932 by the widely respected Boston sculptor Bashka Paeff (1894-1979).

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The mission of the Department of Surgery:

- Provide care of the very highest quality
- Improve health through innovation and discovery
- Prepare future leaders in American surgery
- Serve our communities with sensitivity and compassion

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Interventional pulmonologist Adnan Majid, MD (left), and thoracic surgeon Sidhu Gangadharan, MD, are nationally recognized leaders in the care of patients with tracheobronchomalacia.

pulmonary disease]," says Gangadharan. "But treatment for these conditions will do nothing for TBM, which is an anatomic problem."

Although Garceau had undergone a slew of tests elsewhere, Gangadharan and his team started from square one to make certain of his diagnosis. While many tests are necessary, the mainstays for diagnosing TBD are computed tomography (CT) and/or flexible bronchoscopy performed while the patient forcefully exhales, a specialized maneuver refined at BIDMC that reveals the true extent of airway collapse, says **Adnan Majid, MD**, Director of Interventional Pulmonology.

The prevailing definition of TBM is a 50 percent reduction in the diameter of the airway. But Gangadharan and Majid look for complete or near complete (90 to 100 percent) collapse. "Some degree of collapse is normal," says Gangadharan. "It's important to differentiate normal from abnormal collapse to avoid overtreatment."

Many patients diagnosed with TBD may be helped with non-surgical interventions, such as pulmonary rehabilitation and/or CPAP (continuous positive airway pressure), although the latter is not a daytime therapy.

Some may benefit from the insertion of a stent into their airway to prop it open, but stents often cause irritation or infection after several weeks, limiting their effectiveness. Before he came to BIDMC, for example, Garceau had a stent inserted but it caused more problems than it solved and had to be removed.

Usually a stent is used for about two weeks as a "hypothesis tester," says Gangadharan. If breathing improves, the doctors know the problem is likely caused by airway collapse, not a condition within the lungs.

Permanent treatment

The only effective, permanent treatment for severe, diffuse TBM like Garceau's is an open surgical procedure called tracheobronchoplasty. During this operation, the surgeon sutures a section of mesh at multiple points on the outside of the floppy airway, which stabilizes it, much as a splint stabilizes a broken bone. The objective is to reconstitute the trachea's natural cross-sectional "D" shape and prevent its inner walls from intruding into the airway. The advantage of this approach is that nothing is left inside the airway to cause infection or trigger a reaction to a foreign body.

Garceau underwent a tracheobronchoplasty in the spring of 2012. His recovery from the operation was slow, but steady. Garceau still had a lingering cough resulting from a damaged larynx caused by many months of coughing, but it was effectively treated with medication by laryngologist **Pavan Mallur, MD**, Otolaryngology, who is part of the multidisciplinary TBM team.

The Chest Disease Center evaluates and treats more patients for TBM than anyplace else in the U.S.

Today, Garceau is thrilled to feel "normal" again. "I can ride my motorcycle, hike, and even have a conversation — all of which were impossible before," he says. Now able to exercise without fits of coughing, Garceau has also shed a lot of weight, improving his overall health.

"The care I got from the doctors and nurses at Beth Israel Deaconess was just incredible," says Garceau. "I'm so grateful to them for giving me my life back."

Once again, **Beth Israel Deaconess Medical Center** ranked as a leading hospital in Boston and the entire nation according *US News & World Report's* Best Hospitals rankings for 2012.

Michael Wertheimer, MD, Director of the BreastCare Center and Chief of Breast Surgery, was recognized by the New England Division of the American Cancer Society (ACS) for his extraordinary efforts in supporting cancer patients and their caregivers. Wertheimer will be presented with a special recognition at the ACS's 20th annual "Making Strides Against Breast Cancer" event on October 14 in Boston.

Sidhu Gangadharan, MD, Chief of Thoracic Surgery/ Interventional Pulmonology, and Sylvain Gioux, MD, PhD, of the Center for Molecular Imaging, were awarded a highly competitive Harvard Catalyst grant to develop a NIR fluorescence thoracoscope and translate it into human trials. They are working with John Frangioni, MD, PhD, in the Division of Hematology/Oncology in the Department of Medicine.

Allen Hamdan, MD, Vice Chair (Communications) and Clinical Director of Vascular/ Endovascular Surgery, was elected a Distinguished Fellow of the Society for Vascular Surgery (SVS). This honor is bestowed on SVS members who are vascular surgeons and distinguish themselves in a sustained manner by making substantial contributions in two of three categories: research, service, or education.

Michael Kent, MD, Thoracic Surgery/ Interventional Pulmonology, was recently named Director of Minimally Invasive Thoracic Surgery. In this role, Kent will continue to ensure that the division adopts innovative new technologies and procedures. He will also coordinate research that capitalizes on this experience, and organize teaching of evolving thoracic surgical procedures.

Erik Folch, MD, Thoracic Surgery/ Interventional Pulmonology, was promoted to Associate Program Director for the Interventional Pulmonology (IP) Fellowship Program. Since joining the department last year, Folch has made significant contributions to the IP curriculum as well as other educational initiatives.

Chief Surgical Resident **Noelle Saillant, MD**, and recent General Surgery Residency Program graduate **Michael Robich, MD**, were selected as outstanding teachers by third-year Harvard Medical School Principal Clinical Experience students in May.

The Boston Red Sox regularly features BIDMC physicians in Fenway Park's Friday evening "Medical All Star" tributes. In May, **Ron Alterman, MD**, Chief of Neurosurgery (top photo, center), was a Medical All Star. In June, the honor went to **Jennifer Tseng, MD, MPH**, Chief of Surgical Oncology (bottom photo, second from left).

In April, the department hosted an all-day, free symposium, "Opportunities and Challenges in Surgical Robotics." Co-chaired by Surgery Chairman **Elliot Chaikof, MD, PhD** (left), and Henrik Christensen, PhD, of Georgia Tech, the symposium was a program of the IDEAS™ project. Visit the IDEAS website (www.ideasprojectharvard.org) to watch videos of the presentations. The next IDEAS symposium is April 27, 2013.

For his continuous volunteer work for the Biomedical Science Careers Program (BSCP), **Michael Cahalane, MD**, Acting Chief of Acute Care Surgery and Critical Care, was one of four individuals named to the organization's 2012 Honor Roll. Cahalane was also recently elected as Faculty Vice Chair for 2012-2013 and Faculty Chair for 2013-2104 of Harvard's Joint Committee on the Status of Women.

Mark Callery, MD, Chief of General Surgery, was nominated in April for the 2011-2012 Excellence in Mentoring Award given by Harvard Medical School (HMS). HMS faculty members, trainees, and students were asked to identify a mentor who had provided sponsorship, encouragement, and support for their own or others' careers and/or personal development.

Abraham Frech, MD, who recently completed a fellowship in Minimally Invasive Surgery at BIDMC and now practices at BIDMC affiliate Lawrence General Hospital, won first place in the Top Gun competition at the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) meeting in March. Top Gun is a formal annual suturing and skills competition for medical students, fellows, and practicing surgeons.

Daniel Jones, MD, Chief of Minimally Invasive Surgery and Vice Chair for Technology and Innovation, was invited by the recently formed Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program to serve on its Advisory Committee. Jones will co-chair the Verification Subcommittee, which is responsible for validating and certifying that centers nationwide meet accreditation criteria.

Rosemary Duda, MD, Surgical Oncology, was appointed to the Department of Global Health and Social Medicine at Harvard Medical School in April. She is a member of the Program in Global Surgery and Social Change, which strives to combat the burden of surgical disease across the globe through training, research, and advocacy.

The first-ever New England Urology Resident Training Course in Robotic Surgery was held at BIDMC on May 5-6. Led by program Director **Drew Wagner, MD** (far right), with Co-Director **Martin Sanda, MD** (far left), the course drew residents from throughout the Northeast.

Drew Wagner, MD, was selected by the leaders of the New England Section of the American Urological Association (AUA) to participate in the 2012-2013 AUA Leadership Program.

Under the leadership of **Marc Schermerhorn, MD**, Chief of Vascular/Endovascular Surgery, the division hosted the Vascular Study Group of New England (VSGNE) regional meeting in May, which was attended by nearly 100 vascular specialists from throughout New England.

A paper authored by **Deborah Nagle, MD**, Chief of Colon and Rectal Surgery ("Ileostomy Pathway Virtually Eliminates Readmissions for Dehydration in New Ostomates"), won the "Best Paper Award" from the American Society of Colon and Rectal Surgeons. The paper reflects a collaborative effort by many providers in the Division of Colon and Rectal Surgery who initiated and implemented this project, including: **Vitaliy Poylin, MD, Emily Keenan, RN, Therese Pare, RN, Sarah Southard, NP, Rachel Hutchinson, RN, Jeanne Quinn, NP,** and **Thomas Geraty, LICSW**, and many other clinical staff on Stoneman 5. A poster based on this project also received special recognition at BIDMC's 2012 Silverman Symposium.

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Mark Wyers, MD, Director of Endovascular Therapy, recently received a Rabkin Fellowship in Medical Education. The year-long fellowship, which emphasizes experiential learning, provides faculty with an opportunity to develop the expertise and skills needed to launch or advance academic careers in medical education and/or academic administration.

