

# Programme-At-A-Glance

**Thursday, 9 April 2009**

Time/Session	Regular Session	Time/Session	Regular Session
07:15 – 08:00	Continental Breakfast and Registration		Oral Presentation I (Best Paper Awards)
	Introduction and Welcome	13:25 – 13:40	Electronic Detection of Selective Proteins using Non Antibody-Based CMOS Chip P. Ramachandran, etc. (Paper 13 from IEEE ED; Best Student/Post-Doc Paper)
08:00 – 08:05	Opening Remarks by NLM Director	13:40 – 13:55	Large-Scale High-Performance Cell Membrane Perforation, with Nanoimprinted Mass Produicable Perforator T. Saito, etc. (Paper 22; Best Student/Post-Doc Paper)
08:05 – 08:25	Introduction of Nanotechnology from Perspective of NIH Karen Peterson, Ph.D., <i>NIBIB, NIH</i>	13:55 – 14:10	Fabrication of Polyvalent Therapeutic RNA Nanoparticles for Specific Delivery of siRNA, Ribozyme and Drugs to Targeted Cells for Cancer Therapy Y. Shu, etc. (Paper 37; Best Paper)
08:25 – 08:55	Nanomaterials in Diagnostics and Biomedical Applications Meyya Meyyappan, Ph.D., <i>NASA Ames Research Center</i>	14:10 – 14:25	Ligand-Functionalized Gold Nanorods as Theragnostic Agents A. Wei, etc. (Paper 23; Best Paper)
	Special Session I: Nanomedicine in Practice	14:25 – 14:45	Evening Break
08:55 – 09:45	Merging Nanoelectronic and Biological Systems: Powerful Tools, Functional Interfaces and More Charles Lieber, Ph.D., <i>Hyman Professor of Chemistry, Harvard University</i>		Special Session I for IEEE Societies
09:45 – 10:35	Electron Cryo-Microscopy of Molecular Nanomachines and Cells Wah Chiu, Ph.D., <i>Nat. Center for Macromolecular Imaging, Baylor Col. of Med.</i>	14:45 – 15:00	Overview of IEEE Research in Biomedical Circuits and Systems A. Hodge (Paper 53 from IEEE CAS)
10:35 – 10:55	Morning Break	15:00 – 15:15	Engineered Nanotopographic Structures for Applications in Tissue Engineering and Regenerative Medicine J. Borenstein, etc. (Paper 41 from IEEE EMBS)
	Special Session II: Nanotechnology Development	15:15 – 15:30	From Biophotonics toward Nanobiophotonics: Breaking the Diffraction Barrier in the Subwavelength Nanoscale I. Ilev (Paper 51 from IEEE LEOS)
10:55 – 11:45	Cells as Nature's Nanotechnology Rob Phillips, Ph.D., <i>Applied Physics &amp; Mechanical Engineering, California Institute of Technology</i>	15:30 – 15:45	Bioimaging: A New Frontier Area for Signal Processing Research J. Olivo-Marin (Paper 79 from IEEE SP)
11:45 – 12:35	Living Cells and Organisms as Test Tubes: From Single-Molecule Imaging to Stimulated Raman Scattering Xiaoliang Sunney Xie, Ph.D., <i>Department of Chemistry and Chemical Biology, Harvard University</i>		
12:35 – 13:25	Lunch Break		
Time/Session	Regular Session		Breakout Session
	Oral Presentation II (Systems & Application in Nanomedicine)		Special Session II for IEEE Societies
15:45 – 16:00	Systematic Study of Enhanced Cytotoxicity Effects of Gold-based Nanoparticles in Targeted Cancer Radiotherapy J. Chen (Paper 45)		Endomicroscopy and Biocompatible Fluorescent Nanocomplexes for Clinical Translation of High-resolution Optical Molecular Imaging X. Li (Paper 77 from IEEE LEOS)
16:00 – 16:15	An Image Driven Systems Biology Approach for Neurodegenerative Disease Studies in the TSC-mTOR Pathway D. Beck, etc. (Paper 44)		On-Chip Whole-Animal Manipulation for High-Throughput Subcellular-Resolution In-Vivo Drug/Genetic Screening C. Rohde, etc. (Paper 21 from IEEE EMBS)
16:15 – 16:30	Low-Noise Wide Dynamic Range Readout Circuit for Multi-stage Microfluidic Cell Sorting Systems B. Geheb, etc. (Paper 35)		Microscale Technologies for Tissue Engineering A. Khademhosseini, etc. (Paper 40 from IEEE EMBS)
16:30 – 16:45	Identifying Components in 3-D Density Maps of Protein Nanomachines by Multi-scale Segmentation G. Pintilie (Paper 38)		Modeling a Fixed-Fixed Beam Nano Biosensor Using Equivalent Electrical Circuit Technique R. Bajpai, etc. (Paper 17 from IEEE CAS)
16:45 – 19:00	Poster Session and Reception (1-minute teaser slide per poster)		

