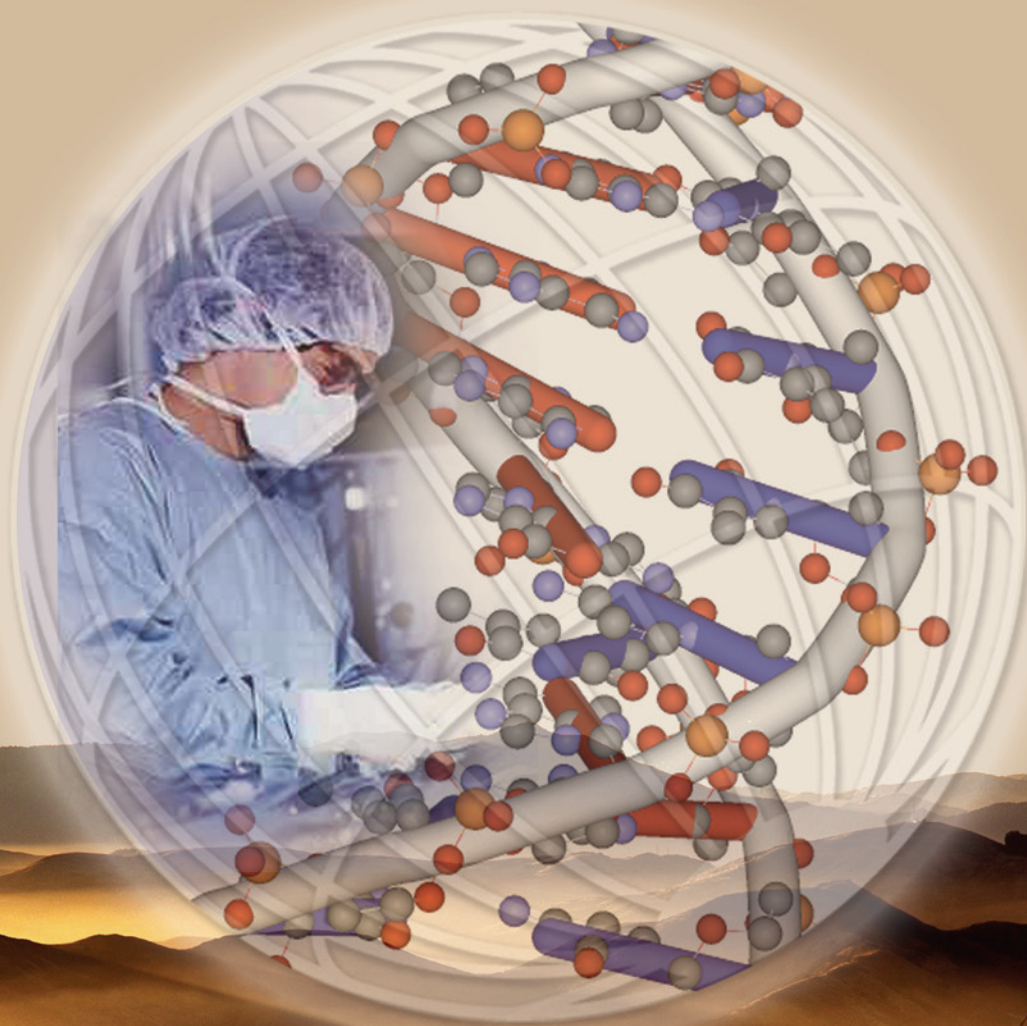


International Congress of Nanobiotechnology & Nanomedicine

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
12:00 PM-1:30 PM	Lunch
1:30 PM-4:45 PM	Breakout Sessions
	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
12:00 PM-1:30 PM	Lunch
1:30 PM-4:45 PM	Breakout Sessions
	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