Michael Kent, MD, Director of Minimally Invasive Thoracic Surgery, performed BIDMC's first robot-assisted thoracic surgical operation (a radical thymectomy) in June, assisted by **Sidhu Gangadharan, MD,** Chief of Thoracic Surgery/Interventional Pulmonology. The procedure was supported by many, including the robotic team in the operating room: **Svetlana Kotova, MD, John Pawlowski, MD, PhD, Ligy Varghese, RN, Jean Ducinski, RN, Shari Pasley, RN, Jim Moser, MD,** and proctor Chrish Fernando, MD, from Boston Medical Center. **Elena Canacari, RN, Joyce Mechaber, RN,** and **Dorothy Sarno, RN,** also played instrumental roles in organizing this team effort.

On July 12, 11 members of the department participated in the JP Morgan Corporate Challenge Road Race, which benefits local non-profit organizations. **Kate Shaw, NP**, Neurosurgery, organized the department's team of runners (from left, back row): **Karen Sullivan, Joe Marinelli, John Tumolo, Andrew Busler, NP, John DeJesus, PA, Kate Shaw, NP,** and **Kimberly Soorajbally, PA;** (front row): **Sharon Lee, Christine Lynch, Karen Lee,** and **Brian Holliday, PA.**

"Glee" actor Mike O'Malley was in town on June 18 to emcee an auction at the home of entrepreneur Andy Spellman and his wife, Rachel, to help raise funds for the renovation and consolidation of the BIDMC BreastCare Center, which is led by **Michael Wertheimer, MD**, Rachel's father. Pictured above are (from left): Wertheimer, O'Malley, and Spellman.

In June, the Division of Vascular/Endovascular Surgery was fully re-accredited in vascular testing by the Intersocietal Accreditation Commission (IAC) in the areas of extracranial cerebrovascular testing, peripheral venous testing, peripheral arterial testing, and visceral vascular testing. The IAC grants accreditation only to facilities found to provide high-quality testing and patient care in compliance with national standards.

Maria Semnack, RN, Plastic Surgery, and **Louise Riemer, RN**, Transplant Institute, received an Edward and Marilyn Schwarz Award for Nursing Excellence. Both were honored at Fenway Park during National Nurses Week.

Jeanne Quinn, NP, Colon and Rectal Surgery; **Tonya Boyd, RN, NP**, Inpatient Surgical Nursing; and Jennifer Larrivee, RN, Peri-operative Nursing, received the Department of Surgery and Joseph M. Koufman Foundation Award for Excellence in the Care of Surgical Patients and in Peri-operative Care. Pictured (from left) are Clinton Koufman, MD, Quinn, Boyd, and Larrivee.

A. James Moser, MD, Joins Department as Executive Director of the Institute for Hepatobiliary and Pancreatic Surgery

The department welcomed A. **James (Jim) Moser, MD**, as Executive Director of the new Institute for Hepatobiliary and Pancreatic Surgery in May. Moser is a member of the Division of Surgical Oncology and a Visiting Associate Professor of Surgery at Harvard Medical School. Prior to joining BIDMC, Moser was Associate Professor of Surgery and Cell Biology in Surgical Oncology at the University of Pittsburgh Medical Center (UPMC) and Co-Director of the UPMC Pancreatic Cancer Center.

Moser's clinical and research activities are focused on caring for patients with pancreatic cancer and pancreatitis. He is a leader in complex, advanced robotic, and minimally invasive surgical oncology, including pancreatic auto-islet transplantation.

The principal investigator of three funded clinical trials of preoperative treatment for pancreatic cancer, Moser also conducts translational research focused on validating predictive models of surgical risk and outcomes of patients with pancreatic cancer.

Moser earned his MD, *Alpha Omega Alpha*, from Washington University School of Medicine in St. Louis. He completed his residency in general surgery at UCLA Center for the Health Sciences and UCLA School of Medicine, Los Angeles, and completed a two-year research fellowship in membrane biology at UCLA Center for the Health Sciences.

Moser has authored or co-authored nearly 70 peer-reviewed publications, book chapters, reviews, and editorials. In addition, he holds leadership roles in numerous professional societies. In 2010, the Translational Genomics Research Institute named Moser Researcher of the Year in pancreatic cancer research.

Jeffrey Arle, MD, PhD, Welcomed as Associate Chief of Neurosurgery

In June, **Jeffrey Arle, MD, PhD,** joined the Department of Surgery as Associate Chief of Neurosurgery and Visiting Associate Professor of Surgery at Harvard Medical School. Before coming to BIDMC, Arle was a senior staff neurosurgeon at Lahey Clinic, where he also served as Director of Functional Neurosurgery and Director of Neurosurgery Research.

Arle completed the MD-PhD program at the University of Connecticut, where he received his doctorate in the neurosciences. After an internship in general surgery and a residency in neurosurgery at the University of Pennsylvania, Arle completed a fellowship in epilepsy and movement disorder surgery at New York University.

Arle's clinical interests include neuromodulation, epilepsy, pain, neuroprosthetics, complex spine disorders, and brain tumors. He was the first in New England to perform deep brain stimulation (DBS) surgery for patients with Parkinson's disease and dystonia, and the first in the world to use intradiscal stimulation for patients suffering from back pain.

Arle's research interests include the use of computational modeling and analysis of neural circuitry and function, developing novel implantable devices for interfacing with the nervous system, and DBS for patients with movement disorders and pain. He has authored nearly 60 publications and co-edited *Essential Neuromodulation*, one of the first textbooks in the field of neuromodulation.

Arle served as a neurosurgeon in the U.S. Army Reserve Medical Corps and was honorably discharged in 2009 at the rank of Lieutenant Colonel.

New Faculty

Kathryn Butler, MD

Division: Acute Care Surgery and Critical Care

Medical School: Columbia University College of Physicians and Surgeons, New York, NY

Residency: Massachusetts General Hospital, Boston, MA

Fellowship: Surgical Critical Care; Massachusetts General Hospital, Boston, MA

Clinical Interests: surgical critical care, acute care surgery, trauma

Research Interests: surgical education—new curricula, enhancing operative teaching, ethics, clinical skills in intensive care units

Phone: 617-632-9922

Charlene Chao, MD

Division: General Surgery

Medical School: SUNY-Health Science Center at Brooklyn, NY

Internship/Residency: Geisinger Medical Center, Danville, PA

Fellowship: Advanced Laparoscopy and Bariatric Surgery; New York Hospital Queens, Flushing, NY

Clinical Interests: surgical weight reduction, minimally invasive approaches to surgical interventions

Research Interests: Minimally invasive surgery, surgical technology and innovation

Phone: 617-313-1440

Selena E. Heman-Ackah, MD, MBA

Division: Otolaryngology

Medical School: University of Cincinnati College of Medicine

Internship/Residency: University of Minnesota Medical Center, Minneapolis, MN

Fellowship: Neurotology; New York University, New York, NY

Clinical Interests: chronic ear disease, hearing loss (congenital or acquired), tumors of the ear, cerebellopontine angle masses, vertigo, tinnitus, facial paralysis

Research Interests: preventive therapies for acquired hearing loss, advances in cochlear implantation

Phone: 617-632-7509

Sahar Kohanim, MD

Division: Ophthalmology

Medical School: Johns Hopkins University School of Medicine, Baltimore, MD

Internship/Residency: Residency in Ophthalmology, Massachusetts Eye and Ear Infirmary, Boston, MA

Fellowship: Cornea, External Disease, and Refractive Surgery; Massachusetts Eye and Ear Infirmary, Boston, MA

Clinical Interests: corneal disease and surgery, refractive surgery, cataract surgery

Research Interests: disease outcomes, corneal surgery

Phone: 617-667-3391

Kristin Raven, MD

Division: Transplantation

Medical School: University of Illinois College of Medicine (Chicago) at Urbana Champaign, IL

Internship/Residency: Beth Israel Deaconess Medical Center, Boston, MA

Fellowship: Abdominal Transplantation; Beth Israel Deaconess Medical Center, Boston, MA

Clinical Interests: kidney, liver, and pancreas transplantation; live and deceased donor organ procurement; dialysis-access surgery; general surgery in pre- and post-transplant patients; and hepatobiliary surgery

Research Interests: ABO-incompatible liver transplantation, renal replacement therapy during liver transplantation

Phone: 617-632-9700

The graduating Chief Residents, from left (front row): Anooradha Raman, MBBS, Michael Robich, MD, Bidhan Das, MD, Kristina Giles, MD, Jeffrey Siracuse, MD; (back row): Chairman Elliot Chaikof, MD, PhD, Gregory English, MD, Brian Arslanian, MD, Teviah Sachs, MD, MPH, and Jonathan Meisel, MD.

Michael Nelson

Congratulations to 2012 Graduates

In formal attire and accompanied by proud family members, this year's graduating residents and fellows were feted at a graduation ceremony and dinner at the Boston Harbor Hotel on Rowes Wharf on Sunday, June 24.

The weather complied again this year so that graduates, their guests, and faculty members could enjoy cocktails and hors d'oeuvres on a pier overlooking the Boston waterfront. During the dinner attended by some 250 guests, the graduates received their diplomas and enjoyed some good-natured roasting from the faculty members who presented them.

