HMSDC

HARVARD MEDICAL SCHOOL DUBAI CENTER

INSTITUTE FOR POSTGRADUATE EDUCATION AND RESEARCH

THE HARVARD MEDICAL SCHOOL DUBAI CENTER POSTGRADUATE TRAINING PROGRAM

The Harvard Medical School Dubai Center (HMSDC) Institute for Postgraduate Education and Research was created to foster the professional development of physicians, nurses, research scientists, and allied health professionals in the Gulf Region. Launched in 2004 in a joint effort by Harvard Medical International (HMI) and Dubai Healthcare City (DHCC), HMSDC is part of the Government of Dubai's mission to develop DHCC into a center of excellence for health care delivery, medical education, and research.

HMSDC has established a postgraduate training fellowship program to provide selected health care professionals with opportunities to advance their knowledge and skills under the tutelage of recognized leaders in academic medicine. The programs are designed to provide the most comprehensive educational experience by developing the trainee's clinical skills and expertise in a specific area of clinical investigation. While the structure, duration, and requirements for admission vary according to the individual's career aspirations, all trainees participate in a rigorous curriculum that has a specific focus, educational goals, and requirements.

These programs currently take place in affiliated institutions of Harvard Medical School, with later programs to be hosted at the Academic Medical Center that will be located within Dubai Healthcare City.

The program, offering clinical and research fellowships and specialty observerships, enables each trainee to have access to the facilities at Harvard Medical School as well as an affiliated hospital or teaching institution. Faculty mentors are recognized leaders in academic medicine enlisted from programs in many specialties and fields of biomedical and clinical investigation. At the conclusion of the program, participants will receive certificates of completion from HMSDC and from the Harvard teaching hospital's host department.

Overview of the Training Programs

HMSDC offers three types of training programs at the various Harvard Medical School-affiliated hospitals in Boston and other internationally renowned medical centers with which HMI has educational relationships. Training pathways include: Clinical Fellowships, Research Fellowships, and Observerships. It is anticipated that this training will prepare trainees for productive careers in academic medicine within their specialty of interest.

Clinical Fellowship: The main purpose of the clinical fellowship is acquisition of state-of-the-art knowledge and skills in a recognized clinical subspecialty in medicine, surgery or the imaging and diagnostic specialties. Fellows will participate in advanced levels of clinical care, bedside and didactic teaching, consultation and collaboration with members of the health care team, as well as ongoing clinical research programs with prospects for collaboration in clinical investigations and the opportunity to present findings at and participate in national meetings. Exercises in teaching and learning are conducted at frequent conferences, within journal clubs, and numerous interdisciplinary sessions within the specialty area.

Research Fellowship: The goal of the research fellowship is to train physicians and scientists from a variety of biomedical and clinical disciplines in the science, techniques, technologies, and processes utilized in biomedical and clinical research. The program's curriculum allows trainees to develop direct experience in the performance of basic laboratory techniques and methods, clinical investigation, and translational research.

Specialty Observership: An observership is an abbreviated period of time, typically 1-3 months, occupied in observing clinically-related practice. The goals are to provide trainees access to and a current understanding of the specialty area through clinical interactions, meetings, tutorials, rounds, and clinics; observing and studying procedures and operations; and participating in diagnostic protocols and evaluations. Observers do not have clinical privileges and will not have responsibility for patient care.

Areas of Training

The existing education and training modules listed below are designed to be examples of training programs. Customized training opportunities can be arranged in many subspecialty fields on a case by case basis by candidate interest, qualifications, and mentor availability. Interested parties are encouraged to apply and clearly indicate the specific specialty or area of interest.

- Most clinical and research fellowship programs are for one to three years. Start times are flexible within limits, but some programs have preset starting dates, usually in concordance with the academic year, beginning on July 1.
- Most observerships are for 1-3 months. Start times can be flexible depending on trainee and mentor availability.

Standard Clinical Fellowships

Although pre-existing, these fellowships are flexible in design in order to develop a structured experience that is tailored to the specific educational needs of the qualified applicant. The descriptions below, therefore, are meant to provide an overview of the program while specific program objectives and learning activities may be determined by the qualified trainee together with the fellowship program director.

Non-Invasive Cardiovascular Imaging: Fellows will work on a dedicated cardiovascular imaging service offering cardiovascular CT and MRI, where they will participate in all clinical and research activities. Additional rotations in and outside radiology can be taken as electives. Fellows may take rotations in abdominal imaging, chest imaging, MSK MRI, pediatric cardiac imaging, and cardiac nuclear medicine as well as echocardiography and cardiac catheterization as observers.

