

# Neurosurgery Residency Program



## **Neurosurgery Residency Program Overview**

Dear Applicants,

We are thrilled to welcome you to Mass General Brigham Neurosurgery for interviews within the BWH and MGH Neurosurgery Residency Programs. Earlier this year, Mass General Hospital and Brigham and Women's Hospital merged to become MGB Neurosurgery.

One of our upcoming early initiatives, led by our outstanding residency program directors, Dr. Rees Cosgrove and Dr. Brian Nahed, will be the creation of a new integrated MGB Neurosurgical Residency training program. Transformation is and will be challenging, but the result will be the most influential, inclusive and patient-focused academic departments of Neurosurgery in the world, delivering the highest-quality trainee education as well as research-infused care to the patients and families it serves by working better together. By combining these two AMC departments and 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.

The current theme of our work is our vision to become One MGB 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, MGB Neurosurgery



Brian Nahed, MD, MSc Director, Residency Program

**Contact:** 

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

## **Overview**

In addition to the unparalleled clinical training, our residents dedicate two years to research, a clinical fellowship or pursuing an advanced degree. Most residents spend two years in a laboratory of their choice as part of the residency training. The research opportunities in the Boston area are unrivaled and include Mass General (the largest recipient of NIH funding among U.S. hospitals), Harvard Medical School, Massachusetts Institute of Technology, Broad Institute, Dana Farber Cancer Center and Boston Children's Hospital. In addition to traditional scientific and clinical fellowship efforts, residents have also pursued advanced degrees at Harvard University.

Mass General ranks as one of the top hospitals in the world offering the most advanced clinical care in every aspect of medicine and surgery. The Mass General Neurosurgery program is ranked among the top training programs which has a tradition of clinical excellence, unparalleled surgical training, camaraderie and respect. That leads to an exceptionally supportive and stimulating educational environment. The combination of excellent clinical training, superb research and the many outstanding opportunities available here enables graduates to successfully pursue the career track of their choice.

## **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.

## 4300 + Neurosurgical cases per year

27 Neurosurgical clinical faculty

16 Neurosurgical research faculty

2 years Dedicated to research and fellowship

### **Education and impact**

Residents contribute to lectures, group discussions and symposiums with leading national and international researchers and clinicians. In addition, residents present at the neurosurgery grand rounds, Annual Frye Halloran symposium and neuroscience grand rounds with neurology, psychiatry, otolaryngology and ophthalmology. Our residents frequently present at the American Association of Neurological Surgeons, the Academy of Neurological Surgeons, the Society of Neurological Surgeons, the Congress of Neurological Surgeons, subspecialty section meetings and at local and regional meetings. In addition, residents attend neurosurgical courses in their desired subspecialty as junior and senior residents.

## **Program Overview**

PGY 1	PGY 2 / PGY 3	PGY 4 / PGY 5	PGY 6 / PGY 7
<b>Trauma Surgery</b> (2 months)	<b>East Team Junior</b> (4 months)	Research/Fellowship	East Team Senior/Chief Resident
<b>Neurosurgery / Neurology</b> (10 months)	West Team Junior/ Radiosurgery		and 4 months as R7 Chief)
• North (Vascular/Trauma/	(4 months)		West Team Senior/
Functional/Peds)— 4 months • Neurooncology—1 month	<b>Boston Children's Hospital</b> (4 months)		<b>Chief Resident</b> (4 months as R6 Senior and 4 months as R7 Chief
NeuroAngio/Endovascular	North Team Junior		
<ul> <li>(Neuro)-1 month</li> <li>Nightfloat-1 month</li> <li>Neuro ICU-3 months</li> </ul>	(4 months)		North Team Chief Resident (2 months as R6 Senior/ 2 months as R6 Chief and 4 months as R7 Chief)



# Neurosurgery Residents

**PGY 7** 



Gabriel Friedman. MD Harvard Medical School Pomona

PGY 6





Stanford Medical School Stanford University

#### **PGY 5**



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



Columbia University Stanford



William Munoz Miranda, MD, PhD NYU School of Medicine University of Puerto Rico



Nathaniel Sisterson, MD, MSc.