8:30 AM - 10:00 AM	Workshop Registration	3:30 PM	Carbon Nanotubes - Dr. Cat-Tien Nguyen, Senior Research Scientist, NASA Ames Research Center, Moffett Field, CA, USA
10:00 AM - 4:00 PM	Conference Registration	4:00 PM	Bus departs from the Crowne Plaza to Fisherman's Wharf
9:30 AM - 12:00 PM	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)	5:00 PM - 6:00 PM	Bay Cruise in San Francisco
12:00 AM - 1:00 PM	Lunch on Your Own	7:30 PM - 8:00 PM	Bus returns to Crowne Plaza
1:00 PM - 3:30 PM	Workshop 1: "Fundamentals & Applications of Nanobiotechnology" - Prof. Thomas Webster, Brown University, USA (Part 2)		
1:00 PM -	Workshop 2: "Fundamentals and Applications of		



Monday, June 19, 2006

The Conference Schedule may be subject to changes

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.

7:30 AM - 4:00 PM	Registration	11:30 AM - 12:00 PM	Byung Kyu Kim & Sung Man Cho Pusan National University, Pusan, SOUTH KOREA <i>"Thermosensitive Poly (NIPAAm)/Polyurethane IPN Hydrogel for Drug Delivery"</i>
7:30 AM - 8:30 AM	Breakfast	M-G-6	
8:30 AM - 9:00 AM	Opening Remarks by Lloyd L. Tran Program Chair. <i>"The State of Nano Bio 2006: Building Infrastructures for the Next Frontier"</i>	12:00 PM - 1:30 PM	Lunch
M-G-1			
9:00 AM - 9:25 AM	Welcoming Remarks: Yolanda Benson , Deputy Secretary, Business, Transportation & Housing Agency, State of California, USA	1:30 PM - 2:00 PM	Monday PM TRACK A
M-G-2		M-A-1	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>
9:25 AM - 10:00 AM	T. Vo-Dinh , Director, Biophotonics Duke University, Durham, NC, USA <i>"Nanobiosensors and Nanoprobes: Frontiers and Potential in Nanomedicine"</i>	2:00 PM - 2:30 PM	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>
M-G-3		M-A-2	
10:00 AM - 10:20 AM	Coffee Break	2:30 PM - 3:00 PM	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>
10:20 AM - 11:00 AM	Lynn Hudson , Director Office of Science Policy Analysis, Office of the Director, National Institute of Health (NIH), Washington DC, USA	M-A-3	
M-G-4			
11:00 AM - 11:30 AM	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>	3:00 PM - 3:15 PM	Coffee Break
M-G-5			

CONFERENCE SCHEDULE



Monday (continued)

The Conference Schedule may be subject to changes

- 3:15 PM - **Peixuan Guo**, Director of Purdue Bionanotechnology Graduate Program (BNTP), Purdue University, West Lafayette, IN, USA
M-A-4
"Construction of phi29 nanomotor and motor pRNA hexamer for applications in nanotechnology & gene therapy"
- 3:45 PM - **Jayesh R. Bellare, M. A. Arunagirinathan, and Giddi Hema Sagar**, Department of Chemical and School of Biosciences and Bioengineering, IIT, Bombay, Powai, Mumbai, INDIA
M-A-5
"Nano & Microstructures In Dynamical Surfactant Systems"
- 4:15 PM - **Leela Rakesh, Carla Slominski, Mark Kujawski, and Minghui Chai**
M-A-6
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 - **Round Table Discussion**
5:30 PM
- 5:30 PM - **Poster Presentation - Reception**
7:00 PM

TRACK B

- 1:30 PM - **Kenneth L. Watkin & S L Gosangari**
M-B-1
University of Illinois, Champaign, IL, USA
"Nanoparticle Delivery of siRNA for Cancer Treatment"
- 2:00 PM - **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**
M-B-2
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 - **Ahsan Ali, Mansharipova Alma, Ablaev Zh. A. Gilmanov M.K., Bolshakova S.V.**
M-B-3
Scientific Research Institute of Cardiology, Almaty, KAZAKHSTAN
"Liposomal Form Of Insulin For Diabetes Mellitus Therapy"

