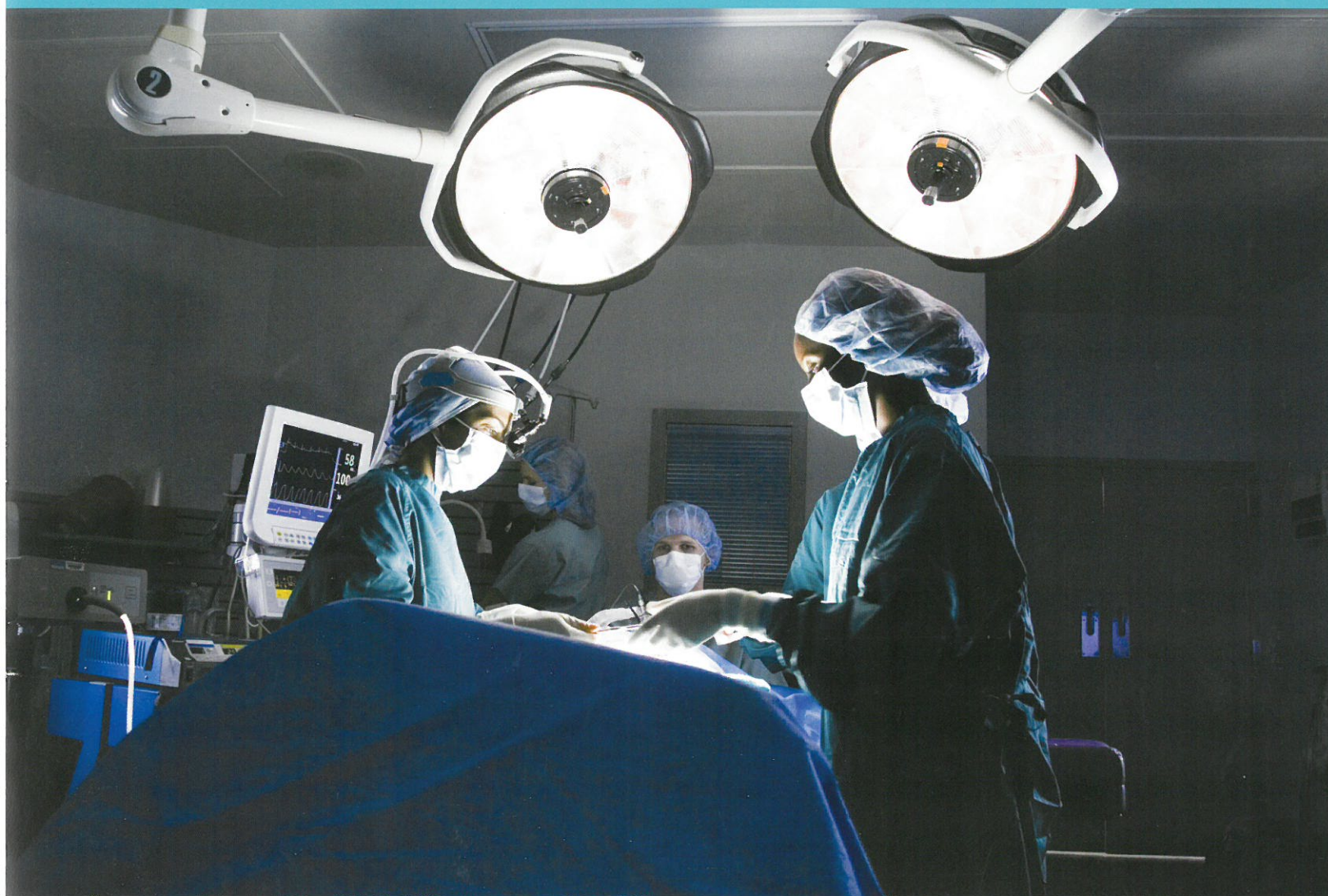


**BOSTON UNIVERSITY** School of Medicine  
Department of Surgery

*Annual Report 2015*

Providing the best surgical patient care  
Conducting world-class research  
Teaching tomorrow's leaders







Over the past year, the Department of Surgery at Boston University School of Medicine has been productive and successful, making progress in the department's mission to provide the finest surgical patient care, conduct world-class research and offer state-of-the-art education.

This academic year we saw our faculty continue to grow. We welcomed the following members to our group: Tejal Brahmabhatt, MD, Acute Care and Trauma Surgery/Surgical Critical Care; Cullen Carter, MD, Minimally Invasive and Weight Loss Surgery; Chaitan Narsule, MD, Acute Care and Trauma Surgery/Surgical Critical Care; Fabio Petrocca, MD, Surgical Research; and Wei Tseng, DPM, Podiatry Surgery.

We are also making significant headway on the transformation of our clinical campus. One phase of this Clinical Campus Redesign is an operating room suite that has been re-envisioned as an Interventional Procedure Platform (IPP), designed to integrate the two Boston Medical Center surgical units along with all of the interventional procedural services currently spread across two campuses. The new space, which includes a state-of-the-art hybrid OR, is planned to be operational in late 2016. For more information about the IPP, or to view renderings of the new facility, see the feature story on page 6.

The department continues to focus on enriching surgical education. This year our department launched exciting education research initiatives around topics such as trauma room leadership; medical student experience; and how modeling and feedback influence learning, to name a few. The department's Surgery Education Office also created — in partnership with the Graduate Medical Education (GME) Office — a monthly CME course which presents research and theory to help explain how people learn, what motivates us and how to most effectively help facilitate learning.

Surgical research in the department is also making progress. Some research highlights this year include grant funding to study Barrett's Esophagus (BE), Breast Cancer and Sepsis.

Whether through the education of the next generation of surgeons or pioneering research, the Department of Surgery is uniquely poised to be a major provider of clinical services to the citizens of New England and an educational epicenter in the surgical field.

Gerard Doherty, MD  
*James Utley Professor and Chair, Department of Surgery,  
Boston University School of Medicine  
Surgeon-in-Chief, Boston Medical Center*

### DEPARTMENT OF SURGERY: 2015 BY THE NUMBERS

**Divisions/Sections: 14**

**Clinical Faculty (BMC): 43**

**Affiliated Faculty: 13**

**Residents and Fellows: 42**

**ACGME-Accredited Surgical Residencies: 1**

**ACGME-Accredited Specialty Fellowships: 2**

**OR Procedures: 6,667**

**Outpatient Visits: 49,347**





## DEPARTMENT OF SURGERY FACULTY

BU School of Medicine attracts distinguished and highly accomplished faculty who are dedicated to the academic and clinical missions of the School. Our faculty is engaged in treating diverse patient populations, providing patient-centered training and performing cutting-edge research. Many of our faculty are nationally renowned, providing the latest technologically advanced treatments.

### Acute Care & Trauma Surgery/Surgical Critical Care



**Peter Burke, MD**

*Section Chief, Acute Care & Trauma Surgery  
Professor of Surgery,  
Boston University School of Medicine*



**Robert Schulze, MD**

*Section Chief, Surgical Critical Care  
Associate Professor of Surgery,  
Boston University School of Medicine*

**Kofi Abbensetts, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Tejal Brahmhatt, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Tracey Dechert, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Andrew Glantz, MD**, *Associate Professor of Surgery,  
Boston University School of Medicine*

**George Kasotakis, MD, MPH**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Chaitan Narsule, MD**, *Assistant Professor of Surgery, Boston  
University School of Medicine*

**Bedabrata Sarkar, MD, PhD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Lisa Allee, MSW, LICSW**, *Instructor of Surgery, Boston  
University School of Medicine*

### Cardiac Surgery



**Karl Karlson, MD**

*Division Chief, Cardiac Surgery  
Assistant Professor of Surgery,  
Boston University School of Medicine*

**Harold Lazar, MD**, *Professor of Surgery,  
Boston University School of Medicine*

### Colon and Rectal Surgery

**Angela Kuhnen, MD**, *Assistant Professor of Surgery, Boston  
University School of Medicine*

**Hiroko Kunitake, MD, MPH**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

### Minimally Invasive and Weight Loss Surgery



**Donald Hess, MD**

*Section Chief, Minimally Invasive and  
Weight Loss Surgery  
Assistant Professor of Surgery,  
Boston University School of Medicine*

**Brian Carmine, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Cullen Carter, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

### Pediatric Surgery



**Catherine Chen, MD, MPH**

*Section Chief, Pediatric Surgery  
Assistant Professor of Surgery,  
Harvard Medical School*

**Thomas Hamilton, MD**, *Assistant Professor of Surgery,  
Harvard Medical School*

**Konstantinos Papadakis, MD**, *Instructor,  
Harvard Medical School*

**Jason Smithers, MD**, *Instructor, Harvard Medical School*

**Jay Wilson, MD**, *Associate Professor of Surgery,  
Harvard Medical School*

### Plastic and Reconstructive Surgery



**Jaromir Slama, MD**

*Division Chief, Plastic and  
Reconstructive Surgery  
Assistant Professor of Surgery,  
Boston University School of Medicine*

**Nilton Medina, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*

**Smita Ramanadham, MD**, *Assistant Professor of Surgery,  
Boston University School of Medicine*





## Podiatry Surgery



**Geoffrey Habershaw, DPM**  
*Division Chief, Podiatry Surgery*  
*Assistant Professor of Surgery,*  
 Boston University School of Medicine

**Ewald Ray Mendeszoon Jr., DPM, Instructor of Surgery,**  
 Boston University School of Medicine

**David Negron, DPM, MBA, Instructor of Surgery,**  
 Boston University School of Medicine

**Justin Ogonna, DPM, Instructor of Surgery,**  
 Boston University School of Medicine

**Hau Pham, DPM, Assistant Professor of Surgery,**  
 Boston University School of Medicine

**Wei Tseng, DPM, Instructor of Surgery,**  
 Boston University School of Medicine

**Vitaliy Volansky, DPM, Instructor of Surgery,**  
 Boston University School of Medicine

## Surgery Education Office



**Douglas Kauffman, PhD**  
*Associate Chair for Education*  
*Associate Professor of Surgery,*  
 Boston University School of Medicine

