Department of Surgery Boston University School of Medicine/Boston Medical Center

ANNUAL REPORT 2020

Standing Strong







Introduction

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The Department of Surgery By the Numbers



ON THE COVER: Residents Dr. Megan Janeway (left) and Dr. Andrea Madiedo after a late night on the Covid-19 Procedure Team.

Message from the Chair



he year 2020 has been an exceptionally challenging and sobering one for all of us, but for many, the wounds are even more horrific. The pandemic robbed families of loved ones and jobs, while exposing longstanding inequities in health care. With the killing of George Floyd-one in a sequence of Black lives ended and upended—injustice, racism, and deep-rooted flaws in our society were laid bare. Pain and anger are ongoing. This tumult, as uncomfortable as it feels, shows us how far we need to go. To guote

a non-surgeon (the actor Will Smith), "Racism isn't getting worse, it's getting filmed." This is an inflection point, for us as individuals and in our chosen field of surgery. Who will we choose to be at this moment in history?

Structural racism has been the lived experience of members of our own department, and many of our patients. Massachusetts experienced one of the earliest and most severe Covid-19 outbreaks in the country, and as a safety-net hospital treating patients from underserved communities, at Boston Medical Center (BMC) we guickly saw that communities of color were hit hard by the pandemic. As an institution and a department that places a high priority on health equity, social justice, and promoting the dignity of all, at BMC we must continue to challenge the status quo on behalf of our patients. But we need to go further, continually challenging and rechallenging our own implicit biases, in our everyday lives, at work, and even in our research. What was previously deemed acceptable may not be now.

It has been beyond inspiring to see the dedication and resolve of all of the frontline caregivers (backed up by many, many others) at BMC who have faced down this ruthless virus. Our SICU intensivists, residents, advanced practice providers, and critical care nurses went above and beyond week after long week to pull patients through the fight of their lives. And with elective surgeries canceled, surgeons in the department were determined to help in any way they could. A Covid-19 Procedure Team was guickly formed to lighten the load for their BMC colleagues, stretched thin by an inpatient Covid-positive census that topped 230 at the height of the crisis. Lives were saved.

Like all hospitals, BMC was in a constant search to acquire PPE. Friends of the department and of the hospital were extremely generous, and in addition to philanthropy, came through with masks, N95 respirators, and many donated meals. We are immensely grateful! The pandemic also launched us on a learning curve as we implemented telehealth appointments, allowing us to conserve PPE and shield patients and providers from unnecessary exposure to the virus. I believe that this change in the way we have always delivered care will ultimately be beneficial for all.

If 2020 sets us in the Boston University School of Medicine/BMC Department of Surgery on a path to tackle inequities in patient care and in academic surgery, then we will have achieved something significant in this life-altering and very difficult year. The stress we feel today will build the strength we wield tomorrow. Let's hold each other to that transformation.

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Jennifer F. Tseng, MD, MPH James Utley Professor and Chair of Surgery, Boston University School of Medicine Surgeon-in-Chief, Boston Medical Center

Boston Medical Center

oston Medical Center (BMC) is a private, not-for-profit, В 514-bed, academic medical center. BMC is the largest safety-net hospital and busiest trauma and emergency services center in New England. Located in Boston's historic South End, BMC is the primary teaching hospital of the Boston University School of Medicine and was created by the 1996 merger of Boston City Hospital (founded in 1855) and Boston University Medical Center Hospital (founded in 1864). BMC operates 66 residency training programs, with 711 resident and fellowship positions.

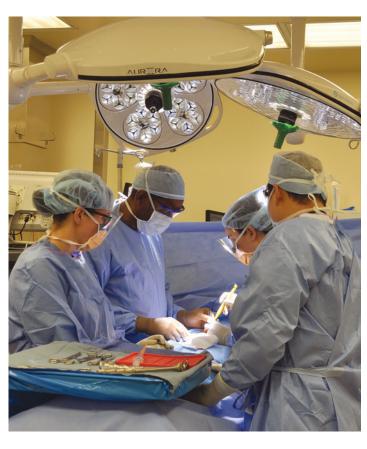
BMC, a recognized leader in groundbreaking medical research, is the 13th largest recipient of funding from the National Institutes of Health among independent hospitals. The hospital currently oversees 617 research and service projects separate from research activities at Boston University School of Medicine.

The Department of Surgery

he Department of Surgery has a long, proud history, with roots that extend back more than 150 years. In 1873, Boston University School of Medicine (BUSM) opened its doors, combining the New England Female Medical College with the medical staff of the Massachusetts Homeopathic Hospital.

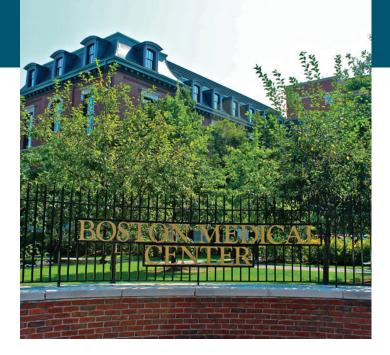
The modern history of the Department of Surgery at Boston University dates to 1946, when Dr. Reginald H. Smithwick was recruited from Massachusetts General Hospital to serve as Surgeon-in-Chief and Chair of Surgery at BUSM. Dr. Smithwick served in those positions for nearly 20 years.

Among the surgeons who have led and contributed to the international stature of the Department of Surgery throughout the ensuing decades are Drs. Richard Egdahl, John Mannick, Lester Williams, Peter Mozden, Robert Hobson, Edward Spatz, James Becker, and Gerard Doherty. In July 2017, Jennifer F. Tseng, MD, MPH, was recruited



as Chair and James Utley Professor of Surgery at BUSM and Surgeon-in-Chief at Boston Medical Center (BMC).

The Department of Surgery comprises 14 divisions, or



sections, and includes 62 faculty members. A wellestablished relationship with Boston Children's Hospital provides shared faculty in pediatric critical care and

pediatric general surgery, as well as pediatric training for residents. The department also has affiliated faculty members from Roger Williams Medical Center, the Veterans Administration (VA) Boston Healthcare System, and Cape Cod Hospital (Cape Cod Healthcare). These institutions are valued partners in teaching and training medical students and residents. Three other hospitals also actively participate in the third-year surgery clerkship: MetroWest Medical Center, Berkshire Medical Center, and Kaiser Permanente Santa Clara.

This annual report provides an overview of some of the clinical programs, research, and educational initiatives of the previous academic year (July 1, 2019, through June 30, 2020) and highlights a few of the many accomplishments and activities of our faculty, trainees, and alumni. We invite you to visit our website (bumc.bu.edu/ surgery) and follow us on Twitter and Instagram (@BMCSurgery) to keep abreast of our activities throughout the year.

Department Leadership



Jennifer F. Tseng, MD, MPH James Utley Professor and Chair of Surgery, Boston University School of Medicine Surgeon-in-Chief, Boston Medical Center



David McAneny, MD Vice Chair of Surgery, Boston University School of Medicine Chief Surgical Officer, Boston Medical Center



Alik Farber, MD, MBA Associate Chair, Clinical Operations



Jason F. Hall, MD, MPH Associate Chair, Academic Affairs and Faculty Development



Donald Hess, MD Associate Chair, Education Program Director, Surgery Residency



Joanne Favuzza, DO Director, Surgery Clerkship



Tejal Brahmbhatt, MD Associate Director, Surgery Clerkship





Peter Burke, MD Chief, Section of Acute Care and Trauma Surgery



Catherine Chen, MD, MPH Chief, Section of Pediatric Surgery



Tracey Dechert, MD Chief, Section of Surgical Critical Care



Alik Farber, MD, MBA Chief, Division of Vascular and Endovascular Surgery

Hau Pham, DPM



Jason F. Hall, MD, MPH Chief, Section of Colon and Rectal Surgery

Chief, Division of Podiatry Surgery



Donald Hess, MD Chief, Section of Minimally Invasive and Weight Loss Surgery



Niloo Edwards, MD Chief, Division of Cardiothoracic Surgery



Virginia R. Litle, MD Chief, Section of Thoracic Surgery



David McAneny, MD Chief, Division of General Surgery Chief, Section of Surgical Endocrinology Chief, Section of Surgical Oncology



Jaromir Slama, MD Chief, Division of Plastic and Reconstructive Surgery

Faculty

DEPARTMENT OF SURGERY FACULTY

Jennifer F. Tseng, MD, MPH

James Utley Professor and Chair of Surgery, Boston University School of Medicine Surgeon-in-Chief

Acute Care and Trauma Surgery/Surgical Critical Care

Peter Burke, MD

Section Chief Professor of Surgery, Boston University School of Medicine

Lisa Allee, MSW, LICSW

Assistant Professor of Surgery, Boston University School of Medicine

Tejal Brahmbhatt, MD

Assistant Professor of Surgery, Boston University School of Medicine Associate Director, Surgery Clerkship

Sunday Clark, MPH, ScD

Research Associate Professor of Surgery, Boston University School of Medicine*

Joshua Davies, MD

Assistant Professor of Surgery, Boston University School of Medicine

Tracey Dechert, MD

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

Abraham Jaffe, MD

Assistant Professor of Surgery, Boston University School of Medicine

Pei-Wen Lim, MD, MS

Assistant Professor of Surgery, Boston University School of Medicine

Aaron Richman, MD

Assistant Professor of Surgery, Boston University School of Medicine

Sabrina E. Sanchez, MD, MPH

Assistant Professor of Surgery, Boston University School of Medicine

Kathryn Twomey, MD

Assistant Professor of Surgery, Boston University School of Medicine

Cardiothoracic Surgery

Niloo Edwards, MD

Division Chief, Cardiothoracic Surgery Professor of Medicine, Boston University School of Medicine*

Cardiac Surgery

Karl Karlson, MD

Assistant Professor of Surgery, Boston University School of Medicine

Nikola Dobrilovic, MD, MBA

Assistant Professor of Surgery, Boston University School of Medicine

Thoracic Surgery

Virginia R. Litle, MD

Section Chief Professor of Surgery, Boston University School of Medicine

Kei Suzuki, MD

Assistant Professor of Surgery, Boston University School of Medicine

Colon and Rectal Surgery

Jason F. Hall, MD, MPH Section Chief Associate Professor of Surgery, Boston University School of Medicine

Olga Beresneva, MD

Assistant Professor of Surgery, Boston University School of Medicine

Joanne Favuzza, DO

Assistant Professor of Surgery, Boston University School of Medicine

Faculty

Minimally Invasive and Weight Loss Surgery

Donald Hess, MD Section Chief Assistant Professor of Surgery, Boston University School of Medicine

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

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

Luise I. Pernar, MD Assistant Professor of Surgery, Boston University School of Medicine

Pediatric Surgery

Catherine Chen, MD, MPH Section Chief Assistant Professor of Surgery, Harvard Medical School

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

Konstantinos Papadakis, MD Assistant Professor of Surgery, Harvard Medical School

Jason Smithers, MD Assistant Professor of Surgery, Harvard Medical School

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

Plastic and Reconstructive Surgery

Jaromir Slama, MD Division Chief Assistant Professor of Surgery, Boston University School of Medicine

Nilton Medina, MD

Assistant Professor of Surgery, Boston University School of Medicine Daniel Roh, MD, PhD Laszlo N. Tauber Assistant Professor of Surgery, Boston University School of Medicine

Podiatry Surgery

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

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

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

Justin Ogbonna, DPM Instructor of Surgery, Boston University School of Medicine

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

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

Surgical Endocrinology

David McAneny, MD Section Chief Professor of Surgery, Boston University School of Medicine

F. Thurston Drake, MD, MPH Assistant Professor of Surgery, Boston University School of Medicine

Surgical Oncology

David McAneny, MD Section Chief Professor of Surgery, Boston University School of Medicine

Michael R. Cassidy, MD Assistant Professor of Surgery, Boston University School of Medicine

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

Jennifer F. Tseng, MD, MPH James Utley Professor and Chair of Surgery, Boston

University School of Medicine

Transplant Surgery

Sayeed Malek, MD Interim Director of Transplant Clinical Director of Transplant Surgery, Brigham and Women's Hospital Assistant Professor of Surgery, Harvard Medical School

Sarah Meade, DO Assistant Professor of Surgery, Boston University School of Medicine

Stefan Tullius, MD, PhD

Chief, Division of Transplant Surgery, Brigham and Women's Hospital Professor of Surgery, Harvard Medical School

Vascular and Endovascular Surgery

Alik Farber, MD, MBA Division Chief Professor of Surgery and Radiology, Boston University School of Medicine

Jeffrey Kalish, MD Associate Professor of Surgery and Radiology, Boston University School of Medicine

Elizabeth King, MD Assistant Professor of Surgery and Radiology, Boston University School of Medicine

Jeffrey Siracuse, MD, MBA Associate Professor of Surgery and Radiology, Boston University School of Medicine

Jonathan Woodson, MD

Professor of Surgery, Boston University School of Medicine Dr. Woodson is director of the Boston University-wide Institute for Health System Innovation and Policy; Larz Anderson Professor in Management and Professor of the Practice, Boston University Questrom School of Business; and Professor of Health Law, Policy, and Management, Boston University School of Public Health.