University of Pittsburgh, School of Medicine Northwestern University

"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



Amy Wang, MD Harvard Medical School Harvard University



Faith Robertson, MD, MSc Harvard Medical School **Duke University** 

# Neurosurgery Residents

**PGY 4** 



University of Pennsylvania Harvard University

**PGY 3** 



Suk Joon (SJ) Lee, MD, PhD Harvard Medical School

Dartmouth College

#### **PGY 2**



Jacob Kosyakovsky, MD University of Virginia, SOM University of Minnesota



Brian Hsueh, MD, PhD Standford University

School of Medicine Princeton University



Briana Prager, MD, PhD Case Western Reserve University SOM Harvard University



Grace Ng, MD, MS University of Pennsylvania Stanford University



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



William Smith, MD Geisel SOM at Dartmouth Columbia University



Adrian Rodrigues, MD Stanford University SOM Yale University

### **PGY 1**



Grace Nevil, MD Geisel SOM at Dartmouth Smith Collegea



Edwin Owolo, MD **Duke University SOM** Harvard College



Christina P. Rossitto, MD Icahn SOM at Mt. Sinai MIT



Gabriela D. Ruiz Colón, MD Stanford University SOM Harvard College

# **Clinical Faculty**



Frederick Barker, MD Neurosurgical Oncology



Lawrence Borges, MD
Neurosurgical Spine



Justin Brown, MD Peripheral Nerve Neurosurgical Spine



William Butler, MD
Pediatric Neurosurgery



Daniel Cahill, MD, PhD Neurosurgical Oncology



Paul Chapman, MD Radiosurgery



E. Antonio Chiocca, MD, PhD Neurosurgical Oncology



Bryan Choi, MD, PhD Neurosurgical Oncology



Jean-Valery Coumans, MD Neurosurgical Spine



William Curry, MD
Neurosurgical Oncology



Gavin Dunn, MD, PhD



Tina Duhaime, MD Pediatric Neurosurgery



Muhamed Hadzipasic, MD, PhD Neurosurgical Spine



Pamela Jones, MD, MS, MPH Neurosurgical Oncology



Kristopher Kahle, MD, PhD Pediatric Neurosurgery



Robert Martuza, MD
Neurosurgical Oncology



Brian Nahed, MD, MSc Neurosurgical Oncology



Aman Patel, MD Neurovascular Surgery Neuroendovascular



James Ravinov, MD Neuroendovascular



Mark Richardson, MD, PhD Functional Neurosurgery

# **Clinical Faculty**



Jeffrey Schweitzer, MD, PhD Functional Neurosurgery



Ganesh Shankar, MD, PhD



Christopher Stapleton, MD Neurovascular Surgery Neuroendovascular



Brooke Swearingen, MD Neurosurgical Oncology



**Ziv Williams, MD** Functional Neurosurgery Peripheral Nerve



Theresa Williamson, MD Neurosurgical Spine



Neurosurgery



## PGY 1

#### Trauma Surgery (2 months)

Residents spend three months rotating on general surgery, critical care, trauma and other surgical specialty rotations developing operative skills and management of complex medical and surgical patients.

#### Neurosurgery / Neurology (10 months)

- North (Vascular/Trauma/Functional/Peds)-4 months
- Neurooncology-1 month
- NeuroAngio/Endovascular (Neuro)-1 month
- Nightfloat-1 month
- Neuro ICU-3 months

Residents focus on all aspects of the management of neurological and neurosurgical patients in the neuroscience ICU focused on intracranial pressure, management of IV fluids and basic management of acute neurological, cardiac and pulmonary issues common to these patients. Rotations on neuro-oncology, neurovascular, stroke, epilepsy, and movement disorders.

"The Mass General Neurosurgery Residency provided a fantastic clinical and research training environment, giving me the experience and confidence I needed to launch my career. I will always remember the lessons learned from the tremendous collection of faculty. In addition, connections to the wide Mass General network remain invaluable to me for creating new career opportunities. I can't imagine a better place to have trained."

Sameer Sheth, MD, PhD, Resident, Class of 2012



## **PGY 2 / PGY 3**

#### East Team Junior (4 months)

Residents focus on the surgical and nonsurgical management of spinal, functional and pediatric diseases. Residents are exposed to the breadth of spinal disorders including degenerative disease, tumors, deformity and peripheral nerve. In addition, residents are exposed to functional neurosurgery including deep brain stimulation, epilepsy surgery and surgery for pain. Residents care for the surgical and nonsurgical management of pediatric cranial and spinal disease.

#### West Team Junior/Radiosurgery (4 months)

Residents focus on the surgical and nonsurgical care of brain tumor patients. In addition to the surgical skill, residents take part in the treatment and planning of single fraction radiosurgery, proton beam radiosurgery and the linear accelerator (LINAC).