In brief remarks, **Elliot Chaikof, MD, PhD**, department Chairman, reminded graduates of the vital importance of their work, and on behalf of the entire department wished them well as they continue on in their careers. Congratulations to the following graduates:

CHIEF RESIDENTS IN GENERAL SURGERY

Brian H. Arslanian, MD
Fellow, Plastic and Reconstructive Surgery
Emory University School of Medicine, Atlanta, GA

Bidhan Bihari Das, MD
Fellow, Colorectal Surgery
University of Texas Medical School at Houston, Houston, TX

Gregory R. English, MD
Fellow, Surgical Critical Care
Duke University School of Medicine, Durham, NC

Kristina A. Giles, MD
Fellow, Vascular Surgery
Geisel School of Medicine at Dartmouth, Hanover, NH

Jonathan Allan Meisel, MD
Fellow, Pediatric Surgery
Hofstra North Shore-Long Island Jewish School of Medicine, Hempstead, NY

Anooradha Raman, MBBS, FRCS
Fellow, Surgical Critical Care
Alpert Medical School of Brown University, Providence, RI

Michael Phillip Robich, MD, MSPH
Fellow, Thoracic Surgery
Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, Cleveland, OH

Teviah Erik Sachs, MD, MPH
Fellow, Surgical Oncology
Johns Hopkins University School of Medicine, Baltimore, MD

Jeffrey Joseph Siracuse, MD
Fellow, Vascular and Endovascular Surgery
Columbia University College of Physicians and Surgeons; Weill Cornell Medical College, New York, NY

CHIEF RESIDENTS IN PODIATRY

Sarah Fletcher Elder, DPM
United States Navy, Naval Medical Center, Portsmouth, VA

Katrina Jeanne Hallahan, DPM
Private Practice, Westside Podiatry Group, Rochester, NY

FELLOWS

Aesthetic and Reconstructive Plastic Surgery

Olubimpe Ayeni, MD
Southlake Regional Health Centre, Ontario, Canada

Breast Reconstructive Surgery

Priti Pravin Patel, MD
Private Practice, Livingston, NJ

Cardiothoracic Surgery

Svetlana Kotova, MD
Instructor in Surgery, UCLA David Geffen School of Medicine

Hand/Microvascular Surgery

Reena Anjalie Bhatt, MD
Assistant Professor, Alpert Medical School of Brown University, Providence, RI

Charles David Wong, DO
Private Practice, Bakersfield, CA

Minimally Invasive Surgery

Abraham J. Frech, MD
Instructor in Surgery, Harvard Medical School, Boston, MA

Omar Yusef Kudsi, MD
LeBow College of Business, Drexel University, Philadelphia, PA

Surgical Critical Care

Matthew M. Rosen, MD
Instructor in Surgery, Jefferson Medical College-Thomas Jefferson University, Philadelphia, PA

Transplantation

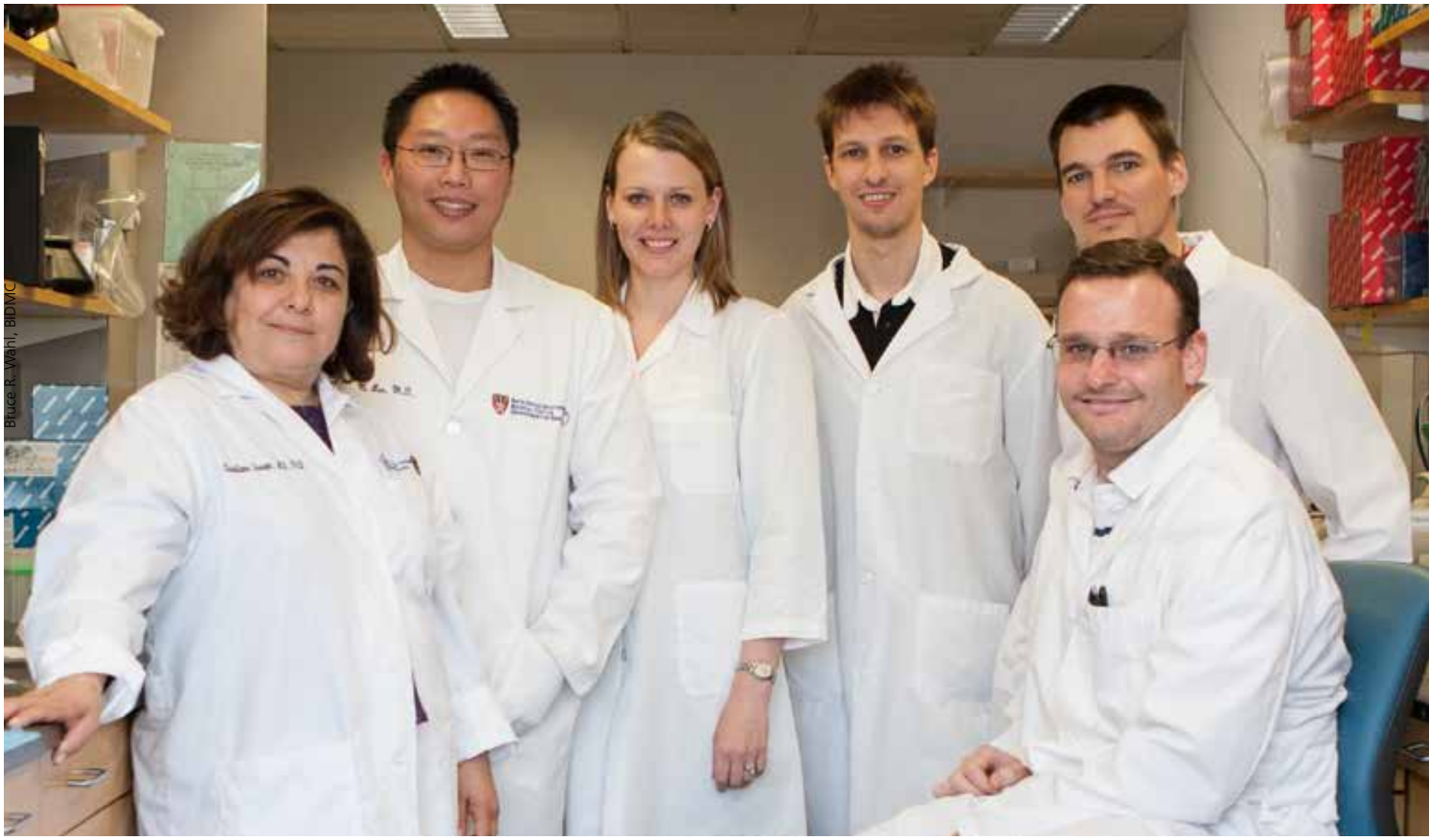
Kristin Raven, MD
Instructor in Surgery, Harvard Medical School, Boston, MA

Vascular Surgery

Scott J. Ziporin, MD
Private Practice, St. Anthony Hospital and Medical Center, Denver, CO

In each issue of *Inside Surgery*, we focus on the question a member of our department "owns" — a question that inspires the individual's work.

THE QUESTION I OWN — Christiane Ferran, MD, PhD



Christiane Ferran, MD, PhD (left), is putting the finishing touches on her soon-to-be-published book, "The Multiple Therapeutic Targets of A20." Members of her lab include (from left): Andy Lee, MD, Ashley Rogers-Notartomaso, MD, Darlan Minussi, PhD candidate, Herwig Moll, PhD, and (seated) Douglas Clarke, PhD.

For nearly 20 years, **Christiane Ferran, MD, PhD,** has dedicated most of her waking hours to understanding the functions of a gene with the unassuming name of A20, which she discovered plays a central role in health and disease.

Ferran's investigations of A20, which she jokingly calls "my baby," spawned a dynamic field of scientific inquiry that, since 1990, has generated nearly 700 scholarly papers. More significantly, Ferran's A20 research could someday lead to improved treatments for patients with a wide range of maladies, including cardiovascular disease, cancer, and autoimmune diseases. It could also improve the lives of organ transplant recipients and donors.

Inflammation plays a key role in many diseases and contributes to organ rejection in transplant recipients. Through years of painstaking work, Ferran discovered that A20 (or, more precisely, the protein this gene expresses) blocks inflammation in all cell types. Normally absent from most of our cells, A20 gets expressed when cells sense danger — whether from infection, immune-system attack, or mechanical injury.

A20's nuanced role

Ferran's subsequent research revealed that A20 has a far more complex, nuanced role than merely blocking inflammation, however. Depending on the cell type and disease state, A20 can prevent cell death or promote it; trigger cell proliferation or inhibit it; and, more importantly, regulate metabolism. "We discovered that A20's goal is not merely to block inflammation, but to return the organism back to a homeostatic, balanced state," says Ferran.

Given its critical role, it is not surprising that a deficiency of A20 could have serious consequences. Indeed, insufficient levels of A20 due to individual genetic differences are implicated in increasing the risk of heart attack in people with diabetes, as well as every autoimmune disease — such as diabetes, rheumatoid arthritis, inflammatory bowel disease, and psoriasis. Loss of A20 is also a characteristic of most B cell lymphomas.

While an individual's genetic makeup is fixed, "dietary modifications can overcome a genetic predisposition," says Ferran, noting that fish oil, soy protein, and other dietary supplements are being studied for their ability to boost the levels of A20 or its target genes and perhaps help patients with those diseases.

High levels beneficial

While low levels of A20 are usually harmful, it follows that high levels could be beneficial — an area of investigation that Ferran and her team have been actively pursuing for years.

Their research revealed that in the liver, A20 promotes cell proliferation and prevents cell death, in addition to its anti-inflammatory role. Livers have the remarkable capacity to regenerate, but only to a point. In a mouse, for example, if more than two-thirds of the liver is removed, the organ cannot regenerate properly.

