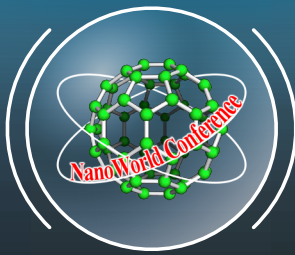


NWC-2017



Program

NanoWorld Conference

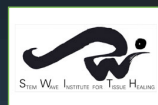
Useful Science and Technology for a Just World

April 3-5, 2017

Venue

Crowne Plaza Boston - Newton
320 Washington St, Newton, MA, USA

Sponsors



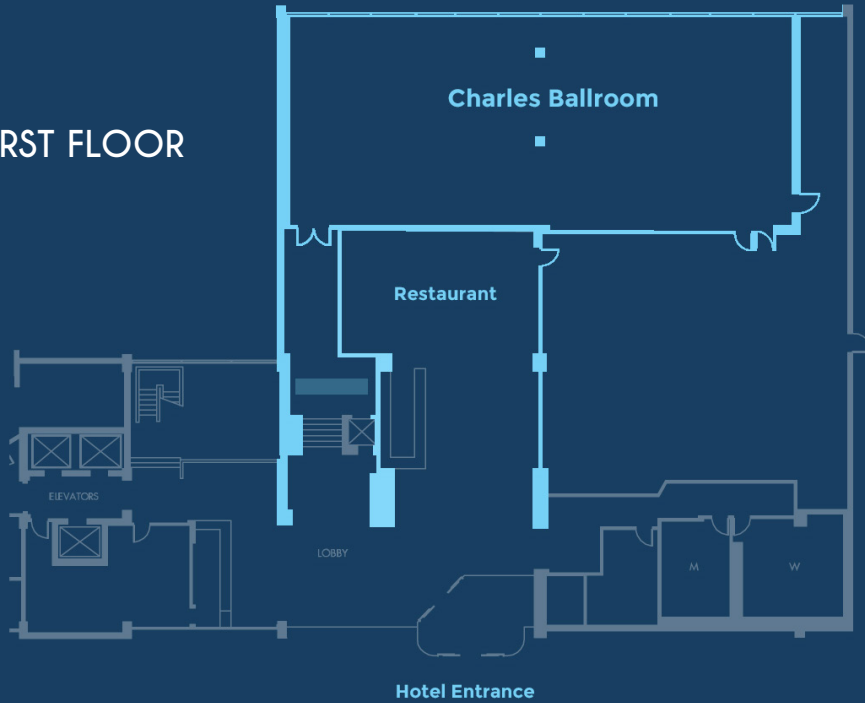
Exhibitors



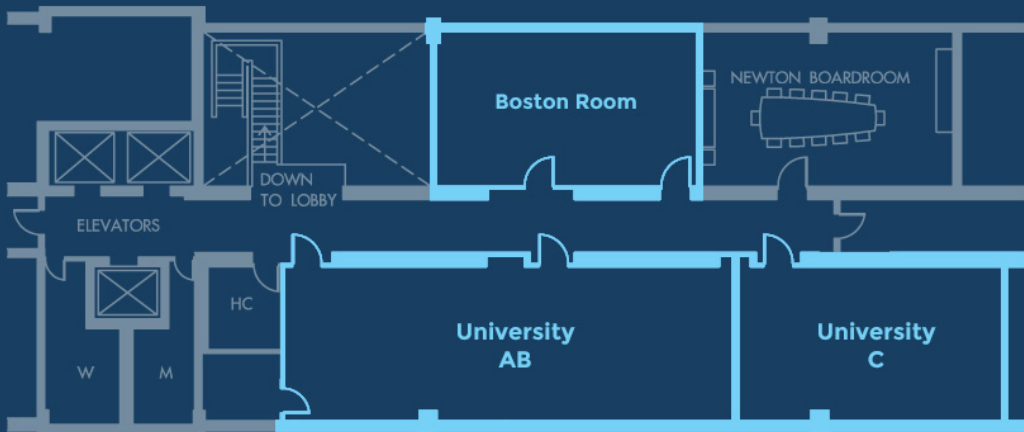
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Conference Floor Plan

FIRST FLOOR



SECOND FLOOR



Day 1 | Monday April 3, 2017

07:00-08:00 NanoWorld Conference NWC-2017 Registrations
08:00-08:15 NanoWorld Conference Inauguration and Initiatives by NWC Chairman
Prof. Claudio Nicolini

