



Mass General Brigham

A close-up photograph of a surgeon wearing a blue surgical cap, a white surgical mask, and a pair of surgical loupes. The surgeon is looking down at a procedure. In the background, another person in a surgical mask is visible. The lighting is dramatic, with strong highlights and shadows.

Neurosurgery Residency Program



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Neurosurgery Residency Program Overview

Dear Applicants,

We are thrilled to welcome you to the Mass General Brigham Neurosurgery Residency Program. Last year, Massachusetts General Hospital and Brigham and Women's Hospital Departments of Neurosurgery merged to become Mass General Brigham Neurosurgery.

Transformation is and will be challenging, but we are confident our program will be the most influential, impactful, and patient-focused academic department of Neurosurgery in the world. Our goal is to deliver the highest-quality trainee education as well as research-infused care to the patients and families we serve by working better together. By working collaboratively across our entire system, I'm confident that we can improve the clinician and patient experience and make significant progress toward creating more access for the many patients who need neurosurgical care.

I know that, together, we will strengthen our clinical, research and education programs. Our goal is to become One Mass General Brigham Neurosurgery. As one department, we will accomplish amazing things together to treat patients, develop new therapies, and train the next generation of leaders in our field of neurosurgery.

All my best,

E. Antonio Chiocca, MD, PhD



E. Antonio Chiocca, MD, PhD

Chair, Mass General
Brigham Neurosurgery



Brian V. Nahed, MD, MSc.

Vice Chair,
Education Program Director

Contacts:

Katie Roche, MHA
Education Program Manager
617-726-5143 | kroche1@mgh.harvard.edu

Courtney Gilligan, MHA
Education Program Administrator
617-732-8719 | cegilligan@bwh.harvard.edu

Overview

Neurosurgical training at Mass General Brigham is a comprehensive seven-year program designed specifically to prepare each resident for a career in clinical and academic neurosurgery.

Neurosurgical training starts PGY-1 year with rotations in the NICU, neurosciences, and fundamental clinical skills training in the surgical sub-specialties.

The residency training period is a time of collaboration. Just as the faculty have set goals for the residents to ensure proper training, the faculty have also set goals to ensure the program continues to evolve and adapt to changes in resident education. The guidelines and expectations outlined should be viewed as our ongoing attempt to continuously improve the quality of the training and educational experience of the residents.

Clinical training program

Our neurosurgical residents are exposed to high clinical volume, direct patient care and are expected to gain mastery of clinical and operative skills under the guidance of experienced attending neurosurgeons. It is essential that residents are exposed to each subspecialty in sufficient depth and breadth to become fully competent. Every trainee receives a focused experience in each of the main subspecialties, working in close conjunction with an expert senior attending physician who is a leader focused in brain tumor, vascular, functional, pediatric, peripheral nerve, skull-base or spine.

