International Congress of Nanobiotechnology & Nanomedicine
June 19-21 2006
San Francisco Airport
Crowne Plaza

“Science & Business of Nano Bio”
http://www.nanobio2006.com
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 medicinal imaging
- Bio-detection and biodefense
- Nanopatternning
- Nanotoxicology
- Commercialization in Nano Bio technologies
- Workforce education & training for the new industry
- and other related topics

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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
- 12:15 PM-2:00 PM: Lunch
- 2:00 PM-4:45 PM: Breakout Sessions
  - Track A
  - Track B: Young Investigators
  - Track C: Young Investigators
- 4:45 PM-5:30 PM: Conference Review

### 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”
### Sunday, June 18, 2006

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 AM - 10:00 AM</td>
<td>Workshop Registration</td>
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<tr>
<td>10:00 AM - 4:00 PM</td>
<td>Conference Registration</td>
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<tr>
<td>9:30 AM - 12:00 PM</td>
<td><strong>Workshop 1: “Fundamentals &amp; Applications of Nanobiotechnology”</strong> - 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)</td>
</tr>
<tr>
<td>12:00 AM - 1:00 PM</td>
<td>Lunch on Your Own</td>
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<tr>
<td>1:00 PM - 3:30 PM</td>
<td><strong>Workshop 1: “Fundamentals &amp; Applications of Nanobiotechnology”</strong> - Prof. Thomas Webster, Brown University, USA (Part 2)</td>
</tr>
<tr>
<td>1:00 PM -</td>
<td><strong>Workshop 2: “Fundamentals and Applications of Carbon Nanotubes”</strong> - Dr. Cat-Tien Nguyen, Senior Research Scientist, NASA Ames Research Center, Moffett Field, CA, USA</td>
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<tr>
<td>4:00 PM</td>
<td>Bus departs from the Crowne Plaza to Fisherman’s Wharf</td>
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<tr>
<td>5:00 PM - 6:00 PM</td>
<td><strong>Bay Cruise</strong> in San Francisco</td>
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<tr>
<td>7:30 PM - 8:00 PM</td>
<td>Bus returns to Crowne Plaza</td>
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### Monday, June 19, 2006

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<tr>
<th>Time</th>
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<tr>
<td>7:30 AM - 4:00 PM</td>
<td>Registration</td>
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<tr>
<td>7:30 AM - 8:30 AM</td>
<td>Breakfast</td>
</tr>
<tr>
<td>8:30 AM - 9:00 AM</td>
<td>Opening Remarks by <strong>Lloyd L. Tran</strong> Program Chair. “The State of Nano Bio 2006: Building Infrastructures for the Next Frontier”</td>
</tr>
<tr>
<td>9:00 AM - 9:25 AM</td>
<td>Welcoming Remarks: <strong>Yolanda Benson</strong>, Deputy Secretary, Business, Transportation &amp; Housing Agency, State of California, USA</td>
</tr>
<tr>
<td>9:25 AM - 10:00 AM</td>
<td><strong>Lynn Hudson</strong>, Director Office of Science Policy Analysis, Office of the Director, National Institute of Health (NIH), Washington DC, USA</td>
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<tr>
<td>10:00 AM - 10:20 AM</td>
<td>Coffee Break</td>
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<tr>
<td>10:20 AM - 11:00 AM</td>
<td><strong>Invited Lecture: T. Vo-Dinh</strong>, Director Biophotonics, Duke University, Durham, NC, USA “Nanobiosensors and Nanoprobes: Frontiers and Potential in Nanomedicine”</td>
</tr>
<tr>
<td>11:00 AM - 11:30 AM</td>
<td><strong>Mathur RN Murthy, Sangita V, Anju P, Lokesh GL, Subhash C, Satheshkumar PS, Vijay CS, Saravanan V, Savithri HS</strong>, Molecular Biophysics Unit, Dept of Biochemistry, Indian Institute of Science, Bangalore, INDIA. “Recombinant capsids of Sesbania mosaic virus as model nano particles”</td>
</tr>
<tr>
<td>11:30 AM - 12:00 PM</td>
<td><strong>Byung Kyu Kim &amp; Sung Man Cho</strong> Pusan National University, Pusan, SOUTH KOREA “Thermosensitive Poly (NIPAam)/Poluurethane IPN Hydrogel for Drug Delivery”</td>
</tr>
<tr>
<td>12:00 PM - 1:30 PM</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:30 PM - 2:00 PM</td>
<td><strong>Esther Chang</strong>, Prof. of Oncology and Otolaryngology Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, Washington DC, USA “Tumor-Targeting Nanodelivery Systems: Materializing the Potential of Nanomedicine for Cancer Diagnosis &amp; Treatment”</td>
</tr>
<tr>
<td>2:00 PM - 2:30 PM</td>
<td><strong>Brian W. Smith and Gregory P. Adams</strong> Fox Chase Cancer Center, Philadelphia, USA “25 Kilodalton Radioactive Nanoparticles for Targeted Radiotherapy of Solid Tumors”</td>
</tr>
<tr>
<td>2:30 PM - 3:00 PM</td>
<td><strong>Sybvia Keller, Dorit Ulbricht, Albert Härtl, Michael Türk, Gerhard Jahrhies</strong> 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 “Nanoscale and customary non-esterified sitosterol particles equally enriched in different body compartments of the guinea pig”</td>
</tr>
<tr>
<td>3:00 PM - 3:15 PM</td>
<td>Coffee Break</td>
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### CONFERENCE SCHEDULE