Plenary Keynotes Session

@ Charles Ballroom

08:15-09:00 **Exploration of the Nano-world of Biomolecules “in Action” with Free Electron Lasers**
Petra Fromme
Director, Biodesign Center Structural Discovery & Paul V. Galvin Professor of Chemistry and Biochemistry, Arizona State University, USA

09:00-09:45 **Fundamental and Industrial Nanoapproaches to Cancer from Nanolab to Patient**
Claudio Nicolini
Member, Russian Academy of Sciences
Honoris Causa Professor Lomonosov Moscow State University, Russia
President Fondazione ELBA Nicolini, Italy

Plenary Symposium on - Applications to Space, Energy and Environment of Nano-Materials, -Devices and -Systems

@ Charles Ballroom

09:45-10:05 **Nanotechnology, Bio-Computing, and Space Exploration**
Anilkumar P. Thakoor, California Institute of Technology, USA

10:05-10:25 **Nano-devices for Energy**
Davide Nicolini, European Space Agency, France

10:25-10:40 **Coffee Break**

@ Charles Ballroom

Plenary Symposium on - Protein Structure at Atomic Scale by Synchrotron Radiation, CryoEM and XFEL

@ Charles Ballroom

10:40-11:00 **X-Ray Nanodiffraction on Tobacco Mosaic Virus Assemblies**
Christian Riekel, European Synchrotron Radiation Facility, France

11:00-11:20 **Protein Structure by CryoEM**
Giuseppe Zanotti, Padova University, Italy

11:20-11:40 **Protein Structure by Langmuir-Blodgett Nanotemplate**
Eugenia Pechkova, Genova University, Italy

11:40-12:00 **Applications of Synchrotron Light**
Vivian Stojanoff, Brookhaven National Laboratory, USA

Plenary Symposium on - World Peace Forum

@ Charles Ballroom

12:00-12:30 **From Nuclear Disarmament to World Wide Joint Research and Peace**
Claudio Nicolini, Fondazione ELBA Nicolini Nanoworld Institute Laboratories

12:30-13:30 **Lunch** @ Restaurant and University AB Room

Plenary Symposium on Unfolding the Nanoworld of Stem Cells Towards a Self-Healing Potential

@ Charles Ballroom

13:30-14:00 **Unfolding the Nanoworld of Stem Cells: Electromagnetic and Acoustic Communication for a New Paradigm in Regenerative Medicine**
Carlo Ventura, Stem Wave Institute for Tissue Healing (SWITH) - Ettore Sansavini Health Science Foundation, Italy
Bologna University, Italy

14:00-14:30	Nanomaterials with Tunable Hydrophobicity as Local Drug Delivery Systems for Cell Transplantation Camillo Ricordi, Diabetes Research Institute and Cell Transplant Center – University of Miami, USA, and Diabetes Research Institute Federation, USA	
14:30-15:00	One Step Tissue Engineering with Combined ADSC and BMSC in Severe Osteoarthritis for Cartilage Repair Stefano Zanasi, Gruppo San Donato, University of Milan, Italy	
15:00-15:30	Living on Plastic: The Unnatural History of Mesenchymal Stem Cells Bruno Peault, University of Edinburgh, UK and University of California at Los Angeles, USA	
15:30-16:00	Regulation of the Adaptive Response of Cardiac Cells to Ischemia: Role of Nanovesicles Vincenzo Lionetti, Laboratory of Translational Critical Care Medicine, Institute of Life Sciences, Scuola Superiore Sant'Anna, Pisa, Italy	
16:00-16:30	Coffee Break	@ Charles Ballroom
17:40-18:40	Poster Session (See Annexure) (P-01 - P-30)	@ University AB Room

