

MIT • Stanford • UC Berkeley Nanotechnology Forum

Inaugural event

Nanotech Beyond the Hype

An introduction to the emerging field of nanotechnology

SPEAKERS

Professor Steven Chu
Professor Paul Alivisatos
Dr. Meyya Meyyappan

VENUE

TCSEQ auditorium, Stanford University
May 29, 2003
6:00-9:00 pm

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AGENDA

6:00 – 6:50 pm	Registration, Refreshments and Networking
7:00 – 7:10 pm	Introduction Fred Lam , <i>President, MIT Club of Northern California</i> Wasiq Bokhari , <i>Chair, MIT Stanford UC Berkeley</i> <i>Nanotechnology Forum</i> Anuranjita Tewary , <i>facilitator</i>
7:10 – 7:30 pm	Dr. Meyya Meyyappan
7:30 – 8:00 pm	Prof. Steven Chu
8:00 – 8:30 pm	Prof. Paul Alivisatos
8:30 – 9:00 pm	Q&A session
9:00 pm	Session close

SPEAKER BIOS

Dr. Meyya Meyyappan is the Director of the NASA Ames Center for Nanotechnology (NACNT) as well as a Senior Scientist. He is a member of the Interagency Working Group on Nanotechnology (IWGN) established by the Office of Science and Technology Policy (OSTP). The IWGN is responsible for putting together the National Nanotechnology Initiative. NACNT, formed in 1996 and consisting of 65 scientists, has been engaged in carbon nanotube based nanotechnology, protein nanotubes, Bacteriorhodopsin based data storage, nanotechnology in gene sequencing, biosensor development, molecular electronics, quantum computing, computational electronics, computational optoelectronics, and computational nanotechnology. Meyya has a Ph.D. in Chemical Engineering. He is a member of IEEE, AIChE, MRS, AVS and ECS. He is the Editor of an Elsevier journal, Material Science in Semiconductor Processing. He has published over 100 articles in refereed journals and given over 50 Invited, Keynote and Plenary Talks on nanotechnology subjects. Dr. Meyyappan is the IEEE Distinguished Lecturer on Nanotechnology as well as ASME Distinguished Lecturer on Nanotechnology. He was awarded the NASA Outstanding Leadership Medal in 1999 and NACNT received a Group Achievement Award from NASA in 2000. The Computational Nanotechnology group of NACNT has won two Feynman Prizes awarded by the Foresight Institute. For more information, visit <http://www.ipt.arc.nasa.gov>

Prof. Steven Chu is the Theodore and Frances Geballe Professor of Physics and Applied Physics at Stanford University. His thesis and postdoctoral work at Berkeley was on the observation of parity non-conservation in atomic transitions in 1978, one of the earliest atomic physics confirmations of the Weinberg-Salam-Glashow theory that unifies the weak and electromagnetic forces. In 1978, he joined AT&T Bell Laboratories, where he did the first laser spectroscopy of positronium, an atom consisting of an electron and positron. Also at Bell Laboratories, he showed how to cool atoms with laser light (optical molasses) and demonstrated the first optical trap for atoms. This trap, known as “optical tweezers”, is also used to trap microscopic particles in water and is widely used in biology. His group demonstrated the magneto-optic trap, the most commonly used atom trap.

Chu joined the Stanford Physics Department in 1987. His group at Stanford made the first frequency standard based on an atomic fountain of atoms and developed ultra-sensitive atom interferometers. Using the optical tweezers, Chu developed methods to simultaneously visualize and manipulate single bio-molecules. His group is also applying methods such as fluorescence microscopy, optical tweezers and atomic force methods to study the protein and RNA folding, enzyme activity, translation, vesicle fusion, cell adhesion at the single molecule level.

For his work, Chu has received numerous awards including co-winner of the Nobel Prize in Physics in 1997 with William Phillips and Claude Cohen-Tannoudji. He is a member of the National Academy of Sciences, the American Philosophical Society, the American Academy of Arts and Sciences, and the Academia Sinica. He is also a foreign member of the Chinese Academy of Sciences and the Korean Academy of Science and Engineering.

Prof. Paul Alivisatos is a Scientific Founder of Nanosys, Inc. and Member of the Scientific Advisory Board. Dr. Alivisatos is a Professor of Chemistry and Professor of Materials Science & Engineering at University of California, Berkeley with a joint appointment at the Lawrence Berkeley Laboratories where he is the Head of the Molecular Design Institute. Dr. Alivisatos is one of the leaders in nanotechnology with a particular focus on zero dimensional materials. Dr. Alivisatos has won the National Science Foundation Presidential Young Investigator Award, the Coblentz Award, the Outstanding Scientific Accomplishment in Materials Chemistry (DOE), and the Outstanding Young Investigator Award (Materials Research Society). Dr. Alivisatos was one of the Founding Scientists of Quantum Dot Corporation, a privately held company that focuses on utilizing quantum dots as biochemical labels for research and diagnostic purposes. Dr. Alivisatos received his Ph.D. in Physical Chemistry at the University of California, Berkeley, followed by a Post Doctoral Fellowship at AT&T Bell Labs.

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Introduction and Mission Statement

The Nanotechnology Forum is dedicated to promoting the burgeoning field of nanotechnology by connecting ideas, technology and people.

We hold monthly events that focus on topics of broad interest. Each event features invited speakers who are world-renowned researchers, business leaders, investors or policy makers.

The Nanotechnology Forum primarily serves the alumni communities of MIT, Stanford and the University of California, Berkeley, but events are open to anyone interested or active in the field of nanotechnology. We provide opportunities for industry experts, researchers, entrepreneurs, venture capitalists, private investors, technologists and the interested public to discuss, understand and evaluate the state-of-the art in nanotechnology.

Event calendar

May 29, 2003	Nanotech beyond the hype
Jun 26, 2003	Nanotech Business Panel
Jul 31, 2003	Nanotech Investment Panel
Sep 25, 2003	Nanotech and Energy
Oct 30, 2003	Nano-medicine
Nov 27, 2003	Nanotech in Memory and Data Storage
Jan 29, 2004	Nanotech and Materials
Feb 26, 2004	Ethical, Social and Environment panel
Mar 25, 2004	Nanotech and semi-conductors
Apr 29, 2004	Emerging tools and instrumentation

Steering Committee

Anuranjita Tewary, Arun Mehta, Anthony Waitz, Bert Bruggeman, Ed Korczynski, Fred Lam, Jonathan Goldman, Kitu Bindra, Klaudyne Hong, Qian Wu, Victor Boksha, Vivek Nadkarni, Wasiaq Bokhari (Chair).

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NEXT EVENT

Nanotech business panel

What are Fortune 500 companies doing in nanotechnology?

PANEL MEMBERS

TBA

LOCATION

TCSEQ auditorium, Stanford University

Jun 26, 2003

6:00-9:00 pm

COST

\$10 general admission

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