11,000

Neurosurgical cases per year

80

Neurosurgical clinical faculty

42

Residents in training

18

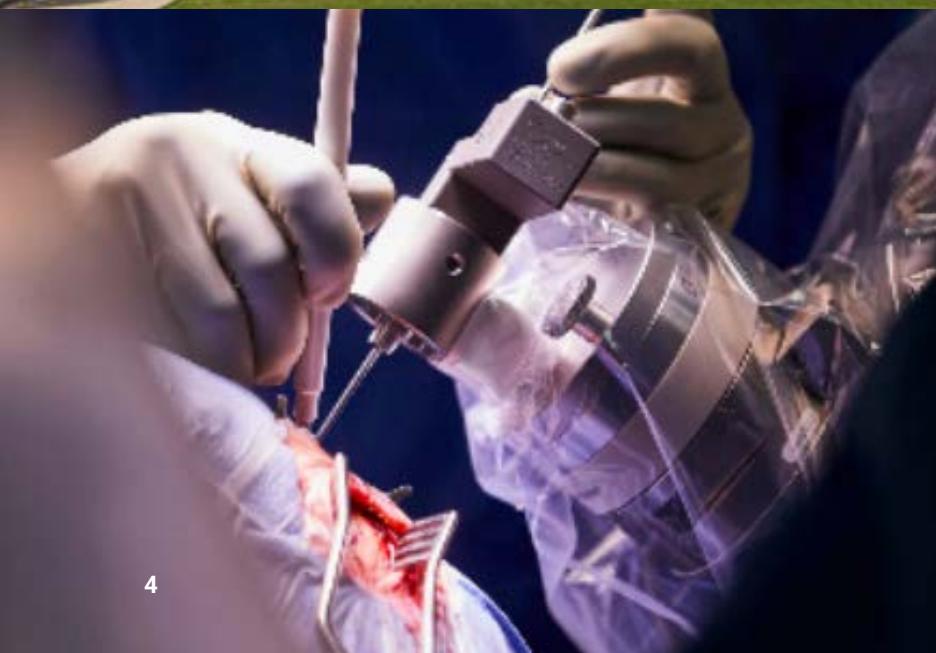
Neurosurgery ORs

2 years

Dedicated to research,
fellowship, and innovation

3 leading

Academic Medical Centers



Educational opportunities

Resident educational opportunities are an integral part of the program. Residents are encouraged to attend neurosurgical courses throughout their training in their chosen sub-specialty. The program encourages and sponsors residents to present their research at neurosurgery grand rounds and at national conferences including the American Association of Neurosurgical Surgeons, the Congress of Neurological Surgeons, and sub-specialty section meetings.

In addition, Mass General Brigham residents play an important role educating more junior colleagues and mentoring Harvard Medical Students and its AANS Chapter to host neurosurgical lectures, teach neuroanatomy, introduce surgical skills, and host monthly educational events.

Research opportunities

Residents are provided two years dedicated to research, clinical fellowship, or in pursuit of an advanced degree. Research opportunities in Boston are abundant and include those at the Brigham and Women's Hospital (BWH), Boston Children's Hospital (BCH), Massachusetts General Hospital (MGH), Dana Farber Cancer Institute (DFCI), Broad Institute, Wyss Institute, Harvard Medical School (HMS), Harvard School of Public Health, Harvard University (HSPH), and Massachusetts Institute of Technology (MIT).

Program overview

The intern year (PGY 1) provides a broad exposure to all neurosurgical disciplines, including tumor, vascular, trauma, functional, spine, pediatrics and neurocritical care. Residents in their elective years (PGY 4/PGY 5) perform laboratory-based research, pursue clinical fellowships, or obtain additional degrees.

Subspecialty	PGY 1	PGY 2 / PGY 3	PGY 4 / PGY 5	PGY 6 / PGY 7
Tumor	Intro exposure	3-4 months	Research/fellowship	Chief rotation
Vascular/Functional	Intro exposure	3-4 months	Research/fellowship	Chief rotation
Spine	Intro exposure	3-4 months	Research/fellowship	Chief rotation
Pediatrics	Intro exposure	2-3 months	Research/fellowship	Senior rotation
Critical Care	4 months	–	Research/fellowship	Chief rotation



MGH Neurosurgery Residents

PGY 7



Ian Connolly, MD
Stanford Medical School



William Munoz Miranda, MD, PhD
NYU School of Medicine



Faith Robertson, MD, MSc
Harvard Medical School

PGY 6



Kow Essuman, MD, PhD
Washington University in
St. Louis, School of Medicine



Nathaniel Sisterson, MD, MSc.
University of Pittsburgh
School of Medicine

PGY 5



Opeyemi Alabi, MD, PhD
University of Pennsylvania



Brian Hsueh, MD, PhD
Stanford University
School of Medicine



Tariq Parker, MD, PhD
University of the West Indies
Faculty of Medical School

"I do feel like the other neurosurgery residents have become my best friends and my family. It's important for a program that is seven years long that you respect your colleagues, which I certainly do, but really what I like is the culture here is not one of complaining. It's not putting other residents or other services down. It's really just about banding together, working as hard as you can as a team in order to provide the best possible patient care. And that has always been true as long as I've been here."

