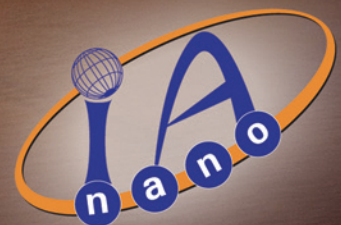
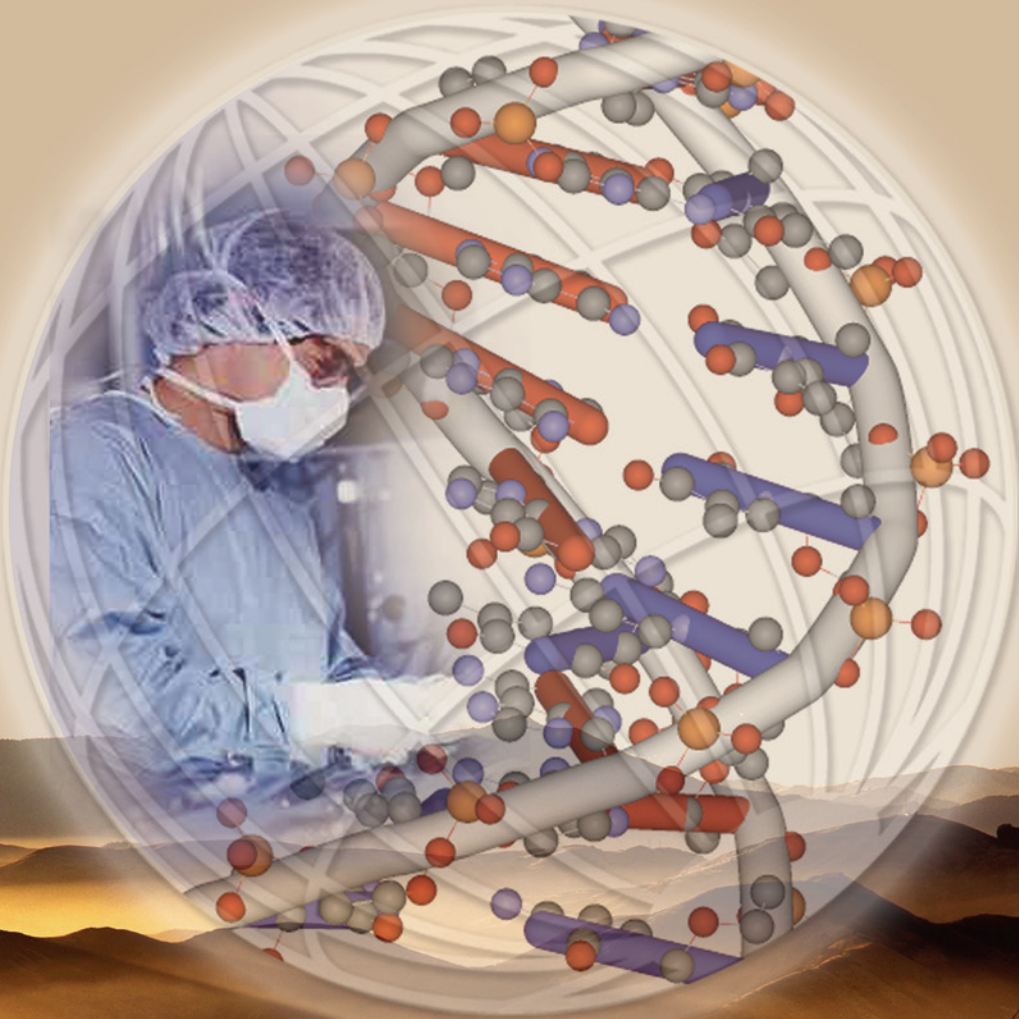


International Congress of Nanobiotechnology & Nanomedicine

June 19-21 2006
San Francisco Airport
Crowne Plaza



"Science & Business of Nano Bio"

<http://www.nanobio2006.com>

WELCOME



The International Congress of Nanobiotechnology & Nanomedicine 2006

June 19-June 22, 2006

San Francisco Airport Crowne Plaza

San Francisco, California, USA

<http://www.nanobio2006.com>

The 2006 Conference Theme:

Science and Business of Nanobiotechnology

The NanoBio 2006 conference will feature the state-of-the-art scientific development, as well as business and investment opportunities in the emerging Nanomedicine industry.

CONFERENCE TOPICS

- Targeted nano delivery systems for drugs & genes
- Minimally invasive diagnostic methods
- Nano Bio Structural Modeling
- Regenerative Nanomedicine
- Nanobiological assemblies
- In vivo medical imaging
- Bio-detection and biodefense
- Nanopatterning
- Nanotoxicology
- Commercialization in Nano Bio technologies
- Workforce education & training for the new industry
- and other related topics



Dear colleague,

I am pleased to welcome you to the first International Congress of Nanobiotechnology & Nanomedicine 2006 (NanoBio 2006).

Nanobiotechnology has opened a new dimension of research and product development, focusing on the novel physical, chemical and biological properties of materials at the nano-scale level for potential applications in prevention, diagnosis and treatment of diseases.

NanoBio 2006 offers nanotechnologists and business executives from around the world the opportunity to interact, network and exchange ideas for the advancement of the emerging industry. Your contribution to the program and your participation has helped us to achieve our mission.

The program has been designed to help you expand your knowledge and gain insights into some of the latest scientific breakthroughs and exciting business opportunities, as well as to present to you challenging projects which require international collaboration. In spite of advanced technological accomplishments, the fields of Nanobiotechnology and Nanomedicine are still in the early stages of development. This emerging industry will need the support of a new workforce generation that can transform conceptual ideas in the laboratory into products and services to meet the critical needs of the biomedical market place.

I would like to thank our scientific advisors, volunteers, and many of our colleagues who have done so much to make this year's conference successful. The program committee and I welcome your suggestions for future meetings.

I look forward to meeting each one of you in San Francisco. I hope you enjoy this beautiful city and find the program informative and valuable.