## Surgical Endocrinology



**Gerard Doherty, MD**  
*Section Chief, Surgical Endocrinology*  
*James Utley Professor and Chair,*  
*Department of Surgery,*  
 Boston University School of Medicine  
*Surgeon-in-Chief, Boston Medical Center*

**David McAneny, MD, Associate Professor of Surgery,**  
 Boston University School of Medicine

**Teviah Sachs, MD, MPH, Assistant Professor of Surgery,**  
 Boston University School of Medicine

## Surgical Oncology



**David McAneny, MD**  
*Section Chief, Surgical Oncology*  
*Associate Professor of Surgery,*  
 Boston University School of Medicine

**Gerard Doherty, MD, James Utley Professor and Chair,**  
 Department of Surgery, Boston University School of Medicine  
*Surgeon-in-Chief, Boston Medical Center*

**Maureen Kavanah, MD, Associate Professor of Surgery,**  
 Boston University School of Medicine

**Jane Mendez, MD, Associate Professor of Surgery,** Boston  
 University School of Medicine

**Teviah Sachs, MD, MPH, Assistant Professor of Surgery,**  
 Boston University School of Medicine

## Surgical Research



**Tony Godfrey, PhD**  
*Associate Chair of Research*  
*Associate Professor of Surgery,*  
 Boston University School of Medicine

**Marina Malikova, PhD, MSci, MA, CCRA, Executive Director,**  
 Surgical Translational Research Operations and Compliance

**Fabio Petrocca, MD, Assistant Professor of Surgery,**  
 Boston University School of Medicine

**Amy Rosen, PhD, Professor of Surgery,**  
 Boston University School of Medicine

## Thoracic Surgery



**Hiran Fernando, MD**  
*Division Chief, Thoracic Surgery*  
*Professor of Surgery, Boston University School*  
*of Medicine*

**Virginia Litle, MD, Associate Professor of Surgery,**  
 Boston University School of Medicine

## Transplant Surgery



**Matthew Nuhn, MD**  
*Division Chief, Transplant Surgery*  
*Assistant Professor of Surgery,*  
 Boston University School of Medicine

**Amitabh Gautam, MD, Assistant Professor of Surgery,**  
 Boston University School of Medicine

## Vascular and Endovascular Surgery



**Alik Farber, MD**  
*Division Chief,*  
*Vascular and Endovascular Surgery*  
*Professor of Surgery,*  
 Boston University School of Medicine

**Mohammad Eslami, MD, Associate Professor of Surgery,**  
 Boston University School of Medicine

**Jeffrey Kalish, MD, Assistant Professor of Surgery,**  
 Boston University School of Medicine

**Jeffrey Siracuse, MD, RPVI, Assistant Professor of Surgery,**  
 Boston University School of Medicine

**Jonathon Woodson, MD\*, Professor of Surgery,**  
 Boston University School of Medicine

\*Dr. Woodson is a member of the BU School of Medicine Department of Surgery faculty but not clinically active at this time. He is currently serving as *Assistant Secretary of Defense for Health Affairs, U.S. Department of Defense (DOD)*



## Veterans Affairs (VA) Boston Healthcare System

### GENERAL SURGERY

**Kamal Itani, MD**, *Chief of Surgery, VA Boston Healthcare System; Professor of Surgery, Boston University School of Medicine*

**Erica Brotschi, MD**, *Associate Professor of Surgery, Boston University School of Medicine*

**Miguel Haime, MD**, *Assistant Professor of Surgery, Boston University School of Medicine*

**James McPhee, MD**, *Assistant Professor of Surgery, Boston University School of Medicine*

**Patrick O'Neal, MD**, *Assistant Professor of Surgery, Boston University School of Medicine*

**Vivian Sanchez, MD**, *Assistant Professor of Surgery, Boston University School of Medicine*

### RESEARCH

**Hillary Mull, PhD**, *Research Assistant Professor, Boston University School of Medicine*

**Amy Rosen, PhD**, *Professor of Surgery, Boston University School of Medicine*

## Cape Cod Hospital (Cape Cod Healthcare)

**Stephen Brooks, MD**, *Clinical Assistant Professor, Boston University School of Medicine*

**Lawrence Novak, MD**, *Surgery Residency Program Director, Cape Cod Hospital*

## Roger Williams Medical Center

**N. Joseph Espat, MD**, *Chairman, Department of Surgery, Roger Williams Medical Center; Professor of Surgery, Boston University School of Medicine*

**Keith Baldwin, DO**, *Assistant Professor of Surgery, Boston University School of Medicine*

**Steven Katz, MD**, *Associate Professor of Surgery, Boston University School of Medicine*

**Ponnandai Somasundar, MD**, *Associate Professor of Surgery, Boston University School of Medicine*

**Ting Zhao, MD**, *Associate Professor of Surgery, Boston University School of Medicine*

### Emeritus

**Robert Beazley, MD**, *Professor Emeritus of Surgery, Boston University School of Medicine*

**Benedict Daly, MD**, *Professor Emeritus of Surgery, Boston University School of Medicine*

## EMERITUS SPOTLIGHT

### Robert Beazley, MD



Robert Beazley, MD, BUSM professor emeritus of surgery, moves intently through his wood shop. He inspects a piece of Belgium Elm from the Boston Common, recently donated to him by the Friends of the Public Garden, that will become his next project — a set of wooden vessels to be auctioned off to support the group's mission to preserve the Boston Common, Public Garden and Commonwealth Avenue Mall.

Hanging above him is the Cosine Wherry Rowboat that he hand built and rowed down the River Thames after retiring. When asked if that's the most memorable adventure he's taken, Beazley smiles and says, "No, wait until I tell you about the South Pole."

The shop, located in the Joshua Bates Art Center, across the street from Boston University Medical Campus (BUMC), in what was the historic Joshua Bates Elementary School (circa. 1884), has housed Beazley's wood ship since 1994. His interest in woodworking started as a child, when he would watch and learn from his grandfather who was a carpenter.

"There are a lot of parallels between surgery and woodworking," says Beazley. "Your tools need to be sharp. Your eyes need to be good, as does your hand-eye coordination. You need to have good light and you need to be able to make tough decisions and

*continued on page 4*







trust them." His eyes glow with nostalgia as he holds a skewed chisel given to him by his uncle in 1951 and points out his cherished grey lathe with red wheels, a machine tool he first learned how to use while in high school wood shop.

Now, in his own wood shop, he meticulously crafts pieces of wood into forms of both function and art.

Born in Annapolis, MD, Beazley grew up in the suburbs of Baltimore.

He attended the University

*Robert Beazley, MD, at work in the shop on his trusty lathe.*

of Maryland for both college and medical school. Early on in medical school, Beazley got his first introduction to surgery during an externship at the Naval Medical Center in Portsmouth, VA. "I got the bug immediately," says Beazley. "Surgery suited me well and I just loved it. From day one, I was in hog heaven!"

After graduating in 1963 from University of Maryland School of Medicine, Beazley entered into the Navy and took a unique assignment — an adventure far greater than rowing down the River Thames — serving as Officer in Charge and Medical Officer at Amundsen Scott South Pole Station in Antarctica, also known as the "Ice." There he served as the only officer, in charge of all operations, and oversaw the 25 individuals serving and living at the base.

After serving in the Navy for two years, Beazley completed a surgery residency, also at University of Maryland School of Medicine, and in 1970, he began working as a general surgeon there. He went from there to the National Cancer Institute (NCI). When he was at NCI, parathyroid surgery was beginning to take off and this exposure to endocrine surgery, which he enjoyed, soon become his area of expertise. From NCI he took a position at Charity Hospital/Louisiana State University (LSU) in 1975. While on the LSU faculty, he also spent a formative sabbatical year with Leslie H. Blumgart, MD, a preeminent hepatobiliary

surgeon, at Hammersmith Hospital in London. Then, in 1988, he relocated to Boston University (BU), joining the Department of Surgery as the section chief of Surgical Oncology. "I came to BU because the endocrine program is very strong," says Beazley. "The opportunity allowed me to really develop endocrine surgery at BU and to also work with and educate future surgeons."

In addition to building a robust surgical practice, Beazley did a great deal of teaching, which he enjoyed. "We are a medical school and we should teach," says Beazley. "Frankly, education should be pretty close to the top as far as priorities go."

After 34 years (16 at BU) practicing surgery, Beazley was poised for his next adventure. "In all those years, surgery never got boring, not for one day," says Beazley. "I liked the patients, I liked the students and I liked my colleagues. Surgery is physically and mentally demanding though, and after a certain point, you come to realize that maybe you don't have enough lead in the pencil to do it how you really know it should be done." So, with that, Beazley decided to focus on some other passions. "I retired on a Friday in February 2004," says Beazley. Everybody kept asking me why I was leaving in February? I just told them, 'well, I got something I want to do'. The next Monday morning I was up in Maine at the Center for Furniture Craftsmanship starting woodworking school."

"There is no doubt that Bob Beazley is an outstanding surgeon and consummate teacher," says David McAneny, MD, BUSM associate professor of surgery, vice chair of the BUSM Department of Surgery and chief of General Surgery and Surgical Oncology at BMC. "His patient outcomes and the receipt of the prestigious Stanley L. Robbins Award — given annually to the outstanding educator at BUSM — surely attest to those accomplishments. Instead, his most precious qualities, for me, are his love of history (Beazley leads the History Club at BUSM) and earnest interest in learning, particularly about others. These traits have created the foundation for his retirement."

McAneny fondly recalls a visit with his patient, Dr. Peter Mozden, shortly before his death. Dr. Mozden was Drs. Beazley's and McAneny's predecessor as chief of Surgical Oncology at BMC. "Peter initially focused





on the clinical details of his condition, but Bob deftly redirected him to the 1940s," says McAneny. "Peter regaled us with stories of his military recruitment, experiences during the Battle of the Bulge and his role in coordinating the convergence of American and Russian troops at the River Elbe near the end of World War II. I still regularly demonstrate the importance of this interview and listening style to residents and students, especially when caring for patients who are depressed and withdrawn as they contend with chronic illness or approach the end of life."

