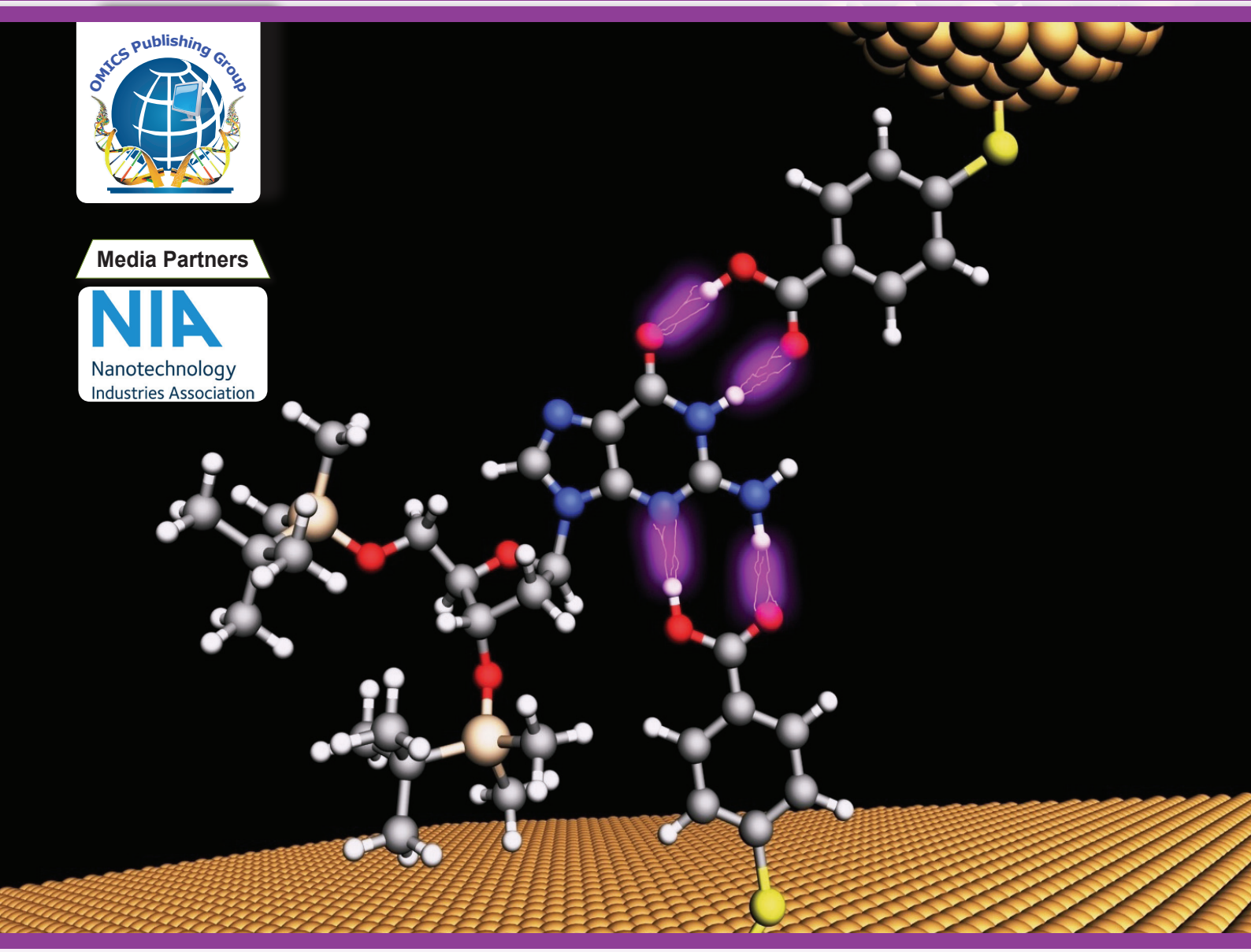
Scientific Program

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference on
Nanotek and Expo

December 3-5, 2012 DoubleTree by Hilton Philadelphia Center City, USA



Media Partners

NIA Nanotechnology Industries Association

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OMICS Group Conferences
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Email: nanotek2012@omicsonline.com