#### Boston Children's Hospital (4 months)

Residents rotate at Boston Children's Hospital to gain additional experience in the clinical and surgical management of pediatric patients.

#### North Team Junior (4 months)

Residents focus on the management of vascular (open and endovascular) cases where they are exposed to surgical, nonsurgical and endovascular techniques. In addition, the residents focus on trauma, general neurosurgery and spine to operate on a breadth of neurosurgical cases.



## **PGY 6 / PGY 7**

#### East Team Senior/Chief Resident (4 months as R6 Senior and 4 months as R7 Chief)

The East Senior/Chief assumes a large role in the operative and clinical management of complex spine, pediatric and functional cases. There is a special emphasis on complex spinal disease (degenerative, deformity and neoplasm). In addition, residents have an extensive exposure to functional neurosurgery, including deep brain stimulation, epilepsy surgery and surgery for pain. Residents are exposed to the breadth of pediatric neurosurgery during this rotation as well. There is considerable responsibility for the teaching and supervision of other residents.

#### West Team Senior/Chief Resident (4 months as R6 Senior and 4 months as R7 Chief)

The West Senior/Chief Resident plays a large role in the operative and clinical management of complex tumor cases ranging from intra-axial, extra-axial, skull base and pituitary tumors. Residents gain an extensive experience in the surgical management of brain tumors with the use of cutting-edge intraoperative mapping, intraoperative imaging, endoscopic and endonasal techniques and novel minimally invasive techniques. There is considerable responsibility for the teaching and supervision of other residents.

#### North Team Chief Resident (2 months as R6 Senior, 2 months as R6 Chief, and 4 months as R7 Chief)

The North Chief Resident is the administrative chief resident and sets the call schedule, operating room assignments, and has considerable responsibility for the teaching and supervision of other residents. In addition, The North Chief performs a wide spectrum of cases including trauma, cerebral hemorrhage and a variety of spinal cases. The Vascular Chief resident plays a large role in the surgical (open vascular) and nonsurgical management of open and endovascular neurosurgical cases. The resident performs diagnostic angiograms and participates in coiling and embolization endovascular neurosurgical procedures.



## Research

#### **Research Training**

Mass General Department of Neurosurgery is a leader in clinical, translational and basic science research and is a founding member of Mass General Neuroscience, a collaboration of more than 2,000 faculty, trainees, and staff dedicated to advancing translational neuroscience across a spectrum of departments. Every neurosurgical attending is engaged in research and works closely with collaborators from Neuro-oncology, Radiation Oncology, Neuropathology, Neurophysiology, Neurology and the Mass General Cancer and Vascular Centers. Residents pursue research projects with mentors stemming from neurosurgery, and researchers at Mass General, Massachusetts Institute of Technology, Broad Institute, Dana-Farber Cancer Center and Harvard University.

#### **Research Accomplishments**

The Mass General Department of Neurosurgery has a successful track record with NIH and foundation grants. Our residents are often awarded independent funding and fellowships, including awards from the NIH (NRSA, K08) NREF, ABTA, Parkinson Disease Foundation, American Parkinson Disease Associations, Burroughs Welcome Fund and many others. Numerous residents have had high-quality publications in journals such as *Science*, *Nature Neuroscience*, *Nature Medicine*, *Cancer Discovery*, *New England Journal of Medicine*, *Journal of Neurosurgery* and *Neurosurgery*, among many others. The department has also been awarded the prestigious R25 training grant by the NIH to support the resident research years.

## Over 50%

of MGH Neurosurgery residents are awarded grants

# R25 Training Grant

MGH has been awarded the prestigious R25 Training Grant to support resident research