Surgical Research and Education

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

Tony Godfrey, PhD Professor of Surgery and Computational Biomedicine, Boston University School of Medicine

Kelly Kenzik, PhD, MS Carter Visiting Scholar in Cancer Disparities Associate Professor, University of Alabama Birmingham

Marina Malikova, PhD, MSci, MA Executive Director, Surgical Translational Research Assistant Professor of Surgery, Boston University School of Medicine

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

Pamela Rosenkranz, RN, BSN, MEd Instructor of Surgery, Boston University School of Medicine

Sing Chau Ng, MS Staff biostatistician Administrative Director, SOAR

Emeritus

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

Benedict Daly, MD

Professor Emeritus of Surgery, Boston University School of Medicine

Amitabh Gautam, MD

Assistant Professor Emeritus of Surgery, Boston University School of Medicine

Geoffrey Habershaw, DPM Assistant Professor Emeritus of Surgery, Boston University School of Medicine

Maureen Kavanah, MD Assistant Professor Emeritus of Surgery, Boston University School of Medicine

CAPE COD HOSPITAL (CAPE COD HEALTHCARE)

Lawrence Novak, MD Surgery Residency Program Director Stephen Brooks, MD Clinical Assistant Professor, Boston University School of Medicine

ROGER WILLIAMS MEDICAL CENTER

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

Abdul Saeid Calvino, MD

Assistant Professor of Surgery, Boston University School of Medicine Assistant Director, Boston University School of Medicine Surgery Clerkship

Steven Katz, MD

Associate Professor of Surgery, Boston University School of Medicine

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



Ting Zhao, MD

Associate Professor of Surgery, Boston University School of Medicine

VETERANS AFFAIRS (VA) BOSTON HEALTHCARE SYSTEM

General Surgery

Kamal Itani, MD Chief of Surgery, Veterans Affairs Boston Healthcare System Professor of Surgery, Boston University School of Medicine

Jason S. Gold, MD Associate Professor of Surgery, Harvard Medical School

Patrick B. O'Neal, MD Assistant Professor of Surgery, Boston University School of Medicine Assistant Director, Boston University School of Medicine Surgery Clerkship

Vivian E. Sanchez, MD Assistant Professor of Surgery, Boston University School of Medicine Director, Boston University Anesthesia/Surgery Internship

Cardiac Surgery

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

Vascular Surgery

Sarah Carlson, MD Assistant Professor of Surgery, Boston University School of Medicine

James McPhee, MD

Assistant Professor of Surgery, Boston University School of Medicine

Research

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

Amy Rosen, PhD

Professor of Surgery, Boston University School of Medicine

*Recommended for

Faculty News



Tejal Brahmbhatt, MD, Acute Care and Trauma Surgery/Surgical Critical Care, received the Erwin F. Hirsch Resident Teaching Award for the second year in a row in recognition

of his outstanding contributions to the education of the surgical chief residents. Dr. Brahmbhatt shared the Hirsch award this vear with **Dr. Kei Suzuki**. Dr. Brahmbhatt was recognized by Boston University School of Medicine for the Faculty Honor Roll in 2019, and recognized in 2020 as Distinguished Faculty of the Month. In addition, Dr. Brahmbhatt made oral presentations at the 2020 Conference of the Eastern Association of the Surgery of Trauma, the 2019 American College of Surgeons Clinical Congress, and the Radiological Society of North America Annual Scientific Assembly and Meeting, and was a session moderator for the Society of Asian Academic Surgeons (SAAS) Annual

Meeting. Dr. Brahmbhatt also chaired the local arrangements committee for the SAAS Annual Meeting and was selected as Treasurer-elect. Over the last year, Dr. Brahmbhatt had papers published in the Journal of Surgical Education, Journal of Surgical Research, Surgical Infections, and Biomedical Journal of Scientific & Technical Research.



Tracey Dechert, MD, Chief of Surgical Critical Care, published or has had papers accepted for publication in the American Journal of Surgery, Journal of Surgerv Research and Journal of the

National Medical Association. Co-authors included a number of surgery residents, who are also leaders of the Socially Responsible Surgery organization that Dr. Dechert founded.

Boston University School of Medicine Promotions and Appointments



Lisa Allee, MSW, LICSW

Acute Care and Trauma Surgery Promoted to Assistant Professor of Surgery



Teviah Sachs, MD, MPH Surgical Oncology Promoted to Associate Professor of Surgery



Vivian Sanchez, MD Assistant Professor of Surgery, Boston University School of Medicine (BUSM) Attending Surgeon, VA Boston Healthcare System Appointed as Assistant Dean for Student Affairs, BUSM

F. Thurston Drake, MD, MPH, Surgical Endocrinology, developed and led Boston Medical Center's (BMC's) Covid-19 Procedure Team, which performed 380 procedures

during the surge in cases at BMC. Dr. Drake co-authored a paper published in *Surgery* that quantified these procedures and reviewed outcomes. He is a co-PI for the CODA trial, a 25-center, randomized trial of antibiotics versus surgery for treatment of uncomplicated appendicitis, and was a member of the writing group for a related paper accepted for publication in *The New* England Journal of Medicine.



Alik Farber, MD, MBA, Chief of Vascular and

Endovascular Surgery, had numerous papers published over the course of the year. Collectively, under his guidance,

Division of Vascular and Endovascular Surgery faculty authored and published 35 papers in the following journals: Journal of Vascular Surgery, European Journal of Vascular and Endovascular Surgery, Annals of Vascular Surgery, JAMA Surgery, and Vascular and Endovascular Surgery. Dr. Farber also co-edited "Vascular Imaging and Intervention," a two-volume expanded edition published in 2020. Dr. Farber is a co-Pl with Pamela Rosenkranz, RN, BSN, **MEd**, of a HealthTrust Innovation Grant to support creation of high-performance OR teams. Dr. Farber was a visiting professor in the Departments of Surgery at the University of North Carolina School of Medicine in 2019 and at the University of California, Irvine School of Medicine in 2020. Also in 2020, Dr. Farber was an invited lecturer at the European Society for Vascular Surgery Masterclass in Peripheral Arterial Disease, held in Hamburg, Germany.





Pei-Wen Lim, MD, MS, General and Acute Care Surgery, received a master of science degree in Health Professions Education from MGH Institute of Health Professions.



Thoracic Surgery, was appointed Consulting Editor for Thoracic Surgery Clinics of North America.

Sayeed K. Malek, MD,



Transplant Surgery, was appointed to the Clinical Advisory Board of New England Donor Services and as a member of the Cell Committee of the

American Society of Transplant Surgeons. Dr. Malek was invited to moderate the Transplant Poster Session at the American College of Surgeons Meeting in October 2019. In addition, Dr. Malek has run a highly successful Surgical Leadership Program at Harvard Medical School for the past two years. Dr. Malek was named one of Boston's Top Doctors by Boston magazine and was also listed in America's Most Honored Doctors, Top 1%, 2020 by the American Registry.



Marina Malikova, PhD, MSci, MA, Executive Director of Surgical Translational Research, gave oral and poster presentations at conferences in the U.S.

and Europe, including the Second Annual Summit for Clinical Operations Executives (SCOPE) in Barcelona, where she was an invited speaker. Dr. Malikova authored or co-authored articles in several peerreviewed journals, including European Journal of Vascular and Endovascular Surgery, Surgical Case Reports and Reviews, Pharmaceutical Outsourcing, Therapeutic Innovation and Regulatory Science, and Therapeutic Advances in Drug Safety. In addition, Dr. Malikova authored a chapter in Current Issues in Medicine: Fundamentals and Basic Medical Sciences, and joined the editorial board of Biomedical Journal. Over the course of the year, Dr. Malikova continued to serve as a panel reviewer for the National Institute of Allergy and Infectious Diseases and chaired a panel assessing proposals for an RFP issued by the Clinical Research Coordinating Center for the National Institute on Drug Abuse's Clinical Trials Network. Dr. Malikova also served as chair for the Clinical Operations, Pharmacovigilance, and Data Content Session during the Europe 2020 Drug Information Association Conference and moderated a panel discussion during the annual SCOPE Conference in



Orlando, Florida.

Division Chief, General Surgery and Section Chief, Surgical Endocrinology and Surgical Oncology and Vice Chair of Surgery, presented virtual grand rounds in the Department of Surgery at the University of Alabama Birmingham. Over the last year, Dr. McAneny was the author or co-author of 15 articles published in peer-reviewed journals, including Thyroid, Journal of American College of Surgeons, Surgery, American Journal of Surgery, and World Journal of Surgery. Dr. McAneny also co-authored a chapter on preoperative preparation in Current Diagnosis and Treatment: Surgery. In addition, Dr. McAneny was among those chosen for Boston's Top Doctors 2020 in Boston magazine.

David McAneny, MD,



Hillary Mull, PhD, MPP,

Research Assistant Professor and Investigator in the Center for Healthcare Organization and Implementation Research (CHOIR) at

the VA Boston Healthcare System, has received a VA Health Services Research & Development grant, the equivalent of an NIH RO1 award. Dr. Mull's study, "How Can We Make Invasive Non-Surgical Procedures Safer? Using Big Data to Identify Adverse Events and Opportunities to Mitigate Harm," has been funded for three years.



Luise Pernar, MD, Minimally Invasive and Weight Loss Surgery, authored or co-authored seven peer-reviewed papers in journals including American

Journal of Surgery, Journal of Surgical Education, Surgery, Hernia, and Journal of the American College of Surgeons.



Pamela Rosenkranz, RN, BSN, MEd. Instructor of Surgery, received and is the PI of a HealthTrust Innovation Grant to support creation of high-performance

OR teams at Boston Medical Center: Alik Farber, MD, MBA, is a co-Pl. Ms. Rosenkranz also received three Patient Safety Grants from Boston Medical Center to study: ways to improve communication surrounding care of acute care and trauma surgery patients in the emergency department; better prevention of VTEs; and outcomes analysis for frail patients in the geriatric surgical population. In addition, Ms. Rosenkranz was a co-author of papers published or accepted for publication in peer-reviewed journals that included American Journal of Surgery, Journal of General Internal Medicine, World Journal of Colorectal Surgery, and Journal of the Joint Commission on Quality and Patient Safety.