Day 1 December 3, 2012

08:30-9:30 Registrations

Breakout 1

OMICS Group Conferences
Accelerating Scientific Discovery

09:30-10:00 **Opening Ceremony**

Keynote Forum

10:00-10:05 Introduction

10:05-10:30 **Serhii Shafraniuk**
Northwestern University, USA

10:30-10:55 **Elena Polyakova**
Graphene Laboratories, USA

Coffee Break 10:55-11:10

11:10-11:35 **Ben Q Li**
University of Michigan, USA

11:35-12:00 **Kimihisa Yamamoto**
Tokyo Institute of Technology, Japan

Track 1-2: Carbon nano-tubes and graphene

Chair: Feng Liu, University of Utah, USA
Co-Chair: Ladislav Kavan, J. Heyrovsky Institute of Physical Chemistry, Czech Republic

Session Introduction

12:00-12:20 **Title: Photo response of multi-layer graphene sheet and nanoribbons**
Feng Liu, University of Utah, USA

12:20-12:40 **Title: Epitaxial graphene electronics and optoelectronics**
Joshua A. Robinson, The Pennsylvania State University, USA

Lunch Break 12:40-13:40

13:40-14:00 **Title: Controllable growth of graphene nanoribbon by advanced plasma chemical vapor deposition**
Toshiaki Kato, Tohoku University, Japan

14:00-14:20 **Title: Graphene: New challenge for dye sensitized solar cell**
Ladislav Kavan, J. Heyrovsky Institute of Physical Chemistry, Czech Republic

14:20-14:40 **Title: The field sensors made of graphene and carbon nanotube quantumdots**
Serhii Shafraniuk, Northwestern University, USA

14:40-15:00 **Title: Effect of external electric field on the application of graphene**
Zhimin Ao, The University of New South Wales, Australia

15:00-15:20 **Title: Effect of vacancies on the mechanical properties of CNT based composites**
Anand Y. Joshi, G.H.Patel College of Engineering & Technology, India

Coffee Break 15:20-15:35

Track 1-1: Fabrication and application of micro/nanopillars

Chair: Hai-Feng (Frank) JI, Drexel University, USA
Co-Chair: Zorica Konstantinovic, ICMAB, CSIC, Campus of UAB, Spain

Session Introduction

15:35-15:55 **Title: Self assembled nanopillars**
Hai-Feng Ji, Drexel University, USA

15:55-16:15 **Title: Self-assembled nanostructures as templates for the integration of nanoparticles in oxide surfaces**
Z. Konstantinovic, ICMAB, CSIC, Campus of UAB, Spain

16:15-16:35 **Title: Responsive polymer pillar arrays**
Shu Yang, University of Pennsylvania, USA

16:35-16:55 **Title: Theory of nanostructures for sensing applications**
Karl Sohlberg, Drexel University, USA

16:55-17:15	**Title: Low-loss, localized surface phonon polariton modes in silicon carbide nanopillars: Beyond plasmonics** **Joshua D. Caldwell,** U.S. Naval Research Laboratory, USA
17:15-17:35	**Title: Dissecting the optical resonances in arrays of metal-coated Si nanopillars** **Francisco J. Bezares,** Naval Research Laboratory, USA
17:35-17:55	**Title: Going beyond plasmonics: Self-assembled optoplasmonic molecules and superlenses** **Bjorn M. Reinhard,** Boston University, USA
17:55-18:15	**Title: Nanoengineered surfaces: Transport phenomena and energy applications** **Evelyn N. Wang,** MIT, USA