When Beazley returned to Boston after woodworking school, he organized the shop and focused on getting into a routine. "A lot of people go into retirement not knowing what they want to do. You just start to spiral down. Most of us have had structure since we were kids and then suddenly it's turned off. So, I started learning new things, whether it was woodworking or taking courses." Since retiring, Beazley spends nearly every morning in the wood shop and has continued his quest for knowledge, taking almost 20 courses at BU.

"Bob has approached and accomplished retirement with the same deliberate planning and joie de vivre as he did his career," says Gerard Doherty, MD, BUSM professor and chair of the Department of Surgery and surgeon-in-chief at BMC. "He and his wife Kristen are great examples for all of us to emulate as we consider how to contribute to those around us after our working career is completed."

Beazley continues to play an active role at BUSM. Currently he serves as an assistant dean for student affairs in the Office of Student Affairs (OSA), mentoring students, writing Medical Student Performance Evaluations (MSPEs) and regularly meeting with students to guide them about specialty choices and their career paths. Beazley remains quite understated about the role he plays. "I just talk with the students about medicine," says Beazley. "What it is to be a doctor, how to carry oneself with a certain level of professionalism and a how to deal with crisis. Students' know you have been there, that you started out where they did. I don't try and talk anyone into anything. I try to find out where they are in this competitive environment and where they can best find a niche."

"Bob remains an invaluable member of the Department of Surgery family, providing institutional memory and serving as a trusted advisor, mentor and dear friend," says McAneny. "I really treasure our moments in the woodshop and his continued participation in the Mozden Visiting Professorship that he inaugurated. He is an ideal role model for medical students and residents and the epitome of a fulfilling life after surgery."

Dr. Beazley shuts off the radio and then turns the lights off in the wood shop. He will be back tomorrow morning. Then he will cross the street and head into the School of Medicine to meet some students. He seems quite content in his routine. "You have got to have something that interests you," says Beazley, pointing to the wood and the tools. "It doesn't have to be just medicine. But, I'm still playing around a bit with medicine."



*David McAneny, MD; Gerard Doherty, MD; and Robert Beazley, MD, at the 2015 Annual Meeting of the American Association of Endocrine Surgeons (AAES). Dr. Beazley was the Historical Lecturer and Dr. McAneny "robed" Dr. Doherty with the sweater of his beloved Boston Bruins after his delivery of the Presidential Address.*

*Dr. Beazley also presented the "Boston Gavel," crafted from the Boston Public Gardens Belgian Elm, in honor of Dr. Doherty's term as AAES President.*







Constructing Today. Building for Tomorrow.

## THE INTERVENTIONAL PROCEDURE PLATFORM

The vision of patient-centered care at Boston Medical Center (BMC) is coming into focus with the Clinical Campus Redesign; a campus master plan structured to offer a superior environment for health recovery, improve operating efficiency and provide a more effective platform to train Boston University School of Medicine (BUSM) students.

The surgical program at BMC has been re-envisioned as an Interventional Procedure Platform (IPP), designed to integrate the two BMC surgical units along with all of the interventional procedural services currently spread across two campuses. "The new IPP is the optimal arrangement for multidisciplinary care that values both patient safety and provider efficiency," says Gerard Doherty, MD, BUSM professor and chair of the Department of Surgery and surgeon-in-chief at BMC. "We believe that this will be the model interventional suite for the future."

These distinct programs will be united in the Menino Building by an expansion and remodel of the current space to now include:

- Eight existing Operating Room (OR) Suites
- Five additional General ORs
- Two Cardiovascular ORs
- One Hybrid OR (for vascular/endovascular cases and trauma procedures)
- One Cardiac Catheterization Lab
- Three Interventional Radiology (IR) Procedure Labs (One of which will include a Biplane Angiography System for neurointerventional procedures)
- Two Electrophysiology (EP) Labs

- Two Minor Procedure Rooms for endoscopic procedures

"The IPP will allow us to make the most efficient use of our modernized spaces, including up-to-the-moment endovascular and hybrid operating room facilities," says Doherty. These spaces will support BMC's cardiac surgery and vascular surgery programs especially well as the procedures in those fields have become increasingly technology dependent. "The Hybrid OR will allow us to deliver both cutting edge endovascular therapy and traditional open surgery to treat patients with complex cardiovascular disease," says Alik Farber, MD, BUSM professor of surgery and chief of Vascular and Endovascular Surgery at BMC. "The IPP will allow us to meld the newest minimally invasive technologies with tried and true surgical techniques to provide the best care for our patients."

The average size of each of the new ORs will increase 50% to approximately 600 square feet. A major improvement also comes from the more universal pre- and post-operative recovery suites across the IPP with an increase in the number of patient bays and flexibility to swing based on patient population requirements. The new ORs will be fitted out with versatile surgical lighting, defined laminar air flow





and convenient equipment/anesthesia booms, allowing universal flexibility within each general OR.

Improved support space includes administrative offices, centralized locker and changing facilities, expanded work space for anesthesiology services and an en-suite Pathology Lab for blood gas and other laboratory analysis as well as frozen section. Central Sterile Processing is also being expanded and realigned to improve the workflow and response time with additional lift capacity to better connect to the IPP.

"With the new state-of-the-art IPP, anesthesiology will be well positioned to provide streamlined coordinated care for multiple procedural specialties in one centralized location with all proceduralists working side-by-side simultaneously as a team," says Keith Lewis, RPh, MD, BUSM professor and chair of the Department of Anesthesiology and chief of Anesthesiology at BMC. "Having all anesthesia providers in one location will increase the efficiency of coverage by minimizing delays in patient transport while concurrently eliminating duplication of services around the institution. The IPP is every anesthesiologist's dream set-up because we will have procedures performed



*The Hybrid OR will be used for vascular/endovascular cases and trauma procedures and will include advanced medical imaging devices which will greatly improve efficiency, patient safety and outcomes.*

in one centralized location allowing for backup and consultations in the same area while recovering patients in one fully integrated Post-Anesthesia Care Unit (PACU)."

Each new OR will also be equipped with a Video Integration System (VIS) to support clinical and teaching initiatives. The VIS will be capable of recording a procedure through an audio/video camera system and centralization and recognition of controls for peripheral equipment. The integration system will also facilitate communication between the pathology lab, attending physicians and the classroom. Doherty

notes, "As a training platform, the IPP will enable our trainees in surgery, radiology, cardiology, gastroenterology and anesthesiology to work side-by-side in the way that we believe medicine will be best practiced now and in the future."

The new space is planned to be operational in late 2016. Tocci Building Companies (Program Manager); TRO Jung Brannen (Architect/ Engineer); and Suffolk Construction (Construction Manager) is BMC's integrated partner team providing planning, design and construction for the inpatient program.



*The average size of each of the new operating rooms will increase by 50% to approximately 600 square feet and will be equipped with versatile surgical lighting, defined laminar air flow and convenient equipment and anesthesia booms — allowing universal flexibility within each.*





## BOSTON UNIVERSITY SURGERY RESIDENCY PROGRAM

Residents are provided with the range and depth of academic experience and exposure required to develop superior surgical skills and an ability to make mature, informed, independent judgments. Superior general surgeons or surgical specialists emerge from the program as a result of extensive clinical exposure at every level of training.

### Current Residents

#### PGY 1

**Nkiruka Arinze, MD**, Vanderbilt University School of Medicine

**Priyanka Bearely, MD**, Boston University School of Medicine

**Joshua Davies, MD**, Pennsylvania State University College of Medicine

**Megan Janeway, MD**, Boston University School of Medicine

**Majd Kabbani, MD**, University of Oklahoma College of Medicine

**Justin McCool, MD**, Boston University School of Medicine

**Hans Michell, MD**, Florida International University Herbert Wertheim College of Medicine

**Kim Na Eun, MD**, Robert Wood Johnson Medical School

**Miriam Neufeld, MD**, Indiana University School of Medicine

**James Rague, MD**, Wake Forest School of Medicine

**Kevin Quinn, MD**, University of Maryland School of Medicine

#### PGY 2

**Olga Beresneva, MD**, Drexel University College of Medicine

**Dar Heinze, MD**, University of Texas Medical Branch School of Medicine

**Christopher Johnson, MD**, Boston University School of Medicine

**Rumbidzayi Nzara, MD**, University of Minnesota Medical School

**Praveen Sridhar, MD**, Boston University School of Medicine

**Stephanie Talutis, MD**, New York Medical College

#### PGY 3

**Maunil Bhatt, MD**, Virginia Commonwealth University School of Medicine

**Andrew McChesney, MD**, University of Iowa Roy J. and Lucille A. Carver College of Medicine

**Feroze Sidhwa, MD, MPH**, University of Texas Medical School at San Antonio

**Kathryn Van Orden, MD**, University of Medicine & Dentistry of New Jersey/R.W. Johnson Medical School

**Kimberly Zamor, MD**, Chicago Medical School, Rosalind Franklin University

#### PGY 4

**Matthew Brady, MD**, Tufts University School of Medicine

**Elizabeth King, MD**, Georgetown University School of Medicine

**Joanna Ng, MD**, Boston University School of Medicine

**Aaron Richman, MD**, University of California San Diego School of Medicine

**Matthew Scriven, MD**, Georgetown University School of Medicine

#### PGY 5

**Gustavo Bauza, MD**, Universidad Central del Caribe

**Kendra Iskander, MD**, Boston University School of Medicine

**Chinwe Kpaduwa, MD**, Georgetown University School of Medicine

**Juan Rodolfo Mella, MD**, Boston University School of Medicine

**Elliot Pennington, MD**, University of Missouri, Columbia School of Medicine

#### RESEARCH

**Matthew Egyud, MD**, Boston University School of Medicine

**Christopher Graham, MD**, SUNY Downstate Medical Center

**Krista Hachey, MD**, The Alpert Medical School at Brown University

**Elica Inagaki, MD**, Medical College of Wisconsin

**Ryan Macht, MD**, New York University School of Medicine

**Jian Zheng, MD**, USF Health Morsani College of Medicine

#### CURRENT FELLOWS

##### Surgical Critical Care Fellowship

**Susan Kartiko, MD**, Texas A&M University System Health Science Center College of Medicine

**Rebecca Fevurly, MD**, University of Colorado School of Medicine

##### Vascular Surgery Fellowship

**Sergio Casillas Berumen, MD**, Universidad Autónoma de Baja California Tijuana Facultad de Medicina y Psicología

**Sebastian Didato, MD**, Ross University School of Medicine



#### 2015 GRADUATES

(L-R) Michael Cassidy, MD,  
Elisha Brownson, MD,  
Christa Siebenburgen, MD,  
Alan Sherburne, MD

### SURGERY RESIDENCY PROGRAM VIDEO



Learn more about our Surgery Residency Program from an informative video. To view the video, scan this QR code with a QR reader app or visit: [www.bumc.bu.edu/surgery/training/residency](http://www.bumc.bu.edu/surgery/training/residency)



**Matthew Brady, MD**, was awarded Poster of Distinction for, "*Co-Administration of Valproic Acid (VPA), an Histone Deacetylase Inhibitor, and a Neurokinin-1 Receptor Antagonist (NK-1RA) that Reduces Intraabdominal Adhesion Formation in a Rat Surgical Model Downregulates the Expression of the Early Growth Response (Egr) Genes 1 and 3 both in Vivo and in Human Mesothelial*," at the annual meeting of the Society for Surgery of the Alimentary Tract (SSAT).

