

Beth Israel Deaconess
Medical Center



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

INSIDE SURGERY

Working Together to Achieve Diversity, Equity, and Inclusion

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Sidhu Gangadharan, MD, MHCM



Anne Fabrizio, MD



Vanessa Cowan, MD



Jonathan Critchlow, MD



Amy Evenson, MD, MPH



Boris Gershman, MD



Ted Gomez, MD, MTR



Susan Hagen, PhD



Chantel Hile, MD



Benjamin James, MD, MS



Ted James, MD, MS



Tara Kent, MD, MS



Dhruv Singh, MD



Rafael Vega, MD, PhD



Christopher Digesu, MD



Charity Glass, MD, MPP



Lucas Souza-Mota, MD



Krishna Suprita, MD, MHA



Carolina Torres Perez-Iglesias, MD



James Wallace, MD

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Message from the Chair

Traditionally when we embark on a new year, we look back on what has transpired over the past 12 months and look forward to what the future may bring. Despite our understandable desire to put 2020 behind us, this year should be no different: As individuals, as members of this department and medical center, and as a society, it is important that we pause to reflect on the previous year and apply what we have learned to set our course for the future.

One lesson that 2020 has taught us is that we are capable of surmounting even the most daunting challenges—on scales large and small—when we maintain both hope and what the late Jonathan Sacks, British philosopher and theologian, called a “covenantal relationship.”

“A covenant is a bond, not of interest or advantage, but of belonging,” wrote Rabbi Sacks in his book *The Dignity of Difference*. “It involves a commitment of one person to another or to several others...a substantive notion of loyalty—of staying together even in difficult times. It may call, at times, for self-sacrifice.” Of hope, Rabbi Sacks wrote, “Hope is the faith that, together, we can make things better. Hope is born in the belief that the source of action lies within ourselves.”

Whether caring for patients afflicted with Moyamoya disease, a disorder that affects only a few, or COVID-19, a virus that affects millions, or joining together to achieve a diverse and inclusive community, the members of this department have shown—again and again throughout this unprecedented year—the enduring power of hope and of relationships based on trust, mutual responsibility, and a deep sense of belonging.

“[In] an increasingly uncertain world is the idea of responsibility—that what we do, individually and collectively, makes a difference, and that the future lies in our hands,” wrote Rabbi Sacks. As we usher in this new year, with all of its promise and inevitable new challenges, let us remember the wisdom of Rabbi Sacks and find inspiration in the knowledge that—together and with hope in our hearts—we possess the power to build a brighter, better future.

Elliot Chaikof, MD, PhD



Beth Israel Deaconess Medical Center



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

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The mission of the Department of Surgery:

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

Surgery Chair

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Cover: The members of the Department of Surgery Committee on Diversity, Equity, and Inclusion (as of press time); see [page 7](#).



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Beth Israel Lahey Health

Khalid Khwaja, MD Faculty Award Established

Award Honors Beloved Colleague

The Department of Surgery grants a number of awards to faculty members and trainees to encourage not just academic excellence, but also certain characteristics that will be critical to their development as well-rounded and effective surgical leaders. These coveted awards, which are named in honor of beloved members of our faculty, are announced at the end of each academic year at a special ceremony attended by all of the department's faculty and trainees.

The Department of Surgery recently established the Khalid Khwaja, MD Faculty Award, which will be given for the first time in 2021. This award celebrates the life of Dr. Khwaja, a gifted transplant surgeon, innovative investigator, and inspiring educator whose untimely death last year was a profound loss for the department, the medical community at large, his many grateful patients, and, of course, his family and other loved ones.

One characteristic that Dr. Khwaja embodied is clinical collaboration with and compassion toward others, both within and outside the Department of Surgery. With grace, humility, mutual respect, and trust, he fostered a culture of collaboration and compassion that brought out the best in those

around him, ensuring the greatest possible outcome for his patients.

The Khalid Khwaja, MD Faculty Award will be given to a junior clinical faculty member (Instructor or Assistant Professor) who best fosters a culture of collaboration, respectfulness, compassion, and shared sense of purpose in their interactions with medical students, residents, clinical fellows, and faculty colleagues, nurses, and other hospital employees, as well patients, both within and outside their division, as an educator and clinician. The faculty and trainees within each division will nominate a faculty member, and an awards committee will select the recipient who best meets these criteria.

"We hope this award will continue Dr. Khwaja's legacy of bringing out the best in us, encourage others to emulate him, and in doing so, truly honor the memories of our beloved colleague and friend," says Surgery Chair **Elliot Chaikof, MD, PhD**.



→ **For information** about how you can support the Khalid Khwaja, MD Faculty Award, please contact Kevin Mitchell, Director of Surgery Development, at kmmitch@bidmc.harvard.edu or **617-910-6625**.

New Faculty

For more information about our new faculty, including their clinical and research interests, practice sites, and contact information, please visit the ["Find-A-Doctor"](#) section on the BIDMC website.



Jordan Bohnen, MD, MBA

Division: General Surgery

Medical School:
Harvard Medical School

Residency: General Surgery,
Massachusetts General Hospital

Clinical Fellowship:
Advanced Laparoscopic Surgery,
Massachusetts General Hospital



Kaashif Eazazuddin, DO

Division: Otolaryngology/Head
and Neck Surgery

Medical School: New York College
of Osteopathic Medicine

Residency: Otolaryngology/Head
and Neck Surgery, Saint Barnabas
Medical Center

Working Together to Achieve Diversity, Equity, and Inclusion

In the fall, Abimbola Abiola, who graduated from medical school at Obafemi Awolowo University in Nigeria and plans on becoming a surgeon, took part in a weeklong virtual sub-internship in Colon and Rectal Surgery at BIDMC. The unique offering was everything she had hoped for—and more.

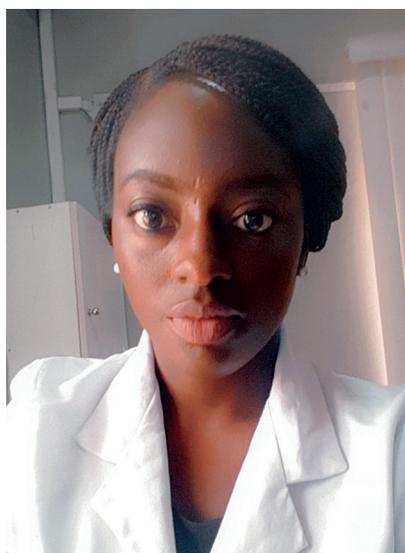
“This was a great experience. The faculty made sure everyone was involved and pushed us to think. They also offered interview tips and advice on evaluating residency programs, which was especially vital for an international medical graduate like me,” says Dr. Abiola, who now plans on applying to the BIDMC General Surgery Residency Program.

That Dr. Abiola, a Black woman and aspiring surgeon who lives on another continent, had this opportunity was no accident. Rather it was one outgrowth of the department’s ongoing, proactive efforts—even during a pandemic—to create a more diverse, equitable, and inclusive community for all, including faculty, trainees, researchers, and staff.

“We have always strived to be a national leader in diversity, equity, and inclusion,” says Surgery Chair **Elliot Chaikof, MD, PhD**. “As we move forward, recognizing that we can always do more, we will continue to acknowledge both our strengths and weaknesses and seek to live up to the core values represented by the very best of our history.”

A history of social justice

That history heralds back to the department’s founding in the 1860s as the Fifth (Harvard) Surgical Service at Boston City Hospital, which provided care for tens of thousands of returning Massachusetts veterans—Black and white, suffering from



An aspiring surgeon, Nigerian Dr. Abimbola Abiola participated in a virtual sub-internship offered by the Department of Surgery. Due to the success of the virtual sub-internships, plans are underway to expand them in the future.

debilitating wounds and chronic infections, many poor or without any resources—who served in the Union forces in the Civil War.

At the turn of the 19th century New England Deaconess Hospital was founded to care for the city’s sick and poor as part of the charter of the Methodist Deaconess movement. Over a century ago, Beth Israel Hospital was established to serve all Bostonians, regardless of race,

religion, or financial status. The hospital was uniquely motivated to meet the needs of a large immigrant population that had hoped to escape racism in Europe only to find rampant discrimination in the U.S.

Not surprisingly in light of its history, over the years the department has been home to many forward-thinking faculty and alumni who championed a more diverse, equitable, and inclusive culture. One was **Jack Norman, MD**, who spoke out against racism in the delivery of health care in poor Black communities. Another was **Susan Love, MD**, who criticized the medical establishment’s treatment of women and fought to expand the rights of same-gender couples as parents. Still another was **William Silen, MD**, former Chair of the department, who was appointed the first Dean of Diversity at Harvard Medical School.

But the work of individuals, however worthy, is not sufficient to tackle the complex issues in today’s changing world of academic surgery. Consider that only 20 years ago, just 14 percent of U.S. surgical residents were women whereas today 40 percent are women (at BIDMC, 56 percent of General Surgery Residency Program trainees are women; see “Diversity by the Numbers,” [page 5](#)). To make consequential, lasting change, a concerted team effort supported by top leadership and engaging many at all levels is required.

DEI Committee established

In 2018, at the behest of Dr. Chaikof and under the leadership of **Ted James, MD, MS**, Vice Chair for Academic and Faculty Affairs, the Department of Surgery established a Committee on Diversity, Equity, and Inclusion (DEI), which was initially chaired by **Alia Qureshi, MD, MSc**. In early 2020, changes were made to the committee's structure and composition to ensure that it was well-positioned to achieve its expanded mission going forward.

The [Committee on DEI](#) is now chaired by **Sidhu Gangadharan, MD, MHCM**, with **Anne Fabrizio,**

MD, as Co-Chair. In July 2021, Dr. Fabrizio will ascend as Chair and **Ted Gomez, MD, MTR**, will assume the role of Co-Chair, with Dr. Gangadharan remaining as a member of the committee (see "Surgery Committee on DEI," [page 7](#)). The committee reports directly to Dr. James, who also serves in an *ex-officio* capacity.