Victoria Clark, MD, PhD
Resident, Class of 2023

MGH Neurosurgery Residents

PGY 4



Suk Joon (SJ) Lee, MD, PhD

Harvard Medical School



Briana Prager, MD, PhD

Case Western Reserve
University SOM



William Smith, MD

Geisel SOM at Dartmouth

PGY 3



Jacob Kosyakovsky, MD

University of Virginia, SOM



Grace Ng, MD, MS

University of Pennsylvania



Adrian Rodrigues, MD

Stanford University SOM

PGY 2



Grace Nevil, MD

Geisel SOM at Dartmouth



Edwin Owolo, MD

Duke University SOM



Christina P. Rossitto, MD

Icahn SOM at Mt. Sinai



Gabriela D. Ruiz Colón, MD

Stanford University SOM

PGY 1



Natasha Hughes, MD

Vanderbilt University SOM



Rohan Jha, MD

Harvard Medical School



Ravi Pancholi, MD, PhD

NY University Grossman SOM

BWH Neurosurgery Residents

PGY 7



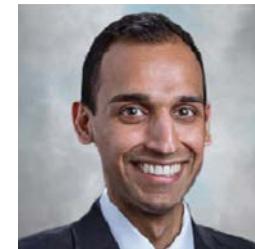
Joshua Bernstock, MD, PhD

U Alabama Birmingham Med School



Melissa Chua, MD

Boston University Medical School



Saksham Gupta, MD

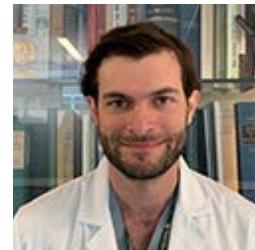
Harvard Medical School

PGY 6



Marcelle Altshuler, MD

Georgetown Medical School



Joshua Chalif, MD, PhD

Columbia Medical School



Jason Chen, MD, PhD

UCLA Medical School

PGY 5



Casey Jarvis, MD

USC Medical School



Sean Lyne, MD

University of Chicago Medical School



James Tanner McMahon, MD

Emory Medical School

PGY 4



Adam Glaser, MD

Dartmouth Medical School



David Liu, MD

Brown Medical School



Gabrielle Luiselli, MD

UMass Medical School

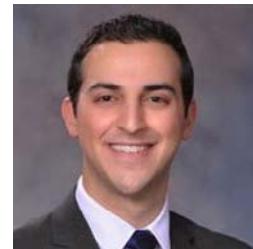
BWH Neurosurgery Residents

PGY 3



Eric Chalif, MD

George Washington Medical School



Ron Gadot, MD

Baylor Medical School



Chibueze Nwagwu, MD

Emory Medical School

PGY 2



Sarah Blitz, MD

Harvard Medical School



Alexander Yearly, MD

Harvard Medical School



Eduardo Maury, MD, PhD

Harvard Medical School

PGY 1



Ruchit Patel, MD

Harvard Medical School



Solomiia Savchuk, MD

Stanford Medical School



Maren Loe, MD, PhD

Washington University at St. Louis

Neurosurgical Faculty

Brain Tumor



Omar Arnaout, MD



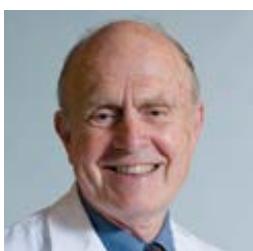
Fredrick Barker, MD



Wenya Linda Bi, MD, PhD



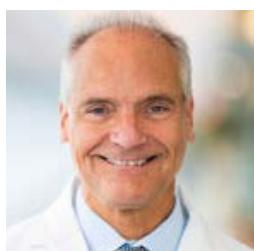
Daniel Cahill, MD



Paul Chapman, MD



Bryan Choi, MD, PhD



Nino Chiocca, MD, PhD



Elizabeth Claus, MD, PhD



William Curry, MD



Gavin Dunn, MD, PhD



Alexandra Golby, MD



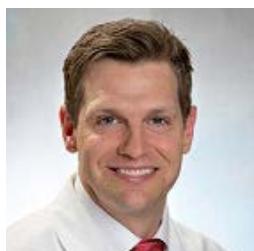
Pamela Jones,
MD, MPH, MS



Brian V. Nahed, MD, MSc.



