



nanomedicine and drug delivery symposium -

NanoDDS'07

boston

November 2–3, 2007

**Northeastern University
Boston, MA**

nanomedicine and drug delivery symposium - **NanoDDS'07** Boston

FIFTH INTERNATIONAL NANOMEDICINE AND DRUG DELIVERY SYMPOSIUM
November 2–3, 2007 • Northeastern University • Boston, MA

OBJECTIVE

Provide a comprehensive overview of the latest developments in all aspects of nanomedicine and drug delivery.

COMPOSITION

Keynote presentation
Over 20 presentations from the leaders in the fields
Poster session

EXPECTED PARTICIPANTS

Academic and industrial scientists, graduate students, clinicians and business specialists.

SCIENTIFIC ADVISORY BOARD

Martyn Davies, Nottingham, UK
Adi Eisenberg, Montreal, Canada
Hamid Ghandehari, Baltimore, USA
Allan Hoffman, Seattle, WA, USA
Alexander Kabanov, Omaha, NE, USA
Kazunori Kataoka, Tokyo, Japan
Thomas Kissel, Marburg, Germany
Henry Kopecek, Salt Lake City, UT, USA
Robert Langer, Cambridge MA, USA
Kalle Levon, New York, NY, USA
Kinam Park, West Lafayette, IN, USA
W.Mark Saltzman, New Haven, CT, USA
Francis Szoka, San Francisco, CA, USA

KEY NOTE SPEAKER

Prof. Robert Langer of MIT

CONFIRMED SPEAKERS

Tamara Minko, Rutgers University, USA
Alexander Kabanov, University of Nebraska, USA
Mansoor Amiji, Northeastern University, USA
Francis Szoka, University of California San Francisco, USA
Christine Allen, University of Toronto, Canada
Anna Moore, MGH/Harvard Medical School, USA
Volkmar Weissig, Northeastern University, USA
Alexander Wei, Purdue University, USA
Hamid Ghandehari, University of Maryland, USA
Jonathan Aylott, University of Nottingham, UK
Neil Desai, Abraxis BioScience, USA
Muthiah Manoharan, Alnylam Pharmaceuticals, USA
Joseph DeSimone, University of North Carolina, USA
Hideyoshi Harashima, Hokkaido University, Japan
Yuri Lvov, Louisiana Tech, USA
Dan Luo, Cornell University, USA
Patrick Stayton, University of Washington, USA
James Leary, Purdue University, USA
Aliasger Salem, University of Iowa, USA
Etienne Schacht, University of Gent, Belgium
Lawrence Mayer, Celator, Vancouver, Canada
Claus M. Lehr, Saarland University, Germany

ORGANIZING COMMITTEE

Vladimir Torchilin, Chairman
Alexander Kabanov
Hamid Ghandehari
Mansoor Amiji
Robert Campbell
Volkmar Weissig
Tatyana Levchenko
Anita Young

SELECTED TOPICS

Drug and Gene Delivery for Cancer Therapy
Multifunctional Nanomedicines
Nanodiagnostics
Intracellular Drug Delivery

LOCATION

On the campus of Northeastern University, downtown Boston. Walking distance to Museum of Fine Arts and many other attractions.

SOCIAL ACTIVITY

On Friday, November 2, 2007 there will be a starlight dinner cruise on board the Boston Harbor cruise ship "Odyssey". The cruise departs from Rows Wharf. Boarding is at 7:00 PM, cruise time is 8–10:00 PM. Jackets and ties are suggested, no jeans or sneakers allowed. Cash bar and smoking on outside decks only. Transportation from the Royal Sonesta Hotel will be provided.

ACCOMMODATIONS

We have reserved with the Royal Sonesta Hotel Boston, one of the best full-service hotels in the Boston area featuring stunning views of Boston and Cambridge, internet service, contemporary art displays, an atrium-style pool, health club, free shuttle service around the city and much more. More information on making your reservations will be forthcoming shortly. All symposium guests will be staying at the Royal Sonesta Hotel. The University negotiated a favorable rate. You will need to book your room no later than October 11, 2007. Please mention that you are part of the Nanomedicine Symposium taking place at Northeastern University.

Reservation Procedure

1. Call the Hotel directly at 617-806-4200 and ask for Reservations
2. E-mail the Hotel directly at reservations@sonesta-boston.com

REGISTRATION

Registration fees are \$350 for academia, \$800 for industry and \$100 for graduate students. The fee includes the abstract book, continental breakfasts, lunches, refreshment breaks and dinner on the cruise ship. You can register online at www.rxce.neu.edu.