The mission of the Committee on DEI is to foster a culture where everyone in the department—surgical clinicians, educators, scientists, trainees, and staff—can excel, regardless of age, race, sexual orientation, gender identity or expression, religion, country of

origin, immigration status, or disability.

Growing membership

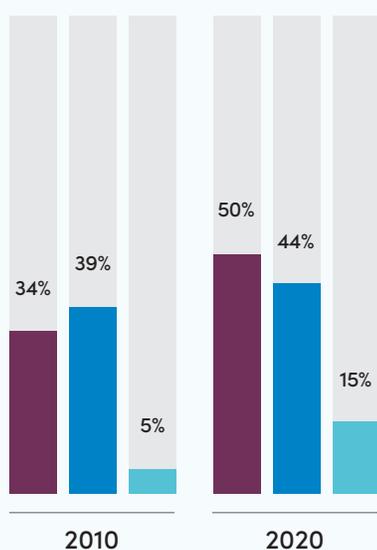
The committee currently comprises eight sub-committees led by the following faculty or trainee members: Communications (Dr. Gangadharan), Education/ Training (**Boris Gershman, MD**), Liaison (**Amy Evenson, MD, MPH**), Membership (**Chantel Hile, MD**), Recruitment (Dr. Fabrizio), Research/Outcomes (resident **Charity Glass, MD, MPP**), Researcher Issues (**Benjamin James, MD, MS**), and Resident

DIVERSITY BY THE NUMBERS

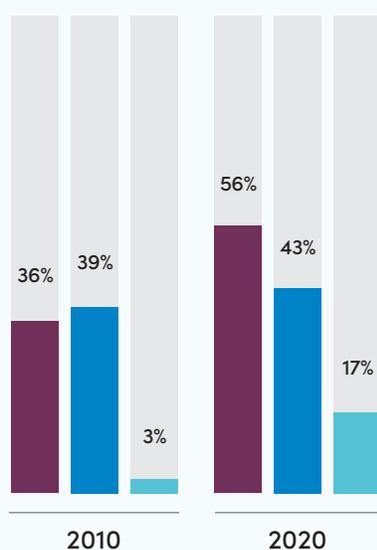
The Department of Surgery recognizes that diversity is not limited to gender and race. Still, through a decade of focused efforts, the department has achieved some notable improvements in gender and racial diversity, with significant increases in the percentages of women, non-white, and underrepresented in medicine (UIM) faculty and residents from 2010 to 2020.

■ Women ■ Non-white ■ UIM*

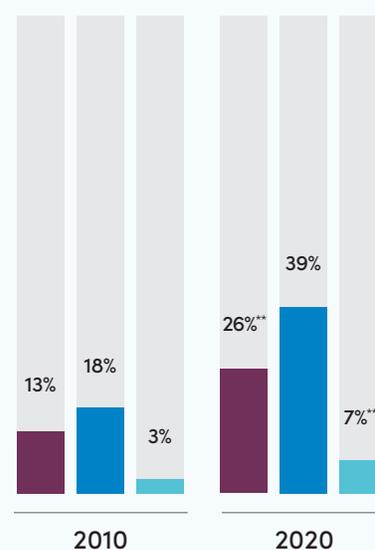
Our Residency and Fellowship Programs



Our General Surgery Residency Program



Our Core Faculty (BIDMC clinicians and investigators)



* Per Harvard Medical School, includes Blacks, Hispanics, and Native Americans

** Women currently represent 23% of academic surgery faculty as reported by the Association of American Medical Colleges (2019)

*** UIM currently represent 7% of academic surgery faculty based on data from the Association of American Medical Colleges (2019)

Issues (resident **Lucas Souza-Mota, MD**). In addition, there are two work groups: Parental Issues (**Vanessa Cowan, MD**) and Disability Issues (Dr. Gomez). Committee membership is growing rapidly due to the strong interest among faculty and trainees in its work. The entire committee meets (virtually) twice each month to discuss priorities and progress, and holds four town hall meetings a year.

The Committee on DEI has made measurable progress on several initiatives. One was the rollout last fall of four virtual surgical sub-internship rotations: Acute Care Surgery/Trauma Surgery, led by **Stephen Odom, MD**; Colon and Rectal Surgery, led by Dr. Fabrizio; HPB and pancreatic surgery, led by **Tara Kent, MD, MS**, and Dr. Evenson; and Thoracic Surgery, led by **Rona Spector, MD**. These intensive weeklong sub-internships replaced the monthlong in-person programs offered previously by some divisions. The idea was introduced by **Martina Stippler, MD**, Neurosurgery, who also offered a virtual sub-internship for aspiring neurosurgical residents.

UIM students

Recruitment efforts to fill the approximately 40 spaces (up to 10 students per rotation) specifically targeted underrepresented in medicine (UIM) medical students interested in surgical residency. Eighty-eight applications were received and of the 40 students selected, 77.3 percent identified as UIM. The rotations gave aspiring surgeons from around the country

and the world a taste of what the BIDMC training experience is like, minus the health risks of travel during a pandemic and the financial and logistical barriers of an extended stay in Boston.

Surveys conducted following the sub-internships indicate that they were extremely well-received. "I thought this rotation was phenomenal. I wish it had been longer," wrote one student. Another wrote, "I appreciated the case-based learning and the opportunity to dive into nitty-gritty questions. Please continue this rotation!"

Indeed, the virtual sub-internships were so successful in engaging a more diverse pool of students that plans are underway to offer and expand them in the future, even once in-person gatherings are deemed safe.

Faculty/trainee recruitment

Another successful initiative recently undertaken by the committee was to institute a policy requiring that a committee member participate in Department of Surgery faculty search committees to ensure that potential recruits are specifically evaluated for their past and ongoing commitment to promoting diversity, equity, and inclusion.

In addition, the committee worked with Dr. Kent and the Surgery Education Office to formalize the department's existing practice of considering all applications to Department of Surgery training programs holistically. Going forward, applicants will be rated not only on traditional criteria such as

grades, tests scores, medical school, and publications but also factors such as community service, commitment to DEI, and being a member of an UIM group.

Researcher issues

Dr. Benjamin James leads a sub-committee that is working to identify and address issues that affect the many fellows from around the world who come to BIDMC each year. "Because they come from different cultures and speak different languages as their primary language, it is easy for these members of our community to feel isolated," says Dr. James. "Our initial goal is to better understand their needs and then identify ways to help them feel more connected and address their concerns."

Parenting and disability

Issues affecting parents and individuals with disabilities are the focus of two work groups. Dr. Cowan leads the parental work group, which is addressing birth and adoptive parenting, lactation, and child care issues. Dr. Gomez is head of the disabilities work group, whose first priority is assessing and addressing the challenges faced by people with impaired hearing. "How we perceive and interact with people with disabilities, whether they are fellow clinicians or patients, affects the quality of care that we provide," says Dr. Gomez.

Trainee matters

Resident Dr. Souza-Mota leads a sub-committee addressing issues that affect Surgery

Surgery Committee on DEI*



Chair

Sidhu Gangadharan, MD, MHCM,
Thoracic Surgery/Interventional
Pulmonology (through June 2021)



Co-Chair

Anne Fabrizio, MD,
Colon and Rectal Surgery
(Chair as of July 2021)

Faculty



Vanessa Cowan, MD,
Transplant Surgery



Jonathan Critchlow,
MD, General Surgery



Amy Evenson, MD,
MPH, Transplant
Surgery



Boris Gershman, MD,
Urologic Surgery



Ted Gomez, MD, MTR,
Otolaryngology/Head
and Neck Surgery
(Co-Chair as of July 2021)



Susan Hagen,
PhD, General
Surgery/Research
Administration



Chantel Hile, MD,
Vascular and
Endovascular Surgery



Benjamin James, MD,
MS, Surgical Oncology



Ted James, MD, MS,
Surgical Oncology



Tara Kent, MD, MS,
General Surgery



Dhruv Singhal,
MD, Plastic and
Reconstructive Surgery



Rafael Vega, MD, PhD,
Neurosurgery

Trainees



Christopher Digesu, MD



Charity Glass, MD, MPP



Lucas Souza-Mota, MD



Krishna Suprita,
MD, MHA



Carolina Torres
Perez-Iglesias, MD



James Wallace, MD

* As of press time

residents and fellows. "Surgery trainees have thick skins so we need to tell them it is OK to ask for help and provide resources if they experience micro-aggressions from colleagues or patients or face other forms of discrimination or exclusion," says Dr. Souza-Mota.

To help achieve this, the sub-committee established a

personal mentorship program in which volunteer faculty allies are available to trainees who want someone to discuss their concerns with openly and confidentially. "Their role is to be there if a trainee feels that something is preventing them from making progress or simply needs to decompress," says Dr. Souza-Mota.

Education and training

Dr. Gershman is leading the Education and Training sub-committee. Among its goals are to invite prominent experts on DEI to present at Grand Rounds and to develop curated DEI content as a resource for faculty and trainees. The sub-committee also

Continued on page 10 >

Selected Publications

COVID-19

Brat GA, et al. International electronic health record-derived COVID-19 clinical course profiles: The 4CE consortium. *NPJ Digit Med* 2020;19;3:109.

Fligor SC, Tsikis ST, Wang S, Ore AS, Allar BG, Whitlock AE, Calvillo-Ortiz R, Arndt K, Callery MP, Gangadharan SP. Time to surgery in thoracic cancers and prioritization during COVID-19: A systematic review. *J Thorac Dis* 2020;12(11):6640-54.

Majid A, Ayala A, Uribe JP, Abdelghani R, Patel P, **Chee A, Parikh M, Kheir F.** Protective strategies in a simulated model when performing percutaneous tracheostomies in the COVID-19 era. *Ann Am Thorac Soc* 2020;17(11):1486-8.

