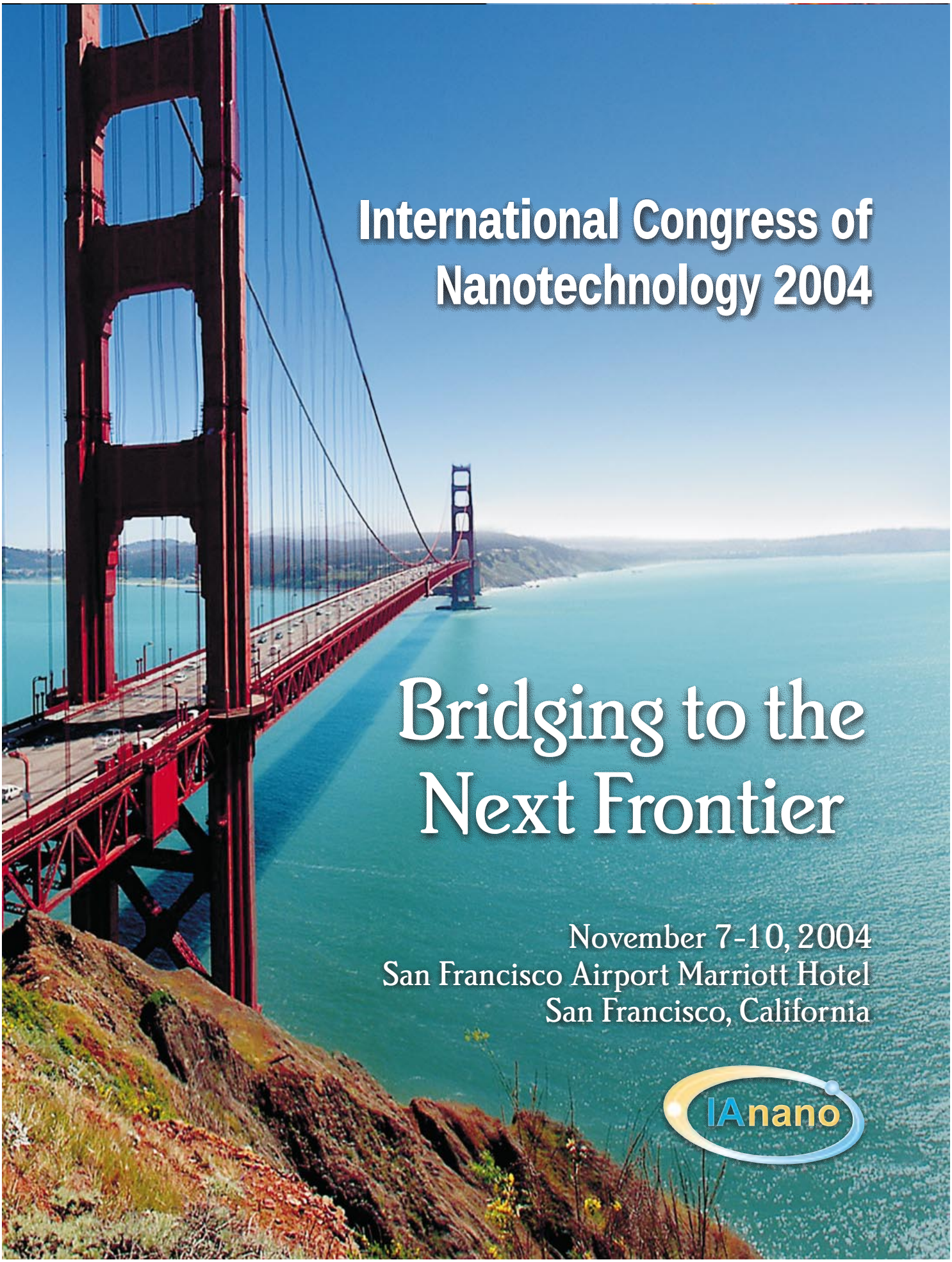

International Congress of
Nanotechnology 2004
Bridging to the
Next Frontier
November 7-10, 2004
San Francisco Airport Marriott Hotel
San Francisco, California
IAnano

WELCOME

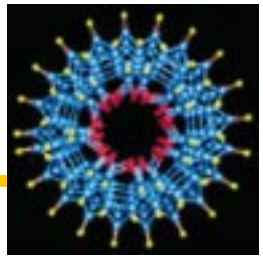
The International Congress of Nanotechnology 2004
November 7-10, 2004,
San Francisco Airport MARRIOTT Hotel
San Francisco, USA.