Breakout 2

Track 1-3: Nano-composites
Track 1-4: Modeling and simulation of nano-materials

Chair: Bernd Rellinghaus, IFW Dresden, Germany

Session Introduction

13:45-14:05	**Title: Spectroscopic study of the decomposition of hydrogen peroxide by manganese functionalized silicate catalysts** **Juergen Eckert,** University of South Florida, USA
14:05-14:25	**Title: Novel 3D graphene-based materials prepared by chemical vapor deposition: Process development and production scaling-up** **Elena Polyakova,** Graphene Laboratories, USA
14:25-14:45	**Title: Understanding the surface properties of metallic nanoparticles by combining aberration-corrected TEM studies with molecular dynamics simulations** **Bernd Rellinghaus,** IFW Dresden, Germany
14:45-15:05	**Title: Making paper and polyurethane foams smart, for advanced applications** **Despina Fragouli,** Istituto Italiano di Tecnologia, Italy
15:05-15:25	**Title: Theory and modeling of piezoelectricty for nanomaterials** **James M Chen,** Pennsylvania State University, USA

Coffee Break 15:25-15:40

15:40-16:00	**Title: Effects of Y_2O_3, Ti, and forming processes on ODS-iron based alloy** **Zhimeng Guo,** University of Science and Technology Beijing, China
16:00-16:20	**Title: Molecular layer deposition of organic-inorganic hybrid films showing enhanced photocatalytic activity towards decomposition of benzoic acids in aqueous solutions** **Roie Yerushalmi,** The Hebrew University of Jerusalem, Israel

18:15-19:15 Cocktails Sponsored by Journal of Nanomedicine & Nanotechnology

Day 2 December 4, 2012

Breakout 1

Track 2: Nanostructures

Chair: Hai-Feng (Frank) JI, Drexel University, USA
Co-Chair: Masahiko Iyoda, Tokyo Metropolitan University, Japan

Session Introduction

08:30-08:50	**Title: Design and fabrication of optically-tunable nanostructured particles for thermal applications** **Ben Q. Li,** University of Michigan, USA
08:50-09:10	**Title: Highly selective sensing of nitroaromatics using nanomaterials of ellagic acid** **Hai-Feng Ji,** Drexel University, USA
09:10-09:30	**Title: Throughput assay to examine nanostructures on the plasma membrane of immune cells** **Anil K Bamezai,** Villanova University, USA
09:30-09:50	**Title: Study of cellular response to functional nanowires using non-linear optical imaging** **Chen Yang,** Purdue University, USA
09:50-10:10	**Title: One molecular precursor for many photonics and magnetic nanowires** **S. Sundar Manoharan,** University of Mumbai, India
10:10-10:30	**Title: Towards high-volume, low-cost production of ZnO nanowiresdevices** **Kar Seng Teng,** Swansea University, UK

Coffee Break 10:30-10:45

10:45-11:05	**Title: New assembling strategies for iron oxide nanoparticles films with magnetotunable properties** **Benoit P. Pichon,** University of Strasbourg, France
11:05-11:25	**Title: Nanobubble-assisted surface nanopatterning** **Pavel Janda,** J. Heyrovsky Institute of Physical Chemistry, Czech Republic
11:25-11:45	**Title: Nanostructure formation and functional properties of giant macrocyclic oligothiophenes** **Masahiko Iyoda,** Tokyo Metropolitan University, Japan

11:45-12:05	**Title: Nanotechnology in liver cancer** **M.G. Krukemeyer,** Department of Radio-Oncology Paracelsus-Hospital, Germany
12:05-12:25	**Title: Design of In vivo assays for study of transport, biocompatibility and toxicity of nanoparticles** **Kerry J. Lee,** Old Dominion University, USA
12:25-12:45	**Title: Interfacial effects in Thin film nanostructures for electronic, photonic and biomedical applications** **S. Sundar Manoharan,** University of Mumbai, India
12:45-13:05	**Title: Boron nitride nanostructure films with controllable dewetting properties** **Amir Pakdel,** National Institute for Materials Science, Japan

Lunch Break 13:05-13:45

Track 3: Nano-medicine

Chair: Peter I. Lelkes, Temple University, USA
Co-Chair: Michael S. Tomczyk, University of Pennsylvania, USA