Ferran and her team found that by boosting the mouse's A20 levels, up to 90 percent of the liver can be removed and the remaining liver cells will proliferate and create a normal-sized, fully functioning liver. And when it comes to liver regeneration, mice and men are remarkably similar.

"This finding opens the door to the potential of surgically removing large metastatic liver tumors from patients with cancer," says Ferran. "It could also improve living liver donor transplants by enabling surgeons to use smaller sections of liver for transplantation." Ferran recently received National Institutes of Health funding to take this research to the next level.

A20's additional roles

Additional roles of A20 are still being revealed. For example, Ferran's studies in mice demonstrated that high levels of A20 block abnormal new blood vessel formation (angiogenesis) in the eye, which could help prevent an eye disease in newborns called retinopathy of prematurity, as well as diabetic retinopathy.

Ferran's A20 research could someday lead to improved treatments for patients with a wide range of conditions, including cardiovascular disease, cancer, and autoimmune diseases. It could also improve the lives of organ transplant recipients and donors.

A20 also plays multiple roles in cancer. It is known that many malignant tumors are dependent on angiogenesis to grow. It is also known that certain tumors have very high levels of A20, which can make them resistant to chemotherapy. Ferran and BIDMC cancer biologist Roya Khosravi-Far, PhD, are working together to figure out whether altering the expression of A20 or modifying its targets might possibly be used as a novel therapy for malignancies like glioblastoma or prostate cancer.

Residency and Fellowship Programs Receive Full Accreditation

Residents practice their skills under the guidance of faculty members in the Simulation and Skills Center.

Last spring, the Residency Review Committee (RRC) for Surgery of the Accreditation Council of Graduate Medical Education (ACGME) reviewed the department's General Surgery Internship and Residency Program, the highly competitive program that trains future leaders in American surgery. At the same time, the ACGME reviewed the department's fellowship programs in Vascular Surgery and Surgical Critical Care.

In late June, the department was notified that the RRC had approved all of these programs for continued accreditation. In May, the Hand/Microsurgery Surgery Fellowship Program also received full accreditation from the RRC for Plastic Surgery of the ACGME.

Preparation for accreditation is a months-long process that involves compiling detailed documentation on virtually every aspect of each training program, as well as a multiple-day site visit by a physician representative of the ACGME Accreditation Council.

"ACGME accreditation reflects the high quality of our educational programming and reaffirms the underlying principle of our teaching mission," says **Sidhu Gangadharan, MD**, Interim Program Director for the General Surgery Residency Program.

"The accreditation of our Vascular Fellowship Program, one of the longest-running in the nation, validates all the hard work of current and former fellows, faculty, and staff," says **Marc Schermerhorn, MD**, Program Director for the Vascular Surgery Fellowship Program. The Program Director of the Surgical Critical Care Program is **Jonathan Critchlow, MD; Joseph Upton, MD**, is the Program Director of the Hand/Microvascular Surgery Fellowship Program.

SAVE THE DATE

September 19, 8-9 AM
Surgical Grand Rounds
Distinguished Visiting Professor; Frans Moll, MD, PhD, Professor of Vascular Surgery, University Medical Center, Utrecht, The Netherlands

October 10, 8-9 AM
Surgical Grand Rounds
The Inaugural 2012 Robert M. Goldwyn Visiting Professor of Plastic Surgery; Joseph G. McCarthy, MD, Lawrence D. Bell Professor of Plastic Surgery, New York University School of Medicine

October 15, 5-6 PM
Surgical Horizons Seminar
David J. Mooney, PhD, Wyss Institute; Harvard School of Engineering and Applied Sciences

October 24, 8-9 AM
Surgical Grand Rounds
Endocrine Visiting Professor; Peter Angelos, MD, PhD, Linda Kohler Anderson Professor of Surgery, University of Chicago

October 31, 8-9 AM
Surgical Grand Rounds
Distinguished Visiting Professor of Surgery; Polly Matzinger, PhD, Senior Investigator, NIH

November 12, 5-6 PM
Surgical Horizons Seminar
Mark Grinstaff, PhD, Professor, Biomedical Engineering and Chemistry, Boston University

November 14, 8-9 AM
Surgical Grand Rounds
2012 George H.A. Clowes Visiting Professor in Surgical Research; Alexander W. Clowes, MD, Professor, Adjunct Pathology, UW (University of Washington) Medicine Department of Surgery

Simulation and Skills Center Re-Accredited as a Level 1 Facility

Following a site visit in April, the Accreditation Review Committee of the American College of Surgeons (ACS) recently awarded the Carl J. Shapiro Simulation and Skills Center (SASC) re-accreditation as a Level I Comprehensive Education Institute.

Led by SASC Co-Directors **Daniel Jones, MD**, Surgery, and John Pawlowski, MD, PhD, Anesthesia, the SASC became the first in New England to receive ACS accreditation as a Level 1 facility for simulation-based skills training in 2006. Since that time, the SASC has continued to play a national leadership role in simulation training.

Many in the Department of Surgery played key roles in the re-accreditation process, including **Elliot Chaikof, MD, PhD, Sidhu Gangadharan, MD, Michael Cahalane, MD, Mark Wyers, MD, Rob Andrews, MD, Alok Gupta, MD**, SASC Operations Manager **David Fobert**, and Training and Support Specialists **Darren Tavernelli, RN, RRT,** and **Michael McBride, RN**.

Members of the departments of Anesthesiology, Emergency Medicine, OB/GYN, and Medicine were also instrumental in the process, in addition to staff from Nursing and the Center for Education. "This was truly an interdisciplinary effort," says Jones.

ACS representative John Paige, MD, uses a simulator during the SASC site visit while SASC staff Darren Tavernelli, RN, RRT (left) and David Fobert (right), look on.

November 28, 8-9 AM
Surgical Grand Rounds
Distinguished Visiting Professor; Gerard Doherty, MD, First Norman Thompson Professor of Surgery, University of Michigan

December 19, 8-9 AM
Surgical Grand Rounds
2012 Melzer Visiting Professor; Clifford Ko, MD, Professor of Surgery, University of California Los Angeles

January 9, 2013, 8-9 AM
Surgical Horizons Seminar
Distinguished Visiting Professor; Aaron Ciechanover, MD, PhD, Distinguished Professor, Center for Cancer and Vascular Biology, Rappaport Faculty of Medicine and Research Institute at the Technion

January 30, 2013, 8-9 AM
Surgical Grand Rounds
2013 George W.B. Starkey Visiting Professor; Michael J. Zinner, MD, Moseley Professor of Surgery, Harvard Medical School; Chairman, Department of Surgery, Brigham and Women's Hospital

*All **Surgical Grand Rounds** are held in the Kennedy Building (G2A) on the West Campus of BIDMC. For more information, please contact Kara May: klmay@bidmc.harvard.edu; 617-632-9236.*

*All **Surgical Horizons Seminars** are held in the Carl J. Shapiro Simulation and Skills Center, G20 (East Campus), BIDMC. For more information, please contact Molly Jay: mjay@bidmc.harvard.edu; 617-667-8258.*

NIH Grants Awarded to Podiatry Researcher

Aristidis Veves, MD, DSc, Podiatry, was recently awarded three National Institutes of Health (NIH) research grants.

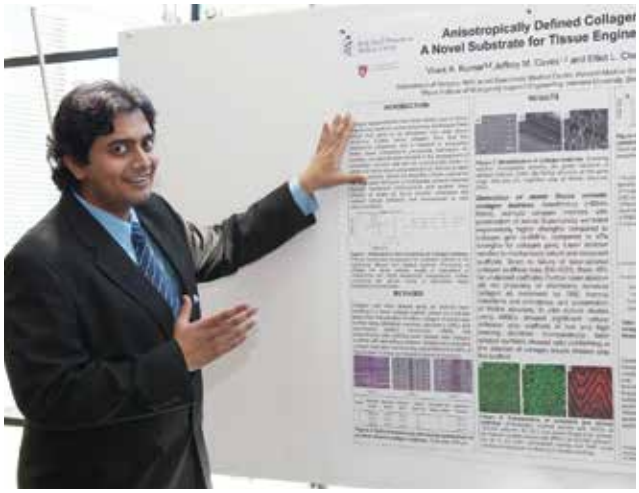
Veves is principal investigator of a $3.2 million RO-1 grant, the "Mechanisms of Neuropeptides Action in Diabetes," and a $4.2 million RO-1 grant, "Obstructive Sleep Apnea Increases Cardiovascular Risk in Type 2 Diabetes." Veves also received $400,000 in NIH funding to support his research of novel treatments for diabetic wound healing.

Inaugural Harvard Medical School Surgery Research Day

The inaugural Harvard Medical School (HMS) Surgery Research Day, a new collaboration among the Departments of Surgery of four HMS teaching hospitals, took place on May 12 at the Joseph B. Martin Conference Center at HMS.

The well-attended daylong event, which was sponsored by Jeffrey S. Flier, MD, Dean of the Faculty of Medicine at HMS, highlighted the basic and clinical research of the hospitals' surgical trainees through 16 oral abstract presentations and nearly 150 poster presentations.

Conceived of and hosted this year by the BIDMC Department of Surgery, the program was chaired by **Christiane Ferran, MD, PhD**, Surgery Research. **Marc Schermerhorn, MD**, Chief of Vascular and Endovascular Surgery, served on the BIDMC organizing committee. **Molly Jay**, Surgery Research, assisted with event logistics.