Nanotechnology and Nanosciences Session-1 (Nano-Electronics) @ University C Room

Chairs:	Xiaosheng Fang , Fudan University, China Hai-Feng (Frank) Ji , Drexel University, USA	
13:30-13:55	New Concept Low-Dimensional Ultraviolet Photodetectors Xiaosheng Fang, Fudan University, China	
13:55-14:20	Two Dimensional Semiconducting Nanosheets for Electron Device Application Seongil Im, Yonsei University, S. Korea	
14:20-14:45	Fresh Ultrafast Look at Hot Exciton Dynamics in Nanocrystals Sanford Ruhman, The Hebrew University of Jerusalem, Israel	
14:45-15:10	Growth and Potential Applications of Millimeter Long Fibrous Red Phosphorus Nanowires Hai-Feng (Frank) Ji, Drexel University, USA	
15:10-15:30	A New and Emerging Process to Fabricate Smart Window Caroline Sunyong Lee, Hanyang University, S. Korea	
15:30-15:50	Spintronics and Caloritronics Related Problems in the Context of Graphene Like Nanoribbons Stefan Krompiewski, Polish Academy of Sciences, Poland	
15:50-16:10	Intra- and Inter-shell Kondo Effects in Carbon Nanotube Stanislaw Lipinski, Polish Academy of Sciences, Poland	
16:10-16:20	Coffee Break	@ University AB Room
16:20-16:40	Massively Multiplexed MEMS/NEMS for High-throughput Electro-hydrodynamic Jetting of Particles for Encapsulation, Space, and Manufacturing Applications Luis Fernando Velasquez-Garcia, Massachusetts Institute of Technology, USA	
16:40-17:00	Functionalized Graphene for Nano Electronics, Photonics and Optoelectronics Monica Felicia Craciun, University of Exeter, UK	
17:00-17:20	Highly Sensitive NO₂ Gas Sensors Based on Electrolytically Exfoliated Graphene/Au-Catalyzed WO₃ Composite Films Sukon Phanichphant, Chiang Mai University, Thailand	
17:20-17:40	Optimized Plasmonic Structure Integrated Superconducting Nanowire Single-photon Detectors for Quantum Information Processing Applications Maria Csete, University of Szeged, Hungary	
17:40-18:40	Poster Session (See Annexure) (P-01 - P-30)	@ University AB Room

Day 2 | Tuesday April 4, 2017

Nanotechnology and Nanosciences Session -2 (Life Sciences & Medicine)

@ Charles Ballroom

- Chairs:** **Stephen D Miller**, Northwestern University Feinberg School of Medicine, USA
Aharon Gedanken, Bar-Ilan University, Israel
- 08:15-08:40 **Antigen-Encapsulated Carboxylated PLG Nanoparticles Promote Therapeutic Tolerance Induction for the Treatment of Autoimmune Disease and Allergy**
Stephen D Miller, Northwestern University Feinberg School of Medicine, USA
- 08:40-09:05 **NanoMOFs a Novel Efficient Tool to Target Lung Cancer**
Christian Serre, PSL Research University, France
- 09:05-09:30 **Making the Hospital a Safer Place by Coating all its Textiles with Antibacterial Nanoparticles**
Aharon Gedanken, Bar-Ilan University, Israel
- 09:30-09:45 **Coffee Break** @ Charles Ballroom
- 09:45-10:10 **Fabrication and Potential Applications of Novel Poly (Ethylene Glycol) Hydrogel Films and Nanomembranes**
Michael Zharnikov, Heidelberg University, Germany
- 10:10-10:35 **Effective Gene Silencing Using Self-Assembled Rosette Nanotubes**
Hicham Fenniri, Northeastern University, USA
- 10:35-11:00 **Hierarchical Fabrication of Gold Nanoparticles with Amyloidogenic Protein of Alpha-synuclein**
Seung R. Paik, Seoul National University, S. Korea
- 11:00-11:20 **Nanocomposites and Nanoparticles: A Versatile Modular Platform for Promoting Bone Regeneration**
Hala Zreiqat, The University of Sydney, Australia
- 11:20-11:40 **Molecular Machines Operating in Nanoworld: Some General Principles**
Igor Goychuk, University of Potsdam, Germany
- 11:40-12:00 **Nanoscale Approaches to Study Molecular Mechanism of Alzheimer's Disease**
Zoya Leonenko, University of Waterloo, Canada
- 12:00-12:20 **Biomimetic Block Copolymer Membranes for Reconstitution of Trans-membrane Proteins**
Michaela Muller, Fraunhofer IGB, Germany
- 12:20-12:40 **Osteoblastic Stimulation of MSCs through Nanoscale Inducement: The Conception of a Novel Osteogenic Bioreactor**
Gabriel D Pemberton, GlaxoSmithKline, UK
- 12:40-13:00 **Single Cell Imaging with Surface Enhanced Raman Scattering**
Laura Fabris, Rutgers University, USA
- 13:00-13:40 **Lunch** @ Restaurant and Boston Room
- Chairs:** **Michael Zharnikov**, Heidelberg University, Germany
Zoya Leonenko, University of Waterloo, Canada
- 13:40-14:00 **Biomimetic Nanopores Fundamental to Applications**
Juan Pelta, Université d'Evry-Val-d'Essonne, France
- 14:00-14:20 **Spectrophotometric Determination of Glucose Using Gold and Silver Nanoparticles**
Junwei Di, Soochow University, China