Session Introduction

13:45-14:05	**Title: Nanoparticle-reinforced biopolymers for applications in orthopedic regenerative engineering** **Peter I. Lelkes,** Temple University, USA
14:05-14:25	**Title: Targeted delivery of paclitaxel to injured blood vessels with magnetically responsive nanoparticles for preventing in-stent restenosis** **Michael Chorny,** The Children's Hospital of Philadelphia, USA
14:25-14:45	**Title: Radical innovations in nanotechnology: From nanotube boats and DNA drugs to invisibility cloaks and geckskin** **Michael Tomczyk,** University of Pennsylvania, USA
14:45-15:05	**Title: Targeted nano-based proteostasis-inhibition for controlling lung cancer pathogenesis & progression** **Neeraj,** Johns Hopkins University School of Medicine, USA
15:05-15:25	**Title: Chitosan nanoparticles for drug delivery applications** **Anna Lena Kjoniksen,** Ostfold University College, Norway
15:25-15:45	**Title: Nanoplatforms for encapsulation of active ingredients: Process development and products characterization** **Natália Neto Pereira Cerize,** Institute for Technological Researcher, Brazil

Coffee Break 15:45-16:00

16:00-16:20	**Title: Nanoparticulate complexation of gadopentetic acid and chitosan for neutron-capture therapy of cancer** **Hideki Ichikawa,** Kobe Gakuin University, Japan
16:20-16:40	**Title: SDS-coated atovaquone nanosuspensions show improved therapeutic efficacy against experimental acquired and reactivated toxoplasmosis by improving passage of gastrointestinal and blood-brain barriers** **Hend M Shubar,** Tripoli University, Libya

Track 4: Nanotechnology in Food and Agriculture
Track 6: Nano-electronics

Chair: Jean-Jacques Delaunay, The University of Tokyo, Japan
Co-Chair: Shakuntala Ingudam, ICAR Research Complex for NEH Region, India

Session Introduction

16:40-17:00	**Title: Metal oxide nanowires for sensing and conversion of light** **Jean-Jacques Delaunay,** The University of Tokyo, Japan
17:00-17:20	**Title: Nanofibers of conjugated polymer composites** **A. Sezai Sarac,** Istanbul Technical University, Turkey
17:20-17:40	**Title: Antibacterial activity of magnesium oxide nanoparticles on Escherichia coli O157: H7, Salmonella, and Campylobacter** **Shakuntala Ingudam,** ICAR Research Complex for NEH Region, India

Breakout 2

17:00-18:30 Poster Presentations

18:00-19:00 Cocktails Sponsored by: Journal of Nanomedicine & Biotherapeutic Discovery

Day 3 December 5, 2012

Track 5: Nanodevices and Nanosensors

Chair: Gregory L. Rorrer, Oregon State University, USA
Co-Chair: Shuimei Wang, Industrial Technology Research Institute, Taiwan

Session Introduction

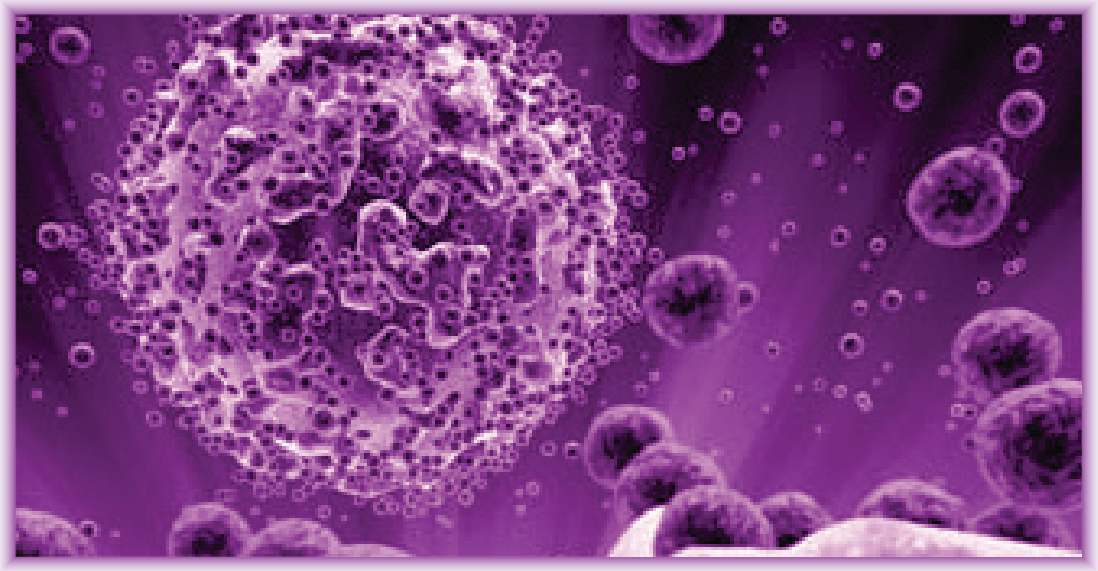
09:00-09:20	**Title: Engineered nanopores for single-molecule detection of proteins** **Liviu Movileanu,** Syracuse University, USA
09:20-09:40	**Title: Functionalization of diatom nanostructures for device applications** **Gregory L. Rorrer,** Oregon State University, USA