Vivek Kumar, PhD, describes his and his colleagues' poster presentation.

Visiting Professor Thomas M. Krummel, MD.

One of many highlights of the day was the presentation, "Inventing Your Future," by Visiting Professor Thomas M. Krummel, MD, Chairman of the Department of Surgery, Stanford University School of Medicine, and Surgeon-in-Chief at Lucile Packard Children's Hospital. Another was the opportunity for attendees to learn about the diverse, innovative basic and clinical research in which the participating hospitals' surgical trainees (residents, clinical fellows, medical or graduate students, and PhD postdoctoral fellows) are engaged.

BIDMC trainees selected to present oral abstracts were: **Margriet Fokkema, MD, Denis Gilmore, MD, Kiran Lagisetty, MD,** and **Herwig Moll, PhD.** In addition to welcoming remarks from the Chairs of Surgery of the participating HMS hospitals, the HMS Executive Dean for Research, William Chin, MD, also spoke.

New Trainees Receive a Warm Welcome

The Department of Surgery welcomed new interns and an upper-level resident at a June 21 reception at the Harvard Club in Boston. Chief residents introduced the new trainees to faculty members, and all were welcomed to the Department of Surgery and BIDMC.

From left: Charity Glass, MD, Danielle Sieber, Brady Sieber, MD, and Richard Bowles, MD, at the intern welcome reception in June.

NEW UPPER-LEVEL RESIDENT

Albert Nguyen, MD (PGY 2)
University of Oklahoma Health Science Center

PODIATRY INTERNS

Emily Pugh, DPM
Temple University School of Podiatric Medicine

Marc Spiegel, DPM
Temple University School of Podiatric Medicine

CATEGORICAL INTERNS

Christopher Barrett, MD
Washington University School of Medicine in St. Louis

Courtney Barrows, MD
New York Medical College

Mariam Eskander, MD
Chicago Medical School at Rosalind Franklin University of Medicine and Science

Charity Glass, MD
Harvard Medical School

Mautin Hundeyin, MD
Pennsylvania State University College of Medicine

Sayuri Jinadasa, MD
Columbia University College of Physicians and Surgeons

Anita Mamtani, MD
Jefferson Medical College of Thomas Jefferson University

John Tillou, MD
University of Virginia School of Medicine

Jennifer Zhang, MD
Johns Hopkins University School of Medicine

PRELIMINARY INTERNS

Andrew Auerbach, MD
Temple University School of Medicine

Jean-Victor Bonnaig, MD
Meharry Medical College

Richard Bowles, MD
University of Louisville School of Medicine

Robert Brody, MD
Jefferson Medical College of Thomas Jefferson University

Arthur Celestin, MD
Boston University School of Medicine

Jason Gilleylen, MD
Columbia University College of Physicians and Surgeons

Brian Lin, MD
Johns Hopkins University School of Medicine

Paul Phillips IV, MD
Boston University School of Medicine

Matthew Savary, MD
Tufts University School of Medicine

Brady Sieber, MD
University of Pennsylvania School of Medicine

Joshua Weiss, MD
University of Miami Leonard M. Miller School of Medicine

Oluleke Zaccheus, MD
University of Pittsburgh School of Medicine

THE DEPARTMENT ALSO WELCOMES ITS NEW FELLOWS:

Hani Sinno, MD
Aesthestic and Reconstructive Plastic Surgery

Anton Cherney, MD
Cardiothoracic Surgery

Christian Benjamin, MD
Hand/Microsurgery

Ashish Maskey, MD
Manju Paul, MD
Interventional Pulmonology

Souheil Adra, MD
Jaisa Olasky, MD
Minimally Invasive Surgery

Azra Ashraf, MD, MPH
Reconstructive and Aesthetic Breast Surgery

Matthew Alef, MD
Vascular and Endovascular Surgery

White Coats and Awards

In mid-June, the Department of Surgery educational awards were announced and the incoming chief residents received their new white coats from the graduating chief residents in the time-honored White Coat Ceremony. Congratulations to the award recipients and new chief residents.

ABSITE* AWARDS

Highest Junior-Level Resident on the 2012 ABSITE
Tovy Kamine, MD

Highest Senior-Level Resident on the 2012 ABSITE
Bidhan Das, MD

Residents scoring above the 90th percentile on the 2012 ABSITE
Jeff Chang, MD, Yue-Yung Hu, MD, MPH, Prathima Nandivada, MD, Gregory English, MD

MEDICAL STUDENT TEACHER AWARD

Teviah Sachs, MD (Senior Resident)
Rudy Murillo, MD (Junior Resident)
To the residents with the highest teaching evaluation ratings from third-year Harvard Medical School (HMS) students in the Core Surgery Clerkship.

Michael Cahalane, MD, Acting Chief of Acute Care Surgery and Critical Care, presented the George W.B. Starkey Award to Mary Jane Houlihan, MD, described by one medical student described as "… an outstanding physician who… always demonstrates integrity and compassion in her patient interactions."

RESIDENT TEACHER AWARD

A. Lyonel Carre, MD
Voted by residents as the senior resident who best exemplifies teaching to other residents.

ISAAC O. MEHREZ, MD, AWARD

Ashraf Sabe, MD
To the third-year resident selected by Mount Auburn Hospital surgeons for "Dedication to the highest quality care, honesty, willingness to learn, and a sense of humor."

GEORGE W.B. STARKEY AWARD

Mary Jane Houlihan, MD
(Surgical Oncology)
To the faculty member with the highest-rated teaching evaluations from third-year HMS students in the Core Surgery Clerkship.

JOHN L. ROWBOTHAM AWARD

Stephen Odom, MD
(Acute Care Surgery)
Voted by residents as the faculty member who best exemplifies excellence in teaching.

HAROLD BENGLOFF AWARD

Scott Johnson, MD
Voted by residents as the faculty member who best exemplifies humanism in teaching.

JOHN L. ROWBOTHAM AWARD

John Schuler, MD
(Mount Auburn Hospital)
Voted by residents as the faculty member who best exemplifies excellence in teaching.

John Schuler, MD, right, accepts the John L. Rowbotham Award from graduating Chief Resident Teviah Sachs, MD.

The new Chief Residents (with department Chairman Elliot Chaikof, MD, PhD, center) are (front row, from left): Steven Tizio, MD, Noelle Saillant, MD, Onkar Khullar, MD, Zhen Huang, MD, Lyonel Carre, MD; (back row, from left): Frankie Fike, MD, Albert Hsu, MD, Nhue Do, MD, and Hau Le, MD.

Mount Desert Island Biological Laboratory Course Awardees

Also announced at the awards ceremony were the four second-year residents selected to attend a weeklong course in comparative physiology at Mount Desert Island Biological Laboratory on the Maine coast in August. Now in its second year, this opportunity was made possible by donor Ted Boylan. The top three ABSITE* scorers are automatically invited to participate, along with a "Captain's Choice" selected by **Douglas Hanto, MD, PhD,** Chief of Transplantation.

Christina Feng, MD
Tovy Kamine, MD
Ali Linsk, MD
Laura Mazer, MD (Captain's Choice)

*American Board of Surgery In-Service Training Exam

Selected Faculty Publications

Acute Care Surgery and Critical Care

RESEARCH INVESTIGATIONS

Lee CH, Ou WB, Mariño-Enriquez A, Zhu M, Mayeda M, Wang Y, Guo X, Brunner AL, Amant F, French CA, West RB, McAlpine JN, Gilks CB, **Yaffe MB**, Prentice LM, McPherson A, Jones SJ, Marra MA, Shah SP, van de Rijn M, Huntsman DG, Dal Cin P, Debiec-Rychter M, Nucci MR, Fletcher JA. 14-3-3 fusion oncogenes in high-grade endometrial stromal sarcoma. Proc Natl Acad Sci U S A 2012;109(3):929-34.

Rowland PA, Trus TL, Lang NP, Henriques H, Reed WP Jr, Sadighi PJ, Sutton JE, Alseidi AA, **Cahalane MJ**, Gauvin JM, Pofahl WE, Sartorelli KH, Goldin SB, Greenburg AG. The certifying examination of the American Board of Surgery: The effect of improving communication and professional competency: Twenty-year results. J Surg Educ 2012;69(1):118-25.

Siracuse JJ, Odell DD, Gondek SP, **Odom SR, Kasper EM, Hauser CJ**, Moorman DW. Health care and socioeconomic impact of falls in the elderly. Am J Surg 2012; in press.

Lee MJ, Ye AS, Gardino AK, Heijink AM, Sorger PK, Macbeath G, **Yaffe MB**. Sequential application of anticancer drugs enhances cell death by rewiring apoptotic signaling networks. Cell 2012;149(4): 780-94.

Cardiac Surgery

RESEARCH INVESTIGATIONS

Chu LM, **Robich MP**, Bianchi C, Feng J, Liu Y, Xu SH, Burgess T, Sellke FW. Effect of cyclooxygenase inhibition on cardiovascular function in a hypercholesterolemic swine model of chronic ischemia. Am J Physiol Heart Circ Physiol 2012;302(2):H479-88.

Warraich H, Matyal R, Shahul S, **Senthilnathan V**, Mahmood F. Anomalous right coronary artery arising from the pulmonary artery. Ann Thorac Surg 2012;93(3):e75.