Top Docs

Congratulations to the following Department of Surgery faculty members cited as "tops" in their specialties in *Boston* magazine's 2020 "Top Docs" issue.

Peter Burke, MD Acute Care and Trauma Surgery

Alik Farber, MD, MBA Vascular and Endovascular Surgery

Jason F. Hall, MD, MPH Colon and Rectal Surgery

Donald Hess, MD Minimally Invasive and Weight Loss Surgery

Jeffrey Kalish, MD Vascular and Endovascular Surgery

Virginia Litle, MD Thoracic Surgery

David McAneny, MD General Surgery, Surgical Endocrinology, Surgical Oncology

Jaromir Slama, MD Plastic and Reconstructive Surgery



Jeffrey Siracuse, MD, MBA, was an invited

visiting lecturer in the Division of Vascular Surgery and Endovascular Therapy at Loyola University Chicago Stritch School of Medicine. Dr. Siracuse became

a member of the New England Surgical Society, and was appointed Chair of the New England Society for Vascular Surgery (NESVS) Membership Development Committee and as a member of the NESVS executive council. In 2020, two students mentored by Dr. Siracuse were the recipients of awards: the Society for Vascular Surgery Student Research Fellowship Award and the Boston University Undergraduate Research Opportunities Program Award. In addition, Dr. Siracuse became a reviewer for Circulation Research. Dr. Siracuse received, and serves as PI of, an education grant from W.L. Gore & Associates and is also site PI for a grant from the American Society of Diagnostic and Interventional Nephrology. In 2020, Dr. Siracuse received his MBA from Boston University Questrom School of Business.



Thoracic Surgery, received the Erwin F. Hirsch Resident Teaching Award in recognition of his outstanding contributions

surgical chief residents. Dr. Suzuki shared the award with **Dr. Tejal Brahmbhatt**. In addition, Dr. Suzuki received a grant from the Elsa U. Pardee Foundation that will support a study investigating the immune microenvironment in both the tumor and the lymph nodes of stage I lung cancer patients. Over the course of the year, Dr. Suzuki had papers published in several peer-reviewed journals, including Annals of Thoracic Surgery and Thoracic Surgery Clinics.

Stefan G. Tullius, MD, PhD, Transplant Surgery,

had numerous papers published in the past year and was the author or co-author of publications in Transplantation,

The New England Journal of Medicine. American Journal of Transplantation, JAMA Internal Medicine, Trends in Immunology and Nature Communications. Dr. Tullius was also senior author on an abstract entitled "Older Organs Transfer Senescence to Transplant Recipients," which was voted 'The People's Choice Award' at the 2020 American Transplant Congress. In addition, Dr. Tullius received the Excellence in Transplantation Award from the National Kidney Foundation, as well as the Outstanding Achievement Transplantation Science (Basic) Award from The Transplantation Society (TTS). Dr. Tullius was appointed Vice President of the International Society of Uterus Transplantation (ISUTx) and was elected as a member of the UNOS/OPTN Vascularized Composite Allograft Committee. Dr. Tullius presented at national and international conferences, including the XXV Latin American and Caribbean Transplant Congress in Mexico; the TTS Regional Meeting in Istanbul; the Turkish Transplantation Society Conference in Tashkent, Uzbekistan; and the ISUTx World Congress in Cleveland.

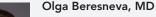
Kathryn Twomey, MD,

Acute Care and Trauma Surgery/Critical Care, received and is co-PI of a Boston University Medical Center Patient Safety Grant to study ways of

bumc.bu.edu/surgery

improving communications surrounding the care of trauma and acute care surgical patients in the emergency department. Dr. Twomey also made an e-poster presentation at the 2019 American College of Surgeons Clinical Congress in San Francisco.

New Faculty



Assistant Professor of Surgery Boston University School of Medicine

Colon and Rectal Surgery

Dr. Beresneva received her MD from Drexel University

College of Medicine and completed her general surgery residency at Boston Medical Center (BMC), followed by a fellowship in colorectal surgery at Lahey Hospital and Medical Center. During residency, Dr. Beresneva was a member of the three-person BMC team that took first place in the American College of Surgeons Massachusetts Chapter's Top Gun surgical skills competition in 2016 and 2018. Her research interests include new technologies and techniques to treat colorectal disorders, and colorectal surgery quality improvement and outcomes.



Sunday Clark, MPH, ScD Research Associate Professor Boston University School of Medicine* Acute Care and Trauma Surgery

Dr. Clark has joined **Boston Medical Center**

as the Research Director for the recently formed Boston Trauma Institute. Dr. Clark received her master's degree in public health from the Boston University School of Public Health and her doctoral degree in epidemiology from the Harvard T.H. Chan School of Public Health. Most recently, Dr. Clark was the Director of Research for the Department of Emergency Medicine at New York-Presbyterian Hospital/Weill Cornell Medical College and an Associate Professor of Epidemiology Research in Emergency Medicine and in Healthcare Policy and Research.



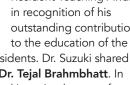
Joshua Davies, MD Assistant Professor of Surgery Boston University School of Medicine General and Acute Care Surgery

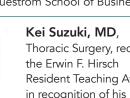
Dr. Davies earned a bachelor's degree in

molecular genetics, magna cum laude, from Ohio State University and received his medical degree from the Pennsylvania State



A graduate of Georgetown University School of Medicine, Dr. King completed general surgery residency at Boston Medical Center and a fellowship in vascular surgery at Dartmouth–Hitchcock Medical Center. Prior to joining the Boston University School of Medicine faculty, Dr. King was an Assistant Professor of Surgery at Tufts University School of Medicine and an attending vascular surgeon at Tufts Medical Center. Clinical and research interests include improvement of open and endovascular techniques for limb salvage.





University College of Medicine. He went on to internship and residency at Boston Medical Center. Prior to graduating in 2020, Dr. Davies served as a key member of the Department of Surgery Covid-19 Procedure Team, which performed 380 procedures and enabled other physicians to provide critically needed care during the surge in cases.

Niloo Edwards, MD

Professor of Surgerv Boston University School of Medicine* Cardiothoracic Surgery

Dr. Edwards has joined **Boston Medical Center** (BMC) as Chief of Cardiothoracic Surgery and brings extensive experience in cardiothoracic surgery and heart transplantation to this role. Dr. Edwards received his medical degree from Columbia University College of Physicians and Surgeons and completed general surgery residency training at the University of Rochester, Strong Memorial Hospital. Dr. Edwards completed two research fellowships at Columbia, followed by a cardiothoracic fellowship, also at Columbia. Prior to joining BMC. Dr. Edwards was Chief of Staff and Chief of Cardiovascular Services at St. Peter's Hospital in Albany, New York. Dr. Edwards serves as a lieutenant in the U.S. Navy Reserve and is currently deployed.

Elizabeth King, MD

Assistant Professor of Surgery and Radiology Boston University School of Medicine Vascular and Endovascular Surgery



Sarah Meade, DO Assistant Professor of Surgery Boston University School of Medicine Transplant Surgery

Dr. Meade earned a BS in marine biology and a BA in chemistry (both cum

laude) from Roger Williams University. She went on to receive her medical degree from the University of New England College of Osteopathic Medicine. Then a lieutenant in the U.S. Navy Medical Corps, Dr. Meade did her internship at the Naval Medical Center Portsmouth in Portsmouth, Virginia, where she was recognized as intern of the year. She completed her general surgery residency at Lahey Hospital and Medical Center in 2018 and a fellowship in hepatopancreaticobiliary (HPB) surgery and abdominal transplantation in 2020, also at Lahey. Dr. Meade was named Academic Chief Resident and received several teaching awards during residency and fellowship. She has been actively involved in multiple research endeavors in the fields of HPB surgery, minimally invasive surgery, and improving access to transplantation.



Andrea Merrill, MD Assistant Professor of Surgery Boston University School of Medicine Surgical Oncology

Dr. Merrill is a graduate of Tufts University School of Medicine, where she was

elected to the Alpha Omega Alpha Honor Medical Society. Dr. Merrill did her general surgery residency at Massachusetts General Hospital, including two years as a research fellow, with one year spent as an editorial fellow for The New England Journal of Medicine. While there, she led an initiative to create the journal's resident website, NEJM Resident 360. Dr. Merrill recently completed a fellowship in complex general surgical oncology at Ohio State University. During both residency and fellowship, she was involved in clinical breast cancer research and has co-authored several papers on this and other topics, including six as first author.

*Recommended for

Alumni Profile: Hilton Hudson, II, MD

Mark Craig was a superstar cardiac surgeon on St. Elsewhere, the 1980s TV show loosely based on Boston City Hospital. Among the show's many fans was a young law student named Hilton M. Hudson, II. It quickly became clear to the future Dr. Hudson that law school was not for him. But St. Elsewhere planted the seed that medicine and cardiac surgery in particular just might be.

Dr. Hudson graduated from Indiana University School of Medicine in 1987, and did his general surgery residency at Boston Medical Center (BMC) from 1987 to 1992. Looking back 30 years on, Dr. Hudson says, "It was an insanely good teaching environment. I loved to operate, and I had a lot of opportunity to do that." He left BMC well prepared and in hindsight appreciates the amount of trust that was placed in him, estimating that over the course of his residency, he performed 1,500 surgeries.

Following residency, Dr. Hudson completed a fellowship in cardiothoracic surgery at Ohio State University (OSU) and service in the U.S Army Medical Corps. It was during his fellowship that the subtleties of surgery started to become clearer. "It's not just about how you hold the knife. It's about judgment and timing, and when you take a patient to surgery and when you don't, and talking to patients' families." Dr. Hudson credits P. David Myerowitz, MD, then Chief of Thoracic Surgery at OSU, with creating an environment that enabled him to thrive as a heart surgeon.

Entrepreneurial Spirit

Nowadays, a typical week consists of three days in the operating room and two spent leading his company, HPC International, Inc. (HPC). Based in Chicago, the privately held company provides a portfolio of services primarily for hospitals and the healthcare industry, including supply chain management and procurement support, library and media

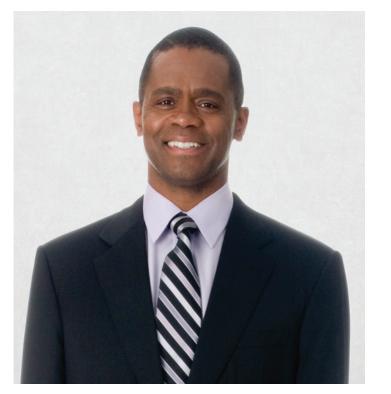
"It was an insanely good teaching environment. I loved to operate, and I had a lot of opportunity to do that."

— Hilton Hudson, II, MD

management services, and publishing. While Dr. Hudson has had one foot in the business world since the late '90s, he has always been a surgeon first. "I truly love being a surgeon, and I've given my absolute best to all of my patients."

For the last 15 years, he has been in private practice, more recently as part of a

three-surgeon practice that serves hospitals in Illinois, Indiana, and Wisconsin. Earlier in his career, he was the Clinical Director and then Vice Chair of Cardiothoracic Surgery at Rockford Memorial Hospital in Rockford, Ill., where he introduced stentless valve surgery for



Hilton M. Hudson, II, MD, FACS, completed his surgical residency at Boston Medical Center in 1992.

patients there in 1998 and performed the first beating heart surgery at the hospital in 2000. Dr. Hudson also served as a Clinical Assistant Professor of Surgery at the University of Illinois College of Medicine at Rockford. He went on to become Chief of Cardiothoracic Surgery at Franciscan Physicians Hospital in Munster, Ind., after establishing the department at the hospital, and eventually became the chairman of the hospital's board. Along the way, he became a fellow of the American College of Surgeons.

