PLENARY SPEAKERS

Anne M. Andrews, University of California, Los Angeles, Los Angeles, CA, USA
Andrea Ferrari, University of Cambridge, UK
Michael Graetzel, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland
Antonios G. Mikos, Rice University, Houston, Texas, USA
Paul S. Weiss, UCLA, Los Angeles, USA

INVITED SPEAKERS

Thomas Anthopoulos, KAUST, Thuwal, Saudi Arabia
Sophia G. Antimisiaris, University of Patras, & FORTH/ICE-HT, Patras, Greece
Christophe Bernard, Institut de Neuroscience des Systèmes, Inserm, Marseille, France
Francesco Bonaccorso, IIT, Genova, Italy
Cinzia Casiraghi, University of Manchester, Manchester, UK
Insung S. Choi, KAIST, Daejeon, Korea
Stelios A. Choulis, Cyprus University of Technology Limassol, Cyprus
Luigi Colombo, University of Texas at Dallas, USA
Juan-Pablo Correa-Baena, MIT, Cambridge, MA, USA
Aldo Di Carlo, University of Rome Tor Vergata, Italy and "MISiS", Moscow, Russia
Neus Feliu, University of Hamburg, Germany & Karolinska Institutet, Solna, Sweden
Xinliang Feng, Technische Universität Dresden, Dresden, Germany
Yulia Galagan, TNO – Solliance, Eindhoven, The Netherlands
Maria Garcia-Hernandez, Institute of Materials Science of Madrid (ICMM-CSIC), Madrid, Spain
Electra Gizeli, University of Crete & IMBB-FORTH, Crete, Greece
Achille Gravanis, Medical School University of Crete, & IMBB-FORTH, Crete, Greece
Yael Hanein, Tel Aviv University, Tel Aviv, Israel
Sahika Inal, KAUST, Thuwal, Saudi Arabia
Antonios G. Kanaras, University of Southampton, Southampton, UK
Rafal Klajn, Weizmann Institute of Science, Rehovot, Israel
Eleftherios Lidorikis, University of Ioannina, Ioannina, Greece
Monica Lira-Cantu, ICN2, CSIC and BIST, Barcelona, Spain
George Malliaras, University of Cambridge, Cambridge, UK
Joao F. Mano, University of Aveiro, Aveiro, Portugal
Athina Markaki, University of Cambridge, Cambridge, UK
Iain McCulloch, KAUST, Thuwal, Saudi Arabia
Paul F. McMillan, UCL, London, UK
Anna Mitraki, University of Crete, Crete, Greece
Sergio Enrique Moya, Istituto Italiano di Tecnologia, Milan, Italy
Wolfgang Parak, Universität Hamburg, Germany & CIC Biomagune, Donostia, Spain
Panos Patsalas, Aristotle University of Thessaloniki, Thessaloniki, Greece
Panayiota Poirazi, IMBB, FORTH, Crete, GREECE
Ioannis N. Remediakis, University of Crete & IESL-FORTH, Crete, Greece
Stephan Roche, Catalan Institution for Research and Advanced Studies, Barcelona, Spain
Michael Saliba, Adolphe Merkle Institute, Fribourg & Swiss Federal Institute of Technology, Zurich, Switzerland
Paolo Samorì, ISIS, Universite de Strasbourg & CNRS, Strasbourg, France
Andrey Turchanin, Friedrich Schiller University Jena, Jena, Germany
Trystan Watson, Swansea University, Swansea, UK
Lucien Weiss, Israel Institute of Technology, Haifa, Israel

Chairmen:

Dr. Emmanuel Stratakis, IESL/FORTH, Greece
Prof. Emmanuel Kymakis, TEI of Crete, Greece

Local Organizing Committee (IESL/FORTH, Greece):

Dr Anthi Ranella, IESL-FORTH, Crete, Greece
Dr. Minas Stylianakis, TEI of Crete, Crete, Greece
Dr Paraskevi Kavatzikidou, IESL-FORTH, Crete, Greece
Mrs Eleftheria Tsentelierou, University of Crete, IESL-FORTH, Greece

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1st International Conference on Nanotechnologies and Bionanoscience

PROGRAM

Conference Chairs:
Emmanuel Stratakis, IESL-FORTH, Crete, Greece
Emmanuel Kymakis, TElofCrete, Crete, Greece

<table>
<tr><th>TIME</th><th colspan="2">Monday 24th September</th></tr>
<tr><td>8:00-all day</td><td colspan="2">REGISTRATION
(at the Registration Desk in Atlantis Aquila Hotel)</td></tr>
<tr><td>09:00-9:30</td><td colspan="2">Conference Opening Ceremony (Room: Minos)</td></tr>
<tr><td rowspan="2">09:30-10:15</td><td colspan="2">Plenary Session I on WS2: Perovskite optoelectronics & solar cells - Chair: E. Kymakis & E. Stratakis - Room: Minos</td></tr>
<tr><td colspan="2">(WS2-Plenary) Molecular Photovoltaics and Perovskite Solar Cells
Michael Graetzel*
Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland</td></tr>
<tr><td>10:15-10:45</td><td colspan="2">COFFEE BREAK (PASIPHAE ROOM)</td></tr>
<tr><td rowspan="4">10:45-11:15

11:15-11:30

11:30-11:45</td><td>WS1 Session II – Chairs: I. Choi
Room: Minos I</td><td>WS2 Session III – Chairs: K.Petridis
Room: Minos II</td></tr>
<tr><td>(WS1-Invited) 3D- structures from nano-assembled multilayers for biomedicine
João F. Mano*, Dept. of Chemistry, CICECO – Aveiro Institute of Materials, University of Aveiro, Aveiro, Portugal</td><td>(WS2-Invited) Understanding and Designing Interfaces and Defects in Perovskite Solar Cells
Juan-Pablo Correa-Baena*, MIT, USA</td></tr>
<tr><td>Bio-nanotechnology: a bridge between Nano and Biomaterials towards personalized medicine and intelligent therapeutic solutions
D. Dragatogiannis*, D. Brasinika, C.A. Charitidis*
Laboratory of Advanced, Composite, Nano-Materials and Nanotechnology, School of Chemical Engineering, National Technical University of Athens, Athens, Greece</td><td rowspan="2">(WS2-Invited) Developing a scale-up route for all printed carbon perovskite solar cells from laboratory to factory
Trystan Watson*, Swansea University, UK</td></tr>
<tr><td>Biomaterial micro/nano 3D printing via two-photon lithography
Qin Hu[1,2]*, Derek Irvine[1], Chris Tuck[1], Richard Hague[1], Morgan R Alexander[2] and Ricky Wildman[1]
[1]Centre for Additive Manufacturing, Faculty of Engineering, University of Nottingham, UK; [2]School of Pharmacy, University of Nottingham, UK</td></tr>
</table>

11:45-12:00	**Multifunctional magnetic nanoparticles fabricated by nano-imprint lithography as probes for label-free biosensing** Stefan Schrittwieser[1]*, Joerg Schotter[1], Martin Bauch[1], Theodoros Dimopoulos[1], Michael J. Haslinger[2], Tina Mitteramskogler[2], Michael Muehlberger[2], Astrit Shoshi[3], Hubert Brueckl[3] [1]AIT Austrian Institute of Technology, Vienna, Austria; [2]PROFACTOR GmbH, Steyr-Gleink, Austria; [3]Danube University Krems, Wiener Neustadt, Austria	**Semiconductor Self-Assembled Monolayers as Selective Contact for Efficient PiN Perovskite Solar Cells** E. Yalcin,[1] M. Can,[2] C. Rodriguez-Seco,[3] E. Aktas,[3] R. Pudi,[3] W. Cambarau,[3] S. Demic[1] and E. Palomares[3,4]* [1] Izmir Katip Celebi University, Dept of Material Science and Engineering, Turkey; [2] Izmir Katip Celebi University, Dept of Engineering Sciences, Turkey; [3] Institute of Chemical Research of Catalonia (ICIQ), Barcelona Institute of Science and Technology; [4] ICREA, Passeig Lluis Companys Barcelona, Spain.
12:00-12:15	**Laser micro-structured topographies for screening mammalian cell response towards the development of multifunctional biointerfaces** V. Dinca[1]*, L. Rusen[1], L. E. Sima[2], M. Icriverzi[2,3], M. Uta[2], N. Nichita-Branza[2], A. Roseanu[2], V. Malheiro[4] E. C. Sirigim[4], P. Hoffmann[4] and M. Dinescu[1] [1]National Institute for Lasers, Plasma and radiation Physics, Bucharest, Romania; [2]Institute of Biochemistry of the Romanian Academy IBAR, Bucharest, Romania; [3]University of Bucharest, faculty of Biology, Bucharest, Romania; [4]EMPA, Switzerland	**Investigation of charge-carrier trap distribution and energy disorder in hybrid organic-inorganic perovskite films** Andrey Kadashchuk[1,2]*, Alexander Vakhnin[1], Joao Bastos[2], Guillaume Croes[2], Weiming Qiu[2] [1]Institute of Physics of NASU, Prospect Nauky 46, 03028 Kyiv, Ukraine'[2]IMEC, Kapeldreef 75, 3001 Leuven, Belgium
12:15-12:30	**Laser synthesized nanoparticles with tuned optical properties for therapeutic drug monitoring** P.M. Ossi[1], M. Tommasini[1], C. Zanchi[1], A. Lucotti[1], E. Fazio[2], M. Santoro[2], S. Spadaro[2], F. Neri[2], S. Trusso[3]*, M. Casazza[4], E. Ciusani[4], U. de Grazia[4] [1]Politecnico di Milano, Milano, Italy; [2]Università di Messina, Messina, Italy; [3]IPCF-CNR, Messina, Italy; [4]Fondazione IRCCS Istituto Neurologico Carlo Besta, Milano, Italy	**Perovskites for solid state lighting devices** M. Bidikoudi*, E. Fresta and R.D. Costa IMDEA Materials, Madrid, Spain
12:30-12:45	**Layer-by-Layer Surface Modification of Nanoparticles for Highly Efficient Multifunctional Drug Delivery Systems** Beatrice Fortuni[1]*, Tomoko Inose[2], Indra Van Zundert[1], Monica Ricci[1], Susana Rocha[1] and Hiroshi Uji-i[1,2] [1]KU Leuven, Leuven, Belgium; [2]RIES Hokkiado University, Sapporo, Japan	**Efficient Non-Polymeric Heterojunctions in Ternary Organic Solar Cells** Cristina Rodríguez Seco,[1] Anton Vidal Ferran,[1,2]* Emilio Palomares,[1,2]* Rajnish Misra,[3] Ganesh D. Sharma[4] [1]Institute of Chemical Research of Catalonia. The Barcelona Institute of Science and Technology (ICIQ-BIST), Spain; [2]ICREA. Spain; [3]Department of Chemistry, Indian Institute of Technology, Indore (MP), India; [4]Deparment of Physics. The LMN Institute of Information Technology, Jamdoli. India

12:45-13:00	**Antibacterial and Antibiofouling Nanostructured Biomaterials** Lucia Podhorska[1]*, Shauna P. Flynn[1,2]*, Fabian Bayer[1], Graham Reid[1], Laura Quinn[2], Olivier Habimana[2], Jenny Lawlor[3], Eoin Casey[2], and Susan M. Kelleher[1] [1]School of Chemistry, University College Dublin, Belfield, Dublin 4, Ireland; [2]School of Chemical and Bioprocessing Engineering, University College Dublin, Belfield, Dublin 4, Ireland; [3]School of Biotechnology, Dublin City University, Glasnevin, Dublin 9, Ireland	**END OF SESSION**
13:15-15:00	**LUNCH BREAK (PASIPHAE ROOM)**	
15:00-15:30	*WS1 & WS3 Sessions IV – Chairs: J. Mano (Sub: A. Kanaras)* *Room*: Minos I	*WS4 Session V – Chairs: A. Turchanin (Sub: E. Lidorikis*) *Room*: Minos II
	(WS1-Invited)Self-assembling amyloid building blocks as scaffolds for rational bionanomaterial design **Anna Mitraki*, University of Crete, Greece**	(WS4-Invited) 2D Materials: Crystal Growth for Future Device Structures **Luigi Colombo*, University of Texas at Dallas,USA**
15:30-16:00	(WS3-Invited) Engineered cellular vesicles as targeted drug carriers: towards the development of a new generation of liposomes for efficient targeted drug delivery? **Sophia G. Antimisiaris[1,2]*** **[1]Department of Pharmacy, University of Patras, Patras 26504, Greece** **[2]Institute of Chemial Engineering Science, FORTH/ICE-HT, Patras, Greece**	**Spin-valley polarization in WS2 heterostructures: The effect of the dielectric environment** I. Paradisanos[1,2], L. Mouchliadis[1], A.T. Hanbicki[3], K. McCreary[3], B.T. Jonker[3], E. Stratakis[1,4] and G. Kioseoglou[1,4],* [1]Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, Heraklion Crete 71110, Greece [2]Department of Physics, University of Crete, Heraklion Crete 71003, Greece [3]Naval Research Laboratory, Washington DC, 20375, USA [4]Dept of Materials Science and Technology, University of Crete, Greece
16:00-16:15	**Cross linked enzyme aggregates as versatile tool for enzyme delivery: application to polymeric nanoparticles** Marianna Galliani[1,2]*, Melissa Santi[1,2], Ambra Del Grosso[2], Lucia Angella[2], Marco Cecchini[2] and Giovanni Signore[1,2] [1]Center of Nanotechnology Innovation@NEST, Istituto Italiano di Tecnologia, Pisa, Italy; [2]NEST, Scuola Normale Superiore and Istituto Nanoscienze-CNR, Pisa, Italy	**High-Performance Supercapacitors Based on a Zwitterionic Network of Covalently Functionalized Graphene with Iron Tetraaminophthalocyanine** Demetrios D. Chronopoulos[1]*, Aristides Bakandritsos[1], Petr Jakubec[1], Martin Pykal[1], Klára Čépe[1], Theodore Steriotis[2], Sergii Kalytchuk[1], Martin Petr[1], Radek Zbořil,[1] Michal Otyepka[1] [1]Regional Centre for Advanced Technologies and Materials, Department of Physical Chemistry, Faculty of Science, Palacký University