09:40-10:00	**Title: Nanoparticle quantum nanosensors: Prospect of detection of single biological molecules using quantum coherence** **Seyed Sadeghi,** University of Alabama in Huntsville, USA
10:00-10:20	**Title: Plasmonic Ag-nanodumbbells as highly sensitive SERS sensors** **Nekane Guarrotxena,** CSIC, Spain
10:20-10:40	**Title: Hybrid electro-optic polymer waveguide modulators and sol-gel silica waveguide biosensors doped with green fluorescent protein** **Yasufumi Enami,** Hiroshima University, Japan
	Coffee Break 10:40-10:55
10:55-11:15	**Title: Total characterization of ITRI-IOP USPIO nanoparticles as MRI contrast agent** **Shuimei Wang,** Industrial Technology Research Institute, Taiwan
11:15-11:35	**Title: Effects of silver nanoparticles and magnetic field on growth of fodder maize (Zea mays L.)** **Ali Asghar Berahmand,** MGT, Iran
Track 5: Nanotechnology in Energy Systems **Track 8: Environment, Health and Safety Issues of Nanotechnology** **Track 9: Current Research**	
Chair: Natasa Novak Tusar, National Institute of Chemistry, Slovenia	
	Session Introduction
11:35-11:55	**Title: Nanostructures on surface wettability and roughness manipulation for heat transfer applications** **Hyung Hee Cho,** Yonsei University School of Mechanical Engineering, Korea
11:55-12:15	**Title: Subband formation in multi stacked InGaAs quantum dots with different interdot spacing for high efficient solar cell** **K. Goshima,** Aichi Institute of Technology, Japan
12:15-12:35	**Title: Design of a cost-effective catalyst for the removal of organic pollutants from wastewater by WHPCO nanotechnology** **Natasa Novak Tusar,** National Institute of Chemistry, Slovenia
	Lunch Break 12:35-13:35

Bookmark your dates

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Conference on
Nanotek and Expo
December 2-4, 2013 Las Vegas, USA



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List of OMICS Group Upcoming Conferences

Pharmaceutical Sciences

3rd International Conference and Exhibition on **Pharmaceutics & Novel Drug Delivery Systems**
April 8-10, 2013 Chicago/Northbrook, USA

4th World Congress on **Bioavailability and Bioequivalence: Pharmaceutical R & D Summit**
May 20-22, 2013 Beijing, China

3rd International Conference on **Pharmaceutical Regulatory Affairs**
August 26-27, 2013 Raleigh NC, USA

2nd International Conference and Exhibition on **Biowaivers & Biosimilars**
September 23-25, 2013 Raliegh - NC, USA

4th International Conference and Exhibition on **Analytical and Bioanalytical Techniques**
October 15-17, 2013 Las Vegas, USA

2nd International Conference on **Medicinal Chemistry & Computer Aided Drug Designing**
October 15-17, 2013 Las Vegas, USA

2nd International Conference and Exhibition on **Chromatographic, Spectroscopic Techniques & Instrumentation**
October 21-23, 2013 California, USA

2nd Annual **Pharmacovigilance & Clinical Trials Conference**
October 21-23, 2013 Hyderabad, India

