

Beth Israel Deaconess  
Medical Center



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

# INSIDE SURGERY

## A New Era *Otolaryngology/Head and Neck Surgery*

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## Message from the Chair

I recently read *The Butchering Art* by Lindsey Fitzharris, a biography of one of the greatest luminaries in surgery, Dr. Joseph Lister (1827-1912). An English surgeon who pioneered antiseptic methods in the operating theater, Dr. Lister saved countless patients from suffering and death due to post-operative infection and gangrene.

In the mid-19th century, most doctors believed that infection was due to poisonous gases, or “miasmas,” in the air. Hospitals were typically filthy and, as such, dangerous places to undergo surgery. Determined to improve care, Dr. Lister, building on the work of Louis Pasteur, methodically and doggedly sought to understand the root causes of surgical infection and develop, test, and refine ingenious ways to prevent it.

At first, Dr. Lister’s ideas and methods were dismissed or ridiculed by others across Europe and the United States. A well-known Boston surgeon even denounced Dr. Lister’s antiseptic system as “medical hocus-pocus.” But Dr. Lister’s results—far fewer deaths from infection—spoke for themselves. Eventually the medical community adopted his methods, which became the foundation of today’s aseptic approach to surgery. Fittingly, Dr. Lister received numerous prestigious honors for his contributions, including knighthood, election as president of the Royal Society, and appointment as personal surgeon to Queen Victoria.

While reading about Dr. Lister’s life, it often struck me that the attributes that enabled this 19th century surgeon to succeed, often against long odds, are the same as those required of a successful academic surgeon today: inquisitiveness, a determination to find innovative solutions to the most complex challenges, a disregard for the status quo, a respect for scientific evidence, a passion to improve lives, and the fortitude to stay the course when the going gets tough.

As you read this issue of *Inside Surgery*, I think you will agree that our faculty, trainees, and alumni embody these attributes. They are inventing innovative devices and launching new programs to make surgery safer and better, conducting research to enhance our understanding of disease processes, using that knowledge to improve clinical outcomes, and introducing novel approaches to educate the next generation of surgical leaders who will carry on this legacy well into the future.



Elliot Chaikof, MD, PhD

## Beth Israel Deaconess Medical Center



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL

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- 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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Cover photo by Danielle Duffey/BIDMC (from left): Tiffany Wang, MD, Scharukh Jalisi, MD, and Katie Deary, NP



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## HARVARD MEDICAL SCHOOL

**PROMOTED TO: ASSISTANT PROFESSOR OF SURGERY****Gabriel A. Brat, MD, MPH, MSc**

Dr. Brat, a member of the Division of Acute Care Surgery, Trauma, and Surgical Critical Care, joined the Department of Surgery in 2016.

Dr. Brat received his undergraduate degree in biomedical engineering from Arizona State University. He went on to receive a Master of

Public Health degree with a concentration in biostatistics from the London School of Hygiene and Tropical Medicine and a Master of Science degree from Oxford. Dr. Brat received his medical degree from Stanford University School of Medicine, completed a residency in surgery at Johns Hopkins University Hospitals, and a fellowship in surgical critical care and acute care surgery at Brigham and Women's Hospital.

Dr. Brat's clinical focus is acute general surgical emergencies and surgical critical care. His externally funded research, which is based on his expertise in surgical informatics, is focused on projects to mitigate the disastrous effects of opioid misuse and

overprescribing in the surgical population. Dr. Brat has built a collaborative involving several hospital systems throughout the United States to gather patient-reported opioid consumption and requirements across the surgical continuum. In 2018, he published a study in *BMJ* that analyzed the effects of varying opioid prescribing patterns following surgery on dependence, overdose, or abuse in an opioid-naïve population.

Dr. Brat's scholarship is reflected in two dozen publications, including two original research investigations as first author. Dr. Brat is a faculty member of the Department of Biomedical Informatics at Harvard Medical School; a core faculty member of the BIDMC Center for Healthcare Delivery Science and the Healthcare Technology Exploration Center; a Fellow of the American College of Surgeons; and a member of the Association for Academic Surgery (AAS), where he serves on the Technology and Communications Committee.

**SAVE THE DATE****November 13, 2019****William Silen Visiting Professor of Surgery**

Carla Pugh, MD, PhD  
Stanford University School of Medicine

**February 26, 2020****George H. A. Clowes Visiting Professor of Surgical Research**

Funda Meric-Bernstam, MD  
The University of Texas MD Anderson Cancer Center

**January 29, 2020****George Starkey Visiting Professor of Surgery**

Anne Mosenthal, MD  
Rutgers-New Jersey Medical School

**March 11, 2020****Capper-Hermanson Visiting Professor of Surgery**

Rebecca M. Minter, MD  
University of Wisconsin School of Medicine and Public Health

**NEW LOCATION:**

Surgery Grand Rounds are held from 8-9 a.m. in the Center for Life Sciences, 3 Blackfan Circle, Room 421, Boston.

## New Faculty

For more information about our new faculty, including their clinical and research interests, please visit the “Find-A-Doctor” section on the BIDMC website.



### Anne Chin Fabrizio, MD

**Division:** Colon and Rectal Surgery  
**Medical School:** Rutgers New Jersey Medical School  
**Residency:** Medstar Georgetown University Hospital  
**Clinical Fellowship:** Colorectal Surgery, Brigham and Women’s Hospital  
**Phone:** 617-667-4159



### Stephanie E. Teng, MD

**Division:** Otolaryngology/Head and Neck Surgery  
**Medical School:** Loyola University Chicago Stritch School of Medicine  
**Residency:** New York University Langone Medical Center  
**Clinical Fellowship:** Laryngology, Augusta University Medical Center  
**Phone:** 617-632-7500



### Ernest (Ted) D. Gomez, MD, MTR

**Division:** Otolaryngology/Head and Neck Surgery  
**Medical School:** University of Pennsylvania Perelman School of Medicine  
**Residency:** Hospital of the University of Pennsylvania  
**Clinical Fellowship:** Head and Neck Oncology and Microvascular Reconstruction, Hospital of the University of Pennsylvania  
**Phone:** 617-632-7500



### Monica G. Valero, MD

**Division:** Surgical Oncology  
**Medical School:** Universidad Central de Venezuela Medical School  
**Residency:** Brigham and Women’s Hospital/Dana-Farber Cancer Institute  
**Clinical Fellowship:** Breast Surgical Oncology, Memorial Sloan Kettering Cancer Center  
**Phone:** 617-667-2900



### James Naples, MD

**Division:** Otolaryngology/Head and Neck Surgery  
**Medical School:** University of Connecticut School of Medicine  
**Residency:** UCONN Health  
**Clinical Fellowship:** Otolaryngology/Neuro-otology (ear diseases), University of Pennsylvania Health System  
**Phone:** 617-632-7500



### Rafael A. Vega, MD, PhD

**Division:** Neurosurgery  
**Medical School:** University of Illinois at Chicago  
**Doctoral Degree:** Northwestern University  
**Residency:** Virginia Commonwealth University/Medical College of Virginia  
**Clinical Fellowship:** Neurosurgical Oncology, University of Texas MD Anderson Cancer Center; Oncological Neurosurgery, Hôpital Gui de Chauliac, CHU de Montpellier (France)  
**Phone:** 617-632-7246

## FOOD IS MEDICINE RAISES MORE THAN \$90,000

The seventh annual Food is Medicine gala took place at the Greater Boston Food Bank (GBFB) on October 17. Hundreds of guests from throughout BIDMC and the Greater Boston business community enjoyed cocktails and hors d'oeuvres, a silent auction, and warehouse tours while raising funds to provide healthy meals for hungry families in eastern Massachusetts.

This year's event raised more than \$90,000 for the GBFB, which provides the equivalent of 270,000 healthy meals. Since its inception Food is Medicine has raised \$625,000 for the GBFB—the equivalent of nearly 1.9 million meals.

The evening included a brief speaking program that featured keynote speaker Dariush Mozaffarian, MD, DrPh, Dean of the Friedman School of Nutrition, Science, and Policy of Tufts University, who explained that poor nutrition is “the single biggest health issue in the U.S. and the world.” He noted that in addition to its deleterious health effects, poor nutrition and food insecurity have major economic consequences. For example, type 2 diabetes, the rates of which are highest among food-insecure populations, costs the U.S. economy \$160 billion a year.

Food is Medicine founder and BIDMC Surgery Vice Chair **Allen Hamdan, MD**, a GBFB Board member, said that responsibility for the well-being



Above (from left): **Allen Hamdan, MD**, **Elliot Chaikof, MD, PhD**, **Carol Tienken**, **David Roll, MD**, and **Dariush Mozaffarian, MD, DrPh**.

Right (from left): Attendees included residents **Daniel Kent, MD**, **Claire Sokas, MD**, and **Nicholas Swerdlow, MD**.



of others is in our DNA and that it is our collective responsibility to help our fellow humans have enough nutritious food to live healthy lives. Dr. Hamdan thanked BIDMC for its longtime support of Food is Medicine, calling the medical center “a unique institution that takes great pride in our mission.” He thanked all those who supported and attended the event, which included BIDMC President Peter Healy.

Surgery Chair **Elliot Chaikof, MD, PhD**, spoke about the changing nature of work in the U.S., which has left many working families with fewer benefits and financial resources despite low unemployment. He pointed out that while productivity increased in the U.S. by 80 percent from 1980 to 2010, wages increased only eight percent during that period, creating food insecurity among

many working families. “We cannot just hope that the situation will improve,” he said. “We need to support the Greater Boston Food Bank and the many families who depend on it.”