14:20-14:40	Plasmonic Nanoagents for Controlling Chemical Reaction and Biological Systems in Space and Time Theobald Lohmueller, Ludwig Maximilian University of Munich, Germany	
14:40-15:00	Probing Retinal Physiology with Optoelectronic and Microfluidic Platforms Rebecca M. Sappington, Vanderbilt University Medical Center, USA	
15:00-15:20	Nanopore Sensing - Beyond DNA Sequencing Amit Meller, Israel Institute of Technology, Israel	
15:20-15:30	Coffee Break	@ Charles Ballroom
15:30-15:50	Effect of Doxazosin & Amlodipine on Insulin Release Ghulam Rasool Mashori, Peoples University of Medical & Health Science for Woman, Pakistan	
15:50-16:10	Polymer Mass Spectrometry with a Single Nanopore Abdelghani Oukhaled, Cergy-Pontoise University, France	
16:10-16:30	Accumulation of Quantum Dots in Lymphocytes of Human Blood Svetlana Pleskova, Lobachevsky State University of Nizhny Novgorod, Russia	
16:30-16:50	The Effect of Concurrent Longer Usage of Hypericum Perforatum along with Oral Contraceptives Leads to Infertility Kausar Rehman Khan, University of Karachi, Pakistan	
16:50-17:10	Assembly of Plasmonic Gold Nanoparticle Arrays on Lysozyme Amyloid Scaffolds Tahereh Tohidi Moghadam, Tarbiat Modares University, Iran	
17:10-18:00	Poster Session (See Annexure) (P-31 - P-52)	@Boston Room

Nanotechnology and Nanosciences Session -3 (Applications & Societal Aspects) @ University C Room

Chairs:	Joey Mead, University of Massachusetts Lowell, USA Wilfried Schipper, Temicon GmbH, Germany	
09:00-09:25	Probing the Nanoscale with a Combination of Microscopy and Theory Sokrates T. Pantelides, Vanderbilt University, USA	
09:25-09:50	Scalable Nanomanufacturing Processes for Materials and Polymeric Structures Joey Mead, University of Massachusetts Lowell, USA	
09:50-10:15	State of the Art in Nanotechnology Safety by Design Jo Anne Shatkin, Vireo Advisors, USA	
10:15-10:30	Coffee Break	@Boston Room
10:30-10:55	Roll-2-Roll – Nano – Imprint – Lithography (NIL) – Journey to Seamless, Large Format Functional Film Wilfried Schipper, Temicon GmbH, Germany	
10:55-11:20	Nanomaterials for Sustainable Architecture and Conservation of Cultural Heritage: State of Art and Perspectives Federica Fernandez, IEMEST Euro-Mediterranean Institute of Science and Technology, Italy	
11:20-11:40	Review and Discussion of Recent Regulatory Developments in Europe When it Comes to Nanomaterials Steffen Foss Hansen, Technical University of Denmark, Denmark	
11:40-12:00	Nanocellulose: The Road to Commercialization Jack Miller, Market-Intell LLC, USA	