**Monday (continued)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker and Affiliation</th>
<th>Topic</th>
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<tbody>
<tr>
<td>3:15 PM</td>
<td>Peixuan Guo, Director of Purdue Bionanotechnology Graduate Program (BNTP), Purdue University, West Lafayette, IN, USA</td>
<td>&quot;Construction of phi29 nanomotor and motor pRNA hexamer for applications in nanotechnology &amp; gene therapy&quot;</td>
</tr>
<tr>
<td>3:45 PM</td>
<td>Jayesh R. Bellare, M. A. Arunagirinathan, and Giddi Hema Sagar, Department of Chemical and School of Biosciences and Bioengineering, IIT, Bombay, Powai, Mumbai, INDIA</td>
<td>&quot;Nano &amp; Microstructures In Dynamical Surfactant Systems&quot;</td>
</tr>
<tr>
<td>4:15 PM</td>
<td>Leela Rakesh, Carla Slominski, Mark Kujawski, and Minghui Chai</td>
<td>&quot;Molecular Dynamics SIMULATION of Single-Stranded DNA (ssDNA) with Single-Walled Carbon Nanotubes C60, and capped SWCNts&quot;</td>
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<tr>
<td>4:45 PM</td>
<td>Round Table Discussion</td>
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<tr>
<td>5:30 PM</td>
<td>Poster Presentation - Reception</td>
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**TRACK B**

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<tr>
<th>Time</th>
<th>Speaker and Affiliation</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1:30 PM</td>
<td>Kenneth L. Watkin &amp; S L Gosangari</td>
<td>&quot;Nanoparticle Delivery of siRNA for Cancer Treatment&quot;</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Caroline Bernard, Sandra Maurin, Michel El-Abras, Christian Pellerin, Martin Menard, Jean Pierre Halle, L'Hocine Yahia and Gregory De Crescenzo</td>
<td>&quot;A surface plasmon resonance-based biosensor study to define adhesion processes between alginate biotinylate and PLL for micro encapsulation applications&quot;</td>
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**TRACK C**

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<tr>
<th>Time</th>
<th>Speaker and Affiliation</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>4:15 PM</td>
<td>Clemens Heitzinger and Gerhard Klimeck</td>
<td>&quot;Nanoscale patterning of phospholipid membranes with interferometric UV lithography&quot;</td>
</tr>
<tr>
<td>4:45 PM</td>
<td>Round Table Discussion</td>
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<tr>
<td>5:30 PM</td>
<td>Poster Presentation - Reception</td>
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**Coffee Break**
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 Multwallled 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”

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
Opening remarks from Program Chair

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

Tuesday PM TRACK A

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
School of Earth, Atmospheric, & Environ. Sciences, University of Manchester, Manchester, UK
“Bio-synthesis of Magnetic and Semiconducting nano-materials”
## TRACK B

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<tr>
<th>Time</th>
<th>Name</th>
<th>Organization</th>
<th>Title</th>
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<tbody>
<tr>
<td>1:30 PM</td>
<td>Edward Tefft</td>
<td>Elan Drug Delivery, Inc., King of Prussia, USA</td>
<td>“Commercial Applications of NanoCrystal™ Drug Delivery Technology”</td>
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<tr>
<td>2:00 PM</td>
<td>Avijit Roy</td>
<td>Immucin Corporation, Huntington, PA, USA</td>
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<tr>
<td>2:30 PM</td>
<td>Michael Weiner</td>
<td>Biophane Technologies, Inc., West Henrietta, USA</td>
<td>“Novel Nanomaterials for Next Generation Drug Delivery”</td>
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### Round Table Discussion