International Conference and Exhibition on **Pharmacognosy & Phytochemistry**
October 21-23, 2013 Hyderabad, India

2nd International Summit on **GMP, GCP, Quality Control and Validation Processes**
October 21-23, 2013 California, USA

2nd International Summit on **Toxicology & Applied Pharmacology**
November 4-6, 2013 California, USA

International Summit on **Clinical Pharmacy & Dispensing**
November 18-20, 2013 Texas, USA

Medical Sciences

2nd International Conference on **Gastroenterology & Urology**
June 10-12, 2013 Chicago-Northbrook, USA

2nd International Conference and Exhibition on **Nutritional Science & Therapy**
July 15-17, 2013 Philadelphia, USA

2nd International Conference and Exhibition on **Addiction Research & Therapy**
July 22-24, 2013 Las Vegas, USA

2nd International Conference and Exhibition on **Nephrology & Therapeutics**
July 29-31, 2013 Las Vegas, USA

2nd International Conference on **Translational Medicine**
August 5-7, 2013 Chicago-Northshore, USA

International Coneference on **Predictive, Preventive and Personalized Medicine & Molecular Diagnostics**
August 5-7, 2013 Chicago-Northshore, USA

4th World Congress on **Diabetes & Metabolism**
August 14-16, 2013 Chicago-Northshore, USA

International Conference on **Dental & Oral Health**
August 19-21, 2013 Las Vegas, USA

2nd International Conference and Exhibition on **Orthopedics & Rheumatology**
August 19-21, 2013 Las Vegas, USA

International Conference and Exhibition on **Physical Medicine & Rehabilitation**
August 19-21, 2013 Las Vegas, USA

World Congress on **Endocrinology**
August 26-28, 2013 Raleigh NC, USA

International Conference on **Sexual Medicine & Sexology**
September 16-18, 2013 Las Vegas, USA

3rd International Conference on **Pediatrics and Neonatology**
September 16-18, 2013 Las Vegas, USA

International Conference on **Psychology, Autism and Alzheimer's Disease**
September 30-October 2, 2013 Texas, USA

2nd International Conference on **Pulmonary & Respiratory Medicine**
November 12-14, 2013, Chicago-NorthShore, USA

2nd International Conference and Exhibition on **Obesity & Weight Management**
November 12-14, 2013, Chicago-NorthShore, USA

2nd International Conference on **Otolaryngology**
November 20-22, 2013 Baltimore, USA

International Conference on **Hematology & Blood Disorders**
September 23-25, 2013 Raliegh - NC, USA

International Conference and Exhibition on **Traditional & Alternative Medicine**
December 9-11, 2013 Hyderabad, India

International Conference on **Nursing & Emergency Medicine**
December 2-4, 2013 Las Vegas, USA

Clinical

3rd International Conference on **Clinical & Experimental Cardiology**
April 15-17, 2013 Chicago-Northbrook, USA

3rd International Conference on **Clinical & Experimental Dermatology**
April 15-17, 2013 Chicago-Northbrook, USA

3rd International Conference on **Clinical & Experimental Ophthalmology**
April 15-17, 2013 Chicago-Northbrook, USA

2nd International Conference on **Occupational Health & Safety**
May 21-22, 2013 Beijing, China

2nd International Conference and Exhibition on **Neurology & Therapeutics**
June 17-19, 2013 Chicago-Northbrook, USA

4th International Conference on **Biomarkers & Clinical Research**
July 15-17, 2013 Philadelphia, USA

3rd International Conference on **Vaccines & Vaccination**
July 29-31, 2013 Las Vegas, USA

2nd International Conference and Exhibition on **Pathology**
August 5-7, 2013 Las Vegas, USA

International Conference on **Molecular Epidemiology and Evolutionary Genetics**
August 21-23, 2013 Miami, Florida, USA

2nd International Conference on **Forensic Research & Technology**
October 7-9, 2013 Las Vegas, USA

3rd World Congress on **Cancer Science and Therapy**
October 21-23, 2013 California, USA

International Conference on **HIV/AIDS, STDs, & STIs**
October 24-25, 2013 Miami, Florida, USA