Pandey AS, Ringer AJ, Rai AT, Kan P, Jabbour P, Siddiqui AH, Levy EI, Snyder KV, Riina H, Tanweer O, Levitt MR, Kim LJ, Veznedaroglu E, Binning MJ, Arthur AS, Mocco J, Schirmer C, Thompson BG, Langer D; Endovascular Neurosurgery Research Group (ENRG) including **Ogilvy CS, Thomas AJ.** Minimizing SARS-CoV-2 exposure when performing surgical interventions during the COVID-19 pandemic. *J Neurointerv Surg* 2020;12(7):643-7.

Robinson KA, Shin B, Gangadharan SP. A comparison between in-person and virtual fellowship interviews during the COVID-19 pandemic. *J Surg Educ* 2020; in press.

Sokas CM, Berrigan MT, Fligor SC, Fleishman AJ, Raven KE, Rodrigue JR. Is social distancing keeping patients from the ED? *Am J Emerg Med* 2020; in press.

Whitlock AE, Allar BG, James T. Pausing for the pandemic? The impact of deferring breast cancer surgery. *Breast J* 2020; in press.

Whyte RI. Validation of an intellectual framework for prioritizing time-sensitive surgical procedures during the COVID-19 pandemic. *J Am Coll Surg* 2020;231(2):288.

Acute Care Surgery, Trauma, and Surgical Critical Care

Barrett CD, Moore HB, Vigneshwar N, Dhara S, Chandler J, Chapman MP, Sauaia A, Moore EE, Yaffe MB. Plasmin TEG rapidly identifies trauma patients at risk for massive transfusion, mortality and hyperfibrinolysis: A diagnostic tool to resolve an international

debate on TXA? *J Trauma Acute Care Surg* 2020; in press.

Barrett CD, Vigneshwar N, Moore HB, Ghasabyan A, Chandler J, Moore EE, Yaffe MB. Tranexamic acid is associated with reduced complement activation in trauma patients with hemorrhagic shock and hyperfibrinolysis on thromboelastography. *Blood Coagul Fibrinolysis* 2020; in press.

Cahill LA, Joughin BA, Kwon WY, **Itagaki K**, Kirk CH, Shapiro NI, **Otterbein LE, Yaffe MB, Lederer JA, Hauser CJ.** Multiplexed plasma immune mediator signatures can differentiate sepsis from noninfective SIRS: American Surgical Association 2020 annual meeting paper. *Ann Surg* 2020;272(4):604-10.

Cook CH. Cytomegalovirus: Another source of antibody mediated graft injury? *Transplantation* 2020; in press.

Kondo Y, Sueyoshi K, Zhang J, Bao Y, Li X, Fakhari M, Slubowski CJ, Bahrami S, **Ledderose C, Junger WG.** Adenosine 5'-monophosphate protects from hypoxia by lowering mitochondrial metabolism and oxygen demand. *Shock* 2020;54(2):237-44.

Konecna B, Park J, Kwon WY, Vlkova B, Zhang Q, Huang W, In Kim H, **Yaffe MB, Otterbein LE, Itagaki K, Hauser CJ.** Monocyte exocytosis of mitochondrial dams in sepsis suppresses neutrophil chemotaxis. *J Trauma Acute Care Surg* 2020; in press.

Kong YW, Dreaden EC, Morandell S, Zhou W, Dhara SS, Sriram G, Lam FC, Patterson JC, Quadir M, Dinh A, Shopsowitz KE, Varmeh S, Yilmaz ÖH, Lippard SJ, Reinhardt HC, Hemann MT, Hammond PT, **Yaffe MB.** Enhancing chemotherapy response through augmented synthetic lethality by co-targeting nucleotide excision repair and cell-cycle checkpoints. *Nat Commun* 2020;11(1):4124.

Ledderose C, Bromberger S, Slubowski CJ, Sueyoshi K, Aytan D, Shen Y, **Junger WG.** The purinergic receptor P2Y11 choreographs the polarization, mitochondrial metabolism, and migration of T lymphocytes. *Sci Signal* 2020;13(651):eaba3300.

Zhang Q, Kwon WY, Vlková B, Riça I, Kaczmarek E, Park J, Kim HI, Konecna B, Jung F, Douglas G, **Otterbein LE, Hauser CJ, Itagaki K.** Direct airway instillation of neutrophils overcomes chemotactic deficits induced by injury. *Shock* 2020; in press.

Bariatric and Minimally Invasive Surgery

Kappus MS, Phillips BT, Zenquis N, Larionova E, Cudmore J, **Jones DB.** Unintended consequences for patients denied bariatric surgery: A 12-year follow-up. *Surg Obes Relat Dis* 2020;16(10):1458-62.

Cardiac Surgery

Liu S, Bose R, Ahmed A, Maslow A, Feng Y, Sharkey A, Baribeau Y, Mahmood F, Matyal R, **Khabbaz K.** Artificial intelligence-based assessment of indices of right ventricular function. *J Cardiothorac Vasc Anesth* 2020;34(10):2698-2702.

Vervoort D, Swain JD, Pezzella AT, **Kpodonu J.** Cardiac surgery in low- and middle-income countries: A state-of-the-art review. *Ann Thorac Surg* 2020; in press.

Colon and Rectal Surgery

Misra A, Cook CH, Cataldo TE, Narula N. Colon resection with end colostomy in a patient with a history of imperforate anus. *Am Surg* 2020; in press.

General Surgery

Caron TJ, Scott KE, Sinha N, Muthupalani S, Baqai M, Ang LH, Li Y, Turner JR, Fox JG, **Hagen SJ.** Claudin-18 loss alters transcellular chloride flux but not tight junction ion selectivity in gastric epithelial cells. *Cell Mol Gastroenterol Hepatol* 2020; in press.

He LX, Abdolmaleky HM, Yin S, Wang Y, **Zhou JR.** Dietary fermented soy extract and oligo-lactic acid alleviate chronic kidney disease in mice via inhibition of inflammation and modulation of gut microbiota. *Nutrients* 2020;12(8):E2376.

Global Surgery

Fenton KN, Novick WM, Entwistle JW 3rd, Moffatt-Bruce SD, Sade RM; Cardiothoracic Ethics Forum including **Whyte RI.** Global health initiatives in cardiothoracic surgery: Ethical considerations and guidelines. *Ann Thorac Surg* 2020; in press.

Interdisciplinary Research

Luetscher RND, McKittrick TR, Gao C, Mehta AY, McQuillan AM, Kardish R, Boligan KF, Song X, Lu L, Heimburg-Molinario J, von Gunten S, Alter G, **Cummings RD.** Unique

Faculty names are in bold; trainee names are in italics.

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repertoire of anti-carbohydrate antibodies in individual human serum. *Sci Rep* 2020;10(1):15436.

McKittrick TR, Eris D, Mondal N, Aryal RP, McCurley N, Heimburg-Molinario J, **Cummings RD**. Antibodies from lampreys as smart anti-glycan reagents (SAGRs): Perspectives on their specificity, structure, and glyco-genomics. *Biochemistry* 2020;59(34):3111-22.

Zeng J, Eljalby M, Aryal RP, Lehoux S, Stavenhagen K, Kudelka MR, Wang Y, Wang J, Ju T, von Andrian UH, **Cummings RD**. Cosmc controls B cell homing. *Nat Commun* 2020;11(1):3990.

Neurosurgery

Arle JE, Mei L, Carlson KW. Fiber threshold accommodation as a mechanism of burst and high-frequency spinal cord stimulation. *Neuromodulation* 2020;23(5):582-93.

Kan P, Maragkos GA, Srivatsan A, Srinivasan V, Johnson J, Burkhardt JK, Robinson TM, Salem MM, Chen S, Riina HA, Tanweer O, Levy EI, Spiotta AM, Kasab SA, Lena J, Gross BA, Cherian J, Cawley CM, Howard BM, Khalessi AA, Pandey AS, Ringer AJ, Hanel R, Ortiz RA, Langer D, Kelly CM, Jankowitz BT, **Ogilvy CS**, **Moore JM**, Levitt MR, Binning M, Grandhi R, Siddiq F, **Thomas AJ**. Middle meningeal artery embolization for chronic subdural hematoma: A multi-center experience of 154 consecutive embolizations. *Neurosurgery* 2020; in press.

Kipper FC, Angolano C, Vissapragada R, **Contreras MA**, **Moore J**, Bhasin M, **Ferran C**, **Thomas AJ**. Embryonic periventricular endothelial cells demonstrate a unique pro-neurodevelopment and anti-inflammatory gene signature. *Sci Rep* 2020;10(1):20393.

Maragkos GA, Cordell S, Gomez-Paz S, Dodge LE, Salem MM, Ascanio LC, DiNobile D, Alturki AY, **Moore JM**, **Ogilvy CS**, **Thomas AJ**. Flow diversion endovascular treatment improves headaches in patients with unruptured intracranial aneurysms. *World Neurosurg* 2020;140:e140-e147.

Ogilvy CS, Gomez-Paz S, Kicielinski KP, Salem MM, Akamatsu Y, Waqas M, Rai HH, Catapano JS, Muram S, Elghareeb M, Siddiqui AH, Levy EI, Lawton MT, Mitha AP, Hoh BL, Polifka A, Fox WC, **Moore JM**, **Thomas AJ**. Cigarette smoking and risk of intracranial aneurysms in middle-aged women. *J Neurol Neurosurg Psychiatry* 2020;91(9):985-90.

Thomas AJ, Ascanio-Cortez L, Gomez S, Salem M, Maragkos G, Hanafy KA. Defining the mechanism of subarachnoid hemorrhage-induced pyrexia. *Neurotherapeutics* 2020;17(3):1160-9.