One of the things that drew Dr. Hudson to BMC was the fact that there were Black surgeons on the faculty. It seems likely that he was the second African American categorical intern to complete the BMC general surgery residency program, the first being Dr. Mildred Jefferson, in 1955, a trailblazer who was the first African American woman to graduate from Harvard Medical School. While characterizing his years in training at BMC as good ones, he says that it is important to be clear. "Racism is everywhere, and I experienced it during my residency in Boston." In response, he says he became fiercely focused and even more resilient.

But he would never have become a surgeon at all if it weren't for another Black surgeon, whom he first met in medical school. "I am a surgeon because of Dr. George Rawls," says Dr. Hudson. "He took me under his wing and was a lifelong mentor." Dr. Rawls, who passed away earlier this year, broke numerous barriers during a long and distinguished career as a surgeon and an educator.

Heart of the Matter

Throughout his career, Dr. Hudson has been a champion of improving minority health and wellness. It was the dearth of information available to underserved communities that initially led him to start a business. After a major publishing company rejected a later critical care fellow) was also very supportive. So too David book he co-authored with Bert Stern, PhD, The Heart of the Matter, McAneny, MD, a chief resident and then a junior faculty member the African American's Guide to Heart Disease, Heart Treatment, and during Dr. Hudson's time at BMC. Dr. Millham is now Chair of Heart Wellness, Drs. Hudson and Stern co-founded Hilton Publishing Surgery at South Shore Hospital in Weymouth, Mass., while Company in 1996 and self-published the book. Now a division of Dr. McAneny is Vice Chair of Surgery at BMC. Young faculty HPC, Hilton Publishing has produced books and patient education members Jonathan Woodson, MD, MSS, who today leads materials on topics including sickle cell disease, hypertension, Boston University's Institute for Health System Innovation and Policy, and Richard Shemin, MD, now the Robert and Kelly Day diabetes, AIDS, and lupus. Professor and Chief of Cardiothoracic Surgery at UCLA Medical "I've always had a very entrepreneurial nature, going all the way Center, also provided encouragement.

back to grade school," says Dr. Hudson, who is Chairman and CEO of HPC. As HPC evolved, one of several areas where he saw Like many surgeons who have trained at BMC, Dr. Hudson has vivid a need was in addressing the impact of downsizing or eliminating memories of Friday morning "guerrilla rounds," conducted in the medical libraries at hospitals. The company offers a popular service ICU by BMC's legendary head of Trauma Surgery Erwin Hirsch, MD. known as HPC Librarian, which provides a virtual library, including "BMC had a superb ICU, and they were instrumental in teaching me a librarian. Currently, HPC is working with another company to how to provide good ICU care." develop a new app called Pinpoint. Slated for release next year, BMC may have set the stage for Dr. Hilton's successful career as it is designed to help adolescent sickle cell patients and their a cardiothoracic surgeon, providing a foundation that has enabled doctors target the source of pain during a pain episode and him to save thousands of lives, but the institution can take no treat it quickly and appropriately.

Education and Advocacy

In 2014, Dr. Hudson was appointed by the Secretary of Health and Human Services to a two-year term on the National Advisory Council on Minority Health and Health Disparities, part of the NIH's National Institute on Minority Health and Health Disparities (NIMHD). Dr. Hudson credits Nathan Stinson, Jr., MD, PhD, MPH,

Director of the NIMHD Division of Scientific Programs and a longtime mentor, with being an energizing force behind the establishment of the Health Literacy Foundation and many of the other efforts he has undertaken on behalf of underserved communities. He has teamed up with celebrities, politicians, and sports figures to make headway in empowering and educating minority populations. Dr. Hudson has received numerous awards for his advocacy, including two from governors of his home state of Indiana.

Everyone needs a cheerleader, and Hilton Hudson had several during his residency. "There were a lot of good people in Boston, a lot of people who had my back. You can 'train' anyone, but it takes more to get someone past self-doubt." Then-Residency Director James Mezoian, MD, now retired, quickly comes to mind because of his encouragement and steadfast defense of his residents when required. Frederick Millham, MD, who was a senior resident (and

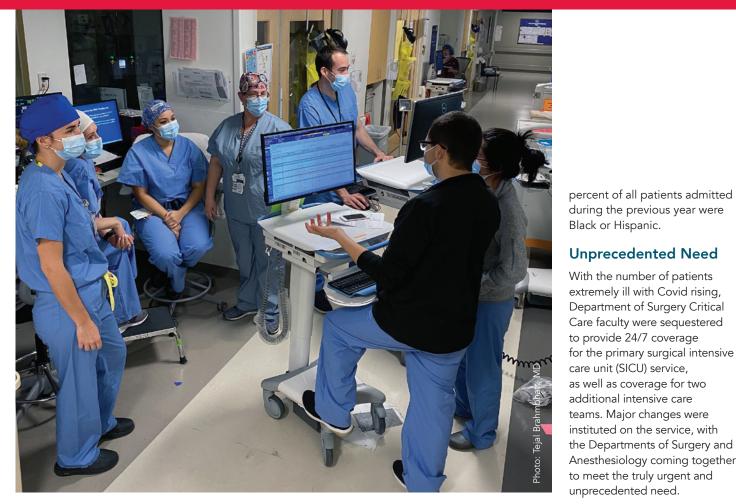


BMC may have set the stage for Dr. Hilton's successful career as a cardiothoracic surgeon, providing a foundation that has enabled him to save thousands of lives, but the institution can take no credit for the unquestioned abilities and drive he has parlayed into a thriving business. However, one thing both share is a longstanding commitment to equity in health care. Dr. Hilton's efforts to address disparities in care have undoubtedly benefitted untold numbers of people.

General Surgery 1992

Dr. Hudson is in the middle row, third from right.

Highlight: Patient Care



SICU team huddle on Saturday, April 25, 10:30 pm. Led by surgical intensivist Tejal Brahmbhatt, MD, a team of Surgery and Anesthesiology residents and critical care nurses reviewed the status of Covid-19 patients.

Covid Warriors

a sign of things to in come, on March 9, Boston Mayor Marty Walsh canceled the city's St. Patrick's Day parade. When March 17 arrived, Massachusetts hospitals were under orders from Governor Charlie Baker to stop performing elective procedures. A much broader order quickly followed, directing all nonessential businesses to close their doors at noon on March 24. But by then, the novel coronavirus had already spread

widely throughout the city and the state.

Preparations to accommodate the anticipated influx of Covid-positive patients were orchestrated across Boston Medical Center (BMC), which transformed spaces to create additional ICU and medical care capacity. The rate of admissions for Covid-19 swelled throughout March, until hitting full stride around the third week of April-the surge. On one Sunday night that month, BMC's ICUs were

so overwhelmed, ambulances were instructed to bring patients presumed to be suffering from Covid symptoms to other hospitals.

BMC, a safety-net hospital that provides care for underserved communities saw its surge in patients earlier than other local hospitals. Data clearly show that Covid-19 disproportionately affects minority communities, and during the peak at BMC, approximately 80 percent of coronavirus patients were Black or Hispanic. By comparison, 60

Brahmbhatt, MD, said, "Our team never stopped. They worked tirelessly and with conviction day in and day out to support our patients." For 9 weeks, surgery residents rearranged their schedules (while staying within duty-hour limits), to provide tremendous support in the SICU alongside the Department of Surgery's dedicated and skilled advanced practice providers and critical care nursing staff. And closing in on the end of a fellowship year they never could have anticipated, the department's surgical critical care fellows

Reflecting on what had become

the new normal, attending

surgical intensivist Tejal

"Unfortunately in life, there are pandemics and mass casualty

stepped up to take on

leadership roles.



Then-chief resident Josh Davies, MD (right) and senior surgery resident Sherif Aly, MD, perform a lifesaving invasive procedure under the supervision of attending surgeon Pei-Wen Lim, MD, MS.

events," said Tracey Dechert, MD, Chief of Surgical Critical Care and Director of the SICU. "Whether our community is suffering because of a virus or a bomb, there is no team I would rather be working with than our SICU team. Teamwork helped our patients get better while also helping us to support each other."

Extending a Hand

The Department of Surgery responded to the crisis with resolve and ingenuity to ensure that Covid-19 patients, as well as those whose surgeries could not be postponed, received the care they needed. By the end of March, with the census of

Covid-positive patients growing ever larger and elective surgeries canceled, it became clear that the department could play a role in relieving some of the burden for their BMC colleagues. A Covid-19 Procedure Team, led by F. Thurston Drake, MD, MPH, was quickly formed.

"In times of crisis such as this, we think of BMC—and especially our commitment to its mission—as something like a home," said Dr. Drake. "So for us, being asked to contribute in this way was akin to being asked for help by a family member, in this case, our colleagues caring for these very sick patients."

All for One

The larger procedure team

was structured into teams of

two senior residents and an

attending surgeon. Between

Covid-19 procedure team

performed 380 procedures,

placing arterial, central venous,

and hemodialysis catheters, as

well as a small number of chest

tubes. A paper published in

Surgery quantified the team's

results for the month of April,

when 272 procedures were

performed on 125 patients.

The average time (including

donning and doffing PPE)

catheter was 47 minutes,

and the rate of immediate

for placing a central venous

April 1 and June 1, the



complications was 1.5 percent, substantially less than rates reported in the literature.

"The procedure team was a godsend for the Covid teams," said Jaime Murphy, MD, Medical Director for Respiratory Therapy. "It freed up medical providers to focus on caring for patients day and night, while providing the best possible procedural support to our patients, and also allowed the MICU team to create an additional Covid team."

"As they always do, our surgery residents stepped up and answered the call," reflected Dr. Drake. "Their hard work and esprit de corps were really something inspiring."

Procedure Team leader F. Thurston Drake, MD, MPH, (left) and then-administrative chief resident Matthew Equud, MD

Tauber Professorship

etting a career off the ground G as a surgeon-researcher can be challenging. The Laszlo N. Tauber Professorship in Surgery was created to make it a little easier. Unlike most endowed professorships, this three-year appointment is available for early-career faculty members. Daniel Roh, MD, PhD, is the newest Laszlo N. Tauber Assistant Professor in Surgery. "The Tauber professorship is an honor for me," says Dr. Roh. "As I'm building my research career, it will provide much-needed financial support to start my lab and build the infrastructure necessary to perform basic and translational research."

Dr. Roh joined the Boston University School of Medicine (BUSM) faculty and the Division of Plastic and Reconstructive Surgery at Boston Medical Center (BMC) in November 2019. He received his MD and PhD from the University of Pittsburgh School of Medicine (UPSOM) Medical Scientist Training Program and completed the Harvard Combined Plastic Surgery Residency Training Program before coming to BUSM/BMC.

"I am captivated by the field of senescence, the stress-response mechanism by which cells in our body undergo permanent growth arrest without dying, and its contribution to aging and disease," says, Dr. Roh, whose research focuses on examining the role of senescence in wound healing and scarring. Two projects being planned for the new Roh lab will test hypotheses related to senescence modification. The first will examine whether senescent cell burden in aged skin impacts wound healing, while the second will test whether senescent cells contribute to wound-induced skin fibrosis and the formation of hypertrophic scars and keloids. Dr. Roh hopes to translate his work into novel therapies targeting impaired wound healing of aging, chronic wounds, and pathologic scarring.

Dr. Tauber's Legacy

The Tauber Professorship is made possible through the Laszlo N. Tauber Family



Daniel Roh, MD, PhD (left) and F. Thurston Drake, MD, MPH

Foundation, which was established in 2003 by Ingrid Tauber, PhD, and Alfred I. Tauber, MD, Zoltan Kohn Professor of Medicine emeritus at BUSM, in memory of their father. Born in Hungary in 1915, Laszlo Tauber, MD, was a distinguished surgeon, a celebrated athlete, and a highly successful real estate entrepreneur, who was committed to philanthropy throughout his life. His generous donations to BUSM include medical student scholarships and an endowed chair in the Department of Medicine.