**Krista Hachey, MD**, received the Brigham and Women's (BWH) Department of Surgery John A. Mannick Research Award; the 4th annual Harvard Medical School Surgery Research Day 1st place award for clinical podium presentation; BWH Research Excellence Award; 9th Annual Massachusetts Medical Society first place clinical research award; BWH Lung Research Center 1st place clinical research award; and New England Surgical Society Resident and Fellow Research Presentation Day 2nd place clinical research award. She presented original research at the 95th annual American Association for Thoracic Surgery meeting, 41st Western Thoracic Surgical Association meeting and the 96th Annual New England Surgical Society meeting. She also published a review in *Seminars in Thoracic and Cardiovascular Surgery*, and has manuscripts accepted to *Journal of Thoracic and Cardiovascular Surgery* and *Annals of Thoracic Surgery*.

**Kendra Iskander, MD**, was awarded a Traveling Fellowship from the Frederick A. Collier Surgical Society.

**Elizabeth King, MD**, won first prize in the ACS Committee on Trauma (COT) Trauma Residents Paper Competitions for, "*Valproic Acid Mitigates the Inflammatory Response in Murine Acute Lung Injury at the Expense of Bacterial Clearance*." The paper was also chosen for an oral presentation representing ACS COT Region 1 to present nationally.

**Chinwe Kpaduwa, MD**, was an American College of Surgeons (ACS) Massachusetts Committee on Trauma Resident Papers Competition Winner and ACS Region 1 Committee on Trauma Resident Papers Competition Winner for, "*Fresh Frozen Plasma in the non-massively transfused blunt trauma patient: Safe to use after all*." She also was awarded the Arnold P. Gold Foundation Humanism and Excellence in Teaching Award and inducted into the Gold Humanism Honor Society.

**Ryan Macht, MD**, received the Best Clinical Oral Presentation award at the Massachusetts Chapter of the American College of Surgeons (ACS) Annual Meeting for the abstract, "*An Estimation of the Financial Impact of Two Major Quality Improvement Initiatives using NSQIP Data*," he presented at Surgical Education Week and then

## Visiting Professors

### Grasberger Research Symposium Lecture and Visiting Professorship

#### K. Craig Kent, MD

A.R. Curreri Professor of Surgery and Chairman  
Department of Surgery, University of Wisconsin, Madison, WI

### George H. Clowes, Jr., MD Trauma Lecture and Visiting Professorship

#### Rao R. Ivatury, MD

Professor Emeritus, Department of Surgery  
The Medical College of Virginia/Virginia Commonwealth University School of Medicine, Richmond, VA

### Peter J. Mozden Visiting Professorship in Surgical Oncology

#### Yuman Fong, MD

Chair, Department of Surgery and Professor of Surgery  
City of Hope, Duarte, CA

### Boston Medical Center Visiting Professorship in Vascular Surgery

#### Michael Belkin, MD

Professor of Surgery, Harvard Medical School  
Chief, Division of Vascular and Endovascular Surgery  
Brigham and Women's Hospital, Boston, MA

### Smithwick Visiting Professorship in Vascular Surgery

#### Peter Gloviczki, MD

Joe M. and Ruth Roberts Professor of Surgery  
Mayo Clinic College of Medicine  
Chair Emeritus, Division of Vascular and Endovascular Surgery  
Mayo Clinic, Rochester, MN

was the lead author on a paper in the *Journal of Surgical Education*, "*A Multifaceted Intervention to Increase Surgery Resident Engagement in Reporting Adverse Events*," and published a manuscript in the *Journal of Gastrointestinal Surgery*, "*Giant Colonic Diverticulum: A Rare Diagnostic and Therapeutic Challenge of Diverticular Disease*," with BU Surgery Residency alumni Dr. Holly Sheldon and Dr. Marco Fisichella (VA attending).

**Elliot Pennington, MD**, matched for Pediatric Surgery Fellowship at Northwestern University for 2016-2018. He also was the lead author of "*Limb reconstruction with decellularized, non-demineralized bone in a young leporine model*," published in *Biomedical Materials* and "*The impact of gestational age on targeted amniotic cell profiling in*





*experimental neural tube defects,"* both published in *Fetal Diagnosis and Therapy*.

**Feroze Sidhwa, MD, MPH**, had a podium presentation, "*Development of a Comparative-Performance Report Card for Pediatric Appendicitis*," at the American Academy of Pediatrics Annual Meeting. He also had a first author review paper in the journal *Surgical Infections*, "*Skin preparation before surgery: options and evidence*," and two second-author papers published.

**Stephanie Talutis, MD**, was the lead author of "*Laparoscopic-assisted management of traumatic abdominal wall hernias in children: case series and a review of the literature*," published in the *Journal of Pediatric Surgery*.

### Surgery Education Office Launches Monthly CMC Lecture Series

This past year **Douglas F. Kauffman, PhD**, *Associate Chair for Education in the Department of Surgery*, in collaboration with the Graduate Medical Education Department (GME) launched "Teaching Tips," a monthly CME lecture series. The series is open to all faculty, residents and medical students at BMC and BUSM and presents research and theory to help explain how people learn, what motivates us and how to most effectively help facilitate learning. This series is designed to help individuals learn how to learn, how to teach and how to teach others how to teach.

### Welcoming Michael Dempsey, PhD



**Michael Dempsey, PhD**, is a new *Post-Doctoral Fellow* in the Department of Surgery. Dr. Dempsey received a BA in English and Psychology from the University of Nebraska–Lincoln; an MA in English from the University of Connecticut;

an MS in Curriculum and Instruction with an emphasis on Instructional Technology from the University of Nebraska–Lincoln; and a PhD in Educational Psychology with an emphasis on Cognition, Learning, and Development also from the University of Nebraska–Lincoln.

Prior to joining BMC, Dr. Dempsey was most recently the Assistant Technology Team Leader at the University of Nebraska–Lincoln, where he collaborated with students and faculty in support of innovative curriculum designs and coached students and faculty in the implementation and use of instructional technologies.

His research interests include: the role of self-regulation during learning inside and outside the classroom; strategy learning in complex, ill-defined content areas; problem-solving and critical thinking; and self-efficacy and motivation.

### Current Selected Education Research Projects

#### Trauma Leadership Study

Along with colleagues from the Emergency Department (ED), we are trying to understand the experiences of residents who serve as Trauma Room leaders. This mixed-methods study is using a combination of quantitative responses to a series of questionnaires and qualitative responses to a series of interview questions. The intent of this study is to identify what it means to be a successful trauma room leader.

#### Fourth Year Surgical Clerkship Mentoring Study

In this study, we are examining the experiences of students participating in a formalized mentoring program developed and implemented by one of our trauma surgeons, Tracey Dechert, MD, and BMC medical students interested in surgery. We will be following a group of medical students throughout their fourth year as they prepare to make decisions about where to apply for residency, how to prepare for interviews, participate in the surgical boot camp and prepare for the next step in their careers.

#### Laparoscopic Knot Tying Study

The purpose of this study is to examine how role modeling and feedback affect medical students' skill acquisition, self-efficacy, and self-regulation during a laparoscopic surgical simulation training session. Preliminary results suggest that both modeling and feedback have a significant influence on students' learning, their satisfaction with their performance and their self-efficacy for laparoscopic knot tying. Qualitative interview data supplementing the quantitative results revealed that both modeling and feedback influence students self-regulated learning.

#### Minimally Invasive Surgery Training Study

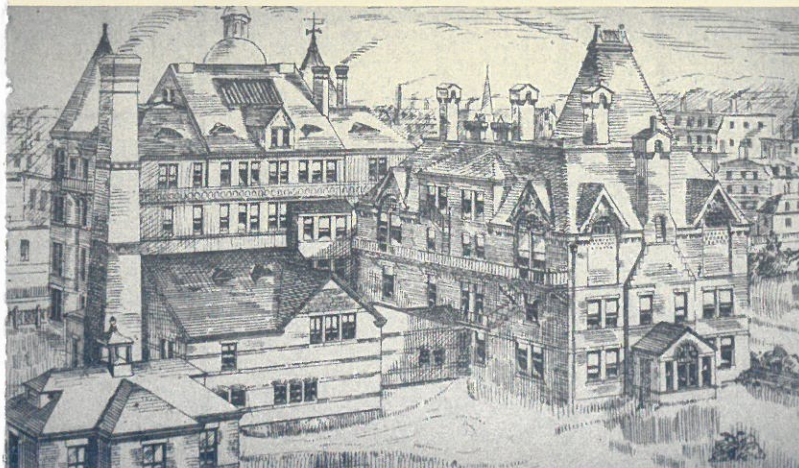
The objectives of this study are to develop and manipulate the use of a standardized laparoscopic surgery vocabulary set and frame-of-reference monitor grid designed to increase the effectiveness and efficiency of formative and summative feedback given to medical students and surgical residents during minimally invasive surgery training.



## HISTORY OF THE DEPARTMENT OF SURGERY



Boston University School of Medicine opened its doors November 5, 1873, combining the Female Medical College of Boston with the medical staff of the Massachusetts Homeopathic Hospital. Dr. Israel T. Talbot was the first Chairman of the Department of Surgery at BU (1873 to 1897) while also serving as the first Dean of BUSM.