Engineering & Applied Sciences

2nd International Conference and Exhibition on **Biosensors & Bioelectronics**
June 17-19, 2013 Chicago-Northbrook, USA

2nd International Conference and Exhibition on **Biometrics & Biostatistics**
June 10-12, 2013 Chicago-Northbrook, USA

World Expo on **Robotics and Mechatronics**
August 12-14, 2013 Raleigh-NC, USA

International Conference and Expo on **Astronomy & Cosmology**
August 14-16, 2013 Chicago-Northshore, USA

International Conference on **Radiology & Imaging**
August 14-16, 2013 Chicago-Northshore, USA

International Conference on **Computer Science & Advanced Information Technology**
September 23-25, 2013 Hyderabad, India

International Conference and Exhibition on **Lasers, Optics & Photonics**
October 7-9, 2013 Texas, USA

2nd International Conference and Exhibition on **Material Sciences & Engineering**
October 7-9, 2013 California, USA

International Conference and Expo on **Electrical & Electronics Engineering**
September 26-28, 2013 Hyderabad, India

International Conference and Exhibition on **Mechanical & Aerospace Engineering**
September 30 - October 2, 2013 Texas, USA

International conference and Exhibition on **Biochemical & Molecular Engineering**
October 7-9, 2013 Texas, USA

2nd Global Biofuels and Bioproduct Summit
October 28-30, 2013 Kansus, USA

World Congres on **Petrochemistry and Chemical Engineering**
November 18-20, 2013 Texas, USA

International Conference and Exhibition on **Solar & Power Generation Technologies**
November 20-22, 2013 Hyderabad, India

3rd International Conference on **Nanotek and Expo**
December 2-4, 2013 Las Vegas, USA

World Congress on **Applied Physics: Biomedical Engineering Systems and Technologies**
December 9-11, 2013 Hyderabad, India

Omics

2nd International Conference and Exhibition on **Metabolomics & Systems Biology**
April 8-10, 2013 Chicago-Northbrook, USA

3rd International Conference on **Proteomics & Bioinformatics**
July 15-17, 2013 Philadelphia, USA

International Conference on **Omics Studies**
September 4-6, 2013 Miami, Florida, USA

International Conference on **Functional & Comparative Genomics**
November 12-14, 2013 Chicago-NorthShore, USA

Life Sciences

International Conference on **Animal & Dairy Sciences**
July 23-24, 2013 Las Vegas, USA

2nd International Conference on **Tissue Science & Engineering**
August 5-7, 2013 Chicago-NorthShore, USA

International Conference on **Integrative Biology Summit**
August 5-7, 2013 Las Vegas, USA

International Conference and Symposia on **Genetic Engineering & Genetically Modified Organisms**
August 12-14, 2013 Raleigh-NC, USA

4th World Congress on **Biotechnology**
September 23-25, 2013 Raleigh-NC, USA

2nd International Conference on **Agricultural & Horticultural Sciences**
September 26-28, 2013 Hyderabad, India

International Conference on **Entomology**
September 4-6, 2013 Miami, Florida, USA

International Conference on **Fermentation Technology, Bio Processing & Cell Culture**
October 28-30, 2013 Kansus, USA

International Congress on **Bacteriology & Infectious Diseases**
November 20-22, 2013 Baltimore, USA

3rd World Congress on **Virology**
November 20-22, 2013 Baltimore, USA

Environmental Sciences

2nd International Conference on **Earth Science & Climate Change**
July 22-24, 2013 Las Vegas, USA

2nd International Conference on **Biodiversity & Sustainable Energy Development**
August 12-14, 2013 Raleigh-NC, USA

International Conference on **Aquatic and Marine Biology (Oceanography)**
August 21-23, 2013 Miami, Florida, USA

International Conference on **Manging Environmental Hazards and Natural Disasters**
August 21-23, 2013 Miami, Florida, USA

2nd International Conference on **Hydrology and Groundwater Expo**
August 26-27, 2013 Raleigh-NC, USA

International Conference on **Archaeology & Anthropology**
November 18-20, 2013 Texas, USA