Ophthalmology

Ing EB, Madjedi K, Hurwitz JJ, Nijhawan N, Oestreicher J, **Torun N**. Nomenclature: Thyroid-associated orbitopathy, Graves ophthalmopathy, or thyroid eye disease? *Can J Ophthalmol* 2020; in press.

You JY, Eberhart CG, Karakus S, Akpek EK. Characterization of progressive cicatrizing conjunctivitis with negative immunofluorescence staining. *Am J Ophthalmol* 2020;209:3-9.

Otolaryngology/Head and Neck Surgery

Gomez ED, Chang JC, Ceremsak JJ, Brody RM, Brant JA, Rassekh CH, Weinstein GS, Newman JG. Impact of lymph node yield on survival in surgically treated oropharyngeal squamous cell carcinoma. *Otolaryngol Head Neck Surg* 2020; in press.

Plastic and Reconstructive Surgery

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< *Continued from page 7*

created a curriculum for implicit association testing via Project Implicit®, which is now required of everyone conducting prospective trainee interviews and will soon be required of all faculty and trainees. Research shows that helping individuals become aware of their unconscious biases regarding issues such as gender, race, and sexuality changes how they view and interact with people.

Health disparities research

For years, a number of faculty have focused their research on health disparities to address systemic inequities in care. One is Vice Chair for Clinical Research **Jim Rodrigue, PhD**, Transplant Surgery, who has been conducting research aimed at reducing persistent racial and economic disparities in organ transplantation. **Bernard Lee,**

MD, MBA, MPH, Chief of Plastic and Reconstructive Surgery, is engaged in patient access and health literacy research (see “The Question I Own,” [page 22](#)).

Evan Messaris, MD, PhD, Chief of Colon and Rectal Surgery, is investigating the impact of ethnicity on patient outcomes in colorectal cancers. The research of breast surgical oncologist **Monica Valero, MD**, Director of the Hispanic Breast Cancer Program, is aimed at identifying disparities in care and finding ways to reduce or eliminate them. She is also working to increase Hispanic patients' participation in clinical trials.

Aligning efforts

Because much work is also being done at the medical center, health system, and medical school level, another important role of the Committee on DEI (through its

Liaison sub-committee, led by Dr. Evenson) is to help align and share the department's efforts with other ongoing initiatives.

The Department of Surgery leadership is also actively engaged in DEI efforts at BIDMC and Harvard Medical School. Dr. Chaikof served on a search committee to identify the interim Director for the Center for Diversity, Equity, and Inclusion at BIDMC: Daniele Ölveczky, MD, MS, Department of Medicine. He also served on the Harvard Medical School Diversity, Inclusion, and Community Partnership Task Force.

Achieving genuine diversity, equity, and inclusion will take time, tenacity, innovation, honest self-assessment, resources, and a steadfast commitment by all. But the result is a goal worth striving for.

HARVARD MEDICAL SCHOOL

The Department of Surgery congratulates the following faculty members on their recent Harvard Medical School promotions.

PROMOTED TO: ASSISTANT PROFESSOR OF SURGERY



Jiaxuan Chen, PhD

Dr. Chen received his BS in life sciences from Peking University and his PhD in biomedical engineering from Georgia Institute of Technology. Dr. Chen then pursued a postdoctoral fellowship in the laboratory of Surgery Chair **Elliot Chaikof, MD, PhD**.

Dr. Chen's research is focused on identifying new strategies to modulate the immune system. In collaboration with Joanna Aizenberg, PhD, at the Harvard John A. Paulson School of Engineering and Applied Sciences, Dr. Chen evaluated the ability of porous materials impregnated with an "omniphobic" liquid to prevent device-associated infections. The materials design framework dramatically reduced the risk of implant infection without compromising innate immune cell function.

In collaboration with **Lijun Sun, PhD**, Director of the BIDMC Center for Drug Discovery, Dr. Chen recently identified novel small-molecule drugs (AHR agonists) that

activate the gut mucosal innate immune system via the production of IL-22. Significantly, he discovered that these drugs accelerated mucosal healing in a mouse model of inflammatory bowel disease (IBD) and led to the expression of IL-22 in human T cells from patients with IBD. Dr. Chen received an Eleanor and Miles Shore grant from Harvard Medical School for this project. He is continuing to evaluate the role of the gut innate immune system in metabolic syndrome and non-alcoholic fatty liver disease.

In collaboration with Surgery Vice Chair **Richard D. Cummings, PhD**, Director of the Harvard Medical School Center for Glycoscience and the National Center for Functional Glycomics, Dr. Chen is also studying the unique glycomic signature of macrophage populations, with a particular focus on podoplanin. Podoplanin is a cell surface glycoprotein that contributes to venous thromboembolism (VTE), a condition in which potentially lethal blood clots form in veins, especially among cancer patients. With support from an NIH grant, he is designing drugs aimed at preventing cancer-associated VTE.

PROMOTED TO: ASSISTANT PROFESSOR OF SURGERY



Torsten Meissner, PhD

Dr. Meissner received his undergraduate degree in biology from Rheinische Friedrich-Wilhelms University and his PhD in biology *summa cum laude* from Free University Berlin in Germany. He pursued a postdoctoral fellowship in immunology at Dana-Farber Cancer Institute and later

in stem cell immunology and genome editing at Harvard's Department of Stem Cell and Regenerative Biology. In 2019 Dr. Meissner joined the laboratory of Surgery Chair **Elliot Chaikof, MD, PhD**, as instructor.

The aim of Dr. Meissner's research is to create universal donor stem cells that will resist immune rejection following transplantation. Dr. Meissner is currently developing methods to generate immune-silent living blood vessels from human induced pluripotent stem cells (iPSCs) that can be used for disease modeling, drug screening, and vascular reconstruction.

In a 2019 study published in *PNAS*, Dr. Meissner demonstrated, using genome-editing technology, the feasibility of immune-engineering human pluripotent stem cells (hPSCs). This provides a platform for engineering universal donor cells that will successfully engraft when given to patients suffering from a range of conditions.

Also employing genome-editing technology, Dr. Meissner generated a human iPSC-based disease model to further study reverse cholesterol transport, a multistep pathway necessary for cells to balance cholesterol intake and protect against the toxic effects of excess cholesterol accumulation. This research was published in 2016 in *Arteriosclerosis, Thrombosis, and Vascular Biology*.

Dr. Meissner is principal investigator on a grant from the Harvard Stem Cell Institute entitled "Generation of Immune-evasive Blood Vessels," and the recipient of an HMS Eleanor and Miles Shore Faculty Development Award. His scholarship is reflected in 32 publications, including 24 peer-reviewed publications.

ALUMNI SPOTLIGHT

Kakra Hughes, MD, PhD, 2005

Chief of Cardiothoracic Surgery and Vascular Surgery, Howard University Hospital

Associate Professor of Surgery, Howard University College of Medicine

Like all successful academic surgeons, Kakra Hughes, MD, PhD, a graduate of the BIDMC Vascular and Endovascular Surgery Fellowship Program, had mentors along the way who generously shared their knowledge and advice. But perhaps none had such a major influence on Dr. Hughes as the former Chief of Vascular and Endovascular Surgery and Program Director **Frank LoGerfo, MD**, and faculty member **Marc Schermerhorn, MD, MPH**, who became chief of the division in 2011.

"I was exceedingly fortunate to train with Dr. LoGerfo and Dr. Schermerhorn at what was then one of the finest programs in the U.S. and today is even better," says Dr. Hughes.

He points out that many of his career choices—from his decision to complete an additional year of endovascular surgery fellowship following his training at BIDMC to his choice to pursue outcomes research, not to mention his ideas of how to be a good mentor himself—were highly influenced by both surgeons. "I have sought to model my academic career largely after Dr. LoGerfo and Dr. Schermerhorn, both of whom have given me tremendous support throughout my career," says Dr. Hughes.

"Dr. Hughes is kind, thoughtful, calm in high-stress situations, and incredibly bright and driven, as evidenced by his rapid rise to become Chief of Cardiothoracic Surgery and Vascular Surgery at Howard," says Dr. Schermerhorn. "I'm proud to have played a small role in his training and I value our friendship and ongoing research collaborations."

Dr. Kakra also credits others at BIDMC for "patiently and assiduously" training him over the two-year fellowship. "In terms of my open vascular technique, I took that primarily from



Howard University Hospital

Drs. **David Campbell, Allen Hamdan**, and Frank Pomposelli; and Dr. Sherry Scovell gave me my first lessons in endovascular surgery," he says. "I am deeply grateful to all of these surgeons for their dedication."

Born and raised in Ghana on Africa's west coast, Dr. Hughes, whose father was a lawyer and mother an educator, was one of four children in a family of many lawyers and doctors. After graduating as class valedictorian from high school in Ghana, Dr. Hughes received a scholarship to attend Central State University, a small historically black university in Ohio where he earned a B.S. *summa cum laude* in Water Resources Management.

A career focused on people

During his junior year, Dr. Hughes realized he wanted a career that offered more contact with people and decided on medicine. He attended Wake Forest School of Medicine in North Carolina, where he discovered early on that he liked surgery.

"During my first semester I spent a day in an ED observing trauma surgeons and I thought, 'Wow, I want to do that!'" recalls Dr. Hughes. He enjoys—and

still enjoys—the hands-on nature of surgery and its often-immediate results. “You know right away if you’ve saved someone’s life,” he says.

After receiving his MD, Dr. Hughes pursued his residency in general surgery at the Los Angeles County MLK/Charles Drew University Program, spending his third year of training in a cardiovascular surgery research fellowship at UCLA Medical Center. Seeing a potentially bright future in vascular/endovascular surgery, after graduation he came to Boston and BIDMC.

Dr. Hughes is grateful that the BIDMC fellowship program provided trainees with many opportunities to learn both open and endovascular vascular surgical techniques at a time when the latter, now by far the predominant treatment approach, was just beginning to grow. “Today, I schedule only about five percent of my patients for a traditional open procedure so I am glad I made the decision to train at BIDMC,” says Dr. Hughes.