**Massachusetts Homeopathic Hospital campus**

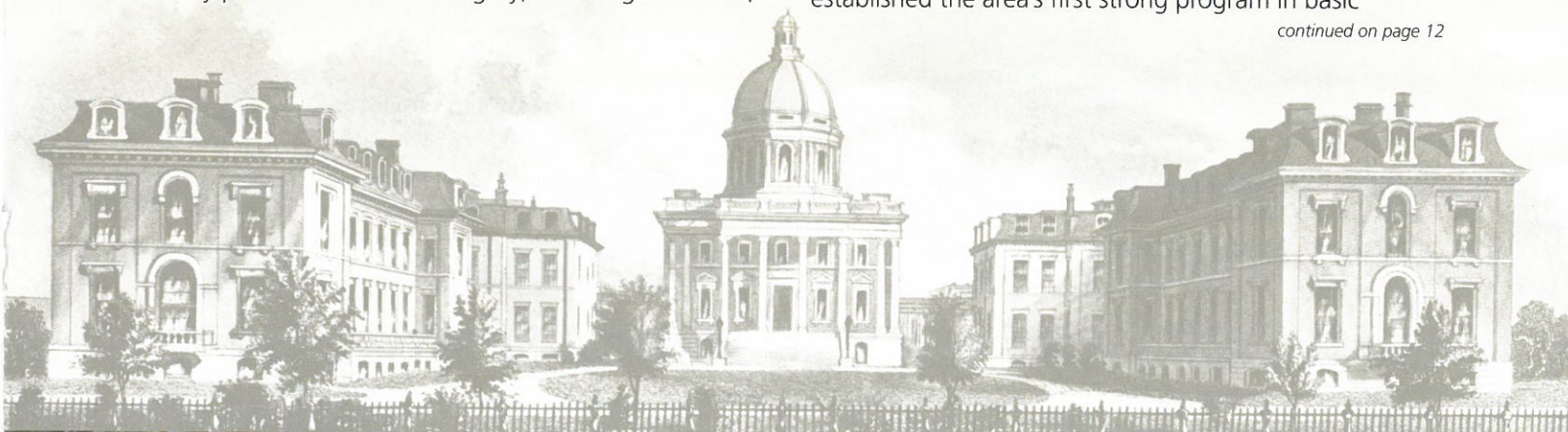
The modern history of the Department of Surgery at BU dates to 1946 when Dr. Reginald H. Smithwick was recruited from the Massachusetts General Hospital to serve as Chairman of Surgery at BUSM and Surgeon-in-Chief at what was then Massachusetts Memorial Hospital. He brought with him a highly talented staff of general surgeons, including Dr. Jessie Thompson, an early pioneer in vascular surgery; Dr. Douglas Farmer,

a gastrointestinal surgeon who was instrumental in developing hemigastrectomy and vagotomy as an operation for peptic ulcer disease; Dr. Chester Howe, an early specialist in the burgeoning field of surgical infectious disease; and Dr. George Whitelaw, a noted educator and general surgeon.

An innovative surgeon, Dr. Smithwick was responsible for developing bilateral splanchnic sympathectomy as the only effective treatment at the time for intractable essential hypertension. Patients across the globe flocked to Boston for this operation and colleagues and dignitaries were attracted to the institution to witness the procedure. Dr. Smithwick worked in conjunction with two world leaders in medicine, Dr. Chester Keefer, Chief of Medicine, and Dr. Robert W. Wilkins, who ironically put Smithwick out of the hypertension business with the development of the first effective medical therapy for essential hypertension. This was truly a remarkable era at BUSM.

Dr. Smithwick served as Chairman for nearly 20 years, retiring in 1963. Shortly thereafter, Dr. Richard Egdahl was recruited from the Medical College of Virginia. He established the area's first strong program in basic

*continued on page 12*



### COLLECTION OF HISTORICAL PHOTOS


*The Department of Surgery recently digitized a collection of historical photos that were donated by Dominic Zazzarino, MD, a graduate of the BU Surgery Residency Program. To view them, scan this QR code with a QR reader app or visit:*



**[www.bumc.bu.edu/surgery/about/archives](http://www.bumc.bu.edu/surgery/about/archives)**







and clinical research, including one of the first surgical laboratory fellowship programs in the U.S. Dr. Egdaahl retired as Chairman of Surgery in 1973 to develop the Health Policy Institute at BU. In 1997, he was named the first *Alexander Graham Bell Professor of Entrepreneurial Medicine* at BUSM.

As a result of considerable downsizing of BCH in 1973, clinical services were taken over by members of the BU faculty. From that point on, members of the BU faculty staffed the surgical services at both BCH and BU Medical Center Hospital.

Before returning as Surgical Chair, Dr. Egdaahl recruited Dr. John Mannick of the Medical College of Virginia to serve as Director of Surgery at BCH. An expert vascular surgeon as well as a basic immunologist, Dr. Mannick became Chairman of

***The 1996 merger of Boston University Medical Center Hospital, Boston City Hospital and the Boston Specialty and Rehabilitation Hospital formed the new BMC and helped solidify the Department of Surgery's clinical position in Boston.***

the BUSM Department of Surgery in 1973. He made enormous contributions to the field of immunology during his six years at BU before becoming Chief of Surgery at Peter Bent Brigham Hospital.

Following periods of leadership by Drs. Lester Williams, Peter Mozden, Robert Hobson, Edward Spatz and James Becker, Gerard Doherty assumed the position of *James Utley Professor and Chair* of the Department of Surgery in 2012.

## VASCULAR SURGEON VISITS U.S. MILITARY CENTERS TO WITNESS THE HIGHEST LEVEL OF AMPUTEE CARE

It's been over two years since Jeffrey Kalish, MD, BUSM assistant professor of surgery and vascular surgeon at BMC, rushed from the Boston Marathon route and directly to the operating rooms where he and numerous other BMC surgeons performed complex lifesaving procedures on critically-ill patients, some of whom required multiple amputations and complex vascular repairs.

"The Boston Marathon bombings had a profound impact on both my personal and professional life," says Kalish. "After all the surgeries had been completed, and after the chaos of the week had settled, I naturally questioned everything that had happened and everything I had done. Overall, I resolved to learn from this experience and shape my approach to future amputation patients."


BMC is the largest and busiest provider of trauma services in New England and longest continuously verified Level I trauma center in Boston. In fact, BMC surgeons are frequently called upon to handle such cases. "In the civilian trauma world, the decision to save or amputate a mangled extremity can perplex even the most seasoned and experienced surgeon," says Kalish. "After the Marathon, I knew that there was a wealth of military information to help guide those decisions as well as the techniques employed."

Research and experiences from past military conflicts have highlighted the optimal treatment of mangled extremities, the optimal techniques of amputations and the ideal prosthetics and rehabilitation programs required to transition soldiers back to military or civilian life. Vascular surgeons play a vital role in caring for amputation patients and learning the most optimal techniques for performing these surgeries and knowledge of postoperative care is vital for positive outcomes.

Six months after the Marathon Bombings, Kalish helped coordinate a meeting of military experts in Boston to collaborate with civilian surgeons regarding patient care for numerous survivors. He notes, "Just hearing the perspectives of the military experts was informative beyond my expectations."







"The events surrounding the Boston Marathon bombings had already taught me profound lessons," says Kalish. "That being said, I knew there was more to learn and I began to seek out opportunities which would allow me to witness the highest level of amputee surgical care and rehabilitation." Kalish applied for and won the E.J. Wylie Traveling Fellowship through the Society for Vascular Surgery (SVS). The fellowship is awarded to one recipient each year and provides them with the opportunity to visit vascular surgery centers worldwide to stimulate academic inspiration and promote international exchange.

Through the fellowship, Kalish has focused on visiting both military and civilian centers that specialize in amputee care. "To be granted the opportunity to travel to these specialized military centers for first-hand learning has been career-changing for me, and will undoubtedly improve my surgical knowledge and skills," says Kalish.

At Walter Reed National Military Medical Center, he met with members of the Multidisciplinary Amputation Team and toured their state-of-the-art facilities used to rehabilitate members of the armed services who undergo amputation. He has taken multiple trips to Walter Reed to observe unique amputation-related surgeries in order to bring lessons back not only to his own practice at BMC, but also to the civilian medical establishment as a whole. "The E.J. Wylie Traveling Fellowship has allowed me to witness the highest level of amputee surgical care and rehabilitation, and then to bring back this information to the civilian world," says Kalish. "Creating this military and civilian bridge is important for the transfer of information and can have tremendous positive effects for our patients."

Kalish also traveled to the Department of Orthopedics at the University of Utah (Salt Lake City) to discuss a new surgical procedure called "osseointegration." "This novel procedure for amputees is currently performed only at specialized centers in Europe and Australia, and will be undergoing clinical trials in Utah starting this year," says Kalish. "The basic concept involves implanting a device into an amputee's residual limb so that a prosthetic attaches directly to it, and is meant for patients who cannot use conventional prostheses for various reasons."

While Kalish has learned a tremendous amount during his time away from Boston, what might be most valuable is what he has brought back to BMC. Over the past year, Kalish has worked to align a multidisciplinary team of BMC providers in order to formalize and standardize best practices to benefit BMC amputation patients. The STRONG Team (Surgery To Rehab Ongoing Needs Group) is striving towards the ultimate goal of improving and coordinating care for amputation patients and their families as they transition from the hospital setting to rehabilitation. This group has brought together surgeons from multiple specialties, in addition to representatives from nursing, psychiatry, physical therapy, social work, patient advocacy and pastoral care. "Our goal is that the STRONG Team will ultimately serve as a model system of care throughout the region," says Kalish. "We hope that we can positively influence the practices of many other surgeons and centers that treat amputees."



*Visiting U.S. military medical centers has given Jeffrey Kalish, MD the necessary tools to guide the BMC STRONG Team toward a model system of care for amputation patients.*





## DECREASING PULMONARY COMPLICATIONS WITH I COUGH™

Coughing is often a symptom of illness. But for patients who cough after operations, it can be a sign of something good: the prevention of pulmonary complications. BMC surgeons and nurses have developed a program to reduce the incidence of costly and debilitating post-operative pulmonary complications.