Carol Tienken, GBFB Chief Operating Officer, also spoke, thanking Dr. Hamdan for his work and Food is Medicine's major donors (see page 28) for their support, which will help the GBFB achieve its goal of creating a hunger-free eastern Massachusetts by 2028. Ms. Tienken also presented the “Community Champion Award” to the Cambridge Health Alliance (CHA) Revere Care Center, which was accepted by its Medical Director David Roll, MD.

*Continued on page 28 >*

## ALUMNI SPOTLIGHT

### John Bookwalter, MD, FACS, 1970

Surgeon, innovator, and creator/developer of eponymous retractor

Since the late 1980s through the present day, the operating rooms of virtually every hospital in the United States as well as hospitals in more than 120 countries worldwide have been equipped with a Bookwalter® retractor, a device that provides surgeons with continuous exposure to abdominal and pelvic organs during an operation.

Named for its creator and developer John Bookwalter, MD, a 1970 graduate of the Fifth (Harvard) Surgical Service (the predecessor of the BIDMC General Surgery Residency Program), the Bookwalter retractor was introduced in 1980 and for decades has been the market-leading table-mounted retractor in the United States.

While retractors existed before Dr. Bookwalter developed his innovative design—indeed some were introduced for general surgery in the late 19th century—they were consistently inadequate for the task or too difficult to use. Consequently most surgeons, at least those in academic medical centers with training programs, preferred to have junior surgical residents use hand-held retractors.

But as the young Dr. Bookwalter discovered early in his residency, holding retractors—often for hours—was not only tedious; it also did not offer trainees the best vantage point from which to closely observe the surgeon's actions and learn. There must be a better way, believed Dr. Bookwalter, though it would be years before he would fully develop the innovative device for which he is so well known.

#### A privilege

Dr. Bookwalter was born and raised in Columbiana, Ohio. His mother was a nurse and both his father and grandfather were general practice physicians. One day, while accompanying his father on house calls, Dr. Bookwalter's father told him, "It's a privilege to take care of sick people." At that moment, the 12-year-old made up his mind to become a doctor. He decided on surgery when his father described it as being the "most fun."



Photo courtesy of Symmetry Surgical

Dr. Bookwalter attended Amherst College, graduating with honors, earned his medical degree from Harvard Medical School, and was delighted when he was accepted to the prestigious Fifth Surgical Service for his general surgery residency, from which he graduated in 1970.

Following a two-year stint in the U.S. Army Medical Corps at Fort Bragg, North Carolina, Dr. Bookwalter returned to Boston to complete a cardiothoracic surgery residency at New England Deaconess Hospital, now the home of the Fifth Surgical Service. After his graduation in 1973, the self-professed "country boy" moved to Vermont. There he and several other surgeons formed a small private practice affiliated with Brattleboro Memorial Hospital, where he was on staff, serving for many years as Chief of Surgery, for nearly 40 years until his retirement in 2012.

#### The key to good surgery

Dr. Bookwalter loved virtually everything about his residency training (except, he admits, holding retractors for long stretches) and found a lifelong mentor and friend in the late Cornelius E. Sedgwick, MD. Dr. Sedgwick, who was Chief of Surgery at New England Deaconess Hospital from 1964 to 1980, is credited with helping lead the surgical residency program to great prominence.

"Sedge" as he was known to many, "was a superb technical surgeon who also was a wonderful person

who treated everyone with kindness and respect,” says Dr. Bookwalter. “He taught me so much and was like a father to me.” Among the many valuable lessons that Dr. Sedgwick taught his trainees is that “Good exposure is the key to good surgery,” which particularly resonated with Dr. Bookwalter.

Though the inspiration for a better retractor came early in Dr. Bookwalter’s training, it was not until later, when he was in the Army and subsequently in private practice that he was able to pursue his ideas. In 1975, he began working with the medical device manufacturer Codman & Shurtleff\* to develop his novel retractor, which incorporated several important innovations.

### ‘Trial and evaluation’

One was the use of a single post to affix his unique retractor ring (to which the retractor blades are attached) to the operating table, rather than two posts on opposite sides of the table. This single-post design provided greater lateral flexibility and, consequently, better exposure. The idea for a single post was, says Dr. Bookwalter, the result of trial and error (which he prefers to call “trial and evaluation”) but it worked.

Another innovation was to design the retractor so it would fit over rather than under sterile drapes, which enabled the surgeon to add, move, or remove it during an operation. Still another was a novel ratchet system to hold the retractor blades to the notched ring, enabling the surgeon to reposition and secure the blades quickly and easily.

With the support and backing of Codman & Shurtleff, the retractor, which was patented in 1979, was manufactured and marketed. Surgeons loved it, and before long, it was in widespread use.

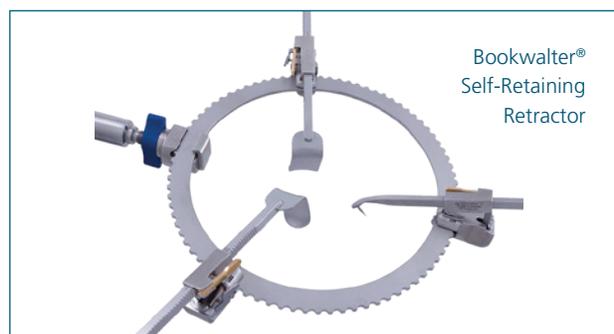
In addition to making it easier for surgeons to operate, the Bookwalter retractor had other positive consequences. By freeing residents from hand-held retractor duty so they could more closely observe and assist in operations, it enhanced surgical training.

The device also enabled surgeons in hospitals without trainees to perform more complex operations than they would otherwise be able to. “Based on a very clever concept, the Bookwalter retractor provided ideal

exposure in a whole range of open procedures and also ameliorated the problem of the lack of assistants in rural hospitals,” says fellow alumnus and longtime friend **Marvin L. Corman, MD**, Professor of Surgery at Renaissance School of Medicine at Stony Brook University and author of *Corman’s Colon and Rectal Surgery* (profiled in the [Winter 2019 issue of Inside Surgery](#)).

### Continuous innovation and improvement

The enduring success of the Bookwalter retractor is the result of continuous innovation and improvement. For decades Dr. Bookwalter has continued to work with its manufacturer to further improve the retractor system to meet the evolving needs of today’s surgeons.



Patented improvements include retractor rings that conform to varying patient anatomy and smaller incisions, blades that more closely mimic the motion of hand-held retractors, lighter-weight components, and a wide assortment of blades to support different surgical procedures, to cite just a few. Importantly, all new components are designed to be compatible with earlier components.

Although he is no longer operating, Dr. Bookwalter is certainly not retired. Still happily living in Vermont with his wife, Marilyn, he remains actively involved in making further improvements to his retractor system and developing new devices that he hopes will also improve surgical practice and patient care. Ever the innovator, Dr. Bookwalter encourages young surgeons to tackle challenging problems they confront in their work. “The opportunity for improvement,” he says, “comes from something that is difficult.”

\*In 2011, Symmetry Medical purchased the surgical instruments business of Codman & Shurtleff, creating a new company, Symmetry Surgical. [The Bookwalter Retractor System](#)® is exclusive to Symmetry Surgical.

**Reference:** Development and Evolution of Self-Retaining Retractors in Surgery: The Example of the Bookwalter Retractor. Barr, Justin et al. *Journal of the American College of Surgeons*, Volume 221, Issue 2, 628-634.

In many issues of *Inside Surgery*, we focus on the question a member of our faculty “owns” — a question that inspires his or her research.

## THE QUESTION I OWN —

Ajith J. Thomas, MD

Co-Director, BIDMC Brain Aneurysm Institute

BIDMC Site Director, Beth Israel Deaconess  
Medical Center-Boston Medical Center  
Neurosurgical Residency Program

Ever since he was a medical student in his native India, Ajith Thomas, MD, has been driven to conduct research that is “deeply meaningful” to him and others, he says. Consequently, Dr. Thomas, who has been a member of the Surgery faculty since 2007, is pursuing not a single research question but rather many—all of which reflect his passion for finding innovative ways to make a meaningful difference in patients’ lives.

Dr. Thomas’s main research interests span three general categories: clinical innovation, technology, and basic science. Within each of these areas, Dr. Thomas is engaged in multiple, diverse projects.

### Innovative therapies

In the clinical realm, Dr. Thomas’s research focuses largely on innovations to improve the diagnosis and treatment of serious neurovascular disorders, specifically brain aneurysms, AV fistulas, and chronic subdural hematomas.

The BIDMC Brain Aneurysm Institute has the world’s largest experience with flow-diverter technology for the endovascular treatment of brain aneurysms. Dr. Thomas is adding significantly to the understanding of the safety and efficacy of this technology, a paradigm-changing treatment that employs a device (the Pipeline embolization device) that diverts blood past an aneurysm, causing clotting and preventing it from expanding or rupturing. He and his colleagues have published more than three dozen peer-reviewed papers on flow-diverter technology in leading neurosurgery journals. As an internationally renowned expert on this treatment, Dr. Thomas was invited to be the editor of a special edition of *Neurosurgery* devoted to flow-diversion technology that will be published this year.

Dr. Thomas is also conducting research of an innovative minimally invasive treatment for chronic



subdural hematoma (CSDH), which largely affects people over 65 and can cause brain hemorrhage and death. The standard treatment requires a craniotomy or an opening in the skull, has a high recurrence rate, and a 90-day mortality rate of approximately 18 percent.

