

## TUESDAY – FEBRUARY 16, 2016

08h00-09h00	<b>Registration</b>	
	<b>nanoPT2016 Opening Ceremony - Welcome and Introduction</b>	
09h00-09h15	<b>Manuel Heitor:</b> Minister of Science, Technology and Higher Education of Portugal (Portugal) <b>Lars Montelius:</b> Director General, INL (Portugal) <b>Antonio Correia:</b> President, Phantoms Foundation (Spain)	
09h15-09h45	<b>Christoph Gerber</b> (Basel University, Switzerland) <i>"Pushing the boundaries in personalized healthcare with AFM technology"</i>	K
09h45-10h15	<b>Jim Gimzewski</b> (California Nanosystems Institute and UCLA, USA) <i>"Development of a Brain-like Computation system using Atomic Switch Networks"</i>	K
10h15-10h45	<b>Federico Capasso</b> (Harvard Paulson School, USA) <i>"Metasurfaces: New Frontiers in Structured light and Surface Waves"</i>	K
10h45-11h15	<b>Coffee Break - Poster Session &amp; Instrument Exhibition</b>	
11h15-11h45	<b>Thomas Laurell</b> (Lund University, Sweden) <i>"Acoustic seed-trapping enables rapid enrichment and purification of nanovesicles involved extracellular signalling"</i>	K
11h45-12h15	<b>Stella W. Pang</b> (City University Hong Kong, China) <i>"Nanofabricated Platforms for Biosensing and Cell Control"</i>	K
12h15-12h30	<b>João Gomes</b> (CENTI, Portugal) <i>"Development of fully bioresponsive printed sensors: exploring the electronic tongue concept for specific analytes"</i>	O
12h30-12h45	<b>Maria Sá</b> (Biomark-CINTESIS/ISEP, Portugal) <i>"Carbon Black modification towards electrochemical biosensors"</i>	O
12h45-13h00	<b>Ana-Maria Chiorcea-Paquim</b> (University of Coimbra, Portugal) <i>"Quadruplex formation between a triazole-acridine conjugate and guanine-containing repeat DNA sequences. Atomic force microscopy and voltammetric characterisation"</i>	O
13h00-14h30	<b>Cocktail Lunch (offered by nanoPT2016) - Poster Session &amp; Instrument Exhibition</b>	
14h30-15h00	<b>Christophe Vieu</b> (LAAS-CNRS, France) <i>"Investigation of cell mechanics using nanodevices and nano-instruments: some examples"</i>	K
15h00-15h20	<b>Inês Pinto</b> (INL, Portugal) <i>"Cell Dynamics: actomyosin-based force generating systems"</i>	I
15h20-15h40	<b>Chen-zhong Li</b> (Florida International University, USA) <i>"Nanoparticle Enhanced Electromagnetic Control of Cancer Cell Development for Nanotheranostics"</i>	I
15h40-15h55	<b>Mónica López Fanarraga</b> (Universidad de Cantabria, Spain) <i>"Anti-tumoral effects of MWCNTs in solid melanoma tumor models"</i>	O
15h55-16h15	<b>Lorenzo Pastrana</b> (INL, Portugal) <i>"Nanostructures for food applications"</i>	I
16h15-16h55	<b>Coffee Break - Poster Session &amp; Instrument Exhibition</b>	
16h55-17h15	<b>Dmitri Y. Petrovykh</b> (INL, Portugal) <i>"Design and Characterization of DNA and Peptide Biointerfaces"</i>	I
17h15-17h30	<b>Duarte Miguel Prazeres</b> (iBB, Universidade de Lisboa, Portugal) <i>"Carbohydrate binding modules as a generic tool to anchor biomolecules and metal nanoparticles"</i>	O
17h30-17h45	<b>João Pedro Silva</b> (Center for Biological Engineering, University of Minho, Portugal) <i>"Antimicrobial peptide delivery from self-assembling Hyaluronic acid Nanoparticles for tuberculosis treatment"</i>	O
17h45-18h00	<b>Ana Raquel Madureira</b> (Universidade Católica do Porto, Portugal) <i>"NanoDairy Project: delivery systems of bioactive polyphenolic compounds to dairy matrices. Evaluation of stability, bioavailability and toxicity"</i>	O