The 2004 Conference Theme: *Bridging to the Next Frontier!*

- Bridging to the convergence of physical science, IT, engineering and biomedical science.
- Bridging to global collaboration to explore the mystery of the nanoscale world and how to make use of its application for the benefits of mankind.
- Bridging the communication gap to address key issues facing the scientific research, business development and social, environmental and health safety implications of Nanotechnology.

CONFERENCE TOPICS

- Nanomaterials
- Nanodevices
- Nano Tools
- Nanoelectronics
- Nanobiotechnology
- Nanomedicine
- Molecular Engineering
- Nano Manufacturing
- Nano Toxicology
- Health and Safety Implication
- Societal and Environmental Impact
- Intellectual Property and Technology Transfer
- Research Collaboration and Business Joint Venture



ADVISORY BOARD

Dr. Wasiq Bokhari,
Partner, Quantum Insight, Menlo Park, USA

Prof. Peter Fromherz,
Director, Max-Planck-Institute of Biochemistry, Martinsried, GERMANY

Prof. Kurt Geckeler,
Head, Laboratory of Applied Macromolecular Chemistry, Gwangju Institute of Science and Technology, Gwangju, KOREA

Prof. Arun Majumdar,
Chair, Department of Mechanical Engineering, University of California, Berkeley, USA

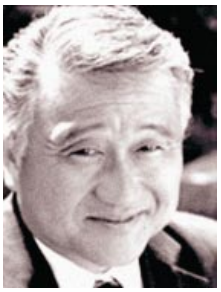
Ms. Sonia E. Miller,
Partner, S.E. Miller & Associates, New York, USA

Prof. Fabio Pichierri,
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, JAPAN

KEYNOTE SPEAKERS

Senator Debra Bowen, Senator, 28th District of California, Sacramento, Co-Chair of the Joint Committee on Preparing California for the 21st Century. Chair of the Energy, Utilities and Communications Committee, with the jurisdiction on bills relating to utilities, energy companies, alternative energy development and conservation, and communications development and technology.

Key note address,
Monday morning 11/08



Congressman Mike Honda
Congressman Mike Honda was the co-author of the Nanotechnology Research and Development Act of 2003, which authorizes $3.7 billion over four years for nanotechnology research and development programs in the United States.

Key note address: Monday November 8

Prof. Steven Chu, Nobel Prize Laureate, Director of Lawrence Berkeley National Laboratory, California, USA

Key note lecture, Tuesday morning 11/09
"Biology as nanotechnology solutions to engineering problems"

Prof. Peter Fromherz,
Director, Max-Planck-Institute of Biochemistry, Martinsried, GERMANY. Peter Fromherz and colleagues have created the world's first living silicon circuit.

Keynote lecture on Tuesday morning 11/09:
"Neuroelectronics: Semiconductor Chips with Brain Cells"

Dr. Michael Roco, Chair, US National Science and Technology Council's Subcommittee on Nanoscale Science, Engineering and Technology, Advisor-National Science Foundation, Arlington, VA, USA. Dr. Roco has been considered the Advocate of the Year for Nanotechnology 2004 by Small Times magazine .

Key note lecture on Monday morning 11/08:
"Transforming and Responsible Nanotechnology Research and Development"

Dr. James Canton, Chairman & CEO, Institute of Global Futures, San Francisco, CA, USA

Key note lecture on Wednesday 11/10
"The Emerging NanoEconomy: Key Drivers, Challenge and Opportunities"

INVITED LECTURES

(in alphabetical order)

Dr. Kevin D. Ausman,
Center for Biological and Environmental Nanotechnology, Rice University, Houston, TX, USA

Dr. Hans J. Coufal,
Almaden Research Center, IBM Research Division, San Jose, CA, USA

Prof. Henrik Ditzel,
Medical Biotechnology Center, University of Southern Debmark, DENMARK

Prof. Kurt Geckeler,
Gwangju Institute of Science and Technology, KOREA

Prof. Luke P. Lee,
Biomolecular Nanotechnology Center, Dept. of Bioengineering, UC Berkeley, CA, US

Dr. Terry Michalske,
Center for Integrated Nanotechnologies, Sandia National Laboratories, Albuquerque, NM, USA

Prof. Fabio Pichierri,
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, JAPAN

Dr. James B. Roberto,
Oak Ridge National Laboratory, Oak Ridge, TN, USA

Prof. Seeram Ramakrishna,
NUS Faculty of Engineering, National University of Singapore, SINGAPORE

Dr. Avi Rasooly,
National cancer Institute, National Institute of Health, Rockville, MD, USA

Dr. Sadasivan Shankar,
Technology Manufacturing Group, INTEL Santa Clara, California, USA