The new treatment involves embolizing (blocking off) the middle meningeal artery using microparticles inserted via a catheter in the groin or wrist, thus depriving the hematoma of its blood supply. This approach not only avoids surgery but, in early analyses conducted by Dr. Thomas and colleagues, has achieved considerably better outcomes, including a lower recurrence rate.

“This is an exciting, extremely promising new therapy for CSDH, which is expected to double in the next 10 years as the population ages,” says Dr. Thomas. “But randomized controlled trials are needed to

understand its efficacy compared to the standard surgical treatment.” Dr. Thomas has developed a consortium of 11 medical centers nationwide and, in collaboration with an investigator at Baylor, will apply for NIH funding to take this research to the next level.

Another of Dr. Thomas’s clinical innovations was the development of a new classification system for carotid cavernous fistulae (CCF), which has improved the diagnosis and treatment of this disorder. Now commonly known as the Thomas classification system, this work was first reported in 2015 in *Neurosurgery*.

### A safer drill

In the technology space, Dr. Thomas has made major inroads in innovative device development and, more recently, artificial intelligence (AI). “I’ve always been interested in technology,” he says.

In collaboration with Conor Walsh, PhD, at the Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS), Dr. Thomas designed a hand-held, portable cranial drilling device to create holes in the skull without endangering underlying brain tissue. It does this with a mechanism that rapidly retracts the drill bit into the drill casing once it passes through bone. The drill makes it safer for surgeons, even those who are not experienced neurosurgeons, to penetrate the skull for small probes such as intracranial pressure monitors. The device, which is now licensed by a company in Texas, received the 2011 Excellence in Medical Device Design Award from SEAS.

Dr. Thomas is now working on several projects involving AI. One is using AI and a dataset of more than

15,000 patients to determine the normal volume of the ventricles in the brain—previously unknown information that would aid in the diagnosis and treatment of conditions like hydrocephalus. Another is using AI to identify brain aneurysms on MRIs, which can all too easily escape detection by humans.

*“This [middle meningeal artery embolization] is an exciting, extremely promising new therapy for chronic subdural hematoma, which is expected to double in the next 10 years as the population ages.”*

Ajith J. Thomas, MD

### Regenerative medicine

Dr. Thomas is also engaged in laboratory research, and was named an Associate Member of the Broad Institute of MIT and Harvard in 2017. His current research reflects his longtime interest in regenerative medicine, which, he says, sparked his desire to go into neurosurgery as he dreamed of finding ways to regenerate the spinal cord.

In collaboration with BIDMC investigator **Christiane Ferran, MD, PhD**, and postdoctoral researcher **Franciele Kipper, PhD**, Dr. Thomas is looking at the molecular interactions between neural progenitor cells and important “supporting players” called periventricular endothelial cells (PvECs). Following up on his earlier research that showed that neural progenitor cells and PvECs work synergistically, he and his team seek to use this knowledge to facilitate the development of neuronal networks and the vasculature that supports them. This novel approach, which has been featured on the cover of *Brain Research*, has “broad implications for the understanding of brain development and the treatment of conditions like brain injury, autism, Alzheimer’s, and schizophrenia,” says Dr. Thomas.



*Ajith Thomas, MD (second from right), was the recipient of a 2018 Physician Champion Award from the Brain Aneurysm Foundation (BAF), of which he is a Medical Advisory Board member. Others who received a 2018 Champion Award were (from left): brain aneurysm survivor Tom Tinlin; Massachusetts Governor Charlie Baker; Boston Bruins defenseman and BAF spokesperson Kevan Miller (pictured here is retired Bruins team member Shawn Thornton, who accepted the award on Mr. Miller's behalf); and Boston Globe columnist Nestor Ramos.*

# Otolaryngology/ Head and Neck Cancer

*Expanding with a Focus on Excellence*



*Division Chief Scharukh Jalisi, MD, and nurse practitioner Andrea Maroun, NP, in a BIDMC robot-equipped operating room.*

Last fall, Miguel Marrero, 65, a public safety officer and grandfather of three, was diagnosed with an olfactory neuroblastoma, a rare cancer of the upper part of the nasal cavity, following a frightening episode of profuse bleeding from his nose.

In October 2018, Mr. Marrero underwent a highly complex, eight-hour operation performed by the BIDMC skull base surgery team led by **Scharukh Jalisi, MD**, and **Justin Moore, MD, PhD**, Neurosurgery, to open his skull and remove a large tumor between his eyes. Dr. Jalisi, Chief of Otolaryngology

(ENT)/Head and Neck Cancer, is renowned for his expertise in surgical oncology, particularly skull base surgery and robotic surgery.

Following the successful operation and six weeks of radiation therapy, by March of this year Mr. Marrero was able to return to his job and resume his normal life. He is incredibly grateful to be alive and still have the vision in his right eye, which he was at risk of losing due to its proximity to the tumor. Dr. Jalisi says that Mr. Marrero is doing extremely well and has no evidence of disease.

“Dr. Jalisi is the best. He saved my life,” says Mr. Marrero. While his appearance was never Mr. Marrero’s primary concern, he is nevertheless pleased that he looks perfectly normal. “Dr. Jalisi did such an excellent job on my face and head that you can’t even see any scars,” he says.

“Your face is your business card,” says Dr. Jalisi, emphasizing that his goal is not only to preserve critical functions like vision, swallowing, and speaking, but also to reconstruct the face and head so that patients can go out in public feeling very comfortable with the

way they look. In some cases, surgeons from the Division of Plastic and Reconstructive Surgery also collaborate in reconstructive surgery.

### Full breadth of services

Mr. Marrero is one of a growing number of patients from throughout the region who seek out treatment, particularly for complex conditions, in the Division of Otolaryngology/Head and Neck Surgery. Under Dr. Jalisi's leadership, the division now offers the full depth and breadth of expertise in all subspecialties of otolaryngology and head and neck surgery:

- Surgery for cancer and non-malignant conditions of the head and neck in coordination with a multidisciplinary team that meets weekly and includes specialists in head and neck surgery, radiology, medical oncology, radiation oncology, plastic and reconstructive surgery, speech-language pathology, social work, and nutrition
- Reconstructive surgery of the head and face
- Laryngology, including multi-modality treatment and the latest in-office procedures for voice and swallowing disorders and management of complex airway disorders in collaboration with specialists in the Division of Thoracic Surgery/Interventional Pulmonology



*Miguel Marrero underwent surgery for an olfactory neuroblastoma, a rare cancer of the upper part of the nasal cavity. Mr. Marrero is doing extremely well and has no evidence of disease.*

- Otolology and neuro-otology (ear diseases), including cochlear implants
- Rhinology, including multi-modality treatment for nose and sinus disorders and allergies
- Audiology, including hearing tests, hearing aids, and treatment of common ear problems
- Voice, speech, and swallowing therapy

In addition, patients have access to the latest technologies and minimally invasive options. These include transoral robotic surgery, which Dr. Jalisi was the first to introduce in New England in 2007, and endoscopic skull base procedures.

### Rapid growth

As a result of its expansion and reputation for excellence, the division has experienced rapid

growth. It is projected that the division will perform nearly 1,100 inpatient and outpatient procedures in fiscal year 2020, compared to less than half that volume in fiscal year 2017.

To meet the growing demand for its services, the division recently recruited three new faculty members (see “New Faculty” on [page 4](#)), all of whom are fellowship trained in their subspecialties. They are: **Ernest (Ted) Gomez, MD, MTR**, who specializes in head and neck oncology and microvascular reconstruction; neuro-otologist **James Naples, MD**, who leads the cochlear implant program; and laryngologist **Stephanie Teng, MD**, who specializes in voice and swallowing disorders.

The division will soon be recruiting another surgeon

who specializes in general otolaryngology and rhinology. In addition, there are more than 40 otolaryngologists who are part of the Beth Israel Lahey Health system, making the combined service one of the largest in New England.

In mid-2020, the division's clinical services will relocate from the Lowry Medical Office Building to new space on the first floor of the Shapiro Clinical Center, which will include state-of-the-art procedure rooms and offer a more spacious, attractive environment for patients and providers.

### New fellowship program

An important part of the division's

program, the fellowship will be one or two years, depending on the fellow's interests and career goals. The first fellow will begin in the summer of 2020.

Because nurses also play a critical role in the management of patients with head and neck cancers, Dr. Jalisi has established the Head and Neck Nursing Education Program at BIDMC with **Katie Deary, DNP**, which provides specialized training for nurses involved in the often-complex care of these patients.

### Expanding research program

The division conducts a diverse research program, which has expanded significantly under

medical oncologist Anupam Desai, MD, head and neck cancer patients at BIDMC now have access to two immunotherapy clinical trials available through the Dana-Farber/Harvard Cancer Center, of which the BIDMC Cancer Center is a founding member. Dr. Jalisi is also conducting a prospective, randomized controlled trial evaluating patient satisfaction with two different types of wound closure. In addition, Dr. Jalisi and neuro-otologist Dr. Naples plan to team up on a research project to investigate ways to prevent or reduce hearing loss resulting from chemotherapy for many types of cancer.

### Focus on quality

Another focus of the division is quality improvement. One example is the Tracheostomy Improvement Initiative Program (TIIP), a multidisciplinary collaborative effort aimed at improving the care of patients with tracheostomies, who may face serious complications if not carefully managed. Comprising faculty and clinical staff from the Department of Surgery as well as Nursing, Anesthesia, Respiratory Therapy, and Critical Care Medicine, the group has established a standardized tracheostomy care order set and nursing guidelines.