- 12:00-12:20 **Structure and Properties of Thin Nanowires Produced by Laser Ablation of Metals in Superfluid Helium**
Eugene B. Gordon, Institute of Problems of Chemical Physics, Russia
- 12:20-12:40 **Towards a Discovery Solution for Nanotechnology – Challenges & Prospects**
Prathik Roy, Springer Nature, USA
- 12:40-13:40 **Lunch** @ **Restaurant and Boston Room**
- Chairs:** **Federica Fernandez**, IEMEST Euro-Mediterranean Institute of Science and Technology, Italy
Steffen Foss Hansen, Technical University of Denmark, Denmark
- 13:40-14:00 **Understanding and Application of Spin-Related Phenomena in Organic Semiconductors**
Hyuk-Jae Jang, National Institute of Standards and Technology, USA
- 14:00-14:20 **Plasmonic Nanoresonators to Enhance Diamond Color Center Emission**
Maria Csete, University of Szeged, Hungary
- 14:20-14:40 **C₃N₄/TiO₂ Nanocomposite in Treatment of Water Contaminated with Phenol**
Halema Al-Kandari, Public Authority of Applied Education and Training (PAAET), Kuwait
- 14:40-15:00 **Designing Asymmetry at the Nano Scale by Post-synthesis Modifications; Self- processing Synthesis and *ex-situ* Doping**
Roie Yerushalmi, The Hebrew University of Jerusalem, Israel
- 15:00-15:20 **The Effect of Starvation on Bacterial Survivability in Sand and Evolution of Biofilms: Multi-Scale Study**
Nehal I. Abu-Lail, Washington State University, USA
- 15:20-15:40 **Nano-structured Multicomponent Coatings for Cutting Tools**
Alexey Vereschaka, MSTU STANKIN, Moscow, Russia
- 15:40-16:00 **Coffee Break** @**Boston Room**
- 16:00-16:20 **The Influence of Sol-Gel Process on the Microstructure of Surface and Nanocrystalline TiO₂ for Ti-Si Binary Oxide**
Lu-Yan Wang, Beijing University of Chemical Technology, China
- 16:20-16:40 **Graphene Supporting Graphitic Carbon Nitride as Novel Electrochemiluminescence Platform and it's Application in Ultrasensitive Detection of Chlorinated Phenols**
Shanli Yang, China Academy of Engineering Physics, China
- 16:40-17:00 **Batch and Continuous Photocatalytic Degradation of 4-chlorophenol Using Ag Core - TiO₂ Shell Structured Nanoparticles**
Vidya Shetty K, National Institute of Technology Karnataka Surathkal, India
- 17:00-18:00 **Poster Session (See Annexure) (P-31 - P-52)** @**Boston Room**

Nanotechnology and Nanosciences Session -4 (Energy & Environment)

@ **University AB Room**

- Chairs:** **Katsumi Kaneko**, Shinshu University, Japan
Tadeusz Burczynski, Polish Academy of Sciences, Poland
- 08:15-08:40 **Using Nanostructures to Tailor Thermal and Solar Radiation**
Gang Chen, Massachusetts Institute of Technology, USA
- 08:40-09:05 **Directing Charge Transfer in Nanoparticle Assemblies**
David Waldeck, University of Pittsburgh, USA
- 09:05-09:30 **New Aspects on Nanostructured Colloid-Interface Engineering**
Katsumi Kaneko, Shinshu University, Japan

- 09:30-09:55 **Plasmonic and Perovskite Nanostructures for Advanced Optoelectronic Devices**
Dong Ha Kim, Ewha Womans University, S. Korea
- 09:55-10:10 **Coffee Break** @Boston Room
- 10:10-10:35 **Soft Matter Based Hypersonic Phononic Structures**
George Fytas, Max Planck Institute for Polymer Research, Germany
- 10:35-11:00 **Design of New Flat Nanomaterials Based on Carbon**
Tadeusz Burczynski, Polish Academy of Sciences, Poland
- 11:00-11:25 **Electrochemical Synthesis of Energy Related Materials**
Lidija D. Rafailovic, Centre of Electrochemical Surface Technology, Austria
- 11:25-11:50 **Metal Sulfide@Graphene@Nickel Foam Nanocomposites for Supercapacitor Electrodes**
Jae-Jin Shim, Yeungnam University, S. Korea
- 11:50-12:10 **A Dissolution-Recrystallization-Assisted Electrospinning Method to Improve Lithium-Ion Storage Performance of Zn₂GeO₄**
Jingping Zhang, Northeast Normal University, China
- 12:10-12:30 **Sub-100 nm Semiconductor Tubular Architectures for Efficient Solar Fuel Generation**
Nageh K. Allam, The American University in Cairo, Egypt
- 12:30-12:50 **Highly Active Electrocatalysts with Novel Nanostructures**
Shuo Chen, University of Houston, USA
- 12:50-13:10 **Investigation of Surface and Interface Properties in Photoelectrodes for Solar Fuels**
Yan-Gu Lin, National Synchrotron Radiation Research Center, Taiwan
- 13:10-14:00 **Lunch** @ Restaurant and Boston Room
- Chairs:** George Fytas, Max Planck Institute for Polymer Research, Germany
Jae-Jin Shim, Yeungnam University, S. Korea
- 14:00-14:20 **2D Nanomaterials for Energy Conversion**
Balaji Panchapakesan, Worcester Polytechnic Institute, USA
- 14:20-14:40 **Hybrid Glass-fiber/epoxy Composites with Graphene or Carbon Nanotubes as Radar Absorbing Materials**
Sandro Campos Amico, Federal University of Rio Grande do Sul, Brazil
- 14:40-15:00 **Nanocrystalline and Metastable AA' Graphite**
Jae-Kap Lee, Korea Institute of Science and Technology, S. Korea
- 15:00-15:20 **Free-standing and Flexible MnO₂/Carbonized Cotton Textile Electrode with Tunable Morphology and Electrochemical Property for Supercapacitors**
Yani Zhang, Northwestern Polytechnical University, China
- 15:20-15:40 **Charge Separation and Transport in Functional Heterojunctions Based on Solution-Grown TiO₂ Nanotube & Nanowire Arrays**
Karthik Shankar, NRC National Institute of Nanotechnology, Canada
- 15:40-16:00 **Coffee Break** @Boston Room
- 16:00-16:20 **Combining Solar Steam Processing and Solar Distillation for Off-grid Production of Cellulosic Bioethanol**
Oara Neumann, Rice University, USA
- 16:20-16:40 **Nanoparticle-embedded Nanofibers in Highly Permselective Osmotic Membranes for Sustainable Water and Energy**
Ngoc Bui, Lawrence Livermore National Laboratory, USA