With warmest regards,

Lloyd L. Tran
Program Chair
NanoBio 2006

PROGRAM AT A GLANCE



Sunday June 18, 2006

8:00 AM-4:00 PM Registration
9:30 AM-12:00 PM Workshops
12:00 PM-1:00 PM Lunch on your own
1:00 PM-3:30 PM Workshop
4:00 PM -6:00 PM Bay Cruise in San Francisco Bay

Monday June 19, 2006

7:30 AM-4:00 PM Registration
7:30 AM-8:30 AM Breakfast
8:30 AM-12:00 PM **General Sessions**
Opening and Welcoming Remarks
Keynote and Invited Speakers
Lunch
12:00 PM-1:30 PM **Breakout Sessions**
1:30 PM-4:45 PM Track A
Track B
Track C
4:45 PM-5:30 PM Round Table Discussion
5:30 PM-7:00 PM Posters/Reception

Tuesday June 20, 2006

7:30 AM-4:00 PM Registration
7:30 AM-8:30 AM Breakfast
8:30 AM-12:00 PM **General Sessions**
Opening Remarks
Keynote and Invited Speakers
Nano Commercialization Panel Discussion
Lunch
12:00 PM-1:30 PM **Breakout Sessions**
1:30 PM-4:45 PM Track A
Track B
Track C: Workforce Education & Training
4:45 PM-5:30 PM Round Table Discussion

Wednesday June 21, 2006

7:30 AM-12:00 PM Registration
7:30 AM-8:30 AM Breakfast
8:30 AM-12:00 PM **General Sessions**
Keynote and Invited Speakers
Lunch
12:15 PM-2:00 PM **Breakout Sessions**
2:00 PM-4:45 PM Track A
Track B: Young Investigators
Track C: Young Investigators
4:45 PM-5:30 PM Congress Review
Conference Conclusion

Thursday June 22, 2006

8:30 AM-11:30 AM Committee Meeting
8:30 AM - 1:00 PM **Tour visits:**
Molecular Foundry, Lawrence Berkeley
National Laboratory
Stanford Nanofabrication Laboratory



INVITED SPEAKERS

The Honorable Victoria Bradshaw

Secretary of the State of California Labor & Workforce Development Agency, Sacramento, USA
"Nanotechnology: Building a Workforce Prepared for the Global Economy"

Prof. Stephen Y. Chou

Professor, Princeton University, Princeton, USA
"Nanoimprint Lithography for Protein/DNA Analysis"

Prof. Tuan Vo-Dinh

Director, Biophotonics, Duke University, North Carolina USA
"Nanobiosensors and Nanoprobes: Frontiers and Potential in Nanomedicine"

Dr. John Howard

Director, National Institute for Occupational Safety and Health Washington DC, USA
"Nanotechnology and Risk: The NIOSH Perspective"

Prof. Byung Kyu Kim

Pusan National University, Pusan, South Korea
"Thermosensitive Poly (NIPAAm)/Polyurethane IPN Hydrogel for Drug Delivery"

Dr. Amit Kumar

President and CEO, Combimatrix
Mukilteo, WA, USA

Prof. Amarnath Maitra

University of Delhi, Delhi, India
"New Challenges In Gene Delivery"

Dr. Avijit Roy

Immunicon Corporation, Huntingdon Valley, PA USA

The Honorable Ira Ruskin

Assembly Member, Chairman Select Committee on Nanotechnology and Emerging Technologies, State of California, Sacramento, CA, USA
"Nanotechnology and the Golden State"

Edward Tefft

Associate Director, Elan Drug Delivery, Inc., King of Prussia, PA, USA
"Commercial Applications of NanoCrystal Drug Delivery Technology"

Prof. Takehiko Wada

Osaka University, Osaka, Japan
"Peptide Ribonucleic Acids (PRNAs): Novel Strategy for Active Control of DNA Recognition by External Factors"

CONFERENCE SCHEDULE



Sunday, June 18, 2006

The Conference Schedule may be subject to changes

<p>8:30 AM - 10:00 AM</p> <p>10:00 AM - 4:00 PM</p> <p>9:30 AM - 12:00 PM</p> <p>12:00 AM - 1:00 PM</p> <p>1:00 PM - 3:30 PM</p> <p>1:00 PM -</p>	<p>Workshop Registration</p> <p>Conference Registration</p> <p>Workshop 1: “Fundamentals & Applications of Nanobiotechnology” - Prof. Thomas Webster, Division of Engineering, Brown University, and Division of Orthopedic Surgery, Brown University Medical School, USA; Editor-in Chief, Journal of International Nanomedicine. USA (Part 1)</p> <p>Lunch on Your Own</p> <p>Workshop 1: “Fundamentals & Applications of Nanobiotechnology” - Prof. Thomas Webster, Brown University, USA (Part 2)</p> <p>Workshop 2: “Fundamentals and Applications of</p>	<p>3:30 PM</p> <p>4:00 PM</p> <p>5:00 PM - 6:00 PM</p> <p>7:30 PM - 8:00 PM</p>	<p>Carbon Nanotubes” - Dr. Cat-Tien Nguyen, Senior Research Scientist, NASA Ames Research Center, Moffett Field, CA, USA</p> <p>Bus departs from the Crowne Plaza to Fisherman’s Wharf</p> <p>Bay Cruise in San Francisco</p> <p>Bus returns to Crowne Plaza</p>
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Monday, June 19, 2006