Says Dr. Jalisi, "As we continue to grow to meet patients' needs, we are keeping a steadfast focus on what is important—unsurpassed excellence in clinical care, education, research, and quality."

*"As we continue to grow to meet patients' needs, we are keeping a steadfast focus on what is important—unsurpassed excellence in clinical care, education, research, and quality."*

Scharukh Jalisi, MD

mission is education. Residents in the Combined Harvard Otolaryngology Program receive training in head and neck surgical oncology at BIDMC, which is consistently the highest-rated training site in the program. Faculty also teach second-year Harvard Medical School students during their otolaryngology elective and train third-year residents in BIDMC's General Surgery Residency Program.

In 2020, the division is launching a GME-approved Head and Neck Surgical Oncology, Microvascular Reconstruction, and Skull Base Surgery Fellowship Program at BIDMC. According to Dr. Jalisi, who will lead the

Dr. Jalisi's leadership and will continue to do so with the addition of the new faculty members.

The major focus of Dr. Jalisi's research is head and neck cancer, including studies of patients' outcomes using large databases. He is especially interested in discovering how to improve low-income patients' access to tertiary head and neck cancer care, which multiple studies show results in better outcomes, including a survival benefit. Additional research underway in the division focuses on sinus issues (**David Caradonna, MD, DMD**) and swallowing outcomes (**Pavan Mallur, MD**).

As a result of a collaboration between Dr. Jalisi and BIDMC

## OUR TEAM

### Surgeons



Scharukh Jalisi, MD, *Chief*  
Head and Neck Oncology/  
Reconstructive Surgery



David Caradonna, MD, DMD  
Rhinology



Ernest (Ted) Gomez, MD, MTR  
Head and Neck Oncology/  
Reconstructive Surgery



Pavan Mallur, MD  
Laryngology



James Naples, MD  
Otolaryngology/Neuro-otology  
(ear diseases)



Stephanie Teng, MD  
Laryngology

### Other Team Members

Katelyn Barbiasz, PA-C  
Physician Assistant

Bianca Berkenwald, AuD, CCC-A  
Audiologist

Tiffany Berman, AuD, CCC-A  
Audiologist

Katie Deary, DNP  
Director of Clinical Operations

Valeria Duque, AuD, CCC-A  
Audiologist

Tori Flormann, MS, CCC-SLP  
Speech-Language Pathologist/  
Voice Specialist

Andrea Maroun, NP, APRN-BC  
Nurse Practitioner



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[head&neckcancer@bidmc.harvard.edu](mailto:head&neckcancer@bidmc.harvard.edu).

## Selected Publications

### Acute Care Surgery, Trauma, and Surgical Critical Care

**Cook CH.** Cytomegalovirus reactivation: Another reason to minimize graft ischemia/reperfusion. *Am J Transplant* 2019; in press.

Marandu T, Dombek M, **Cook CH.** Impact of cytomegalovirus load on host response to sepsis. *Med Microbiol Immunol* 2019; in press.

Scott BB, Guo L, Santiago J, **Cook CH, Parsons CS.** Gallbladder volvulus in a patient with chronic lymphocytic leukemia treated with laparoscopic cholecystectomy. *Int J Crit Illn Inj Sci* 2019;9:87-90.

Woehrle T, **Ledderose C,** Rink J, Slubowski C, **Junger WG.** Autocrine stimulation of P2Y1 receptors is part of the purinergic signaling mechanism that regulates T cell activation. *Purinergic Signal* 2019;15(2):127-37.

### General Surgery

**Hagen SJ.** Unraveling a new role for claudins in gastric tumorigenesis. *Cell Mol Gastroenterol Hepatol* 2019; in press.

Ji Y, Li L, Ma YX, Li WT, Li L, Zhu HZ, Wu MH, **Zhou JR.** Quercetin inhibits growth of hepatocellular carcinoma by apoptosis induction in part via autophagy stimulation in mice. *J Nutr Biochem* 2019;69:108-19.

### Interdisciplinary Research

Lu LL, Smith MT, Yu KKQ, Luedemann C, Suscovich TJ, Grace PS, Cain A, Yu WH, McKittrick TR, Lauffenburger D, **Cummings RD,** Mayanja-Kizza H, Hawn TR, Boom WH, Stein CM, Fortune SM, Seshadri C, Alter G. IFN- $\gamma$ -independent immune markers of mycobacterium tuberculosis exposure. *Nat Med* 2019; 25(6):977-87.

### Neurosurgery

Dmytriw AA, Phan K, **Moore JM,** Pereira VM, Krings T, **Thomas AJ.** On flow diversion: The changing landscape of intracerebral aneurysm management. *AJNR Am J Neuroradiol* 2019; 40(4):591-600.

Maragkos GA, Alturki AY, Greenstein PE, Enriquez-Marulanda A, Kicielinski KJ, **Moore JM, Ogilvy CS, Thomas AJ.** Percutaneous transverse sinus cannulation for dural arteriovenous fistula coiling: Operative video. *World Neurosurg* 2019; in press.

Maragkos GA, Ascanio LC, Salem MM, Gopakumar S, Gomez-Paz S, Enriquez-Marulanda A, Jain A, Schirmer CM, Foreman PM, Griessenauer CJ, Kan P, **Ogilvy CS, Thomas AJ.** Predictive factors of incomplete aneurysm occlusion after endovascular treatment with the Pipeline Embolization Device. *J Neurosurg* 2019; in press.

Maragkos GA, Atesok K, **Papavassiliou E.** Prognostic factors for adjacent segment disease after L4-L5 lumbar fusion. *Neurosurgery* 2019; in press.

### Ophthalmology

Sun P, Tandias RM, Yu G, **Arroyo JG.** Spectral domain optical coherence tomography findings and visual outcome after treatment for vitreomacular traction. *Retina* 2019;39(6):1054-60.

### Otolaryngology/Head and Neck Surgery

Rohlfing ML, Yang B, **Jalisi S.** Carotid body tumor with hidden internal carotid artery aneurysm. *Head Neck* 2019; 41(5):E79-E81.

Rubin SJ, Wu KY, Kirke DN, Ezzat WH, Truong MT, Salama AR, **Jalisi S.** Head and neck cancer complications in the geriatric population based on hospital case volume. *Ear Nose Throat J* 2019; in press.

### Plastic and Reconstructive Surgery

Johnson AR, Bravo MG, Granoff MD, **Lee BT.** Cultural insensitivity pervasive in Spanish online cosmetic surgery resources: Call to action. *Ann Plast Surg* 2019;82(4S Suppl 3):S228-33.

Johnson AR, Granoff MD, **Lee BT,** Padera TP, Bouta EM, **Singhal D.** The Impact of taxane-based chemotherapy on the lymphatic system. *Ann Plast Surg* 2019;82(4S Suppl 3):S173-8.

Johnson AR, Kimball S, Epstein S, Recht A, **Lin SJ, Lee BT, James TA, Singhal D.** Lymphedema incidence after axillary lymph node dissection: Quantifying the impact of radiation and the lymphatic microsurgical preventive healing approach. *Ann Plast Surg* 2019; 82(4S Suppl 3):S234-41.

Ricci JA, Vargas CR, Ho OA, **Lin SJ, Lee BT.** The impact of major league baseball on the incidence of operative hand and facial trauma at a level 1 trauma center. *Arch Plast Surg* 2019; 46(3):198-203.

Ruan QZ, Rinkinen JR, Doval AF, Scott BB, **Tobias AM, Lin SJ, Lee BT.** Safety profiles of fat processing techniques in autologous fat transfer for breast reconstruction. *Plast Reconstr Surg* 2019; 143(4):985-91.

Taghinia AH, Yorlets RR, Doyle M, Labow BI, **Upton J.** Long-term functional upper-extremity outcomes in adults with Apert syndrome. *Plast Reconstr Surg* 2019;143(4):1136-45.

### Podiatry

Didangelos T, **Veves A.** Treatment of diabetic cardiovascular autonomic, peripheral and painful neuropathy. Focus on the treatment of cardiovascular autonomic neuropathy with ACE inhibitors. *Curr Vasc Pharmacol* 2019; in press.

Migonis A, Murano R Jr, Stillman IE, Iorio M, **Giurini JM**. A case report and literature review: Intraneural ganglion cyst causing tarsal tunnel syndrome. *J Foot Ankle Surg* 2019; in press.

## Surgical Education

Epstein S, Tran BN, Capone AC, Ruan QZ, **Fukudome EY**, Ricci JA, Testa MA, Dennerlein JT, **Lee BT**, **Singhal D**. The current state of surgical ergonomics education in U.S. surgical training: A survey study. *Ann Surg* 2019; 269(4): 778-84.

Nagarur A, McEvoy JW, Hirsh DA, **James BC**. Words matter: Removing the word pimp from medical education discourse. *Am J Med* 2019; in press.

Tsikis S, Fleishman A, **Chaikof EL**, **Rodrigue JR**. Design and implementation of an infrastructure program to support clinical research in surgery. *J Surg Res* 2019;241:264-70.

Varghese TK Jr, Entwistle JW 3rd, Mayer JE, Moffatt-Bruce SD, Sade RM; Cardiothoracic ethics forum including **Whyte RI**. Ethical standards for cardiothoracic surgeons' participation in social media. *Ann Thorac Surg* 2019; in press.

## Surgical Oncology

**James TA**, Kasumova G, Alapati A, Mamtani A. Unplanned readmissions following breast cancer surgery. *Am J Surg* 2019; in press.

