

# 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@mgd.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

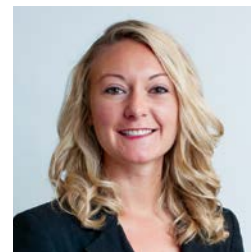
## PGY 7



**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

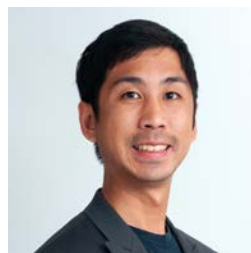


**Nathaniel Sisterson, MD, MSc.**  
University of Pittsburgh  
School of Medicine

## 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

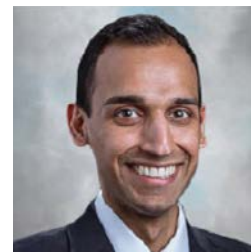
## PGY 7



**Joshua Bernstock, MD, PhD**  
U Alabama Birmingham Med School



**Melissa Chua, MD**  
Boston University Medical School

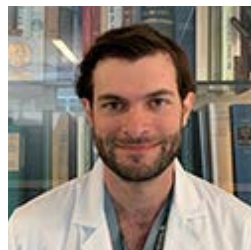


**Saksham Gupta, MD**  
Harvard Medical School

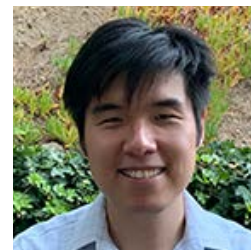
## PGY 6



**Marcelle Altshuler, MD**  
Georgetown Medical School



**Joshua Chalif, MD, PhD**  
Columbia Medical School



**Jason Chen, MD, PhD**  
UCLA Medical School

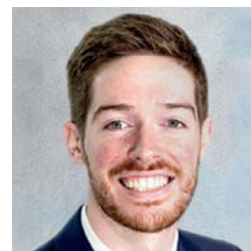
## PGY 5



**Casey Jarvis, MD**  
USC Medical School



**Sean Lyne, MD**  
University of Chicago  
Medical School

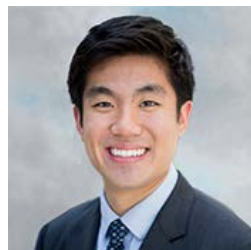


**James Tanner McMahon, MD**  
Emory Medical School

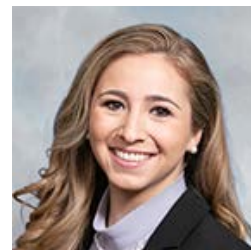
## PGY 4



**Adam Glaser, MD**  
Dartmouth Medical School



**David Liu, MD**  
Brown Medical School

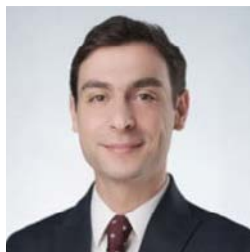


**Gabrielle Luiselli, MD**  
UMass Medical School



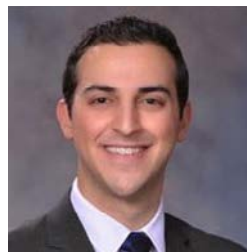
# BWH Neurosurgery Residents

## PGY 3



**Eric Chalif, MD**

George Washington Medical School



**Ron Gadot, MD**

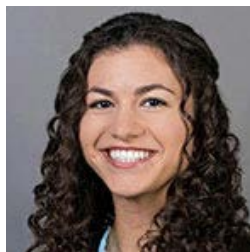
Baylor Medical School



**Chibueze Nwagwu, MD**

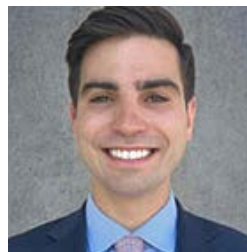
Emory Medical School

## PGY 2



**Sarah Blitz, MD**

Harvard Medical School



**Alexander Yearly, MD**

Harvard Medical School



**Eduardo Maury, MD, PhD**

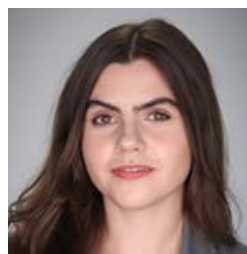
Harvard Medical School