18h00-18h15	<b>Amiram Goldblum</b> (The Hebrew University of Jerusalem, Israel) <i>"Computational Discovery of Liposomal Drugs: From in silico predictions to in vivo validation"</i>	O
18h15-18h30	<b>Sofia A. Costa Lima</b> (UCIBIO-REQUIMTE, University of Porto, Portugal) <i>"Nanostructured Lipid Carriers: a new approach for Psoriasis topical therapy"</i>	O
18h30-18h45	<b>Olivier Sandre</b> (LCPO (Univ. Bordeaux / CNRS / Bordeaux-INP), France) <i>"Iron oxide nanoparticles grafted with thermosensitive polymers and diblock elastin-like peptides studied by in situ dynamic light backscattering under magnetic hyperthermia"</i>	O
18h45-19h00	<b>Manuel Pernia Leal</b> (Bionand (Andalusian Centre for Nanomedicine and Biotechnology), Spain) <i>"Optimization of blood circulating times of magnetic nanoparticles based on the effect of PEG molecular weight coating and nanoparticle size followed by Magnetic Resonance Imaging"</i>	O
19h00-19h30	<b>Brian A. Korgel</b> (UT Austin, USA) <i>"Silicon and Germanium Nanowires for Lithium and Sodium Ion Batteries"</i>	K
19h30-20h30	<b>Port Wine Tasting</b>	

K: Keynote lecture / I: Invited lecture / O: Oral contribution

## WEDNESDAY – FEBRUARY 17, 2016

09h00-09h30	<b>Klaus Müllen</b> (Max Planck Institute for Polymer Research, Germany) <i>"How to Make and how to Use Carbon Nanostructures"</i>	K
09h30-09h45	<b>Anumol Ashokkumar</b> (INL, Portugal) <i>"Advanced Electron Microscopy Study of GdX<sub>3</sub>@WS<sub>2</sub> Nanotubes"</i>	O
09h45-10h00	<b>Pedro Costa</b> (King Abdullah University of Science and Technology, Saudi Arabia) <i>"Quantifying impurities in Nanocarbons using ICP-OES"</i>	O
10h00-10h15	<b>Ladislav Kavan</b> (J. Heyrovsky Institute of Physical Chemistry, Czech Republic) <i>"Advanced Nanocarbons (Graphene, Nanodiamond and Beyond) as the Electrode Materials in Dye-Sensitized Solar Cells"</i>	O
10h15-10h30	<b>Marketa Zukalova</b> (J. Heyrovsky Institute of Physical Chemistry, ASCR, Czech Republic) <i>"Li (Na) insertion in TiO<sub>2</sub> polymorphs and their composites with graphene for battery applications"</i>	O
10h30-11h00	<b>Coffee Break - Poster Session &amp; Instrument Exhibition</b>	
11h00-11h15	<b>Jose L. Lado</b> (INL, Portugal) <i>"Large scale calculations of electronic structure of 2D Crystals"</i>	O
11h15-11h30	<b>Noel A. Garcia-Martinez</b> (INL, Portugal) <i>"Hyperfine interaction in hydrogenated graphene"</i>	O
11h30-11h45	<b>Alok Shukla</b> (Indian Institute of Technology, India) <i>"Theory of Electronic Structure and Optical Properties of Graphene Nanodisks"</i>	O
11h45-12h00	<b>Bora Karasulu</b> (Eindhoven University of Technology (TU/e), The Netherlands) <i>"Atomic-Scale Simulations of High-K Dielectrics Deposition on Graphene"</i>	O
12h00-12h30	<b>Nuno Peres</b> (University of Minho, Portugal) <i>"Basic Notions in Graphene Plasmonics"</i>	K
12h30-13h00	<b>Rodolfo Miranda</b> (IMDEA Nanociencia, Spain) <i>"Tailoring graphene for spintronics"</i>	K
13h00-14h30	<b>Lunch</b>	
14h30-14h50	<b>Eduardo Castro</b> (IST, Portugal) <i>"Phases with non-trivial topology in graphene and transition metal dichalcogenides"</i>	I
14h50-15h10	<b>Tatyana Makarova</b> (LUT, Finland) <i>"Tabby graphene: realization of zigzag edge states at the interfaces"</i>	I
15h10-15h30	<b>Pablo San José</b> (ICMM-CSIC, Spain) <i>"Majorana Zero Modes in Graphene"</i>	I
15h30-16h30	<b>Poster Session</b>	
16h30-17h00	<b>Coffee Break</b>	
17h00-19h24	<b>PARALLEL SESSION I</b>	<b>PARALLEL SESSION II</b>