		Olomouc,Olomouc, Czech Republic; [2]Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Athens, Greece
16:15-16:30	**Thermo-responsive iron oxide nanocubes for an effective clinical translation of magnetic hyperthermia and heat-mediated chemotherapy** Binh T. Mai[1, 2]*, Preethi B. Balakrishnan[1, 2], Markus J. Barthel[1], Federica Piccardia[1], Dina Niculaes[1, 2], Federica Marinaro[1], Soraia Fernandes[1], Alberto Curcio[1], Hamilton Kakwere[1], Gwennhael Autrete[3], Roberto Cingolania[1], Florence Gazeau[4] and Teresa Pellegrino[1] [1]Istituto Italiano di Tecnologia, via Morego 30, 16145, Genova, Italy; [2]Dipartimento di Chimica e Chimica Industriale, Università di Genova, Via Dodecaneso, 31, 16146 Genova, Italy; [3]Centre de Recherche Cardiovasculaire de Paris 56, rue Leblanc75737 PARIS Cedex 15, France; [4]Laboratoire Matière et Systèmes Complexes, UMR 7057, CNRS and University Paris Diderot, 75205 Paris Cedex 13, France	**Gas sensing elements based on graphene related and hybrid perovskite materials** S. Papazoglou[1]*, K. Petridis[2,3]*, G. Kakavelakis[3], E. Gagaoudakis[4,5], V. Binas[4,5], S. Chatzandroulis[6], Y. S. Raptis[1], E. Kymakis[3] and I. Zergioti[1] [1] School of Applied Physical and Mathematical Sciences, National Technical University of Athens, Athens, Greece; [2] Department of Electronic Engineering, School of Applied Sciences, Technological Educational Institute of Crete, Chania, Crete, Greece[3]Center of Materials Technology & Photonics, Department of Electrical Engineering, Technological Educational Institute of Crete, Heraklion, Crete, Greece; [4]University of Crete, Department of Physics, Heraklion, Crete, Greece; [5] Institute of Electronic Structure & Laser (IESL), Foundation for Research and Technology (FORTH) Hellas, Crete, Greece; 6Institute of Nanoscience and Nanotechnology, E.K.E.F.E. Demokritos, Athens, Greece
16:30-16:45	**Ulvan, a Marine Sulfated Polysaccharide as a Versatile Biocompatible Material for the Production of Bioactive Nanoscaffolds** Leto-Aikaterini Tziveleka, Stefanos Kikionis, Efstathia Ioannou and Vassilios Roussis* Section of Pharmacognosy and Chemistry of Natural Products, Department of Pharmacy, National and Kapodistrian University of Athens, Athens, Greece	**Large-Area Nanoelectronic Devices Based on 2D Transition Metal Dichalcogenides Enabled via Adhesion Lithography** Emre Yengel*[1], Hendrik Faber[1], Ali Han[1], Areej Aljarb[1], Dimitra G. Georgiadou[2], James Semple[2], Thomas D. Anthopoulos[1,2] [1] King Abdullah University of Science and Technology (KAUST), KAUST Solar Center (KSC), Division of Physical Science and Engineering (PSE), Kingdom of Saudi Arabia; [2]Department of Physics and Centre for Plastic Electronics Blackett Laboratory, Imperial College London, London, United Kingdom
16:45-17:00	**Self-Propelled Synthetic Nanobots in Drug Delivery** Marina Fernández Medina[1]*, Ondrej Hovorka[2] and Brigitte Städler[1] [1]Aarhus University, Aarhus, Denmark; [2]University of Southampton, Southampton, United Kingdom	**Highly efficient and stable perovskite solar cells using Graphene-related-materials as dopants and interlayers** Konstantinos Rogdakis* and Emmanuel Kymakis 1Center of Materials Technology and Photonics, Electrical Engineering Department, School of Applied Technology, Technological Educational Institute (TEI) of Crete, Heraklion, Greece

17:00-17:15	**Studying cell penetrating peptides as possible drug delivery vectors using acoustic biosensors** Dimitra Milioni[1]*, Sophie Cribier,[2] Sandrine Sagan[2] and Electra Gizeli [1,3] [1]IMBB-FORTH; [2]Department of Chemistry, Sorbonne Universités, UPMC Univ Paris 06, PSL Research University, Ecole Normale Supérieure, CNRS, Laboratoire des Biomolécules (LBM), Paris, France; [3]Biology Department, University of Crete	**END OF SESSION**
17:15-17:30	**Nanoparticle based non-invasive ocular delivery for the treatment of Retinoblastoma** Ritika* and Rinti Banerjee Indian Institute of Technology Bombay, Mumbai, India	
17:30-18:00	**COFFEE BREAK (PASIPHAE ROOM)**	
18:00-18:30	*WS4 Session VI – Chairs: L. Colombo (Sub: S. Psilodimitrakopoulos)* *Room*: Minos I	*WS2 Session VII – Chairs: T.Watson (Sub: M. Stylianakis)* *Room*: Minos II
	(WS4-Invited) Looking into the Future of Spintronics and Valleytronics using van der Waals Heterostructures **Stephan Roche* Catalan Institution for Research and Advanced Studies, Barcelona, Spain**	(WS2-Invited) Perovskite Solar Cells: Toward Industrial-Scale Manufacturing **Yulia Galagan*, TNO – Solliance, The Netherlands**
18:30-18:45	**Bias dependent low frequency noise model in single-layer, liquid-gated graphene FETs** Nikolaos Mavredakis[1]*, Ramon Garcia Cortadella[2], Andrea Bonaccini Calia[2], Jose A. Garrido[2] and David Jiménez[1] [1]Department d'Enginyeria Electrònica, Escola d'Enginyeria, Universitat Autònoma de Barcelona, 08193-Bellaterra, Barcelona, Spain [2] Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC, Barcelona Institute of Science and Technology, Campus UAB, Bellaterra, Barcelona, Spain	**Environmental hazards of photovoltaic perovskites** László Forró* Laboratory of Physics of Complex Matter Ecole Polytechnique Fédérale de Lausanne CH-1015 Lausanne

18:45-19:00	**Brominated Graphene as a Versatile Precursor for Multifunctional Grafting** Noelia Rubio*, Heather Au and Milo S.P. Shaffer Nanostructured Hierarchical Assemblies & Composites (NanoHAC), Department of Chemistry, Imperial College London, London, SW7 2AZ	(WS2-Invited) Device Engineering Concepts for Solution Processed Photovoltaics **Stelios A. Choulis*, Cyprus University of Technology, Cyprus**
19:00-19:15	**MoS2-reduced graphene oxide composites by thermal processing: An in situ XPS study** Labrini Sygellou* Foundation for Research and Technology, Institute of Chemical Engineering Sciences (FORTH/ICE-HT), Patras, GR-26504, Greece	
19:15-19:30	**Sorption properties of high surface area amorphous graphene oxide** Vassilios Binas[1]* and Pantelis N. Trikalitis[2] [1] Institute of Electronic Structure and Laser (IESL), FORTH, P.O. Box 1527, Vasilika Vouton, GR-71110 Heraklion, Greece [2] Department of Chemistry, University of Crete, Voutes 71003, Heraklion	**END OF SESSION**
	END OF DAY 1 OF NANOBIO2018 – ENJOY YOUR EVENING!	
21:00	**Invited Speakers Dinner** **(sponsored by Applied Sciences, an Open Access Journal by MDPI)**	applied sciences an Open Access Journal by MDPI

<table>
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<tr><td>08:30-all day</td><td colspan="2">REGISTRATION
(at the Registration Desk in Atlantis Aquila Hotel)</td></tr>
<tr><td rowspan="2">9:30-10:15</td><td colspan="2">Plenary Session I on WS3: Tissue Engineering & Regenerative Medicine & on WS4: Graphene & related 2D materials
Chair: E. Stratakis & E. Kymakis Room: Minos</td></tr>
<tr><td colspan="2">(WS3-Plenary) Nanotechnology Approaches to Biological Cellular Therapies
Paul S. Weiss*
California NanoSystems Institute and Departments of Chemistry & Biochemistry and Materials Science & Engineering, UCLA, Los Angeles, USA</td></tr>
<tr><td>10:15-11:00</td><td colspan="2">(WS2-Plenary) The Roadmap to Applications of Graphene and Related Materials
Andrea Ferrari*
University of Cambridge, UK</td></tr>
<tr><td>11:00-11:30</td><td colspan="2">COFFEE BREAK (PASIPHAE ROOM)
All the Poster Presenters of POSTER SESSION I could place their Poster on the Poster Stands – Go to Registration Desk for adhesive material</td></tr>
<tr><td rowspan="2">11:30-12:00</td><td>WS3 & WS1 Sessions II – Chairs: P.S. Weiss (Sub: G. Malliaras)
Room: Minos I</td><td>WS4 Session III – Chairs: A. Di Carlo (Sub: I. Konidakis)
Room: Minos II</td></tr>
<tr><td>(WS3-Invited) Organic electronics to measure and control brain activity
Christophe Bernard*, Institut de Neuroscience des Systèmes, Inserm, France</td><td>(WS4-Invited) A universal platform for biomarker sensing based on the heterostructures of 2D carbon materials
Andrey Turchanin*, Friedrich Schiller University Jena, Germany</td></tr>
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12:00-12:15	**Microwell Arrays for Monitoring Phenotypic Heterogeneity in Vascular Cell Populations** Michele Zagnoni[1], Mairi E. Sandison[2]* [1]Dept. of Electronic and Electrical Engineering, University of Strathclyde, Glasgow, UK; [2]Dept. Biomedical Engineering, University of Strathclyde, Glasgow, UK	**Graphene boosts activity in neuronal cells by regulating extracellular ion availability** Denis Scaini* [1,2], Niccolò Paolo Pampaloni[1], Martin Lottner[3], Michele Giugliano[4], Alessia Matruglio[5], Francesco D'Amico[2], Maurizio Prato6,[7], Josè Antonio Garrido[3], Laura Ballerini[1] [1] International School for Advanced Studies (SISSA), Trieste, Italy; [2] ELETTRA Synchrotron Light Source, Trieste, Italy; [3] Walter Schottky Institut and Physik-Department, Technische Universität München, Am Coulombwall, Garching, Germany; [4] Theoretical Neurobiology & Neuroengineering, University of Antwerp, Antwerp, Belgium; [5] CNR-IOM - Istituto Officina dei Materiali, Trieste – Italy; [6] Department of Chemical and Pharmaceutical Sciences, University of Trieste, Trieste, Italy. [7] Nanobiotechnology Laboratory, CIC biomaGUNE, -San Sebastiàn, Spain
12:15-12:30	**Following the fate of Calcium Phosphate Nanoparticles for assessing their ability in cardiac targeting in vivo through a complete imaging platform** M. Rouchota[1], E. Fragogeorgi[2], S. Sarpaki[1], A. Adamiano[3], M. Iafisco[3], P. Bouziotis[2], D. Catalucci[4], G.Loudos[1,2]* [1]Bioemission Technology Solutions, Research & Development, Athens, Greece; [2]National Center for Scientific Research (NCSR) "Demokritos", Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, Athens, Greece; [3]National Research Council (CNR), Institute of Science and Technology for Ceramics (ISTEC), Faenza, Italy; [4]National Research Council (CNR), Institute of Genetic and Biomedical Research, Milan, Italy	**Graphene liquid cells for multi-technique analysis of biological cells in water environment** Alessia Matruglio[1]*, Paolo Zucchiatti[2] , Giovanni Birarda[2] , Paul Leidinger[3], Guo Hongxuan[4], Sebastian Guenther[3], Andrei Kolmakov[4] and Lisa Vaccari[2] [1] CERIC-ERIC (Central European Research Infrastructure Consortium), Trieste, Italy; [2] Elettra Sincrotrone Trieste, Trieste, Italy; [3] Technische Universität München, Garching, Germany; [4] NIST (National Institute of Standards and Technology), Gaithersburg, United States
12:30-12:45	**Design and fabrication of micro- and nanomaterials for endothelial cell cultures** P. Formentín[1]*, U. Catalán[2], S. Fernández-Castillejo[2], R. Solà[2] and L.F. Marsal[1]* [1]Departament d'Enginyeria Electrònica, Elèctrica i Automàtica, Universitat Rovira i Virgili, Països Catalans 26, 43007, Tarragona, Spain; [2]Department of Medicine and Surgery, Universitat Rovira i Virgili, sant Llorenç 21, 432001, Reus, Tarragona, Spain	**Electronic Fingerprints of DNA/RNA Nucleobases on Graphene** Jiří Červenka* Department of Thin Films and Nanostructures, Institute of Physics of the Czech Academy of Sciences, Praha 6, Czech Republic