The Conference Schedule may be subject to changes

<p>Please note the abbreviations: M: Monday June 19; T: Tuesday June 20; W: Wednesday June 21; Th: Thursday June 22; G: General Session; A, B, C: Concurrent tracks in the afternoon.</p>		<p>11:30 AM - 12:00 PM</p> <p>12:00 PM - 1:30 PM</p> <p>1:30 PM - 2:00 PM</p> <p>2:00 PM - 2:30 PM</p> <p>2:30 PM - 3:00 PM</p> <p>3:00 PM - 3:15 PM</p>	<p>Byung Kyu Kim & Sung Man Cho Pusan National University, Pusan, SOUTH KOREA <i>“Thermosensitive Poly (NIPAAm)/Polyurethane IPN Hydrogel for Drug Delivery”</i></p> <p>Monday PM TRACK A</p> <p>Esther Chang, Prof. of Oncology and Otolaryngology Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, Washington DC, USA <i>“Tumor-Targeting Nanodelivery Systems: Materializing the Potential of Nanomedicine for Cancer Diagnosis & Treatment”</i></p> <p>Brian W. Smith and Gregory P. Adams Fox Chase Cancer Center, Philadelphia, USA <i>“25 KiloDalton Radioactive Nanoparticles for Targeted Radiotherapy of Solid Tumors”</i></p> <p>Sylvia Keller, Dorit Ulbricht, Albert Härtl, Michael Türk, Gerhard Jahreis Friedrich Schiller University, Institute of Nutrition, Jena, GERMANY; Leibniz Institute for Natural Product Research and Infection Biology, Jena, GERMANY; University of Karlsruhe, Institute of Technical Thermodynamics and Refrigeration, Karlsruhe, GERMANY <i>“Nanoscale and customary non-esterified sitosterol particles equally enriched in different body compartments of the guinea pig”</i></p>
<p>7:30 AM - 4:00 PM</p> <p>7:30 AM - 8:30 AM</p> <p>8:30 AM - 9:00 AM</p> <p>9:00 AM - 9:25 AM</p> <p>9:25 AM - 10:00 AM</p> <p>10:00 AM - 10:20 AM</p> <p>10:20 AM - 11:00 AM</p> <p>11:00 AM - 11:30 AM</p>	<p>Registration</p> <p>Breakfast</p> <p>Opening Remarks by Lloyd L. Tran Program Chair. <i>“The State of Nano Bio 2006: Building Infrastructures for the Next Frontier”</i></p> <p>Welcoming Remarks: Yolanda Benson, Deputy Secretary, Business, Transportation & Housing Agency, State of California, USA</p> <p>T. Vo-Dinh, Director, Biophotonics Duke University, Durham, NC, USA <i>“Nanobiosensors and Nanoprobes: Frontiers and Potential in Nanomedicine”</i></p> <p>Coffee Break</p> <p>Lynn Hudson, Director Office of Science Policy Analysis, Office of the Director, National Institute of Health (NIH), Washington DC, USA</p> <p>Mathur RN Murthy, Sangita V, Anju P, Lokesh GL, Subash C, Satheshkumar PS, Vijay CS, Saravanan V, Savithri HS, Dept of Biochemistry, Indian Institute of Science, Bangalore, INDIA. <i>“Recombinant capsids of Sesbania mosaic virus as model nano particles”</i></p>	<p>M-G-6</p> <p>M-G-2</p> <p>M-A-1</p> <p>M-A-2</p> <p>M-A-3</p>	

CONFERENCE SCHEDULE



Monday (continued)

The Conference Schedule may be subject to changes

3:15 PM - 3:45 PM
M-A-4

Peixuan Guo, Director of Purdue Bionanotechnology Graduate Program (BNTP), Purdue University, West Lafayette, IN, USA
"Construction of phi29 nanomotor and motor pRNA hexamer for applications in nanotechnology & gene therapy"

3:45 PM - 4:15 PM
M-A-5

Jayesh R. Bellare, M. A. Arunagirinathan, and Giddi Hema Sagar, Department of Chemical and School of Biosciences and Bioengineering, IIT, Bombay, Powai, Mumbai, INDIA
"Nano & Microstructures In Dynamical Surfactant Systems"

4:15 PM - 4:45 PM
M-A-6

Leela Rakesh, Carla Slominski, Mark Kujawski, and Minghui Chai
Central Michigan University, Mt. Pleasant, MI, USA
"Molecular Dynamics SIMULATION of Single-Stranded DNA (ssDNA) with Single-Walled Carbon Nanotubes C60, and capped SWCNTs"

4:45 PM - 5:30 PM

Round Table Discussion

5:30 PM - 7:00 PM

Poster Presentation - Reception

TRACK B

1:30 PM - 2:00 PM
M-B-1

Kenneth L. Watkin & S L Gosangari
University of Illinois, Champaign, IL, USA
"Nanoparticle Delivery of siRNA for Cancer Treatment"

2:00 PM - 2:30 PM
M-B-2

M. Everts, V. Saini, R.J. Kok, C.L. Millican, H.G. Bagaria, S. Edwards-Jones, D.E. Nikles, D.T. Johnson, D.T. Curiel and V.P. Zharov
Division of Human Gene Therapy, Depts. of Medicine, Surgery, Pathology and the Gene Therapy Center, High Resolution Imaging Facility and Department of Physiology and Biophysics, University of Alabama at Birmingham, Birmingham AL, USA; Dept. of Pharmacokinetics and Drug Delivery, University Center for Pharmacy, Groningen University, Institute for Drug Exploration (GUIDE), the NETHERLANDS; Center for Materials for Information Technology (MINT), University of Alabama, Tuscaloosa, AL, USA; Philips Classic Laser Laboratories, University of Arkansas for Medical Sciences, Little Rock, AK, USA
"Self-assembled gold nanoclusters as a non-linear amplifier of combined adenoviral-based photothermal and gene cancer therapy"

2:30 PM - 3:00 PM
M-B-3

Ahsan Ali, Mansharipova Alma, Ablaev Zh. A. Gilmanov M.K., Bolshakova S.V.
Scientific Research Institute of Cardiology, Almaty, KAZAKHSTAN
"Liposomal Form Of Insulin For Diabetes Mellitus Therapy"

3:00 PM - 3:15 PM

Coffee Break

3:15 PM - 3:45 PM
M-B-4

Damon C. Smith, F. Ravenelle, D. Lessard, D. Le Garrec, L. Luo, S. Gori, D. Palusova
Labopharm Inc., Laval, CANADA
"Polymeric NanoDelivery Systems: A Propofol Solution"

3:45 PM - 4:15 PM
M-B-5

Clemens Heitzinger and Gerhard Klimeck
Network for Computational Nanotechnology, School of Electrical and Computer Engineering, Purdue University, West Lafayette, IN, USA
"A Simulation Study of Silicon-Nanowire Field-Effect DNA-Sensors"