21h00	<b>Conference Dinner</b>	
<b>PARALLEL SESSION I</b>		
17h00-17h12	<b>Bruno Amorim</b> (University of Minho, Portugal) <i>"Vertical current in graphene – insulator/semiconductor – graphene structures"</i>	O
17h12-17h24	<b>Liliana Carneiro</b> (BioMark/CINTESIS/ISEP, Portugal) <i>"Functionalization of Single-Walled Carbon Nanohorns for Biosensor Applications"</i>	O
17h24-17h36	<b>Eunice Cunha</b> (University of Minho, Portugal) <i>"Non-covalent exfoliation of graphite in aqueous suspension for nanocomposite production with waterborne polyurethane"</i>	O
17h36-17h48	<b>George Luiz Machado Junior</b> (INL, Portugal) <i>"A comparison of graphene electrochemical sensors and electrolyte-gated field-effect transistors as label-free immunosensors"</i>	O
17h48-18h00	<b>João Albuquerque</b> (ICETA/UCIBIO/REQUIMTE/FFUP, Portugal) <i>"Multifunctional Solid Lipid Nanoparticles: a targeted approach for Rheumatoid Arthritis with theranostic applications"</i>	O
18h00-18h12	<b>Ana Rita Cardoso</b> (BioMark/CINTESIS-ISEP, Portugal) <i>"Immune response for Malaria detected by novel and a simple biosensing approach"</i>	O
18h12-18h24	<b>Ernest Moles Meler</b> (Institute for Bioengineering of Catalonia, Spain) <i>"Immunoliposome-mediated drug delivery to Plasmodium-infected and non-infected red blood cells as a dual therapeutic/prophylactic antimalarial strategy"</i>	O
18h24-18h36	<b>Ana Rita O. Rodrigues</b> (University of Minho, Portugal) <i>"Magnetoliposomes based on manganese ferrite nanoparticles as nanocarriers for antitumor drugs"</i>	O
18h36-18h48	<b>Liliana Truta</b> (BioMark-CINTESIS/ISEP, Portugal) <i>"The potential of artificial antibodies as biosensing devices for monitoring the Interleukin 2 cancer biomarker"</i>	O
18h48-19h00	<b>Carolina Hora</b> (Biomark-CINTESIS/ISEP, Portugal) <i>"Development of an autonomous electrical biosensing device for a colon-rectal cancer protein marker"</i>	O
19h00-19h12	<b>Noelia Guldris</b> (INL, Portugal) <i>"Ultra-small Doped Iron Oxide Nanoparticles as Dual T<sub>1</sub>-T<sub>2</sub> Contrast Agents for MRI"</i>	O

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PARALLEL SESSION II		
17h00-17h12	<b>Nádia S. Ferreira</b> (BioMark-CINTESIS/ISEP, Portugal) <i>"Carbon Black modification for polymer anchoring targeting fuel cell powered biosensors"</i>	O
17h12-17h24	<b>Catarina B. Marques</b> (Universidade Nova de Lisboa, Portugal) <i>"V<sub>2</sub>O<sub>5</sub> thin film for high sensitivity flexible and transparent thermal sensors"</i>	O
17h24-17h36	<b>Juliana Marques</b> (University of Minho, Portugal) <i>"Advanced Photocatalytic Heterostructured Materials for the Controlled Release of Active Compounds upon Solar Activation"</i>	O
17h36-17h48	<b>Gabriela Martins</b> (Biomark-CINTESIS/ISEP, Portugal) <i>"Chip-on-Paper for sensing 8-hydroxy-2'-deoxyguanosine (8-OHdG) oxidative stress biomarker in point-of-care"</i>	O
17h48-18h00	<b>Luis Pascual i Vidal</b> (Universitat Politècnica de València - IDM, Spain) <i>"DNA-gated material as simultaneous drug delivery and radioimaging tool"</i>	O
18h00-18h12	<b>Tânia V. Pinto</b> (REQUIMTE/LAQV, Universidade do Porto, Portugal) <i>"Photoswitchable silica nanoparticles for the production of light responsive smart textiles: from fabrication to coating technology"</i>	O
18h12-18h24	<b>Ana Filipa Soares Pires</b> (FCT, Universidade Nova de Lisboa, Portugal) <i>"Catechins: a powerful weapon against oxidative stress and DNA lesions"</i>	O