Coffee Break

## TRACK C

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

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<tr>
<th>Time</th>
<th>Name</th>
<th>Organization</th>
<th>Title</th>
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<tbody>
<tr>
<td>1:30 PM</td>
<td>Robert D. Cormia - Moderator</td>
<td>Statewide Director, Workplace Learning Resources</td>
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<tr>
<td>3:30 PM</td>
<td>Edythe Abdullah</td>
<td>Campus President, Florida Community College</td>
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<tr>
<td>3:00 PM</td>
<td>Bob Cumming</td>
<td>Statewide Director, Workplace Learning Resources</td>
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<tr>
<td>3:15 PM</td>
<td>Charles Lundberg</td>
<td>Economic Development Director, Employment Training Panel, State of California</td>
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<tr>
<td>3:45 PM</td>
<td>Rob Gamble</td>
<td>Executive Director, BayBio Institute, San Francisco, CA, USA</td>
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### Round Table Discussion

Coffee Break

### Workforce Education and Training for the New NanoBio Industry (continued)

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<th>Time</th>
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<td>3:00 PM</td>
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<tr>
<td>Time</td>
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<td>7:30 AM -</td>
<td>Registration</td>
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<td>12:00 AM</td>
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<tr>
<td>7:30 AM -</td>
<td>Breakfast</td>
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<tr>
<td>8:30 AM -</td>
<td><strong>General Session</strong></td>
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<tr>
<td>2:00 PM</td>
<td><strong>Wednesday PM</strong></td>
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<tr>
<td>8:30 AM -</td>
<td><strong>The Honorable Ira Ruskin</strong></td>
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<tr>
<td>9:00 AM -</td>
<td>Assembly Member, Chairman, Select Committee on Nanotechnology and Emerging Technologies, State of California, Sacramento, CA, USA</td>
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<td>9:00 AM -</td>
<td><strong>Stephen Y. Chou</strong></td>
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<td>10:00 AM -</td>
<td><strong>Israël Rubinstein</strong></td>
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<tr>
<td>10:00 AM -</td>
<td>Morning Break</td>
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<td>10:15 AM</td>
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<td>10:15 AM -</td>
<td><strong>Amarnath Maitra</strong></td>
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<td>10:45 AM -</td>
<td><strong>Takehiko Wada</strong></td>
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<td>10:45 AM -</td>
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<tr>
<td>11:15 AM -</td>
<td><strong>Michael T. Tseng, Uschi M. Graham, Alan Dozier, Gabino R. Fernandez-Botran and J.C. Hower and Stefano Heun Fontana</strong></td>
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<td>11:15 AM -</td>
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<td>11:45 AM -</td>
<td><strong>Michael Gertner</strong></td>
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<td>12:15 AM -</td>
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<tr>
<td>12:15 PM -</td>
<td>Lunch</td>
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**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"

- **Vladimir Sinvayev, J. Griggs, E.S. Shustikova, D.V. Durofeyev, L.M. Mitina, & G.A. Tokseltova**
  Institute of Chemical Sciences, Ministry of Education and Science of Kazakhstan, KAZAKHSTAN
  "Amorphous Calcium Phosphates As Potential Objects For Dentistry Application"

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

- **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"

- **Cat-Tien Nguyen**
  NASA Ames Research Center, Moffett Field, CA, USA
  "In Vivo Medical Imaging"

**TRACK B Young Investigators**

  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"
### Wednesday (continued)

**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”

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

**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”

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

**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  
“Nanoplasmionic Biomolecular Ruler for Measurements of Position-specific DNA-Protein Reactions”

2:50 PM - 3:15 PM  
W-B-4

**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”

3:15 PM - 3:30 PM  
W-B-5

**Edward de Asis, Wai-Kin Wong, Lei Wang, Adam Seger, Karen Kagoo, Jeremy Hieb, Michael S. Isaacsen, 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”

3:30 PM - 3:45 PM  
W-B-6

**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”

4:45 PM - 5:30 PM  
W-C-1

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”

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

**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”

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

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, Universita di Lecce, Lecce ITALY  
“AC and DC electrical imaging of biosamples at the nanoscale by Atomic Force Microscopy”

3:30 PM - 3:45 PM  
W-C-4

**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”

4:45 PM - 5:00 PM  
W-C-5

**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 - 5:00 PM  
W-C-6

**Coffee Break**

3:15 PM - 3:30 PM

**Coffee Break**

3:30 PM - 3:45 PM

**Congress Review and Conclusion**

4:45 PM - 5:30 PM

**TRACK C**
Thursday, June 22, 2006

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

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, Berkeley, CA USA

“Molecular Foundry-User Program”

Craig Fellenstein, Jacelyn 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”

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

“Porous and dense calcium phosphate bioceramics”

Mi-Young Park, Kyounghun 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, Daejon, KOREA

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