- 3:00 PM - Coffee Break
3:15 PM
- 3:15 PM - **Damon C. Smith, F. Ravenelle, D. Lessard, D. Le Garrec, L. Luo, S. Gori, D. Palusova**
M-B-4
Labopharm Inc., Laval, CANADA
"Polymeric NanoDelivery Systems: A Propofol Solution"
- 3:45 PM - **Clemens Heitzinger and Gerhard Klimeck**
M-B-5
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 - **Anup Sharma, J. M. Taguenang, A. Kassu**
M-B-6
Dept of Physics, A&M University, Normal, AL, USA
"Nanoscale patterning of phospholipid membranes with interferometric UV lithography"
- 4:45 PM - **Round Table Discussion**
5:30 PM
- 5:30 PM - **Poster Presentation - Reception**
7:00 PM
- TRACK C**
- 1:30 PM - **John T. McDevitt, Christodoulides, Nicolaos; Floriano, Pierre N.**
M-C-1
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 - **Swapna Banerjee, P. Mandal, S.S. Das**
M-C-2
E&ECE Dept., I.I.T Kharagpur, INDIA
"An Approach To Noninvasive Blood Glucose Detection"
- 2:30 PM - **Caroline Bernard, Sandra Maurin, Michel El-Abras, Christian Pellerin, Martin Menard, Jean Pierre Halle, L'Hocine Yahia and Gregory De Crescenzo**
M-C-3
Ecole Polytechnique, Montreal, CANADA
"A surface plasmon resonance-based biosensor study to define adhesion process between alginate biotinylate and PLL for micro encapsulation applications"
- 3:00 PM - Coffee Break
3:15 PM
- 3:15 PM - **Jae-Young Jung, Min-Deul Kwon and Woo-Kul Lee**
M-C-4
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 - 3:45 PM M-C-5 **Paul Rice, Tammy Oreskovic, and Natalia Varaksa**
National Institute of Standards and Technology, 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 - 4:15 PM M-C-6 **Kevin C. Weng, Charles O. Noble, Brigitte Papahadjopoulos-Sternberg, Fanqing F. Chen, and 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 - 5:30 PM **Round Table Discussion**
- 5:30 PM - 7:00 PM **Poster Presentation - Reception**

Tuesday (continued)

- 10:25 AM - 10:55 AM T-G-5 **Christopher A. Mills, Elena Martinez, Elisabeth Engel, Mateu Pla, Christel Martin, Josep A. Planell, and Josep 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 - 12:15 PM T-G-6 **NanoBio Commercialization Panel Discussion**
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
- 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, June 20, 2006

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

- 1:30 PM - 2:00 PM T-A-1 **Alex Li**
Department of Chemistry, Washington State University, Pullman, WA, USA
"Optically Switchable Nanoparticles For Biological Imaging"
- 2:00 PM - 2:30 PM T-A-2 **Carolyn I. Pearce, V.S. Coker, R.A.D. Patrick, G. van der Laan, J.M. Charnock, J.F.W. Mosselmans and J.R. Lloyd**
School of Earth, Atmospheric, & Environmental Sciences, University of Manchester, Manchester, UK
"Bio-synthesis of Magnetic and Semiconducting nano-materials"

Tuesday PM TRACK A

CONFERENCE SCHEDULE



Tuesday (continued)

The Conference Schedule may be subject to changes

2:30 PM - **Andrea M. Rossi, Lili Wang, Vytas Reipa, and Thomas M. Murphy**
T-A-3
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 - Coffee Break
3:15 PM

3:15 PM - **B. Papahadjopoulos-Sternberg, K. C. Weng, and J. W. Park**
T-A-4
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 - **Elizabeth Singer & Steven S. Smith**
T-A-5
Kaplan Clinical Research Laboratory
City of Hope National Medical Center and Beckman
Research Institute, Duarte, CA USA
"Nanoscale Nucleoprotein Assemblies"