12:45-13:00	**Effect of topography on neuronal cell response: The underlying cellular mechanisms** Anthi Ranella*, IESL-FORTH, Greece	**Optical and Non-Volatile Switching in Memristor Devices Based On Hybrid Organic-Inorganic Materials** Ayoub H Jaafar[1,2]*, Rob Gray[1], Emanuele Verrelli[1] , Stephen Kelly[1] and Neil Kemp[1] [1]School of Mathematics and Physical Sciences, University of Hull, Hull, UK; [2]Physics Department, College of Science, University of Baghdad, Baghdad, Iraq
13:00-13:30	(WS1-Invited) Neurons on Nanotopographies **Insung S. Choi*** **Center for Cell-Encapsulation Research, Department of Chemistry, KAIST, Daejeon, Korea**	(WS4-Invited) Water-based and biocompatible inkjet printable 2D-inks: From formulation engineering to all-printed devices **Cinzia Casiraghi*, University of Manchester, UK**
13:30-15:00	**LUNCH BREAK (PASIPHAE ROOM)** **All the Poster Presenters of POSTER SESSION I could place their Poster on the Poster Stands – Go to Registration Desk for adhesive material**	
	WS3 Session IV – Chairs: A. Ranella (Sub: A. Markaki) *Room*: Minos I	*WS5 & WS2 Sessions V – Chairs: K. Brintakis* *Room*: Minos II
15:00-15:30	(WS3-Invited) 3D DNA imaging in live cells at ultra-high-throughput **Lucien Weiss*, Israel Institute of Technology, Israel**	(WS5-Invited) New materials and devices for interfacing with the brain **George Malliaras*, University of Cambridge, UK**
15:30-15:45	**Diagnostics on the chip: micro-patterned functional arrays for advancement of medicine** Sylwia Sekula-Neuner[1]*, Falko Brinkmann[1], Ravi Kumar[1], Emmanuel Oppong[2], Alice Bonicelli[2], Andrew C. B. Cato[2], Klaus Pantel[3], Michael Hirtz[1],Harald Fuchs[1, 4] [1] Karlsruhe Institute of Technology, Institute of Nanotechnology, Germany; [2] Karlsruhe Institute of Technology, Institute of Toxicology and Genetics, Germany; [3] Universitätsklinikum Hamburg-Eppendorf, Department of Tumor Biology, Germany; [4] Institute of Physics, University of Münster, Germany	**Biosensors for Non-Invasive Medical Diagnostics** A. Romeo[1]*, P.E.D. Soto Rodriguez[1], A. Moya[2,3], G. Gabriel[2,3], R. Villa[2,3], R. Artuch[4,5], S. Sánchez[1,6] [1] Institute for Bioengineering of Catalonia (IBEC), The Barcelona Institute of Science and Technology (BIST), Barcelona, Spain; [2] Instituto de Microelectrónica de Barcelona, IMB-CNM (CSIC), Esfera UAB, Bellaterra, Barcelona, Spain; [3] Research Networking Center in Bioengineering, Biomaterials and Nanomedicine (CIBER-BBN), Barcelona, Spain; [4] CIBER-ER (Biomedical Network Research Center for Rare Diseases), Instituto de Salud Carlos III, Madrid, Spain; [5] Laboratory of hereditary metabolic diseases, Hospital Sant Joan de Déu, Barcelona, Spain; [6] Institució Catalana de Recerca i Estudis Avancats (ICREA), Barcelona, Spain

15:45-16:00	**Matrix vesicles-loaded microreactors co-assembled with bone-like osteoblast cells with ability to enhance biomineralization** Fabian Itel[1]*, Jesper Skovhus Thomsen[2] and Brigitte Städler[1] [1] Interdisciplinary Nanoscience Center, University of Aarhus, Aarhus, Denmark; [2] Department of Biomedicine, University of Aarhus, Aarhus, Denmark	**Molecularly imprinted photonic sensor for detection of cancer biomarkers** Manuela F. Frasco*, Carla F. Pereira, Sara Resende and M. Goreti F. Sales BioMark-CEB/ISEP, School of Engineering, Polytechnic Institute of Porto, Porto, Portugal
16:00-16:15	**Modulation of the rheological properties of agarose hydrogels by addition of cellulose nanowhiskers** Thierry Aubry* IRDL – UMR CNRS 6027, Université de Bretagne Occidentale, Brest, France	**Towards an unprecedented molecularly imprinted photonic biosensor for venous thromboembolism** Carla F. Pereira*, Manuela F. Frasco and M. Goreti F. Sales BioMark-CEB/ISEP, School of Engineering, Polytechnic Institute of Porto, Porto, Portugal
16:15-16:30	**Directional Electromechanical Response in Self-Assembled Cellulose Nanofibers** Yonatan Calahorra[1]*, Anuja Datta[1], James Famelton[1], Doron Kam[2], Oded Shoseyov[2], and Sohini KarNarayan[1] [1] Department of Materials Science & Metallurgy, University of Cambridge, Cambridge, UK. [2] The Robert H. Smith Institute of Plant Science and Genetics, the Hebrew University of Jerusalem, Rehovot, Israel	(WS5-Invited) Self-assembly of nanoparticle superlattices and their post-assembly transformations **Rafal Klajn*, Weizmann Institute of Science, Israel**
16:30-16:45	**Electro-mechanically interfacing with biology using nanostructured piezoelectric poly-L-lactic acid** Michael Smith1*, Dr. Yonatan Calahorra1, Dr. Daniel Bax2 and Dr. Sohini Kar-Narayan1 1Device Materials Group, Department of Materials Science, University of Cambridge, UK; 2Cambridge Centre for Medical Materials, Department of Materials Science, University of Cambridge, UK	
16:45-17:00	**END OF SESSION**	**Hot-electron driven photosynthesis of catalytic nanostructures** Sven H. C. Askes*, Evgenia Kontoleta and Erik C. Garnett AMOLF, Amsterdam, The Netherlands

17:00-17:15		(WS2-Invited) The versatility of polyelemental perovskite compositions **Michael Saliba*, Adolphe Merkle Institute, Fribourg & Swiss Federal Institute of Technology, Switzerland**
17:15-17:30		
17:30-18:00	**COFFEE BREAK (PASIPHAE ROOM)**	
18:00-20:00	**Poster Session I** **To all Poster Presenters at POSTER SESSION I – Please be by your Poster at all times!**	
* For those interested, there will be a *short visit to FORTH Institute* before the Conference Gala Dinner (more information during the NanoBio2018 Conference)		
20:30	**CONFERENCE GALA DINNER in Arolithos Traditional Cretan Village at 20:30** "Warning! Dancing and Selfie Table Photos will take place" **Meeting Point: Atlantis Entrance to go to the Buses**	

	Wednesday 26th September	
9:00-all day	**REGISTRATION** (at the Registration Desk in Atlantis Aquila Hotel)	
TIME	*WS3 Session I – Chairs: C. Bernard (Sub: W. Parak)* *Room*: Minos I	*WS4 & WS5 Session II – Chairs: F. Bonaccorso* *Room*: Minos II
09:30-10:00	(WS3-Invited) Soft Electronic Devices in Neuro-technology **Yael Hanein*** **Tel Aviv University, Israel**	(WS4-Invited) Functional Supercapacitors: From Materials Development and Processing to Smart Integrated Systems **Ali Shaygan Nia* and Xinliang Feng** **Department of Chemistry and Food Chemistry & Center for Advancing Electronics Dresden (cfaed), Technische Universität Dresden, 01062 Dresden, Germany**

10:00-10:30	(WS3-Invited) Multidynamic micro-collagen-based neuroimplants for spinal cord injury **Achille Gravanis*** **Dept. Of Pharmacology, Medical School University of Crete, IMBB-FORTH**	(WS4-Invited) Plasmon-enhanced graphene photodetectors and modulators **Eleftherios Lidorikis*, University of Ioannina, Greece**
10:30-10:45	(WS3-Invited) Active dendrites and their role in neuronal and circuit computations **Panayiota Poirazi*** **Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, GREECE**	**All-optical quality assessment of 2D TMDs, using polarization-resolved SHG** Sotiris Psilodimitrakopoulos[1]*, Leonidas Mouchliadis[1], Ioannis Paradisanos[1,2], Andreas Lemonis[1], George Kioseoglou[1,3] and Emmanuel Stratakis[1,3] [1]Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, Heraklion Crete, Greece [2]Department of Physics, University of Crete, Heraklion, Greece [3]Department of Materials Science and Technology, University of Crete, Heraklion Crete, Greece
10:45-11:00		**Automated Electrochemical Sensing Systems for Real Time Monitoring and Detection of Chemical Species** V.I. Ogurtsov*, M. Todorovic Tyndall National Institute, University College Cork, Lee Maltings Complex, Dyke Parade, Cork, Ireland
11:00-11:15	**Carbon Dots as a Trackable Drug Delivery System** Qin Li * Queensland Micro- and Nanotechnology Centre, & School of Engineering & Built Environment, Griffith University, Nathan, QLD 4111, Australia	**END OF SESSION**
11:15-12:00	**COFFEE BREAK (PASIPHAE ROOM)** **NOTE: All the Poster Presenters of POSTER SESSION I should remove their Poster!** **All the Poster Presenters of POSTER SESSION II could place their Poster on the Poster Stands – Go to Registration Desk for adhesive material!**	
	WS1 Session III – Chairs: N.Feliu ((Sub: P.Kavatzikidou) *Room*: Minos I	*Special Session IV– Chairs: M. Stylianakis & A. Kostopoulou* *Room*: Minos II
12:00-12:15	(WS1-Invited) Nanomaterials with Synergistic actions **Antonios G. Kanaras* et. al. , University of Southampton, UK**	Special Session-Invited Nano-bio Journals and Connecting with the Community

		Leanne M Mullen*, **Elsevier Ltd, The Boulevard, Langford Lane, Kidlington** **Oxford OX5 1GB, UK**
12:15-12:30		Special Session-Invited Impact beyond boundaries: introducing JPhys Materials **Daniel Jopling[1]*, Stephan Roche[2] and Piera Demma Cara[1]** **[1]IOP Publishing, Bristol, UK** **[2] Catalan Institute of Nanoscience and Nanotechnology - Theoretical and Computational Nanosciences, Barcelona, Spain**
12:30-12:45	**Passion fruit-like nano-architecturers: towards the clinical translation of metal nanomaterials** D. Cassano*[1,2], S. Pocoví-Martínez[3], A. K. Mapanao[1,2], S. Luin[1,4] and V. Voliani[2] [1]NEST – Scuola Normale Superiore, P.zza S. Silvestro 12- 56126, Pisa (PI), Italy; [2]CNI@NEST – Istituto Italiano di Tecnologia, P.zza S. Silvestro 12 – 56126, Pisa (PI), Italy; [3]Istituto di fisiologia clinica – CNR, Via G. Moruzzi 1 - 56124, Pisa (PI), Italy; [4]NEST - Istituto Nanoscienze – CNR, P.zza San Silvestro 12 - 56126, Pisa (PI), Italy	Special Session-Invited **MDPI Publishing House**
12:45-13:00	**Endogenously activated ultrasmall-in-nano theranostics for the treatment of head and neck squamous cell carcinoma** Melissa Santi[1]*, Ana Katrina Mapanao[1,2], Domenico Cassano[1,2] and Valerio Voliani[1] [1]Center for Nanotechnology Innovation@NEST, Istituto Italiano di Tecnologia, Pisa, Italy; [2]NEST-Scuola Normale Superiore,Pisa, Italy	**ACS Publishing House**
13:00-13:15	**Carbogenic nanoparticles for biomedical and forensic applications** Antonios Kelarakis*, University of Central Lancashire, Preston, PR12HE, U.K.	**NFFA Project**
13:15-13:45	(WS1-Invited) 3D Printing and Cellular Strategies to promote Vascularization in Tissue Engineering **Athina Markaki*, Department of Engineering, University of Cambridge, UK**	
13:45-15:30	**LUNCH BREAK (PASIPHAE ROOM)** **All the Poster Presenters of POSTER SESSION II could place their Poster on the Poster Stands – Go to Registration Desk for adhesive material!**	

	WS1 Session V – Chairs: Y. Hanein (Sub: L.Papadimitriou) *Room*: Minos I	*WS2 Session VI – Chairs: P.Patsalas* *Room*: Minos II
15:30-16:00	(WS1-Invited) Nanoparticles For Future Cell Tracking Applications: Some Basic Considerations **Neus Feliu*, University of Hamburg, Germany & Karolinska Institutet, Sweden**	(WS2-Invited) Halide Perovskite and 2D nanomaterials for performing solar cells **Aldo Di Carlo*, CHOSE – Centre for Hybrid and Organic Solar Energy, University of Rome Tor Vergata, Italy and National University of Science and Technology "MISiS", Moscow, Russia**
16:00-16:15	**Au-SiO2-WO3 Core-shell Nanoparticles for SERS Cancer Imaging** P. Martinez Pancorbo*, K. Thummavichai, L. Clark, H. Chang, N. Stone, Y. Zhu University of Exeter, Exeter, United Kingdom	**Improved Charge Carrier Dynamics of CH3NH3PbI3 Perovskite Films Probed by Femtosecond Transient Absorption Spectroscopy** Ioannis Konidakis[1]*, Efthymis Serpetzoglou[1,2], Temur Maksudov[3,4], George Kakavelakis[3,4], Emmanuel Kymakis[4] and Emmanuel Stratakis[1,3] [1]Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece [2]Physics Department and [3]Department of Materials Science and Technology, University of Crete, Crete, Greece. [4]Center of Materials Technology and Photonics, Electrical Engineering Dept, Technological Educational Institute (TEI) of Crete, Heraklion, Crete, Greece.
16:15-16:30	**Pattern-Generating Fluorescent Molecular Probes for Chemical Biology** Leila Motiei*, and David Margulies Department of Organic Chemistry, Weizmann Institute of Science, 7610001, Rehovot, Israel	**Hot Electron Injection into Semiconducting Polymers Limits the Efficiency in Perovskite Solar Cells** Jesús Jiménez-López[1,2]*, Bianka M.D. Puscher[3], Werther Cambarau[1], Emilio Palomares[1,4] and Dirk M. Guldi[3] [1]Institute of Chemical Research of Catalonia (ICIQ), BIST, Tarragona, Spain; [2]DEEEA, Universitat Rovira i Virgili, Tarragona, Spain; [3]Department of Chemistry and Pharmacy, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany; [4]ICREA, Barcelona, Spain
16:30-16:45	**Structural tuning of carbon nanodots and their potential in clinical diagnostics** C. Toncelli*, E. Armagan, S. Thiyagarajan, L. Boesel and R.M. Rossi Empa, Swiss Federal Laboratories for Materials Science and Technology, Laboratory for Biomimetic Membranes and Textiles, Lerchenfeldstr. 5, 9014 St. Gallen, Switzerland, www.empa.ch	**Graphene-based photoelectrode for efficient carrier collection and stable hot-electron lifetime in perovskite solar cells** Antonio Agresti[1]*, Sara Pescetelli[1], Daniele Catone[2], Patrick O'Keeffe[2], Anna Vinattieri[3], Emmanuel Kymakis[4], Francesco Bonaccorso[5] and Aldo Di Carlo[1] [1] CHOSE - Centre for Hybrid and Organic Solar Energy, Department of Electronic Engineering, University of Rome Tor Vergata, Rome, Italy; [2] CNR-ISM, Division of Ultrafast Processes in Materials (FLASHit), Italy; [3] Department of Physics and Astronomy, University of Florence and LENS,Sesto Fiorentino (FI), Italy; [4] Center of Materials Technology and Photonics & Electrical Engineering Department, School of Applied Technology, Technological Educational Institute (T.E.I) of Crete, Greece; [5] Istituto Italiano di Tecnologia, Graphene Labs, Genova, Italy

