15.132/HST.972 MEDICINE FOR MANAGERS AND ENTREPRENEURS PROSEMINAR

SPRING 2016 COURSE SYLLABUS

COURSE DIRECTOR

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COURSE SECRETARY

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SCHEDULE

February 4 – May 12 on Thursday 4-7 PM in MIT Room E62-250

Date/Time	Time	Speaker	Topic
02/04/2016	4:05 – 4:25	Richard Cohen	Introduction
	4:25 – 5:25	Amar Sawhney	A Career in Biomedical Entrepreneurship
	5:35 – 6:55	Richard Mitchell, Robert Padera	Introduction to Human Physiology and Disease
02/11/2016	4:05 – 5:15	Stan Lapidus	Cytyc
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Richard Mitchell, Robert Padera	Introduction to Human Physiology and Disease
02/18/2016	4:05 – 5:15	Carl Rosow	Pharmacology
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Burt Adelmann	Development of Tysabri at Biogen
02/25/2016	4:05 – 5:15	Thomas Gill, IV	Musculoskeletal System
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Joseph Reilly	Soft Tissue Regeneration
03/03/2016	4:05 – 5:15	David Nathan	Endocrinology (Diabetes)
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Richard Berenson	Thermalin
03/10/2016	4:05 – 5:15	Shiv Pillai	Immunology
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Robert Millman	CoStim
3/17/2016		**No Class**	**SIP Week**
3/24/2016		**No Class**	**Spring Vacation**
03/31/2016	4:05 – 4:20	Richard Cohen	Term Project Deliverables
	4:20 – 5:10	Carl Berke	Biomedical Business Strategy
	5:10 – 5:35	Richard Anders	Pitching your Company
	5:45 – 6:55	Peter Kolchinsky	RA Capital Management

04/07/2016	4:05 – 5:15	Pankaj Agrawal	Genetic Diseases
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Katrine Bosley	Editas Medicine
04/14/2016	4:05 – 5:15	Paul Sax	Infectious Diseases
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Ankit Mahadevia	Spero Therapeutics
04/21/2016	4:05 – 5:15	Joseph Bonventre	Renal Pathophysiology
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Nikolai Aljuri	Procept Robotics
04/28/2016	4:05 – 5:15	George Demetri	Oncology
	5:15 – 5:35	Faculty	Term Project Discussion
	5:45 – 6:55	Robert Tepper	Third Rock, Oncology
05/05/2016	4:05 – 6:55	Students	Oral Presentations of Term Projects
05/12/2016	4:05 – 5:15	Richard Cohen	Cardiovascular Disease
	5:15 – 5:35	Faculty	Homework Discussion
	5:45 – 6:55	Paul Levy	Patient-Doctor Hospital

COURSE OVERVIEW

The goal of this course is to provide students with basic business oriented clinical and technological knowledge related to health, healthcare and medicine through engagements with clinical and industry experts. The course will meet once per week for a three hour session. Generally, each session will focus on a specific disease or technological area within medicine. Speakers will include a basic science and/or clinical expert in each area followed by a company CEO or other senior executive involved in cutting edge innovation in the designated area.

Students will be assigned reading in advance of each session dealing with the pathophysiology and clinical issues underlying the disease area or the science/engineering and clinical issues relating to the technological area. The assigned reading may include background/introductory materials, but may also include clinical studies and review articles. In addition, the students will be assigned reading relating to the relevant business/economic issues.

The teaching assistant will hold regular office hours and specifically will be available to assist students with limited prior biomedical background.

Units: 9

Prerequisites: None Required

READING ASSIGNMENTS

Readings should be completed prior to class

RESPONSE PAPERS

For most classes involving assigned reading, response papers will be due. These papers should involve a short response to the question posed. Content, not length, is valued. The maximum length is 500 words (excluding references, tables, references, and text copied from the question) – this length is a limit not a target. Students may use bulleted format if appropriate. **All response**

papers should be uploaded to the course stellar site by 9am the day of class. Response papers are individual assignments – collaboration is not allowed unless specifically specified to be a team project. Grading will be on a ✓+, ✓, ✓- basis.

TERM PROJECT

Each student will complete a term project which will involve identifying a clinical need and proposing a biomedical business to address that need. Each student will submit a detailed slide deck presenting his/her proposal by 9:00 AM on Thursday April 28. Each student will submit an abbreviated slide deck by 9:00 AM Thursday May 5 which he/she will use for the oral presentation of his/her proposal during class that day.

GRADING

Students will receive a letter grade for the course based on the response papers, term project and classroom participation.

WEBSITE

Course materials will be posted on the course's website located on the MIT Stellar Course Management System. All presentations and papers are to be submitted on the course's website under the "Homework" tab.

CLASS ATTENDANCE

It is expected that every student will attend every class. Class attendance will be recorded. Please advise the teaching assistant in advance if you expect to miss a class.

If a student misses more than one class, then for each incremental missed class the student must submit a 750 - 1000 word paper (excluding references, figures and tables) related to the topics discussed in class on the day of absence in addition to whatever other homework is due. A suitable paper might be a critical review of a published article related to the topic (in this case a copy of the article should be submitted with the paper). The paper will be due one week following the absence and should be uploaded to the course stellar site under the "Homework" tab. Students who miss more than two classes need to discuss their situation with the course director.

Students may be required to revise unsatisfactory papers submitted as a consequence of an absence.

SLOAN PROFESSIONAL STANDARDS

We subscribe to the MIT Sloan professional standards and MIT's standards of Academic Integrity. Please arrive on time for class with uninterrupted attendance for the duration of the class. Furthermore, please maintain a professional atmosphere. This includes, but is not limited to, silencing and not using computers or mobile electronic devices during class.

TAKING THE COURSE REMOTELY

Students who are not located in the Boston area may take the course remotely – but only upon advance permission of the course director, Professor Richard Cohen. Such students are expected to attend in person during any weeks that they are in the Boston area. We will be using a remote video conferencing system. Each student attending the course remotely is required to use a webcam so that his/her face can be projected live during the entirety of each class. Each student attending a class remotely will receive credit for attending the class only if his/her webcam is on continuously throughout the class. Students taking the course remotely are expected to fully participate in each class – asking and answering questions and also presenting their term projects. All course requirements including homework, attendance and in-class participation, and professional behavior standards will apply equally to students taking the course remotely or in person.

This year we will be using the Zoom remote video access system. It is recommended that each participant's computer be restarted an hour before class begins. Each participant using the remote access should connect to the class ten minutes before class. The URL is <www.zoom.us/j/257172846>. Video must be enabled for the participant to be considered present. A Bluetooth headset or

headphones will provide the best experience. Only participants pre-approved to use the remote access will be allowed to attend remotely. Participants should contact the Sloan Technology Services help desk when experiencing any problems using the system at <stshelp@mit.edu>.