4:15 PM - 4:45 PM
M-B-6

Anup Sharma, J. M. Taguenang, A. Kassu
Dept of Physics, A&M University, Normal, AL, USA
"Nanoscale patterning of phospholipid membranes with interferometric UV lithography"

4:45 PM - 5:30 PM

Round Table Discussion

5:30 PM - 7:00 PM

Poster Presentation - Reception

TRACK C

1:30 PM - 2:00 PM
M-C-1

John T. McDevitt, Christodoulides, Nicolaos; Floriano, Pierre N.
Dept. of Chemistry and Biochemistry
University of Texas at Austin, TX, USA
"Integrated Lab-on-a-Chip Devices as Nano-Bio Sensor Systems"

2:00 PM - 2:30 PM
M-C-2

Swapna Banerjee, P. Mandal, S.S. Das
E&ECE Dept., I.I.T Kharagpur, INDIA
"An Approach To Noninvasive Blood Glucose Detection"

2:30 PM - 3:00 PM
M-C-3

Caroline Bernard, Sandra Maurin, Michel El-Abras, Christian Pellerin, Martin Menard, Jean Pierre Halle, L'Hocine Yahia and Gregory De Crescenzo
Ecole Polytechnique, Montreal, CANADA
"A surface plasmon resonance-based biosensor study to define adhesion processus between alginate biotinyllate and PLL for micro encapsulation applications"

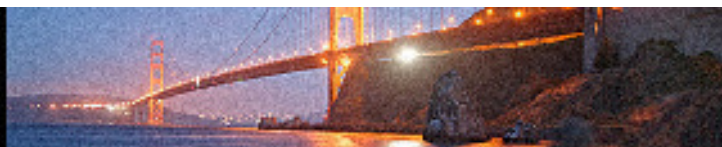
3:00 PM - 3:15 PM

Coffee Break

3:15 PM - 3:45 PM
M-C-4

Jae-Young Jung, Min-Deul Kwon and Woo-Kul Lee
Laboratory of Biomaterials and Biointerface
Department of Chemical Engineering, Dankook University, Hannam-dong, Yongsan-gu, Seoul 140-714, South Korea
"Effect of Immobilized Drug within Calcium Phosphate Matrix on the Differentiation of Osteoblastic HOS Cells"

CONFERENCE SCHEDULE



Monday (continued)

- 3:15 PM - **Paul Rice, Tammy Oreskovic, and Natalia Varaksa**
3:45 PM National Institute of Standards and Technology,
M-C-5 Materials Reliability Division and University of
Colorado, Mechanical Engineering Dept., Boulder, USA
*"Viability Of Vascular Smooth Muscle Cells Exposed To
Multiwalled Carbon Nanotubes"*
- 3:45 PM - **Kevin C. Weng, Charles O. Noble, Brigitte**
4:15 PM **Papahadjopoulos-Sternberg, Fanqing F. Chen, and**
M-C-6 **John W. Park**
Division of Hematology and Oncology, Department
of Medicine, University of California at San Francisco,
CA, USA; UCSF Comprehensive Cancer Center, San
Francisco, CA, USA; Nano Analytical Laboratory,
San Francisco, CA, USA; Life Sciences Division,
Lawrence Berkeley National Laboratory, Berkeley, USA
*"Quantum Dot-Conjugated Immunoliposome
Nanocomplexes for Cancer Diagnostics and Targeted
Therapeutics"*
- 4:45 PM - **Round Table Discussion**
5:30 PM
- 5:30 PM - **Poster Presentation - Reception**
7:00 PM

Tuesday (continued)

- 10:25 AM - **Christopher A. Mills, Elena Martinez, Elisabeth Engel,**
10:55 AM **Mateu Pla, Christel Martin, Josep A. Planell, and Josep**
T-G-5 **Samitier**
Laboratory of Nanobioengineering (CREBEC),
Barcelona Science Park, Barcelona, SPAIN
*"Nanobiotechnology applied to cell differentiation and
tissue engineering: the CellPROM European integrated
project"*
- 10:55 AM - **NanoBio Commercialization Panel Discussion**
12:15 PM
T-G-6 **James Hurd - Moderator**
Director, NanoScience Exchange, San Francisco, CA, USA
"Business Realities of NanoBio Commercialization"
- Mark Büniger**
Senior Analyst, LUX Research, San Francisco, CA, USA
*"Product development roadmaps for nanobio drugs,
devices, and diagnostics"*
- Craig W. Fellenstein**
Chief Architect, IBM Global Services
Information Technology Services, Brookfield, CT, USA
*"Inventor's Guide to Trademarks, Patents and Intellectual
Property"*
- Amit Kumar**
President and CEO, Combimatrix
Mukilteo, WA, USA

Tuesday, June 20, 2006

- 7:30 AM - Registration
4:00 PM
- 7:30 AM - Breakfast
8:30 AM
- Tuesday AM
General Sessions**
- 8:30 AM - **Senator (retired) Richard Polanco**
8:45 AM Former Senate Majority Leader, State of California, USA
T-G-1
- 8:45 AM - **The Honorable Victoria Bradshaw**
9:10 AM Secretary of the State of California Labor & Workforce
T-G-2 Development Agency, Sacramento, USA
*"Nanotechnology: Building a Workforce Prepared for
the Global Economy"*
- 9:10 AM - **C. M. Venkatachalam, Reinier Akkermans, Steffen**
9:40 AM **Wilke, Deepak Singh**
T-G-3 Accelrys Inc, San Diego, CA, USA
"Self Assembly of Peptide Nanostructures"
- 9:40 AM - **John Howard**
10:10 AM Director, National Institute for Occupational Safety and
T-G-4 Health, Washington D.C., USA
"Nanotechnology and Risk: The NIOSH Perspective"
- 10:10 AM - Coffee Break
10:25 AM