16:45-17:00	**Anisotropic noble metal nanoparticles as highly efficient agent for photodynamic therapy** Jan Krajczewski*[1], Helen Townley[2] [1]Laboratory of Moleculer Interactions, Faculty of Chemistry, University of Warsaw, Warsaw, Poland; [2]Nuffield Department of Women's and Reproductive Health, University of Oxford, John Radcliffe Hospital, Oxford, UK Department of Engineering Sciences, University of Oxford, Oxford, United Kingdom	**All-inorganic perovskite nanocrystals: from material design to potential applications** Athanasia Kostopoulou*, Konstantinos Brintakis and Emmanuel Stratakis Institute of Electronic Structure and Laser, Foundation for Research and Technology, Crete, Greece
17:00-17:15	**Supramolecular polyamine phosphate nanocarriers for siRNA and CRISPR/Cas9 delivery** P. Andreozzi[1], M.G. Ortore[2] and S. Moya[1]* [1]Soft Matter Nanotechnology Group, CIC biomaGUNE, San Sebastián, 20014, Spain; [2]Dipartimento di Scienze della Vita e dell'Ambiente, Università Politecnica delle Marche, Ancona, Italy.	(WS2-Invited) Defect Physics and (In)Stability in Metal-halide Perovskite Semiconductors **Annamaria Petrozza*** **Center for Nano Science and Technology @Polimi, Istituto Italiano di Tecnologia, Milan, Italy**
17:15-17:30	(WS1-Invited) How degradation of nanoparticles effects their colloidal properties and interaction with cells **Wolfgang Parak*, Universität Hamburg, Germany & CIC Biomagune, Spain**	
17:15-17:45		
18:30-20:30	**Poster Session II** **To all Poster Presenters at POSTER SESSION II – Please be by your Poster at all times!** **Poster Reception (during the Poster Session)**	
	END OF DAY 3 OF NANOBIO2018 – ENJOY YOUR EVENING!	

TIME	Thursday 27th September
09:00-	**REGISTRATION DESK - OPEN**

<table>
<tr><td>All day</td><td colspan="3"></td></tr>
<tr><td rowspan="2">9:00-
9:45</td><td colspan="3">Plenary Session I on WS3: Tissue Engineering & Regenerative Medicine & WS1: Nanobiomaterials and Nanomedicine
Chair: E. Stratakis & E. Kymakis - Room: Minos</td></tr>
<tr><td colspan="3">(WS3-PLENARY)
Biomaterials for Tissue Engineering and Regenerative Medicine
Antonios G. Mikos, Rice University, Houston, Texas, USA</td></tr>
<tr><td>9:45-
10:30</td><td colspan="3">(WS1-PLENARY) Aptamer-field-effect transistor biosensors
Nako Nakatsuka,[1,2] Kyung-Ae Yang,[5] John M. Abendroth,[1,2] Kevin M. Cheung,[1,2] Xiaobin Xu,[1,2] Chuanzhen Zhao,[1,2] Yang, Yang,[1,3] Paul S. Weiss,[1,2,3] Milan Stojanovic,[5,6] and Anne M. Andrews[1,2,4]*
[1]California NanoSystems Institute; [2]Department of Chemistry and Biochemistry; [3]Department of Materials Science and Engineering; [4]Semel Institute for Neuroscience & Human Behavior and Hatos Center for Neuropharmacology, University of California, Los Angeles, Los Angeles, CA, USA; [5]Division of Experimental Therapeutics, Department of Medicine; [6]Department of Biomedical Engineering, Columbia University, New York, NY, USA</td></tr>
<tr><td>10:30-
11:00</td><td colspan="3">COFFEE BREAK (PASIPHAE ROOM)
NOTE: All the Poster Presenters of POSTER SESSION I should remove their Poster!</td></tr>
<tr><td></td><td>WS4 Session II – Chairs: E. Kymakis (Sub: A. Petrozza)
Room: Minos I</td><td>WS2 & WS5 Sessions III – Chairs: I. McCulloch (Sub: G. Tsibidis)
Room: Minos II</td><td>Chairs: A.Pagkozidis & PRAXIS Network Room: Apollon</td></tr>
<tr><td>11:00-
11:30</td><td>(WS4-Invited)
Large scale production of 2D-materials for energy applications
Francesco Bonaccorso
Istituto Italiano di Tecnologia, Graphene Labs, Via Morego 30, 16163 Genova, Italy
BeDimensional Srl, Via Albisola 121, 16163 Genova, Italy</td><td>(WS2-Invited) The Role of Metal Oxides in the Stability of Halide Perovskite Solar Cells
Monica Lira-Cantu*, Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and The Barcelona Institute of Science and Technology (BIST), Barcelona, Spain</td><td>MATCHMAKING EVENT</td></tr>
</table>

11:30-11:45	(WS4-Invited) Supramolecular engineering of 2-D materials: chemical tailoring of multifunctional foams and coatings **Paolo Samorì*, ISIS, Université de Strasbourg & CNRS, Strasbourg, France**	**Energy level alignment and surface properties of Pb-free halide double perovskites** George Volonakis* and Feliciano Giustino Department of Materials, University of Oxford, Oxford, UK	
11:45-12:00		**Perovskite solar cells impedance spectroscopy explained via 1D time dependent drift-diffusion modelling** Ilario Gelmetti[1,2]*, D. Moia[3], P. Calado[3], E. Palomares[1,4], J. Nelson[3] and P. Barnes[3] [1] Institute of Chemical Research of Catalonia (ICIQ), Spain; [2] DEEEA, Universitat Rovira i Virgili, Avda. Països Catalans 26, 43007 Tarragona, Spain; [3] Department of Physics, Imperial College London, London SW7 2AZ, UK. [4] ICREA, Passeig Lluís Companys, 23, Barcelona, Spain	
12:00-12:15	(WS4-Invited) Graphitic carbon nitrides and functionalized graphene materials for energy and other applications **Paul F. McMillan* et.al., UCL, UK**	**Silicon going indoor** Djordje Jovanović[1]*, Tijana Tomašević-Ilić[1], Nikola Tasić[2], Aleksandar Matković[1,3], Marko Spasenović[1], Radoš Gajić[1], and Emmanuel Kymakis[4] [1]Graphene Laboratory, Center for Solid State Physics and New Materials, Institute of Physics, University of Belgrade, Pregrevica 118, 11080 Belgrade, Serbia [2]Department of Materials Science, Institute for Multidisciplinary Research, University of Belgrade, Kneza Višeslava 1,11000 Belgrade, Serbia [3]Institut für Physik, Montanuniversität Leoben, Franz-Josef-Straße 18, 8700 Leoben, Austria [4]Electrical Engineering Department, Technological Educational Institute (TEI) of Crete, Heraklion, 71004 Crete, Greece	
12:15-12:30		**Synthesis and protection of copper nanoparticles for power electronic devices** T. Michaud[1]*, S. De Sousa Nobre[2], T. Baffie[2] and J.-P. Simonato[2] [1] University Grenoble Alpes, CEA/LITEN, MINATEC Campus, France; [2]CEA/LITEN, Grenoble, France	

12:30-13:00	(WS4-Invited) A versatile graphene-based platform for robust nano-bio-hybrid **M. Garcia-Hernandez* et. al., Institute of Materials Science of Madrid (ICMM-CSIC), Spain**	(WS5-Invited) Simulations of single-electron states in metal nanoparticles and transition-metal-dichalcogenides. **Ioannis N. Remediakis*, Daphne Davelou and George Kopidakis Dept of Materials Science and Technology, University of Crete & Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas**	
13:00-14:30	**LUNCH BREAK (PASIPHAE ROOM)**		
	WS1 & WS3 Sessions IV – Chairs: A. Andrews (Sub: L.Weiss) *Room*: Minos I	*WS5 Session V – Chairs: G. Malliaras (Sub: R. Klajn)* *Room*: Minos II	Room: Apollon
14:30-14:45	**Nanoreactors with Intracellular Activity** Bo Thingholm* and Brigitte Städler Interdisciplinary Nanoscience Center, University of Aarhus, Aarhus, Denmark	(WS5-Invited) Lab-on-a-Chip & 3D-printing technologies for molecular diagnostics **Electra Gizeli*et.al., University of Crete & IMBB-FORTH, Greece**	Graphene Flagship WP11 meeting
14:45-15:00	**Cellular responses under static and dynamic conditions of polymeric micropatterned substrates fabricated via ultrafast laser direct writing** Eleftheria Babaliari[1,2]*, Paraskevi Kavatzikidou[1], Anna Mitraki[1,2], Anthi Ranella[1] and Emmanuel Stratakis[1,2] [1]Foundation for Research and Technology – Hellas (F.O.R.T.H.), Institute of Electronic Structure and Laser (I.E.S.L.), Heraklion, Crete, Greece [2]Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece		
15:15-15:30	**Nanocellulose-based cell culture platforms** Ruut Kummala[1]*, Chunlin Xu[2] and Martti Toivakka[1] [1]Laboratory of Paper Coating and Converting and Center for Functional Materials, Åbo Akademi Univeristy, Turku, Finland; [2]Laboratory of Wood and Paper Chemistry, Åbo Akademi University, Turku, Finland	(WS5-Inivted) Engineering Conjugated Polymers for Biosensing/Interfacing **Sahika Inal*, KAUST, Saudi Arabia**	

15:30-15:45	**Stimuli-Responsive Surfaces for Biological Applications** A. R. Kyvik,[1]* J. Veciana, K. Sugihara,[2] D. Pulido,[3] M. Royo,[3] J. Guasch[1] and I. Ratera.[1] [1]Institut de Ciència dels Materials de Barcelona (ICMAB-CSIC)/CIBER-BBN, Spain; [2]Department of Physical Chemistry, University of Geneva, Switzerland; [3]Combinatorial Chemistry Unit, Barcelona Science Park, Baldiri Reixac 10, 08028, Barcelona, Spain		
15:45-16:00	**Optoelectronic control of single cells using organic photocapacitors** Marie Jakešová[1]*, Malin Silverå Ejneby[2], Tony Schmidt[3], Johan Brask[2], Vedran Derek[1], Magnus Berggren[1], Rainer Schindl[3], Fredrik Elinder[2], Daniel Simon[1] and Eric Daniel Głowacki[1] [1] Laboratory of Organic Electronics, ITN Campus Norrköping, Linköping University, 60221, Norrköping, Sweden; [2]Department of Clinical and Experimental Medicine, Linköping University, SE-58185, Linköping, Sweden; [3]Institute for Biophysics, Medical University of Graz, Harrachgasse 21/IV, 8010, Graz Austria	**Photonic crystal-based sensor for label-free detection of fibrinopeptide B** Sara Resende*, Manuela F. Frasco and M. Goreti F. Sales BioMark-CEB/ISEP, School of Engineering, Polytechnic Institute of Porto, Porto, Portugal	
16:00-16:15	**Amyloid Designable Peptide Materials and Their Use as Scaffolds** Chrysoula Kokotidou[1,2] *, Sai Vamshi R. Jonnalagadda[3], Asuka A. Orr[3], Mateo Seoane-Blanco[4], Chrysanthi Pinelopi Apostolidou[1,2], Mark J. van Raaij[4], Antonio L. Llamas-Saiz[5], Phanourios Tamamis[3], Anna Mitraki[1,2] [1]Dept of Materials Science and Technology, University of Crete, Heraklion, Greece; [2] Institute of Electronic Structure and Laser (IESL), FORTH, Heraklion, Greece; [3] Artie McFerrin Department of Chemical Engineering, Texas A&M University, College Station, TX, USA; [4] Dept de Estructura de Macromoleculas, Centro Nacional de Biotecnologia (CSIC), Madrid, Spain; [5] X-Ray Unit, RIAIDT, University of Santiago de Compostela, Santiago de Compostela, Spain	**Improving the bio-recognition selectivity of nanosized layers with protein-polymer conjugates** R. Milani[1]*, Y. Liu[1], T. Nevanen[1], K. Kempe[2], P. Wilson[2], A. Paananen[1,] L.-S. Johansson[3], J.J. Joensuu[1], M.B. Linder[3], D.M. Haddleton[2] [1]VTT Technical Research Centre of Finland Ltd, Espoo, Finland; [2]University of Warwick, Conventry, United Kingdom; 3Aalto University, Espoo, Finland	