Johnson AR, Kimball S, Epstein S, Recht A, **Lin SJ**, **Lee BT**, **James TA**, **Singhal D**. Lymphedema incidence after axillary lymph node dissection: Quantifying the impact of radiation and the lymphatic microsurgical preventive healing approach. *Ann Plast Surg* 2019;82(4S Suppl 3):S234-41.

Lazow SP, Riba L, Alapati A, **James TA**. Comparison of breast-conserving therapy vs mastectomy in women under age 40: National trends and potential survival implications. *Breast J* 2019; in press.

Ore AS, Klompemaker S, Stackhouse K, Solis-Velasco M, Francken M, **Callery MP**, **Kent TS**, **Moser AJ**. Does surgical approach affect outcomes of enucleation for benign and low-grade pancreatic tumors? An ACS-NSQIP evaluation. *HPB* 2019; in press.

Riba LA, Gruner RA, Alapati A, **James TA**. Association between socioeconomic factors and outcomes in breast cancer. *Breast J* 2019; 25(3):488-92.

## Thoracic Surgery and Interventional Pulmonology

**Majid A**, de Lima A, **Parikh M**, **Chee A**, Fernandez-Bussy S, Kheir F. Tunneled pleural catheters for patients with chronic pleural infection and nonexpandable lung. *J Bronchology Interv Pulmonol* 2019;26(2):132-6.

Scott BB, Maxfield MW, Hamaguchi R, **Wilson JL**, **Kent MS**, **Gangadharan SP**. Robot-assisted thoracoscopic mediastinal parathyroidectomy: A single surgeon case series. *J Laparoendosc Adv Surg Tech A* 2019; in press.

Slebos DJ, Cicienia J, Scurba FC, Criner GJ, Hartman JE, Garner J, Deslée G, Delage A, Jantz M, Marquette CH, Strange C, Hatipoglu U, Mehta AC, LaPrad AS, Schmid-Bindert G, Herth JF, Shah PL; RENEW Study Group including **Majid A**. Predictors of response to endobronchial coil therapy in patients with advanced emphysema. *Chest* 2019;155(5):928-37.

## Transplant Surgery

Bisht K, Canesin G, Cheyten T, Li M, Nemeth Z, Csizmadia E, Woodruff TM, Stec DE, Bulmer AC, **Otterbein LE**, **Wegiel B**. Deletion of biliverdin reductase A in myeloid cells promotes chemokine expression and chemotaxis in part via a complement C5a-C5aR1 pathway. *J Immunol* 2019; 202(10):2982-90.

**Pettinato G**, Lehoux S, Ramanathan R, Salem MM, He LX, Muse O, Flaumenhaft R, Thompson MT, Rouse EA, **Cummings RD**, Wen X, Fisher RA. Generation of fully functional hepatocyte-like organoids from human induced pluripotent stem cells mixed with endothelial cells. *Sci Rep* 2019;9(1):8920.

## Urologic Surgery

Burns RB, **Olumi AF**, Owens DK, Smetana GW. Would you recommend prostate-specific antigen screening for this patient? Grand Rounds discussion from Beth Israel Deaconess Medical Center. *Ann Intern Med* 2019;170(11):770-8.

Delto JC, **Chang P**, Hyde S, McAnally K, Crociani C, **Wagner AA**. Eliminating pseudoaneurysm and urine leak after robotic partial nephrectomy: Results using the early unclamping technique. *Urology* 2019; in press.

Stensland KD, **Chang P**, **Wagner AA**. The urologist's role in the opioid epidemic. *Curr Opin Urol* 2019; in press.

## Vascular and Endovascular Surgery

Eche IM, Elsamadisi P, Wex N, **Wyers M**, **Brat GA**, Cunningham K, Bauer KA. Intraoperative unfractionated heparin unresponsiveness during endovascular repair of a ruptured abdominal aortic aneurysm following administration of andexanet alfa for the reversal of rivaroxaban. *Pharmacotherapy* 2019; in press.

Jones DW, Deery SE, Schneider DB, Rybin DV, Siracuse JJ, Farber A, **Schermerhorn ML**; Vascular Quality Initiative. Differences in patient selection and outcomes based on abdominal aortic aneurysm diameter thresholds in the Vascular Quality Initiative. *J Vasc Surg* 2019; in press.

O'Donnell TFX, **Li C**, **Swerdlow NJ**, **Liang P**, Pothof AB, Patel VI, Giles KA, Malas MB, **Schermerhorn ML**. The weekend effect in AAA repair. *Ann Surg* 2019;269(6): 1170-5.

**Swerdlow NJ**, Jones DW, Pothof AB, O'Donnell TFX, **Liang P**, **Li C**, **Wyers MC**, **Schermerhorn ML**. Three-dimensional image fusion is associated with lower radiation exposure and shorter time to carotid cannulation during carotid artery stenting. *J Vasc Surg* 2019;69(4):1111-20.

Varkevisser RRB, O'Donnell TFX, **Swerdlow NJ**, **Liang P**, **Li C**, Ultee KHJ, Pothof AB, De Guerre LEVM, Verhagen HJM, **Schermerhorn ML**. Fenestrated endovascular aneurysm repair is associated with lower perioperative morbidity and mortality compared with open repair for complex abdominal aortic aneurysms. *J Vasc Surg* 2019;69(6):1670-8.

## NEWS BRIEFS

The Department of Surgery extends a warm welcome to these trainees: **Suprita Krishna, MD, MHA**, and **Kenneth Softness, MD, MS**, Harvard Urology Residency Program at BIDMC; and **Hung Truong, MD, MS**, Advanced GI and Minimally Invasive Surgery Fellowship.



Dr. Krishna (PGY-1), a graduate of Kasturba Medical College in India, was a research fellow at the University of Minnesota. Dr. Krishna came to BIDMC from the Henry Ford Health System, where she was a clinical junior

fellow in the Department of Urology. She is currently completing a Master's of Health Administration from the University of Minnesota.



Dr. Softness (PGY-2), a graduate of Georgetown University School of Medicine who has a Master's of Science in Physiology and Biophysics from Georgetown University, was previously at Albert Einstein Medical Center, where he was a diagnostic radiology resident.



Dr. Truong, who graduated from the University of California, Irvine School of Medicine, came to BIDMC from the University of Hawaii, where he completed his residency in general surgery.



**Richard D. Cummings, PhD**, Vice Chair of Basic and Translational Research in the Department of Surgery and Director of the [National Center for Functional Glycomics](#) and the Harvard Medical School Center for Glycoscience, will co-chair

the 12th International GlycoT 2020 Conference with Michael Pierce, PhD, of the University of Georgia. The conference will be held in Boston in June 2020.

Aortic valve surgery, colon cancer surgery, and lung cancer surgery at BIDMC were ranked as “high performing”—the highest possible ranking—by *U.S. News & World Report*. The annual rankings are designed to help patients and their doctors make informed decisions about where to seek care for challenging health conditions or common elective procedures. For the 2019-20 rankings, *U.S. News & World Report* evaluated more than 4,500 medical centers nationwide in 25 specialties, procedures, and conditions.



**Frank LoGerfo, MD**, Vascular and Endovascular Surgery, was named an “All Star Doctor” by the American Diabetes Association-New England and appeared in a pre-game home plate ceremony before the Red Sox/Yankee game at Fenway Park on September 6.

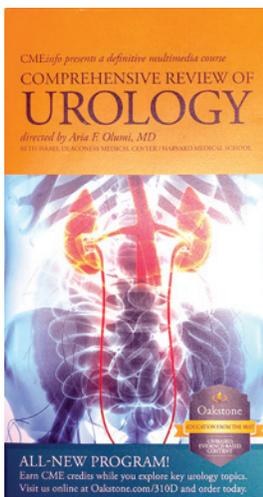


**Marc Bouffard, MD**, a neuro-ophthalmologist in the Division of Ophthalmology, was awarded a \$30,000 grant from the BIDMC Department of Neurology for a research project entitled “Establishing the Endocrine and

Metabolic Profile of Idiopathic Intracranial Hypertension (IIH).” One of the most common diagnoses made by neuro-ophthalmologists, IIH has the potential to cause irreversible vision loss in young people. Although the condition affects overweight women almost exclusively, the mechanism by which weight and gender contribute to intracranial hypertension is not understood. The goal of this grant is to establish the hormonal and endocrine profile of subjects with IIH compared to both healthy controls and individuals with structural causes of intracranial hypertension.



The third annual BIDMC/Harvard Medical School Lymphedema Symposium for Patients, held in partnership with the Lymphatic Education & Research Network, took place on September 28. The daylong event, whose faculty comprised lymphedema experts from BIDMC and elsewhere in New England, focused on a wide range of topics of interest to individuals with lymphedema through lectures and small group sessions. The honorary chair of the symposium was **Sumner Slavin, MD**, Plastic and Reconstructive Surgery. **Dhruv Singhal, MD**, Plastic and Reconstructive Surgery and Director of the BIDMC Lymphatic Center, gave an introduction to the BIDMC Lymphatic Center along with colleagues from the Departments of Medicine, Radiology, and Rehabilitation Services.



**Aria Olumi, MD**, Chief of Urologic Surgery, was the editor and course director of *Comprehensive Review of Urology*, an online e-book issued recently by Oakstone Publishing. Addressing the core concepts in urology, the CME-accredited course covers all major subspecialty areas and focuses on current standards of care as well as the latest developments in the field. Course faculty include other members of

the BIDMC Division of Urologic Surgery: **Peter Chang, MD, MPH**, **Ruslan Korets, MD**, **Peter Steinberg, MD**, and **Andrew Wagner, MD**.