- Bruce Scott**
President, Intellectual Licensing Group, Menlo Park, CA,
USA
- Andrew Wahl**
President, IG Partners, Inc., Redwood Shores, CA, USA
"Is an IPO for Everyone?"
- Tuesday PM
TRACK A**
- 1:30 PM - **Alex Li**
2:00 PM Department of Chemistry, Washington State University,
T-A-1 Pullman, WA, USA
*"Optically Switchable Nanoparticles For Biological
Imaging"*
- 2:00 PM - **Carolyn I. Pearce, V.S. Coker, R.A.D. Patrick, G. van**
2:30 PM **der Laan, J.M. Charnock, J.F.W. Mosselmans and**
T-A-2 **J.R. Lloyd**, School of Earth, Atmospheric, & Environ.
Sciences, University of Manchester, Manchester, UK
*"Bio-synthesis of Magnetic and Semiconducting nano-
materials"*

CONFERENCE SCHEDULE



Tuesday (continued)

The Conference Schedule may be subject to changes

2:30 PM -
3:30 PM
T-A-3

Andrea M. Rossi, Lili Wang, Vytas Reipa, and Thomas M. Murphy
Dept. of Electrical and Computer Engineering,
University of Maryland, College Park, MD, USA
Biochemical Science Division, National Institute of
Standards and Technology, Gaithersburg, MD, USA,
Nanotechnology Dept., Istituto Nazionale di Ricerca
Metrologica, Torino, ITALY
*“Strad Comparative study of Porous Silicon –
Biomolecule conjugation procedures”*

3:00 PM -
3:15 PM

Coffee Break

3:15 PM -
3:45 PM
T-A-4

B. Papahadjopoulos-Sternberg, K. C. Weng, and J. W. Park
NanoAnalytical Laboratory, San Francisco, CA, USA
Hematology/Oncology, UCSF Cancer Center, San
Francisco, CA, USA
*“Visualization of Quantum Dots by Freeze-fracture
Electron Microscopy”*

3:45 PM -
4:15 PM
T-A-5

Elizabeth Singer & Steven S. Smith
Kaplan Clinical Research Laboratory
City of Hope National Medical Center and Beckman
Research Institute, Duarte, CA USA
“Nanoscale Nucleoprotein Assemblies”

4:15 PM -
4:45 PM
T-A-6

Vladimir Mironov, Vladimir Kasyanov, Jason Hodde, S. Bart Halkes, Roland J. Pieters, Roger R. Markwald, Medical University of South Carolina,
Charleston, SC, USA; Riga Stradins University, Riga,
LATVIA, Cook Biotech Inc., West Lafayette, IN, USA;
Utrecht University, Utrecht, THE NETHERLANDS
*“Tannic acid mimicking dendrimers as stabilizing
nanomordant for decellularized scaffolds”*

4:45 PM -
5:30 PM

Round Table Discussion

TRACK B

1:30 PM -
2:00 PM
T-B-1

Edward Tefft
Associate Director, Process Technology
Elan Drug Delivery, Inc., King of Prussia, USA
*“Commercial Applications of NanoCrystal™ Drug
Delivery Technology”*

2:00 PM -
2:30 PM
T-B-2

Avijit Roy
Vice President, Immunicon Corporation, Huntingdon
Valley, PA, USA

2:30PM -
3:00PM
T-B-3

Michael Weiner
CEO, Biophan Technologies, Inc, West Henrietta, USA
*“Novel Nanomaterials for Next Generation Drug
Delivery”*

3:00 PM -
3:15 PM

Coffee Break

3:45 PM -
4:15 PM
T-B-4

Lawrence S. Moy and Robert M. L. Baker
GRAVWAVE LLC, Playa del Rey, USA
*“Nano-mechanism HFGW delivery systems for
dermatological applications”*

3:45 PM -
4:15 PM
T-B-5

Cynthia C. Bamdad
CEO, Minerva Biotechnologies Corp., Waltham, MA, USA
“Modular NanoParticles for Drug Discovery”

4:15 PM -
4:45 PM
T-B-6

Amit Kumar
President and CEO, Combimatrix, Mukilteo, WA, USA
*“Semiconductor Based BioDefense Detection
Technology”*

4:45 PM -
5:30 PM

Round Table Discussion

TRACK C

**Workforce Education and Training for the New
NanoBio Industry**

1:30 PM -
3:30 PM
T-C-1

Robert D. Cormia - Moderator
Professor, Foothill College
Los Altos Hills, CA, USA

Edythe Abdullah

Campus President, Florida Community College
Jacksonville, FL, USA

Bob Cumming

Statewide Director, Workplace Learning Resources
Economic Work Force Development Program
California Community College

Rob Gamble

Executive Director, BayBio Institute
San Francisco, CA, USA

Charles Lundberg

Economic Development Director
Employment Training Panel
State of California

3:00 PM -
3:15 PM

Coffee Break

3:15 PM -
4:45 PM
T-C-2

**Workforce Education and Training for The New
NanoBio Industry (continued)**

4:45 PM -
5:30 PM

Round Table Discussion

CONFERENCE SCHEDULE



Wednesday, June 21, 2006

The Conference Schedule may be subject to changes

7:30 AM -
12:00 AM

Registration

7:30 AM -
8:30 AM

Breakfast

General Session

8:30 AM -
9:00 AM
W-G-1

The Honorable Ira Ruskin

Assembly Member, Chairman, Select Committee on
Nanotechnology and Emerging Technologies, State of
California, Sacramento, CA, USA
"Nanotechnology and the Golden State"

9:00 AM -
9:30 AM
W-G-2

Stephen Y. Chou

Professor, Department of Electrical Engineering,
Princeton University, Princeton, USA
"Nanoimprint Lithography for Protein/DNA Analysis"

9:30 AM -
10:00 PM
W-G-3

Israel Rubinstein

Department of Medicine, University of Illinois at
Chicago, Chicago, USA
*"A Novel, Biocompatible, Biodegradable, Long
Circulating, Actively-Targeted Disease-Modifying
Nanomedicine for Rheumatoid Arthritis"*