Colon and Rectal Surgery

RESEARCH INVESTIGATIONS

Champagne BJ, Papaconstantinou HT, Parmar SS, **Nagle DA**, Young-Fadok TM, Lee EC, Delaney CP. Single-incision versus standard multiport laparoscopic colectomy: A multicenter, case-controlled comparison. Ann Surg 2012;255(1):66-9.

REVIEWS, CHAPTERS, MONOGRAPHS, AND EDITORIALS

Nandivada P, Poylin V, Nagle D. Advances in the surgical management of inflammatory bowel disease. Curr Opin Gastroenterol 2012;28(1):47-51.

General Surgery

Kent TS, Sachs TE, Callery MP, Vollmer CM Jr. The burden of infection for elective pancreatic resections. Surgery 2012, in press.

Feldman L, Fuchshuber, **Jones D**, Mischna J. **Schwaitzberg S**, the FUSE (Fundamental Use of Surgical Energy) Task Force. Surgeons don't know what they don't know about the safe use of energy in surgery. Surg Endosc 2012; epub pending.

REVIEWS, CHAPTERS, MONOGRAPHS, AND EDITORIALS

Jones SB, **Jones DB**. Perioperative management of morbid obesity. In: Fischer JE, Jones DB, Pomposelli FB, Upchurch GR, editors. *Fischer's Mastery of Surgery, 6th edition*. Philadelphia: Lippincott Williams & Wilkens; 2012. p. 1097-1104.

Neurosurgery

RESEARCH INVESTIGATIONS

Okun MS, Gallo BV, Mandybur G, Jagid J, Foote KD, Revilla FJ, **Alterman R**, Jankovic J, Simpson R, Junn F, Verhagen L, **Arle JE**, Ford B, Goodman RR, Stewart RM, Horn S, Baltuch GH, Kopell BH, Marshall F, Peichel D, Pahwa R, Lyons KE, Tröster AI, Vitek JL, Tagliati M; SJM DBS Study Group. Subthalamic deep brain stimulation with a constant-current device in Parkinson's disease: An open-label randomised controlled trial. Lancet Neurol 2012;11(2):140-9.

Panov F, Tagliati M, Ozelius LJ, Fuchs T, Gologorsky Y, Cheung T, Avshalumov M, Bressman SB, Saunders-Pullman R, Weisz D, **Alterman RL**. Pallidal deep brain stimulation for DYT6 dystonia. J Neurol Neurosurg Psychiatry 2012;83(2):182-7.

Zhou YD, Zhang D, Ozkaynak E, Wang X, **Kasper EM**, Leguern E, Baulac S, Anderson MP. Epilepsy gene LGI1 regulates postnatal developmental remodeling of retinogeniculate synapses. J Neurosci 2012;32(3):903-10.

Hwynn N, Tagliati M, **Alterman RL**, Limotai N, Zeilman P, Malaty IA, Foote KD, Morishita T, Okun MS. Improvement of both dystonia and tics with 60 Hz pallidal deep brain stimulation. Int J Neurosci 2012; in press.

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REVIEWS, CHAPTERS, MONOGRAPHS, AND EDITORIALS

Goodman WK, **Alterman RL**. Deep brain stimulation for intractable psychiatric disorders. Annu Rev Med 2012;63:511-24.

Ophthalmology

RESEARCH INVESTIGATION

Kovacs K, Wagley S, Quirk MT, Ceron OM, Silva PA, Singh RJ, Gukasyan HJ, **Arroyo JG**. Pharmacokinetic study of vitreous and serum concentrations of triamcinolone acetonide after posterior sub-Tenon's injection. Am J Ophthalmol 2012; in press.

Otolaryngology

RESEARCH INVESTIGATION

Sedaghat AR, Gray ST, Wilke CO, **Caradonna DS**. Risk factors for development of chronic rhinosinusitis in patients with allergic rhinitis. Int Forum Allergy Rhinol 2012; in press.

Plastic and Reconstructive Surgery

RESEARCH INVESTIGATIONS

Ashitate Y, **Lee BT**, Laurence RG, Lunsford E, Hutteman M, Oketokoun R, Choi HS, Frangioni JV. Intraoperative prediction of postoperative flap outcome using the near-infrared fluorophore methylene blue. Ann Plast Surg 2012; in press.

de Blacam C, Ogunleye AA, Momoh AO, Colakoglu S, **Tobias AM, Sharma R, Houlihan MJ, Lee BT**. High body mass index and smoking predict morbidity in breast cancer surgery: A multivariate analysis of 26,988 patients from the National Surgical Quality Improvement Program database. Ann Surg 2012;255(3):551-5.

Ogunleye AA, de Blacam C, Curtis MS, Colakoglu S, **Tobias AM, Lee BT**. An analysis of delayed breast reconstruction outcomes as recorded in the American College of Surgeons National Surgical Quality Improvement Program. J Plast Reconstr Aesthet Surg 2012;65(3):289-94

Chen YE, Gerstle TL, Liang F, **Lee BT**. Use of a novel laser projection grid to assess symmetry in breast surgery. Plast Reconstr Surg 2012;130(1):231e-3e.

Nguyen JT, Ashitate Y, Buchanan IA, **Ibrahim AM**, Gioux S, Patel PP, Frangioni JV, **Lee BT**. Face transplant perfusion assessment using near-infrared fluorescence imaging. J Surg Res 2012; in press.

Greene AK, Grant FD, **Slavin SA**. Lower-extremity lymphedema and elevated body-mass index. N Engl J Med 2012;366(22):2136-7.

Podiatry

RESEARCH INVESTIGATION

Dinh T, Tecilazich F, Kafanas A, Doupis J, Gnardellis C, Leal E, Tellechea A, Pradhan L, **Lyons TE, Giurini JM, Veves A**. Mechanisms involved in the development and healing of diabetic foot ulceration. Diabetes 2012, in press.

Surgical Oncology

RESEARCH INVESTIGATIONS

Alamdari N, Aversa Z, Castillero E, Gurav A, Petkova V, Tizio S, **Hasselgren PO**. Resveratrol prevents dexamethasone-induced expression of the muscle atrophy-related ubiquitin ligases atrogin-1 and MuRF1 in cultured myotubes through a SIRT1-dependent mechanism. Biochem Biophys Res Commun 2012;417(1):528-33.

Witkowski ER, Smith JK, Ragulin-Coyne E, Ng SC, Shah SA, **Tseng JF**. Is it worth looking? Abdominal imaging after pancreatic cancer resection: A national study. J Gastrointest Surg 2012;16(1):121-8.

Baumgartner JM, Krasinskas A, Daouadi M, Zureikat A, Marsh W, Lee K, Bartlett D, **Moser AJ**, Zeh HJ 3rd. Distal pancreatectomy with en bloc celiac axis resection for locally advanced pancreatic adenocarcinoma following neoadjuvant therapy. J Gastrointest Surg 2012;16(6): 1152-9.

REVIEWS, CHAPTERS, MONOGRAPHS, AND EDITORIALS

Dudeja V, Gay G, Habermann EB, Tuttle TM, **Tseng JF**, Feig BW, Al-Refaie WB. Do hospital attributes predict guideline-recommended gastric cancer care in the United States? Ann Surg Oncol 2012; 19(2):365-72.

Thoracic Surgery/Interventional Pulmonology

RESEARCH INVESTIGATIONS

Bakhos CT, Fabian T, Oyasiji TO, Gautam S, **Gangadharan SP, Kent MS**, Martin J, **Critchlow JF**, DeCamp MM. Impact of the surgical technique on pulmonary morbidity after esophagectomy. Ann Thorac Surg 2012;93(1):221-6.

Akuthota P, Litmanovich D, Zutler M, Boiselle PM, Bankier AA, Roberts DH, Celli BR, DeCamp MM, **Berger RL**. An evidence-based estimate on the size of the potential patient pool for lung volume reduction surgery. Ann Thorac Surg 2012; (94)1:205-11. Invited Commentary;211.

Nguyen KS, Sanford RA, Huberman MS, Goldstein MA, McDonald DM, Farquhar M, **Gangadharan SP, Kent MS**, Michaud G, **Majid A**, Berman SM, Aronovitz JA, Nedea EA, Boiselle PM, Cohen DW, Kobayashi S, Costa DB. Patterns of care for non-small-cell lung cancer at an academic institution affiliated with a National Cancer Institute-designated Cancer Center. J Oncol Pract 2012;8(1):57-62.

Majid A, Fernandez-Bussy S, **Kent M, Folch E**, Fernandez L, Cheng G, **Gangadharan SP**. External fixation of proximal tracheal airway stents: A modified technique. Ann Thorac Surg 2012;93(6):e167-9.

Tsukada H, **Majid A, Kent MS**, Ernst A, DeCamp MM, **Gangadharan SP**. Two-stage end-to-end reconstruction of long-segment tracheal defects with a bioabsorbable scaffold grafting technique in a canine model. Ann Thorac Surg 2012;93(4):1088-92.

Transplantation

RESEARCH INVESTIGATIONS

Francis JM, Palmer MR, Donohoe K, Curry M, Johnson SR, **Karp SJ, Evenson AR**, Pavlakis M, **Hanto DW**, Mandelbrot DA. Evaluation of native kidney recovery after simultaneous liver-kidney transplantation. Transplantation 2012;93(5):530-5.

Koulmanda M, Qipo A, Fan Z, Smith N, Auchincloss H, Zheng XX, Strom TB. Prolonged survival of allogeneic islets in cynomolgus monkeys after short-term triple therapy. Am J Transplant 2012; in press.