## **Neurosurgery Research**

Bob S. Carter, MD, PhD Leonora Balaj, PhD	<b>Blood-Based Biomarkers For Brain Tumors</b> The lab is working to develop blood based techniques in brain tumors.	
Jeffrey Schweitzer, MD, PhD Bob S. Carter, MD, PhD	<b>Cellular Neurotherapeutics And Neurorestoration Laboratory</b> The lab is developing novel iPS dervied therapeutics for Parkinson's disease.	
Daniel P. Cahill, MD, PhD	<b>Translational Neuro-Oncology</b> The lab aims to identify genetic alterations that underlie development, progression and resistance of brain tumors.	
Bryan D. Choi, MD, PhD	<b>Brain Tumor Immunotherapy</b> The Brain Tumor Immunotherapy Lab uses cell and gene engineering to develop next- generation immune-based treatments (e.g., CAR T cells) for brain tumors, with a focus on understanding and addressing mechanisms of immune escape and evasion.	
William T. Curry, MD	<b>Translational Brain Tumor Immunology</b> The lab focuses on the development and evaluation of novel therapies for brain tumors.	
Beth Costine, PhD Ann-Christine "Tina" Duhaime, MD	<b>Brain Trauma</b> The Brain Trauma Lab is aimed at learning how to better treat the millions of children with brain trauma and similar problems, now and in the future.	
Gavin P. Dunn, MD, PhD	Brain Tumor Immunology And Immunogenomics The lab studies the immune response to primary and metastatic brain tumors as well all aspects of CNS immunobiology.	
Shelley I. Fried, PhD	<b>Neural Prosthetic</b> The lab seeks to improve the effectiveness of CNS-based neural prosthetics.	
Kristopher T. Kahle, MD, PhD	<b>Genomics Of Congenital Neurosurgical Disorders</b> The lab uses computational genetics, integrative genomics, and humanized model systems to elucidate fundamental aspects of brain development and the pathogenesis of common pediatric neurosurgical diseases.	
Pamela S. Jones, MD, MS, MPH	<b>Translational Pituitary And Skull Base Laboratory</b> The lab seeks to better understand the spectrum of pituitary tumor biology and behavior by studying tumor specimen genomics, immunobiology, and clinical outcomes in the hopes of developing improved options for targeted therapy.	

## **Neurosurgery Research**

Robert L. Martuza, MD Samuel D. Rabkin, PhD	Molecular Neurosurgery The lab focuses on the use of herpes simplex virus (HSV) vectors for cancer therapy and gene delivery in the nervous system, with the long-term goal being the therapeutic application of these vectors to patients. Liquid Biomarkers For Brain Tumors The lab has developed the first liquid biopsy to identify circulating tumor cells in the blood of patients. The lab seeks to develop the first comprehensive liquid biopsy to diagnose, monitor, and detect brain tumors using novel techniques.	
Brian V. Nahed, MD, MSc Shannon Stott, PhD		
Mark Richardson, MD, PhD	<b>Brain Modulation Lab</b> The lab conducts human systems neuroscience research using intracranial recording and stimulation in patients undergoing surgery for epilepsy, movement disorders and psychiatric diseases.	
John S. Pezaris, PhD	<b>Visual Prosthesis</b> The lab works to restore sight to the blind by sending signals from a digital camera directly into the brain.	
Ganesh M. Shankar, MD PhD	<b>Clinically Relevant Genomics in Neurosurgical Oncology Mechanobiology of Spinal Stenosis</b> The lab utilizes molecular biology and broad genomics of patient specimens to (1) develop rapid diagnostics for neurosurgical oncology and (2) characterize the biological basis of degenerative spine conditions.	
Kathleen Sweadner, PhD	Membrane Biology The lab studies ATP-hydrolyzing enzymes control sodium, potassium and calcium movements.	
Hiroaki Wakimoto, MD, PhD	<b>Brain Tumor Stem Cell</b> The lab develops novel therapeutic strategies for GBM through a better understanding of the biological and molecular characteristics of GBM stem cells.	
Ziv Williams, MD	Neuronal Communication/Restoration The lab probes mechanisms which neurons communicate locally and across cortical areas, and communication across areas disrupted within the CNS.	
Theresa Williamson, MD	<b>Neurosurgical Ethics and Decision Making</b> The lab studies the effect of patient-surgeon communication and decision making on outcomes using both big data analysis and qualitative methods.	
Brian V. Nahed, MD, MSc. Amy Maguire, MS, SLP	<b>Brain Mapping</b> The MGH Brain Mapping Center is focused on developing novel intraoperative mapping techniques to improve the outcomes of patients undergoing surgery through a multi-disciplinary innovative team of clinicians.	

