



Trans-NIH Nanotechnology Task Force
and
NIH Roadmap Nanomedicine Initiative



Nanotechnology at the National Institutes of Health (NIH): Basic Concepts,
Current Research, and Medical Applications
April 7, 2009

Auditorium, Building 45, Natcher Conference Center
National Institutes of Health
Bethesda, Maryland

DRAFT AGENDA

- 8:30 a.m. - 8:45 a.m. **Welcome and Introductions**
Richard Fisher, Ph.D., and Karen Peterson, Ph.D.
Trans-NIH Nanotechnology Task Force
- Michael Gottesman, M.D.
Office of Intramural Research, NIH
- 8:45 a.m. - 9:20 a.m. **Nanoscale Behaviors: From Metals to Biology**
Mark Ratner, Ph.D.
Northwestern University
- 9:20 a.m. - 9:40 a.m. **Nanoparticle Probes for Intracellular and Single-Molecule Imaging**
Shuming Nie, Ph.D.
Emory University
- 9:40 a.m. - 10:10 a.m. **Super-Resolution Fluorescence Microscopy**
Xiaowei Zhuang, Ph.D.
Harvard University
- 10:10 a.m. - 10:45 a.m. **Nanomaterials for Studying Cell Adhesion**
Milan Mrksich, Ph.D.
The University of Chicago
- 10:45 a.m. - 11:00 a.m. **Break**
- 11:00 a.m. - 11:30 a.m. **Stepsize and Intersubunit Coordination of a Ring ATPase**
Carlos Bustamante, Ph.D.
University of California, Berkeley
- 11:30 a.m. - 12 noon **Nanotechnologies and Individualized Medicine for All**
Mauro Ferrari, Ph.D.
The University of Texas Health Science Center at Houston
- 12 noon - 12:15 p.m. **Questions and Answers and Discussion**
- 12:15 p.m. - 1:15 p.m. **Lunch**

- 1:15 p.m. - 1:30 p.m. **Overview of NIH Nanotechnology Programs**
Catherine Lewis, Ph.D.
Trans-NIH Nanotechnology Task Force
- 1:30 p.m. - 1:40 p.m. **Overview of the National Heart, Lung, and Blood Institute Program of Excellence in Nanotechnology**
Denis Buxton, Ph.D.
Trans-NIH Nanotechnology Task Force
- 1:40 p.m. - 2:10 p.m. **Nanomedicine Approaches for Heart and Lung Diseases**
Gang Bao, Ph.D.
Georgia Institute of Technology
- 2:10 p.m. - 2:20 p.m. **Overview of the National Cancer Institute Alliance**
Piotr Grodzinski, Ph.D.
Trans-NIH Nanotechnology Task Force
- 2:20 p.m. - 2:50 p.m. **Nanosensors for Molecular Measurements**
Ralph Weissleder, M.D., Ph.D.
Harvard Medical School
- 2:50 p.m. - 3:10 p.m. **Break**
- 3:10 p.m. - 3:20 p.m. **Overview of the Nanomedicine Roadmap Initiative**
Jeffery Schloss, Ph.D.
Trans-NIH Nanotechnology Task Force
- 3:20 p.m. - 3:50 p.m. **Nanomedicine Center for Protein Folding Machinery**
Wah Chiu, Ph.D.
Baylor College of Medicine
- 3:50 p.m. - 4:00 p.m. **Overview of Environmental Health and Safety**
Sally Tinkle, Ph.D.
Trans-NIH Nanotechnology Task Force
- 4:00 p.m. - 4:30 p.m. **Role of Toxicology and Safety in the Development of Nanoplatfoms for Imaging and Therapy**
Martin Philbert, Ph.D.
University of Michigan
- 4:30 p.m. **Concluding Remarks**