



Beth Israel Deaconess
Medical Center



MASSACHUSETTS
GENERAL HOSPITAL



A Major Teaching Hospital
of Harvard Medical School

Combined BIDMC- MGH Interventional Pulmonary Fellowship *Program Description*

I: Program Demographics:

Name of the Sponsoring Institution: Beth Israel Deaconess Medical Center

Name of Affiliate Institution: Massachusetts General Hospital

Academic Affiliation: Harvard Medical School

Name of specialty/subspecialty: Interventional Pulmonary

Program address:

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Program Director: Adnan Majid, MD (amajid@bidmc.harvard.edu)

Site Director (MGH): Colleen Channick, MD

Site Director (BIDMC): Erik Folch, MD

Fellowship Coordinator: Barbara Ramos (bramos1@bidmc.harvard.edu)

MGH Site Coordinator: Lisa Shaw (LASHAW@PARTNERS.ORG)

II: Introduction:

a) History:

- The Interventional Pulmonary (IP) fellowship at Beth Israel Deaconess Medical Center started in 2000 and the IP fellowship at the Massachusetts General Hospital started in 2011.
- In August 2012 the two programs agreed to merge to create the Combined BIDMC-MGH Interventional Pulmonary Program.
- During the last twelve years, a total of 18 fellows have graduated from the program. Many of these fellows have recently established their own academic IP fellowship program in several well recognized medical centers around the United States.

b) Duration:

- One year program.

c) Requirements:

- Applicants are expected to have completed a Pulmonary and Critical Care fellowship and be eligible to practice in Massachusetts.

d) Goals and Objectives for Training:

- The Harvard IP fellowship is designed to provide the trainee with the necessary tools to establish and direct a multidisciplinary academic interventional pulmonary program.
- Procedure related competencies as established by the ACCP (CHEST 2003;123:1693-1717) should be achieved within this period of time in all areas of the specialty.
- The fellowship program has very close ties with Thoracic Surgery, Pulmonary Medicine, Oncology and Chest Radiology. The multidisciplinary approach to patient care is emphasized.
- The IP section is actively involved in the evaluation and postoperative management of patients with complex airway and pleural disorders.
- During this year, the fellow will participate in several investigator initiated (clinical / animal lab) and industry sponsored trials. The expectation is that the fellow will gain experience in designing and conducting trials as well as establishing budgets for them.

III: Resources

a) Teaching staff:

Interventional Pulmonary at BIDMC:

- Adnan Majid, MD. Director
- Erik Folch, MD. Associate Director
- Meghan Fashjian, ACNP

Interventional Pulmonology at MGH:

- Colleen Channick, MD. Director
- Colleen Keyes, MD. Associate Director
- Elise Loisell, ACNP

Thoracic Surgery at BIDMC:

- Sidhu P. Gangadharan, MD. Chief
- Michael Kent, MD. Attending Physician
- Richard Whyte, MD. Attending Physician

Thoracic Surgery at MGH

- Douglas Mathisen, MD. Chief
- James Allan, MD. Attending Physician
- Dean Donahue, MD. Attending Physician
- Henning Gaissert, MD. Attending Physician
- Michael Lanuti, MD. Attending Physician
- Christopher Morse, MD. Attending Physician
- Ashok Muniappan, MD. Attending Physician
- John Wain, Jr, MD. Attending Physician
- Cameron Wright, MD. Attending Physician

Otolaryngology at BIDMC:

- Robert Frankenthaler MD. Chief
- David Caradonna, MD. Attending Physician
- Pavan Mallur, MD. Attending Physician

Otolaryngology at MGH

- Steven Zeitels, MD. Director

Thoracic Anesthesia at BIDMC

- John Pawlowski, MD. Director

Thoracic Anesthesia at MGH

- Michael Andrawes, MD. Director

Thoracic Radiology at BIDMC

- Phillip Boiselle, MD. Chief.
- Diana Litmanovich, MD. Attending Physician
- Alexander Bankier, MD. Attending Physician

Thoracic Radiology at MGH

- Jo-Anne Shepard, MD. Director

Simulation at BIDMC

- Darren Tavernelli, RN, RRT. Simulation and Skills Specialist
- Michael McBride, RN. Simulation and Skills Specialist

Simulation at MGH

- Alexandre Derevianko, MD, MA. Procedural Training Instructor

b) Facilities:

- Beth Israel Deaconess Medical Center
- Massachusetts General Hospital

IV: Educational Program- Basic Curriculum/Scope of the Program

a) Clinical services:

