Introduction

The last decade has seen an exponential growth in scientific and medical knowledge, coupled with an increasingly complex technology. Regretfully, health care costs have been rapidly increasing over the same time period. It is hoped that medical innovation would drive a more efficient and cost-effective health care system. However, the process of creating new, cost-effective medical devices requires an in-depth understanding of multiple disciplines such as medicine, engineering, and finance, that few could master alone. This is the main reason why many innovative ideas fail before reaching the market. Therefore, there is a need for a truly multi-disciplinary team-based course that focuses on medical innovation.

BioDesign is an incredibly successful program created at Stanford University, and brought to the Hebrew University and its affiliated Hadassah Medical Center. In BioDesign, teams of engineering students, clinicians and business students take on a medical challenge and devise a solution. The solution is than taken through prototyping, testing, patent application and business planning. The program has drawn several venture capital firms and medical device companies that have take a keen interest. Many such projects have already advanced to market.

Learn more at: BioDesignIsrael.com

BioDesign at the Hebrew University

The BioDesign Innovation program is headed by Prof. Chaim Lotan, director of the Heart Institute at Hadassah Medical Center and Dr. Yaakov Nahmias, director of the Grass Center for Bioengineering at the School of Computer Science and Engineering of the Hebrew University of Jerusalem in partnership with Prof. Dan Galai, former dean of the Hebrew University School of Business Administration.

BioDesign: Medical Innovation

BioDesign: Medical Innovation course is a joint effort of Hadassah Medical Center, the Bioengineering Program of the Hebrew University of Jerusalem, and the School of Business Administration. The course is taught over one academic year. The program takes outstanding medical fellows, bioengineering and business graduate students and tutors them in the science and practice of bringing a medical innovation to the market.
Biotechnology is the fastest growing sector in the Tel Aviv stock exchange and is widely considered to be the driving force of the next century.

The Hebrew University program in BioDesign offers an integrated approach to medical innovation, aiming to create dozens of start-up companies revolutionising the region.

The 2012 class already generated four successful projects featured in Fox News, Med Gadget, Science Daily, and MSNBC.

- Biodesign Innovation is expected to be a revenue-generating endeavor, as products reach the market through technology-transfer companies such Yissum and Hadassit.

PARTICIPATING PARTNERS
- Faculty of Medicine
- Center for Bioengineering
- School of Computer Science and Engineering
- School of Business Administration
- Hadassah Medical Center

INDUSTRY PARTNERS
- Boston Scientific
- Rad BioMed Incubator

Major Points
- BioDesign: Medical Innovation is taught over one academic year by academic and industrial experts
- Groups of outstanding students include medical fellows (MD), graduate students in Bioengineering (PhD) and graduate students in Business Administration (MBA)
- Students gain academic training and practical tools to becoming successful entrepreneurs
- Projects develop into actual products and spin off companies during each year of the program
- The first class of 2012 generated four start-ups:
  - http://www.timesofisrael.com/a-no-fuss-no-muss-aid-for-obesity/

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Biodesign: Medical Innovation

Biodesign is a multi-disciplinary, team-based approach to medical innovation, created by the Hebrew University of Jerusalem and its affiliated Hadassah Medical Center in partnership with Stanford University. The program takes outstanding medical fellows, bioengineering and business graduate students and tutors them in the science and practice of bringing a medical innovation to the market. Taught by academic and industrial experts the students develop solutions to clinical problems, functional prototypes, detailed business plans and patent applications.

Industry Sponsorship Levels

Gold Sponsor  $65,000/year  two positions
❖ Online Visibility - Logo and direct link to company website from Biodesign YouTube channel videos and the Biodesign website
❖ Acknowledgement - Acknowledgement of company sponsorship on official press release, signage and invitations of the program
❖ Panel Positions - Inclusion in February early review panel (clinical needs), April mid-stage review (solutions), and June final project presentation
❖ Right of First Look - Review of projects during early stage development (February to April). Projects will be opened to Silvers Sponsor by April, and to everyone during the final presentation in June.

Silver Sponsor  $20,000/year  four positions
❖ Online Visibility - Logo and direct link to company website from Biodesign website
❖ Acknowledgement - Acknowledgement of company sponsorship on signage and invitations
❖ Panel Positions - Inclusion in April mid-stage review (solutions), and June final project presentation
❖ Right of First Look - Non exclusive review of projects during mid-stage development (April to June). Decisions to be made before final presentation in June.

Bronze Sponsor  $5,000/year
❖ Online Visibility - Logo and direct link to company website from Biodesign website
❖ Acknowledgement - Acknowledgement of company sponsorship on event signage
❖ Panel Positions - Invitation to June final project presentation

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