CONFERENCE SCHEDULE

Sunday November 7, 2004

The Conference Schedule may be subject to changes

8:30 AM - 9:30 AM	Workshop Registration
10:00 AM - 5:30 PM	Exhibitor Registration
2:30 AM- 5:30 PM	Conference Registration
9:30 AM-12:00 PM	**Workshop:** *Fundamentals & Application of Nanotechnology/ Introduction to Carbon Nanotube,* by Dr. Hictor J.D.Santos, CTO of NanoMEMS Research, LLC and Dr. Cattien Nguyen, Scientist at NASA Nanotechnology Research Center
1:00 PM - 3:30 PM	**Workshop:** *Intellectual Property and Business Strategy in Nanotechnology,* by Mr. Joel Ackerman (Townsend Townsend Crew, California), Johnathan Hack (Min, Hsieh & Hack, Washington DC), Mr. Nick Fox-Male (European Patent Attorney with Eric Potter Clarkson, UK).
4:00 PM	Depart from the Marriott Hotel to Fisherman's Wharf
5:00 PM	Bay Cruise in San Francisco

Red and White Fleet

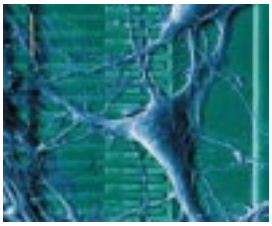
SINCE 1902 – THE SAN FRANCISCO SIGHTSEEING TRADITION

CONFERENCE SCHEDULE

Monday November 8, 2004

The Conference Schedule may be subject to changes

7:30 AM-8:30 AM		Light Breakfast (Salon A-D)
8:30 AM-9:00 AM	M-G-1	General Session (Grand Ballroom E) Opening Remark-Introduction to the ICNT 2004 from Lloyd L. Tran, President and Program Director - International Association of Nanotechnology.
9:00 AM- 9:30 AM	M-G-2	Senator Debra Bowen-Senator, 28th District of California, Sacramento, Co-Chair of the Joint Committee on Preparing California for the 21st Century.
9:30 AM - 10:00 AM	M-G-3	Congressman Mike Hoda, the 15th Congressional District of California in the U.S. House of Representatives, co-author of the Nanotechnology Research and Development Act of 2003, which authorizes $3.7 billion over three years for nanotechnology research and development programs.
10:00 AM -10:30 AM		Coffee Break (Exhibit Area, Salon A-D)
10:30 AM-11:00 AM	M-G-4	Dr. Michael Roco, Chair, US National Science and Technology Council's Subcommittee on Nanoscale Science, Engineering and Technology, Advisor- National Science Foundation, Arlington, VA,USA. "Transforming and Responsible Nanotechnology Research and Development"
11:00 AM-11:30 AM	M-G-5	Prof. Kurt Geckeler, Head, Laboratory of Applied Macromolecular Chemistry, Gwangju Institute of Science and Technology, Gwangju, KOREA. "Supramolecular Nanomaterials: Novel Design and Unorthodox Approaches".
11:30 AM-12:00 PM	M-G-6	Dr. James B. Roberto, Associate Director, Oak Ridge National Laboratory, Oak Ridge, TN USA "Nanoscale Science and Technology at Oak Ridge National Laboratory"
12:00 PM -1:30 PM		Lunch (Exhibit Area, Salon A-D)
TRACK A		**Nanomaterials**
1:30 PM-2:00 PM	M-A-1	Dr. D. A. Brevnov, T.S. Olson, M.J. Barela, T.M.. Bauer, G. P. López, Center for Micro-Engineered Materials, University of New Mexico, and Sandia National Laboratories, New Mexico, USA "Anodized aluminum oxide as a template for fabrication of nano-structures: metal / metal oxide / pores"
2:00 PM-2:30 PM	M-A-2	Prof. I-Shou, Graduate Institute of Textile Engineering, Fong Chia University, Taichung, TAIWAN "Dielectric Properties of the Hybrid Board of Polytetrafluoroethylene/Nano-scale SiO2 Powder"
2:30 PM-3:00 PM	M-A-3	Prof. Anushree Roy, S. Ray, P. Pramanik, Dept. of Physics, Indian Institute of Technology, Kharagpur, INDIA "Optical Spectroscopic Studies On Nanocrystalline Y2O3:Eu3+"
3:00 PM-3:30 PM		Coffee Break (Exhibit Area, Salon A-D)
3:30 PM -4:00 PM	M-A-4	Prof. Dinesh C. Agrawal & Sudip Dasgupta, Materials Science Program, Indian Institute of Technology Kanpur, Kanpur, INDIA "Use of Alkoxide Sol-Gel Process for Linear Assembly of Oxide Particles"
4:00 PM-4:30 PM	M-A-5	Dr. Frederick W. Lam, R.M.K Carlson, J.E.P. Dahl, S.G. Liu, Chevron Texaco Molecular Diamond Technologies, CA, USA "A New Carbon-based Nanomaterial: Higher Diamondoids Isolated from Petroleum"
4:30 PM - 5:00 PM	M-A-6	Dr. Evgenii Narimanov, Princeton University, Princeton, NJ, USA "Non-magnetic left-handed material"
6:00 PM - 7:30 PM		RECEPTION (Bayside)



