



CIMIT Summer Education Series 2010

Emerging Technologies and Applications for Therapeutic Delivery of Drugs and Molecules

Tuesdays in July (July 6, 13, 20 and 27)

Time: 4:00-6:00pm

Location: Boston University Photonics Center

8 Saint Mary's St., Boston

Colloquium Room, Room 906

Novel Drug Delivery and Drug/Device Combination Therapy will play an increasingly important role in future therapeutics, enhancing both safety and efficacy. Controlled, localized drug delivery holds the promise to remove some of the key challenges of current therapeutics: toxicity (often distant from the site of intended action), patient compliance, and targeting (the inability to achieve sustained concentrations of the active agent at the site of the disease).

The goal of the 2010 CIMIT Summer Education Series is to link current and evolving technologies with current clinical needs through a series of lectures by expert scientist and clinician leaders who are researching and translating novel technologies into clinical solutions. The course will highlight technologies ranging from targeted polymer-drug conjugates and nano-scale carriers to intracellular delivery of siRNA for controlling cellular expression of specific proteins, and clinical applications including infectious disease, inflammation/immunity, cancer, cardiovascular and neurological diseases.

Series Schedule:

July 7: CONTROLLING CELL RESPONSES

Moderator: Frederick Schoen, MD, PhD, Brigham and Women's Hospital (BWH)

Towards the Next Generation of Biomaterials and Chemical Approaches to Control Cellular Response

Jeffrey Karp, PhD, Harvard-MIT Division of Health Sciences and Technology, BWH

Development of Biomaterials as Cell Culture Substrates for Stem Cell Engineering

Ying Mei, Massachusetts Institute of Technology (MIT)

July 20: INTRODUCTION TO DRUG DELIVERY: CLINICAL NEEDS AND TECHNOLOGICAL SPECTRUM

Moderator: Elazer Edelman, MD, PhD, MIT

Clinical Needs

David Nathan, MD, Massachusetts General Hospital

Drug Delivery Technologies: Past, Present and Future

Robert S. Langer, ScD, MIT

July 13: NOVEL DELIVERY METHODS

Moderator: Mark Grinstaff, PhD, Boston University

Nanoparticle Targeting

Omid Farokhzad, MD, BWH

Micro- and Nano-MEMS Tools

Michael Cima, PhD, MIT

July 27: CLINICAL APPLICATIONS

Moderator: Jeffrey Borenstein, PhD, Charles Stark Draper Laboratory

Novel Therapies for Cancer

Yolonda Colson, MD, PhD, BWH

Anesthesia and Critical Care Therapies

Daniel Kohane, MD, PhD, Children's Hospital

There is no registration required to attend the CIMIT Summer Series and weekly CIMIT Forum. For more information about the CIMIT Forum, contact DeAnna Grosbaum, CIMIT, dgrosbaum@partners.org, 617-726-0797, or go to www.cimit.org.

CIMIT

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Image: Drug-based Gel, provided by Praveen Vemula, PhD, and Jeffrey Karp, PhD, Harvard-MIT Division of Health Sciences and Technology