Pier Paolo Peruzzi, MD, PhD



Timothy Smith,
MD, PhD, MPH



Genaro Rodriguez Villa,
MD, PhD

Neurosurgical Faculty

Cerebrovascular and Endovascular



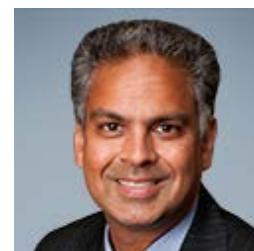
M. Ali Aziz-Sultan, MD



Rose Du, MD, PhD



Kair Frerichs, MD



Aman B. Patel, MD



Nirav Patel, MD



James Rabinov, MD



Christopher J. Stapleton, MD

Functional



G. Rees Cosgrove, MD



Pranav Nanda, MD



R. Mark Richardson, MD, PhD



John Rolston, MD, PhD



Jeffrey Schweitzer, MD, PhD



Ziv Williams, MD

Spine



Tracy L. Ansay, MD



Lawrence Borges, MD



Herbert Cares, MD



John H. Chi, MD, MPH



Jean-Valery Coumans, MD



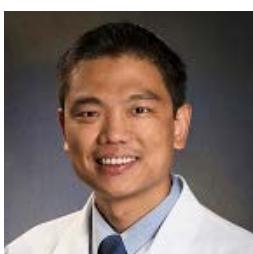
Kurtis A. Dafford, MD



Muhamed Hadzipasic,
MD, PhD



Kevin Huang, MD



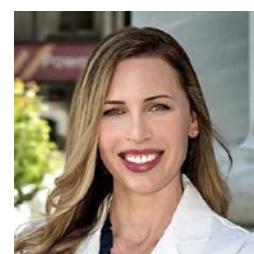
Yi Lu, MD, PhD



Michael Mooney, MD



Jason P. Rahal, MD



Danielle Sarno, MD



Ganesh Shankar,
MD, PhD



James Harris Stephen,
MD, MENG



Ziv Williams, MD



Hasan Zaidi, MD

Neurosurgical Faculty

Mass General Brigham Pediatric Neurosurgery



William Butler, MD



Ann-Christine Duhaime, MD



Kristopher Kahle, MD, PhD

Peripheral Nerve



Justin Brown, MD



Benjamin Roche Johnston,
MD, PhD



Ziv Williams, MD

Boston Children's Hospital Pediatric Neurosurgery



Lissa Baird, MD



Katie Pricola Fehnel, MD



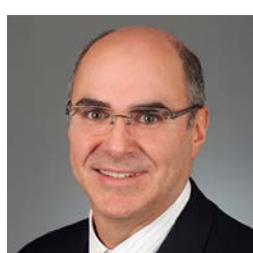
Edwin Kulubya, MD, MBA



Joseph Madsen, MD



Weston Northam, MD



Mark Proctor, MD



Shivani Rangwala, MD



Alfred Pokmeng See, MD

Boston Children's Hospital Pediatric Neurosurgery (continued)



Edward Smith, MD



Scellig Stone, MD



Benjamin Warf, MD



Mass General Alumni

2025

Gabriel Friedman, MD
University of Washington
Medical Center
Fellow, Functional Neurosurgery

Pranav Nanda, MD
Mass General Brigham
Functional Neurosurgery

2024

Muhamed Hadzipasic, MD, PhD
Mass General Brigham
Spinal Neurosurgery

Myron Rolle, MD
Bemours Children's Health
Pediatric Neurosurgery

Pratik Talati, MD, PhD,
Penn State Health Assistant
Professor, Functional
Neurosurgery

2023

Amy Baohan, MD, PhD
Advanced Neurosurgery
Associates, New Jersey
General Neurosurgery

Victoria Clark, MD, PhD
Mayo Clinic, Jacksonville,
Florida Senior Associate
Consultant

Arjun Khanna, MD
UC San Diego Assistant
Professor, Functional
Neurosurgery

2022

Christine Lee, MD, PhD
Brown University
Assistant Professor
Neurosurgical Skull Base

Athar N. Malik, MD, PhD

Brown University
Assistant Professor
Functional Neurosurgery

Cameron Sadegh, MD, PhD
UC Davis Health Medical Center
Assistant Professor
Pediatric Neurosurgery

2021

Bryan D. Choi, MD, PhD
Mass General Brigham
Associate Professor,
Neurosurgical Oncology

Benjamin L. Grannan, MD
University of Washington
Assistant Professor
Functional Neurosurgery

Jimmy C. Yang, MD
Ohio State University
Assistant Professor
Functional Neurosurgery

2020

Christopher Alvarez-Breckenridge, MD, PhD
MD Anderson Cancer Center
Assistant Professor
Neurosurgical Oncology

Matthew Koch, MD
UF Gainseville
Assistant Professor
Vascular Neurosurgery

Robert Koffie, MD, PhD
Neuroscience Group of
Wisconsin Neurosurgical Spine

2019

Sarah Bick, MD
Vanderbilt University
Medical Center
Assistant Professor
Functional Neurosurgery

Vijay Yanamadala, MD
Hartford Hospital
Medical Director Spine Quality
Assistant Professor
Neurosurgical Spine

Marcus Zachariah, MD, PhD
Neurosurgical Medical
Clinic San Diego,
Minimally Invasive Neurosurgery