4:15 PM - **Vladimir Mironov, Vladimir Kasyanov, Jason Hodde, S. Bart Halkes, Roland J. Pieters, Roger R. Markwald,** Medical University of South Carolina,
T-A-6
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 - **Round Table Discussion**
5:30 PM

TRACK B

1:30 PM - **Edward Tefft**
T-B-1
Associate Director, Process Technology
Elan Drug Delivery, Inc., King of Prussia, USA
*"Commercial Applications of NanoCrystal™ Drug
Delivery Technology"*

2:00 PM - **Avijit Roy**
T-B-2
Vice President, Immunicon Corporation, Huntingdon
Valley, PA, USA

2:30PM - **Michael Weiner**
T-B-3
CEO, Biophan Technologies, Inc, West Henrietta, USA
*"Novel Nanomaterials for Next Generation Drug
Delivery"*

3:00 PM - Coffee Break
3:15 PM

3:45 PM - **Lawrence S. Moy and Robert M. L. Baker**
T-B-4
GRAVWAVE LLC, Playa del Rey, USA
*"Nano-mechanism HFGW delivery systems for
dermatological applications"*

3:45 PM - **Cynthia C. Bamdad**
T-B-5
CEO, Minerva Biotechnologies Corp., Waltham, MA, USA
"Modular NanoParticles for Drug Discovery"

4:15 PM - **Amit Kumar**
T-B-6
President and CEO, Combimatrix, Mukilteo, WA, USA
*"Semiconductor Based BioDefense Detection
Technology"*

4:45 PM - **Round Table Discussion**
5:30 PM

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

1:30 PM - **Robert D. Cormia - Moderator**
T-C-1
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

Coffee Break

3:15 PM - **Workforce Education and Training for The New
NanoBio Industry (continued)**
T-C-2

4:45 PM - **Round Table Discussion**
5:30 PM

CONFERENCE SCHEDULE



Wednesday, June 21, 2006

The Conference Schedule may be subject to changes

7:30 AM - 12:00 AM	Registration		Wednesday PM TRACK A
7:30 AM - 8:30 AM	Breakfast	1:30 PM - 2:00 PM W-A-1	<u>Z.M. Xiao</u> and B.J. Chen School of Mechanical and Production Engineering, Nanyang Technological University, SINGAPORE <i>"An Atomistic-Based Continuum Theory for Fracture Nucleation Analysis in Carbon Nanotubes"</i>
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 <i>"Nanotechnology and the Golden State"</i>	2:30 PM - 3:00 PM W-A-2	<u>Vladimir Sinyayev</u>, 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 <i>"Amorphous Calcium Phosphates As Potential Objects For Dentistry Application"</i>
9:00 AM - 9:30 AM W-G-2	Stephen Y. Chou Professor, Department of Electrical Engineering, Princeton University, Princeton, USA <i>"Nanoimprint Lithography for Protein/DNA Analysis"</i>	3:00 PM - 3:30 PM W-A-3	<u>C.H. Stephan</u>, M. Laffleur, M. Fournier, and S. Sauvé Department of Chemistry, Université de Montréal, Montréal, CANADA; INRS-Institut Armand-Frappier, Pointe-Claire, CANADA <i>"Nitrilotripropionic acid, nitrilotriacetic acid and Tiron as sequestering agents for beryllium toxicity"</i>
9:30 AM - 10:00 PM W-G-3	Israel Rubinstein Department of Medicine, University of Illinois at Chicago, Chicago, USA <i>"A Novel, Biocompatible, Biodegradable, Long Circulating, Actively-Targeted Disease-Modifying Nanomedicine for Rheumatoid Arthritis"</i>	3:30 PM - 3:45 PM	Coffee Break
10:00 AM - 10:15 AM	Morning Break	3:45 PM - 4:15 PM W-A-4	<u>K. Meehan</u>, 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 <i>"Synthesis and Characterization of Magnetic II-VI Nanoparticles as MRI Contrast Agents"</i>
10:15 AM - 10:45 AM W-G-4	Amarnath Maitra Professor, Department of Chemistry, University of Delhi, Delhi, INDIA <i>"New Challenges In Gene Delivery"</i>	4:15 PM - 4:45 PM W-A-5	Cat-Tien Nguyen NASA Ames Research Center, Moffett Field, CA, USA <i>"In Vivo Medical Imaging"</i>
10:45 AM - 11:15 AM W-G-5	Takehiko Wada Professor, Department of Applied Chemistry, Osaka University, Osaka, JAPAN <i>"Peptide Ribonucleic Acids (PRNAs): Novel Strategy for Active Control of DNA Recognition by External Factors"</i>	4:45 PM - 5:30 PM	Congress Review and Conclusion
11:15 PM - 11:45 PM W-G-6	<u>Michael T. Tseng</u>, Uschi M. Graham, Alan Dozier, Gabino R. Fernandez-Botran and J.C. Hower and Stefano Heun Fontana Departments of Anatomical Sciences & Neurobiology, Pathology & Laboratory Sceinces, University of Louisville, Louisville, KY, USA; Center for Applied Energy Research; Center for Electron Microscopy, University of Kentucky, KY, USA <i>"Localization of Coal-Combustion-Derived Nanoparticles (CDNPs) in Mouse Skin by HRTEM/STEM"</i>	2:00 PM - 2:25 PM W-B-1	TRACK B Young Investigators <u>M. Pla-Roca</u>, 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 <i>"Olfactory biosensors based on the response of immobilized olfactory receptors"</i>
11:45 AM - 12:15 AM W-G-5	Michael Gertner Surgeon, Stanford University, Menlo Park, CA, USA <i>"Application of nanotechnology to treat surgical diseases"</i>		
12:15 PM - 2:00 PM	Lunch		