Rodrigue JR, Krouse J, Carroll C, Giery KM, Fraga Y, Edwards E. A Department of Motor Vehicles intervention yields moderate increases in donor designation rates. Prog Transplant 2012;22(1):18-24.

Pruett TL, Blumberg EA, Cohen DJ, Crippin JS, Freeman RB, **Hanto DW**, Mulligan DC, Green MD. A consolidated biovigilance system for blood, tissue and organs: One size does not fit all. Am J Transplant 2012;12(5):1099-101.

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Urology

RESEARCH INVESTIGATIONS

Pedrosa I, Rafatzand K, Robson P, **Wagner AA**, Atkins MB, Rofsky NM, Alsop DC. Arterial spin labeling MR imaging for characterisation of renal masses in patients with impaired renal function: Initial experience. Eur Radiol 2012;22(2):484-92.

Demichelis F, Setlur SR, Banerjee S, Chakravarty D, Chen JY, Chen CX, Huang J, Beltran H, Oldridge DA, Kitabayashi N, Stenzel B, Schaefer G, Horninger W, Bektic J, Chinnaiyan AM, Goldenberg S, Siddiqui J, Regan MM, **Kearney M**, Soong TD, Rickman DS, Elemento O, Wei JT, Scherr DS, **Sanda MA**, Bartsch G, Lee C, Klocker H, Rubin MA. Identification of functionally active, low frequency copy number variants at 15q21.3 and 12q21.31 associated with prostate cancer risk. Proc Natl Acad Sci USA 2012;109(17):6686-91.

Kim SB, Williams SB, Cheng SC, **Sanda MG, Wagner AA**. Evaluation of patient-reported quality-of-life outcomes after renal surgery. Urology 2012; in press.

Williams SB, Salami S, Regan MM, Ankerst DP, Wei JT, Rubin MA, Thompson IM, **Sanda MG**. Selective detection of histologically aggressive prostate cancer: An Early Detection Research Network Prediction model to reduce unnecessary prostate biopsies with validation in the Prostate Cancer Prevention Trial. Cancer 2012;118(10):2651-8.

REVIEWS, CHAPTERS, MONOGRAPHS, AND EDITORIALS

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Vascular and Endovascular Surgery

RESEARCH INVESTIGATIONS

Bensley RP, Hurks R, Huang Z, Pomposelli F, **Hamdan A, Wyers M, Chaikof E, Schermerhorn ML**. Ultrasound-guided percutaneous endovascular aneurysm repair success is predicted by vessel diameter. J Vasc Surg 2012; in press.

Mazer LM, Chiakof EL, Goodney PP, Edwards MS, Corriere MA. Single versus multi-specialty operative teams: Association with perioperative mortality after endovascular abdominal aortic aneurysm repair. Am Surg 2012;78(2):207-12.

Ravi S, **Haller CA**, Sallach RE, **Chaikof EL**. Cell behavior on a CCN1 functionalized elastin-mimetic protein polymer. Biomaterials 2012;33(8):2431-8.

Siracuse JJ, Giles KA, Pomposelli FB, **Hamdan AD, Wyers MC, Chaikof EL**, Nedeau AE, **Schermerhorn ML**. Long-term results for primary bypass versus primary angioplasty/stent for intermittent claudication due to superficial femoral artery occlusive disease. J Vasc Surg 2012; in press.

Bhasin M, Huang Z, **Pradhan-Nabzdyk L**, Malek JY, LoGerfo PJ, Contreras M, Guthrie P, Csizmadia E, Andersen N, Kocher O, **Ferran C, LoGerfo FW**. Temporal network based analysis of cell specific vein graft transcriptome defines key pathways and hub genes in implantation injury. PLoS One 2012;7(6):e39123.

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Nandivada P, Lagisetty KH, Giles K, Pomposelli FB, **Chaikof EL, Schermerhorn ML, Wyers MC, Hamdan AD**. The impact of endovascular procedures on fellowship training in lower extremity revascularization. J Vasc Surg 2012;55(6):1814-20.

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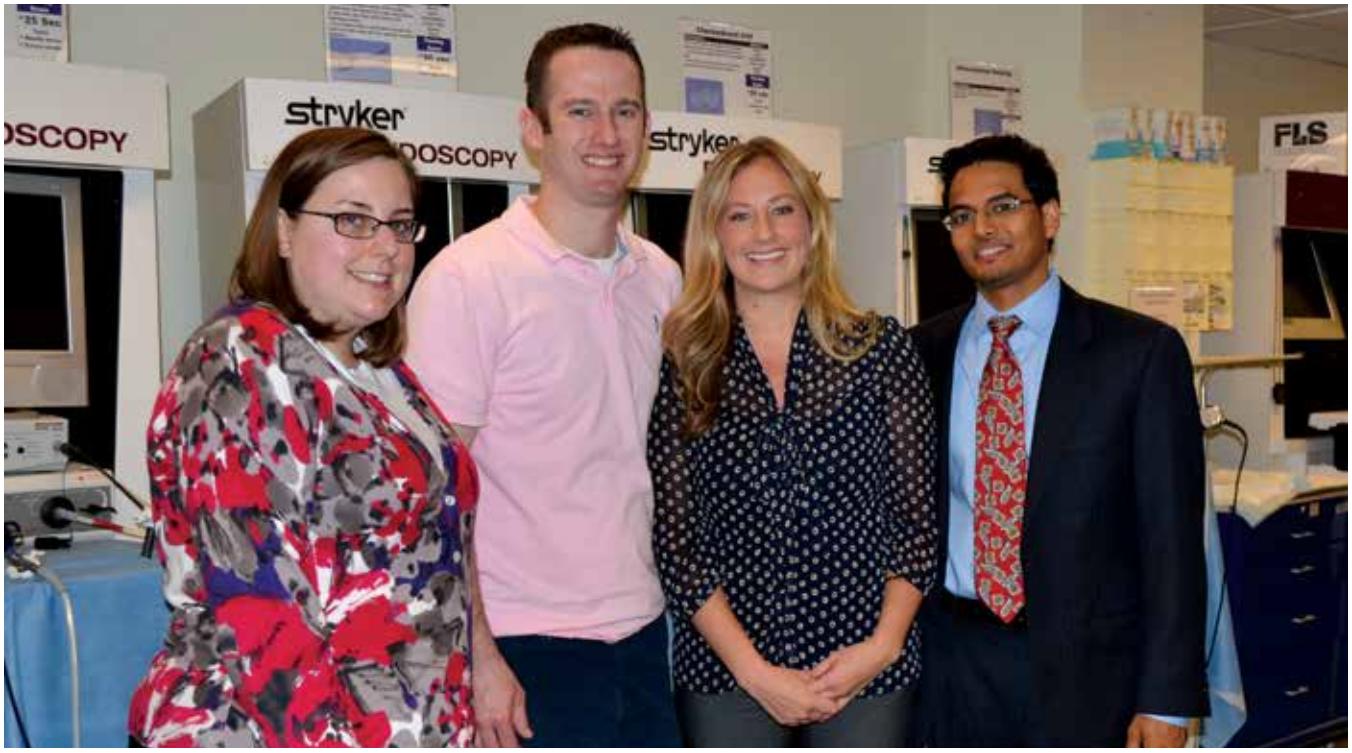
The Bookshelf

A selection of books by our faculty

BOOKS

Aristidis Veves, MD, DSc, John Giurini, DPM, and **Frank LoGerfo, MD** (Editors). *The Diabetic Foot: Medical and Surgical Management,* Third Edition. Published by Humana Press, 2012.

Daniel B. Jones, MD (Editor). *Master Techniques in Surgery: Hernia* is a heavily illustrated volume in a new series (overseen by **Josef E. Fischer, MD**) that presents common and advanced procedures in the major subspecialties of general surgery. Published by Wolters Kluwer/ Lippincott Williams & Wilkins, Fall 2012.



(From left): Emily Hunter; course instructors and surgical residents Denis Gilmore, MD, and Sarah Carlson, MD; and course Director Alok Gupta, MD, worked together on the first HMS/BIDMC Surgical Boot Camp.

Surgical Boot Camp Helps Interns Hit the Ground Running

It's 11:20 on a Thursday night, and a new surgical intern's pager startles him from a sound sleep in the on-call room. He speaks with a nurse who is notifying him about a 67-year-old patient who had surgery that morning and whose urine output is low.

After evaluating the patient, the intern worries whether he missed anything important. After all, he's thinking, medical school was more theory than practice, it's been awhile since he rotated through surgery, and this is a real patient. If he makes a mistake, the stakes could be very high.

This scenario and countless other situations that require interns to respond quickly under pressure happen virtually every day. Most interns will admit it's unnerving, if not downright frightening, to suddenly assume a role for which they feel largely unprepared. Add to this an unfamiliarity with hospital culture and practices, and little knowledge about how to perform many basic but essential skills, and it's hardly surprising that many interns lack confidence.

Practical information and skills

In March, the Department of Surgery and Harvard Medical School (HMS) introduced a new course for fourth-year HMS students — the HMS/BIDMC Pre-Internship Surgical Boot Camp.

The first such course in New England and one of only a few in the U.S., Surgical Boot Camp provides students with the practical information and skills they need to hit the ground running before they start their internships. In so doing, the course strives to improve the quality of care, reduce medical errors, and control costs.