Stroke Fellowship: This program involves both clinical training in all aspects of stroke management and the opportunity to participate in clinically related cerebrovascular research.

Gastroenterology Fellowship: General fellowships are offered in gastroenterology as well as advanced fellowships in hepatology/transplantation, viral hepatitis, therapeutic endoscopy, EUS, gastrointestinal motility disorders, irritable bowel disease, and pancreatic disorders.

Maternal Fetal Medicine Fellowship: This program prepares fellows for careers as clinicians and consultants by providing the tools of maternal and fetal assessment; teaching and learning; and techniques and skills that develop the fellow's potential as a researcher. Graduates leave competent in antepartum and intrapartum obstetrics, ultrasound, invasive clinical techniques, and with a completed thesis project in either clinical or basic science research.

Orthopedic Trauma Fellowship: The goal of this program is to produce competent surgeons with a thorough clinical understanding of complex orthopedic problems related to trauma, their acute and chronic management and relevant research. The program is designed to provide a firm foundation in the management of musculoskeletal problems and the complexities of an orthopedic practice. The program strives to provide fellows with skills to assist them to rise to leadership roles within the orthopedic community.

Retinal Fellowship: The fellow will participate in clinical training in the medical and surgical management of diseases of the posterior segment, including retinal, choroidal and macular diseases. Fellows will also participate in clinical management along with the resident ophthalmologic team and also participate in selected research activities.

Anterior Segment Fellowship: This fellowship involves clinical training in the medical and surgical management of diseases of the anterior segment, including management of glaucoma, corneal diseases and diseases of the ocular adnexa. Fellows will be exposed to the current techniques in refractive surgery. Participation in research activities will also be required.

Sleep Medicine Fellowship: Through the Division of Pulmonary, Critical Care and Sleep Medicine the fellow will learn to analyze and interpret polysomnograms, participate in a sleep journal club, present at case conferences, provide clinical care for patients with sleep disorders, and develop a sleep research area. An observer period for Ear Nose and Throat, Dental Sleep Medicine and Pediatric Sleep Disorders can also be arranged.

Obstetric Anesthesia Fellowship: Fellows are involved with clinical care, bedside and didactic teaching of residents, consultation and collaboration with obstetricians regarding high-risk patients, as well as a busy clinical research program with opportunities to complete several research projects and present findings at national meetings.

Combined Clinical and Research Fellowships

Cardiovascular Medicine Fellowship: Fellows may participate in both clinical and research training. The primary purpose of the clinical fellowship is the training of physicians, previously trained in internal medicine, in four major areas of cardiology: inpatient and outpatient clinical care and consultation, invasive cardiac procedures, coronary care, and various noninvasive diagnostic techniques. The primary purpose of the research component is to develop expertise in a specific area of basic or clinical investigation. This work may be pursued in molecular or cellular biology, physiology, cardiac catheterization, noninvasive imaging, clinical trials/epidemiology, or any of a number of combinations thereof. In addition to the general cardiology training, programs in interventional cardiology, electrophysiology, congestive heart failure/transplant, and noninvasive imaging are available.

Pediatrics Fellowship: Fellowship programs provide training in a clinical pediatric subspecialty or preparation for research and academic careers. The aim is to provide appropriate clinical experiences together with research and project work. The clinical experience is gained in hospital, community health care centers, schools and other facilities. Research training focuses on the development and completion of research projects to presentation and publication stage.

Internal Medicine Training Program: This Fellowship is for individuals who wish to pursue research careers that emphasize the techniques of epidemiology, health services research, biostatistics, and decision sciences.

Research Fellowships/Observerships

Research Fellowships in Ophthalmology: Research fellowships are available in selected diagnostic, therapeutic or experimental approaches to the management of eye diseases. Areas of research will be determined by the interests of the candidate and the active research protocols. Candidates will be exposed to research techniques and will be required to actively participate in conducting research, collecting and analyzing data, reviewing the research literature and writing research papers.

Gastroenterology Research Fellowship: Research fellowships are offered to train individuals for an academic career in either basic research or clinical research in the field of gastroenterology *(2 years*).

Diabetes Research Fellowship: Research at the Joslin Diabetes Center involves many biologic disciplines including molecular biology, protein biochemistry, studies of cultured cells and cell free systems, molecular and population genetics, genomics, analysis of mechanisms of autoimmunity, physiologic and pathophysiologic studies in man and animal models, and the study of new therapies in patients. Fellows will gain experience in basic laboratory techniques and methods as an active investigator in one of the following laboratories: behavioral and mental health research, cellular and molecular physiology, clinical research, eye research, genetics and epidemiology, immunology and immunogenetics, islet transplantation and cell biology, metabolism, obesity, vascular cell biology *(1-3 years; 3-6 months).*

Observerships

Retinal Observership: Trainees will observe the medical and surgical management of the diseases of the posterior segment, including retinal, choroidal and macular diseases. Participation in a research project may be required.