18h24-18h36	<b>Nan Guan</b> (Institut d'Electronique Fondamentale, Université Paris-Saclay, France) <i>"Flexible White Light-Emitting Diodes Based on Vertical Nitride Nanowires and micro-size phosphors"</i>	O
18h36-18h48	<b>Bruno M.S. Teixeira</b> (University of Aveiro, Portugal) <i>"Effect of spin reorientation transition in NdCo<sub>5</sub>/Fe bilayers"</i>	O
18h48-19h00	<b>Enrico Domenico Lemma</b> (Istituto Italiano di Tecnologia & Università del Salento, Italy) <i>"Static and Dynamic Mechanical Characterization of Two-photon Lithography Photoresists"</i>	O
19h00-19h12	<b>Jennifer P. Teixeira</b> (I3N, University of Aveiro, Portugal) <i>"Evaluation of CdS and Zn<sub>x</sub>Sn<sub>1-x</sub>O<sub>2</sub> buffer layers in CIGS solar cells"</i>	O
THURSDAY – FEBRUARY 18, 2016		
09h15-09h30	<b>Francisco Jorge Caldeira</b> (CiiEM ISCSEM, Portugal) <i>"Inhibitors Design for matrix metalloproteinase's A molecular view for Dental Restoration"</i>	O
09h30-09h45	<b>Jose Miguel Garcia-Martin</b> (CSIC/IMM, Spain) <i>"Nanostructured biocompatible coatings to prevent implant infections"</i>	O
09h45-10h00	<b>Daniela Ribeiro</b> (ICETA/UCIBIO/REQUIMTE/FFUP, Portugal) <i>"Biophysical Properties of Model Membranes under the Effect of Daunorubicin"</i>	O
10h00-10h15	<b>Ian A. Nicholls</b> (Linnaeus University/Uppsala University, Sweden) <i>"Hierarchical materials: rational design and application in sensing and biomaterials development"</i>	O
10h15-10h30	<b>Valery Pavlov</b> (CIC BiomaGUNE, Spain) <i>"Teaching enzymes to generate and etch semiconductor nanoparticles"</i>	O
10h30-11h00	<b>James Alexander Liddle</b> (NIST, USA) <i>"Nanofabrication: From DNA-Directed Assembly to Volume Nanomanufacturing"</i>	K
11h00-11h30	Coffee Break	
11h30-12h30	Poster Session	
12h30-12h45	<b>Sofia Azevedo</b> (GPPQ - Portuguese Framework Promotion Office, Portugal) & <b>Carlos Pereira</b> (FCT, Portugal). <i>"H2020 and ERA-Nets funding opportunities"</i>	O
12h45-13h00	<b>Pieter De Beule</b> (INL, Portugal) <i>"Novel imaging devices for optical and mechanical characterization of supported lipid bilayers at the nanoscale"</i>	O
13h00-13h15	<b>Carmen Pettersson</b> (JPK Instruments AG, Germany) <i>"Easy-to-Use High-Spatial and High-Temporal Atomic Force Microscopy Simultaneous to Advanced Optical Microscopy"</i>	O
13h15-13h30	<b>Bernardo Pires</b> (INESC-MN, Portugal) <i>"High Precision Methodology Control for Nano MTJ Fabrication Process up to 150 mm Wafers"</i>	O
13h30-13h45	<b>Eric Pellegrin</b> (CELLS-ALBA / Experiments Division, Spain) <i>"The ALBA Synchrotron Licht Source: A Tool for Nanoscience"</i>	O
13h45-15h15	Lunch	
15h15-15h30	<b>Patrik Bjöörn</b> (Insplosion AB, Sweden) <i>"Plasmonic Sensing Technology for Nanomaterial Studies"</i>	O
15h30-15h45	<b>Adi Salomon</b> (Bar-Ilan University, Israel) <i>"Strong Coupling in Plasmonic systems and their Interaction with Molecules"</i>	O
15h45-16h00	<b>Yossi Paltiel</b> (The Hebrew University of Jerusalem, Israel) <i>"Chiral-molecules based simple spin devices"</i>	O
16h00-16h20	<b>Ricardo Ferreira</b> (INL, Portugal) <i>"Magnetoresistive Sensors aiming room temperature detection of biomagnetic fields"</i>	I
16h20-16h50	<b>Niek van Hulst</b> (ICFO, Spain) <i>"NanoPhotonics: ultrafast control of nanoparticles, nanoantennas and single quantum emitters"</i>	K