Monday (continued)

The Conference Schedule may be subject to changes

TRACK B		Nanoelectronics
1:30 PM-2:00 PM	M-B-1	Dr. Elias Greenbaum, Oak Ridge National Laboratory, TN, USA "Molecular Wiring for Enhanced Photocatalytic Hydrogen Evolution."
2:00 PM-2:30 PM	M-B-2	Dr. Juergen Geiser, Weierstrass-Institute for Applied Analysis and Stochastics, Berlin, GERMANY. "WIAS-HiTNIHS: Software-tool for simulation in crystal growth for SiC single cryastal: Applications and Methods."
2:30 PM-3:00 PM	M-B-3	Prof. Woonbong Hwang & Dukhyun Choi, Dept. of Mechanical Engineering, Pohang University of Science and Technology, Pohang, KOREA; Euisung Yoon, Tribology Laboratory of Korean Institute of Science and Technology, Seoul, KOREA "On the calibration of frictional forces in atomic force microscopy"
3:30 PM-3:30 PM		Coffee Break (Exhibit Area-Salon A-D)
3:30 PM -4:00 PM	M-B-4	Dr. Stephan Irle, G.Zheng, M. Elstner, K. Morokuma, Cherry L. Emerson Center for Scientific Computation, Emory University, Atlanta, GA, USA "From Small Carbon Fragments to Self-Assembled Fullerenes in Quantum Chemical Molecular Dynamics Simulations"
4:00 PM-4:30 PM	M-B-5	Philip Langton, Nanosig, RFID Form, Santa Cruz, CA USA "Nanomesh Networks"
4:30 PM - 5:00 PM	M-B-6	Prof. S.V. Blat, S.S.Rao, G.Venkataiah, Venu G. Reddy, Department of Physics, Indian Institute of Science, Hyderabad, INDIA "Electron Magnetic Resonance studies of Nanomanganite Nd 0.67 Sr 0.33 MnO3"
6:00 PM-7:30 PM		RECEPTION (Bayside)

TRACK C		NanoBiotechnology/Nanomedicine
1:30 PM-2:00 PM	M-C-1	Dr. Gabriel A. Silva, Departments of Bioengineering and Ophthalmology, and Neurosciences Program University of California, San Diego, CA, USA "Challenges and Opportunities for Applied Nanotechnology to the Regeneration of the Central Nervous System"
2:00 PM-2:30 PM	M-C-2	Prof. Carmelina Ruggiero, Laura Pastorino, Federico Soumetz, University of Genoa, Dept. of Communication, Computer and System Sciences, DIST, Genoa, ITALY "Laye-by Layer Self-Assembly for Nerve Tissue Regeneration"
2:30 PM-3:00 PM	M-C-3	Prof. Joanne Yeh, Brown University, Providence, RI, USA "NADH Specific Signal Generation through an Electrochemically Active Biocatalytic Assembly"
3:00 PM-3:30 PM		Coffee Break (Exhibit Area-Salon A-D)
3:30 PM -4:00 PM	M-C-4	Dr. F. Yu & W. Knoll, Max-Planck Institute for Polymer Research, Mainz, GERMANY "Surface-plasmon related ultra sensitive analytical methods and their bio- & nano- applications"
4:00 PM-4:30 PM	M-C-5	Dr. C.Z. Li & J.H.T. Luong, Nanobiotechnology/Biosensor Group, Biotechnology Research Institute, National Research Council Canada, Montreal, CANADA "Electrodeposition of Gold Nanoparticles on Electrodes toward Improvement of Impedance Sensing of Interfacial DNA-Drug Interactions"
4:30 PM- 5:00 PM	M-C-6	Dr. Fuad Fares, Molecular Genetic Department, Carmel Medical Center and the Faculty of Medicine, Technion, Haifa, ISRAEL "Designing new analogs; agonists and antagonists, for the glycoprotein hormones using site directed mutagenesis and gene transfer."