10:00 AM -
10:15 AM

Morning Break

10:15 AM -
10:45 AM
W-G-4

Amarnath Maitra

Professor, Department of Chemistry, University of Delhi,
Delhi, INDIA
"New Challenges In Gene Delivery"

10:45 AM -
11:15 AM
W-G-5

Takehiko Wada

Professor, Department of Applied Chemistry, Osaka
University, Osaka, JAPAN
*"Peptide Ribonucleic Acids (PRNAs): Novel Strategy for
Active Control of DNA Recognition by External Factors"*

11:15 PM -
11:45 PM
W-G-6

**Michael T. Tseng, Uschi M. Graham, Alan Dozier,
Gabino R. Fernandez-Botran and J.C. Hower
and Stefano Heun Fontana**

Departments of Anatomical Sciences & Neurobiology,
Pathology & Laboratory Sciences, University of
Louisville, Louisville, KY, USA; Center for Applied
Energy Research; Center for Electron Microscopy,
University of Kentucky, KY, USA
*"Localization of Coal-Combustion-Derived
Nanoparticles (CDNPs) in Mouse Skin by HRTEM/
STEM"*

11:45 AM -
12:15 AM
W-G-5

Michael Gertner

Surgeon, Stanford University, Menlo Park, CA, USA
*"Application of nanotechnology to treat surgical
diseases"*

12:15 PM -
2:00 PM

Lunch

Wednesday PM TRACK A

Z.M. Xiao and B.J. Chen

School of Mechanical and Production Engineering,
Nanyang Technological University, SINGAPORE
*"An Atomistic-Based Continuum Theory for Fracture
Nucleation Analysis in Carbon Nanotubes"*

1:30 PM -
2:00 PM
W-A-1

2:30 PM -
3:00 PM
W-A-2

Vladimir Sinyayev, J.Griggs, E.S.Shustikova, D.V.Dorofeyev, L.M.Mitina, & G.A.Tokseitova

Institute of Chemical Sciences, Ministry of Education and
Science of Kazakhstan, KAZAKHSTAN
*"Amorphous Calcium Phosphates As Potential Objects For
Dentistry Application"*

3:00 PM -
3:30 PM
W-A-3

C.H. Stephan, M. Lafleur, M. Fournier, and S. Sauvé

Department of Chemistry, Université de Montréal,
Montréal, CANADA; INRS-Institut Armand-Frappier,
Pointe-Claire, CANADA
*"Nitrilotripropionic acid, nitrilotriacetic acid and Tiron as
sequestering agents for beryllium toxicity"*

3:30 PM -
3:45 PM

Coffee Break

3:45 PM -
4:15 PM
W-A-4

K. Meehan, N. Tracy, Y. Xu, R. A. Kraft & C. L. Wyatt
Bradley Department of Electrical & Computer Engineering,
Virginia Tech, Blacksburg, VA, USA; Wake Forest
University School of Medicine, Winston-Salem, NC, USA
*"Synthesis and Characterization of Magnetic II-VI
Nanoparticles as MRI Contrast Agents"*

4:15 PM -
4:45 PM
W-A-5

Cat-Tien Nguyen

NASA Ames Research Center, Moffett Field, CA, USA
"In Vivo Medical Imaging"

4:45 PM -
5:30 PM

Congress Review and Conclusion

TRACK B Young Investigators

2:00 PM -
2:25 PM
W-B-1

**M. Pla-Roca, G. Gomila, A. Errachid, I. Casuso,
O. Ruiz, J. Samitier, E. Pajot-Augy, J. Minic Vidic, J.
Grosclaude, M.A. Persuy, R. Salessec, J. Bausellsd,
G. Villanuevad, Y. Houe, N. Jaffrezice, C. Pennettaf,
V. Akimov f., E. Alfinitof., L. Reggianif., G. Ferrarig,
L. Fumagallig, M. Sampietro**
Laboratory of NanoBioEngineering CREBEC, Barcelona,
SPAIN; Institut National de la Recherche Agronomique,
NOPA-RCC, and INRA, VIM, Jouy-en-Josas, FRANCE;
IMB-Centro Nacional de Microelectrónica (CSIC), Campus
UAB, Bellaterra, SPAIN; CEGELY, Ecole Centrale de
Lyon, Ecully, FRANCE; Università di Lecce, ITALY;
Politecnico di Milano, ITALY
*"Olfactory biosensors based on the response of
immobilized olfactory receptors"*

CONFERENCE SCHEDULE



Wednesday (continued)

The Conference Schedule may be subject to changes

2:25 PM -
2:50 PM
W-B-2

Bernhard Gleich, Thomas Weyh, Christoph Alexiou, and Bernhard Wolf

Heinz Nixdorf Lehrstuhl für medizinische Elektronik
Department of Electrical Engineering, Technische
Universität München, München, GERMANY
"Magnetic Drug Targeting – a technical approach"

2:50 PM -
3:15 PM
W-B-3

Charlie Yu-Ming Hsu, Cezary Kucharski, and Hasan Uludag

Department of Biomedical Engineering, Faculty of
Medicine and Dentistry, Faculty of Pharmacy &
Pharmaceutical Sciences, Department of Chemical and
Materials Engineering, Faculty of Engineering,
University of Alberta, Edmonton, AB, CANADA
*"The effects DNA molecular weight and conformation
on cell uptake and the binding interaction to cationic
polymers used for gene delivery"*

3:15 PM -
3:30 PM

Coffee Break

3:30 PM -
3:55 PM
W-B-4

G. L. Liu, J. W. Gray, L. P. Lee, and F. F. Chen

Department of Bioengineering, University of California,
Berkeley, CA, USA; Life Science Division, Lawrence
Berkeley National Lab, Berkeley, CA, USA
*"Nanoplasmonic Biomolecular Ruler for Measurements
of Position-specific DNA-Protein Reactions"*

3:55 PM -
4:20 PM
W-B-5

Paichun Chang, Hsiang-Yu Chen, Zhiyong Fan, Prof. Jia Grace Lu

Departments of Chemical Engineering & Materials
Science, and Electrical Engineering & Computer
Science, University of California, Irvine, CA, USA
"Antimony Nanowire as pH Sensor"

