

Nanomedicine: Today and Tomorrow

DISTINGUISHED SPEAKERS

Mauro Ferrari, Ph.D. (Ohio State University)
James Baker, Jr., M.D. (University of Michigan)
Guy della Cioppa, Ph.D. (NanoInk, Inc)
Uri Sagman, M.D. (C Sixty, Inc)

MODERATOR

Klaudyne Hong, Ph.D. (Berlex/ScheringAG)

VENUE

Fairchild auditorium, Stanford University
Oct 30, 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 Dr. Wasiq Bokhari, Chair, MIT Stanford UC Berkeley Nanotechnology Forum Dr. Victor Boksha, Co-Director of the event, MIT Stanford UC Berkeley Nanotechnology Forum
7:10 – 8:45 pm	Nanomedicine presentations
8:45 – 9:00 pm	Q&A session
9:00 pm	Session close by the Chair

SPEAKER BIOS

Mauro Ferrari, Ph.D.

Presentation: The cancer nanotechnology plan: a roadmap for deployment of nanotechnology in the fight against cancer

Dr. Ferrari is a founder and international leader in the fields of biomedical nanoand micro-technology (bioMEMS), and a pioneer of their applications to medical therapeutics in sectors such as drug delivery, cell transplantation, and tissue engineering. His group was the first to successfully perform the implantation of hybrid chips (biological cells included in immunoprotective silicon microchips) into animal models.

Dr. Ferrari accepted his current tenured positions of Professor of Internal Medicine, Professor of Mechanical Engineering, and Director of the Biomedical Engineering Center at The Ohio State University in 1999. He was appointed an Associate Director of the Heart and Lung Institute in 2000. He is the scientific founder and Chairman of the Scientific Advisory Board of iMEDD, Inc (1998-). He is the Chairman of the State-sponsored Ohio MicroMD: The Ohio BioMEMS Consortium in Medical Therapeutics. Professor Ferrari is also Associate Vice-President for Health Sciences, Technology and Commercialization at the Ohio State University. His research and teaching have been focused throughout his career on micro- and nano-mechanics, and their biomedical applications. In these fields, he has published over one hundred papers and two books (two more are in preparation). He has obtained 14 issued US and International

patents with over 20 currently pending. Dr. Ferrari is the Editor-in-Chief of Biomedical Microdevices (Kluwer Academic Publishers), the only archival journal dedicated solely to BioMEMS and biomedical nanotechnology, and serves as reviewer for a multitude of other journals. He has served as Conference Chairman for the first three BioMEMS and Biomedical Nanotechnology World conferences (2000-2002). He is the President of the International Society for BioMEMS and Biomedical Nanotechnology. Dr. Ferrari is currently Chairman of the Planning and Working Committee of the National Institute for Heart, Lung, Blood, and Sleep (NHLBI), National Initiative on Nanotechnology as well as a member of the Medical Steering Committee of the National Nanotechnology Initiative. Dr. Ferrari obtained the degree of Dottore in Matematica (1985) from the University of Padova, Italy, M.S. (1987) and Ph.D. (1989) in Mechanical Engineering from the University of California at Berkeley.

James Baker, Jr., M.D.

Presentation: Nanotechnology for medical applications

Dr. Baker was appointed Director of the newly organized Center for Biologic Nanotechnology at the University of Michigan in 1998. This center promotes a multi-disciplinary approach to study the application of nanomaterials to cellular engineering, drug delivery and gene transfer, and is supported by over \$25 million dollars in federal grants and contracts. In June 2001 Dr. Baker was inaugurated as the first recipient of the Ruth Dow Doan Endowed Professorship in Biologic Nanotechnology. His research is in several aspects of host defense mechanism and immunologic diseases. Recently he has been involved in work concerning gene transfer and drug delivery. These studies have produced new vector systems for gene transfer using dendritic polymers and have the potential to revolutionize pharmaceutical therapy. Dr. Baker's work with synthetic lipid and polymeric nanostructures has resulted in the development of a new class of antimicrobial agents with activity against gram positive bacteria and spores, fungi This project led to a start-up biotechnology company named NanoBio Corporation, an Ann Arbor, MI based company licensed to commercialize these patented biologic nanotechnology delivery systems. Baker serves as Chief Scientific Officer of this corporation.

Dr. Baker joined the faculty of the University of Michigan in 1989 as an Associate Professor, Department of Internal Medicine, Division of Allergy. He was promoted to Professor of Medicine on 17 May 1996. Dr. Baker was named the Co-Director of the Center for Biomedical Engineering in the School of Engineering in 2001. In August 2002, Dr. Baker was appointed Director of Research in the newly created Michigan Bioterrorism and Health Preparedness Research and Training Center in the University's School of Public Health. In June 2003, Dr. Baker was appointed to serve as a member on the newly formed Nanotechnology Technical Advisory Group (N-TAG) of the President's Council of Advisors on Science and

Technology (PCAST) to the Executive Office of the President of the United States. Dr. Baker completed his undergraduate education at Williams College in Williamstown, MA and his medical education at Loyola-Strich School of Medicine in Maywood, IL.

Guy della Cioppa, Ph.D.

Presentation: New lithography methods for diagnostics and drug discovery

Dr. della Cioppa is Executive Vice President, Business Development at NanoInk, Inc. NanoInk is a venture-backed company organized to exploit the commercial opportunities presented by the Dip Pen Nanolithography™ (DPN™) method of nanoprinting and nanomanufacturing. DPN™ technology is a patented process that enables the building of nanoscale structures and patterns by literally drawing molecules onto substrates such as silicon microelectronic devices.