CONFERENCE SCHEDULE

5:00 PM-5:30 PM	M-C-7	Prof. Andre Nel, School of Medicine, University of California, Los Angeles, CA USA. "Nanoparticle Toxicity and Health Impacts: What we have learned from Pollutant Nanoparticles and Implications for the Nano Industry
6:00 PM-7:30 PM		RECEPTION (Bayside)

Tuesday, November 9, 2004

The Conference Schedule may be subject to changes

7:30 AM-8:30 AM		Light Breakfast (Salon A-D)
8:30 AM-9:00 AM	T-G-1	General Session (Grand Ballroom E) Dr. Hans J. Coufal Almaden Research Center, KLPA/D2, IBM Research Division, San Jose, CA, USA "Nanoscience for Information Technology"
9:00 AM- 9:30 AM	T-G-2	Prof. Peter Fromherz, Max-Planck-Institute of Biochemistry, Martinsried, GERMANY "Neuroelectronics: Semiconductor Chips with Brain Cells"
9:30 AM - 10:00 AM	T-G-3	Prof. Steven Chu, Nobel Prize Laureate, Department of Physics, Stanford University, and Lawrence Berkeley National Laboratory, California, USA "Biology as nanotechnology solutions to engineering problems."
10:00 AM -10:30 AM		Coffee Break (Exhibit Area, Salon A-D)
10:30 AM-11:00 AM	T-G-4	Dr. Terry Michalske, Center for Integrated Nanotechnologies, Sandia National Laboratories Albuquerque, NM , USA "Nanotechnology for National Security"
11:00 AM-11:30 AM	T-G-5	Prof. Alexei M. Lipanov, Institute of Applied Mechanics, Ural Branch of Russian Academy of Sciences, RUSSIA "Problems of nanoreactors creation for the synthesis of metallic nanoparticles in the carbon shells."
11:30 AM-12:00 PM	T-G-6	Dr. Sadasivan Shankar, C. Michael garner, Technology Manufacturing Group, INTEL, Santa Clara, CA, USA "Challenges and Opportunities for Materials in Nanotechnology"
12:00 PM -1:30 PM		Lunch (Salon A-D)

TRACK A		**Intellectual Property & Technology Transfer**
1:30 PM-2:00 PM	T-A-1	Joel Ackerman of Townsend, Townsend & Crew (San Francisco) "Protection rights to Inventions and Patents in Joint Research or Development Activities in Nanotechnology"
2:00 PM-2:30 PM	T-A-2	Jonathan Hack of Min, Hsie & Hack (Washington DC) "Emerging Intellectual Property Issues in Nanotechnology"
2:30 PM-3:00 PM	T-A-3	Thomas Fitzsimons, Director of Start-up Business Development, University of Pennsylvania, on Technology Transfer
3:30 PM-3:30 PM		Coffee Break
3:30 PM -4:00 PM	T-A-4	Chinh Pham, Greenberg Traurig, LLP, Boston, MA, USA.
4:00 PM-4:30 PM	T-A-5	Erick B. Flom, Welch & Katz, Chicago, IL
4:30 PM- 5:00 PM	T-A-6	Nick Fox-Male of Eric Potter Clarkson (UK) on European Patent Protection
5:00 PM-5:30 PM	T-A-7	Jeffrey A. McKinney, Burns A. Doan, San Francisco, CA "Obtaining Maximal Worldwide Patent Coverage for Nanotechnology Inventions"

CONFERENCE SCHEDULE

Tuesday (continued)

The Conference Schedule may be subject to changes

TRACK B		Nanotech Research and Development
1:30 PM-2:00 PM	T-B-1	Prof. Bharat Bhushan, Nanotribology Laboratory for Information Storage and MEMS/NEMS, The Ohio State University, Columbus, OH, USA "Naotribology and Nanomechanics: State-of-the-Art and Critical Importance to Nanotechnology"
2:00 PM-2:30 PM	T-B-2	Mr. Matthew R.G. Bell, Shell Technology Ventures, Houston, TX, USA "A Case for Nanomaterials in the Oil & Gas Exploration & Production Business"
2:30 PM-3:00 PM	T-B-3	Dr. Tsung-Tsan Su, Nanotechnology Research Center, Industrial Technology Research Institute, Hsinchu, TAIWAN "Overview of Nanomaterials Research at ITRI, Taiwan"
3:00 PM-3:30 PM		Coffee Break
3:30 PM -4:00 PM	T-B-4	Dr. Xiangdong Feng, Ferro Corporation, Independence, OH, USA "Science and Technology in Controlling Nanoparticle Size and Shape"
4:00 PM-4:30 PM	T-B-5	Andy R. Watson, Quantum Dot Corporation, Hayward, California, USA "Qdot technology- a revolution in biological detection"
4:00 PM-5:00 PM	T-B-6	Dr. Michael Allen, Biometrology Contract Research, Alameda, CA, USA "Emerging applications for nano-scale analysis of bio-surfaces"
5:00 PM - 5:30 PM	T-B-7	Prof. S.V. Blat, S.S.Rao, G.Venkataiah, Venu G. Reddy, Department of Physics, Indian Institute of Science, Hyderabad, INDIA"