2018

Andrew Venteicher, MD, PhD
University of Minnesota
Associate Professor
Neurosurgical Skull Base

Christopher Stapleton, MD
Mass General Brigham
Assistant Professor, Vascular
Neurosurgery

Matthew Mian, MD
Colorado Carepoint
Functional Neurosurgery

2017

Pankaj Agarwalla, MD, MS
Rutgers Neurosurgery
Associate Professor
Neurosurgical Skull Base

Katie Fehnel, MD
Boston Children's Hospital
Assistant Professor
Oncology / Director Spinal
Tumors

Ganesh Shankar, MD, PhD

Mass General Brigham
Associate Professor,
Neurosurgical Spine Director,
Neurosurgical Spine, Mass
General Brigham

2016

Anoop Patel, MD
Duke Neurosurgery
Associate Professor
Neurosurgical Skull Base

Pamela S. Jones, MD, MS, MPH
Mass General Brigham
Assistant Professor,
Neurosurgical Oncology

Josh Aronson, MD
Beth Israel Deaconess
Medical Center
Assistant Professor
Functional Neurosurgery

2015

Navid Redjal, MD
Capital Health Institute
Program Director
Neurosurgical Oncology

Brian Walcott, MD
Santa Barbara Cottage Hospital
Vascular Neurosurgery

Patrick Codd, MD
Duke University
Associate Professor
Neurosurgical Skull Base

Brigham and Women's Alumni

2025

Benjamin Roche Johnston, MD, PhD
Mass General Brigham
Instructor, Peripheral Nerve

Ari Kappel, MD
USC Keck School
of Medicine Endovascular
Neurosurgery Fellow

Genaro Villa, MD, PhD
Mass General Brigham,
VA Boston Instructor,
General Neurosurgery

2024

Stanley Bazarek, MD, PhD
Case Western Reserve
University SOM Assistant
Professor, Neurosurgical Spine

Neil Klinger, MD
Munson Healthcare, Traverse
City, MI General Neurosurgery

Martina Mustroph, MD, PhD
Christus Health, Tyler, TX
General Neurosurgery

2023

Joseph Driver, MD
Logan Health, Kalispell, MT
Neurosurgical Spine

Walid Ibn Essayed, MD
UT Health Houston Assistant
Professor, Neurosurgical Spine
and Oncology

David Segar, mD
Medical Director, Nudge

2022

Yasser Jeelani, MD
Hackensack Meridian Health,
Edison NJ Assistant Professor,
Cerebrovascular Neurosurgery

Rosalind Lai, MD
University of Buffalo
Assistant Professor,
Cerebrovascular Neurosurgery

Kyle Wu, MD
The Ohio State University
Wexner Medical Center
Assistant Professor,
Neurosurgical Oncology

2021

Kevin T. Huang, MD
Mass General Brigham
Assistant Professor,
Neurosurgical Spine

Ian J. Tafel, MD
University of Florida Health -
Halifax Neurosurgical Spine

Pablo Andres Valdes Quevedo, MD, PhD
University of Texas, Medical
Branch Assistant Professor,
Neurosurgical Oncology

2020

Dustin Donnelly, MD, PhD
Case Western Reserve
University SOM Assistant
Professor, Neurosurgical Spine

David Penn, MD
Vassar Brothers Medical Center
& Danbury Hospital, Nuvance
Health, Poughkeepsie, NY
Neurosurgical Spine

Christian Strong, MD
Strong Neurosurgery Consulting
Atlanta, GA

2019

Vamsidhar Chavakula, MD
Neurosurgical Medical Clinic,
San Diego, CA Functional
Neurosurgery

Ziev Moses, MD
Beth Israel Deaconess Medical
Center Assistant Professor,
Neurosurgical Spine

Pokmeng Alfred See, MD
Boston Children's Hospital
Assistant Professor,
Pediatric Neurosurgery

2018

Hormuzdiyar Dasenbrock, MD
Boston Medical Center
Assistant Professor,
Endovascular Neurosurgery

Viren Vasudeva, MD
St. Mary's Healthcare System,
Georgia Neurosurgical Surgery
& Comprehensive Spine
Neurosurgical Spine

2017

Wenya Linda Bi, MD, PhD
Mass General Brigham
Associate Professor,
Neurosurgical Oncology
Site Director/Assistant
Program Director