16:15-16:30	**Transcriptomic profiling reveals gene expression changes in an ex vivo human placenta model following exposure to engineered nanomaterials** Savvina Chortarea[1]*, Manser P[1] Fortino V[2], Wick P[1], Greco D[3] and Bürki-Thurnherr T[1] [1] Laboratory for Materials-Biology Interactions, Empa, Swiss Federal Laboratories for Materials, Science and Technology, St Gallen, Switzerland; [2] Institute of Biomedicine, University of Eastern Finland, Joensuu, Finland; [3] Institute of Biomedical Technology, University of Tampere, Tampere, Finland	**Nanoscale sensor devices: from a molecule to a whole cell detection** Larysa Baraban1,2*, Bergoi Ibarlucea1,2, Julian Schütt1, M. Medina-Sanchez3, W.M. Weber2,4, O.G. Schmidt3, T. Mikolajick2,4, and G. Cuniberti1,2 1 Institute of Materials Science and Max Bergmann Center for Biomaterials, Dresden University of Technology, 01062 Dresden, Germany; 2 Center for Advancing Electronics Dresden (CfAED), Germany; 3 Institute for Integrative Nanosciences, IFW Dresden, 01069 Dresden, Germany; 4 gGmbH Namlab Dresden, Germany	Graphene Flagship WP11 meeting (Apollon Room)
16:30-16:45	**Dynamic Photopolymerization Produces Complex Microstructures on Soft Hydrogels in a Moldless approach to Generate a 3D Intestinal Tissue Model** Albert G. Castaño[1], Maria García-Díaz[1], Gizem Altay[1], Núria Torras[1], Elena Martínez[1,2,3]* [1]Institute for Bioengineering of Catalonia (IBEC), The Barcelona Institute of Science and Technology (BIST), Barcelona, Spain; [2]Centro de Investigación Biomédica en Red (CIBER), Madrid, Spain; [3]Dep. of Electronics and Biomedical engineering, University of Barcelona (UB), Barcelona, Spain	**Can pulsed electric field change the fate of proteins binding?** Djamel Eddine Chafai1*, and Michal Cifra3 1Institute of Photonics and Electronics of the Czech Academy of Sciences, Chaberska 57, 18251, Prague 8, Czechia	
16:45-17:00	**Luminescent nanoparticles release from biocompatible polymeric fibers** Benedetta Del Secco*, Liviana Mummolo, Maria Letizia Focarete, Andrea Merlettini, Chiara Gualandi, Luca Prodi, Nelsi Zaccheroni University of Bologna, Bologna, Italy	**A slab waveguide microscopy platform for label-free study of biological nanoparticles** Mokhtar Mapar[1]*, Björn Agnarsson[1], Vladimir Zhedanov[1] and Fredrik Höök[2] [1] Department of Physics, Chalmers University of Technology, Göteborg, Sweden; [2] Boreskov Institute of Catalysis, Russian Academy of Sciences, Novosibirsk, Russia	
17:00-17:15	**Circadian flowering: from solar zenith to focused light within cells** Dimitrios Gkikas*, Chrysanthi Chimona and Sophia Rhizopoulou Department of Botany, Faculty of Biology, National and Kapodistrian University of Athens, Athens 15781, Greece	**The new type of bipyramidal-Au@SiO2 nanoparticles – synthesis and Raman application** Karol Kołątaj*, Andrzej Kudelski University of Warsaw, Department of Chemistry Warsaw, Poland	

17:15-17:30	**END OF SESSION**	**Solution Processed Multi-layer Metal Oxide Transistors** Hendrik Faber[1]*, Emre Yarali[1], Yen-Hung Lin[2], Ivan Isakov[2], Satyajit Das[2], Thomas D. Anthopoulos[1] [1] Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology, Thuwal 23955-6900, Saudi Arabia; [2] Department of Physics and Centre for Plastic Electronics, Imperial College London, Blackett Laboratory London SW7 2BW, United Kingdom	
17:30-18:00	**COFFEE BREAK (PASIPHAE ROOM)**		
	WS5 Session VI – Chairs: E. Stratakis *Room*: Minos		
18:00-18:30	(WS5-Invited) Printed nanoelectronics: there's plenty of room out there **Thomas Anthopoulos*** **King Abdullah University of Science and Technology (KAUST), KAUST Solar Centre, Division of Physical Sciences and Engineering, Kingdom of Saudi Arabia**		
18:30-19:00	(WS5-Invited) The implication of using conductive nitrides as alternative plasmonic materials: going beyond TiN and ZrN **Panos Patsalas*** **Aristotle University of Thessaloniki, Greece**		
19:00-19:30	(WS5-Invited) Development of semiconducting polymers for electrochemical transistors in organic bioelectronics **Iain McCulloch*** **King Abdullah University of Science and Technology (KAUST), KAUST Solar Center (KSC), Thuwal, 23955-6900, Saudi Arabia; Department of Chemistry and Centre for Plastic Electronics, Imperial College London, London SW7 2AZ, United Kingdom**		
19:30	**CONFERENCE CLOSING CEREMONY (STUDENT AWARDS & CLOSING REMARKS)**		

Friday 28th September	
09:30-12:00	**SOCIAL ACTIVITY** **VISIT TO KNOSSOS** (More information on Day 1 of the NanoBio2018 Conference)
Graphene Flagship WP11 meeting (Pasiphae rooms I & II)	
11:00-11:30	**COFFEE BREAK (for the Graphene Meeting participants ONLY)**

POSTER PRESENTATION PROGRAM

POSTER SESSIONS will take place DAY 2 and DAY 3 of the Conference
POSTER SESSION I: 18:00 – 20:00 & POSTER SESSION II: 18:00 – 20:00
(as shown on the main NANOBIO2018 Program)

NanoBio2018 Poster Committee for POSTER SESSION I: Anne M. Andrews, Antonios G. Kanaras, Athanasia Kostopoulou, Joao Mano, Anna Mitraki, Annamaria Petrozza and Minas Stylianakis

NanoBio2018 Poster Committee for POSTER SESSION II: Luigi Colombo, Insung S. Choi, Yulia Galagan, Sahika Inal, Lina Papadimitriou, Anthi Ranella, and Lucien Weiss

POSTER SESSION I Tuesday, 25th September 2018	POSTER SESSION II Wednesday, 26th September 2018
WS1: P1 up to P25	WS1: P26 up to P51
WS2: P1 up to P4	WS2: P1 up to P4
WS3: P1 up to P10	WS3: P11 up to P21
WS4: P1 up to P4	WS4: P5 up to P9
WS5: P1 up to P8	WS5: P9 up to P17

WORKSHOP 1
NANOBIOMATERIALS AND NANOMEDICINE

WS1-P1	**Composite active surfaces for biosensing applications** V. Dinca[1]*, A. Palla Papavlu[1], A. Vasilescu[2], M. Filipescu[1], S. Brajnicov[1], A. Bonciu[1,2] and M. Dinescu[1] [1]National Institute for Lasers, Plasma and radiation Physics, Bucharest, Romania [2]International Center of Byodinamics, Bucharest, Romania
WS1-P2	**Effect of Myoglobin on Photoluminescence of ZnO-Gd2O3 Films** I.A. Hayrullina[1]*, T.F. Sheshko[1], I.A. Nagovitsyn[2,3], G.K. Chudinova[2,4], A.G. Cherednichenko[1], E.A. Sarycheva[1] [1]RUDN University - Peoples' Friendship University of Russia, Moscow Miklukho-Maklaya str.6, Moscow, Russia, [2]Natural Science Center of General Physics Institute RAS, Moscow, Russia [3]Semenov Institute of Chemical Physics RAS, Moscow, Russia [4]National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia

WS1-P3	**Nanoparticle-mediated Enzyme Replacement Therapy and Autophagy Modulation: a new perspective for Krabbe disease** Ambra Del Grosso [1,2]*, Lucia Angella[2], Marianna Galliani [2,3], Nadia Giordano[2,4], Ilaria Tonazzini[1], Melissa Santi[3], Matteo Caleo[2,4], Giovanni Signore3 and Marco Cecchini1,2 [1]NEST, Istituto Nanoscienze-CNR and Scuola Normale Superiore, Piazza San Silvestro 12, 56127 Pisa (ITALY) [2]NEST, Scuola Normale Superiore, Piazza San Silvestro 12, 56127 Pisa (ITALY) [3] Center for Nanotechnology Innovation@NEST, Istituto Italiano di Tecnologia, Piazza San Silvestro 12, 56127 Pisa (ITALY) [4]CNR Neuroscience Institute, via G. Moruzzi 1, 56124 Pisa, (ITALY)
WS1-P4	**Gold Nanoparticles Against Clinically Isolated Pathogens** Rokas Žalnėravičius[1, 2]*, Arūnas Jagminas[1], Marija Kurtinaitienė[1], Vaclovas Klimas[1] and Algimantas Paškevičius[3] [1]State Research Institute Centre for Physical Sciences and Technology, Vilnius, Lithuania [2]Department of Chemistry and Bioengineering, Vilnius Gediminas Technical University, Vilnius, Lithuania [3]Laboratory of Biodeterioration Research, Nature Research Centre, Vilnius, Lithuania
WS1-P5	**Silver Nanowire Endoscopy for Single-Cell Investigation** Monica Ricci[1]*, Beatrice Fortuni[1], Tomoko Inose[2], Susana Rocha[1] and Hiroshi Uji-i[1,2] [1]KU Leuven, Celestijnenlaan 200F 3001 Leuven, Belgium [2]RIES, Hokkaido University, Sapporo, 001-0020, Japan
WS1-P6	**Probing surface-driven interactions of fluorescently labeled hyaluronic acid with nanomaterials** Liviana Mummolo*, Damiano Genovese, Francesco Palomba, Luca Prodi University of Bologna, Bologna, Italy
WS1-P7	**Phage-based capture and concentrating system for single step detection of pathogens in liquid samples** Domenico Franco[1]*, Sebastiano Trusso[2], Laura M. De Plano[3] , Enza Fazio[1] , Maria G. Rizzo[3], Santina Carnazza[3], Fortunato Neri[1] and Salvatore P. P. Guglielmino[3] [1] Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy [2]IPCF-CNR Institute for Chemical-Physical Processes, Viale Ferdinando Stagno d'Alcontres 37, 98158, Messina, Italy [3]Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
WS1-P8	**In vivo Hepatotoxicity and its Molecular Mechanisms of Gd2O3:Eu3+ Dual-modal Nanoprobe** Cunjing Zheng, Xiumei Tian, Fukang Xie*, Li Li Department of Histology and Embryology, Zhongshan School of Medicine, Sun Yat-san University, Guangzhou 510080, China
WS1-P9	**Downregulation of receptor for advanced glycation end products (RAGE) in the aorta of APOE-deficient mice using P-selectin targeted RAGE-shRNA lipoplexes** Cristina Ana Constantinescu[1]*, Elena-Valeria Fuior[1], Daniela Rebleanu[1], Geanina Voicu1, Mariana Deleanu[1], Monica Tucureanu[1], Elena Butoi[1], Ileana

	Manduteanu[1], Virginie Escriou[2,3,4,5], Maya Simionescu[1], Manuela Calin[1] [1]Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania, [2]CNRS, Unité de Technologies Chimiques et Biologiques pour la Santé (UTCBS) UMR 8258, Paris, France, [3]INSERM, UTCBS U 1022, Paris, France, [4]Université Paris Descartes, Sorbonne-Paris-Cité University, UTCBS, Paris, France, [5]Chimie ParisTech, PSL Research University, UTCBS, Paris, France
WS1-P10	**Studies on transfection efficiency and toxicity of different nanocarriers of shRNA-expressing plasmid on human valvular interstitial cells** Daniela Rebleanu[1], Cristina Ana Constantinescu[1], Geanina Voicu[1], Agneta Simionescu[1,2], Ileana Manduteanu[1], Manuela Calin[1]* [1]Institute of Cellular Biology and Pathology "Nicolae Simionescu" of Romanian Academy, Bucharest, Romania [2]Department of Bioengineering, Clemson University, United States of America
WS1-P11	**Nanopatterns of Surface-bound ephrinB1 Ligands produce Multivalent Effects on EphB2 Receptor Clustering** Verónica Hortigüela[1], Enara Larrañaga[1]*, Francesco Cutrale[2], Anna Seriola[3], María García-Díaz[1], Anna Lagunas[4,1], Jordi Andilla[5], Pablo Loza-Alvarez[5], Josep Samitier[1,4,6], Samuel Ojosnegros[2], Elena Martínez[1,4,6] [1]Institute for Bioengineering of Catalonia (IBEC), Barcelona, Spain; [2]University of Southern California, Translational Imaging Center, Los Angeles, CA, USA; [3]Center of Regenerative Medicine in Barcelona, Barcelona, Spain; [4]Centro de Investigación Biomédica en Red (CIBER), Madrid, Spain; [5]ICFO-Institut de Ciencies Fotoniques, Castelldefels, Spain; [6]Dep. of Electronics and Biomedical Engineering, University of Barcelona (UB), Barcelona, Spain
WS1-P12	**Poly(ethylene oxide) as Protective Barrier of Carbon Nanotubes against Protein Adsorption-Molecular Dynamics Study** Z. Benková[1,2]*, P. Čakánek[1]*, M. N. Dias Soeiro Cordeiro[2] [1]Polymer Institute, Slovak Academy of Sciences, Dúbravská cesta 9, 845 41 Bratislava, Slovakia [2]LAQV@REQUIMTE, Department of Chemistry and Biochemistry, Faculty of Sciences, University of Porto, Rua do Campo Alegre 687, Porto, Portugal
WS1-P13	**Solvent Mediated Effects in Nanoassembly of Amyloidogenic Peptides** Nikolay Blinov* and Andriy Kovalenko University of Alberta and Nanotechnology Research Centre, Edmonton, Canada
WS1-P14	**Antibody-free magnetic lateral flow immunoassay for quantitative amyloid beta detection** Monserrat Rivas[1], Jose Carlos Martínez[1], María Salvador[1], Amanda Moyano[2], María C. Blanco-López[2], Apostolos C. Tsolakis[3], Eleftherios Halevas[3] and George Litsardakis[3] [1]Departamento de Física & IUTA, Universidad de Oviedo, Gijón, Spain; [2]Departamento de Química Física y Analítica, Universidad de Oviedo, Oviedo, Spain; [3]Department of Electrical & Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece
WS1-P15	**Immobilization and Electrochemical Behavior of Hemoglobin on Hybrid Graphite/TiO2 electrodes** Efstathios Deskoulidis*, Vasilios Georgakilas and Emmanuel Topoglidis Department of Materials Science, University of Patras, Rion 26504, Greece