Anterior Segment Observership: Trainees will observe the medical and surgical management of the diseases of the anterior segment, including management of glaucoma, corneal diseases of the ocular adenexa and the current techniques in refractive surgery. Participation in a research project may be required.

Stem Cell Transplantation Observership: The goal is to provide a current understanding of the use of blood and marrow transplantation for treatment of malignant or non-malignant diseases. Trainees will be exposed to the broad area of hernatopoietic stem cell transplantation (HSCT), including patient selection, administration of high-dose chemotherapy, and management of post-transplant complications, as well as in the administrative and regulatory aspects of this discipline.

Funding

The figures below are intended to provide prospective candidates an estimate of program expenses. They are, however, approximate amounts that are subject to variation. In summary, candidates are responsible to provide funding for the following estimated expenses:

Clinical Fellowships (per year)	
Program Administration and Education and Clinical Services Fee	TBA
Malpractice insurance (varies according to specialty)	$5,000-35,000
Application fee (one-time, non-refundable)	$500

Research Fellowships (per year)	
Program Administration and Mentorship and Laboratory Fee	TBA
Application fee (one-time, non-refundable)	$500

Observerships (per month)	
Program Administration and Mentorship Fee	TBA
Application fee (one-time non-refundable)	$500

In addition, candidates are responsible to secure their own salary and personal medical insurance coverage that is valid in the United States. All living expenses, including housing and travel, should be covered through the candidate's salary. Rents are variable, but typically range between $1,200-$1,800 per month for a one-bedroom apartment in metropolitan Boston. There may also be additional expenses not accounted for here such as conference fees, books, etc.

Eligibility

Candidates for admission to fellowships and observerships must meet the rigorous requirements and standards of the Harvard Medical School-affiliated hospitals and teaching institutions. The minimum requirements are listed below:

Clinical fellowships

- Applicants who are graduates of non-US medical schools (except Canada) must be certified by the Educational Council for Foreign Medical Graduates (ECFMG). See http://www.ecfmg.org for more details.
- A TOEFL score of 600 or above or graduation from an English speaking medical school or residency program.
- Satisfactory completion of internship, residency, or pertinent training.
- Candidates who have completed the requirements for Specialty Board eligibility in the US, Canada or their own country are eligible as a matter of course. Candidates with similar training in other jurisdictions are also eligible. Candidates who are not Board eligible, but who have significant training and experience in the relevant specialty/subspecialty are encouraged to apply.

Research Fellowships/Observerships

- A TOEFL score of 550 or above or graduation from an English speaking medical school, university or residency program.
- Candidates must have completed requisite training in the relevant specialty, subspecialty or applicable scientific area.

Application process

All candidate materials will be reviewed by the HMI Admissions Committee and the Departmental/Institutional Admissions Committee. The fitness and readiness of a candidate for acceptance will be determined by the program director of the institution that sponsors the program or learning experience. Applicants will be screened on the basis of career goals and on the recommendations of faculty members and mentors from medical schools, residency programs or affiliated institutions. Each applicant must complete an application form and submit three letters of recommendation from knowledgeable faculty or supervisors who endorse the qualifications and character of the applicant. One of the letters must be from the director of the current or most recent clinical training program, university department or research institution. Applicants also must submit the items listed below:

- Recent passport photo
- Current copies of ECFMG certificate (for clinical fellows)
- Copy of current US visa (if available)
- Copy of board certifications or international equivalent (if applicable) in English (official translated copy) or Latin
- If applicant is still in training: written recommendation from medical school or university dean and written recommendation from other faculty members who have knowledge of the capacities, abilities, skills, and standing of the applicant
- If applicant has completed training: written recommendation from residency training program director(s) or university supervisor and written recommendation from other faculty members who has knowledge of the capacities, abilities, skills, and standing of the applicant
- Official or official certified copy of transcript (in English) from medical school (for MD applicants for clinical and research fellowships only)
- Official or official certified copy of transcript (in English) from university or graduate school (for PhD applicants for research fellowships only)
- Certified copy of medical school diploma (for MD applicants for clinical and research fellowships only)
- Certified copy of university diploma (for PhD applicants for research fellowships only)
- Certified copy of residency certificate (for clinical fellowships only)
- Certified copy of fellowship certificate (if applicable)
- USMLE scores (if applicable, required for clinical fellowships)
- TOEFL scores (if applicable)
- US $500 application fee (non-refundable), made payable to Harvard University