IMPORTANT DATES

Abstract submission – until **September 1st** to nanomedicine@neu.edu

PROGRAM

FIFTH INTERNATIONAL NANOMEDICINE AND DRUG DELIVERY SYMPOSIUM

November 2–3, 2007 • Northeastern University • Boston, MA

FRIDAY, NOVEMBER 2, 2007

- 7:30–8:00 AM** Registration/Continental Breakfast/Poster Mounting
- 8:00–8:15 AM** Introductory Remarks
Vladimir Torchilin, Symposium Chair
- 8:15–9:00 AM** Keynote Presentation
Robert Langer, Institute Professor, Massachusetts Institute of Technology, Cambridge, MA

Session I: DNA Delivery**Chairs** – Robert Campbell and Volkmar Weissig

- 9:15–9:45 AM** DNA as a Material in Drug Delivery and Nanomedicine
Dan Luo, Cornell University, Ithaca, NY
- 9:45–10:15 AM** Systemic Delivery of siRNAs and Antagomirs: From Mice to Monkey, On the Way to Man
Muthiah Manoharan, Alnylam Pharmaceuticals, Boston, MA
- 10:15–10:45 AM** Multifunctional Envelope Type Nano Device for Non-Viral Gene Delivery
Hideyoshi Harashima, Hokuydo University, Japan
- 10:45–11:15 AM** Coffee Break

Section 2. New Technologies in Nanomedicine and Drug Delivery**Chairs** – Tatyana Levchenko and Kalle Levon

- 11:15–11:45 AM** Layer-by-Layer Nanocoating for Pharmaceuticals: From Microcapsules to Nanoshells
Yuri Lvov, Louisiana Tech, Ruston, LA
- 11:45 AM–12:15 PM** Adapting Fabrication Processes from the Electronics Industry for Use in Nano- medicine
Joseph DeSimone, University of North California, Chapel Hill, CA
- 12:15–12:45 PM** Tailored Polymers for Drug Delivery
Etienne Schacht, University of Gent, Belgium
- 12:45–3:00 PM** Lunch/Poster and Posters Viewing

Section 3. Multifunctional and Stimuli-Sensitive Nanosystems**Chairs** – Christine Allen and Etienne Schacht

- 3:00–3:30 PM** Targeted Multicomponent Nanocarriers in Cancer Diagnosis and Treatment
Tamara Minko, Rutgers University, NJ
- 3:30–4:00 PM** Multifunctional Nanotherapeutic Strategies for Drug and Gene Delivery
Mansoor Amiji, Northeastern University, Boston, MA
- 4:00–4:30 PM** A Toolkit for Lipid-Based Nanocarriers–Scaffolds, Adaptors and Sensors
Francis Szoka, University of California, San Francisco, CA
- 4:30–5:00 PM** pH-Responsive Polymeric Drug Carriers
Patrick Stayton, University of Washington, Seattle, WA
- 5:00–5:30 PM** Multi-Component Nanorods for Genetic Vaccination Applications
Aliasger Salem, University of Iowa, Iowa City, IA
- 7:00–10:00 PM** Conference Dinner Cruise

SATURDAY, NOVEMBER 3, 2007

Section 4. From Mice to Man**Chairs** – Dan Luo and Yuri Lvov

- 8:30–9:00 AM** Industrial Development of Nanomedicines
Neil Desai, Abraxis Biosciences, USA
- 9:00–9:30 AM** Nanomedicine for CNS Drug Delivery
Alexander Kabanov, University of Nebraska, Omaha, NE
- 9:30–10:00 AM** Dendritic Biomaterial for Oral Drug Delivery
Hamid Ghandehari, University of Maryland, Baltimore, MD
- 10:00–10:30 AM** Ratiometric Dosing Systems for Combination Chemotherapy
Lawrence Mayer, Celator, Vancouver, Canada
- 10:30–11:00 AM** Coffee Break

Section 5. Nanosystems for Imaging**Chairs** – Ban An Khaw and Alexander Wei

- 11:00–11:30 AM** Targeted Multicomponent Nanocarriers in Cancer Diagnosis and Treatment
Anna Moore, MGH/Harvard Medical School, Boston, MA
- 11:30 AM–12:00 PM** Multimodal NanoPlatform for In vivo Imaging
Christine Allen, University of Toronto, Canada
- 12:00–12:30 PM** Using Fluorescent Nanosensors to Measure the Intracellular Environment
Jonathan Aylott, University of Nottingham, UK
- 12:30–2:00 PM** Lunch and Posters Viewing

Section 6. New Targets and New Means**Chairs** – Tara Pouyani and Ahmed Busnania

- 2:00–2:30 PM** Mitochondrial Nanomedicine
Volkmar Weissig, Northeastern University, Boston, MA
- 2:30–3:00 PM** Plasmon-Resonant Nanorods as Multifunctional Agents for Biomedical Imaging and Therapy
Alexander Wei, Purdue University, West Lafayette, IN
- 3:00–3:30 PM** Design of Programmable, Multifunctional, Nanomedical Systems for Cancer Diagnostics and Therapeutics
James Leary, Purdue University, West Lafayette, IN
- 3:30–4:00 PM** Nanotechnology for Crossing Biological Barriers
Claus M. Lehr, Saarland University, Germany
- 4:00–4:30 PM** Coffee Break
- 4:30 PM** Best Poster Award
Short Presentations by the Winners
- 5:30 PM** Closing Remarks