## **Mass General Alumni**

#### 2024

**Muhamed Hadzipasic, MD, PhD** Spine Fellow Cleveland Clinic

**Myron Rolle, MD** Pediatric Neurosurgery Fellow Johns Hopkins All Children's Hospital

**Pratik Talati, MD, PhD** Clinical Instructor, Functional Neurosurgery Penn Medicine

#### 2023

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

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

**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** Massachusetts General Hospital Assistant 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

#### 2018

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

**Christopher Stapleton, MD** Massachusetts General Hospital Assistant Program Director 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 M. Shankar, MD, PhD

Massachusetts General Hospital Assistant Program Director Assistant Professor Neurosurgical Spine

#### 2016

Anoop Patel, MD Duke Neurosurgery Associate Professor Neurosurgical Skull Base

Pamela S. Jones, MD, MS, MPH Massachusetts General Hospital Associate Program Director 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

#### 2014

Kris Kahle, MD, PhD Massachusetts General Hospital Director Pediatric Neurosurgery Associate Professor Pediatric Neurosurgery

Peter Fecci, MD, PhD Duke University Director, Brain Tumor Center Professor Neurosurgical Oncology

**Anna Terry, MD, MPH** Tufts Medicine New England Neurological Associates

#### 2013

Gavin Dunn, MD, PhD Massachusetts General Hospital Associate Professor Neurosurgical Oncology

John Barr, MD Duke University Associate Professor Neurosurgical Spine

#### 2012

**David Jho, MD** Allegheny General Hospital Director, Endoscopic Skull Base Assistant Professor Neurosurgical Skull Base

Sameer Sheth, MD, PhD Baylor College of Medicine Professor Functional Neurosurgery

**Eric Chang, MD** Providence Medical–Everett Neurosurgery / Spine

#### 2011

Brian Nahed, MD, MSc. Massachusetts General Hospital Program Director, Neurosurgery Associate Professor Neurosurgical Oncology

**Rollin Hu, MD** Kaiser Permanente, L.A. Neurosurgical Spine

#### 2010

Jason Gerrard, MD Semmes Murphy Associate Professor Functional Neurosurgery

Wael Asaad, MD, PhD Brown University Professor Functional Neurosurgery

**Travis Tierney, MD, PhD** CHI Health, St Mary's Assistant Professor Functional Neurosurgery

#### 2009

**Christopher Farrell, MD** Jefferson Neurosurgery Associate Professor Neurosurgical Skull Base

Manuel Ferreira, MD, PhD University of Washington Chief, Neurosurgical Oncology Vice Chair, Neurosurgery Professor Neurosurgical Skill Base

#### 2008

Daniel Cahill, MD, PhD Massachusetts General Hospital Professor Neurosurgical Oncology

**Clark Chen, MD, PhD** Brown University Professor Neurosurgical Oncology

#### 2007

Manish Aghi, MD, PhD UCSF Co-Director of Skull Base Professor Neurosurgical Skull Base

Ramin Amirnovin, MD Inland Neurosurgery Neurosurgery / Spine

#### 2006

**Ziv Williams, MD** Massachusetts General Hospital Associate Professor Peripheral Nerve Functional and Epilepsy

Khalid Abbed, MD Hartford Hospital Co-Physican in Chief Neurosurgical Spine

#### 2005

Brian Hoh, MD UF Gainseville Chair, Neurosurgery Professor Vascular Neurosurgery

Ekkehard Kasper, MD, PhD

St. Elizabeth's Medical Center Chief, Neurosurgery Neurosurgery

#### 2004

Joseph Neimat, MD University of Louisville Chair, Neurosurgery Professor Functional and Epilepsy

William Curry, MD Massachusetts General Hospital Chief Medical Officer MGH Professor Neurosurgical Oncology

#### 2003

**Steve Kalkanis, MD** Henry Ford Neurosurgey CEO and Chief Academic Officer Professor Neurosurgical Oncology

**Edward Smith, MD** Boston Children's Hospital Director, Pediatric CerebroVascular Professor Pediatric Neurosurgery

#### 2002

John Brisman, MD NSPC Neurosurgery

**Yogish Kamath, MD** Wichita Falls Neurosurgery / Spine

#### 2001

Albert Lee, MD TNC Brain and Spine Assistant Professor Neurosurgery / Spine

**Sepi Amin-Hanjani, MD** University Hospitals Cleveland Medical Center Professor and Vice-Chair

#### 2000

Richard Chung, MD Cottage Hospital, Santa Barbara Neurosurgery / Spine

**Emad Eskandar, MD** Albert Einstein Medical Center Chair, Neurosurgery Professor Functional and Epilepsy

#### 1999

**Zoher Ghogawala, MD** Lahey Clinic Chair, Neurosurgery Professor Neurosurgical Spine

Bob Carter, MD, PhD Sr. Vice President Health Sciences, University of Utah Chief Executive Officer, University of Utah Health