Matthew Vestal, MD, MBA
Dartmouth Hitchcock Medical
Center Associate Professor,
Pediatric Neurosurgery Director
of Pediatric Neurosurgery,
Dartmouth Health Children's

2016

Muhammed Abd-El-Barr, MD, PhD
Duke University Professor,
Neurosurgical Spine

Michael Raber, MD
Kootenai Health, Coeur d'Alene,
ID General Neurosurgery

2015

Bradley Gross, MD
University of Pittsburgh
Associate Professor,
Cerebrovascular
Neurosurgery Director,
Endovascular Neurosurgery

Peleg Horowitz, MD, PhD
University of Chicago
Assistant Professor,
Neurosurgical Oncology



Brigham and Women's Hospital

Brigham and Women's Hospital (BWH) is a world-class, 793-bed academic medical center and premier teaching hospital of Harvard Medical School in Boston's Longwood Medical Area. Home to the Hale Building for Transformative Medicine, BWH integrates cutting-edge research with multidisciplinary care for patients with complex conditions.



Mass General Hospital

Massachusetts General Hospital (MGH) is the original and largest teaching hospital of Harvard Medical School and one of the nation's leading academic medical centers. Located along the Charles River, MGH operates the largest hospital-based research program in the United States, with over \$1B in annual research activity and more than 1,200 active clinical trials.



Boston Children's Hospital

Boston Children's Hospital (BCH) is the primary pediatric teaching hospital for Harvard Medical School and is consistently ranked the #1 children's hospital in the U.S. and among the best in the world. It is home to the world's largest pediatric research enterprise and the leading recipient of NIH pediatric research funding, caring for children with rare and complex conditions from around the globe.



Harvard Medical School

Harvard Medical School (HMS), founded in 1782 and located in the Longwood Medical Area, is a global leader in medical education and biomedical research. Its mission is to alleviate human suffering by nurturing a diverse community of leaders in science and medicine, working across 15 affiliated hospitals and research institutions to translate discoveries into better health for patients worldwide.



Boston and Beyond

Boston is one of America's oldest and most revered cities. The largest city in New England, Boston is located at the mouth of the Charles River and the Massachusetts Bay. The area is home to over 50 colleges and universities, and the city's large, diverse, international population is made up of young professionals, students and families.

Residents enjoy the city's rich history and abundant cultural activities, including Boston's sports teams, the Boston Symphony orchestra, world class museums and diverse restaurants. Boston is home to four major league sports teams: the Boston Celtics, Boston Bruins, Boston Red Sox and New England Patriots. The city also hosts the Boston Marathon, the Head of the Charles Regatta, and numerous college and university sports teams.

Residents choose to live in a variety of communities in and around Boston. Current residents live in a wide variety of locations including: apartments immediately surrounding the hospital, Brookline, Jamaica Plain, Fenway, Mission Hill, Back Bay, South End, Downtown Boston or more distant suburbs. Due to the number of students in the area, apartments often have a high turnover rate and residents rarely have trouble finding housing that works for them.