Additional experience and confidence

Seeking to perform at Dr. Schermerhorn’s endovascular skill level (which, he notes, was relatively rare for vascular surgeons at the time), after graduating from the BIDMC program Dr. Hughes completed an additional year of endovascular fellowship training at Arizona Heart Institute in Phoenix, which gave him additional experience and confidence.

In 2008, Dr. Hughes joined the faculty at Howard University School of Medicine and the staff at Howard University Hospital, where he is now, respectively, Associate Professor of Surgery and, since 2016, Chief of Cardiothoracic Surgery and Vascular Surgery.

His busy clinical practice focuses on the open and endovascular management of carotid artery disease, peripheral artery disease, aneurysmal disease, and vascular trauma. Dr. Hughes also recently completed a two-year tenure as President of the Howard University Hospital Medical and Dental staff and has served in many other administrative roles at the hospital and medical school. In addition, he mentors trainees at all levels.

Seeking to do research at the highest level, in 2016 Dr. Hughes earned a Master of Science

in Clinical and Translational Research from Georgetown University and earlier this year received a PhD in Health Services Research from the University of Maryland College Park School of Public Health.

Dr. Hughes has had more than 55 peer-reviewed publications and two book chapters published (many with BIDMC collaborators), and more than 90 published abstracts and presentations. He is an Associate Editor of *Vascular and Endovascular Surgery* and an Assistant Editor of *Annals of Vascular Surgery* and also serves on the editorial board of the *Journal of the National Medical Association*. He previously served on the editorial board of the *Journal of Endovascular Therapy*.

Health disparities research

Much of Dr. Hughes’s current research is focused on health disparities and the impact of socioeconomic factors on rates of amputation and revascularization. This research has been published in numerous journals including the *Journal of Vascular Surgery* and *Journal of the National Medical Association*.

Dr. Hughes is also interested in global surgery and, among many other leadership roles in national societies, serves on the Society of University Surgeons Academic Global Affairs Committee. In addition, he is committed to diversity in surgery, serving on the Society for Vascular Surgery’s Leadership Development and Diversity Committee

“ With surgery, you know right away if you’ve saved someone’s life.”

— Kakra Hughes, MD, PhD

and as Chair of the Vascular and Endovascular Surgery Society’s Women and Diversity Committee.

It is clear that in choosing surgery, Dr. Hughes found his calling. When asked which of his four professional roles he enjoys most—clinician, researcher, teacher, or administrator—Dr. Hughes pauses only briefly to reflect and replies, “I really can’t choose. I love them all.”

NEWS BRIEFS



Due to the pandemic, the seventh annual BIDMC Food is Medicine gala event, which since its inception in 2013 has raised more than \$535,000 for hungry families served by the Greater Boston Food Bank (GBFB), could not be held this year.

Instead the GBFB and BIDMC joined in the GBFB's Hunger-Free Holiday campaign, which raises funds and awareness for the one in eight food-insecure families in Eastern Massachusetts. According to Food is Medicine founder and Surgery Vice Chair **Allen Hamdan, MD**, a member of the GBFB board, the Food is Medicine campaign has raised more than \$52,000 for the GBFB as of press time. This is the equivalent of 156,000 healthy meals.

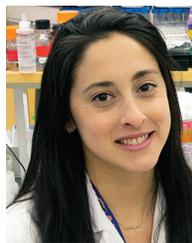
Donations are still very much encouraged and appreciated. To make a donation on behalf of Food is Medicine, please visit: gbfb.org/FIM2020.



Alia Qureshi, MD, MSc, General Surgery, served as Chair of the CineMed Women's Leadership in Surgery Conference in September.

Martina Stippler, MD, Neurosurgery, and **Daniel Jones, MD, MS**, Bariatric and

Minimally Invasive Surgery, also participated as faculty for the two-day virtual conference, which was designed for trainees and junior faculty aspiring to leadership roles in surgery. In addition to moderating several panels, Dr. Qureshi spoke on "Overcoming Unexpected Clinical Outcomes and Complications." Dr. Stippler addressed "Tackling Perceived and Hidden Obstacles in Academia" and Dr. Jones discussed "Building Diversity in Your Department."



Resident **Gabrielle Dombek, MD**, received a grant from the American Society of Colon and Rectal Surgeons entitled "Aberrant O-Glycosylation and Glycoproteomics in Adenocarcinomas of the Colorectum." Dr. Gombek's

mentor is Surgery Vice Chair **Richard D. Cummings, PhD**, Director of the Harvard Medical School Center for Glycoscience and the National Center for Functional Glycomics.



Adnan Majid, MD, and **Fayez Kheir, MD, MSc**, Thoracic Surgery/Interventional Pulmonology, served as

directors of a Harvard Medical School Chronic Obstructive Pulmonary Disease (COPD) Symposium, "Advances in COPD Treatment," in November. Other BIDMC Surgery faculty presenting at the symposium were **Mihir Parikh, MD**, and **Rona Spector, MD**. The daylong, live-streamed course provided a comprehensive summary of advances in COPD treatment, including FDA-approved bronchial valve therapy for selected patients with emphysema and emerging bronchoscopic therapies in clinical trials for patients with chronic bronchitis.



Mary Jane Houlihan, MD, a breast surgeon in the Division of Surgical Oncology and the BIDMC BreastCare Center, received the 2020 S. Robert Stone Senior Award for Excellence in Teaching at BIDMC. The Stone Award is given annually to recognize a faculty

member for outstanding achievement in teaching. On occasion, the Selection Committee chooses a recipient of a Senior Stone Award to recognize a long career of exemplary teaching and mentorship. "Dr. Houlihan has dedicated herself to enriching the learning environment of all those she has encountered, from [trainees] to junior faculty," wrote one of her many nominators. Another wrote, "Dr. Houlihan is one of the very best and most consistently reliable

educators I have had the pleasure of working with.” The award was presented to Dr. Houlihan at the Daniel D. Federman Teaching Award Ceremony at Harvard Medical School in November.



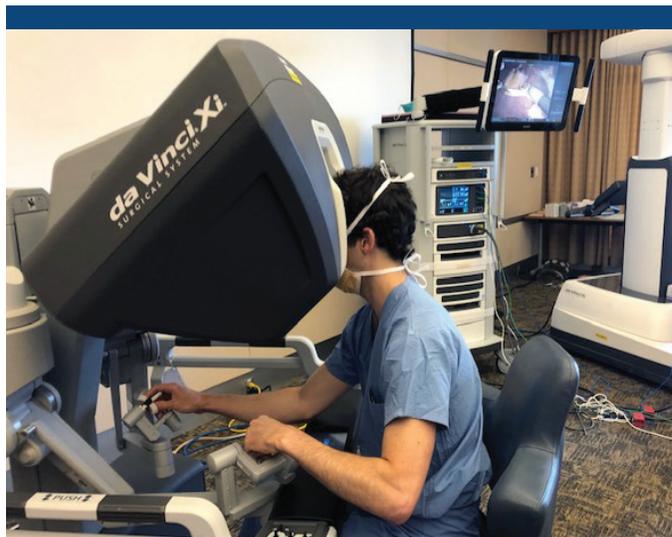
The Society for Basic Urologic Research (SBUR) selected **Aria Olumi, MD**, Chief of Urologic Surgery, as the recipient of the 2020 SBUR Distinguished Service Award for his “contributions to the society and the advancement of urologic research.” The award was presented to Dr. Olumi, who has been an active member of SBUR for three decades, at the society’s annual meeting in November. Founded in 1986 and with more than 500 members across multiple disciplines in academia, industry, and government, SBUR serves as a hub for researchers dedicated to basic and translational urology research. Dr. Olumi’s NIH (R01)-funded research centers on the mechanisms of resistance to 5 α -reductase inhibitors (such as finasteride) commonly used to manage benign prostatic hyperplasia (BPH) and its associated urinary tract symptoms.



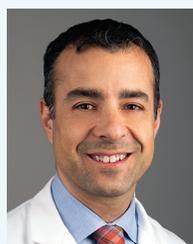
Peter Steinberg, MD, Urologic Surgery, was a recent guest on an episode of the *Urology Times* podcast “Speaking of Urology,” in which he discussed a *Urology Practice* paper that he co-authored: “Medical Malpractice and Nephrolithiasis: U.S. Appellate Cases from 2001- 2018.”



Tara Kent, MD, MS, Vice Chair of Education and Director of the General Surgery Residency Program, was a keynote speaker at the 14th World Congress of the International Hepato-Pancreato-Biliary Association (IHPBA) in November. Dr. Kent’s address was “Patient-Centered Decision-Making for Pancreas Cancer.” With 2,600 members from 100 countries, IHPBA’s mission is to relieve worldwide human suffering caused by hepato-pancreato-biliary (HPB) disorders by improving education, training, innovation, research, and patient care.



Earlier this year, more than 50 surgery residents and fellows participated in a weeklong Robotic Surgery Boot Camp at BIDMC led by **Michael Kent, MD**, Thoracic Surgery/Interventional Pulmonology (left), and **Andrew Wagner, MD**, Urologic Surgery (below).



Trainees participated in bedside assisting and docking maneuvers of robot to patient and practiced state-of-the-art virtual reality surgical procedures for abdominal and pelvic surgery. Additionally, tissue-based

simulation was used to simulate live procedures such as lung and liver resection, bowel anastomosis, and partial nephrectomy.

Other faculty who participated in the Boot Camp were: **Peter Chang, MD, MPH**, **Boris Gershman, MD**, and **Ruslan Korets, MD**, Urologic Surgery; **Tara Kent, MD, MS**, and **Christopher Boyd, MD**, General Surgery; **Ted Gomez, MD, MTR**, Otolaryngology/Head and Neck Surgery; **Thomas Cataldo, MD**, and **Mandeep Saund, MD**, Colon and Rectal Surgery; the late **Khalid Khwaja, MD**, Transplant Surgery; and Jennifer Ducie, MD, Ob/Gyn.