WS1-P16	**Self-assembly of anionic liposomes on cationic biodegradable polymer particles** Andrey Sybachin*, Vasiliy Spiridonov, Olga Novoskoltseva, Nikolay Melik-Nubarov and Alexander Yaroslavov Lomonosov Moscow State University, Chemistry Department Polymer Division, Russia
WS1-P17	**A novel characterization of silver nanoparticles using Artemisia Annua: green synthesis, characterization and anti-malarial activity** Elisabetta Avitabile[1]*, Cristina D'Avino[1], Ioannis Tsamesidis[1], Serenella Medici[2] and Antonella Pantaleo[1] [1]Department of Biomedical Sciences, University of Sassari, Italy 2Department of Chemistry and Pharmacy, University of Sassari, Sassari, Italy
WS1-P18	**Enhanced Vibrational Circular Dichroism signal as a result of interaction between water soluble gold nanocluster and CoCl2** Sarita Bhattacharya* and Thomas Bürgi Department of Physical Chemistry, University of Geneva, Geneva, Switzerland
WS1-P19	**Effect of CNT with mechanical strain on cell differentiation** Eliška Mázl Chánová[1,2]*, Petr Knotek[3], Jan Svoboda[2], Petr Kutálek[4], Jana Kredatusová[2], Dana Kubies[2] and Ying Yang[1] [1]Institute for Science&Technology in Medicine, Keele University, Stoke-on-Trent, UK; [2]Institute of Macromolecular Chemistry AS CR, Prague, CR; [3]Dpt. of General and Inorganic Chemistry, University of Pardubice, Pardubice, CR; [4] Joint Laboratory of Solid State Chemistry of IMC AS CR and University of Pardubice, Pardubice, CR
WS1-P20	**Characterization of magnetic nanoparticles coated with chitosan derivatives for tissue engineering application** Adriana Gilarska[1,2]*, Sylwia Fiejdasz[1], Szczepan Zapotoczny[2], Maria Nowakowska[2] and Czesław Kapusta[1] [1]AGH University of Science and Technology, Faculty of Physics and Applied Computer Science, Mickiewicza 30, 30-059 Kraków, Poland [2]Jagiellonian University, Faculty of Chemistry, Gronostajowa 2, 30-387 Kraków, Poland
WS1-P21	**VCAM-1 TARGETED NARINGENIN-LOADED LIPID NANOEMULSIONS REDUCE MONOCYTE ADHESION TO ACTIVATED ENDOTHELIAL CELLS** Elena-Valeria Fuior[1]*, Geanina Voicu[1], Mariana Deleanu[1,2], Daniela Rebleanu[1], Cristina Ana Constantinescu[1,3], Florentina Safciuc[1], Maya Simionescu[1], Manuela Calin[1] [1]Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy, Bucharest, Romania; [2] UASVM, Faculty of Biotechnologies, Bucharest, Romania; [3]UASVM, Faculty of Veterinary Medicine, Bucharest, Romania
WS1-P22	**Effects of Ag/TiO2 and Ag/N-TiO2 nanoparticles on human lung epithelial cells** Daniela Rebleanu[1]*, Cristina Ana Constantinescu[1], Geanina Voicu[1], Mariana Deleanu[1], Carmen Gaidau[2], Madalina Ignat[2], Aurora Petica[2], Manuela Calin[1] [1] Institute of Cellular Biology and Pathology "Nicolae Simionescu" of Romanian Academy, Bucharest, Romania; [2]R&D National Institute for Textiles and Leather (INCDTP)–Leather and Footwear Research Institute (ICPI) Division, Bucharest, Romania

WS1-P23	**Effect of Carbon Nanotubes on Zirconium Ceramics Used for Biomedical Applications** Sergei Ghyngazov*, Sergei Shevelev National Research Tomsk Polytechnic University, Tomsk, Russia
WS1-P24	**Synthesis, physico-chemical characterization and anticancer potential of flavonoid chrysin-loaded hybrid PCL and PHB nano-formulations**. E. Halevas[1]*, C. Kokotidou[2], A. Mitraki[2], G. Litsardakis[1], A. Pantazaki[3] [1] Department of Electrical & Computer Engineering, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece. [2] Department of Materials Science and Technology, University of Crete, 70013, Heraklion, Greece [3] Department of Chemistry, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece.
WS1-P25	**Graphene Acid: Ready-to-derivatize Biocompatible Nanocarrier Towards Biomedical Applications** Jan Belza*, Katerina Polakova, Tomas Malina, Aristides Bakandritsos, Veronika Sedajova and Radek Zboril Regional Centre of Advanced Technologies and Materials, Department of Physical Chemistry, Faculty of Science, Palacky University Olomouc, 17. Listopadu 1192/12, 771 46 Olomouc, Czech Republic
WS1-P26	**Addition of graphene nanoparticles to PDMS matrix significantly improve hemocompatibility of samples** Nina Recek[1]*, Karthika Prasad[2], Alenka Vesel[1] [1]Department of Surface Engineering and Optoelectronics, Jožef Stefan Institute, Ljubljana SI-1000, Slovenia [2]Science and Engineering Faculty, Queensland University of Technology, Brisbane QLD 4000, Australia
WS1-P27	**Interactions of mitoxantrone-modified superparamagnetic iron oxide nanoparticles with biomimetic membranes and cells.** Dorota Nieciecka*, Krystyna Kijewska and Paweł Krysinski Department of Chemistry, University of Warsaw, Pasteur 1, 02-093 Warsaw, Poland
WS1-P28	**Fe3O4 nanoparticles formation by ball milling of hematite** Elena Lysenko*, Anatoliy Surzhikov Tomsk Polytechnic University, Tomsk, Russia
WS1-P29	**Gold Coated Cobalt Ferrite Nanoparticles via Methionine Inducted Reduction** Agne Mikalauskaite*, A. Jagminas State research institute Center for Physical Sciences and Technology, Vilnius, Lithuania
WS1-P30	**Magnetic field sensible nanocomposites based on cross-linked sodium alginate and maghemite** Vasiliy Spiridonov*,Andrey Sybachin, Irina Panova, Olga Novoskoltseva and Alexander Yaroslavov Lomonosov Moscow State University, Chemistry Department Polymer Division, Russia
WS1-P31	**Fluorescent Carbogenic Nanoparticles** Dr Marta Krysmann* University of Central Lancashire, School of Pharmacy and Biomedical Sciences, Preston, UK

WS1-P32	**PEGylating magnetic nanocrystals clusters through electrostatic interactions** A. Kolokithas-Ntoukas[1]*, G. Mountrichas[2], S. Pispas[2], R. Zboril[3], K. Avgoustakis[4], A. Bakandritsos[3] [1]University of Patras, Materials Science Dept., Rio, Greece; [2]Theoretical and Physical Chemistry Institute N.H.R.F., Athens, Greece; [3]Regional Centre of Advanced Technologies and Materials, Olomouc, Czech Republic; [4]University of Patras, Pharmacy Dept., Rio, Greece
WS1-P33	**Multiplex analysis of tumor markers using surface enhanced Raman spectroscopy (SERS).** Anna Balzerová, Václav Ranc, Radek Zbořil Regional Centre of Advanced Technologies and Materials, Department of Physical Chemistry, Faculty of Science, Palacký University in Olomouc, 17 listopadu 12, CZ-77146 Olomouc, Czech Republic
WS1-P34	**Evaluation of milk-derivate exosomes as natural liposomes in theragnostic.** González M.I.[1,2], Sobrino G.[1,2], Cañadas M. [1], Desco M.[1,2,3,4], Salinas B.[1,2,3] [1] Inst. de Investig. Sanitaria Gregorio Marañón, Experimental Medicine and Surgery Unit, Madrid, Spain; [2] Centro Nacional de Investigaciones Cardiovasculares Carlos III, Advanced Imaging Unit, Madrid, Spain; [3] Universidad Carlos III de Madrid, Bioengineering and Aerospace Engineering Dept, Madrid, Spain; [4] Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM), Spain
WS1-P35	**In situ synthesis of silver nanoparticles on organic and inorganic colloidal particles for theranostic applications** Bogdan Parakhonskiy[1,2]*, Anatolii Abalymov[1], Ekaterina Lengert[1,2], Maria Saveleva[1,2], Alexey Yashchenok[3], Yulia Svenskaya[2], Andre Skirtach[1] [1]Ghent University, Ghent, 9000, Belgium; [2] Saratov State University, Saratov, 410012, Russia; [3] Skoltech center of Photonics & Quantum Materials, Skolkovo Institute of Science and Technology, 143026 Moscow, Russia
WS1-P36	**Ultrasound-responsive Smart Liposomes as Theranostic agents for Treatment of Glioblastoma multiforme** Rishi Rajat Adhikary* and Rinti Banerjee Indian Institute of Technology Bombay, Mumbai, India
WS1-P37	**Antibacterial Layer-by-Layer assemblies based on Graphene** Ella Gibbons[1], Antonios Kelarakis[2], Marta Krysmann[1] [1]School of Pharmacy and Biomedical Sciences, University of Central Lancashire, Preston, United Kingdom; [2]School of Physical Sciences and Computing, University of Central Lancashire, Preston, United Kingdom
WS1-P38	**Production of antibacterial polymeric materials** Graham M Reid[1]*, Shauna Flynn[1,2], Laura Quinn[2], Eoin Casey[2], Susan Mulansky[3] and Susan M Kelleher[1] [1]School of Chemistry, University College Dublin, Dublin 4, Ireland [2]School of Bioprocessing Engineering, University College Dublin, Dublin 4, Ireland [3]Institute of Food and Biochemical Engineering, Technische Universität Dresden

WS1-P39	**Shell-dependent antimicrobial efficiency of cobalt ferrite nanoparticles** Simonas Ramanavicius*, Rokas Zalneravicius and Arunas Jagminas State research institute Center for Physical Sciences and Technology, Vilnius, Lithuania
WS1-P40	**Fe-doped C-dots combining exceptional optical, magnetic and antimicrobial properties** Joanna Stachowska[1], Antonios Kelarakis[2]*, Marta Krysmann[1] [1]School of Pharmacy and Biomedical Sciences, University of Central Lancashire, Preston, United Kingdom [2]School of Physical Sciences and Computing, University of Central Lancashire, Preston, United Kingdom
WS1-P41	**Preparation and characterization of Pistacia lentiscus var. Chia essential oil-loaded poly(lactic acid) nanoparticles as novel wound healing agent** I. Vrouvaki[1]*, E. Koutra[2], M. Kornaros[2], K. Avgoustakis[1], F. N. Lamari[1], and S. Hatziantoniou[1] [1]University of Patras, Department of Pharmacy, Patras, Greece [2]University of Patras, Department of Chemical Engineering, Patras, Greece
WS1-P42	**Polysaccharides-based Capsules Loaded with Magnetic Nanoparticles** Elżbieta Gumieniczek-Chłopek [1,2]*, Joanna Odrobińska[2], Czesław Kapusta[1], Szczepan Zapotoczny[2] [1] Faculty of Physics and Applied Computer Science, AGH University of Science and Technology, Cracow, Poland [2] Faculty of Chemistry, Jagiellonian University, Cracow, Poland
WS1-P43	**Designing of Highly Programmable and Modular Nanorobotic Platform for Smart Drug Delivery** Soumyananda Chakraborti* and Jonathan G Heddle Malopolska Centre of Biotechnology, Jagiellonian University, Krakow, Poland
WS1-P44	**Electrospun Nanofibers as Controlled-Release Carriers of Echinochrome A** Stefanos Kikionis[1], Elena A. Vasileva[2], Natalia P. Mishchenko[2], Sergey A. Fedoreyev[2], Vassilios Roussis[1] and Efstathia Ioannou[1]* [1]Section of Pharmacognosy and Chemistry of Natural Products, Department of Pharmacy, National and Kapodistrian University of Athens, Athens, Greece [2]G.B. Elyakov Pacific Institute of Bioorganic Chemistry, Far-Eastern Branch of the Russian Academy of Sciences, Vladivostok, Russia
WS1-P45	**Injectable Dual release Nanoformulation based Hydrogel for Blood Borne Bacterial Infections** Vimal Rohan K [1]*, Rohit Srivasatava[2]* [1]Academy of Medical Sciences, Pariyaram, Kerala, India [2]Indian Institute of Technology, Bombay, India
WS1-P46	**Nanoengineered Dual Release Graft for Pain and Inflammation Management in Osteoarthritis** Bavya M C[1]*, Rohit Srivasatava[2]* [1,2]Indian Institute of Technology, Bombay, India