Deep breathing and coughing are encouraged after operations to expand the lungs and prevent complications such as pneumonia, an unplanned re-intubation or an extended course of mechanical ventilation. To reduce the incidence of potential postoperative complications, BMC surgeons and nurses developed a program known by the acronym "I COUGH." This is one of several systemic initiatives within the Department of Surgery that focus on improving outcomes after all operations.

**I COUGH** stands for:

**I**ncentive spirometry,  
**C**oughing and deep breathing,  
**O**ral care,  
**U**nderstanding (patient education),  
**G**etting out of bed, and  
**H**ead of bed elevation.



All patients who undergo major operations, particularly under general anesthesia, are expected to engage in these perioperative activities. "We have demonstrated a decline in all three risk-adjusted pulmonary outcomes measured in the American College of Surgeons (ACS) National Surgical Quality Improvement Program (NSQIP) since 2010," says David McAneny, MD, BUSM associate professor of surgery, vice chair of the BUSM Department of Surgery and chief of General Surgery and Surgical Oncology at BMC. McAneny has spearheaded the initiative, along with a team that includes Pamela Rosenkranz, RN, BSN, MEd, director of clinical quality and patient safety in the Department of Surgery, Ryan Macht, MD, a BMC general surgery resident who is currently serving a two-year research fellowship in quality improvement in surgery, Beth O'Donnell, MPH, project manager for quality in the Department of Surgery and Carol Shea, RN, surgical clinical reviewer in the Department of Surgery.

The keystone of I COUGH is education — of patients, their families, surgeons and staff. Prior to the operation, patients receive brochures and view videos (in five languages plus closed captioning for the hearing impaired) regarding the importance of participating in I COUGH to prevent pulmonary complications. They are provided instructions that emphasize lung excursion exercises (frequent coughing and deep breathing), how to use the incentive spirometer, pain control, mobilization (walking and being out of bed at least three times daily) and oral hygiene (brushing teeth and using mouthwash at least twice daily). BMC nurses treat patients based on electronic orders from surgeons and their teams that establish uniform pulmonary care.

McAneny says the program's success is predicated upon patients and their families understanding, anticipating, and appreciating high standards of care, including early post-operative mobilization. "It is essential to educate both patients and our staff to modify longstanding practices in order to reduce the incidence of pulmonary complications," says McAneny. "The results underscore the critical roles of surgeons, nurse managers and front-line nurses in leading culture and behavior changes."

During the 12 months before implementation of I COUGH, the incidence of postoperative pneumonia following non-cardiac general and vascular surgery operations was 2.6% (of 1,569 cases), and this declined to 1.6% in the 12 months after I COUGH implementation. The incidence of unplanned intubations, a known risk factor for pneumonia, was 2.0% before and 1.2% shortly after I COUGH implementation. Publication and presentation of the findings has generated interest in implementing I COUGH elsewhere. In fact, surgeons from more than 70 hospitals in the United States and Canada have requested permission to use the proprietary I COUGH acronym and associated patient education materials. Some of these centers are performing pilot studies before dissemination throughout larger healthcare systems that include about 60 additional hospitals.



Furthermore, this program has been introduced in hospitals in Manchester, England, where it is known as "I COUGH UK."

The risk-adjusted odds ratios of all three adverse pulmonary outcomes have declined from about 2.0 to nearly 1.0 at BMC, indicating that surgeons are seeing roughly the expected number of postoperative pulmonary complications based upon the overall severity of patients' illnesses. This is not to imply an easy adjustment or a steady decline in these complications. This program requires vigilance, including regular audits of practices and feedback to staff, especially the front-line nurses. The I COUGH effort is also supported by measures such as sedation vacation and mobilization of ventilated patients in the intensive care units, prospective pulmonary risk assessment scoring in the preoperative clinic, a formal smoking cessation initiative, and the extension of I COUGH practices to all surgery services at BMC, with local nurse champions.

A recently conducted cost analysis of both the I COUGH and the Caprini venous thromboembolism risk assessment and standardized prophylaxis programs at BMC (see sidebar), based on the NSQIP Return On Investment Calculator, estimated a total cost savings of greater than \$5 million dollars. Almost 80% of these savings were due to the reduction in pulmonary complications. In addition, it was estimated that, upon comparing the two-year interval before implementation to the two years afterwards, these programs prevented more than 200 major complications. Ryan Macht, MD, recently presented

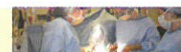
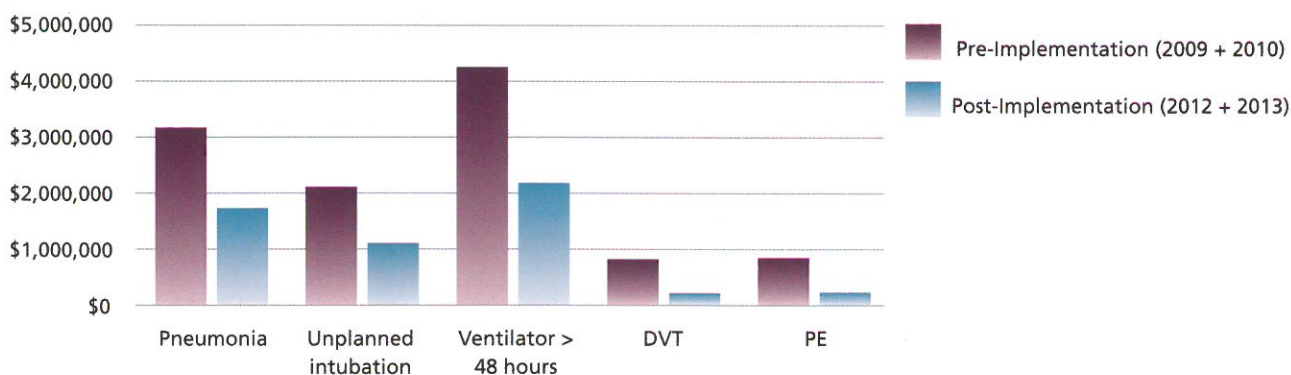
these data during an invited podium address at the 2015 NSQIP National Conference. (See figure below)

"Our initial data suggest that I COUGH has tremendous potential to prevent serious — and potentially deadly — post-operative pulmonary complications," says Rosenkranz. "We also believe that the time for I COUGH dissemination is now. Given the movement toward pay-for-performance, the increasingly strict quality targets of payers and professional organizations, and the penalties for poor performance on measures of patient morbidity and mortality, the pressures on hospitals to contain costs, reduce complications and improve the quality of care have never been greater."

### Preventing Postoperative Venous Thromboembolism

Dr. McAneny's team has also designed a program (within two different electronic medical records) to prevent the development of postoperative venous thromboembolism (VTE). This system employs mandatory VTE risk assessment (based upon Caprini score) and risk-stratified prophylaxis guidelines, including extended courses of pharmacologic prophylaxis when indicated. As a result, the odds ratio of VTE on the general surgery service at BMC has declined from 3.02 to 0.70, translating to movement from the 10th NSQIP decile to a sustained presence (during the last three reporting periods) in the 1st decile.

### Total Cost of Complications — Pre- and Post-Implementation of I COUGH Program





Research is an integral part of the Department of Surgery and reflects a major commitment by the department to advance the field. Ongoing work in the department includes basic and translational research in fields as diverse as the immunobiology of sepsis, the biology and treatment of acute lung injury and the molecular analysis of cancer. All of these take place in the modern laboratory facilities of the Boston University Medical Campus (BUMC).

Active collaborations with colleagues at the schools of Medicine, Engineering, Public Health and Management enhance projects in the clinical, health services and education research arenas.

The Clinical Research Program is comprehensive and supports every aspect of clinical research conduct. The program assists investigators in protocol development and grant submissions for competitive clinical research grants. The program works in conjunction with pharmaceutical and device companies to conduct industry clinical trials. The program supports regulatory (IRB and other regulatory agencies), administrative (budget and contracts), and clinical (patient enrollment, management and data collection) components.

### Selected Grants

#### **National Institutes of Health (NIH) R21 Grant**

*"Feasibility of Molecular Cytology for the Management of Barrett's Esophagus"*

1R21CA187753-01A1 NIH/NCI

Investigator: Tony Godfrey, PhD

\$376,485

#### **Boston University Office of Technology Development Ignition Award**

*"Development of Ultra-Sensitive Sequencing for use in Cancer Diagnostics and Beyond"*

Investigator: Tony Godfrey, PhD

\$50,000

#### **American College of Surgeons (ACS) Award**

*"Mitochondrial DNA Regulates Cytokine mRNA Stability in Sepsis"*

Investigator: Bedabrata Sarkar, MD, PhD

\$80,000

#### **Association for Academic Surgery, Roslyn Faculty Research Award**

*"Mitochondrial DNA Regulates Cytokine mRNA Stability in Sepsis"*

Investigator: Bedabrata Sarkar, MD, PhD

*Declined in favor of above ACS award*

#### **Karyopharm Therapeutics Inc. Research Gift**

*"Breast Cancer Research"*

Investigator: Fabio Petrocca, MD

\$49,980

#### **National Institutes of Health (NIH) K22 Grant**

*"Noxa-mediated mechanisms of proteasome addiction in basal-like breast cancer"*

Investigator: Fabio Petrocca, MD

\$575,424

### Clinical Research

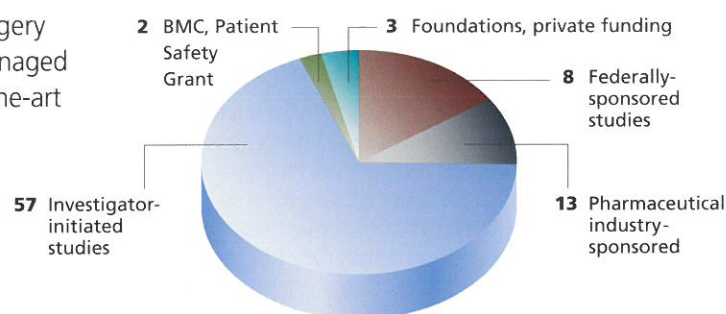
The Office of Surgical Translational Research Operations and Compliance in the Department of Surgery, led by Marina Malikova, PhD, is responsible for clinical trials and basic biomedical research operations, macro-management of research programs, providing guidance and oversight to the project managers, Clinical Research Associates (CRAs), Clinical Research Coordinators (CRCs) and laboratory staff. The office also provides assistance to investigators with protocol and informed consent writing, regulatory submissions, clinical trial agreements and budgets development and post-award financial management. In addition, the office is responsible for developing and implementing adequate systems and procedures to ensure research quality control and compliance, efficient day-to-day research operations that meet the needs of the Department of Surgery.