Visas

Clinical fellowships and Research Fellowships:

- Clinical and research fellows will come to Boston as a J-1 Exchange Visitor.
- The ECFMG is designated by the US Department of State as the sole sponsor of J-1 physicians in clinical training (see www.ecfmg.org/evsp/evspinsc.pdf).
- Candidates will work with a Training Program Liaison (TPL) at the sponsoring Harvard institution to prepare and submit the sponsorship application to ECFMG.
- All visa arrangements will be centralized at the training institution, through the TPL. HMI cannot be responsible for obtaining visas; however, HMI will provide a Letter of Endorsement to facilitate the sponsorship application process. Candidates must also have a letter from the sponsoring authority or ministry of their country approving the training and guaranteeing your return home or other proof of financial support.

- Exchange Visitors sponsored by ECFMG receive a Certificate of Eligibility for Exchange Visitor (J-1 Visa) Status (Form DS-2019). This document is used by the accepted candidate to apply for the J-1 Visa.
- Please note that visa processing time may take several months.

Observerships:

- Observers should come to Boston on a B-1, Visitor's visa. Applications are available at the American Consulate in the region.
- HMI will provide a Letter of Endorsement to facilitate the sponsorship application process.
- Please note that visa processing time may take several months.

Contact

For further information, please contact Mashael Al-Abed at PO Box 66566, Dubai, United Arab Emirates; Phone: +971-4-319-2195, Fax: +971-4-324-9000; Email: fellowship@dhcc.ae.

Logistics

Harvard Medical School Dubai Center is responsible for administering the postgraduate training program. HMSDC will assist accepted candidates by providing general information regarding the application process, health and malpractice insurance (professional liability), housing, and acculturation. HMSDC cannot be responsible for obtaining or guaranteeing visas but will provide a letter of endorsement to facilitate the process.

Participating Hospital Facts & Figures

Participating institutions include the Massachusetts General Hospital, Brigham and Women's Hospital, Beth Israel Deaconess Medical Center, Children's Hospital, Dana-Farber Cancer Institute, and Joslin Diabetes Center. A major strength of the program is the breadth and diversity of more than 8,500 members of the faculty of Harvard Medical School and the affiliated teaching institutions and the opportunity for trainees to interact with eminent scientists and physicians within the Harvard community. There are more than 8,000 clinical and research trainees in the Harvard system, a large percentage from foreign countries. In addition, Harvard Medical School sustains a unique climate and environment for inquiry and learning, access to state-of-the-art facilities, pre-eminent libraries and research programs. As a leader in clinical and basic research, Harvard Medical School and the affiliated institutions are ranked first in National Institutes of Health (NIH) support in the USA with annual awards exceeding $600 million.

Massachusetts General Hospital

- Number of beds: 868
- Inpatient Admissions: 42,000 +
- Outpatient Admissions:1.2 million
- Number of Employees: 16,000
- Consistently listed in the top ten hospitals in the nation

www.mgh.harvard.edu

Brigham and Women's Hospital

- Number of Beds: 720
- Inpatient Admissions: 41,054
- Outpatient Admissions: 644,753
- Number of Employees: 8,818
- Consistently listed in the top 10 hospitals in the nation

www.brighamandwomens.org

Beth Israel Deaconess Medical Center

- Number of Beds: 513
- Inpatient Discharges: 37,221
- Outpatient Encounters: 849,977
- Number of Employees: 9,500
- Ranked among top 10 in the nation in hormonal disorders, heart care, and geriatrics

www.bidmc.harvard.edu

Children's Hospital

- Number of beds: 325
- Inpatient admissions: 18,000
- Outpatient admissions: 300,000
- Number of Employees: 3,300
- Number of volunteers: 850
- Ranked number one as the best pediatric hospital in the nation

web1.tch.harvard.edu

Dana-Farber Cancer Institute

- Number of Beds: 27
- Adult Inpatient Discharges: 969
- Adult and Pediatric Outpatient Clinic Visits and Infusions: 127,948
- Number of Employees: 2,112
- Rated the best cancer hospital in New England among the top 5 in the nation
- www.dfci.harvard.edu

Joslin Diabetes Center

- Adult Diabetes and Endocrinology
- Diabetes self management training
- William P. Beetham Eye Institute
- John E. Cook Renal Unit
- Number of Outpatient Visits: Over 60,000
- Number of Employees: over 600
- www.joslin.org

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