## PGY 1



**Ruchit Patel, MD**

Harvard Medical School



**Solomiia Savchuk, MD**

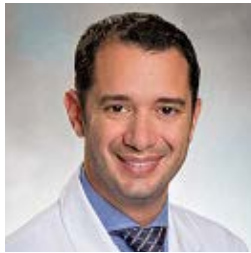
Stanford Medical School



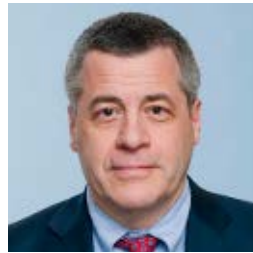
**Maren Loe, MD, PhD**

Washington University at St. Louis

Brain Tumor



Omar Arnaout, MD



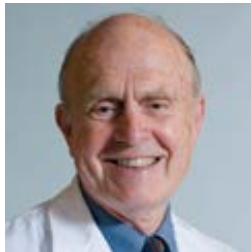
Fredrick Barker, MD



Wenya Linda Bi, MD, PhD



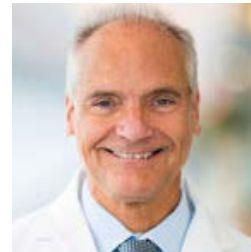
Daniel Cahill, MD



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



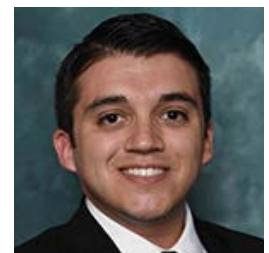
Brian V. Nahed, MD, MSc.



Pier Paolo Peruzzi, MD, PhD



Timothy Smith,  
MD, PhD, MPH

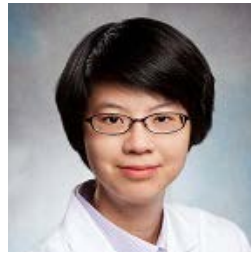


Genaro Rodriguez Villa,  
MD, PhD

## 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**



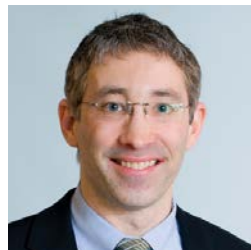
**R. Mark Richardson, MD, PhD**



**John Rolston, MD, PhD**



**Jeffrey Schweitzer, MD, PhD**



**Ziv Williams, MD**



Spine



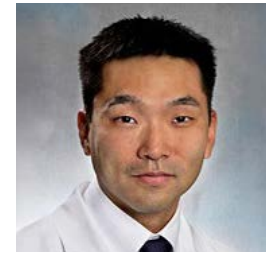
Tracy L. Ansay, MD



Lawrence Borges, MD



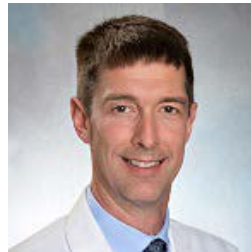
Herbert Cares, MD



John H. Chi, MD, MPH



Jean-Valery Coumans, MD



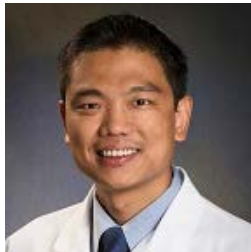
Kurtis A. Dafford, MD



Muhamed Hadzipasic,  
MD, PhD



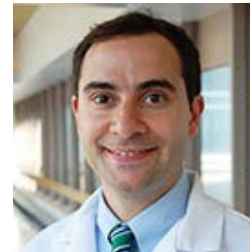
Kevin Huang, MD



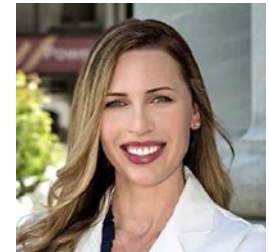
Yi Lu, MD, PhD



Michael Mooney, MD



Jason P. Rahal, MD



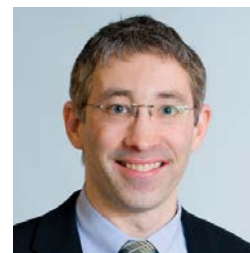
Danielle Sarno, MD



Ganesh Shankar,  
MD, PhD



James Harris Stephen,  
MD, MENG



Ziv Williams, MD



Hasan Zaidi, MD

## Mass General Brigham Pediatric Neurosurgery



William Butler, MD



Ann-Christine Duhaime, MD



Kristopher Kahle, MD, PhD

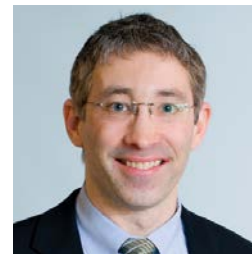
## Peripheral Nerve



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

**Muhammed 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  
ClinicSan 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%

