

HARVARD MEDICAL FACULTY PHYSICIANS
AT BETH ISRAEL DEACONESS MEDICAL CENTER



HARVARD
MEDICAL SCHOOL

and at our affiliates

Beth Israel Lahey Health 

Neurological Emergencies Visiting Scholar Program



Beth Israel Deaconess
Medical Center



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Description

The Harvard Medical Faculty Physicians Neurological Emergencies Visiting Scholar Program prepares emergency medicine (EM) physicians to become effective in quickly and accurately diagnosing, and providing appropriate initial care for, patients with neurological emergencies, including: evaluation of high-frequency symptoms such as headache, back pain, dizziness, weakness, diplopia (and other acute visual symptoms) and high-risk conditions such as acute ischemic and hemorrhagic stroke, subarachnoid hemorrhage, traumatic brain injury, status epilepticus, acute non-traumatic weakness (Guillain-Barre syndrome and others) and coma.

During the program, scholars will be exposed to teaching skills to allow them to then teach a similar program in his or her home departments. The goal of the program is to provide expertise in a specialized area of emergency medicine – neurological emergencies – so that the scholar can return to their home country and implement educational efforts regarding the clinical care of patients with neurological emergencies.

Program Structure

The scholar program will be guided by two senior emergency medicine Harvard Medical School faculty members from Harvard Medical Faculty Physicians (HMFP) at Beth Israel Deaconess Medical Center (BIDMC). Scholars will regularly meet with each of these faculty mentors who will guide and facilitate learning opportunities, monitor progress of the program, and jointly workshop the program project: the creation of the Neuro Emergencies Education Program.

The curriculum will be comprised of three main components:

- 1. Didactic & bedside teaching-based core curriculum delivery** Neuro emergencies and medical education concepts
- 2. Guided observation and workflow analysis** in the ED, Neuro ICU, Neuro Surgery, Neuro radiology, Neurology, and Neuro QA
- 3. Project work** Neuro Emergencies Education Program.

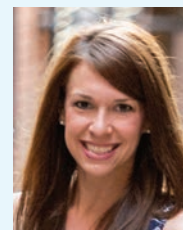
A full curriculum can be found on the next page.

Visiting Scholar Program Faculty

DIRECTORS

Nicole Dubosh, MD

Director, Medical Education Fellowship & Director of Undergraduate Medical Education, BIDMC
Assistant Professor of Emergency Medicine, Harvard Medical School



Jonathan Edlow, MD

Professor of Emergency Medicine and Medicine, Harvard Medical School



FACULTY

Magdy Selim, MD, PhD

Professor of Neurology, Harvard Medical School
Chief, Division of Vascular Neurology, BIDMC

Corey R. Fehnel, MD, MPH

Attending Physician, Neurology and Neuro Critical Care, BIDMC
Assistant Professor of Neurology, Harvard Medical School

Martina Stippler, MD

Director, Neurotrauma, BIDMC
Assistant Professor of Neurosurgery, Harvard Medical School

Yu-Ming Chang, MD, PhD

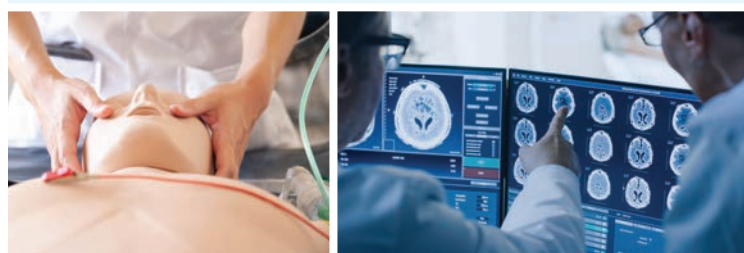
Program Director, Diagnostic Radiology Residency, BIDMC; Attending Physician, Neuroradiology, BIDMC
Associate Professor, Harvard Medical School