WS1-P47	**Promiscous phage-peptide as possible approach to a multiple drug targeted therapy** Laura M. De Plano[1]*, Domenico Franco[2], Maria G. Rizzo[1] , Santina Carnazza[1], Marco S. Nicolò[1] and Salvatore P. P. Guglielmino[1] [1] Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina,Viale F. Stagno d'Alcontres 31, 98166, Messina, Italy; [2]Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, 98166, Messina, Italy
WS1-P48	**Biomonitoring air pollution in leaves of carob tree** Sophia Papadopoulou*, Maria-Sonia Meletiou-Christou, Sophia Rhizopoulou Department of Botany, Faculty of Biology, National and Kapodistrian University of Athens, Athens 15781, Greece
WS1-P49	**Synthesis of new materials containing ZnO doped particles for purification of waste waters** Viorica-Elena Podasca*, Mariana-Dana Damaceanu Petru Poni Institute of Macromolecular Chemistry, 41 A Grigore Ghica Voda Alley, 700487 Iasi, Romania
WS1-P50	**A colorimetric sensing platform for HIV-1 viral nucleic acids based on self assembly of single-component DNA functionalized gold nanoparticles** Abbas Karami, Masoumeh Hasani* Faculty of Chemistry, Bu-Ali Sina University, Hamedan 65174, Iran
WS1-P51	**Theoretical study of water interaction with functionalized benzene molecules** Rafaela-Maria Giappa*, Emmanuel Klontzas and George Froudakis University of Crete, Department of Chemistry, Crete, Greece

WORKSHOP 2
PEROVSKITE OPTOELECTRONICS & SOLAR CELLS

WS2-P1	**Online Monitoring the Crystallization Process of CH3NH3PbI3 Probed by Femtosecond Transient Absorption Spectroscopy** Efthymis Serpetzoglou[1,3],*, Ioannis Konidakis[1], Apostolos Panagiotopoulos[2,4], Temur Maksudov[2,4], Emmanuel Kymakis[2], Emmanuel Stratakis[1,4] [1]Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece [2]Center of Materials Technology and Photonics, Electrical Engineering Dept, Technological Educational Institute (TEI) of Crete, Heraklion, Crete, Greece [3]Physics Department, and [4]Department of Materials Science and Technology, University of Crete, Greece, Heraklion, Crete, Greece

WS2-P2	**Photoluminescence Spectroscopy of Halide Perovskites** Stuart Thomson*, Maria Tesa and Anna Gakamsky Edinburgh Instruments, Livingston, UK
WS2-P3	**Different Morphologies of All-Inorganic Perovskite Nano/Microparticles: Physical Properties and Anion Exchange** Konstantinos Brintakis*, Maria Sygletou, Athanasia Kostopoulou and Emmanuel Stratakis Institute of Electronic Structure and Laser, Foundation for Research and Technology - Hellas, Heraklion, Greece
WS2-P4	**Magnetic Behaviour of Rutile-type CrMO4 (M = Nb, Ta) Materials Prepared from Single-molecular Precursors** Martina Vrankić[1]*, Marijana Jurić[1], Lidija Androš Dubraja[1], Jasminka Popović[1], Damir Pajić[2] and Jure Dragović[2] [1]Ruđer Bošković Institute, Zagreb, Croatia [2]Department of Physics, Faculty of Science, University of Zagreb, Zagreb, Croatia

WORKSHOP 3 **TISSUE ENGINEERING & REGENERATIVE MEDICINE**	
WS3-P1	**Biodegradable and bioactive scaffold for bone tissue engineering**. Malagón Escandón AM[1]*, Saniger Blesa JM[2], Badillo Ramírez I[2], Arenas Alatorre JA[3], Chaires Rosas CP[1], Vázquez Torres NA[1], Piñón Zárate G[1], Hernández Téllez B[1], Herrera Enríquez M[1], Castell Rodríguez AE[1]. [1] Department of Cell and Tissue Biology from the Faculty of Medicine, UNAM, Avenida Universidad 3000, C.P. 04510, Ciudad de México, CDMX. [2] Center for Applied Sciences and Technological Development (CCADET), UNAM Circuito exterior s/n C.P. 04510 Ciudad de México, CDMX. [3] Institute of Physics (IFUNAM), Sendero Bicipuma, Coyoacán, Ciudad de México, CDMX.
WS3-P2	**Analysis of the degree of crystallinity during laser cladding of bioactive glass coatings on ultrafine-grained metallic substrates** Szymon Bajda[1]*, Michal Krzyzanowski[1, 2,] Jakub Sroka[1, 3], Szczepan Witek[1] and Patryk Steczkowski[1] [1]AGH University of Science and Technology, Krakow, Poland; [2]Birmingham City University, Birmingham, United Kingdom; [3]The University of Sheffield, Sheffield, United Kingdom

WS3-P3	**Calcium phosphate mineralization of poly (N, N-dimethylacrylamide) (PDMAM) hydrogels** Constantine Ioannides[1]*, Georgios Bokias[2,3] and Nikolaos Bouropoulos[1,3] [1]Department of Materials Science, University of Patras, Patras, Greece [2]Department of Chemistry, University of Patras, Greece [3] Foundation for Research and Technology Hellas, Institute of Chemical Engineering and High Temperature Chemical Processes, Patras, Greece
WS3-P4	**Self-Assembling peptides with RGD motifs as scaffolds for tissue engineering** Graziano Deidda[1,2],* Maria Farsari [1,2], Anna Mitraki [1,2] [1]Department of Materials Science & Technology, University of Crete, Heraklion, Greece; [2]Institute of Electronic Structure and Laser, IESL-FORTH, Heraklion, Greece
WS3-P5	**Protein-based Hydrogel for laser-induced Fabrication of Microstructures** Amirbahador Zeynali*, Giuseppe Chirico and Maddalena Collini Biophysics and Biophotonics group, Department of Physics "G. Occhialini", Universita' Milano-Bicocca, Milano, Italy
WS3-P6	**Biodegradable prosthesis created by electrospinning for the treatment of extrahepatic bile duct injuries** Alan Isaac Valderrama Treviño[1]*, Nadia Adriana Vázquez Torres1, Rodrigo Banegas Ruiz[2], Andrés Eliú Castell Rodríguez[1], Eduardo E. Montalvo-Javé[3] [1] Laboratory of experimental immunotherapy and tissue engineering, Faculty of Medicine, Universidad Nacional Autónoma de México, Mexico; [2] Service of Hand Surgery and Microsurgery. Rehabilitation Hospital "Luis Guillermo Ibarra Ibarra". Mexico City, Mexico; [3] Department of HPB Surgery, General Hospital of Mexico, Mexico City, Mexico
WS3-P7	**Engineering cell adhesion and orientation via ultrafast laser fabricated microstructured substrates under static and dynamic conditions** Eleftheria Babaliari[1,2]*, Paraskevi Kavatzikidou[1], Despoina Angelaki[1,3], Anna Mitraki[1,2], Anthi Ranella[1], Emmanuel Stratakis[1,2] [1] Foundation for Research and Technology - Hellas (F.O.R.T.H.), Institute of Electronic Structure and Laser (I.E.S.L.), Heraklion, Crete, Greece [2] Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece [3] Department of Physics, University of Crete, Heraklion, Crete, Greece
WS3-P8	**Co-flow microfluidic system for the production of tuneable elastic Gelatin methacrylate microparticles** Francesco Pappalardo[1]*, Jopeth Miranda Ramis[1], Marta Alvarez Paino[1], Kevin Shakesheff1, Morgan R Alexander[2,] Felicity RAJ Rose[1] [1]Division of Regenerative Medicine and Cellular Therapies, School of Pharmacy, Centre for Biomolecular Sciences, University of Nottingham, University Park, Nottingham, NG7 2RD, United Kingdom [2]Division of Advanced Materials and Healthcare Technologies, School of Pharmacy, University of Nottingham, Nottingham NG7 2RD, United Kingdom
WS3-P9	**Direct Laser Printing of Cells on Tissue Constructs based on Porous Collagen Scaffolds** C.V. Leva[1], M. Chatzipetrou[1], D. Zareifi[2], A. Gravanis[3], L. Alexopoulos[2], D. S. Tzeranis[3]* and I. Zergioti[1] [1]Department of Physics, National Technical University of Athens, Zografou, Greece [2]Department of Mechanical Engineering, National Technical University of Athens, Zografou, Greece [3]Institute of Molecular Biology and Biotechnology, Foundation for Research and TechnologyHellas, Herakleion, Greece

WS3-P10	**Octacalcium phosphate: Synthesis, characterization and stability studies in calcium alginate beads** Emmanouela Mystiridou[1,2]*, Eleni-Anna Oikonomou[1] and Nikolaos Bouropoulos[1,2] [1]Department of Materials Science, University of Patras, Patras, Greece [2]Foundation for Research and Technology Hellas, Institute of Chemical Engineering and High Temperature Chemical Processes, Patras, Greece
WS3-P11	**Surface and morphological investigation of synthesized nanostructured ridges from electrospun Polyvinyl Alcohol – Egg Albumin blend using Atomic Force Microscopy** Jopeth Ramis[1,2]*, Bryan Pajarito[3] [1] Department of Chemical Engineering, Technological Institute of the Philippines, 363 P. Casal St. Quiapo, Manila, Philippines. [2] Division of Regenerative Medicine and Cellular Therapies, School of Pharmacy, University of Nottingham, University Park, Nottingham, United Kingdom [3] Polymer Research Laboratory, Department of Chemical Engineering, University of the Philippines, Diliman, Quezon City, Philippines
WS3-P12	**Polarization-resolved multi-photon microscope supporting live cell imaging** S. Psilodimitrakopoulos[1], A. Lemonis[1], L. Mouchliadis[1], D. Tzeranis[2], M. Nikou[3], D. Xydias[1,2], K. Karali[1,2], A. Gravanis[4,5] and E. Stratakis[1,2]* [1]Foundation for Research and Technology – Hellas (F.O.R.T.H.), Institute of Electronic Structure and Laser (I.E.S.L.), Heraklion, Crete, Greece; [2]Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology - Hellas, Heraklion 71003, Greece; [3]Department of Biology, University of Crete, Heraklion 71003, Greece; [4]Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece; [5]Department of Pharmacology, School of Medicine, University of Crete, Heraklion 71003, Greece.
WS3-P13	**Applications of non-linear imaging microscopy in biology** Evangelia Gavgiotaki [1,2]*, Vassilis Tsafas [1,3], Meropi Mari[1] and George Filippidis[1] [1] Institute of Electronic Structure and Laser, Foundation for Research and Technology, Heraklion, Greece [2] Medical School, University of Crete, Heraklion , Greece [3] Department of Physics, University of Crete, Heraklion, Greece
WS3-P14	**Electrospun Fibrous Matrices for the Treatment of Orthopedic Diseases** A. R. Tsiapla[1]*, V. Bakola1[,2], V. Karagkiozaki[1,2] and S. Logothetidis[1] [1]Nanotechnology Lab LTFN (Lab for Thin Films – Nanobiomaterials –Nanosystems – Nanometrology) Aristotle University of Thessaloniki, Thessaloniki, Greece [2]BL Nanobiomed P.C. Thessaloniki, 54655, Greece
WS3-P15	**Drug-loaded Nanoparticles for the Therapy of Orthopedic Implant Infections** A. R. Tsiapla[1]*, V. Bakola[1,2], V. Karagkiozaki[1,2] and S. Logothetidis[1] [1]Nanotechnology Lab LTFN (Lab for Thin Films – Nanobiomaterials –Nanosystems – Nanometrology) Aristotle University of Thessaloniki, Thessaloniki, Greece [2]BL Nanobiomed P.C. Thessaloniki, 54655, Greece
WS3-P16	**Composite hydrogel based biomaterials functionalized with calcium carbonate for biomedical application** Anatolii Abalymov[1]*, Maria Saveleva [2], Bogdan Parakhonskiy[1] and Andre Skirtach[1] [1]Faculty of Bioscience Engineering Ghent University, Ghent, Belgium

	[2]Saratov State University, Saratov, Russia
WS3-P17	**BIOCOMPATIBILITY AND ANTIMICROBIAL ACTIVITY OF THYMOL-FUNCTIONALIZED 3D SCAFFOLDS** K. Parkatze[1,2]*, M. Chatzinikolaidou[1,3], E. Koufakis[3], M. Farsari[1] and M. Vamvakaki[1,3] [1]Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, 700 13 Heraklion, Crete, Greece; [2]Department of Chemistry, University of Crete, 710 03Heraklion, Crete, Greece; [3]Department of Materials Science and Technology, University of Crete, 710 03 Heraklion, Crete, Greece
WS3-P18	**HIGHLY EFFICIENT AND BIOCOMPATIBLE PHOTOINITIATORS FOR MULTI-PHOTON POLYMERIZATION** K. Parkatze[1,2]*, G. Noirbent[5], D. Ladika[1,4]*, M. Chatzinikolaidou[1,3], D. Gray[1], F. Dumur[5], M. Farsari[1] and M. Vamvakaki[1,3] [1]Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, 700 13 Heraklion, Crete, Greece; [2]Department of Chemistry, University of Crete, 710 03Heraklion, Crete, Greece; [3]Department of Materials Science and Technology, University of Crete, 710 03 Heraklion, Crete, Greece; [4]Department of Physics, University of Crete, 710 03 Heraklion, Crete, Greece; [5]Aix Marseille University, CNRS, ICR, UMR 7273, F-13397 Marseille, France
WS3-P19	**Influence of micro/nano-patterned surfaces on neuronal cell response** Papadimitriou Lina[1]*, Karali Kanelina[1], Angelaki Despoina[1, 2], Lanara Christina [1, 2], Kapaj Gentjan[1], Kavatzikidou Paraskevi[1], Stratakis Emmanuel[1, 2], Ranella Anthi[1] [1] Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, Greece; [2] University of Crete, Greece
WS3-P20	**Biocompatibility and potential cytotoxicity of silicalite-1 and nanodiamond-BMP-7 coatings for orthopedic implants** Ivana Kopova[1]*, Ivan Jirka[2], Stepan Potocky[3,4], Bohuslav Rezek[3,4], Lucie Bacakova[1] [1] Institute of Physiology of the Czech Academy of Sciences, Prague, Czech Republic; [2] J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences, Prague, Czech Republic; [3] Institute of Physics of the Czech Academy of Sciences, Prague, Czech Republic; [4] Faculty of Electrical Engineering, Czech Technical University, Prague, Czech Republic
WS3-P21	**Biocompatibility of artificial rod and cone photoreceptors with human-like spectral sensitivities** Seok Hwan Kim[1]*, Byeongho Park[2] , Heehong Yang[3], Hyun Seok Song[4], Tai Hyun Park[3],and Jae Hun Kim[2] [1]Seoul National University Boramae Medical Center, Seoul, Korea; [2]Korean Institute of Science and Technology, Seoul, Korea; [3] School of Chemical and Biological Engineering Seoul National University, Seoul, Korea; [4]Korea Basic Science Institute, Daejeon, Korea