**Jacques Kpodonu, MD**, Cardiac Surgery, visited the president of the Republic of Ghana and the University of Ghana Medical Center with senior leadership from Medtronic during the summer to explore building cardiac surgery capacity in the western African nation.



Among those pictured with Dr. Kpodonu (second from right) are Julie Foster, a Medtronic vice president (fourth from right), and Akosua Frema Osei-Opare, the President of Ghana's chief of staff (sixth from right).



**Adnan Majid, MD**, and **Mihir Parikh, MD**, Thoracic Surgery and Interventional Pulmonology, led a two-day course at BIDMC in July on endobronchial ultrasound (EBUS) that was attended by nearly two dozen physicians from Latin America. The other faculty leaders were Sebastian Fernandez-Bussy, MD, of Mayo Clinic in Florida and Olivia Sanchez, MD, of INER CIENCI in Mexico City. The course included didactic presentations, a live-case observation of EBUS, and hands-on training in BIDMC's Carl J. Shapiro Simulation and Skills Center. Pictured (from left) are: Drs. Fernandez-Bussy, Sanchez, Majid, and Parikh.

## NEWS BRIEFS



Frank, 14, here with Dr. Steely, underwent a double mechanical valve replacement (aortic and mitral) surgery.

Cardiothoracic Surgery fellow **Andrea Steely, MD**, was the recipient of the International Medical Volunteer Scholarship, which was awarded by the Thoracic Surgery Foundation and made possible by the Edwards Lifesciences Foundation. Earlier this year, Dr. Steely spent 12 days as a volunteer in Rwanda, where rheumatic heart disease is rampant but there are no cardiac surgeons to care for patients, who often succumb to their disease. Dr. Steely was part of a team that gave 16 patients with severe rheumatic heart disease a second chance at life by performing life-changing and lifesaving open heart surgery. This was Dr. Steely's second trip to King Faisal Hospital in Kigali, Rwanda with Team Heart, a nonprofit organization started in Boston more than a decade ago.



**Elliot Chaikof, MD, PhD**, Surgery Chair, will serve from 2019-2021 as Chair of Section 1 (Physical

Sciences, Mathematics, Computer Sciences, and Engineering) of the National Academy of Medicine (NAM), one of NAM's 12 standing sections. In addition, Dr. Chaikof will serve as Co-Chair of the National Academy of Medicine Health and Technology Interest Group with Lydia Kavraki, PhD, of Rice University. Dr. Chaikof is also a member of the NAM Committee on Emerging Science, Technology, and Innovation in Health and Medicine.



Resident **Omar Haque, MD**, received the 2019 Hans Popper Memorial Postdoctoral Research Fellowship from the American Liver Foundation to fund his research project, "*Ex-Vivo* Liver Graft Regeneration via Normothermic

Machine Perfusion in a Two-Thirds Partial Hepatectomy Model."



Chief resident **Stephanie Serres, MD, PhD**, matched to the BIDMC Breast Surgical Oncology Fellowship. The year-long fellowship is led by **Mary Jane Houlihan, MD**.



**Bernard Lee, MD, MBA, MPH**, Chief of Plastic and Reconstructive Surgery, was elected as a Director of the American Board of Plastic Surgery, which promotes safe, ethical, and efficacious plastic surgery. Dr. Lee will serve a six-year

term. Dr. Lee was also recently elected to serve a three-year term as a member of the Harvard Medical School/Harvard School of Dental Medicine Faculty Council. The council, an elected body comprising junior and senior faculty members, serves as an advisory body to the Dean of the Faculty of Medicine.



**James Rodrigue, PhD, Transplant Surgery**, was elected to the Board of Directors of the American Society of Transplantation. Dr. Rodrigue joined the AST in 2001 and was inducted as a Fellow in 2016. In 2017, he received the AST's Clinician of

Distinction Award in recognition of his outstanding contributions to clinical transplantation. Dr. Rodrigue will serve a three-year term.



Resident **Jordan Pyda, MD, MPH** (left), and **Khalid Khwaja, MD, Transplant Surgery**, presented a poster at the American Transplant Congress entitled "Cost-effectiveness Analysis of Renal Replacement Therapy Strategies in Haiti."



**Amy Evenson, MD, MPH, Transplant Surgery**, graduated from the Rabkin Fellowship at BIDMC in June. The yearlong 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.



The Department of Surgery is proud to be a supporter of the Harvard Medical School (HMS) chapter of the Student National Medical Association (SNMA), which helped make it possible for 17 HMS students to attend

the SNMA Annual Medical Education Conference in Philadelphia earlier this year.



**Nurhan Torun, MD, Chief of Ophthalmology**, gave a presentation at the 2019 Harvard Ophthalmology annual meeting at Massachusetts Eye and Ear on "Diagnostic Prediction Models for Giant Cell Arteritis," which

described her research with collaborators in Toronto. In addition, in late 2018 Dr. Torun presented a keynote lecture entitled "New Frontiers in Optic Neuritis," led a course on extraocular motility, and moderated two panels at the 52nd National Congress of the Turkish Ophthalmological Association in Antalya, Turkey.



From left: Residents **Scott Fligor, MD**, and **Mariam Eskander, MD**, each received an Outstanding Resident teaching award for teaching Harvard Medical School students during their Principal Clinical Experience (PCE) surgery clerkship rotation at BIDMC. **Benjamin James, MD, MS**, Director of Endocrine Surgery, received the PCE Outstanding Faculty Mentor Award.

*Continued on page 20 >*

## NEWS BRIEFS

*< Continued from page 19*

A group of Department of Surgery trainees visited Wellesley College earlier in the year to participate in a panel about women in medicine with pre-med students in the Wellesley Hippocratic Society. Pictured are (from left): recent general surgery graduate **Eliza Lee, MD**; vascular surgery fellow **Sara Zettervall, MD**; general surgery residents **Ashlyn Whitlock, MD**, **Claire Sokas, MD**, and **Kayla Isbell, MD**; and recent general surgery graduate and current cardiothoracic surgery fellow **Ammara Watkins, MD**.



Resident **Mark Kashtan, MD, MPH** (left), received the award for the best quality paper at this year's 50th meeting of the American Pediatric Surgical Association, held in Boston. His paper was entitled "Implementation of a Plan-Do-

Study-Act Framework to Reduce Unindicated Surgical Antibiotic Prophylaxis." At the meeting, resident **Seema Anandalwar, MD**, gave a presentation on "Trends in the Use of Surgical Antibiotic Prophylaxis in General Pediatric Surgery: Are We Missing the Mark for Both Stewardship and Infection Prevention?" The residents' work was conducted under the mentorship of Shawn Rangel, MD, of Boston Children's Hospital.



Residents **Kayla Isbell, MD**, **Christina Marcaccio, MD**, **Jessica Means, MD**, and **Claire Sokas, MD**, were recently inducted

into the Gold Humanism Honor Society (**GHHS**). A signature program of the Gold Foundation, the GHHS recognizes students, residents, and faculty who exemplify compassionate patient care and who serve as role models, mentors, and leaders in medicine. Founded in 2002, the society has chapters in more than 160 medical schools and residency programs.



Earlier this year, a group of residents established the BIDMC Surgery Running Club, which was formed to foster wellness and camaraderie among residents while getting some fresh air and aerobic exercise. The group, which is frequently joined by members of the Surgery faculty as well as residents and faculty from the Department of Anesthesia, Critical Care, and Pain Medicine and other departments, meets weekly for a three-mile run along the Charles River. Resident and runner **Claire Sokas, MD** (front row, center), says that runners of all abilities are encouraged to participate.



*Jaime Cudmore and GII/MIS fellow Hung Truong, MD, MS, fight a virtual OR fire.*

Every year there are 400 to 500 serious OR fires in the United States, in part due to the increasing use of high-energy electrosurgical devices. For years, under the leadership of Vice Chair of Technology and Innovation **Daniel Jones, MD, MS**, and the SAGES **FUSE** (Fundamental Use of Surgical Energy) program that he and others launched, BIDMC Surgery has been at the forefront of educating and



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training surgeons and other OR personnel in the safe use of surgical tools.

Recently, this training went to the next level with an exercise at BIDMC using virtual reality (VR). Participants donned a head-mounted display that transported them into an OR where a “fire” starts that they try to extinguish quickly and safely. “Think the Star Trek holodeck for doctors,” says Dr. Jones.

“Our survey shows that doctors and nurses rarely, if ever, experience a OR fire and most are never taught how to respond. In fact, nearly all do the wrong thing first according to FUSE and AORN [Association of periOperative Registered Nurses] guidelines,” says Dr. Jones. “But with a few repetitions in VR, the participant learns the right sequence, making everyone safer.”

Dr. Jones notes that BIDMC is the first in the world to use VR to train OR teams and that thus far more than 180 BIDMC surgeons, anesthesiologists, nurses, and surgical technologists have been trained in VR “firefighting.”

## ALUMNI NEWS



**Richard Lynn, MD**, a BIDMC General Surgery Program alumnus, was one of three surgeons selected to receive the Society for Vascular Surgery’s (SVS) first-ever Excellence in Community Service Award. Dr. Lynn was honored at the SVS Foundation Gala at the Vascular Annual Meeting in June.

This annual award honors vascular surgeons who have been leaders in community service throughout their professional lives, gone far beyond the expectations of others in their specialty, maintained a strong civic presence, and exhibited a lifelong commitment to vascular surgery and the community.

Dr. Lynn’s nominators attested to his many volunteer efforts, which include serving on the board of directors of the American College of Surgeons Foundation for nine years and nine SVS committees as well as multiple mission trips to Peru and Puerto Rico.