Joshua N. Goldstein, MD, PhD

Director, Center for Neurologic Emergencies, Department of Emergency Medicine, Massachusetts General Hospital
Professor of Emergency Medicine, Harvard Medical School

Garry Dunster, MHA, RN

Nursing Specialist, Emergency Department, BIDMC



Curriculum Components

I. CORE CURRICULUM

* Pre-requisite: Completion of the ENLS online course

1. General Principles

- Thinking Backwards: A Pictorial Approach to Neuroanatomy and Physiology
- Principles of Neurological Emergencies

2. Presenting Symptoms

- Dizziness 1: Overall Approach & Acute Vestibular Syndrome
- Dizziness 2: Episodic Vestibular Syndrome & BPPV
- Dizziness 3: Hands-on Workshop: Diagnostic and Therapeutic Maneuvers
- Headache: Who to Evaluate?
- Thunderclap Headache: Differential Diagnosis & Evaluation
- Back Pain: Do Not Miss Cord and Cauda Equina Compression
- Focal Weakness & Localization
- Generalized Weakness
- Visual Symptoms: Neuro-Ophthalmology for Emergency Physicians
- Coma and Altered Mental Status

3. Cerebrovascular Disease

- Acute Ischemic Stroke
- TIA
- Intracranial Hemorrhage
- Subarachnoid Hemorrhage

4. Other Neurological Emergencies

- Meningitis & Encephalitis
- Status Epilepticus

5. Special Circumstances

- Neurological Emergencies in Pregnant & Post-Partum Patients
- Blood Pressure Control in Stroke and Hypertensive Emergencies
- ICH in the Anticoagulated Patient
- Airway, Ventilation & Sedation in Neurologic patients
- Minor traumatic Brain Injury

6. Neuro ICU/Trauma

- Intracranial Hypertension & Herniation
- ICP Monitoring: When and How to Interpret the Numbers
- Moderate to Severe TBI
- C-spine Trauma

7. Stroke Neurology

- Stroke: In-Hospital Treatment of Acute Stroke
- Decision-making Regarding thrombolysis
- Decision-Making for Endovascular Thrombectomy

8. Neuro Radiology

- How to Interpret Brain Non-Contrast CT
- How to Interpret Brain MRI
- Spine CT In Traumatic Spine Disease
- Spine MRI for Acute Cord Compression

9. Quality Assurance Practices in Neurological Emergencies

11. Medical Education: Methodologies and Best Practices in Adult Learning

- Principles of Adult Learning Theory
- Teaching Modalities for The Adult Learner
- Curriculum Development
- Program Evaluation

12. Recurring Conferences

- ED M&M conference
- Stroke Conference
- Combined Neurology-Neuro Radiology Conference
- Stroke Quality Assurance

13. Simulation Scenarios

- Status Epilepticus
- Acute Altered Mental Status
- Acute Ischemic Stroke
- Acute Hemorrhagic Stroke
- Seizure in a 28-Week Pregnant Woman

14. Journal Clubs

- Neurological Emergencies Journal Club (as learner)
- Best Practices for Implementing Journal Clubs as Education Tool

15. Weekly Mentorships with Program Director

16. Independent Study

- 140+ academic articles and a program textbook will be provided to scholars and assigned throughout the program

The curriculum continues on the next page.

II. GUIDED OBSERVATION/ WORKFLOW ANALYSIS

- BIDMC Emergency Department; focused on neurological patients
- Neuro ICU rounds
- Neurosurgical procedures
- Neuroradiology
- Stroke Rounds

III. EDUCATION PROJECT

- Development of the Neuro Emergencies Education Program
- Project goals jointly defined by the scholar, the sponsoring institution(s), and HMFP
- Regular mentorship meetings to discuss project and assess progress
- Deliverable: Education program vision and plan, to be presented jointly to sponsoring institution



About the Program

Duration of Visiting Scholar Program

- The program spans over the course of 8 weeks and is designed for 2 visiting scholars.
- Start date can be arranged based on the needs of the scholars.

For More Information

EDFellowship@bidmc.harvard.edu

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