“This training gave us the opportunity to practice robotic procedures on biologic tissue in a low-stress learning environment with real-time feedback from a faculty guide,” says PGY6 Beth Israel Lahey Health Urology trainee Eric Katz, MD. “It was an invaluable training resource and it would be great to make this a regular event.” Dr. Wagner notes that future robotic boot camps are being planned.

NEWS BRIEFS



Jacques Kpodonu, MD, Cardiac Surgery, was a panelist on the “Africa and COVID-19 Webinar Series: The Role of Digital Health and Telemedicine” in September. An April 2020 *Lancet* report declared sub-Saharan Africa “the new breeding ground for global

digital health.” The panel explored the report’s findings, discussed contact tracing as a response strategy and privacy concern, and addressed the challenges and opportunities of digital health and telemedicine. The series, which focused on multiple dimensions of COVID-19 and Africa, was organized by the Harvard University Center for African Studies and the Africa Centres for Disease Control and Prevention.

Also in September, Dr. Kpodonu co-moderated a “World Hall” webinar discussion for the Cardiothoracic Surgery Network (CTSNet) on “Mitigating Cardiothoracic Surgical Global Health Disparities.” Joined by a panel of renowned international guests, Dr. Kpodonu and fellow co-moderator David Cooke, MD, of UC Davis Health, addressed the role of humanitarian missions and NGOs in enhancing access to cardiothoracic surgical care and the challenges of initiating cardiothoracic surgery programs in developing countries. CTSNet is a nonprofit organization that includes cardiothoracic surgeons from the Society of Thoracic Surgeons, the American Association for Thoracic Surgery, the European Association for Cardio-thoracic Surgery, the Asian Society for Cardiothoracic Surgery, and other cardiothoracic surgery associations around the world.



David Caradonna, MD, DMD, Otolaryngology/Head and Neck Surgery, was elected to the Harvard Medical School/ Harvard School of Dental Medicine Faculty Council, representing Otolaryngology. Composed of representatives of senior and junior

faculty, the council is an elected body that serves as an advisory body to Harvard Medical School Dean George Q. Daley, MD, PhD.



Resident **Ana Sofia Ore, MD, MPH**, was named Chair of the BIDMC Graduate Medical Education Diversity, Inclusion, and Advocacy Council for 2020–2021. Established earlier this year, the council is run by BIDMC residents with advising from faculty in multiple specialties,

including the Department of Surgery (**Anne Fabrizio, MD, Sidhu Gangadharan, MD, MHCM, Ted James, MD, MS, and Alia Qureshi, MD, MSc**). The council’s goals this year include increasing recruitment of minority residents and fellows through small virtual meetings with potential applicants and establishing a mentorship program for minority trainees that will encompass both career and life-planning advice.

The Department of Surgery’s [Clinical Scholarship Program](#) received a 2020 Program Award for a Culture of Excellence in Mentoring (PACEM) at Harvard Medical School (HMS). PACEM was established to recognize departments, divisions, or programs for their efforts to foster innovation and sustainability in mentoring while building a culture of excellence. The awards also provide an opportunity to share successful innovative mentoring programs and allow others in the HMS community to learn from successful models.

Directed by **Jim Rodrigue, PhD**, Vice Chair of Clinical Research in the Department of Surgery, the Clinical Scholarship Program pairs all first-year categorical general surgery residents with a faculty research mentor who guides the residents throughout the year as they acquire the skills to develop and implement a clinical research project. Residents are given one month of protected time during the second half of the first year to complete their project.

The objectives of the program are to provide residents with a robust foundation for scholarship, promote additional mentorship opportunities, and enhance the opportunity to engage in efforts that will ultimately improve surgical care. By providing this experience early in the training program, the goal is to facilitate residents’ interests in scholarship, research, and an academic career.



Elliot Chaikof, MD, PhD, Surgery Chair, and **Christiane Ferran, MD, PhD**, Vascular and Endovascular Surgery, were among five investigators to receive an inaugural Blavatnik Therapeutics Challenge Award from Harvard Medical School (HMS) in October. The \$1 million grants were awarded to translational research projects with great potential to impact human health through promising technologies and approaches. “These awards are intended to propel promising therapies that

stem from the curiosity-driven, fundamental science of HMS researchers to the clinic to serve patients and their families,” said HMS Dean George Q. Daley, MD, PhD.

Dr. Chaikof’s grant is entitled “Selectin Inhibitors for the Prevention of Cancer-Associated Venous Thromboembolism.” Cancer patients have an increased risk of developing cancer-associated venous thromboembolism (VTE). VTE, a condition in which potentially lethal blood clots form in

veins, is the second leading cause of death in cancer patients. Dr. Chaikof and his colleagues are developing new therapeutics to prevent cancer-associated VTE that will confer greater protection than current anticoagulant therapies and with a lower risk of bleeding.

Dr. Ferran’s grant is entitled “A Novel Therapy to Achieve Insulin-Independent Glycemic Control in Type 1 Diabetes.” In patients with type 1 diabetes, pancreatic beta cells are destroyed and can no longer make insulin—a critical hormone that regulates blood sugar, or glucose, and makes it available for use as energy. Insulin deficiency can cause a dangerous buildup of glucose in the circulatory system. Since its discovery in 1922, insulin has been the only lifesaving medicine for these patients.

Dr. Ferran and her colleagues aim to help patients with type 1 diabetes manage blood sugar levels using a gene therapy-based approach that does not require insulin. They are working to improve glycemic control by enhancing the ability of muscles and the liver to take up and store glucose from the bloodstream, as well as reduce the liver’s ability to produce glucose.



Beth Israel Lahey Health

Women in Medicine Month

“When aspiring medical students come to me for career advice, the women usually ask if they can be a surgeon while raising a family. I tell all of my fellow women that yes you can, because YOU are enough. It won’t be easy, but you are enough to succeed in all aspects of your life. You should never doubt your ability or let anyone tell you that you can’t be a successful mother with a medical career. Chip away at these stereotypes because we are smoothing the path for all of the women who come after us.”

- **Martina Stippler, MD**
Neurosurgery, Beth Israel Deaconess Medical Center

Martina Stippler, MD, Neurosurgery, was one of two BIDMC female doctors who were featured in a Beth Israel Lahey Health campaign in September to celebrate “Women in Medicine Month.” The mother of two, Dr. Stippler tells women interested in surgery that it is possible to combine motherhood and a successful surgical career.



Marc Schermerhorn, MD, MPH, Chief of Vascular and Endovascular Surgery and immediate past president of the

New England Society for Vascular Surgery (NESVS), gave his presidential address, “Rise to the Challenge,” at the NESVS 2020 annual meeting in September. Dr. Schermerhorn addressed disparities in health care, in particular the impact that racism and injustice have on the health care of Black Americans. Also giving oral presentations at the meeting were a number of vascular surgery trainees: **Livia De Guerre, MD, Chun Li, MD, Patric Liang, MD, Thomas O’Donnell, MD**, and **Priya Patel, MD**. Dr. De Guerre (left) won the Darling Award, which is presented annually in recognition of an outstanding original paper presented by a fellow, resident, or medical student at the society’s annual meeting.

NEWS BRIEFS



Vascular Surgery resident **Christina Marcaccio, MD**, received an F32 grant from the U.S. Department of Health and Human Services Agency for Healthcare Research and Quality (AHRQ) for her proposal on disparities in the detection and treatment of

abdominal aortic aneurysm disease. Her mentors are **Marc Schermerhorn, MD, MPH**, Chief of Vascular and Endovascular Surgery, and Bruce Landon, MD, Professor of Health Care Policy at Harvard Medical School. Dr. Marcaccio is pursuing an MPH from the Harvard T. H. Chan School of Public Health during her research elective years.

An abstract submitted by **Mary Ward, RN**, Quality Improvement Specialist/ National Surgical Quality Improvement Program



(NSQIP), to the annual American College of Surgeons (ACS) Quality and Safety Conference was designated the “Best SCR (Surgical Clinical Reviewer) abstract” from among 500 submissions. Ms. Ward presented “The Burden of Post-Operative Emergency Room Visits Argues for Increasing NSQIP Capture of Unexpected Return to Hospital,” at the annual meeting in August. The other authors were residents **Daniel Wong, MD**, **Eve Roth, MD**, and **Claire Sokas, MD**, and faculty members **Thomas Cataldo, MD**, Colon and Rectal Surgery, and **Evangelos Messaris, MD, PhD**, Chief of Colon and Rectal Surgery. NSQIP Program Manager **Mary Beth Cotter, RN**, also presented a poster, “Collaborating with Colorectal Patients on VTE Initiative” at the conference.



Boris Gershman, MD, Urologic Surgery, was selected to serve as a member of the Steering Committee of the Young Urologic Oncologists (YUO) section of the Society of Urologic Oncology (SUO). In the final year of his four-year term, which began in December 2020,

Dr. Gershman will co-chair the YUO Steering Committee. The YUO section provides a forum for fellows and early-career society members whose primary interest is urologic oncology to collaborate with the goal of improving the care of patients with malignant urologic diseases.



Resident **Betty Liu, MD**, is the author of *My Shanghai: Recipes and Stories from a City on the Water* (Harper Collins), which will be available in March. In this richly photographed book, Dr. Liu, whose family has deep roots in

Shanghai, provides an intimate look at the city and its abundant cuisine. Organized by season, *My Shanghai* takes readers through a year in the Shanghai culinary calendar, with recipes and stories that illuminate diverse communities and their food rituals. Dr. Liu demystifies Chinese cuisine for home cooks, providing recipes for family favorites that have been passed down through generations as well as authentic street food. An accomplished food photographer whose work has been featured in national media such as *Bon Appetit* and *Saveur*, Dr. Liu shot all the photos for *My Shanghai*.