Today, the Tauber Family Foundation's grantmaking is focused on the areas of mental health, scientific research, the Jewish community, and social justice. "BU is my sister's alma mater, and I was on the faculty for 29 years, so our affiliation with the university is long and deep," said Dr. Alfred Tauber. "The Tauber Professorship reflects our commitment to the continued growth of the medical school. In that spirit, we congratulate Dr. Roh on his appointment."

Changing Course

With his father, sister, and brother all physicians, medicine may have been Daniel Roh's destiny, but specializing in plastic surgery was not part of the original plan. While working on his PhD, he joined a corneal cell biology lab and received a prestigious Kirschstein Award from the National Institute on Aging (NIA) to study cellular mechanisms associated with agerelated degeneration of the cornea. He was on a path to becoming an ophthalmologist and researcher. "I was fortunate to have an amazing mentor at UPSOM, the late Dr. James Funderburgh, who discovered a new population of corneal stem cells and demonstrated that they could reverse corneal scarring. In ophthalmology, I found the surgeries to be incredibly high-impact with respect to improving patient lives."

But in a story that is certain to have a familiar ring for many, Dr. Roh says, "After my medical school rotations in plastic surgery,

I knew that plastics was the field I was meant to be in." While still at UPSOM, his interest in wound healing and aging research blossomed, growing exponentially during residency, when he had the opportunity to work with Indranil Sinha, MD, and Dennis Orgill, MD, PhD, both plastic surgeons and scientists affiliated with Brigham and Women's Hospital. As the U.S. population skews older, the relevance of Dr. Roh's research is clear, and he recently received two NIH awards to support his work on senescence; he is the principal investigator (PI) of a Boston Claude D. Pepper Older Americans Independence Center Research Education Core Award and the PI of an NIA RO3 GEMSSTAR Award.

Defying Nature

In addition to financial support, Dr. Roh says that a supportive environment and committed mentors were major factors in his decision to join BUSM/BMC. There were also numerous senior researchers he hoped to work with, and now has the opportunity to do just that. He will begin a collaboration with Vladimir Botchkarev, MD, PhD, BUSM Research Associate Professor of Dermatology and world renowned for his expertise in the epigenetics of skin development, differentiation, and tumorigenesis. But it's Dr. Botchkarev's expertise in aging and wound healing that will form the basis for their collaboration to study scar-free wound healing in agingresistant naked mole rats. In addition to being cancer-resistant, this species of rat's unique characteristics include a lifespan of up to 30 years, senescence resistance, and defiance of the biological laws of aging. The hope is that they will be a unique model for studying mechanisms preventing scar formation in humans.

Prior to Dr. Roh, the Tauber Professorship was held by F. Thurston Drake, MD, MPH, an attending surgeon in the BMC sections of Surgical Endocrinology and Surgical Oncology. Dr. Drake, who joined the BUSM faculty in 2016, says, "It's very rare for a foundation to focus on a junior faculty member, but I believe it's truly visionary and

can lead to early innovations that might otherwise be missed." During his tenure as Tauber Professor, he took full advantage of the support he received, initiating two major research programs. The first focused on examining whether limited English proficiency impacts surgical outcomes, while the second centered on system-wide approaches for improving management of incidental radiographic findings.

Maximum Impact

After adjusting for confounding factors, the first study found no meaningful differences in short-term outcomes in patients whose primary language was not English. In conducting the second, Dr. Drake maximized Tauber Foundation support, which covered the majority of costs, by combining it with a BMC Patient Safety Grant. He developed a two-year pilot program to identify and track patients with incidental adrenal masses and report findings to patients' primary care physicians, along with simple instructions on how to perform the appropriate evaluation. Final results from the project are pending, but an analysis of one particular component showed a doubling in the rate of incidental masses that were appropriately evaluated.

"Based on the success of this pilot project, we are currently working with the hospital to develop this protocol into a permanent aspect of our management strategy and expand it to other organ systems," says Dr. Drake, whose primary research interests also include appendicitis.

Both initiatives engaged trainees in research and served as a jumping-off point for additional research. "Mentoring further extends the legacy of the Tauber Family Foundation's generosity," says Dr. Drake.



Laszlo Tauber, MD

"Several surgical residents and medical students have had the opportunity to spearhead research projects under my mentorship, which was enabled by support from the foundation."

Inspiration for the Future

When thinking about the challenges that lie ahead in becoming a successful

"I now have the opportunity to make scientific discoveries on my own, and the Tauber Professorship will be so beneficial in truly launching my research career."

- Daniel Roh, MD, PhD

surgeon-scientist, Dr. Roh continues to draw inspiration from the time he spent with his UPSOM mentor Jim Funderburgh. "He did science with such joy and passion. He truly enjoyed the process of scientific discovery and felt immense satisfaction with every incremental result. I have always wanted to emulate his approach. I now have the opportunity to make scientific discoveries on my own, and the Tauber Professorship will be so beneficial in truly launching my research career."

Highlight: Environmental Health



BMC vascular surgeons perform a TCAR procedure.

Greening the OR

or nearly a decade, Boston Medical Center (BMC) has been making strides in reducing its carbon footprint and can now lay claim to the title of greenest hospital in Boston. Changes have ranged from small—energy-saving LED bulbs in the operating rooms (ORs) and across the hospital-to large, building a cogeneration plant.

Since launching a renovation and sustainability initiative in 2011, BMC has invested heavily in its infrastructure to improve energy efficiency and sustainability, with impressive results. The most substantial undertaking, and one that will pay dividends well into the future, was installing a natural gas-fired cogeneration plant on the roof of the Yawkey Ambulatory Center. Operational since 2017, this "cogen" facility traps most

of the waste heat produced and uses it to warm the BMC campus, saving both emissions and money.

Hybrid OR on Display

As the hospital's master plan evolved, it was clear that the operating rooms, by definition a significant source of energy consumption and waste production, needed to be part of it. New or renovated ORs that opened in 2017 are "green" and have garnered interest from various sources. On the morning of December 4, a reporter and photographer from local radio station WBUR, an NPR affiliate, came by to see one in action. Members of the anesthesiology and vascular surgery teams provided details during a two-hour TCAR (transcarotid artery revascularization) procedure in the hybrid

OR. They watched as the team cleared a blockage in the left carotid artery of 83-year-old Reverend Ralph Kee.

Regardless of which type of anesthesia is used, studies show that patients metabolize only about 5 percent, with the rest eventually released into the atmosphere. At BMC, using sevoflurane over desflurane is a boon for the environment, desflurane being a significantly more potent greenhouse gas. In addition, the CO₂ exhaled by the patient is filtered through a canister system installed in 2018, which absorbs much of the carbon in pellets that can then be safely discarded.

Like all ORs, the temperature in this one is lower than in other areas of the hospital In winter, the outside air plays a role in cooling this space by chilling water that

can be used for this purpose after passing through something known as a free cooling system. Thanks to the cogen plant, less energy needs to be drawn from the electric grid to warm or cool the building that houses the OR, and to drive the ventilation system that works overtime to control staff exposure to anesthetic gases and ensure infection control. In addition, every OR now has a green receptacle for items that can be recycled.

Energy Efficiency

"The cogen unit supplies approximately 40 percent of the hospital's energy needs and operates at 70 percent efficiency, compared with 35 percent for a traditional power plant," says Bob Biggio, BMC's Senior Vice President for Facilities and Support Services. Inside the Yawkey building, a retrofit of the ductwork reduced the amount of energy required to push air through the system. Together, these changes are saving BMC close to \$1.5 million in heating and energy costs annually.

"BMC is about 96 percent carbon neutral for energy and is on track to reach 100 percent by the end of 2020," says Biggio. "The hospital still utilizes fossil fuel, but this use is offset by renewable energy credits garnered as a result of buying solar power from North Carolina."

Broad Commitment

BMC's commitment to the environment is not limited to its own campus and encompasses environmental health in a broad sense. As part of the Boston Green Ribbon Commission's Health Care Working Group, and through other forums, the hospital works collaboratively with local hospitals to reduce the healthcare industry's not inconsiderable environmental impact on the city, which has set a goal of being carbon neutral by 2050. Since 2011, the leaders of Boston's hospitals believe they



Reverend Ralph Kee is rolled into the eco-friendly hybrid OR.

have collectively reduced greenhouse gas emissions by 30 percent.

Environmental Stewardship

In addition, BMC has found a way to put 7,000 square feet of what would otherwise be wasted space to good use. For the past three years, the roof of its power plant has been a farm (and beehive) that produces

desflurane is a boon for the environment, desflurane being a significantly more potent greenhouse gas.

food for the hospital's therapeutic food pantry and inpatient meal service. Kitchen scraps find their way to an industrial food digester, which cuts down on the amount of waste that ends up in a landfill, reducing potential groundwater and soil contamination as well as emissions from the trucks needed to haul it away.

A 2019 article in The New England Journal of Medicine concluded, "Health professionals have leading roles to play in addressing climate change." Acknowledging that more remains to be done, BMC's investment of nearly \$400 million (raised through grants, the first "Green Bond" offering by a hospital in the U.S., and the sale of excess real estate) over the last several years to improve energy efficiency and reduce its carbon footprint is evidence that decreasing the institution's environmental impact is a high priority.

The Kindness of Friends and Strangers

s the coronavirus A pandemic took hold, the demand for personal protective equipment (PPE) skyrocketed. Boston Medical Center (BMC), like other institutions, was left scrambling to meet the demand. In addition to donations of much-needed PPE, the philanthropic support from friends of BMC and of the Department of Surgery, as well as complete strangers, has been absolutely remarkable. In our own department, we were happy to receive 200 slightly expired N95 masks (newly deemed safe by the CDC), which one of our team coordinators had rescued from disposal with an eye toward home project use. In-kind donations included scores of meals for our surgery residents and other frontline workers. We also received wonderful messages of encouragement via email from patients past and present.

Tremendous Generosity

Hau Le, MD, a pediatric surgeon at the University of Wisconsin School of Medicine and Public Health and a graduate of Boston University School of Medicine, reached out to Chief of Surgery Jennifer Tseng, MD, MPH, and then very kindly donated 1,000 masks for personal protective use by surgical trainees and advanced practice providers. And a special thank you goes out to an anonymous donor and friend of the department, introduced through the Morningside Foundation, who exhibited tremendous



(Left to right) Surgery residents Drs. Aldana Blanco, Maha Haqqani, Jian Zheng, and Breyen Coffin with PPE that was generously donated.

generosity by donating 10,000 surgical masks to BMC.

Before the pandemic, the department was the beneficiary of another much-appreciated donation from the Morningside Foundation. Their support is enabling research fellow Alaina Geary, MD, to stay the course for an additional year and keep the momentum going on her research. We are also very fortunate to have Marshall and Missy Carter in our corner. Longtime donors to BMC, it is because of their generosity that we were able to announce and welcome Kelly Kenzik, PhD, MS, as the inaugural Carter Visiting Scholar in Cancer Disparities.

Ongoing Support

We are grateful to the Morningside Foundation and the Carters for providing support that promotes and amplifies departmental research focused on improving care and reducing disparities. This commitment to BMC and its mission, and to underwriting research, is shared by longtime donors Marc and Claire Perlman. Together with colleagues from Ocean State Job Lot, they launched a point-of-sale program that raised \$450,000. In addition, the Perlmans donated PPE and truckloads of clothing for homeless

patients with Covid-19 who were recuperating at a nearby hospital-run facility. Further, their generosity extends to continued sponsorship of surgeon Teviah Sachs, MD, MPH, as the Perlman Scholar for Pancreatic Cancer Research.