## NEWS BRIEFS



Photo: Dr. John McCallum

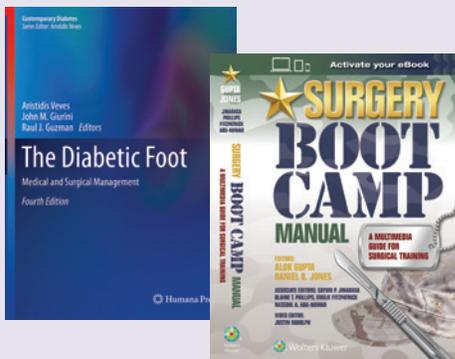
Residents Andrew Sanders, MD, and Angelica Hernandez Alvarez, MD, perform a simulated open abdominal aortic aneurysm repair in the BIDMC Carl J. Shapiro Simulation and Skills Center. This training was organized and led by Mark Wyers, MD, Vascular and Endovascular Surgery Program Director, and Vascular Surgery fellow John McCallum, MD.

### The Bookshelf

#### Books by Our Faculty

**Aristidis Veves, MD, DSc, John Giurini, DPM, Raul Guzman, MD, Editors.** *The Diabetic Foot: Medical and Surgical Management*, 4th edition. Humana Press, 2018.

**Alok Gupta, MD, Daniel B. Jones, MD, MS, Editors; Blaine T. Phillips, MD, Emilie Fitzpatrick, MD, Rassoul A. Abu-Nuwar, MD, Associate Editors.** *Surgery Boot Camp Manual: A Multimedia Guide for Surgical Training*. Wolters Kluwer, 2019.



## BOOST-3



**Martina Stippler, MD,** Neurosurgery, is the BIDMC site principal investigator for **BOOST-3** (Brain Oxygen Optimization in Severe TBI-Phase 3) a nationwide, five-year trial that aims to improve outcomes

for patients with severe traumatic brain injury (TBI).

BIDMC is the only Boston hospital involved in the national study, which is funded by the NIH and being led by investigators at Michigan Medicine, the University of Pennsylvania, the University of Pittsburgh, and the Medical University of South Carolina. The study, which will enroll more than 1,000 patients, will be conducted at 45 clinical sites across the United States.

Severe TBI contributes to nearly one-third of all injury-related deaths in the United States. Of patients who survive, the majority have permanent disabilities and lifelong medical needs. Traditionally, the management of severe TBI patients has been based on measurements of intracranial pressure. New studies, including the BOOST-2 trial, suggest that treatment based on measurements of both intracranial pressure and brain tissue oxygen levels may be more effective than monitoring intracranial pressure alone. By following patients, who will be randomly selected for one approach or the other, for six months, BOOST-3 will help determine which strategy leads to better long-term outcomes. Assisting with this study is Department of Surgery Clinical Research Assistant **Emmalin Nelton**.



Keep abreast of the latest news from the Department of Surgery by following us on Twitter: @BIDMCSurgery

## IN MEMORIAM

The Department of Surgery mourns the loss of longtime friend **Martin Trust** and General Surgery Residency Program alumnus **Thomas S. Monahan III, MD**.



### Martin Trust

Mr. Trust, a graduate of Cooper Union and Massachusetts Institute of Technology and a former BIDMC Board member, was a successful entrepreneur with more than 50 years in the apparel and textile industry. Mr. Trust, known to most as Marty, and his wife of 60 years, Diane (“Dena”), founded MAST, which became one of the largest international apparel producers in the world, and later the apparel manufacturing company Brandot International, from which he retired in 2014.

Mr. Trust was a longtime, major supporter of the Boston area’s leading cultural, educational, and health care institutions, including BIDMC. In 2014, the Trusts established the Martin and Diane Trust Career Development Chair in Surgery, which is held by urologist **Peter Chang, MD, MPH**, Director of the BIDMC Prostate Cancer Care Center. Mr. Trust, who passed away on September 12 at age 84, is survived by his wife, his children David and Laura, and three grandchildren.



### Thomas S. Monahan III, MD

Dr. Monahan was an assistant professor of surgery at the University of Maryland School of Medicine and a vascular surgeon at the University of Maryland Medical Center. He received his medical degree from the University of Massachusetts Medical School in 2001 and completed his residency in general surgery at BIDMC in 2008. Before joining the faculty at the University of Maryland, Dr. Monahan completed a fellowship in vascular surgery at the University of California, San Francisco. A surgeon-scientist, Dr. Monahan’s vascular biology research was funded by the National Institutes of Health and the Department of Veterans Affairs, and he was the 2013 recipient of a Wylie Grant from Vascular Cures.

Dr. Monahan, who passed away on September 12, is survived by his children Michael and Emily and their mother, Linda, and his parents and two siblings.

# MAKING A DIFFERENCE

## CENTER FOR STUDY OF NUTRITION MEDICINE RECEIVES GENEROUS GIFT

The Center for the Study of Nutrition Medicine (CSNM) in the Department of Surgery is the recipient of a \$100,000 gift from an anonymous donor.

The CSNM was established in 1989 by the late **George L. Blackburn, MD, PhD**, a pioneer and innovator in the field of nutrition medicine. Dr. Blackburn, a longtime faculty member of the Department of Surgery who died in 2017, was the Director of the CSNM as well as Director of the Feihe Nutrition Laboratory in the Department of Surgery.

The important work of the CSNM continues under the leadership of **Richard D. Cummings, PhD**, and **Jin-Rong Zhou, PhD**. Dr. Cummings is Vice Chair of Basic and Translational Research in the Department of Surgery and Director of the National Center for Functional



The focus of the CSNM has been on advancing the understanding of the important role of healthy living—specifically diet, exercise, and maintaining a healthy body weight—in the prevention of many chronic diseases, including cancer, heart disease, obesity, and type 2 diabetes.

The mission of the CSNM encompasses developing innovative and practical methods of improving health habits among at-risk individuals. Under Dr. Blackburn's leadership, the CSNM made many seminal contributions to the fields of surgery, metabolism, nutrition, and obesity that have had a positive impact on the lives and health of many thousands of people worldwide.

There are several major projects currently underway in the CSNM, including the federally funded Look AHEAD (Action for Health in Diabetes) study, a

multicenter, randomized controlled trial designed to determine whether intentional weight loss reduces cardiovascular morbidity and mortality in overweight individuals with type 2 diabetes. Dr. Blackburn, one of the original principal investigators of this trial, contributed more than 40 peer-reviewed publications to the literature on Look AHEAD.

Another federally funded project is focused on assessing the behavioral and psychosocial predictors of weight loss following bariatric surgery with the goal of developing standardized dietary and physical activity guidelines for patients following surgery.

“This generous gift to the CSNM will enhance these and other programs and contribute to the improvement of health through nutrition medicine,” says Dr. Cummings.

*“This generous gift to the CSNM will enhance these and other programs and contribute to the improvement of health through nutrition medicine.”*

**Richard D. Cummings, PhD**

Glycomics and the Harvard Medical School Center for Glycoscience. Dr. Zhou is Director of the BIDMC Nutrition/Metabolism Laboratory.

Since its founding, the CSNM has been an internationally recognized center of excellence in basic and translational research, education, and public health policy.

## GRATEFUL FAMILY SUPPORTS PARKINSON'S DISEASE RESEARCH

For years Jeffrey Arle, MD, PhD, Neurosurgery, helped his patient Stanley Sydney, who had Parkinson's disease, manage the effects of his movement disorder with deep brain stimulation (DBS), which delivers a targeted electrical stimulus to the brain to modulate abnormal activity.

Grateful for their late husband and father's enhanced quality of life, last year the Sydney family made a \$225,000 commitment to further support Dr. Arle's DBS research,

which they have supported since 2012. Dr. Arle's DBS research, which is aimed at improving the quality of life of patients with movement disorders, is based on developing and analyzing computational models with which to better understand the brain's circuitries and explore new therapies.

"Dr. Arle is doing life-changing work," says Mr. Sydney's widow, Sheila. "We are fortunate to have the power to help him." His



Neurosurgeon Jeffrey Arle, MD, PhD, with Roberta Sydney.

daughter, Roberta Sydney, a BIDMC Overseer, adds that "Dr. Arle sees the big picture and is always exploring new possibilities."

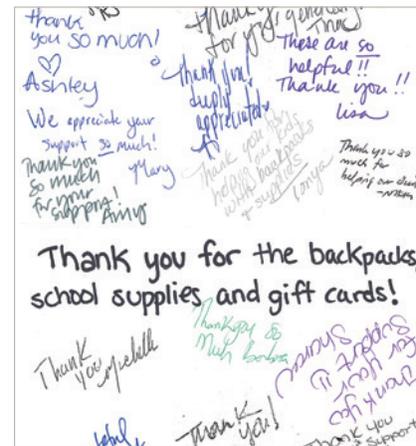
## DEPARTMENT DONATES SCHOOL ITEMS TO 'MY LIFE MY CHOICE'

One initiative of the Department of Surgery's Committee for Social Responsibility (CSR) is aimed at raising awareness of and preventing human trafficking through a partnership with My Life My Choice. With the goal of ending commercial sexual exploitation, My Life My Choice—a program of the Justice Resource Institute in Boston—provides mentoring, community education, and skills training for vulnerable teenage girls.

One way in which CSR partners with My Life My Choice is by providing items that help teens return to high school, such

as backpacks, calculators, and gift cards with which to buy school supplies, all of which are contributed by members of the department.