4,500+

food and retail establishments,
including 100+ food trucks

16

James Beard Award winners

500+

arts and Culture events per year

20+

breweries

98%

of Bostonians live within a 10-minute
walk of a park or open space

217

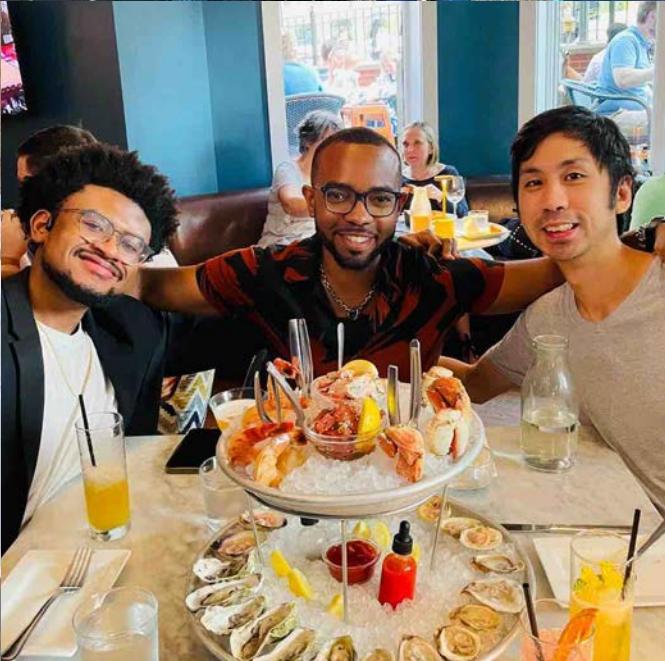
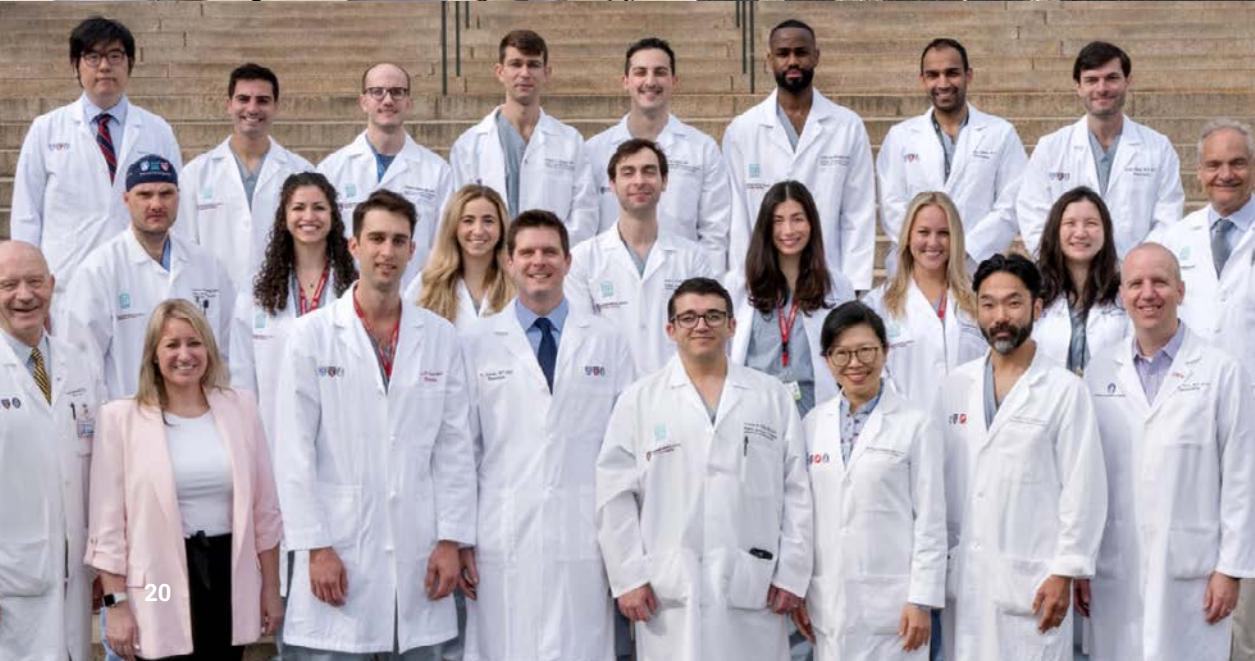
public parks, 65 public squares,
over 35,000 street trees

1

hour's drive to beaches,
lakes, or mountains



Residency In Boston





In Memory of Michael W. Groff, MD

May 21, 1966 - April 12, 2025

Dedicated to Dr. Michael Groff, who tragically passed away last April. Dr. Groff was a deeply respected neurosurgeon, educator, and leader. He served as Division Chief of Neurosurgery Spine and Vice Chair of Neurosurgery at Brigham and Women's Hospital, was an Associate Professor at Harvard Medical School, and most recently, Executive Medical Director of Neuroscience at Rochester Regional Health.

A nationally recognized expert in spinal disorders and a mentor to many, Dr. Groff was known not only for his clinical excellence, but for his compassion, humility, and generosity. He and his remarkable family will be profoundly missed.



Contact

neurosurgeryeducation@mgb.org

Program Administrators

Courtney Gilligan, MHA
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cegilligan@bwh.harvard.edu

Katie Roche, MHA
617-726-5143
kroche1@mgh.harvard.edu

Program Leadership

E. Antonio Chiocca, MD, PhD	Chair
Brian V. Nahed, MD, MSc.	Program Director
Wenya Linda Bi, MD, PhD	Assistant Program Director
Christopher Stapleton, MD	Assistant Program Director
John Chi, MD, MPH	Assistant Program Director
Bryan Choi, MD, PhD	Assistant Program Director
Kevin Huang, MD	Assistant Program Director
Ganesh Shankar, MD, PhD	Assistant Program Director