3:20 PM -
4:45 PM
W-B-6

Edward de Asis, Wai-Kin Wong, Lei Wang, Adam Seger, Karen Kagoo, Jeremy Hieb, Michael S. Isaacson, Cary Y. Yang

Center for Nanostructures, Santa Clara University, Santa
Clara, CA, USA; Department of Electrical & Computer
Engineering, National University of Singapore,
SINGAPORE, Department of Electrical Engineering,
UC Santa Cruz, CA, USA
*"Characterizing Neuronal Networks Using Carbon
Nanotube Microelectrode Array"*

4:45 PM -
5:30 PM

Congress Review and Conclusion

TRACK C

2:00 PM -
2:25 PM
W-C-1

Katharina Porazik, M. Niebert, G.Q. Lu, P. Gray, and Z.P. Xu

ARC Centre for Functional Nanomaterials, University of
Queensland, St Lucia, AUSTRALIA
*"Optimization of DNA-LDH-nanocomplexes and their
application as DNA delivery carrier to mammalian cell
lines"*

2:25 PM -
2:50 PM
W-C-2

L. Chonco, D. Shcharbin, J. F. Bermejo, E. Pedziwiatr, P. Ortega, B. Klajnert, M. J. Serramia, E. de Jesus, F. J. de la Mata, J. C. Flores, M. Bryszewska1, R. Gómez and MA. Muñoz-Fernandez

Department of General Biophysics, University of Lodz,
POLAND; Department of Inorganic Chemistry,
University of Alcalá de Henares, Madrid, SPAIN;
Immunomolecular Biology Laboratory, Gregorio
Marañón General Hospital, Madrid, SPAIN
*"Novel water carbosilane dendrimers as antisense
oligodeoxynucleotides and siRNA delivery: biomedical
application"*

(continued)

2:50 PM -
3:15 PM
W-C-3

Ching-Li Tseng, Steven Yueh-Hsiu Wu, Feng-Huei Lin

Institute of Biomedical Engineering, College of Medicine,
National Taiwan University, TAIWAN
*"Aerosol delivery of Ligands Mediated Gelatin
nanoparticles for Lung Cancer Therapy"*

3:15 PM -
3:30 PM

Coffee Break

3:30 PM -
3:55 PM
W-C-4

I. Casuso, L. Fumagalli, G Ferrari, M Sampietro, E. Padrós, E. Pajot-Augy, J. Minic Vidic, J. Grosclaude, M. A. Persuy, R. Salesse, L. Reggiani, V. Akimov, J Samitier, and G. Gomila

Dept. of Electronics, Universitat de Barcelona and Lab.
Nanobioengineering, Barcelona Science Park, Barcelona,
SPAIN; Dept. di Elettronica ed Informazione, Politecnico
di Milano, Milano, ITALY; Dept. Bioquímica i Biologia
MOLECULAR, Universitat Autònoma de Barcelona, Barcelona
SPAIN; Institut National de la Recherche Agronomique,
NOPA-RCC, and INRA, VIM, Jouy-en-Josas, FRANCE;
Dip. di Ingegneria dell'Innovazione, Università di Lecce,
Lecce ITALY
*"AC and DC electrical imaging of biosamples at the
nanoscale by Atomic Force Microscopy"*

3:55 PM -
4:20 PM
W-C-5

V. Saini, R.J. Kok, C.L. Millican, D.E. Nikles, D.T. Johnson, D.T. Curiel, & M. Everts

Division of Human Gene Therapy, Departments of
Medicine, Surgery, Pathology and the Gene Therapy
Center, Department of Physiology and Biophysics and
High Resolution Imaging Facility University of Alabama
at Birmingham, Birmingham, AL, USA; Department of
Pharmacokinetics and Drug Delivery, University Center
for Pharmacy, Groningen University, Institute for Drug
Exploration, THE NETHERLANDS; University of
Alabama, Tuscaloosa, AL, USA
*"Adenovirus as a Platform for Targeted Delivery of
Magnetic Nanoparticles"*

4:20 PM -
4:45 PM
W-C-6

Kristopher Barbee and Xiaohua Huang

Department of Bioengineering, University of California,
San Diego, La Jolla, CA, USA
*"A Novel Technique for Fabricating Biomolecular
Nano-Arrays"*

4:45 PM -
5:30 PM

Congress Review and Conclusion

CONFERENCE SCHEDULE



Thursday, June 22, 2006

The Conference Schedule may be subject to changes

8:30 AM - 11:00 AM Visit to **Molecular Foundry, Lawrence Berkeley National Laboratory and Nanofabrication Laboratory, Stanford University**

Bus departs to visit the Molecular Foundry, Lawrence Berkeley National Laboratory

Bus departs to the Nanofabrication Laboratory, Stanford University

1:00 PM Bus returns to Crowne Plaza

Brandon L. Seal, Tong Chai, Zhibing Hu, Sanjay Ramakumar, Antonio A. Garcia, and Manuel M. Marquez

Harrington Dept. of Bioengineering, Arizona State University, Tempe, AZ, USA; INEST Group, Research Center, Philip Morris USA, Richmond, VA, USA; Depts. of Physics and Chemistry, University of North Texas, Denton, TX, USA; Dept. of Surgery, University of Arizona Health Sciences Center, Tucson, AZ, USA

"Stimuli-responsive poly (N-isopropylacrylamide) nanogels as gene delivery vehicles"

V.A.Sinyayev, J.Griggs, E.S.Shustikova, D.V.Dorofeyev, L.M.Mitina, G.A.Tokseitova

Institute of Chemical Sciences, Ministry of Education and Science of Kazakhstan, Lab. Inorg. Mater. Chem, Almaty, KAZAKHSTAN

"Porous and dense calcium phosphate bioceramics"

Selected Poster Presentations (June 19)