Wednesday, November 10, 2004

The Conference Schedule may be subject to changes

7:30 AM-8:30 AM		Light Breakfast (Salon A-D)
8:30 AM-9:00 AM	W-G-1	General Session (Grand Ballroom E) Dr. James Canton, Chairman & CEO, Institute of Global Futures, San Francisco, CA, USA "The NanoEconomy"
9:00 AM- 9:30 AM	W-G-2	Prof. Fabio Pichierri, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, JAPAN "Quantum effects in signal transduction biology: perspectives for 21st Century Nanoelectronics"
9:30 AM - 10:00 AM	W-G-3	Prof. Seeram Ramakrishna, NUS Faculty of Engineering, National University of Singapore, SINGAPORE "Polymer Nanofibers in Medicine, Biotechnology and Engineering"
10:00 AM -10:30 AM		Coffee Break
10:30 AM-11:00 AM	W-G-4	Prof. Arun Majumdar, Department of Mechanical Engineering, University of California, Berkeley, USA "Nano and Micro Technologies For Biomolecular Analysis"
11:00 AM-11:30 AM	W-G-5	Prof. Henrik Ditzel, Medical Biotechnology Center, University of Southern Debmark, DENMARK "Use of nano-scale phage display selection for the generation of human monoclonal antibodies against breast cancer"
11:30 AM-12:00 PM	W-G-6	Dr. Avi Rasooly, National Cancer Institute, National Institute of Health, Rockville, MD, USA "Technology funding opportunities at the National Cancer Institute Through the Cancer Diagnosis Program"
12:00 PM -1:30 PM		Lunch (Salon A-D)

CONFERENCE SCHEDULE

Wednesday (continued)

The Conference Schedule may be subject to changes

TRACK A		Nanomaterial Health Safety
1:30 PM-2:00 PM	W-A-1	Prof. Luke P. Lee, Biomolecular Nanotechnology Center, Dept. of Bioengineering, UC Berkeley, CA, USA "Biologic Nanotechnology for Molecular Medicine"
2:00 PM-2:30 PM	W-A-2	Prof. Henry Hess, Dept. of Bioengineering, University of Washington. Seattle, WA, USA "Active Transport by Biomolecular Motors: A New Tool for Nanotechnology"
2:30 PM-3:00 PM	W-A-3	Prof. Paul Borm, Centre of Expertise in Life Sciences, Heerlen, THE NETHERLANDS "Risks and Opportunities of Nanoparticles in Drug Delivery or Implants"
3:00 PM -3:15 PM		Coffee Break
3:15 PM-3:45 PM	W-A-4	"Dr. Anna Shvedova, National Institute of Occupational Health & Safety, Center for Disease Control, Morgantown, West Virginia, USA "Oxidative Stress and Pulmonary Toxicity of Carbon Nanotubes"
3:45 PM-4:15 PM	W-A-5	Dr. Kevin D. Ausman, Center for Biological and Environmental Nanotechnology, Rice University, Houston, TX, USA "Health and Environmental Implications of Engineered Nanoparticles
4:15 PM-4:45 PM	W-A-6	Dr. Ilangovan Kuppusamy, CRICA, Monterey Tech, Atizapan, Estado De Mexico, MEXICO "Environmental Nanotechnology"
4:45 PM-5:15 PM	W-A-7	Prof. Valerian Kagan, Dept Environmental & Occupational Health and Pharmacology, University of Pittsburgh. Pittsburg, PA, USA "Iron-rich single walled carbon nanotubes are effective catalysts of oxidative stress in RAW 264.7 macrophage cell culture mode"

TRACK B		Societal, Ethics, Environmental Impact of Nanotechnology
1:30 PM-2:00 PM	W-B-1	Ms. Sonia E. Miller, Esq. of S.E. Miller Law Firm, New York, USA "Nano Convergence: Real Time Legal Risks & Opportunities"
2:00 PM-2:30 PM	W-B-2	Drs. George Khushf & Robert Best, Center for Bioethics, University of South Carolina, SOUTH CAROLINA "Three conditions for realizing the promise of Nanomedicine"
2:30 PM-3:00 PM	W-B-3	Prof. Nigel M. Cameron, Institute on Biotechnology and Human Future, Chicago-Kent College of Law, Illinois Institute of Technology, Chicago, IL, USA "Why nanobusiness needs nanoethics: lessons from the European GMO food debacle"
3:00 PM-3:30 PM		Coffee Break
3:30 PM-4:00 PM	W-B-4	Prof. Rosalyn W. Berne, Dept. of Science, Technology & Society, University of Virginia, VA, USA "The three orders of Nanotechnology Ethics"
4:00 PM-4:30 PM	W-B-5	Mr. Michael Treder, Center for Responsible Nanotechnology, Brooklyn, NY, USA "Bridges to Safety and Bridges to Progress"
4:30 PM-5:15 PM		Open Forum-Discussion
5:15 PM-5:30 PM		Closing Remarks. Meeting Adjourned