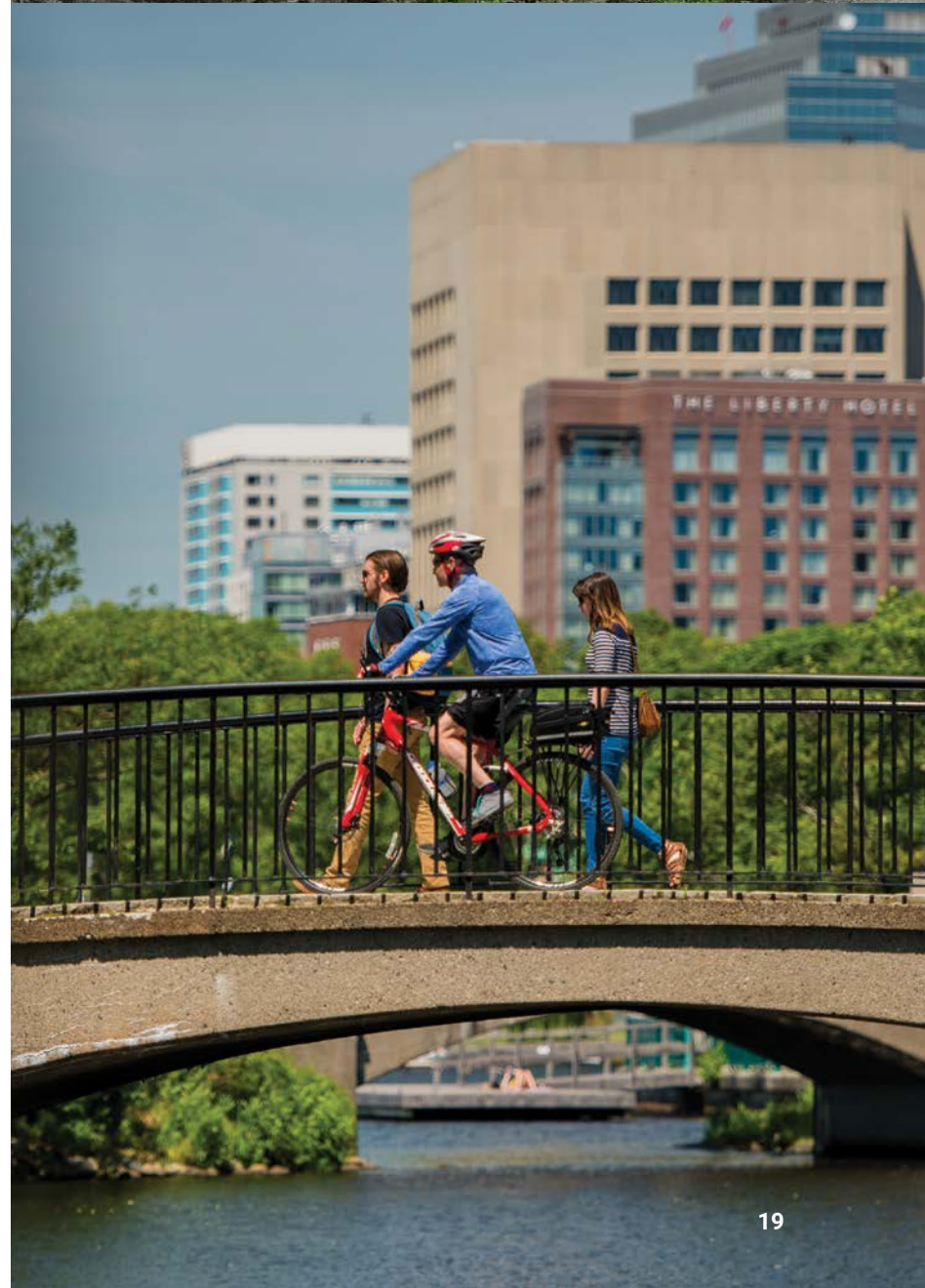
of Bostonians live within a 10-minute  
walk of a park or open space