Resident **Lumeng Jenny Yu, MD**, was selected by the Department of Pediatric Surgery at Boston Children’s Hospital to be the Rappaport Fellow for 2020-2021, which is awarded to a second- or third-year surgical research fellow who has demonstrated outstanding

performance. Dr. Yu is conducting her research elective at Boston Children’s Hospital under the mentorship of BIDMC General Surgery Residency Program alumnus **Mark Puder, MD, PhD**.



Jim Rodrigue, PhD, Transplant Surgery and Surgery Vice Chair of Clinical Research, was appointed to the American Society of Transplantation’s IDEAL (Inclusion, Diversity, Equality, and Access to Life) Task Force.



General Surgery resident **Stephanie Cohen, MD**, with her drawing entitled “Potential,” which now hangs at UMass Memorial Medical Center in Worcester, MA, after being purchased by vascular surgeon Andres Schanzer, MD, who saw an in-progress photo of it on social media.

“I think that the empty space evokes both a sense of uncertainty as well as potential,” says Dr. Cohen. “The woman is just getting ready to put on her mask; she doesn’t know what she is about to encounter. Her face is generic, and we do not know who she is or who she will grow to become; she could be anyone.”

Dr. Cohen’s drawings have been published in numerous journals and displayed in the National Academy of Medicine’s traveling art show.



Alumni, do you have news you would like to share with our readers?

We would love to hear from you!
Please send your news to:
surgerycommunications@bidmc.harvard.edu

ALUMNI NEWS



Richard Lynn, MD, General Surgery Residency Program alumnus and a 2019 Society for Vascular Surgery Excellence in Community Service Award recipient, was elected by the Fellows of the American College of Surgeons (ACS) as Second Vice President-Elect in October. Dr. Lynn has been a Fellow of the ACS since 1979, and served on the board of directors of the ACS Foundation for nine years.



Geoffrey Dunn, MD, General Surgery Residency Program alumnus, was the recipient of the 2021 Lifetime Achievement Award from the American Academy of Hospice and Palliative Medicine. A

pioneer in surgical palliative care, Dr. Dunn, now retired, was the subject of an alumni profile in the [Fall 2020](#) issue of *Inside Surgery*.

IN MEMORIAM



David A. Sizemore Jr., MD, PhD

A 1980 graduate of the General Surgery Residency Program, Dr. Sizemore passed away last year at the age of 72. Dr. Sizemore was a longtime resident of Hemet,

California, where he was a respected surgeon who practiced at Hemet Valley Medical Center and Menifee Valley Medical Center since 1982.

Dr. Sizemore graduated from the University of West Virginia, where he also obtained his joint MD/PhD, with honors, in 1972. He then began a lifetime of service by volunteering for a year on the hospital ship S.S. Hope off the coast of Brazil, before pursuing his general surgery residency training at BIDMC.

Dr. Sizemore was very active with his local Baptist church and for years taught nursing students at Mt. San Jacinto College.

Adult Moyamoya Center

New Center Focuses on Rare Disease

Moyamoya disease is a rare, chronic vascular disorder in which the internal carotid artery and the arteries of the circle of Willis become progressively narrowed, reducing blood flow to the brain. In response to this reduced blood flow, a fragile network of blood vessels develops that on imaging studies resembles a puff of smoke (or “moyamoya” in Japanese).

Moyamoya disease is often diagnosed in children, but with increasing frequency it is being diagnosed in adults, often in their 30s and 40s. In adults, the reduced blood flow to the brain can trigger hemorrhagic stroke, which can be fatal or cause permanent disabilities.

Moyamoya disease was initially thought to affect largely people of Asian descent, however it is now diagnosed in individuals of all ethnicities. The cause of Moyamoya disease is not known, although genetics appears to be a factor in about 10–15% of patients, and women are more likely to develop the disease than men.

To provide treatment for adults with Moyamoya disease, BIDMC has launched the [Adult Moyamoya Center](#), one of only a few programs in the nation focused solely on patients with this disorder.

Led by neurosurgeon **Christopher S. Ogilvy, MD**, Director of the BIDMC Brain Aneurysm Institute, the Adult Moyamoya Center is a comprehensive program that brings together leading specialists in neurosurgery, stroke/vascular neurology, and radiology, and a dedicated nurse practitioner to provide state-of-the-art evaluation and treatment to adults with Moyamoya disease. The center’s team is one of the most experienced in the U.S. to treat adults with this condition.

If it is suspected that a patient has Moyamoya disease, the center’s team provides a comprehensive evaluation. Patients undergo sophisticated imaging studies, such as MRI/MRA and/or CT angiography, in addition to cerebral angiography, followed by evaluation by the center’s neurologist and one of its three neurosurgeons.

Once this evaluation is completed, the team meets to review the information and determine the optimal treatment, which depends on a range of factors, from symptoms and the severity of the disease on imaging studies to the anticipated benefit of medical or surgical treatment.

Moyamoya disease may be managed with medicines (antiplatelets) and ongoing monitoring. However, because the disease will invariably worsen, many patients will require revascularization surgery to restore blood flow to the affected hemisphere of the brain, which results in the reduced incidence of hemorrhage and stroke.

BIDMC offers two types of revascularization procedures: direct and indirect. The direct procedure, called an extracranial to intracranial bypass procedure (EC-IC bypass), entails using a section of superficial temporal artery to create a detour around the narrowing and immediately increase blood flow to the affected area of the brain.

The indirect bypass procedure is called **e**ncephalo-**d**uro-**a**rterio-**s**ynangiosis (EDAS). EDAS entails isolating a section of superficial temporal artery and, via a craniotomy, suturing it to the surface of the brain. Over the course of months, this results in the growth of new blood vessels from the graft to the affected area of the brain. While the effectiveness of both procedures is equivalent, there is some evidence that EDAS may be safer.

In addition to providing comprehensive care for adults with Moyamoya disease, the Adult Moyamoya Center conducts research aimed at understanding the cause of this disease, improving existing treatments, and developing new therapies.



To schedule an appointment or make a referral, call 617-632-9940.

The Adult Moyamoya Center Team

Neurosurgery



Christopher S. Ogilvy, MD



Justin Moore, MD, PhD, MPH



Ajith J. Thomas, MD

Neurology/Stroke



Magdy Selim, MD, PhD

Radiology



Yu-Ming Chang, MD, PhD

Nursing



Deidre Buckley, NP

MAKING A DIFFERENCE

Remembering Julie E. Henry

Julie E. Henry, a former BIDMC trustee and longtime generous benefactor of the BIDMC Transplant Institute and Department of Surgery, passed away on August 28, 2020 at the age of 85.

Mrs. Henry was a dynamic leader in the Boston community who lived an active, productive life for 35 years following a liver transplant performed at BIDMC in 1984. Just one year prior, BIDMC performed New England's first liver transplant.

In the years following her transplant, Mrs. Henry, a graduate of Vassar College, returned to her career in social work, earned a Master's in Public Health from the Harvard T. H. Chan School of Public Health (HSPH). She then joined New England SERVE at the Rhode Island Department of Health, working in a program to help children with special needs.

A lifelong advocate of community service, Mrs. Henry served in numerous leadership positions at BIDMC and elsewhere. She was a trustee of the James Jackson Putnam Children's Center, president of the Board of Directors of the North Bennet Street School, a founding member of Trinity Hospice of Greater Boston, a member of the Visiting Committee and Dean's Council of HSPH, and a member and secretary of the Board of Trustees of the Museum of Science in Boston.

Several years ago, Mrs. Henry shared with Surgery Chair Elliot Chaikof, MD, PhD, her eloquently written recollections of her experiences as a patient prior to and following her transplant. A year after her surgery and difficult recovery, she wrote:

"Am I a sick person or a well person? I have recovered a part of the well person I remember and hope to retrieve still more, but there are parts of the sick person I cannot shed. Gradually, I am blending the extremes of health and illness that I have known into a mixture that satisfies my current state of mind and body. I no longer need to be a healthy person to avoid being a sick person. Illness has ceased to be a stigma. It is an annoyance, a source of fear, but it no longer compromises the person that I am. I am powerless to control my body's response to liver transplantation and I am dependent on others to monitor that response, but from my plateau of relative health and consequent optimism, my feelings are mine to control and the question of who I am is mine to answer.

It took a long time to come to that acceptance. The support of family, friends, and hospital staff made it possible, but in the end, illness is a lonely experience. The sick person, alone, adapts to physical and emotional pain sometimes to be overwhelmed by it, but with luck and support, to tolerate illness so that it becomes an enlarging experience, not a limiting one."

"Julie Henry did not allow illness to define her but rather to give her life additional purpose," says Dr. Chaikof. "As an early liver transplant recipient, she was a pioneer in the truest sense of the word. We are grateful for the insights and support that she provided to our community in so many unique ways."

Mrs. Henry is survived by her husband, Bayard Henry; three children, Sarah Henry Lederman, Charlie Henry, and Snowden Henry; her brother, John Emery; and eight grandchildren and a great-grandson.



"Julie Henry did not allow illness to define her but rather to give her life additional purpose. As an early liver transplant recipient, she was a pioneer in the truest sense of the word. We are grateful for the insights and support that she provided to our community in so many unique ways."

— Elliot Chaikof, MD, PhD

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: *Health Literacy*

Bernard Lee, MD, MBA, MPH

Professor of Surgery, Harvard Medical School

Chief, Plastic and Reconstructive Surgery

Director, Peter Jay Sharp Microsurgery Fellowship Program



Most Americans today have access to a wealth of health information. Although this is presumably beneficial, research shows that the majority of people in the U.S. struggle to understand most health information, which leads to worse outcomes and higher health care costs. While limited “health literacy”—the capacity to obtain and understand basic health information and services—affects people of all educational and income levels, it disproportionately affects minorities and individuals in lower socioeconomic groups.