#### 1998

Marius Maxwell, MD Arctic Spine Neurosurgery / Spine

Robert Friedlander, MD University of Pittsburgh Chair, Neurosurgery Professor Vascular Neurosurgery

#### 1997

John Yu, MD Cedar Sinai Medical Center Director, Brain Tumor Center Professor Neurosurgical Oncology

**Stephen Tatter, MD, PhD** Wake Forrest Chair, Neurosurgery Professor Neurosurgical Oncology

#### 1996

N. Nicole Moyaeri, MD Cottage Hospital, Santa Barbara Neurosurgery / Spine

**Peyman Pakzaban, MD** Houston MicroNeurosurgery Neurosurgery / Spine

#### 1995

E. Antonio Chiocca, MD, PhD Mass General Brigham Chair, Neurosurgery Executive Director, CTNS

David Frim, MD University of Chicago Chair, Neurosurgery Professor Pediatric Neurosurgery

#### 1994

William Butler, MD Massachusetts General Hospital Assistant Professor Pediatric Neurosurgery

William Rosenberg, MD Midwest Neurosurgery Neurosurgery / Spine

#### 1993

Andrea Halliday, MD Peacehealth Chief Medical Officer Chief Clinical Officer Neurosurgery

**Richard Westmark, MD** Houston Spine Neurosurgery Neurosurgery / Spine

#### 1992

**Jim Schumacher, MD** Sarasota Neurosurgery Neurosurgery / Spine

**Fred Barker, MD** Massachusetts General Hospital Professor Neurosurgical Oncology

#### 1991

John Steichen, MD Roper St Francis Neurosurgery Neurosurgery / Spinen

Chris Ogilvy, MD Beth Israel Deaconess Director, NeuroVascular Professor Vascular Neurosurgery

#### 1990

Kevin McGrail, MD Georgetown University Chair, Neurosurgery Vascular Neurosurgery

Allan Hamilton, MD University of Arizona Executive Director, ASTEC Neurosurgery

#### 1989

**Debbie Petrucci, MD** New York Neurosurgical General Neurosurgery

Joe Madsen, MD

Boston Children's Hospital Director, Epilepsy Professor Functional and Epilepsy

## **Boston and Beyond**

Boston is a truly exceptional place to live with something to offer for all. The city is distinguished by its proud, vibrant and unique neighborhoods, each with its own individual flair and character. More than 11 million annual visitors and residents frequent Newbury Street, Copley Place and the Prudential Center for shopping. With 37 sports titles, Boston is known as "The City of Champions." There are miles of pathways for exercise and leisure along the Charles River and Jamaicaway. Nearby athletic options include cross-country skiing or golfing at Franklin Park, hiking at the Blue Hills Reservation and sailing and swimming at 20 regional beaches.

Boston's diverse restaurants serve up everything from Ethiopian to Japanese to Colombian cuisines. Hundreds of food trucks operate day and night across the city. Almost 30 neighborhood farmers markets are sprinkled throughout the city.

While Boston is perhaps best known for its rich history, it is also full of true artistic and cultural gems, like the Institute of Contemporary Art, the Museum of Fine Arts, the Opera House and Boston Creates, which rotates public art displays and soundscapes along the mile-and-a-half long Rose Kennedy Greenway. The city also comes alive during each season with different festivals, concerts, markets and crafts fairs.

Beyond all the great experiences Boston offers residents, Massachusetts is consistently ranked among the top places in the country to raise a family. The years in residency can be as formidable personally as they are professionally, and many current and former Mass General residents have started their own families during their time here.



## 4,500+

food and retail establishments, including 100+ food trucks

16 James Beard Award winners

 $500 + \\ \text{arts and Culture events per year}$ 

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

### L hour's drive to beaches, lakes, or mountains



## **Residency In Boston**









Massachusetts General Hospital Founding Member, Mass General Brigham

#### Contact:

E. Antonio Chiocca, MD, PhD, Department Chair Brian V. Nahed, MD, MSc, Program Director Pamela S. Jones, MD, MS, MPH, Associate Program Director Ganesh M. Shankar, MD, PhD, Assistant Program Director Christopher J. Stapleton, MD, Assistant Program Director Katie Roche, MHA, Program Manager

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### **LUNDER BUILDING**