According to Jeffrey Dawson, Perioperative Services, one of the CSR's four leaders, this year 40 backpacks full of supplies and \$600 in gift cards were donated to the organization. Last year—the second year of the backpack drive—26 backpacks full of supplies and nearly \$150 in gift cards were donated. In addition to Mr. Dawson, the CSR is led by Allen Hamdan, MD, Vice Chair of



A letter of appreciation from My Life My Choice thanking members of the Department of Surgery for their generosity.

Surgery (Operations), Ted James, MD, MS, Vice Chair of Surgery (Academic Affairs) and Chief of Breast Surgical Oncology, and Emily Utaski, Surgery Administration.

To learn how you can help support the Department of Surgery's research, educational initiatives, or clinical programs, please contact Kevin Mitchell at [kmmitch@bidmc.harvard.edu](mailto:kmmitch@bidmc.harvard.edu) or call 617-632-8388.

Program Director Sidhu Gangadharan, MD, MHCM (right), and Assistant Program Director David Liu, MD (left), with trainees (from left) Andrea Steely, MD (cardiac surgery, 2020), and Ammara Watkins, MD, MPH (thoracic surgery, 2021).

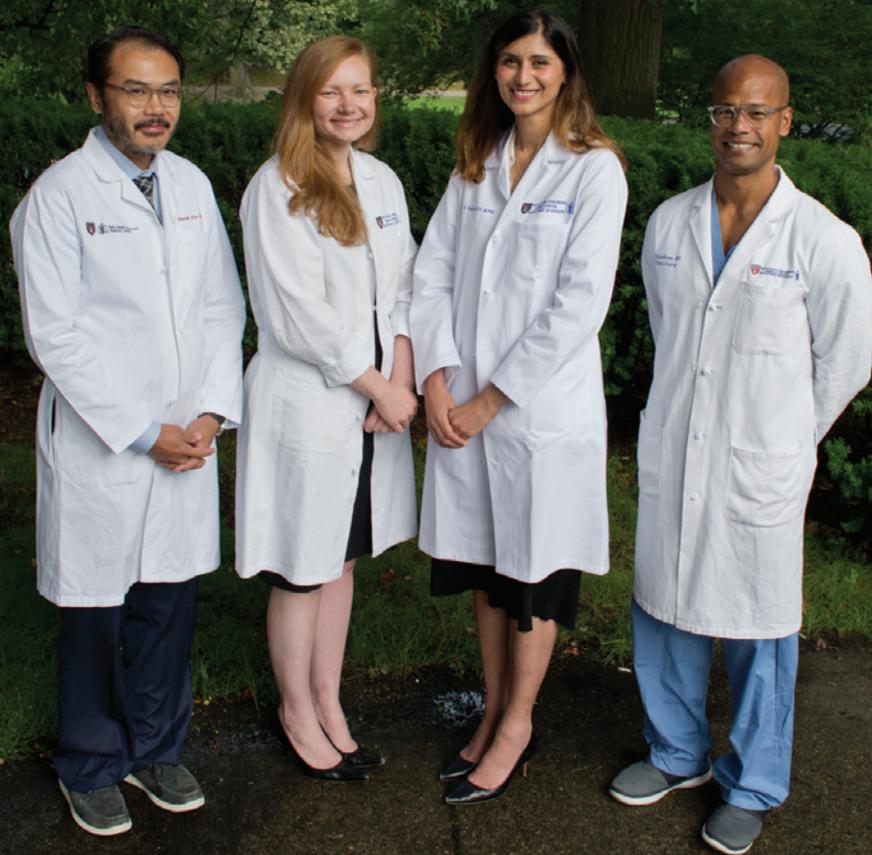


Photo: Hilary Bennett

The BIDMC Cardiothoracic Surgery Residency Program is led by Program Director **Sidhu Gangadharan, MD, MHCM**, Chief of Thoracic Surgery and Interventional Pulmonology. Cardiac surgeon **David Liu, MD**, is the Assistant Program Director. The two-year program, which is open to applicants who have completed general surgery training, is accredited by the Accreditation Council for Graduate Medical Education (ACGME) and prepares graduates to become credentialed by the American Board of Thoracic Surgery, the credentialing body for both cardiac and thoracic surgeons. The program has existed for many decades and its graduates hold faculty positions, many in leadership roles, at leading academic medical centers throughout the nation.

# Cardiothoracic Surgery Residency Program

## *A Commitment to Teaching*

When UMassMemorial Medical Center thoracic surgeon Mark Maxfield, MD, performs an operation—whether the patient’s condition is common or complex or the procedure is open or minimally invasive—he feels extremely well prepared and confident that the surgical care he provides will be both safe and effective.

That Dr. Maxfield, who has been an attending surgeon for just over a year, is prepared to deal with virtually any surgical challenge in his subspecialty is, he says, the direct

result of the training he received at the BIDMC Cardiothoracic Surgery Residency Program.

“This is one of the top—if not the top—cardiothoracic surgery residency programs in the nation,” says Dr. Maxfield, who graduated from the program in 2018. “The outstanding thoracic and cardiac surgeons, the diversity and high volume of cases, and the superb leadership of faculty who are all deeply committed to teaching provided me with the skills, knowledge, and experience I now use each and every day.”

### **Two residents a year**

Previously approved by the ACGME to train one resident a year, the program received approval to expand to two residents a year beginning in 2019. Approximately 80 surgical trainees applied for the two openings.

While residents will continue to spend significant blocks of time in both thoracic surgery and cardiac surgery (including a two-month pediatric cardiac surgery rotation at Boston Children’s Hospital), they will now pursue either a thoracic surgery or cardiac surgery track from the start of their residency, with the majority of their training in their chosen subspecialty. Also new this year is a

*“One of many things that sets our program apart is our explicit investment in teaching—not only in the operating room and clinical settings but also in didactic sessions and a range of educational conferences.”*

Sidhu Gangadharan, MD, MHCM

thoracic surgery rotation at Lahey Hospital and Medical Center. By the conclusion of their training, residents will have participated, with increasing levels of autonomy based on their readiness, in approximately 600 cases.

#### **Breadth and high volume**

“We offer exposure to a remarkable breadth and high volume of cases to residents in our program,” says Dr. Gangadharan, noting that annually cardiac surgery performs some 900 surgical procedures and thoracic surgery performs approximately 700 cases.

On the cardiac surgery side, residents gain exposure to all open and minimally invasive procedures, including coronary revascularization, valve repair and replacement, aortic surgery and repair of congenital defects, and repair of atrial septic defects as well as training in transesophageal echocardiography.

On the thoracic surgery side, residents participate in a wide range of open and minimally invasive procedures. These include video-assisted thoracoscopic surgery (VATS), robotic lobectomy and minimally invasive esophagectomy, tracheal resection and tracheobronchoplasty, and new minimally invasive procedures

such as LINX for gastroesophageal reflux disease and POEM (peroral endoscopic myotomy) for achalasia. Residents also receive several weeks of formal training in interventional pulmonology, which is part of the Department of Surgery.

#### **Investment in teaching**

In all cases, residents are taught by outstanding Harvard Medical School faculty who not only have superb surgical skills but are also committed to teaching and to trainees’ development and success.

“One of many things that sets our program apart is our explicit investment in teaching—not only in the operating room and clinical settings but also in didactic sessions and a range of educational conferences throughout each month,” says Dr. Gangadharan. “Also, we believe it is not enough that our program’s faculty love to teach; we expect everyone, including me, to strive to excel at teaching and mentoring. Consequently many of us have completed fellowships in medical education and take courses to continually improve our teaching skills.”

Cardiac surgery and thoracic surgery are very technically challenging subspecialties of surgery. As a result, says Dr. Gangadharan, “Our goal is not to produce

proficient surgeons but rather technically excellent surgeons and to provide them with the tools to succeed as academic surgeons.”

While technical excellence is the top priority, Dr. Gangadharan is proud of the positive long-term relationships that exist between faculty and graduates, which speaks to the program’s culture of mutual respect and collegiality. “Our graduates are, and will always remain, part of the BIDMC family,” he says. Dr. Maxfield of UMass Medical Center agrees: “This program provided me with outstanding training as well as lifelong mentorship and friendship.”

### **Recent Cardiothoracic Surgery Residency Program Graduates**

- 2019: Oliver Chow, MD**  
New York-Presbyterian/Weill Cornell Medical Center (thoracic surgery)
- 2018: Mark Maxfield, MD**  
UMass Memorial Medical Center (thoracic surgery)
- 2017: Antonio Lassaletta, MD**  
Tufts Medical Center (thoracic surgery)
- 2016: Jennifer Wilson, MD**  
BIDMC (thoracic surgery)
- 2015: Shelby Stewart, MD**  
University of Maryland Medical System (thoracic surgery)
- 2014: Anton Cherney, MD**  
Mercy Health System, Arkansas (cardiac surgery)
- 2013: Ian Makey, MD**  
Mayo Clinic, Jacksonville (thoracic surgery)

Beth Israel Deaconess Medical Center  
Department of Surgery, LMOB-9C  
110 Francis Street  
Boston, MA 02215

Beth Israel Lahey Health 

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## FOOD IS MEDICINE 2019 CO-CHAIRS

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### 30,000 Healthy Meals: Community Health Leaders (\$10,000)

Robert and Cynthia Lepofsky

### 15,000 Healthy Meals: Community Health Partners (\$5,000)

Carol and Howard Anderson  
BIDMC Department of Surgery  
The Hamdan family

### 7,500 Healthy Meals: Community Health Sponsors (\$2,500)

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