**Friday, 10 April 2009**

Time/Session	Regular Session	Time/Session	Breakout Session
07:15 – 08:00	Continental Breakfast and Registration		
08:00 – 08:15	Preliminary Reports on Day 1 Sessions		
08:15 – 09:05	Nanostructured Platforms for Targeting and Delivery Tejal Desai, Ph.D., <i>Lab. of Therapeutic Micro &amp; Nanotech., UCSF</i>		
	Special Session III: Industry Applications of Nanomedicine		
09:05 – 09:35	Nanomedicine - Driving Breakthroughs in Healthcare J.W. (Hans) Hofstraat, Ph.D., <i>Philips Research, The Netherlands</i>		
09:35 – 10:05	Nano Imaging Agents at GE Amit M Kulkarni, Ph.D., <i>Chemical Nanotech. Lab, General Electric, NY</i>		
10:05 – 10:25	Morning Break		
Time/Session	Regular Session		Breakout Session
	Special Session III for IEEE Societies		Oral Presentation III (Systems & Application in Life Science)
10:25 – 10:40	Advances In Integrated Polarization Image Sensing V. Gruev, etc. (Paper 43 from IEEE CAS)		HeartToGo: A Personalized Medicine Tech. for Cardiovascular Disease Prevention & Detection Z. Jin, etc. (Paper 26)
10:40 – 10:55	Ear Type Circuit and System Simulating the Auditory Brainstem Response for Auditory Disorder Characterization K. Limpaphayom, etc. (Paper 49 from IEEE CAS)		In Vitro and In Vivo Studies on Wireless Powering of Medical Sensors & Implantable Devices F. Zhang, etc. (Paper 3)
10:55 – 11:10	Miniature Voltage Sensitive Dye Imaging System for In Vivo Experiments J. H. Park, etc. (Paper 27 from IEEE CAS)		Novel Image Reconstruction Algorithm of Diffuse Optical Tomography in Continuous Wave System Y.-H. Hsu, etc. (Paper 61)
11:10 – 11:25	A Video-Frame Based Registration Using Segmentation and Graph Connectivity for Wireless Capsule Endoscopy A. Karargyris, etc. (Paper 24)		Analyzing the Diffusion Patterns for Follow-Up Study of Glioblastoma Multiforma Using Diffusion Tensor Imaging H. Li, etc. (Paper 14)
11:25 – 11:45	Morning Break		
	Intellectual Property and Regulatory Issues in Nanotechnology and Nanomedicine		
11:45 – 12:00	Norris E. Alderson, Ph.D., <i>Food and Drug Administration</i>		
12:00 – 12:15	Ann Hammersla, J.D., <i>National Institutes of Health</i>		
12:15 – 12:30	William Tucker, Ph.D., <i>University of California</i>		
12:30 – 12:45	Technology Transfer and Intellectual Property Issues in Nanomedicine — A University Perspective Alan Paau, Ph.D., <i>Cornell University</i>		
12:45	Summary and Workshop Adjourn		