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16h50-17h20	<b>Andres Castellanos-Gomez</b> (IMDEA Nanoscience, Spain) <i>"2D Semiconductors for Optoelectronics Applications"</i>	K
17h20-17h40	<b>Choon-Gi Choi</b> (Electronics and Telecommunications Research Institute (ETRI), Korea) <i>"Extraordinary optical properties of visible and terahertz metamaterials"</i>	I
17h40-18h15	Coffee Break - Poster Session & Instrument Exhibition	
18h15-19h00	START-UPS Session	
FRIDAY – FEBRUARY 19, 2016		
09h00-09h15	<b>Bergoi Ibarlucea</b> (TU Dresden/Institute for Material Science, Germany) <i>"Honeycomb-nanowire field-effect transistors for bacterial activity determination in non-diluted growth media"</i>	O
09h15-09h30	<b>Wei Li</b> (INL, Portugal) <i>"Cobalt nickel phosphide nanowires on the nickel foam as a highly efficient and ultrastable bifunctional catalyst for overall water splitting"</i>	O
09h30-09h45	<b>Sascha Sadewasser</b> (INL, Portugal) <i>"Growth of CuInSe<sub>2</sub> nanowires by molecular beam epitaxy without external catalyst"</i>	O
09h45-10h15	<b>Lars Samuelson</b> (Lund University, Sweden) <i>"From basic Nanowire research to real-world applications"</i>	K
10h15-10h45	Coffee Break - Poster Session & Instrument Exhibition	
10h45-11h15	<b>Gabi Grütznier</b> (micro resist technology GmbH, Germany) <i>"Material Innovations Enabling Advanced Nanofabrication for Lab to Fab Application"</i>	K
11h15-11h45	<b>Francisco Rivadulla Fernández</b> (University of Santiago de Compostela, Spain) <i>"Fabrication of high-quality epitaxial thin-films of functional oxides by a chemical solution method"</i>	K
11h45-12h00	<b>Joana Loureiro</b> (UNINOVA, Portugal) <i>"Thermoelectric properties optimization of nc-Si:H thin films deposited by PECVD"</i>	O
12h00-12h15	<b>Cláudia G. Silva</b> (Laboratório Associado LSRE-LCM, Portugal) <i>"Au/ZnO nanostructures for photocatalytic applications"</i>	O
12h15-12h45	<b>Helmut Schiff</b> (Paul Scherrer Institut (PSI), Switzerland) <i>"Patterning of DLC leaky waveguide sensors using nanoimprint lithography"</i>	K
12h45-13h00	<b>Miguel Ribeiro</b> (CeNTI - Centre for Nanotechnology and Smart Materials, Portugal) <i>"Large area, flexible electrochromic displays based on novel electroactive polymers"</i>	O
13h00-14h30	Lunch	
14h30-15h00	<b>Francesc Pérez-Murano</b> (IMB-CNM/CSIC, Spain) <i>"Directed self-assembly of block co-polymers: chemical guiding patterns and advanced nanometer-scale characterization"</i>	K
15h00-15h15	<b>Juan Gallo</b> (INL, Portugal) <i>"Tuning the relaxation rates of dual mode T<sub>1</sub>/T<sub>2</sub> nanoparticle contrast agents: a study into the ideal system"</i>	O
15h15-15h30	<b>María Luz Rodríguez Méndez</b> (Universidad de Valladolid, Spain) <i>"Antioxidants detection with nanostructured electrochemical sensors"</i>	O
15h30-15h45	<b>Laura M. Salonen</b> (INL, Portugal) <i>"Covalent Organic Frameworks for the Capture of Waterborne Toxins"</i>	O
15h45-16h00	<b>Carla Silva</b> (CeNTI - Centre for Nanotechnology and Smart Materials, Portugal) <i>"Development of fibers and textiles structures for energy harvesting and storage"</i>	O
16h00-16h15	<b>Xiaoguang Wang</b> (INL, Portugal) <i>"Facile construction of 3D integrated nickel phosphide composite as wide pH-tolerant electrode for hydrogen evolution reaction"</i>	O
16h15-16h45	<b>Michel Despont</b> (CSEM, Switzerland) <i>"MEMS are a watch's best friend"</i>	K
16h45	Closing remarks and nanoPT2017 announcement	

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