16:40-17:00	Reduction of Coliforms Presents in Domestic Residual Waters by Air-Ozone Micro-Nanobubbles in Carhuaz City, Peru Jhonny Valverde, Universidad Cesar Vallejo, Peru	
17:00-17:20	Assessment of the Optical and Solid State Properties of Manganese Sulphide (MnS) Thin Film: Theoretical Approach Emmanuel Ifeanyi Ugwu, Ebonyi State University, Nigeria	
17:00-18:00	Poster Session (See Annexure) (P-31 - P-52)	@Boston Room

Day 3 | Wednesday April 5, 2017

Nanotechnology and Nanosciences Session -5 (Life Sciences & Medicine)

@ Charles Ballroom

	Chairs: Christian Riekkel, European Synchrotron Radiation Facility, France Chuan-Jian Zhong, State University of New York at Binghamton, USA	
08:15-08:40	Nanotechnology in Detection of Cancer Biomarkers Chuan-Jian Zhong, State University of New York at Binghamton, USA	
08:40-09:00	Nanostructured Electrochemical Sensors: Direct Current vs. Alternating Current Strategies for the Detection of Molecules in Biomedical Applications Sergio Blanco, Industrial University of Santander, Colombia	
09:00-09:20	Electrical Properties and Sensor Applications of a Tube-in-a-Tube Nanostructure YuHuang Wang, University of Maryland, USA	
09:20-09:40	Scalable Synthesis of Next Generation Magnetic Lipid Nanoparticles Souvik Biswas, Moderna Therapeutics, USA	
09:40-10:00	Pharmacological and Toxicological Studies of Azathioprine Loaded Chitosan Based Nanoparticles Jagadeesh S Sanganal, Veterinary College-Hebbal, India	
10:00-10:20	Bio-toxic Effects of Widely Applied Metal Oxide Nanoparticles and their Underlying Mechanisms Yanli Wang, Shanghai University, China	
10:20-10:40	Nanocarbon-bio Hybrid Materials: Chemistry and Applications Xiaowu (Shirley) Tang, University of Waterloo, Canada	
10:40-11:00	Coffee Break	@ Charles Ballroom

Emerging Researchers Forum Session-1

@ Charles Ballroom

	Chairs: Christian Riekkel, European Synchrotron Radiation Facility, France Aharon Gedanken, Bar-Ilan University, Israel	
11:00-11:15	Using a Sub-nanopore to Discriminate Residue Substitutions in a Single Protein Molecule Zhuxin Dong, University of Notre Dame, USA	
11:15-11:30	Detection and Imaging of Quorum Sensing in <i>Pseudomonas aeruginosa</i> Biofilm Communities by Surface Enhanced Resonance Raman Spectroscopy Gustavo Bodelon Gonzalez, Universidade de Vigo, Spain	
11:30-11:45	Biomedical Applications of Superparamagnetic Iron Oxide Nanoparticles Jakub Rybka, Adam Mickiewicz University in Poznań, Poland	