WORKSHOP 4
GRAPHENE & RELATED 2D MATERIALS

WS4-P1	**Reduced Graphene Oxide Ink/Conductive Polymeric Composites for Enhanced Field Emission Devices** Minas Stylianakis[1]*, George Viskadouros[1,2], Christos Polyzoidis[1], George Veisakis[1], Konstantinos Petridis[1,3] and Emmanuel Kymakis[1] [1]Center of Materials Technology and Photonics & Electrical Engineering Department, Technological Educational Institute (TEI) of Crete, Heraklion 71004 Crete, Greece [2]Department of Mineral Resources Engineering, Technical University of Crete, Chania, 73100, Crete, Greece [3]Department of Electronic

	Engineering Technological Educational Institute (TEI) of Crete, Chania 73132 Crete, Greece
WS4-P2	**Single-step Green synthesis of Biocompatible Graphene Quantum Dots and their Cell Uptake Studies** Arnab Halder*, Maria Godoy-Gallardo, Jon Ashley, Xiaotong Feng, Tongchang Zhou, Leticia Hosta-Rigau and Yi Sun Department of Micro- and Nanotechnology, Technical University of Denmark, DK-2800 Kgs Lyngby, Denmark
WS4-P3	**Optically induced absorption modulation in a graphene-based metasurface** Anna C. Tasolamprou[1]*, Charalampros Mavidis[1,2], Anastasios D. Koulouklidis[1], Cristina Daskalaki[1], George Kenanakis[1], George Deligeorgis[1], Zacharias Viskadourakis[1], Polina Kuzhir[3], Stelios Tzortzakis[1,4], Maria Kafesaki[1,2], Eleftherios N. Economou[1,4] and Costas M. Soukoulis[1,5] [1]Institute of Electronic Structure and Laser, FORTH, 71110, Heraklion, Crete, Greece; [2]Department of Materials Science and Technology, University of Crete, 71003, Heraklion, Crete, Greece; [3]Institute for Nuclear Problems, Belarus State University, Bobruiskaya 11,220030 Minsk, Belarus; [4]Department of Physics, University of Crete, University of Crete, 71003, Heraklion, Crete, Greece; [5]Ames Laboratory and Department of Physics and Astronomy, Iowa State University, Ames, Iowa 50011, United States
WS4-P4	**Separation and recovery of heavy metal ions by graphene acid.** Jan Kolarik*, Aristides Bakandritsos and Radek Zboril Regional Centre of Advanced Technologies and Materials, Departments of Physical Chemistry and Experimental Physics, Faculty of Science, Palacký University, 17. Listopadu 1192/12, 771 46 Olomouc, Czech Republic
WS4-P5	**Spatially Selective Reversible Charge Carrier Density Tuning in WS2 Monolayers via Photochlorination** I. Demeridou[1,2]*, I. Paradisanos[1,2], Yuanyue Liu[3,6], N. Pliatsikas[4], P. Patsalas[4], S. Germanis[1], N. Pelekanos[1,5], W. A. Goddard III[3], G. Kioseoglou[1,5], E. Stratakis1,2 [1] Institute of Electronic Structure and Laser, Foundation for Research and Technology - Hellas, Heraklion, Crete, Greece; [2] Department of Physics, University of Crete, Heraklion, Crete, Greece; [3] Materials and Process Simulation Center and The Resnick Sustainability Institute, California Institute of Technology, Pasadena, California, United States; [4] Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Greece; [5] Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece; [6] Department of Mechanical Engineering and Texas Materials Institute, University of Texas at Austin, Austin, Texas, United States
WS4-P6	**Theoretical investigation of water-soluble polyethylene glycol treated phosphorene system** Anikó Lábas* and Tibor Höltzl Furukawa Electric Institute of Technology, Budapest, Hungary

WS4-P7	**Laser fabrication of Transition-Metal Dichalcogenide Nanostructures based materials** Kyriaki Savva[1, 2]*, Bojana Višić[3], Ronit Popovitz-Biro[3], Athanasia Kostopoulou[1], Christina Lanara[1], Antonia Loufardaki[1], Emmanuel Stratakis[1] and Reshef Tenne[3] [1]Institute of Electronic Structure and Laser, Foundation for Research and Technology Hellas, 71110 Heraklion; [2]Physics Department, University of Crete, Heraklion, 71004 Crete, Greece; [3]Weizmann Institute of Science, 7610001 Rehovot, Israel
WS4-P8	**Characterization & Non-Linear Optical Imaging of 2D Transition Metal Dichalcogenides** I. Demeridou[1,2]*, I. Paradisanos[1,2], A. Papadopoulos[1,3], G. Kourmoulaki[s1,3], L. Mouchliadis[1], S. Psilodimitrakopoulos[1], G. Kioseoglou[1,3], E. Stratakis[1,2] [1]Foundation for Research and Technology – Hellas (F.O.R.T.H.), Institute of Electronic Structure and Laser (I.E.S.L.), Heraklion, Crete, Greece [2]Department of Physics, University of Crete, Heraklion, Crete, Greece [3]Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece
WS4-P9	A novel electrochemiluminescence glucose biosensor based on polypyrrole/polyluminol/ C3N4-Ni(OH)2/glucose oxidase modified graphite electrode Lida Fotouhi[1],*,Morteza Hosseini[2],*,Maryam Hamtak[1] [1]Department of Chemistry, Alzahra university, Tehran, Iran [2] Center of Excellence in Electrochemistry, Faculty of Chemistry, University of Tehran, Tehran

WORKSHOP 5 NANOELECTRONICS & BIOELECTRONICS	
WS5-P1	**Substrate-dependent triboelectric charging of graphene surface for enhanced electric potential generation by motion of ionic liquid droplets** Junghyo Nah*, Pangun Park, Daehoon Lee Chungnam National University, Daejeon, Korea
WS5-P2	**Top down InAs nanowire field-effect transistors on a SiO2/Si via soft lithographic method** Junghyo Nah[1]*, Pangun Park[1], Min Hyung Lee[2] [1]Chungnam National University, Daejeon, Korea [2]Kyung Hee University, Yongin, Korea
WS5-P3	**High-Performance Piezoelectric Nanogenerators Based on Chemically-Reinforced Composites** Youngmin Choi Korea Research Institute of Chemical Technology (KRICT), Daejeon, Republic of Korea.

WS5-P4	**Molecularly imprinted chiroptical sensor for detection of glucose** M. F. Frasco*[1], R. Pereira-Cameselle[2], S. Chiussi[3], J. L. Alonso-Gómez[2] and M. G. F. Sales[1] [1]BioMark-CEB/ISEP, School of Engineering, Polytechnic Institute of Porto, Porto, Portugal [2]Organic Chemistry Department, University of Vigo, Vigo, Spain [3]New Materials Group, Applied Physics Department, University of Vigo, Vigo, Spain
WS5-P5	**Utilizing PLL-g-PEG substrates to detect DNA in complex samples: a combined Quartz Crystal Microbalance/Spectroscopic Ellipsometry study** Dimitra Chronaki[1,2]*, George Papadakis[1], Pasquale Palladino[1], Achilleas Tsortos[1] and Electra Gizeli[1,2] [1]Institute of Molecular Biology and Biotechnology-FORTH, Heraklion, Greece [2]Department of Biology, University of Crete, Heraklion, Greece
WS5-P6	**Salmonella detection in whole blood using an acoustic wave device combined with signal-monitoring smartphone** Gesthimani-Ioanna Theodosi[1,2]*, Konstantinos Parasyris,[2] George Papadakis[1,] Electra Gizeli[1,2] [1]Institute of Molecular Biology and Biotechnology-FORTH, Heraklion, Greece [2]Department of Biology, University of Crete, Heraklion, Greece
WS5-P7	**Organic Based Transistors as biosensors for inflammatory biomarkers** Chiara Diacci[1,2], Marcello Berto[2], Carlo A. Bortolotti[2], Daniel T. Simon[1] [1] Division of Physics and Electronics, University of Linköping, Sweden; [2] Scienze della vita, University of Modena and Reggio Emilia, Italy
WS5-P8	**Epitaxial Vanadium Dioxide Films with Sharp Electrical and Optical Switch Properties** Olga Boytsova[1,2]*, Fariya Akbar[2], Dmitrii Sharovarov[2], Artem Makarevich[1,2] and Andrey Kaul[2] [1]Kurnakov Institute of General and Inorganic Chemistry, Moscow, Russia [2]Lomonosov Moscow State University, Moscow, Russia
WS5-P9	**Bioresorbable wireless electrical stimulator for nerve regeneration** Sung-Geun Choi[1], Gun-Hee Lee[1], Jae-Young Bae[1], Jae-Hwan Lee[1], and Seung-Kyun Kang[1,2],* [1] Department of Bio and Brain Engineering, Korea Advanced Institute of Science and Technology, Daejeon 34141, Republic of Korea [2] KI for Health Science and Technology (KIHST), Korea Advanced Institute of Science and Technology, Daejeon 34141, Republic of Korea
WS5-P10	**Fluorescent polymer-based nanocomposite electrospun fibers as optical sensors for ammonia and pH** Xenofon Karagiorgis[1]*, A. Petropoulou[2], I. Savva[1], C. Riziotis[2], S. Kralj[3,4] and T. Krasia-Christoforou[1] [1]Department of Mechanical and Manufacturing Engineering, University of Cyprus, 75, Kallipoleos Avenue, P.O.Box 20537, 1678, Nicosia, Cyprus; [2]National Hellenic Research Foundation,Theoretical and Physical Chemistry Institute Photonics for Nanoapplications Laboratory, Athens 11635, Greece; [3]Nanos Scientificae d.o.o. (Nanos SCI), SI-1000 Ljubljana, Slovenia; [4]Jozef Stefan Institute, Department for Materials Synthesis, Jamova 39, Ljubljana, Slovenia
WS5-P11	**Au-Ag star shaped nanoparticles as highly efficient SERS nanoresonators.** Jan Krajczewski, Andrzej Kudelski Laboratory of Molecular Interaction, Faculty of Chemistry, University of Warsaw, Warsaw, Poland

WS5-P12	**The new type of bipyramidal-Au@SiO2 nanoparticles – synthesis and Raman application**. Karol Kołątaj, Andrzej Kudelski University of Warsaw, Department of Chemistry, Warsaw, Poland
WS5-P13	**New type of highly efficient optical nanoresonators for SHINERS measurements.** Karol Kołątaj, Andrzej Kudelski Department of Chemistry, University of Warsaw, Ludwika Pasteura 1, Warsaw, Poland,
WS5-P14	**A study of spectroscopic properties and morphological behavior of ZnO nanoparticles and globular protein bovine serum albumin in solution and in a layer-by-layer self-assembled film** Utsav Chakraborty*, Pabitra paul Dept of Physics, Jadvpur University, Kolkata, West Bengal, India – 700032
WS5-P15	**Carbon quantum dots as active layer for hybrid light emitting diode (HyLEDs)** Sofia Paulo,[1,2]* Eugenia Martinez-Ferrero [2], Emilio Palomares[1,3] [1]Institute of Chemical Research of Catalonia (ICIQ). The Barcelona Institute of Science and Technology (BIST), Tarragona, Spain; [2]Fundació Eurecat, Mataró, Spain; [3]Catalan Institution for Research and Advanced Studies (ICREA), Barcelona Spain
WS5-P16	**Laser-based multi-functional biomimetic surfaces** Skoulas E.[1,2]*, Mimidis A. [1,2], Papadopoulos A. [1,2], Livakas N. [1,2], Petrakakis E. [1,2], Tsibidis G.D. [1], and Stratakis E [1,2] [1]ULMNP, Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology (FORTH), N. Plastira 100, Vassilika Vouton, 70013, Heraklion, Crete, Greece; [2] Materials Science and Technology Department, University of Crete, 71003 Heraklion, Greece
WS5-P17	**Highly selective and sensitive DNA detection on nanoscale interdigitated electrodes using gold nanoparticle amplification** Dilu G. Mathew[1]*, A. Marti[2], J. Huskens[2], S.G. Lemay[3] and W. G. van der Wiel[1] [1]NanoElectronics group; [2]MolecularNanofabrication group; [3]BioElectronics group; MESA+ Institute of Nanotechnology, University of Twente, The Netherlands