We are so grateful to the Perlmans, the Carters, the Morningside Foundation, and to everyone who has stood with BMC during this unprecedented time and in the past. Our patients were the beneficiaries of your donations, large and small, to the BMC Covid-19 Relief Fund. Thank you!



WSJ Article Recounts Covid Experience

Boston Medical Center's story was told through the experience of trauma surgeon Tracey Dechert, MD, Chief of Surgical Critical Care, and Adriana, a young mother and courageous patient who delivered a healthy baby boy while in the surgical intensive care unit. A *Wall Street Journal* (WSJ) <u>article</u> described the teamwork among critical care physicians, nursing, OB-GYN, and the entire staff as they dealt with the medical challenges and emotions of a historic pandemic. "She is going to make it," Dr. Dechert would tell herself, as she passed Adriana's room during her daily rounds. This story has a happy ending because that hopeful prediction came true.

In Solidarity

On Friday, June 5, Department of Surgery faculty, staff, and residents joined their Boston Medical Center colleagues in the nationwide White Coats for Black Lives protest to honor the memory of George Floyd and other Black men and women who have died as a result of excessive force and violence by police. They knelt for 8 minutes and 46 seconds in a symbolic show of solidarity to acknowledge ongoing racial injustice, including in medicine, and the role that the healthcare system and its leaders have in helping to dismantle the structural racism that pervades society. With a gray yet beautiful sky and the Boston skyline as a backdrop, a sense of sadness, collective unity, and commitment to racial justice and improving the state of our nation and the health care of its denizens was tangible.





High Marks for Quality of Surgical Care

Boston Medical Center tracked patient outcomes for inpatient and outpatient surgical procedures throughout 2018 as part of the American College of Surgeons National Surgical Quality Improvement Program (NSQIP®). Based on these data, the hospital was one of only 56 institutions (out of 722) that were recognized for delivering high-quality care in two categories: "All Cases" and "High-Risk" cases. Built by surgeons for surgeons, the NSQIP program is designed to measure and improve the quality of surgical care while reducing complications and costs.



Department Hosts SAAS Meeting

In late September, the Department of Medicine hosted the 2019 annual meeting of the Society of Asian Academic Surgeons (SAAS) on the Boston Medical Center campus. Two-hundred-fifty attendees from around the country gathered for the two-day meeting. Highlights included a lecture by transplant pioneer John Fung, MD, PhD, Chief of Transplantation at UChicago Medicine, and a keynote address by chef and entrepreneur Joanne Chang, Founder of Flour Bakery + Cafe. Chang, an applied mathematics major and former management consultant turned chef, opened her first Flour location a few blocks from BMC in 2000. Since then, the enterprise has grown to eight bakery locations and a successful restaurant. In her address, the James Beard Award winner touched on themes of leadership applicable to both business and medicine.

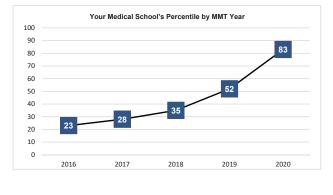


Children's Hospital of Los Angeles pediatric surgeon Eugene Kim, MD, moderates a panel discussion during the SAAS meeting. At right, chef and entrepreneur Joanne Chang (left), who gave the keynote address, is pictured with Chair of Surgery Jennifer Tseng, MD, MPH.



Clerkship Satisfaction on the Rise

Over the last five years, Boston University School of Medicine (BUSM) students have reported steadily increasing satisfaction with the quality of the educational experience during the third-year surgery clerkship. The graph at right is from the AAMC Graduation Questionnaire, a nationwide survey that compares the BUSM surgery clerkship to other surgery clerkships around the country. The Department of Surgery has forged close partnerships and worked with extremely dedicated teaching faculty across multiple sites to improve the student experience. In addition to Boston Medical Center (BMC), Roger Williams Medical Center, the VA Boston Healthcare System, Berkshire Medical Center, MetroWest Medical Center, and Kaiser Permanente Santa Clara all participate in the surgery clerkship. With a score at the 83rd percentile, it came out on top in student satisfaction among clerkships at BMC.



Quality of General Surgery Clerkships

Dr. Tseng Receives Pinnacle Award

At a ceremony in late January, Surgeon-in-Chief Jennifer Tseng, MD, MPH, received a 2020 Pinnacle Award from the Boston Chamber of Commerce. Dr. Tseng was one of eight inspiring local women selected for this annual award, which recognizes outstanding achievement in the workplace, demonstrated leadership that has made a difference, and a commitment to enhance the quality of life in the region. The 2020 Pinnacle Award honorees are leaders in government, business, and healthcare, gamechangers all in their chosen fields.



Dr. Tseng (second from right) shared the stage with Massachusetts Attorney General Maura Healey (third from right) and other honorees and event moderators.

Surgery Education Office

SURGERY RESIDENCY PROGRAM

Donald Hess, MD Associate Chair for Education. Program Director

Luise Pernar, MD Associate Program Director Teviah Sachs, MD, MPH Associate Program Director Lana Ketlere, Residency Program Coordinator

SURGERY FELLOWSHIP PROGRAMS

Surgical Critical Care Fellowship Tracey Dechert, MD, Program Director Vascular and Endovascular Surgery Fellowship Jeffrey Siracuse, MD, MBA, Program Director

PODIATRY RESIDENCY PROGRAM

Hau Pham, DPM, Program Director Ewald Mendeszoon, Jr., DPM, Associate Program Director

SURGERY CLERKSHIP

Joanne Favuzza, DO, Director

Teial Brahmbhatt, MD, Associate Director

Abdul Saied Calvino, MD, Assistant Director, Roger Williams Medical Center

Patrick B. O'Neal, MD, Assistant Director, Veterans Affairs (VA) Boston Healthcare System

Melanie Gainsbury, MD, Assistant Director, Kaiser Permanente Santa Clara

Michael DiSiena, DO, Assistant Director, Berkshire Medical Center

Yagnik Pandya, MD, Assistant Director, MetroWest Medical Center

2020 Surgery Residency Graduates

Maunil Bhatt, MD Vascular Surgery Fellowship University of California, San Francisco

surgery resident.

Joshua Davies, MD Academic Practice Boston Medical Center

Matthew Egyud, MD Thoracic Surgery Fellowship Baylor College of Medicine



SURGERY RESIDENCY PROGRAM

he Boston University Surgery Residency Program provides residents with the range and depth of surgical experience and academic exposure required to develop superior surgical skills and an ability to make informed, independent judgments. Our five-year program, which is accredited by the Accreditation Council for Graduate Medical Education (ACGME), is committed to preparing future generations of highly skilled surgeons.

The Surgery Residency Program is based at Boston University Medical Center, a modern medical complex located in the heart of Boston's South End. The medical center includes Boston University School of Medicine, the Boston University School of Public Health, the Boston University Goldman School of Dental Medicine, the National Emerging Infectious Diseases Laboratories, as well as Boston Medical Center.

The principal goal of our program is clinical excellence. We provide exposure to a large, diverse patient population and broad experience in complex open and minimally invasive surgery, which are the essential elements in the training of outstanding surgeons. With very few fellowship programs, the focus of our program is the education of the general

Residents interested in careers in academic surgery develop the necessary skills in surgical research through a broad range of training opportunities designed to maximize academic development. Residents who choose to spend dedicated academic time on research complete course work in statistics and other methodologies to become independent researchers.



2020 Surgery Residency graduates (from left): Drs. Joshua Davies, Jian Zheng, Matthew Egyud, Krista Hachey, and Maunil Bhatt.

Krista Hachey, MD

Thoracic Surgery Fellowship University of Miami/Jackson Memorial Hospital

Jian Zheng, MD Surgical Oncology Fellowship University of Pittsburgh Medical Center

CURRENT RESIDENTS (2020–2021 Academic Year)

PGY1

Categorical

Andrea Alonso, MD Boston University School of Medicine

Louis Kester, MD Drexel University College of Medicine

Anna Kobzeva-Herzog, MD Boston University School of Medicine

Maia Nofal, MD Boston University School of Medicine

Olivia Sacks, MD Geisel School of Medicine at Dartmouth

Preliminary

Fangyu Chen, MD Duke University School of Medicine

Ansh Johri, MD Pennsylvania State University College of Medicine

Liz Lin, MD Tufts University School of Medicine

Isabel Sausjord, MD Boston University School of Medicine

Keerthivasan Vengatesan, MD Boston University School of Medicine

PGY2

Categorical

Brendin Bealieu-Jones, MD Geisel School of Medicine at Dartmouth

Priyanka Chugh, MD Cooper Medical School of Rowan University

Maha Haqqani, MD Albert Einstein College of Medicine

Brenda Lin, MD Keck School of Medicine of the University of Southern California

Gordana Rasic, MD Eastern Virginia Medical School

Preliminary

Gillian Goddard, MD University of Texas Medical School at Houston

PGY3

Nicole Cimbak, MD Sidney Kimmel Medical College at Thomas Jefferson University

Loreski Collado, MD Cooper Medical School of Rowan University

Scott Levin, MD Warren Alpert Medical School of Brown University

Jacob Nudel, MD Harvard Medical School

Mark Zapata, MD Medical College of Georgia at Augusta University

PGY4

Sherif Aly, MD Boston University School of Medicine

Nkiruka Arinze, MD Vanderbilt University School of Medicine

Olivia Duhaime, MD Boston University School of Medicine

Megan Janeway, MD Boston University School of Medicine

Na Eun Kim, MD Robert Wood Johnson Medical School

Lenee Plauche, MD Boston University School of Medicine

PGY5

Aldana Blanco, MD University of Buenos Aires Faculty of Medicine

Andrea Madiedo, MD University of Miami Leonard M. Miller School of Medicine

Benjamin Nelson, MD Boston University School of Medicine

Praveen Sridhar, MD Boston University School of Medicine

Stephanie Talutis, MD, MPH New York Medical College

CURRENT FELLOWS

Surgical Critical Care Fellowship Hamza Durrani, MD Michael Taylor, DO

Vascular and Endovascular Surgery Fellowship Daniel Alfson, MD Katie Shean, MD

Current Podiatry Residents PGY1

Michele Chan, DPM Western University of Health Sciences College of Podiatric Medicine

PGY2

Ashley Daniel, DPM Barry University School of Podiatric Medicine

PGY2.5

Lva Basha, DPM Barry University School of Podiatric Medicine

PGY3

Daniel Reubens, DPM Western University of Health Sciences College of Podiatric Medicine

Residents on Research

Residents have the option to spend two years conducting laboratory or translational research, typically after their second year, to pursue their academic development. Often this research is done in collaboration with other departments at Boston Medical Center and other schools at Boston University, as well as other institutions, providing residents with a wealth of opportunities to pursue their interests, develop as academic surgeons, and make significant contributions.

Alaina Geary, MD

Tufts University School of Medicine Research Mentor: Luise Pernar, MD Area of Research: Building a resident-as-teacher program specific to general surgery residents that is suitable for publication and national dissemination.

(*Site:* Boston University School of Medicine)

Rebecca Hasley, MD

Drexel University College of Medicine Research Mentor: David McAneny, MD Area of Research: Cost, value, and timing of operating room set-up for procedures. (*Site:* Boston University School of Medicine)

Miriam Neufeld, MD

Indiana University School of Medicine Research Mentors: Sabrina Sanchez, MD, MPH, and Michael Siegel, MD, MPH Area of Research: Examining firearm policy and injury prevention, as well as exploring the mental health and social ramifications of violent trauma. (*Site:* Boston University School of Medicine)

Named Visiting Professors

In addition to multiple eminent grand rounds speakers, the Department of Surgery was honored to welcome these surgical leaders as named visiting professors during the 2019–2020 academic year.