- ***Complex Airway Program:*** BIDMC and MGH serve as regional and national referral centers for patients with malignant and benign airway disorders. The entire scope of endoscopic interventions including rigid bronchoscopy, photodynamic therapy, laser therapy, argon plasma coagulation, cryotherapy, stenting, etc. are offered. A particular emphasis of the program is the endoscopic and surgical management of complex benign disorders. All surgical procedures such as tracheal resection and reconstruction, carinal resection and tracheoplasty are commonly performed.
- ***Pleural Disease Program:*** At BIDMC and MGH nearly all medical patients with pleural diseases are evaluated and treated by the IP service at some point in time. We offer medical thoracoscopy, ultrasound guided thoracentesis with pleural manometry, tunneled pleural catheter, chest tube and pigtail catheter placement as procedures in the management of pleural disorders.
- ***Medical Procedure Service.*** At BIDMC and MGH, the IP service directs a medical procedure service assisting medical house staff in performing ultrasound guided thoracentesis. Within the scope of these services we also perform percutaneous tracheostomy and percutaneous gastrostomy tube placement in Medical ICU patients.
- ***Advanced Diagnostic Bronchoscopy:*** Both at BIDMC and MGH we perform electromagnetic navigation, autofluorescence (AF) bronchoscopy, narrow band imaging (NBI) and image guided TBNA through CT fluoroscopy or EBUS (radial or linear) on many patients referred for challenging diagnostic or staging purposes.
- ***Bronchial Thermoplasty Program:*** Both BIDMC and MGH, are one of the few centers in New England performing bronchial thermoplasty for patients with severe persistent asthma who remain symptomatic despite maximal medical treatment.

- **Emphysema Center:** As part of a multidisciplinary clinic along with Pulmonary Medicine, Thoracic Surgery and Thoracic Radiology the IP service at BIDMC is one of the few centers in New England performing endoscopic lung volume reduction as part of an industry sponsored trial for patients with severe emphysema.
- **Lung Transplant:** At the MGH, the lung transplant program was founded in 1990 and was the first Medicare-approved lung transplant program in New England. The IP service provides support in the management of transplant related airway complications.

b) Research Aspects

- IP related and medical device development research is an important aspect of our program. Collaborations with many manufacturers and device developers exist. Many clinical trials are ongoing at any particular time and active participation of the fellow is expected. As a part of the research team, the fellow gains experience in designing and conducting animal and clinical research studies as well as establishing budgets, etc.
- A sample of current and newly added clinical trials include:
 - Endoscopic lung volume reduction
 - Electromagnetic guidance systems for diagnosis of lung nodules
 - Long term safety and efficacy of bronchial Thermoplasty
 - Tracheomalacia pathogenesis and treatment
 - Optical coherence tomography (OCT) in the diagnosis of central airway lesions
- An active animal laboratory for large animal research is onsite for airway, pleural and general chest procedure trials. The IP fellow is expected to be actively involved in IP related research and present results in conferences and peer reviewed journals.
- In addition to active research, the IP section is responsible for a variety of educational activities such as a monthly combined Thoracic Surgery / Interventional Pulmonology conference and CME courses throughout the year. The IP fellow is actively involved in the moderation and organization of those conferences.

c) Participant's Supervisory:

- Fellows are always supervised by a staff member during clinic, inpatient consults and procedures.

d) Procedural Requirement:

- Procedure related competencies as established by the ACCP (CHEST 2003;123:1693-1717) should be achieved within this period of time in all areas of the specialty.

e) Didactic Components:

- **BIDMC**
 - Weekly Interventional Pulmonology Core curriculum lecture series.
 - Weekly Thoracic Surgery core curriculum.
 - Weekly multidisciplinary thoracic oncology conference.
 - Every other week research conference

- Monthly multidisciplinary airway conference which alternates with journal club
- Educational courses :
 - a. Introduction to Interventional Pulmonology: December
 - b. Introduction to Bronchoscopy and Pulmonary Procedures: July

V: Evaluation

- The site director will perform a formal evaluation of the clinical, educational, and research performance of the fellows on a monthly basis.
- The program director will perform a formal evaluation of the clinical, educational, and research performance of the fellows quarterly and will provide a formal feedback to the participants.
- The fellows will meet with the Chief of Pulmonary Medicine (BIDMC and MGH) and Thoracic Surgery (BIDMC) every 6 months.
- In addition, the fellows' performance will be continuously monitored and evaluated by all the staff members on a daily basis.
- IP in-service exam at the end of the year. 75 multiple choice questions encompassing disease specific knowledge and IP procedures.
- At the end of the academic year the fellows will complete an anonymous survey evaluating the program and the staff using New Innovations. This evaluation will be reviewed by the program director and the Division Chiefs at the beginning of the next academic year.

VI: Application Process

- 3 positions are offered every year
- Applicants are expected to have completed a Pulmonary and Critical Care Fellowship and must be eligible to practice in Massachusetts.
- Interested individuals should submit a CV with cover letter and 2 letters of recommendation
- Applications will be received through the National Residency Matching Program (NRMP)
- IMPORTANT DATELINES:
 1. Deadline of application: August 30, 2013.
 2. Interviews will be held on October 3-4, 2013.
 3. Rank Order list closes November 2013.
 4. Match Day on December 2013.
- For more information about the Interventional Pulmonology Fellowship Match, including the Schedule of Dates, contact the NRMP Helpdesk toll free at 1-866-617-5834. Information also is available on the NRMP and AABIP websites. (www.nrmp.org) (www.aabronchology.org)