217

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

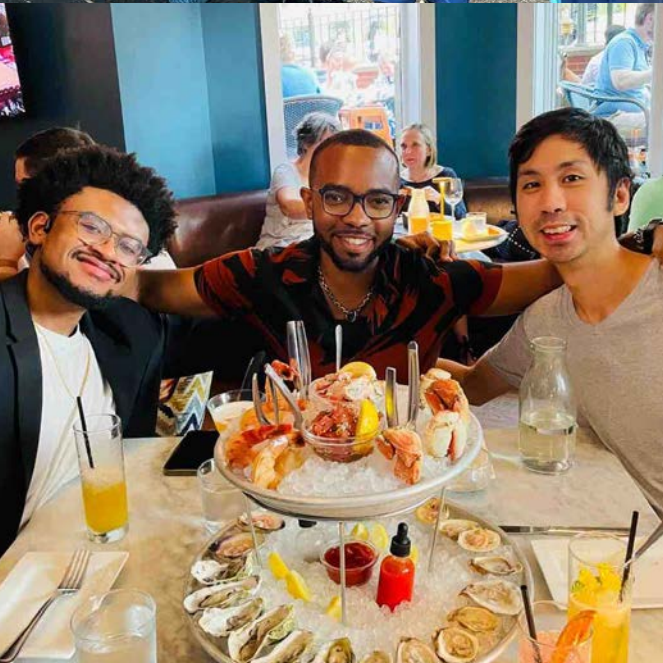
1

hour's drive to beaches,  
lakes, or mountains





Residency In Boston







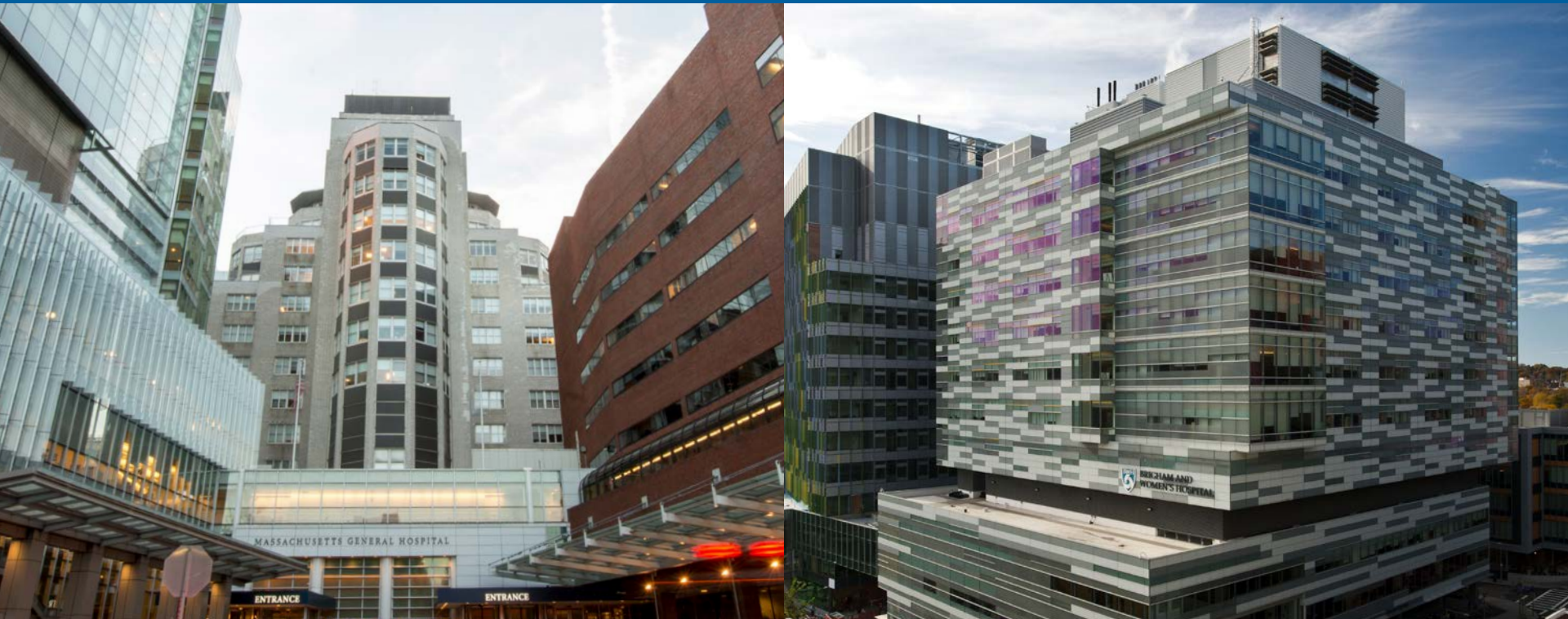
## In Memory of Michael W. Groff, MD

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**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.

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