Grasberger Research Symposium Lecture and Visiting **Professorship (virtual)**

Robert Higgins, MD

Director, Department of Surgery Johns Hopkins University School of Medicine



(Left to right): PGY1 residents Drs. Anna Kobzeva-Herzog, Andrea Alonso, Olivia Sacks, Maia Nofal, and Louis Kester.



Michael Poulson, MD

Georgetown University School of Medicine Research Mentor: Tracey Dechert, MD Area of Research: The role of social determinants of health, racial segregation, and racism on urban firearm injuries and other violent crimes. (Site: Boston University School of Medicine/ School of Public Health)

Allan Stolarski, MD

Albany Medical College Research Mentor: Daniel G. Remick, MD Area of Research: Investigating mechanisms of improved survival and organ function with HAT (hydrocortisone, ascorbic acid, and thiamine) therapy in septic shock. (*Site:* Boston University School of Medicine)

Spencer Wilson, MD

University of North Carolina at Chapel Hill School of Medicine Research Mentors: David McAneny, MD, and Pamela Rosenkranz, RN, BSN, MEd Area of Research: Multidisciplinary project to reduce the rate of post-operative urinary tract infections at a safety-net hospital. (Site: Boston University School of Medicine)

Smithwick Visiting Professorship in Vascular Surgery

Professor Andrew W. Bradbury

Sampson Gamgee Professor of Vascular Surgery University of Birmingham, United Kingdom

Peter J. Mozden Visiting Professorship in Surgical Oncology

Steven K. Libutti, MD

Rutgers Robert Wood Johnson Medical School Director, Rutgers Cancer Institute of New Jersey

Resident News



Sherif Aly, MD, co-authored three papers over the past year, including as first author of a paper published in Surgery, which presented data and analysis related to procedures performed

by the Boston Medical Center Covid-19 Procedure Team. Dr. Aly also co-authored a chapter on "Fluid, Electrolyte, & Acid–Base Disorders" in Current Diagnosis and Treatment. In addition, Dr. Aly was selected by third-year medical students to receive the 2020 Senior Resident Teaching Award. One student said of him, "Dr. Aly goes above and bevond to teach. He always makes sure you understand the why behind every decision and challenges you to take charge of every aspect of your patient's care."



Brendin Beaulieu-Jones, MD, was a co-author of

four papers, including three as first author, which were published in The Breast Journal, Journal of Pediatric Surgery, Journal of Thoracic Disease, and Pediatric Emergency Care.



Aldana Blanco, MD, matched to the Complex General Surgical Oncology Fellowship in the Department of Surgery at Johns Hopkins Medicine.



Matthew Egyud, MD, received the Senior Mentorship Award. Based on nominations by general surgery first-year residents, this award is presented to the senior resident who has contributed to resident

education and development by combining leadership, empathy, and integrity within his or her practice.



ALAINA GEARY, MD, was the recipient of the AAS/AASF Trainee Research Fellowship Award in Education. This is the first year that the Association for Academic Surgery (AAS) and its foundation (AASF) have offered an education category. Related to the award, Dr. Geary is mentored by attending surgeon Luise Pernar, MD, Surgery

Residency Associate Program Director, and co-mentored by Chief of Surgery Jennifer Tseng, MD, MPH. In addition, Dr. Pernar's paper, "Analysis of Electronic Residency Application Service (ERAS) Data Can Improve House Staff Diversity," was selected by the AAS Publications Committee as the Best AAS Overall Manuscript Submission by an AAS resident or fellow member and was published in the Journal of Surgical Research. Dr. Geary co-authored four additional papers published in peer-reviewed journals. As a member of the Diversity and Inclusion Committee, Dr. Geary also participated in developing the Association of Program Directors in Surgery (APDS) "Diversity & Inclusion Toolkit," published online in 2020.



Medical Center and a pre-eminent teacher of medical students. This comment is representative of the many positive comments from students about Dr. Hachey: "Dr. Hachey would always go the extra mile, taking the time to see if you had any questions and making sure that you really understood what was going on during an operation, explaining key indications to maximize learning."

Megan Janeway, MD,

was nominated by the Boston University School of Medicine Class of 2022 and inducted into the Robert Russell, M.D. Chapter of the Gold

Humanism Honor Society, a national society recognizing and supporting humanistic exemplars in medicine. Dr. Janeway was also one of six Boston Medical Center residents to receive the Arnold P. Gold Foundation Humanism & Excellence in Teaching Award, based on her commitment to teaching and compassionate treatment of patients, families, students, and colleagues.



Scott Levin, MD, received an NIH LRP award and will use econometrics to evaluate the impact of the USPSTF AAA screening guidelines on aneurysm screening, rupture, and repair rates. Dr. Levin also

won the 9th Annual MCACS (Massachusetts Chapter of the American College of Surgeons) Resident Essay Competition and an ACS 2020 Leadership & Advocacy Summit Resident Scholarship. Dr. Levin's essay addressed the role of surgeons in advocating for value-based payment models more favorable to safety-net hospitals. Over the course of the year, Dr. Levin co-authored 17 papers that were

published or are in press, including eight as first author. In addition, Dr. Levin earned a master's degree in health services research from the Boston University School of Public Health, and was inducted into the school's Delta Omega Honorary Society in recognition of graduating in the top 10 percent of the class and dedication to the field of public health. Dr. Levin's thesis was an evaluation of the impact of state tobacco policies on smoking prevalence among vascular surgery patients.



Kathryn Rosenthal, MD, was selected by third-year medical students to

receive the junior teaching award. One student said, "Dr. Rosenthal is exactly the type of doctor and person I aspire to be.

Engaging, kind, funny, smart, and always willing to teach. Working with her made my surgery clerkship so much fun."



Praveen Sridhar, MD. matched to the Vascular Fellowship in the Department of Surgery at Utah Health.



Allan Stolarski, MD, authored eight publications in peerreviewed journals (six as first author) including a first-author research letter (Retired surgeons' reflections on their

careers) published in JAMA Surgery, which garnered significant attention. In addition, Dr. Stolarski made an e-poster presentation at the Society of American Gastrointestinal and Endoscopic Surgeons Annual Meeting.



had 10 papers published in peer-reviewed journals: Journal of Vascular Surgery, Surgery, American Journal of Surgery, World Journal of Colorectal Surgery, The Joint Commission Journal on Quality and Patient Safety, and World Journal of Surgery. Dr. Talutis made a podium presentation and four poster presentations, including one selected as a poster of distinction at the New England Surgical Society Annual Meeting. Dr. Talutis matched to the Vascular Surgery Fellowship in the Department of Surgery at UCLA Health.



Stephanie Talutis, MD,

Spencer Wilson, MD, co-authored a SCORE chapter on "Anorectal

abscess and fistulae" and made a poster presentation, "Implementation of a

quality improvement

project for frail surgical geriatric patients in an urban safety-net hospital," at the American College of Surgeons Quality and Safety Conference.



Mark Zapata, MD, received the Surgical Critical Care Award, which is presented to he iunior resident who has excelled in the management of critically ill surgical patients.



Jian Zheng, MD, who recently began surgical oncology fellowship at University of Pittsburgh Medical Center, was first author of a paper, "General surgery chief residents' perspective on

surgical education during the coronavirus disease 2019 (Covid-19) pandemic," published in Surgery.



Research underway in the Department of Surgery reflects a major commitment to advancing knowledge and improving patient care and outcomes. The department's faculty and trainees are engaged in all aspects of research, from explorations at the basic science level to translating discoveries into treatments that improve human health.

Collaborations with colleagues at the Boston University Schools of Medicine, Engineering, Public Health, and Business enhance projects in the clinical, health services, and education research arenas.

Surgery Research Council

The research council was created to oversee ongoing research and stimulate work in new areas of interest. Members meet on a regular basis and provide advice, guidance, and mentorship to faculty and residents in the department who are engaged in research.

- Alaina Geary, MD (resident member)
- Tony Godfrey, PhD
- Donald Hess, MD (ex officio)
- Kelly Kenzik, PhD, MS (guest faculty) University of Alabama at Birmingham
- Marina Malikova, PhD, MSci, MA
- Amy Rosen, PhD
- Teviah Sachs, MD, MPH
- Jeffrey Siracuse, MD, MBA
- Jennifer Tseng, MD, MPH (ex officio)
- Christina Wee, MD, MPH (guest faculty) Beth Israel Deaconess Medical Center; Associate Professor of Medicine, Harvard Medical School

Selected Grants

NEW

Contribution of Cellular Senescence to **Delayed Wound Healing** Principal Investigator:

Daniel Roh, MD, PhD Sponsor: Boston Claude D. Pepper Older Americans Independence Center **REC** Award Grant amount: \$108,000

Role of Senescence in the Impaired Wound Healing of Aging Principal Investigator: Daniel Roh, MD, PhD Sponsor: National Institutes of Health/ National Institute on Aging Grant amount: \$330,000

Single Cell RNA-sequence Analysis of Tumor-Immune Microenvironment in Stage I Non-Small Cell Lung Cancer Patients

Principal Investigator: Kei Suzuki, MD Sponsor: The Elsa U. Pardee Foundation **Grant amount:** \$166,932

Community Violence Response Team

Principal Investigator: Lisa Allee, MSW, LICSW Sponsor: Massachusetts Office for Victim Assistance Grant amount: \$1,494,880

Understanding the Patient-Centered Outcomes for One-stage and Two-stage **Brachial Basilic Arteriovenous Fistula:** A Pilot Trial

Principal Investigator: Jeffrey Siracuse, MD, MBA Sponsor: American Society of Diagnostic and Interventional Nephrology **Grant amount:** \$25,000

Evaluation of Intraoperative Decision-Making Communication

Principal Investigator: Alaina Geary, MD Sponsor: AAS/AASF Trainee Research Fellowship Award Grant amount: \$30,000

ONGOING

Prognostic Immune Score for Stage I Lung Adenocarcinoma

Principal Investigator: Kei Suzuki, MD Sponsor: CHEST Foundation **Grant amount:** \$60,000

Utilization of Nasal Biomarkers as **Screening Tools for Lung Cancer**

Principal Investigator: Kei Suzuki, MD Sponsor: The Thoracic Surgery Foundation **Grant amount:** \$80,000

Development of Diagnostic and Prognostic Tests for Esophageal Adenocarcinoma

Principal Investigator: Tony Godfrey, PhD BU Co-Investigator: Virginia R. Litle, MD Sponsor: National Institutes of Health/ National Cancer Institute Grant amount: \$2,456,723

Custom Assays for Personalized, Longitudinal Monitoring of Circulating Tumor DNA Using PIPSenSeq

Principal Investigator: Tony Godfrey, PhD BU Co-Investigator: Anand Devaiah, MD Sponsor: National Institutes of Health/ National Cancer Institute Grant amount: \$759.836

High-Performance Operating Room Team (HPT) Pilot with Planned Adoption of HPT Construct Across all Surgery **Specialties at Boston Medical Center**

Principal Investigator: Pamela Rosenkranz, RN, BSN, MEd Sponsor: 2019 HealthTrust Innovation Grant

Grant amount: \$50,000

Selected Clinical Research Projects

There are 142 open clinical research protocols in the Department of Surgery managed by dedicated teams of researchers in state-of-the-art facilities within Boston University School of Medicine/Boston Medical Center. The chart at right indicates the range of research conducted in the department.