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 <i>"Magnetic Drug Targeting – a technical approach"</i>	2:25 PM - 2:50 PM W-C-2	L. Chonco, D. Shcharbin, J. F. Bermejo, E. Pedziwiatr, P. Ortega, B. Klajnert, M. J. Serramía, 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 <i>"Novel water carbosilane dendrimers as antisense oligodeoxynucleotides and siRNA delivery: biomedical application"</i>
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 <i>"The effects DNA molecular weight and conformation on cell uptake and the binding interaction to cationic polymers used for gene delivery"</i>	(continued)	
3:15 PM - 3:30 PM	Coffee Break	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 <i>"Aerosol delivery of Ligands Mediated Gelatin nanoparticles for Lung Cancer Therapy"</i>
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 <i>"Nanoplasmonic Biomolecular Ruler for Measurements of Position-specific DNA-Protein Reactions"</i>	3:15 PM - 3:30 PM	Coffee Break
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 <i>"Antimony Nanowire as pH Sensor"</i>	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 <i>"AC and DC electrical imaging of biosamples at the nanoscale by Atomic Force Microscopy"</i>
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 <i>"Characterizing Neuronal Networks Using Carbon Nanotube Microelectrode Array"</i>	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 <i>"Adenovirus as a Platform for Targeted Delivery of Magnetic Nanoparticles"</i>
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 <i>"Optimization of DNA-LDH-nanocomplexes and their application as DNA delivery carrier to mammalian cell lines"</i>	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 <i>"A Novel Technique for Fabricating Biomolecular Nano-Arrays"</i>
		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"

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"

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

"Nanobarcoded Microbead Platform for Monitoring Gene Expression"

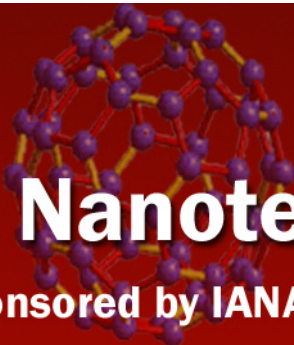
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The California Nanotech Initiative

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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)

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