The course was developed over several years by a team that included Acute Care Surgery attending surgeon **Alok Gupta, MD**, the course director; surgical residents and course instructors **Denis Gilmore, MD**, and **Sarah Carlson, MD**; and **Charity Glass, MD**, HMS class of 2012 and now a BIDMC surgical intern, with the enthusiastic support of Surgery Chairman **Elliot Chaikof, MD, PhD. Emily Hunter**, Surgery Administration, coordinated the logistics.

Approved by HMS in late 2011 following a rigorous review process, Surgical Boot Camp, which met every weekday for four weeks in the spring, was almost immediately filled to its current capacity of nine students.

The course featured an interactive, practically based curriculum designed to equip students with the skills to perform common operating room and emergency procedures, make sound decisions, and

communicate effectively so they can easily transition to — and excel in — their first year of surgical training.

The faculty included attendings, residents, nursing professionals, and ancillary staff from throughout the entire Department of Surgery, as well as clinicians from many other BIDMC departments.

A broad curriculum

While there were didactic sessions and lectures, Surgical Boot Camp placed special emphasis on practice-based learning. Daily hands-on sessions gave students the opportunity to learn laparoscopic and other essential skills, how to handle trauma and emergency situations, and how to deal with complex bedside decision-making. The hospital's Carl J. Shapiro Simulation and Surgical Skills Center was a "tremendous resource" for much of the hands-on skills training, says Gupta.

The curriculum was intentionally broad, as evident in this sampling of topics:

- Knot tying and suturing
- What nurses expect from an intern
- Top 10 floor pages
- Unspoken etiquette rules for interns
- Chest tube insertion
- Cricothyroidotomy (emergency surgical airway)
- Instrument recognition
- Balancing life and career
- How to write a case report
- End-of-life discussions with family members

"Surgical Boot Camp was designed to give students the practical knowledge and hands-on skills they need to be an intern, and the opportunity to learn and make mistakes in a safe, structured, non-threatening setting," says Gilmore, adding that he wishes he'd had this opportunity before starting his internship. "The course was also structured to be interactive and fun," says Carlson.

Continued on back cover>

Surgical Boot Camp students participate in a mock emergency in BIDMC's Simulation and Skills Center. Course instructors monitor their actions via a one-way mirror.

From left: Among the members of the Committee for Community Service, Social Responsibility, and Volunteerism are: (seated) Hilary Bennett, Kevin Hart; (standing) Elena Canacari, RN, Allen Hamdan, MD, and Debra Rogers. Not available for the photo were Cyndi Casey, RN, and Yue-Yung Hu, MD, MPH.

Making an Impact

New volunteerism initiative helps those in need

People who choose careers in healthcare tend to be compassionate and dedicated to helping others, both on the job and in their personal lives. So it was hardly surprising that when the Department of Surgery recently announced the formation of a new committee to foster department-wide volunteerism aimed at helping those in need, the response was overwhelmingly positive.

Co-led by Vice Chair for Communications **Allen Hamdan, MD**, Vascular Surgery, and Chief Administrative Officer **Debra Rogers**, the Committee for Community Service, Social Responsibility, and Volunteerism was quickly populated by faculty, trainees, and staff throughout the entire department, as well as a member of BIDMC's Department of Community Relations. All were eager to get to work.

Within just a few months, the committee defined its mission, conducted a staff survey, identified top priorities, and through a variety of initiatives (see sidebar, below), made a significant impact on local communities — an impact that is expected to be even greater in the months and years ahead. "Our department is already nationally recognized for its excellence in clinical care, patient safety, education, and research," says Hamdan. "Through this new effort, we also strive to be a national model for altruism and giving back."

Established through discussion and consensus, the committee's priorities are focused on several important areas: hunger, homelessness, childhood education, and medical missions.

All members of the department are given the opportunity, on a strictly voluntary basis, to support these priorities by contributing whatever they wish: time, money, and/or goods. Whenever possible, efforts are coordinated with BIDMC's existing community activities. "Our goal is to create synergy for faculty, trainees, and staff so we can have a greater impact together," says Rogers.

The Department of Surgery has already had a significant impact on the local community.

Examples include:

- **Donating more than 100 new and gently used warm coats** to the Mass Coalition for the Homeless
- **Donating nearly $1,200 and a large amount of food** to one of BIDMC's linked local community centers: the Parker Hill/Fenway ABCD (Action for Boston Community Development)
- **Establishing BIDMC as an official partner of the Greater Boston Food Bank**
- **Launching a high school education initiative** in which surgical residents and others speak to students about their careers
- Participating in the Division of Podiatry's annual **sock drive for homeless men, women, and children** served by Boston Health Care for the Homeless
- **Collecting toiletries for at-risk teenagers** served by the Sidney Borum Health Center, one of BIDMC's linked community centers

Richard Hodin, MD

Of all the high-profile professional achievements that alumnus **Richard Hodin, MD**, has earned during his career — and there are a great many — those he covets the most are the faculty teaching awards he received from surgical residents, which he prominently displays on the wall of his office at Massachusetts General Hospital.

One is the Harold Bengloff Housestaff Teaching Award, which Hodin — formerly on the faculty of the BIDMC Department of Surgery — received in 1995 for being "the faculty member who best exemplifies humanism in teaching." The other he received last year from the graduating class of surgical residents at Massachusetts General Hospital (MGH), where Hodin has been on the faculty since 2001. Of the many roles Hodin has across the realms of clinical care, research, and teaching, "My favorite is mentoring young doctors and helping them take off in their careers," he says.

In addition to his teaching activities, Hodin is Chief of Endocrine Surgery at MGH — one of the largest endocrine surgery programs in the U.S. — as well as Surgical Director of the hospital's large, federally funded Crohn's and Colitis Center.

He is also Director of a National Institutes of Health T32 Research Training Grant, a five-year, Harvard-wide program that gives surgical residents the opportunity to take two years off during their training to engage in basic and clinical gastrointestinal (GI) tract research with faculty in the Harvard teaching hospitals. BIDMC surgical resident Yue-Yung Hu, MD, MPH, is one of the residents currently participating in this program.

High standards

Hodin became interested in both endocrine surgery and GI surgery — distinctly different areas of surgery — during his residency training. "A major influence on my decision to pursue these areas was Dr. Bill Silen [then Chief of Surgery at Beth Israel Hospital], who excelled at both," he says.

Silen and the residency program influenced Hodin in other ways, as well. "The culture was intensely focused on providing the best patient care possible and I've always tried to maintain that focus," he says. "It was a credit to Dr. Silen, who held himself and others — residents and faculty alike — to extremely high standards."

Interested in a career as an academic surgeon, Hodin completed a two-year research fellowship in genetics at Brigham and Women's Hospital during his residency. Following a transitional year as a Super Chief, in 1990 Hodin was invited to join the BIDMC Department of Surgery as a faculty member. Over the next 11 years, he was a well-liked and highly regarded member of the department who served in numerous leadership positions, including Vice-Chairman of the Department and Surgical Director of the Inflammatory Bowel Disease (IBD) Center.

Today, Hodin devotes about one-fourth of his time to research. His work is focused, in part, on better understanding the GI tract with the goal of helping prevent or treat a variety of gut-associated diseases, including IBD.

Potential novel treatment

"We're studying the GI tract and how it interacts with the bacteria we have to live with, and applying that knowledge to develop new treatments to promote the good bacteria," he says. This research has helped pave the way toward a potential novel treatment (intestinal alkaline phosphate, or IAP, a naturally occurring enzyme) for patients with IBD, which will hopefully be in clinical trials within the next few years. A prolific researcher, Hodin, a Professor of Surgery at Harvard Medical School since 2005, has had more than 115 peer-reviewed papers published.

As if these commitments don't keep him busy enough, Hodin has held or holds leadership positions in many prestigious professional societies, including serving as former president of the Society of University Surgeons and recently as the Chair of a NIH Study Section.

Alumni: Please keep in touch. E-mail your contact information to hbennett@bidmc.harvard.edu or send it to our mailing address on page 2.

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Mock pages

According to the instructors and students, one of the most valuable aspects of the course were the mock pages. "We incorporated these so there would be no surprises when the interns start their jobs in July and are confronted with a real patient and a real nurse," says Gupta. "That is not the time for experimenting."

The mock pages involved being paged by a BIDMC nurse regarding one of 10 common scenarios, such as low urine output, irregular heartbeat, or an altered mental state. The nurse placing the mock page had a checklist of appropriate and inappropriate responses and "graded" the student on his or her performance. Within 10 minutes, the nurse called the student back with real-time feedback.

> *"We incorporated mock pages so there would be no surprises when the interns start their jobs in July and are confronted with a real patient and a real nurse. That is not the time for experimenting."*
>
> **Course Director Alok Gupta, MD**

"This was the most educational and instructive experience in the fourth year of medical school — perhaps in all four years of medical school," says Glass, the new intern who helped develop Surgical Boot Camp. "The one-on-one attention, the immediate feedback, the practical new information, and the mock pages were all very valuable — plus the course was lots of fun. I started my internship feeling much more confident." Based on the overwhelmingly positive responses to a survey taken at the conclusion of the course, all of the first HMS/BIDMC Surgical Boot Camp graduates felt the same.

Gupta says the course will be offered again next year and may be expanded to accommodate more students. He hopes it will serve as a model for other surgery training programs around the country.

Vascular surgeon Allen Hamdan, MD, Vice Chair for Communications, coaches a Surgical Boot Camp student in knot-tying techniques.