Selected Clinical Trials

Currently Open for Enrollment

DIVISION OF TRAUMA SURGERY AND CRITICAL CARE

Early and Adequate Protein Feeding Post-Traumatic Injury Principal Investigator: Peter Burke, MD Sponsor: NIH/National Institute of Diabetes and Digestive and Kidney Diseases

DIVISION OF GENERAL SURGERY, SECTIONS OF SURGICAL ONCOLOGY

AND ENDOCRINE SURGERY **Comparison of Outcomes of Antibiotic** Drugs and Appendectomy (CODA) Trial BMC Site Co-Principal Investigator: F. Thurston Drake, MD, MPH BMC Site Co-Principal Investigator: Sabrina Sanchez, MD, MPH Sponsor: Patient-Centered Outcomes Research Institute (PCORI)

DIVISION OF VASCULAR AND

ENDOVASCULAR SURGERY Percutaneous Deep Vein Arterialization for the Treatment of Late-Stage **Chronic Limb-Threatening Ischemia** (PROMISE II Trial) Principal Investigator: Alik Farber, MD, MBA Sponsor: LimFlow, Inc

A Multicenter, Prospective, Randomized, Placebo Controlled, Double-Blind Study Performed to Evaluate the Safety and the Efficacy of EscharEx (EX-02 formulation) in Debridement of Venous Leg Ulcers Principal Investigator: Alik Farber, MD, MBA Sponsor: MediWound Ltd.

Randomized, Multicenter, Controlled Trial to Compare Best Endovascular versus Best Surgical Therapy in Patients with Critical Limb Ischemia BMC Site Principal Investigator: Jeffrey Kalish, MD Executive Chair: Alik Farber, MD, MBA Sponsor: NIH/National Heart, Lung and Blood Institute

Standard Versus Negative Pressure Vacuum Dressings (PICO) in Lower-**Extremity Bypass Patients (PICO-LEB)** Principal Investigator: Jeffrey Siracuse, MD, MBA Sponsor: Smith and Nephew

Predicting the Safety and Effectiveness of Inferior Vena Cava Filters (PRESERVE) Principal Investigator: Jeffrey Kalish, MD Sponsor: HealthCore (formerly New England Research Institute)

DEPARTMENT OF SURGERY PORTFOLIO OF CLINICAL RESEARCH PROJECTS (N=142), FY 2020



- Investigator-initiated studies 109
- 12 Industry-sponsored trials
- 13 Federally sponsored studies
- 8 Nongovernmental organizations (NGOs), foundations

A Multicenter Prospective Study to **Evaluate the Safety and Effectiveness** of the VasQ External Support for Arteriovenous Fistula

Principal Investigator: Alik Farber, MD, MBA Sponsor: Laminate Inc. **Perioperative Nutritional Optimization** in Patients with Critical Limb Ischemia Principal Investigator: Jeffrey Siracuse, MD, MBA

Sponsor: Vascular & Endovascular Surgery Society

DIVISION OF PODIATRY SURGERY A Multi-Center, Prospective, Randomized, Controlled, Blinded Assessor Trial, Comparing the Safety and Efficacy of ActiGraft[™] to Standard of Care in Patients with Chronic **Neuropathic Diabetic Foot Ulcers** Principal Investigator:

Hau Pham, DPM Sponsor: RedDress Ltd.

SECTION OF MINIMALLY INVASIVE AND WEIGHT LOSS SURGERY **Bone Metabolism in Adolescents** Undergoing Bariatric Surgery

BMC Site Principal Investigator: Brian Carmine, MD Principal Investigator: Madhusmita Misra, MD Sponsor: National Institute of Diabetes and Digestive and Kidney Diseases

Publications

Research conducted by faculty and trainees of the Department of Surgery is published widely in leading journals and textbooks. During the previous academic year, the department had 168 articles published in peer-reviewed journals and 14 published books or book chapters.

Selected Papers

Firearm Policy: Physician Organizations' Role in Political Action Committee Funds, 2018. **Neufeld MY, Sanchez SE**, Siegel M. Am J Public Health. 2019.

Peripheral Blood Lymphocytes and Platelets Are Prognostic in Surgical pT1 Non-Small Cell Lung Cancer. Sulibhavi A, Asokan S, Miller MI, Moreira P, Daly BD, Fernando HC, **Litle VR, Suzuki K**. Ann Thorac Surg. 2019.

Alternative Ultrasound Modalities to Attempt to Assess High Risk Asymptomatic Carotid Plaques. **Siracuse JJ**. J Vasc Surg. 2019

Review of the Global Vascular Guidelines on the Management of Chronic Limb-Threatening Ischemia. Jones DW, **Farber A**. JAMA Surg. 2019.

Surgery Service Learning in Preclinical Years Improves Medical Student Attitudes Toward Surgery, Clinical Confidence, and Social Determinants of Health Screening. Janeway MG, Lee SY, Caron E, Sausjord IK, Allee L, Sanchez SE, Dechert TA. Am J Surg. 2020.

The Impact of Preoperative Carbohydrate Loading on Patients with Type II Diabetes in an Enhanced Recovery After Surgery Protocol. **Talutis SD**, Lee SY, Cheng D, **Rosenkranz P**, Alexanian SM, **McAneny D**. Am J Surg. 2020.

Age, Race, and Income Are Associated With Lower Screening Rates at a Safety Net Hospital. Steiling K, Loui T, Asokan S, Nims S, Moreira P, Rebello A, **Litle VR, Suzuki K**. Ann Thorac Surg. 2020. Venous Thromboembolism Prophylaxis in Thoracic Surgery Patients: An International Survey. Shargall Y, Brunelli A, Murthy S, Schneider L, Minervini F, Bertolaccini L, Agzarian J, Linkins LA, Kestenholz P, Li H, Rocco G, Girard P, Venuta F, Samama M, Scarci M, Anraku M, Falcoz PE, Kirk A, Solli P, Hofstetter W, Okumura M, Douketis J, Litle V. Eur J Cardiothorac Surg. 2020.

Evaluation of a Preceptorship Model on Third-Year General Surgery Clerkship. **Geary AD**, **Pernar LI, Chugh PV, Carter CO**. J Am Coll Surg. 2020.

Laparoscopic Resection After Neoadjuvant Chemotherapy for Distal Gastric Tumors: Safe, but Is It Better? **Sachs TE, Tseng JF**. JAMA Surg. 2019.

The Impact of Race, Insurance, and Income on Location and Outcomes of Ambulatory Surgery: Results from Two States. Janeway MG, Sanchez SE, Chen Q, Nofal MR, Wang N, Rosen AK, Dechert TA. JAMA Surg. 2020.

Preventing Surgical Site Infections: Looking Beyond the Current Guidelines. Fields AC, Pradarelli JC, **Itani KMF**. JAMA. 2020.

The Boston Medical Center Coronavirus Disease 2019 (COVID-19) Procedure Team: Optimizing the Surgeon's Role in Pandemic Care at a Safety-net Hospital. 2020. Sherif Aly, MD, Stephanie D. Talutis, MD, MPH, Aaron P. Richman, MD, Donald T. Hess, MD, David McAneny, MD, Jennifer F. Tseng, MD, MPH, F. Thurston Drake, MD, MPH. Surgery. 2020. Risk Factors for Readmission after Ileostomy Creation: an NSQIP Database Study. **Kim NE, Hall JF**. J Gastrointest Surg. 2020.

Influence of Race and Sociodemographic Factors on Declining Resection for Gastric Cancer: A National Study. Schultz, KS, de Geus, SWL, Sachs, TE, Morgan, RB, Chau, SN, McAneny, D, Tseng, JT. Am J Surg. 2020.

Metabolites in a Mouse Cancer Model Enhance Venous Thrombogenicity Through the Aryl Hydrocarbon Receptor– Tissue Factor Axis. Belghasem M, Roth D, Richards S, Napolene MA, Walker J, Yin W, **Arinze N**, Lyle C, Spencer C, Francis JM, Thompson C, Andry C, Whelan SA, Lee N, Ravid K, Chitalia VC. Blood. 2019.

Detection of Circulating Tumor DNA in Plasma: A Potential Biomarker for Esophageal Adenocarcinoma. **Matthew Egyud**, Mohamedtaki Tejani, Arjun Pennathur, James Luketich, **Praveen Sridhar**, Emiko Yamada, Anders Ståhlberg, Stefan Filges, Paul Krzyzanowski, Jennifer Jackson, Irina Kalatskaya, Wei Jiao, Gradon Nielsen, Zhongren Zhou, **Virginia Litle**, Lincoln Stein, **Tony Godfrey**. Thorac Surg. 2019.

Enrollment Obstacles in a Randomized Controlled Trial: A Performance Survey of Enrollment in BEST-CLI Sites. Villarreal MF, **Siracuse JJ**, Menard M, Assmann SF, Siami FS, Rosenfield K, Strong MB, **Farber A.** Ann Vasc Surg. 2019.

Endovascular Exclusion and Open Resection of Aberrant Pulmonary Artery Aneurysm Associated with Intralobar Pulmonary Sequestration. Sridhar P, Hardouin S, Cheng T, Farber A, Suzuki K, Jones DW. J Vasc Surg. 2019.

Two Novel Risk Factors for Postoperative Venous Thromboembolism: A Reconsideration of Standard Risk Assessment and Prophylaxis. Vaughn SC, **Talutis SD, Cassidy MR, Sachs TE, Drake FT, Rosenkranz P**, Rao SR, **McAneny D**. Am J Surg. 2020.

Analysis of Electronic Residency Application Service (ERAS) Data Can Improve House Staff Diversity. **Geary AD**, Wang V, Cooper J, Roberts K, Yoo J. J Surg Res. 2020.

National Disparities in COVID-19 Outcomes between Black and White Americans. Poulson M, Geary AD, Annesi C, Allee L, Kenzik K, Sanchez SE, Tseng, JF, Dechert T. J Natl Med Assoc. 2020.

The Impact of Residential Segregation on Pancreatic Cancer Diagnosis, Treatment, and Mortality. **Poulson M, Blanco BA, Kenzik K, McAneny D, Tseng J, Sachs T.** Ann Surg Oncol. In Press.

Residential Racial Segregation and Disparities in Breast Cancer Presentation, Treatment, and Survival. **Poulson M, Beaulieu-Jones B, Kenzik K, Dechert T,** Ko, M, **Sachs T, Cassidy M.** Ann Surg. In Press.



Stronger Together — Your Support Is Invaluable

In these unprecedented times, we are more grateful than ever for your support. The pandemicrelated cessation of elective surgeries, which started in March and stretched for three months, had an immediate financial impact on our department and across Boston Medical Center, even as colleagues and resources were stretched to the limit.

We rose to the challenge, just as we have for more than 150 years, and carried out our mission of caring for our community's most vulnerable residents with compassion and conviction. The road ahead may test us, but we are resilient and driven by an unstoppable commitment to be here for those in need.

We extend our heartfelt gratitude to all who have already given to support the department and Boston Medical Center.

Please consider making a gift to the Department of Surgery.

Use the enclosed postage-paid envelope to mail your gift, or give online at: **development.bmc.org**. When giving online, please select the "**Department of Surgery**" to ensure your gift is directed to us.

For more information about supporting the Department of Surgery, contact the Boston Medical Center Development Office at 617-383-8990 or development.bmc.org.



Alumni and other friends: Please keep in touch!

Please send us your current/preferred contact information (e-mail and mailing address, please) so we can keep you informed about your fellow alumni and other news, and invite you to alumni events. We will use this information only for items of interest, such as newsletters and invitations, and will not share it. In addition, please send us news and contact information about your current or former colleagues with a BU/BMC surgery connection, whether from medical school, residency, fellowship, or faculty years.

Reach us at: surgery@bu.edu. And be sure to follow us on Twitter and Instagram @BMCSurgery.

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