What can be done to improve health communication so that all Americans can make informed decisions about their health? This is an important question that occupies a significant percentage of Dr. Bernard Lee’s clinical research time these days. “The better informed patients are, the better their outcomes and the greater their satisfaction,” says Dr. Lee, a national leader in health literacy research who lectures and publishes widely on this topic.

Dr. Lee’s early health literacy investigations focused largely on plastic surgery patients but has broadened now to include all patients. Using validated tools to evaluate health literacy levels, Dr. Lee and his research team have analyzed websites and patient-education materials from a range of organizations. They have repeatedly found that health

information is written at a much higher reading level than what is recommended by the American Medical Association and the National Institutes of Health, which advises that materials be written at the middle school level.

For example, Dr. Lee and his collaborators analyzed patient guidelines produced by the National Comprehensive Cancer Network (NCCN), a leading source of cancer information for the public. They found that due to their high reading level and complexity, the materials are “not quite suitable for the general adult U.S. population”—a concern for the millions who visit the NCCN website daily seeking information about their disease and its treatment. This research was published in February 2018 in the journal *Cancer*.

While reading level clearly matters, Dr. Lee points out that effective health communication must also employ infographics, videos, and clear web design, while focusing on information that patients say they need. He also stresses the importance of addressing numeracy literacy—the ability to interpret mathematical information such as statistics—using visual tools to explain complex topics that involve numbers.

Dr. Lee’s research has also delved into the role that cultural sensitivity plays in health communication. In one study—the first to look at online information about common cosmetic surgery

procedures written in Spanish—Dr. Lee and his team found that not only were reading levels too high but also that translations were sometimes nonsensical. They cited one website where “liposuction of the back” was translated as “liposuction of to return.”

As has always been the case, doctors also have a critical role to play in ensuring that their patients fully understand their treatment options and care, says Dr. Lee. Strategies such as avoiding medical jargon and using the “teach-back” method to assess the patient’s comprehension go a long way toward achieving this goal. Health care institutions must also provide understandable health information that reflects the languages and cultures of their patients.

Taking his research a step further, Dr. Lee and his group are starting to examine health literacy in “OpenNotes”—patient visit notes now accessible to many patients—and how this impacts communication. The group is also developing easier-to-understand patient-education materials and apps and will evaluate them with patients.

“Health literacy research is an important area of investigation and we are only scratching the surface,” says Dr. Lee. “But the stakes—making it easier for patients to understand and make informed decisions about their care—are very high.”

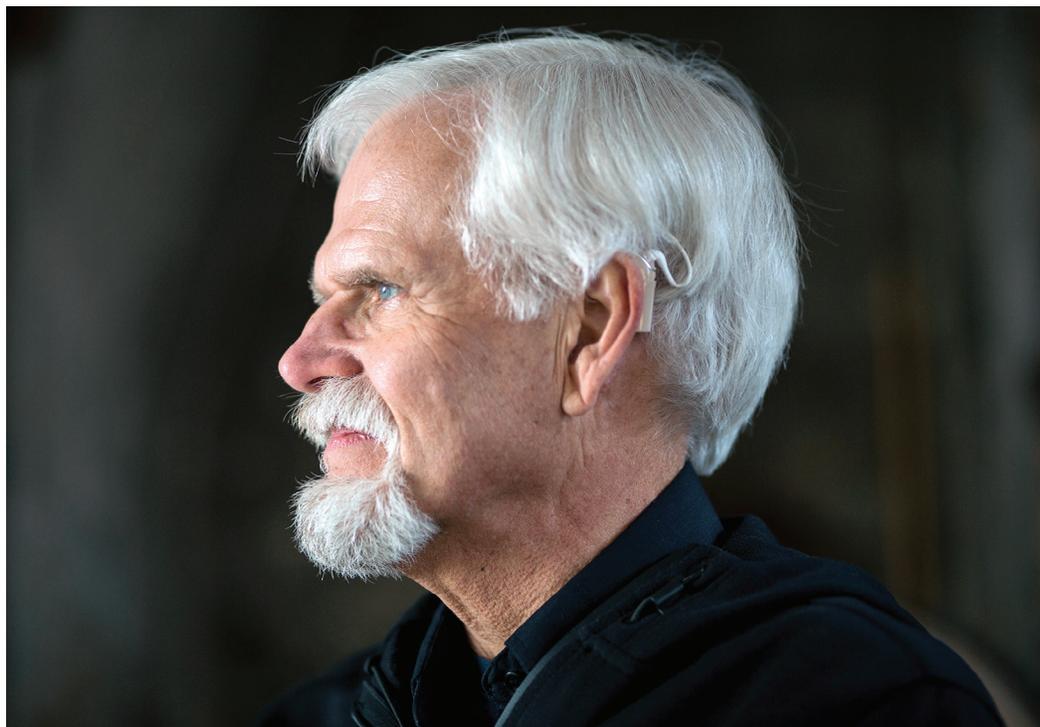
Cochlear Implants Now Offered

Life-Changing Outcomes

Hearing loss has a detrimental effect on a person's life, whether it is being unable to fully participate in a conversation with family members, follow a movie plot, or take part in a workplace meeting. If untreated, the result is often social isolation, an inability to work, and reduced enjoyment of life.

For some people hearing aids are sufficient. But for the thousands who fail to benefit from hearing aids there is, fortunately, another option: cochlear implants. These devices, which have been approved for decades and implanted in hundreds of thousands of adults and children worldwide, enable people to recognize speech and re-enter the world of communication.

BIDMC now offers [cochlear implants](#) to individuals 15 and older. The surgery is performed by **James Naples, MD**, a fellowship-trained otologist/neuro-otologist (ear diseases specialist) in the Division of Otolaryngology/Head and Neck Surgery. Dr. Naples has extensive experience in cochlear implantation, conducts cochlear implant-related research, and publishes and lectures frequently



attached to an electrode array placed in the cochlea, or inner ear (see diagram, [page 24](#)).

Unlike a hearing aid, which amplifies sounds without impacting the inner ear, a cochlear implant works by directly stimulating the auditory nerve. This stimulation has the benefit of improving

helping people with age-related hearing loss, cochlear implants can benefit adults with hearing loss caused by almost every inner ear disorder. "For properly selected patients, the procedure is safe and the outcomes are life-changing," says Dr. Naples.

At BIDMC, individuals being evaluated for a cochlear implant will meet several times with an audiologist, who will conduct sophisticated hearing tests, and Dr. Naples, who will determine if the patient is a good candidate.

Cochlear implantation is an outpatient surgical procedure. The device is activated by an audiologist in an office setting when healing is complete, usually a few weeks after implantation. The early-post implant period is an adjustment for patients, with full results often achieved months after the date of implantation. During this time

"For properly selected patients, cochlear implantation is safe and the outcomes are life-changing."

— James Naples, MD

on this topic. He works closely with an experienced team of audiologists in the division (see "Cochlear Implant Team," [page 24](#)).

A cochlear implant has two main parts: an external sound processor and an internal receiver/stimulator, which is positioned under the skin behind the ear and

speech recognition when sound amplification is not sufficient for patients. Once the hearing nerve is stimulated, it transmits signals it receives to the brain, which interprets them as sound.

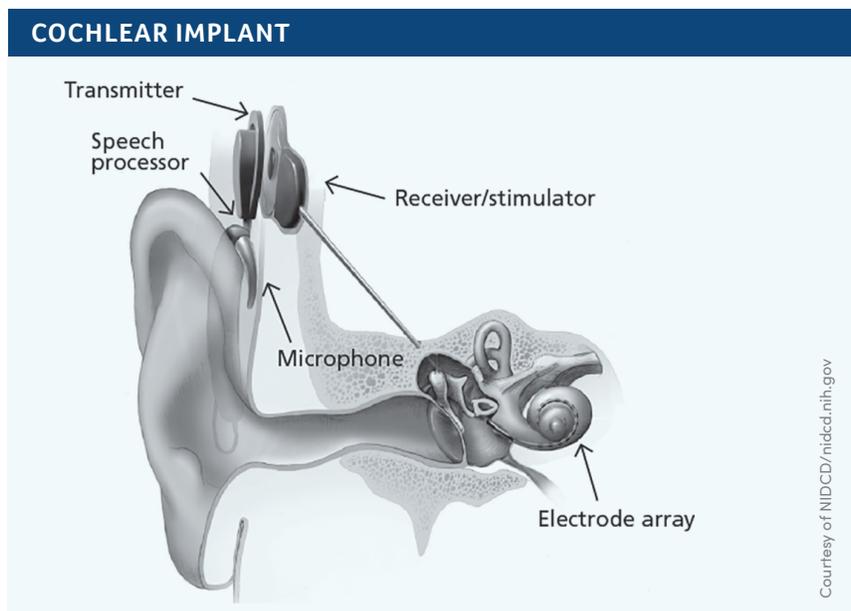
Dr. Naples emphasizes that there is no age limit to having a cochlear implant. In addition to

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patients are provided with various rehabilitation activities that enable them to achieve the maximum benefit from their implant.

“Surgery is actually the easiest part,” says Dr. Naples, although this is what most patients are concerned about. He emphasizes that the brain does the work of interpreting signals into recognizable speech and sounds, and that training the brain to “hear” via the cochlear implant requires time and effort. At BIDMC, the entire cochlear implant team works closely with patients over the long term to ensure that they get the most out of their implant.



The Cochlear Implant Team

Surgeon



James Naples, MD
Otolaryngology/Neuro-otology

Audiologists



Bianca Berkenwald,
AuD, CCC-A



Tiffany Berman,
AuD, CCC-A



Valeria Duque,
AuD, CCC-A



To schedule an appointment or make a referral, call 617-632-7500. To make a referral (only) by e-mail, contact ENT@bidmc.harvard.edu.