



# HARVARD | BUSINESS | SCHOOL

|HEALTHCARE INITIATIVE|

## HBS HEALTHCARE INITIATIVE HEALTH SCIENCE AND BUSINESS IMMERSION PROGRAM

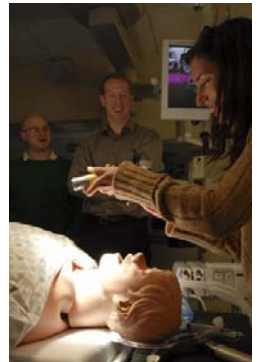
The Health Science and Business Immersion Program is a one week, intensive medical program designed to teach HBS MBA students about the intersection between science and business. Generally, mornings focused on science and afternoons focused on intersection of science and business.

### EDUCATIONAL OBJECTIVES

- To become conversant in basic medical and scientific terminology to better understand entrepreneurial opportunities
- To understand the focus of the major medical specialties
- To gain an overview of the diseases and conditions, diagnostic techniques, and therapies for each specialty
- To understand the types of new companies and products that are emerging from each specialty
- To understand the macro trends impacting healthcare treatments and procedures such as genomics, stem cells, and the aging of the population

### HIGHLIGHTS

- **Visit to BIDMC's Carl J. Shapiro Simulation and Skills Center**
  - Actual surgery video
  - Laparoscopic "games" and surgical simulations
  - Intubating a dummy
- **Point/Counterpoint on Cardiovascular Treatments**
  - Lynne W. Stevenson, M.D., Co-Director, Cardiomyopathy & Heart Failure Program, BWH
  - Laurence M. Epstein, M.D., Chief, Cardiac Arrhythmia Service, BWH
  - Drug/lifestyle compliance vs. implantable devices
- **Multiple Discussions on Intersection of Science and Business**
  - Does big business influence the practice of medicine?
  - What can be done to safeguard the public trust?
  - What are the challenges in commercializing science technologies?



- **Tour of Novartis Institute of Biomedical Research (Necco building)**
  - Virtual chemistry - 3D drug molecule visualization
  - High throughput screening robot – experiments on 1M compounds at a time
  - Zebrafish demonstration – used instead of mice or fruit flies for drug discovery

- **Judah Folkman, MD lecture**
  - World renowned researcher focusing on angiogenesis as treatment for cancer
  - Created a new paradigm in medicine for understanding the biology of disease
  - His efforts have been described by many as worthy of the Nobel prize



### TESTIMONIALS

*"I learned so much and had so much fun that I'd definitely recommend it to my RC classmates and prospective students."*

*"Immensely helpful as I begin my job search in the healthcare industry."*

*"My best week at HBS - thank you!"*

*"I had high hopes to learn more about science and medicine, but the program FAR EXCEEDED my expectations. I feel much more comfortable evaluating/researching/conversing with potential employers be it pharma/biotech, device companies or hospitals and service businesses."*

## HEALTH SCIENCE AND BUSINESS IMMERSION PROGRAM 2007 SCHEDULE

| DATE             | MONDAY<br>JANUARY 8  | TUESDAY<br>JANUARY 9   | WEDNESDAY<br>JANUARY 10  | THURSDAY<br>JANUARY 11   | FRIDAY<br>JANUARY 12  |
|------------------|--|--|--|--|---|
| <b>MORNING</b>   | <b>THE SCIENCE OF CANCER</b>   | <b>PRINCIPLES OF SURGERY</b>   | <b>CANCER TREATMENTS AND PROMISING NEW APPROACHES</b>  | <b>CARDIOVASCULAR DISORDERS</b>  | <b>MENTAL HEALTH AND CENTRAL NERVOUS SYSTEMS DISORDERS</b>  |
|                  | <ul style="list-style-type: none"> <li>• Basic Concepts of Cell Growth and Cancer (William Hahn, MD)</li> <li>• Molecular Mechanisms and Cancer Pathology (Raju Kucherlapati, MD)</li> <li>• Cancer genomics- potential impact on diagnostics/therapies (Tom Roberts, MD)</li> </ul> | <ul style="list-style-type: none"> <li>• Introduction to Surgery (Martin November, MD)</li> <li>• History and Evolution of Surgery (Robert Goldwyn, MD)</li> <li>• Videotape and Explanation of a Laparoscopic Procedure (Edward Mun, MD)</li> </ul> | <ul style="list-style-type: none"> <li>• Review of Learnings (Rob Huckman)</li> <li>• Case Study: Judah Folkman and the War on Cancer (Richard Hamermesh)</li> <li>• Angiogenesis as an organizing principle in biology and medicine (Judah Folkman, MD)</li> </ul>  | <ul style="list-style-type: none"> <li>• Ethics-Conflicts of Interest around Innovation in Medicine (Jerry Kassirer, MD)</li> <li>• Anatomy and physiology of cardiovascular system and coronary disease (Patrick O’Gara, MD)</li> </ul>   | <ul style="list-style-type: none"> <li>• Structure and Function of the Brain and CNS (Bruce Cohen, MD)</li> <li>• Introduction to Depression (Steve Schlozman, MD)</li> <li>• The Pathophysiology of Alzheimer’s Disease and Directions for Diagnosis and Treatment (Lee Goldstein, MD)</li> <li>• Optional Lunch Discussion</li> </ul> |
| <b>AFTERNOON</b> | <b>THE PROCESS OF DRUG DISCOVERY</b>   | <b>FIRST-HAND SURGERY EXPERIENCE</b>   | <b>OBESITY AND ITS CONTROL</b>   | <b>NEW OPPORTUNITIES IN CARDIOVASCULAR TREATMENTS</b>  | <b>CONCLUSION</b>   |
|                  | <ul style="list-style-type: none"> <li>• <b>Takes place at Novartis Institute for BioMedical Research</b></li> <li>• Drug Discovery, Gleevac Story &amp; High-Throughput Screening (Rajesh Ranganathan, PhD)</li> <li>• Tour of Novartis Lab (Novartis Staff)</li> </ul>             | <ul style="list-style-type: none"> <li>• <b>Takes place at Beth Israel Deaconess Medical Center</b></li> <li>• BIDMC Shapiro Simulation and Skills Center (Daniel Jones, MD)</li> <li>• Medical Error in Medicine (Saul Weingart, MD)</li> </ul>     | <ul style="list-style-type: none"> <li>• Basic principles of digestion, energy metabolism, and physiology of weight management (Jeffrey Flier, MD)</li> <li>• Review of obesity treatment options (Jeffrey Flier, MD)</li> <li>• Disease Management Company / Health Dialog (George Bennett, PhD)</li> </ul> | <ul style="list-style-type: none"> <li>• Pathophysiology of cardiac conduction system and the management of arrhythmias (Laurence Epstein, MD)</li> <li>• Treating and Managing Heart Failure (Lynne Stevenson, MD)</li> <li>• Hansen Medical: A Catheter Device for Cardiac Procedures (John Freund, MD)</li> </ul> | <ul style="list-style-type: none"> <li>• Ethics-Impact of Big Pharma and Device Companies on Medical Practice (Dr. Jerry Avorn)</li> <li>• Big Pharma Drug Discovery and Ethical Issues (Rajesh Ranganathan, PhD)</li> </ul>  |