- 11:45-12:00 **Selective Formation of Aluminium/Copper Nanocomposite Particles from Acid Mine Drainage using Nanoscale Zerovalent Iron Particles**
Richard Crane, Cardiff University, UK
- 12:00-12:15 **The Influence of KIT-6 Pore Size of 3D-MnO₂ for Ethanol Catalytic Oxidation**
Binyang Bai, Chinese Research Academy of Environmental Sciences, China
- 12:15-12:30 **Fabrication of Novel FeOOH/Cu₂O Nanostructures for Enhanced Solar Hydrogen Application**
Po-Yang Peng, National Synchrotron Radiation Research Center, Taiwan
- 12:30-12:45 **Facile Preparation of Metal Layers on Photo-curable Polymers for 3D Printing Materials**
Hyunseung Yang, Korea Electronics Technology Institute, S. Korea
- 12:45-13:00 **Bioinspired - Soft (small) Robots**
Hao Zeng, Tampere University of Technology, Finland
- 13:00-13:45 **Lunch** @ Restaurant and Boston Room
Chairs: Rajan Jose, Universiti Malaysia Pahang, Malaysia
YuHuang Wang, University of Maryland, USA
- 13:45-14:00 **Transparent Conductive Graphene-Coated Textile Fibres as a Platform for Wearable Electronics**
Ana Neves, University of Exeter, UK
- 14:00-14:15 **How do you Control the Morphology of Carbon Fibers?**
Manoko S. Maubane, University of The Witwatersrand, South Africa
- 14:15-14:30 **Novel Catalyzation Technique for Improving the Hydrogenation / Dehydrogenation Behavior of Nanocrystalline MgH₂ Powders**
Fahad Aldakheel, Kuwait Institute for Scientific Research, Kuwait
- 14:30-14:45 **Development of High-performance Stainless Steel Nanocomposites by Additive Manufacturing**
Bandar AlMangour, Harvard University, USA
- 14:45-15:00 **Porous Silicon Waveguides - A Sensor Platform**
Paul Clarkson, University of Cambridge, UK
- 15:00-15:15 **Multifunctional Nitride Nanocomposites Through Chemistry of Pre-ceramic Polymers**
Abhijeet Lale, University of Montpellier, France
- 15:15-15:30 **Exergoeconomic and Environmental Analysis of a Fe-Nanocomposite Thermal Energy Storage Integrated Flat-Plate Solar Collector Systems Operated with FeO₂ Nanofluid**
Afolabi Lukmon Owolabi, University Technology PETRONAS, Malaysia
- 15:30-15:45 **Enhanced Solar Water Splitting on Ag modified Titanium Oxynitride Nano-tube Arrays**
Khaled Soliman, Qatar University, Qatar
- 15:45-16:00 **Sandwich Structure as Photocathode for Solar Hydrogen Application**
Yu-Chang Lin, National Chiao Tung University, Taiwan
- 16:00-16:15 **Theoretical and DFT Analysis of the CO Adsorption Mechanism Late Transition Metal Surfaces**
Icell Sharafeldin, The American University in Cairo, Egypt
- 16:15-16:30 **Concluding Remarks by NWC 2017 Chairman Claudio Ando Nicolini** @ Charles Ballroom
- 16:30- **Departures**

Nanotechnology and Nanosciences Session -6 (Energy & Environment)

@ University AB room

- Chairs:** **Anilkumar P. Thakoor**, California Institute of Technology, USA
Junzhong Wang, Chinese Academy of Sciences, China
- 08:15-08:40 **Novel Methods (Microwave and Sonochemistry) for Converting Biomass to Biofuels**
Aharon Gedanken, Bar-Ilan University, Israel
- 08:40-09:05 **Graphene-Based Organic Photovoltaics**
Hicham Fenniri, Northeastern University, USA
- 09:05-09:25 **Electrochemically Exfoliated Graphene Materials: Scalable Synthesis and High Performances**
Junzhong Wang, Chinese Academy of Sciences, China
- 09:25-09:45 **All Carbon Nanotubes and Carbon Nanotube - Si Hybrid Solar Cells**
Igor A. Levitsky, Emitech Inc., USA
- 09:45-10:00 **Coffee Break** @Boston Boardroom
- 10:00-10:20 **Variation of the Raman Scattering Spectra of Monolayer Graphene Samples Subjected to Irradiation by Heavy and Light Ions, Ageing and Annealing**
Issai Shlimak, Bar Ilan University, Israel
- 10:20-10:40 **Hybrid Nanomaterials for Electrodes of Supercapacitors**
Glaura Goulart Silva, Universidade Federal de Minas Gerais, Brazil
- 10:40-11:00 **From Shearable Carbon Nanotube Films to Torsionable Supercapacitors**
Lianxi Zheng, Khalifa University, UAE
- 11:00-11:20 **Micro-magnetic Properties of Nano-magnetites by Using Magnetic Force Microscopy**
Yen-Hua Chen, National Cheng Kung University, Taiwan
- 11:20-11:40 **Phenomena of Interfacial Spontaneous Chemical Reactions – The Way to Improve the Diamond Tools Performance**
Daria Sidorenko, National University of Science and Technology “MISIS”, Russia
- 11:40-12:00 **Engineering DNA Nanodynamics to Measure Sub-picoNewton Forces**
Michael Hudoba, Otterbein University, USA
- 12:00-12:20 **Multifunctional Multicomponent Nanowires for Energy Conversion and Storage**
Rajan Jose, Universiti Malaysia Pahang, Malaysia
- 12:20-12:40 **Topological Materials**
Hsin Lin, National University of Singapore, Singapore
- 12:40-13:45 **Lunch** @ Restaurant and Boston Room