POSTER PRESENTATION

Arthur S. Amiryan, H.A. Sarkisyan, State Engineering University of Armenia Teryan 105, Yerevan, ARMENIA
"Direct optical absorption in cylindrical quantum dot with rectangular infinitely high confinement potential"

Antonio F. Avila and Almir Silva Neto, Universidade Federal de Minas Gerais, Department of Mechanical Engineering – Laboratory of Composite Materials BRAZIL.
"Exfoliation in NanoComposites: The Alterative Use of Acetone"

Ira M. Bennett, Arizona State University, Temple, AZ, USA "Stakeholders in Nanotechnology Policy"

Alexandru S. Biris, Chemistry Department, University of Arkansas, AR, USA
"Hydrogen Interaction with Carbon NanofibersHydrogen Interaction with Carbon Nanofibers"

Katerina Busuttil, Claire Bagshaw, Karl S Coleman, Jason J Davis, Chemical Research Laboratory, University of Oxford, Oxford, UK
"Spatially controlled chemical reaction at the molecular level using Atomic Force Microscope"

Stacie L. Gregory, North Carolina State University, Materials Science & Engineering, Raleigh, North Carolina, USA.
"A molecular dynamics study of the role that surface-active phospholipids play in the lubrication of synovial joints: implications for the treatment and prevention of Osteoarthritis"

S. K. Guharay, V. Jabotinski, J. Orloff, FM Technologies, Inc. Chantilly, VA, USA and Institute for Research in Electronics and Applied Physics, University of Maryland, College Park, MD 20742, USA "Sub-100 nanometer Ion Beam Probe for Applications in Biology and Many Other Disciplines"

Mijeong Han, S. Park, and E. Kim, Advanced Korean Research, Institute of Chemical Technology, Seoul, KOREA.
"Acrylonitrile-Butadiene rubber Nanocomposites prepared from functionalized Montmorillonites"

Taewook Kang, Jungwoo Moon, Sung Koo Kang, Soonwoo Chah, Seokil Oh and Jongheop Yi, School of Chemical Engineering, Institute of Chemical Processes, Seoul National University, Seoul 151-742, KOREA. "Shape-dependence of Gold Nanoparticle in Enhanced Sensitivity of Surface Plasmon Resonance Sensing"

Sung Koo Kang, Misun Hahn and Jongheop Yi, School of Chemical Engineering, Institute of Chemical Processes, Seoul National University, Seoul, KOREA.
"Synthesis of Au Nanoparticles with Multipod Shape for the Use in Nanocircuits"

Younghun Kim, Inhee Choi, Sung Koo Kang, Wooyoung Kim, Jeongjin Lee, Misun Hhan and Jongheop Yi, School of Chemical Engineering, Institute of Chemical Processes, Seoul National University, Seoul, KOREA "Nanofabrication of Molecular Level Detector via AFM Lithography: Application to Copper Ion Detection"

Byung M. Lee, College of Pharmacy, Sungkyunkwan University, Suwon, KOREA
"Toxicological aspect of nanoparticle"

M.D.Lima, S. S. Stein, R. Bonadiman, M.J. de Andrade, C.P. Bergmann, Federal University of Rio Grande do Sul, Dept. of Materials Engineering, Porto Alegre, RS, BRAZIL
"Synthesis of Multi Wall Carbon Nanotube (WCNT) over thin films of SiO2-Fe2O3 deposited by Combustion Chemical Vapor Deposition."

Jungwoo Moon, Taewook Kang, Seokil Oh and Jongheop Yi. School of Chemical Engineering, Institute of Chemical Process, Seoul National University, Seoul, KOREA.
"Analysis of Metal Ion Adsorption on Thiol Functionalized Surface by SPR Spectroscopy"

Kumar Namit, DA-IICT, Gandhinagar, INDIA.
"NanoPhotonics and Antennas Array Application"

Hoon Park, J.P. Ahn, J.K. Park, Y.S. Cho, H. Sieger and H. Hahn, Nano Materials Research Center, Korea Institute of Science and Technology, Seoul, KOREA;
and Thin Films Division, Darmstadt University of Technology, Darmstadt, GERMANY
"Chemical band structure of V-doped TiO2 nanopowder synthesized by aerosol-assisted chemical vapor synthesis"