G.A. Mansoori, L. Assoufid, H. Ramezani, T.F. George, & G.P. Zhang

Depts. of Bio and Chemical Engineering, University of Illinois at Chicago, Chicago, IL, USA; Advanced Photon Source, Argonne National Laboratory, Argonne, IL, USA; Office of the Chancellor and Center for Molecular Electronics, Depts. of Chemistry & Biochemistry, Physics, & Astronomy, University of Missouri, St. Louis, MO, USA; Dept. of Physics, Indiana State University, Terre Haute, IN, USA
"Diamondoids as Molecular Building Blocks for Nanotechnology, Drug Targeting, and Gene Delivery"

Jeffrey Bokor & James M. Bustillo

Molecular Foundry-Lawrence Berkeley National Laboratory
Lawrence Berkeley National Laboratory, Berkeley, CA USA
"Molecular Foundry-User Program"

Craig Fellenstein, Jaclyn Vassallo, and Rachel Ralston

Houghton College Inventions Team, Houghton College, Business Department, Houghton, NY, USA
"Inventor's Guide to Trademarks and Patents"

Hefeng Wang and Sabre Kais

Department of Chemistry, Purdue University
West Lafayette, IN, USA
"Quantum Teleportation in One-Dimensional Quantum Dots"

Charles Lundberg

Director, Economic Development Director
Employment Training Panel, State of California, CA, USA
"Employment Training Panel Program and the emerging Nanotechnology industry"

Il Hoon Kim, Si-Nae Park, Yoo Hong Min and Hwal Suh

Dept. of Medical Engineering, Dept. of Hematology and Oncology, Yonsei University College of Medicine, Seoul, KOREA
"Efficient Gene Delivery Into Primary Cells Using HA2 Peptide Conjugated PLGA Nanoparticles"

Weiming Ruan, Scott Eastman, Gianfranco de Feo, Jennifer Park, Julia Chu, Patrick Cook, Joe W. Gray, Song Li, Fanqing Frank Chen

Children's Hospital, Oakland Research Institute, Oakland, CA, USA
"Nanobarcode Microbead Platform for Monitoring Gene Expression"

Mi-Young Park, Kyoung Eun Baek, Seung Chul Choi, Jong Tae Kim, Dae Kwang Kim Jong Seok Lim, Hee Gu Lee, Jae Wha Kim, Eun Young Song

Cellomics Research Center, Korea Research Institute of Bioscience and Biotechnology, Yusong, Daejeon, KOREA

"Production of monoclonal antibody to N-myc downstream regulated gene 2 & determination of NDRG2 in human tissues and cell lines by protein chip"

Diego Ghezzi, Alessandra Pedrocchi, Andrea Menegon, Sara Mantero, Flavia Valtorta, and Giancarlo Ferrigno

Dept of Bioengineering, Politecnico di Milano, Milano, Italy; Dept of Neuroscience, San Raffaele Scientific Institute and Vita-Salute University, Milano, ITALY

"PhotoMEA: a new biosensor for the study of the functional properties of neuronal networks"

Pengfei Qi, Guangyu Zhang, Xinran Wang, Yuerui Lu, David Mann, Xiaolin Li and Hongjie Dai

Department of Chemistry and Laboratory for Advanced Materials, Stanford University, Palo Alto, CA, USA

"Hydrogenation and Hydro-Carbonation and Etching of Single-Walled Carbon Nanotubes"

D. Verdes, T. Ruckstuhl, and S. Seeger

Physikalisch-Chemisches Institut, Universität Zürich, Zürich, SWITZERLAND
"Attoliter Detection Volume for Single Molecule Detection at Surfaces"

Petr Kloucek

Marie Curie Chair and Professor
Institut de Mathématiques, SWITZERLAND; Dept. of Computational and Applied Mathematics, Rice University, Houston, Texas, USA
"Martensitic Nano-Devices"

The International Association of Nanotechnology

As the leading organization in the emerging industry, IANano is working on the roadmap and the framework for nanotechnology worldwide.

We are working with various partners via a global network of chapters around the world. To make an inquiry about forming a new chapter in your area, please contact us at chapters@ianano.org. To become a member of IANano, please visit <http://www.ianano.org>.



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2386 Fair Oaks Blvd, Sacramento, CA 95825
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<http://www.ianano.org>



The California Nanotech Initiative

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Creating A World-Class Nanotechnology Workforce in California

The California Nanotechnology Initiative (CNI) is a Private/Public partnership program designed to help California create jobs and stimulate the economy by expediting the development, manufacturing and commercialization of nanotechnology products.

The California Nanotechnology Initiative (CNI) will converge the impressive engineering, electronics, and biotechnology assets in California.

Elements of the Initiative might include:

- Funds the California Institute of Nanotechnology
- Early-stage investment in startups Nanotech companies
- Incubator facilities to provide management and lab support for startups
- Nano-manufacturing facilities to commercialize proven technologies
- Industry tax breaks for companies establishing their operations in California
- Workforce training programs for entry and mid-career professionals
- Educational programs in high schools, colleges, and universities

The California Nanotechnology Initiative has established the California Institute of Nanotechnology to train a new generation of nanotechnologists and technicians for the emerging nanotechnology industry.

California Institute of Nanotechnology

Nanotechnology Curriculum:

- Provide understanding, characterization and measurements of nanomaterials
- Synthesis, processing and manufacturing of nanocomponents and nanosystems
- Design, analysis and simulation of nanostructures and nanodevices
- Hand-on training in clean-room techniques and safety standard operating procedures
- Practical training in nanofabrication, nano-manufacturing and quality control program
- Holistic approach in dealing with environmental, societal, health & safety issues

For additional information, please contact:

California Institute of Nanotechnology

(a partner of the International Association of Nanotechnology)

1750 Montgomery Street

San Francisco, CA 94111

Tel. 1-800-766-6008

Email: info@californiananotech.com

<http://www.californiananotech.com>

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Nano manufacturing

Semiconductor Industries

Biopharmaceutical Industries

Capital Funding & Grants

International Standards

Education & Training

Intellectual Property

Nanotech Initiatives

Nano Manufacturing

Molecular Engineering

International Standard

Nanoparticles Toxicology

Nomenclature Terminology

Health & Safety Implications

Societal & Environmental Impacts

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