Emerging Researchers Forum Session-2

@University AB room

- Chairs:** **Eugenia Pechkova**, Genova University, Italy
Svetlana Pleskova, Lobachevsky State University of Nizhny Novgorod, Russia
- 13:45-14:00 **Electrodeposition of Highly Luminescent Tb Incorporated Si Nanowires from Room Temperature Ionic Liquids**
Shibin Thomas, Universite de Reims Champagne-Ardenne, France
- 14:00-14:15 **Electrochromic/supercapacitive Dual Functional Fibers**
Yang Zhou, Deakin University, Australia
- 14:15-14:30 **Synthesis and Highly Effective Purification of Silver Nanowires to Enhance the Transmittance at Low Sheet Resistance with Simple Polyol and Scalable Selective Precipitation Method**
Molla Bahiru Gebeyehu, National Taiwan University of Science and Technology, Taiwan

14:30-14:45	Risk-Based and Prevention-Based Methods for Nanomaterial Governance Benjamin Trump, US Army Engineer Research and Development Center, USA
14:45-15:00	Fabrication of Copper Pattern on Flexible Substrate by Solvent-free Dry Deposition Method Yunchan Park, Hanyang University, S. Korea
15:00-15:15	Nonlinear Optical Properties and Photoacoustic Studies of Copper Oxide Nanoparticles Vijayakumar Sadasivan Nair, University of Massachusetts Boston, USA
15:15-15:30	A Novel Electrochemical and Bio-sensing Platform Based on Freestanding Graphene Paper Supported MoS₂-Cu Composites for Lactate and Glucose Monitoring in Human Zhengyun Wang, Huazhong University of Science and Technology, China
15:30-15:45	Design Hierarchical Fe₃O₄/N-doped Mesoporous Hollow Core-Shell Carbon Spheres as a Highly Active Electrocatalyst for the Oxygen Reduction Haitao Wang, Huazhong University of Science and Technology, China
16:15-16:30	Concluding Remarks by NWC 2017 Chairman Claudio Ando Nicolini @ Charles Ballroom
16:30-	Departures

Poster Session – Annexure

- P - 01 Metastable-Zr₂Ni Alloy Powders for Enhancing the Absorption/Desorption Kinetics of MgH₂ System**
Fahad Aldakheel, Kuwait Institute for Scientific Research, Kuwait
- P - 02 Optimization of Nano Silica Production by Diatom Navicula: Effect of Nitrate**
Dev R Udata, Valley Catholic School, USA
- P - 03 Development of Advanced Chitosan-Based Gadodiamide Nanoparticle for Highly Efficient MRI Diagnosis**
Yiping Ko, National Chiao Tung University, Taiwan
- P - 04 Electrospun Nanofibrous Scaffolds: Towards Enhanced Tissue-Engineered Heart Valves [TEHVs]**
Dina Mohsen Ibrahim, The American University in Cairo, Egypt
- P - 05 Exfoliated MoS₂ Mixed in Butyl Rubber to Enhance Gas Barrier and Mechanical Properties**
Chi-Yang Tsai, National Taiwan University of Science and Technology, Taiwan
- P - 06 Synthesis of Block CoPolymer with Diacetylene Junction for Stabilization of BCP Interface via Photo-crosslinking**
Chun-Kai Chang, National Chiao Tung University, Taiwan
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