## Open Clinical Research Protocols

As of September 1, 2015, the Department of Surgery at BMC has 83 open clinical research protocols managed by dedicated teams of researchers in the state-of-the-art facilities within BUMC.

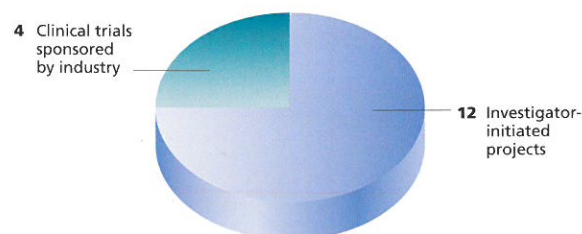
The chart illustrates the wide range of funded research work at BMC.



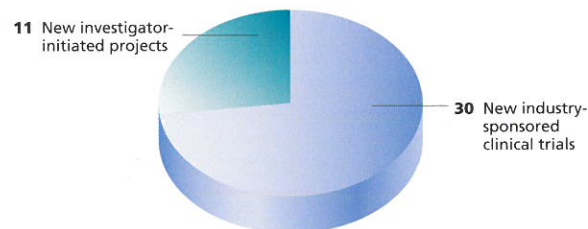
## Selected Clinical Trials

PRINCIPAL INVESTIGATOR	CLINICAL TRIAL	DIRECT COSTS	INDIRECT COSTS	SPONSOR
<b>Currently Open for Enrollment</b>				
<i>Division of Vascular and Endovascular Surgery</i>				
<b>Alik Farber, MD</b>	Evaluation of a Dual Action Pneumatic Compression System: Tolerance and Comfort in Patients with Venous Leg Ulcers	\$123,606.67	\$37,082.00	Tactile Ltd
<b>Mohammad Eslami, MD</b>	A Prospective, Single-blind, Randomized, Phase III Study to Evaluate the Safety and Efficacy of Fibrin Sealant Grifols (FS Grifols) as an Adjunct to Hemostasis during Peripheral Vascular Surgery - IG1101 study with blood-derived biologic	\$86,510.00	\$25,953.00	Grifols
<b>Jeffrey Kalish, MD</b> (BMC site principal investigator)	Randomized, Multicenter, Controlled Trial to Compare Best Endovascular versus Best Surgical Therapy in Patients with Critical Limb Ischemia	\$91,162.00	\$59,255.00 (65% overhead)	National Institutes of Health (NIH)
<i>Division of Podiatry Surgery</i>				
<b>Hau Pham, DPM</b>	A Multicenter, Randomized, Controlled, Open-Label Trial to Assess the Clinical Effectiveness of DermACELL®, Conventional Care Wound Management, and GraftJacket® in Subjects with Chronic Wounds in the Lower Extremities	\$163,700.00	\$49,110.00	DermaSciences
		\$218,647.60	\$65,594.00	LifeNet Health, Inc.
<b>Completed Trials</b>				
<b>Alik Farber, MD</b>	A Phase 3 Randomized, Double Blind, Vehicle Controlled Study Investigating the Safety and Efficacy of HP802-247 in the Treatment of Venous Leg Ulcers. HP802-247 study with skin cell derived, fibroblast based biologic	\$199,550.00	\$59,865.00	Smith and Nephew Inc.
<b>Alik Farber, MD</b>	A Non-Interventional Safety Study Providing 12 Months Follow-Up from First Exposure to HP 802-247 in Subjects with Venous Leg Ulcer	\$46,800.00	\$14,040.00	Smith and Nephew Inc.
<b>Alik Farber, MD</b>	A Phase 3 Randomized, Double Blind, Vehicle Controlled Study Investigating the Safety and Efficacy of HP802-247 in the Treatment of Venous Leg Ulcers >12 cm <sup>2</sup> to ≤ 36 cm <sup>2</sup>	\$142,748.06	\$42,824.00	Smith and Nephew Inc.

Completed Clinical Research Projects



Planned Research Projects







## New Research Faculty

### Amy Rosen, PhD

Professor of Surgery, Boston University School of Medicine



Dr. Rosen has a BA in political science from Boston University and a PhD in sociology from University of Maryland. A Professor of Surgery in the Department of Surgery at BUSM, she has spent most of her recent research career in the Veteran's Affairs (VA) Boston Healthcare System. While Dr. Rosen will be at BUMC

part time, she will continue her work at the VA Boston where she is Director of the VA Patient Safety Center of Inquiry on Measurement to Advance Patient Safety, and a VA Senior Research Career Scientist.

Dr. Rosen has served as principal and co-principal investigator on numerous federally-funded projects. She is a national expert in risk adjustment, and was the first researcher to apply leading commercial risk-adjustment systems to national VA data to measure disease burden. She also developed a risk-adjustment model to predict decline in functional status in long-term care facilities, which has been used as a marker of quality in numerous studies. She is also a national expert in the use and application of the Patient Safety Indicators (PSIs), developed by the Agency for Healthcare Research and Quality (AHRQ), and has helped AHRQ revise their indicator definitions based on findings using VA clinical data.

Dr. Rosen is the author of over 140 peer-reviewed manuscripts, and serves as a reviewer for many journals, including *Medical Care* (Deputy Editor), *Health Services Research*, *JAMA* and *Journal of General Internal Medicine*. Her research interests include risk adjustment, quality of care, patient safety and health care outcomes.

### Fabio Petrocca, MD

Assistant Professor of Surgery, Boston University School of Medicine



Dr. Petrocca earned his medical degree at University of Rome "La Sapienza," Italy and his Medical Oncology diploma at University of Ferrara, Italy. Dr. Petrocca joined Boston University School of Medicine as Assistant Professor of Surgery in 2015, bringing over ten years of experience in clinical and molecular

oncology. Most recently, Dr. Petrocca was Medical Director at Karyopharm Therapeutics, where he managed phase 1 and 2 clinical trials of Selinexor, a first-in-class inhibitor of the nuclear export gene XPO-1, in both solid and hematological malignancies. Prior to this, from 2012 to 2014, Dr. Petrocca was an Instructor at Harvard Medical School and Boston Children's Hospital, where he conducted basic research in the field of triple-negative breast cancer (TNBC), the most aggressive form of breast cancer. His studies identified new candidate targets for TNBC, including the proteasome and nuclear export genes, which are currently being investigated in the clinic. From 2008 to 2012, Dr. Petrocca did a research fellowship in cancer biology with Dr. Judy Lieberman at Harvard Medical School, specializing in functional genomics and system-based cancer therapy. From 2004 to 2008, Dr. Petrocca pursued clinical training in oncology in Italy and conducted seminal studies in the field of microRNAs and cancer in Dr. Carlo Croce's laboratory at Ohio State University.

To date, Dr. Petrocca has contributed 20 peer-reviewed publications in top-tier journals, including two first-author papers in *Cancer Cell*. His work is widely cited and led to two patent applications. He is the recipient of numerous awards, including a K22 Career Development Award from the NCI, a Postdoctoral Fellowship from the U.S. Department of Defense and two Scholar-in-Training awards from the AACR.

The Petrocca Laboratory is currently focused on advancing precision medicine therapies for TNBC into clinical testing. The primary goal of this program is to identify selective vulnerabilities linked to defined genetic and epigenetic states in distinct TNBC subtypes and prioritize the highest-value targets for downstream drug development in select subgroups of TNBC patients. The lab is also interested in dissecting the molecular basis behind TNBC exceptional response and resistance to clinically available drugs, particularly 2nd-generation proteasome inhibitors and nuclear export drugs. Dr. Petrocca's research is powered by integration of diverse experimental approaches, including synthetic lethality, genome editing, high throughput screening, RNA-seq, computational biology, network science, medicinal chemistry, pre-clinical PoC studies and clinical trials.



## New Clinical Faculty



### Tejal Brahmbhatt, MD

*Attending Surgeon, Sections of Acute Care and Trauma Surgery and Surgical Critical Care, Boston Medical Center*  
*Assistant Professor of Surgery, Boston University School of Medicine*

Dr. Brahmbhatt received his medical degree from Windsor University School of Medicine in St. Kitts, West Indies. He completed a residency in General Surgery at Vanderbilt University in Nashville, TN and a Fellowship in Trauma and Surgical Critical Care at the University of Pennsylvania in Philadelphia, PA.

His clinical and research interests include trauma and emergency surgery resource appropriation in an environment of dwindling resource allocation.



### Cullen Carter, MD

*Attending Surgeon, Section of Minimally Invasive and Weight Loss Surgery, Boston Medical Center*  
*Assistant Professor of Surgery, Boston University School of Medicine*

Dr. Carter received his medical degree from University of Virginia School of Medicine in Charlottesville, VA. He completed a residency in General Surgery at Brigham and Women's Hospital/Harvard Medical School; a fellowship in Surgical Critical Care also at BWH; and a fellowship in Minimally Invasive Surgery at Wake Forest University Baptist Medical Center.

He is board certified by the American Board of Surgery in General Surgery and Surgical Critical Care. His clinical and research interests include general surgery, bariatric surgery, hernia repair, biliary disease, upper GI surgery, surgical education and outcomes in bariatric surgery.



### Chaitan Narsule, MD

*Attending Surgeon, Sections of Acute Care and Trauma Surgery and Surgical Critical Care, Boston Medical Center*  
*Assistant Professor of Surgery, Boston University School of Medicine*

Dr. Narsule received his medical degree from Robert Wood Johnson Medical School (UMDNJ) in Piscataway, NJ. He completed a residency in General Surgery at Rhode Island Hospital & Warren Alpert Medical School of Brown University in Providence, RI. Following a year of private practice as a general surgeon, he pursued clinical and research fellowships in thoracic surgery at BMC and Tufts University School of Medicine, prior to returning to BMC for a fellowship in surgical critical care.