Prior to NanoInk, Dr. della Cioppa served as Vice President, Business Development at Large Scale Biology Corporation (Nasdag: LSBC). He was a key member of the team responsible for the company's successful \$97 million public offering in August 2000. Prior to serving in Business Development he was Vice President of the Genomics Division where he drafted the genomics business plan, filed key enabling patents, and managed the functional genomics collaboration with The Dow Chemical (1998-2001). The collaboration with Dow led to the construction of a new 10,000 square foot, automated genomics laboratory. The genomics deal with Dow resulted in more than \$53 million in cash payments to LSBC over the three-year research phase of the agreement. Dr. della Cioppa has extensive experience working with corporate partners and university laboratories on collaborative development projects, licensing, technology transfer and regulatory affairs. His doctoral degree in biology from UCLA was followed by study as an NIH Postdoctoral Fellow at the Worcester Foundation for Experimental Biology and five years in various senior positions in Corporate R&D at Monsanto Company in St. Louis (1984-1989). At Monsanto, he was a key member of the team that developed the first genetically modified (GM) crops now sold worldwide. He has 16 issued US patents and has published numerous peer reviewed scientific papers, meeting reviews, editorial opinions, and invited book chapters. He serves on the editorial board of OMICS: A Journal of Integrative Biology, and he is a member of the Licensing Executives Society (LES), co-chair of the LES Nanotechnology Committee.

Uri Sagman, M.D., FRCPC

Presentation: Nanomedicine - from innovation to commercialization

Dr. Sagman is the co-founder and Executive Director of the Canadian NanoBusiness Alliance, an association dedicated to the promotion of the nanotechnology sector in Canada. The Canadian NanoBusiness Alliance has a diverse membership, which includes representation of government agencies, academic centers of excellence, industry and the investment community. Dr. Sagman is cofounder and President of C Sixty Inc., a company focused on development and commercialization of fullerene antioxidants as therapeutic agents in the areas of CNS neurodegenerative, cardiovascular and other diseases related to oxidative injury. At C Sixty, Dr. Sagman has recruited some of the world's leading scientists, including the 1996 Nobel Prize awardee and codiscoverer of fullerenes. To that end, Dr. Sagman has enlisted a comprehensive R&D network, based at leading academic centers, which include Rice University, UCLA, Columbia University, Dartmouth University, the University of Toronto, Erlangen University in Germany, and the University of Taiwan. Dr. Sagman is the Chairman of GRN Health International Inc., a globally based academic research organization dedicated to medical research and development. Dr. Sagman is currently engaged in the development of strategies for National Nanotechnology Initiative programs in several countries, specializing in the development of paradigms for public and private sector alliances. In addition, Dr. Sagman's efforts are focused on the application of nanotechnology to problems of global scope.

Dr. Sagman is a medical oncologist, a fellow of the Royal College of Physicians and Surgeons of Canada, and a fellowship recipient of the Medical Research Council of Canada. Amongst his numerous awards are the Young Investigator awards of the American Society of Clinical Oncology (ASCO) and the American Association for Cancer Research (AACR). He has organized and participated as keynote speaker at numerous nanotechnology-based conferences. Dr. Sagman has been extensively profiled in numerous journal and press publications, including Time Magazine, Newsweek, the Economist, the New York Times, Red Herring, Technology Review, and Chemical Engineering amongst others. Dr. Sagman obtained his training at McGill University, The University of Calgary, The University of Toronto and Oxford University.

MIT • Stanford • UC Berkeley Nanotechnology Forum

Introduction and Mission Statement

The Nanotechnology Forum is dedicated to promoting the burgeoning field of nanotechnology by connecting ideas, technology and people. It is a unique organization, run entirely by unpaid volunteers under the umbrella of the alumni associations of the three universities.

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.

Our previous events have featured leading researchers, business leaders, investors, policy makers and entrepreneurs active or interested in the field of nanotechnology. Each event has been attended by approximately 500 people, including prominent presence from Fortune 500 companies, investment and academic communities.

Future event topics

Nanotech in Memory and Data Storage Nanotech and Materials Ethical, Social and Environment panel Nanotech and semi-conductors Emerging tools and instrumentation

Steering Committee

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The Girvan Institute of Technology is a non-profit corporation focused on research, technology development, technology transfer, and technology commercialization at the NASA Research Park, Moffett Field, California. Girvan's primary mission is to accelerate

the convergence of commercial markets and government-developed technologies, and to spur the use of innovative commercial technology for NASA missions. Girvan identifies commercially developed technologies of interest to NASA, and assists small companies in accessing technology developed by US government agencies for eventual application in commercial markets.



Quantum Insight

Quantum Insight is a pioneering business strategy services firm in the field of emerging new materials and nanotechnology. Our customers include Fortune 500 companies as well as venture and corporate funds. We provide strategic

business and market development services to companies active or interested in the fields of emerging new materials and nanotechnology. We also provide investment research, targeted deal sourcing and due diligence services to venture and corporate funds seeking to build new technology startups.



Burns Doane

We at Burns Doane are proud to say that among our 100 plus scientists and attorneys from all the major scientific

disciplines we have some of the pioneers in the field of nanotechnology. Our attorneys have developed patent portfolios around some of the fundamental building blocks of this emerging area, including carbon nanotubes, photo-voltaics, MEMS, NEMS, and fuel cells. Our attorneys have founded some of the most successful nanotechnology networking organizations across the country and are well positioned to introduce clients to venture capitalists, industry leaders, and others who can help establish successful businesses.

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NEXT EVENT

Nanotechnology in Memory and Data Storage

LOCATION
Stanford University
November 2003
6:00-9:00 pm

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