Jefferson Rose and Delroy Baugh, Department of Chemistry and Biochemistry University of California Los Angeles, CA, USA
"Pulsed Laser Heteroepitaxial Deposition of Ge Quantum Dots on Si(111): Size Control, Positioning and Wiring"

Ankur Saxena, R. Arief Budiman, Department of Mechanical and Manufacturing Engineering, University of Calgary, Calgary, CANADA.
"Studies of heteroepitaxial growth of thin films using multi-particle Kinetic Monte Carlo in (2+1)-dimensions"

Litao Sun, J.L. Gong, Z.Y. Zhu, D.Z. Zhu, S.X. He, Z.X. Wang, Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Shanghai 201800, P.R. CHINA.
"Diamond Chain-like Nanowires"

Besik Surguladze, Tamara Tskitishvili, Artem Bagishvili, Centre of clinical medicine, Tbilisi, GEORGIA.
"Unimag For Treating Of Pyo-Septic Processes"

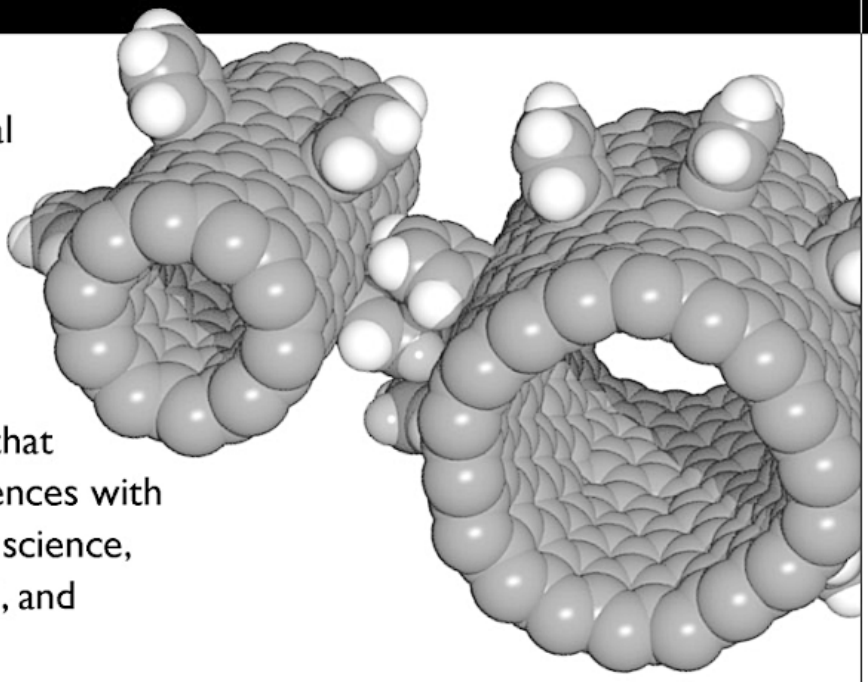
Emelyn S. Q. Tan, Alison J. Downard, Paula A. Brooksby, Samuel S. C. Yu,
Department of Chemistry, University of Canterbury, Christchurch, New Zealand and The MacDiarmid Institute for Advanced Materials and Nanotechnology, NEW ZEALAND.
"Immobilisation of Gold Nanoparticles on Amine Functionalized Carbon"

S. Velumani & J.A. Ascencio, Programa de Investigacion y Desarrollo de Ductos, Instituto Mexicano del Petroleo, D.F. MEXICO
"Formation of ZnS nanorod and nanoclusters by simple vacuum evaporation for solar cell applications"

Dawei Wang, J. Philip, B. Diouf, J. G. Lu, J. S. Moodera, Chemical Engineering & Material Science Department, University of California, Irvine, Irvine, CA, USA
"To Achieve Spin Accumulation in FMSET"

New Grants for Interdisciplinary Graduate Research Training

HHMI-NIBIB INTERFACES INITIATIVE



The Howard Hughes Medical Institute and the National Institute of Biomedical Imaging and Bioengineering are partnering to provide funds to initiate and sustain graduate training programs that integrate the biomedical sciences with one or more of the physical science, mathematical, computational, and engineering disciplines.

PHASE I GRANTS

Three years, up to $1 million, funded by HHMI

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All U.S. institutions that grant Ph.D. degrees in appropriate science or engineering disciplines are eligible to apply. Collaborative programs between two or more institutions are acceptable.

More information:
www.hhmi.org/ref/interfaces/nano

E-mail: interdisc@hhmi.org

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Graduate Science Education Program

NIBIB National Institute of Biomedical Imaging and Bioengineering

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