He is board certified by the American Board of Surgery in General Surgery and Surgical Critical Care. His clinical and research interests include surgical education, thoracic trauma, minimally invasive surgery and the management of multi-system organ failure.



### Wei Tseng, DPM

*Division of Podiatry Surgery, Boston Medical Center*  
*Instructor of Surgery, Boston University School of Medicine*

Dr. Tseng received her doctorate of podiatric medicine from The Ohio College of Podiatric Medicine, Independence, OH and completed a residency at Boston Medical Center. Her research and clinical interests include, diabetic limb salvage, reconstructive foot surgery, and lower extremity pathology.





## Faculty News & Notes

**Lisa Allee, LICSW, MSW**, received another VOCA (Victims of Crime Act) open bid award for FY 16 – 18 to support the Community Violence Response Team (CVRT) at BMC. She received an Excellence in Field Instruction Award from BU School of Social Work. She co-authored, *"Evaluating Three Methods to Encourage Mentally Competent Older Adults to Assess Their Driving Behavior,"* published in the *Journal of Trauma and Acute Care Surgery*.

**Peter Burke, MD**, was accepted into the Alpha Omega Alpha (AOA) National Honor Medical Society. He was the lead author for two publications/chapters and co-authored 11 publications/chapters.

**Tracey Dechert, MD**, received the Leonard Tow Humanism in Medicine Award from BU School of Medicine. She was the Commencement Speaker at Bloomsburg University of Pennsylvania.

**Gerard Doherty, MD**, was elected as the next President of the International Association of Endocrine Surgeons (IAES). He will serve as President Elect for the next two years and will become President at the 2017 Annual Meeting. He edited the 14th edition of *Current Diagnosis and Treatment: Surgery* published by McGraw-Hill in 2015. He joined the Editorial Board of *JAMA Surgery* as the Reviews Editor, and continues as Editor-in-Chief of both *VideoEndocrinology* and *AccessSurgery*. He served as the *Robert Hickey Visiting Professor* at MD Anderson Cancer Center, the *Ferguson Visiting Professor* at Emory University, and the *Naffziger Visiting Professor* at University of California, San Francisco, in addition to several visits to other institutions to deliver grand rounds.

**Mohammad Eslami, MD**, was elected as a *Fellow* of the American College of Cardiology and as a member of the Society of Clinical Vascular Surgery. He published seven first author papers and one senior author paper.

**Alik Farber, MD**, has been promoted to *Professor of Surgery and Radiology* at BU School of Medicine. He was appointed to the Editorial Board of the *Journal of Vascular Surgery*. He also co-authored 24 peer reviewed or invited papers and five book chapters. Notable examples include: *"The BEST-CLI Trial: A multidisciplinary effort to assess which therapy is best for patients with critical limb ischemia,"* published in *Techniques in Vascular & Interventional Radiology*; *"Multiple pre-operative and intra-operative factors predict early fistula thrombosis in the Hemodialysis Fistula Maturation Study,"* published in the *Journal of Vascular Surgery*; and *"Revascularization for chronic limb threatening ischaemia,"* published in the *British Journal of Surgery*.

**Hiran Fernando, MD**, was a co-author of *"Minimally invasive esophagectomy: results of a prospective phase II multicenter trial-the eastern cooperative oncology group (E2202) study,"* published in the *Annals of Surgery*. He was the national co-principal investigator for this NCI-funded study that has helped establish minimally invasive esophagectomy as a standard approach for esophageal cancer. He was also a co-author of *"Radiofrequency ablation of stage IA non-small cell lung cancer in medically inoperable patients: Results from the American College of Surgeons Oncology Group Z4033 (Alliance) trial,"* published in *Cancer*. He was the national co-principal investigator for this multicenter NCI-funded trial.

**Amitabh Gautam, MD**, was Invited Faculty for the 26th Annual Conference of the Indian Society of Organ Transplantation.

**Kamal Itani, MD**, was a *Visiting Professor* at Louisiana State University/Shreveport VA Medical Center and chaired the Jacobson Promising Investigator Award at the ACS Annual Meeting. His opinion piece on care bundles and prevention of surgical site infection was published in *JAMA*. His work to improve patient care in the VA system received the Lloyd Rogers Award from the Association of VA surgeons and the ID Week 2015 Investigator Award. He was funded as co-investigator on a grant from the VA Health Services Research and Development Services to study the risks and implications of surgical re-admissions and a merit grant to look at the comparative effectiveness and cost of surgical prophylaxis regimens. The Patient Safety Center of Inquiry (PESCI), which he co-directs, received three years renewal funding from the VA National Center for Patient Safety under the leadership of Amy Rosen, PhD.

**Jeffrey Kalish, MD**, assumed the role of *Associate Chief Medical Information Officer (CMIO)* at BMC. He started his Society for Vascular Surgery E.J. Wyllie Traveling Fellowship, during which he visited military centers that specialize in the treatment and rehabilitation of amputees, with the goal of translating military best practices to the civilian medical establishment. He published two articles in the *Journal of Vascular Surgery*: *"Routine use of ultrasound guidance in femoral arterial access for peripheral vascular intervention decreases groin hematoma rates"* and *"Factors associated with surgical site infection after lower extremity bypass in the Society for Vascular Surgery (SVS) Vascular Quality Initiative (VQI)."*

**George Kasotakis, MD, MPH**, was appointed as a *Fellow* of the American College of Surgeons (ACS). He was the lead author of four publications. He was appointed as a member of the Association of Academic Surgery (AAS) Publications Committee and was the recipient of four state and regional research awards including the BU School of Medicine Serchuck Award in which he won first prize for clinical research on healthcare disparities. In addition, he gave four presentations at national meetings and two invited lectureships at regional symposia.





**Steven Katz, MD**, was inducted into the Society of University Surgeons and Society for Immunotherapy of Cancer (SITC). He was the primary investigator of "Pre-clinical development of anti-KIT CAR-Ts for metastatic GIST," from the Sarcoma Foundation of America and "SirTex Investigator Initiated Trial Grant," which was awarded to conduct the Phase I HITM-SIR trial, testing the safety of hepatic artery anti-CEA CAR-T infusions in combination with y90 intra-arterial brachytherapy.

**Jane Mendez, MD**, received the Educator of the Year in Clinical Sciences Award from BU School of Medicine.

**David McAneny, MD**, and his team implemented a program to prevent postoperative venous thromboembolism (VTE). The odds ratio of VTE on the General Surgery service at BMC has steadily declined from 3.02 in 2009 to 0.75 in 2014, and the work has been disseminated among the surgery services at BMC spawning multiple research projects. As a member of the Board of Governors of the American College of Surgeons (ACS), Dr. McAneny created a model for advocacy by the College involving teams of surgeons visiting legislators and their staffs in home district offices.

**Hillary Mull, PhD**, began a four year VA Health Services Research & Development Career Development Award to develop an adverse event surveillance system for outpatient surgery. Preliminary results from this research were presented at the Association of VA Surgeons, AcademyHealth's Annual Research Meeting (ARM) and the VA Health Services Research & Development Meeting.

**Chaitan Narsule, MD**, was appointed as a *Fellow* of the American College of Surgeons (ACS).

**Fabio Petrocca, MD**, received a Transition Career Development Award from the National Cancer Institute to start a precision medicine research program focused on triple-negative breast cancer (TNBC) and a grant from Karyopharm Therapeutics, Inc. to study mechanisms of exceptional response to selinexor in TNBC.

**Smita Ramanadham, MD**, was the first author for two publications: "Evolution of Hypertension Management in Facelifting in 1089 Patients: Optimizing Safety and Outcomes" and "Refining the Anesthesia Management of the Facelift Patient: Lessons Learned from 1089 Consecutive Facelifts," both of which were published in *Plastic and Reconstructive Surgery*.

**Bedabrata Sarkar, MD, PhD**, was awarded one of the five *Faculty Research Fellowships* offered for 2015 by the American College of Surgeons (ACS). The two-year fellowship is for his research project: *Mitochondrial DNA Regulates Cytokine mRNA Stability in Sepsis*. He was appointed as a *Fellow* of the American College of Surgeons (ACS).

**Jeffrey Sircause, MD, RPVI**, was the first or senior author for eight publications. He presented two plenary podium presentations at the Society for Vascular Surgery Annual Meeting.

# Boston

*Boston Magazine's* 2014 "TOP DOCS" issue recognized eight Department of Surgery faculty members as being rated "tops" in their respective fields:

**Peter Burke, MD**  
Surgery

**Gerard Doherty, MD**  
Surgery

**Alik Farber, MD**  
Vascular Surgery

**Hiran Fernando, MD**  
Thoracic & Cardiac Surgery

**Donald Hess, MD**  
Surgery

**Maureen Kavanah, MD**  
Surgery

**Harold Lazar, MD**  
Thoracic & Cardiac Surgery

**David McAneny, MD**  
Surgery







### Leadership

**Gerard Doherty, MD**, *James Utley Professor and Chair*,  
Department of Surgery, Boston University School of  
Medicine; *Surgeon-in-Chief*, Boston Medical Center

**David McAneny, MD**, *Vice Chair*, Department of Surgery,  
Boston University School of Medicine

**Tracey Dechert, MD**, *Associate Program Director*,  
Surgery Residency, Boston University School of Medicine

**Alik Farber, MD**, *Associate Chair for Clinical Operations*,  
Department of Surgery, Boston University School of  
Medicine

**Donald Hess, MD**, *Program Director*, Surgery Residency,  
Boston University School of Medicine

**Virginia Litle, MD**, *Associate Program Director*,  
Surgery Residency, Boston University School of Medicine

**Jane Mendez, MD**, *Clerkship Director*, Department of  
Surgery, Boston University School of Medicine

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### Contact Us

Department of Surgery  
88 East Newton Street, Collamore – C500  
Boston, MA 02118

617.638.8609

**[www.bumc.bu.edu/surgery](http://www.bumc.bu.edu/surgery)**

