


RAN

CONGRESS

7TH WORLD CONGRESS ON RECENT ADVANCES IN NANOTECHNOLOGY (RAN'22)

April 04, 2022 - April 06, 2022 | ~~Lisbon, Portugal~~ | Virtual Conference

THE RAN'22 CONGRESS IS COMPOSED OF 2 CONFERENCES

NDDTE
'22

IC
NNFC'22

April 04

April 05

April 06

OUR PROGRAM SCHEDULE IS BASED ON EASTERN TIME
(EDT - OTTAWA TIME)

APRIL 04

10:00 AM – 12:00 PM Registrations

RAN'22 Scientific Committee Chairs



Dr. Wolfgang Ensinger

Technische Universität
Darmstadt, Germany
Congress Chair
[View Profile](#)



Dr. Josef Jampilek

Comenius University, Slovakia
Congress Co-Chair
[View Profile](#)

RAN'22 Local Co-Chairs



Dr. João Manuel Cunha Rodrigues

University of Madeira, Portugal
Congress Local Co-Chair
[View Profile](#)



Dr. Manuel Bañobre-López

International Iberian
Nanotechnology Laboratory,
Portugal
Congress Local Co-Chair
[View Profile](#)



Dr. Sofia Lima

University of Porto, Portugal
Congress Local Co-Chair
[View Profile](#)

[Return to Top](#)

APRIL 05

7:00 AM - 9:00 AM	Registrations
8:00 AM - 8:15 AM	Official Opening
	Dr. Wolfgang Ensinger, Technische Universität Darmstadt, Germany
8:15 AM - 9:00 AM	NDDTE'22 KEYNOTE LECTURE
	<u>Advances in Nucleic Acid Medicine Delivery to the Brain</u> Dr. Moein Moghimi, Newcastle University, UK
9:00 AM - 09:45 AM	ICNNFC'22 KEYNOTE LECTURE
	<u>Heteroatom-Doped Carbon Quantum Dots as Electrocatalysts for the Oxygen Reduction Reaction</u> Dr. Philippe Knauth, Aix Marseille Université, France
09:45 AM - 09:55 AM	Break
9:55 AM - 10:45 AM	SESSION <u>NANOTECHNOLOGY AND DRUG DELIVERY I</u>
10:45 AM - 12:15 PM	SESSION <u>Nanomaterials Applications</u>

APRIL 05

12:15 PM - 12:45 PM	Lunch Break
12:25 PM - 12:45 PM	ICNNFC'22 KEYNOTE LECTURE
12:45 PM - 1:30 PM	<u>The Role of the Biomolecule Corona in Determining Biocompatibility of Nanoscale Materials</u> Dr. Iseult Lynch, University of Birmingham, UK
1:30 PM - 2:00 PM	SESSION <u>DETECTING AND MONITORING OF NANOMATERIALS I</u>
2:00 PM - 2:40 PM	SESSION <u>NANOTECHNOLOGY: MODELING AND SIMULATION</u>

NDDTE'22 KEYNOTE LECTURE

APRIL 05 | 8:15 AM - 9:00 AM | SESSION CHAIR: DR. WOLFGANG ENSINGER, TECHNISCHE UNIVERSITÄT DARMSTADT, GERMANY



Titles: Advances in Nucleic Acid Medicine
Delivery to the Brain

[Dr. Moein Moghimi, Newcastle University,
UK](#)

[View Abstract](#)

[Return to Top](#)

Moein Moghimi is a Professor of Pharmaceutics and Nanomedicine at the School of Pharmacy, and Translational and Clinical Research Institute, Newcastle University (UK), and an Adjoint Professor at the Skaggs School of Pharmacy and Pharmaceutical Sciences, University of Colorado-Denver. He is also co-founder of three spin-offs in USA and UK, and Associate Editor of Molecular Therapy (Cell Press). He graduated with Honors in Biochemistry from the University of Manchester (UK) in 1985 and then completed a PhD in Biochemistry at Charing Cross and Westminster Medical School (Imperial College, London).

Moghimi is widely recognised for his contribution to fundamental and translational research in nanomedicine and drug delivery, especially in mechanistic understanding of nanoparticle-mediated complement activation and infusion reactions, and as an inventor of many nanosystems for tissue-specific targeting. The latter have included “splenotropic” and “lymphotropic” nanoparticles. Among the latest inventions of Moghimi’s laboratory are the NanoLigand Carriers. These are induced self-assemblies of phage-derived display peptides that on intravenous injection rapidly target two receptors on the blood brain-barrier, reaching neurons and microglia. A 2021 study by Stanford University list Moghimi among the top 0.08% of world’s leading scientists across in all fields, and rank him at 53 (out of 131,063) in the field of pharmacology in the world and 28 in Europe. As to date, Moghimi’s research programme has secured over €25 million funding. He is widely published (>300 research papers, reviews, book chapters, proceedings, etc., ORCID: 0000-0003-0836-926X) and cited (>24,000 citations and h-index of 70, GS as of Jan 2022), and has delivered >400 invited plenaries, keynote speeches and distinguished lectures world-wide. He also serves on editorial board of >10 international journals including Advanced Drug Delivery Reviews, Journal of Controlled Release and Nanomedicine (Lond.). He is also an active consultant to industry and governmental organisations.

KEYNOTE LECTURE

APRIL 05 | 9:00 AM - 9:45 AM | SESSION CHAIR: DR. WOLFGANG ENSINGER, TECHNISCHE UNIVERSITÄT DARMSTADT, GERMANY



Titles: Heteroatom-Doped Carbon
Quantum Dots as Electrocatalysts for the
Oxygen Reduction Reaction
[Dr. Philippe Knauth, Aix Marseille Université,
France](#)

[View Abstract](#)

[Return to Top](#)

Currently Professor of Materials Chemistry and Director of the Chemistry Department at Aix Marseille University. Obtained his PhD in Physical Chemistry (Dr. rer. nat., Saarland University) in 1987 and the Habilitation in Materials Science (Aix Marseille University) in 1996. Prior to becoming a Full Professor in 1999, hold different positions: post-doctoral fellow (CNRS, Centre de Thermodynamique et de Microcalorimétrie, 1987-1989), laboratory head at Bayer Co. (Pigments and Ceramics Division, 1989-1990) and CNRS researcher ("Chargé de Recherche", 1990-1999). Member of the Editorial Board of several international journals: "Journal of Electroceramics" (Springer), "Journal of Nanomaterials" (Hindawi), "Frontiers in Energy Research" and "Membranes" (MDPI). Société Chimique de France (SCF): Vice-President (2006-2010) and President (2010-2017) of the "Provence-Alpes-Cote d'Azur" regional section and member of the Administration Council (Board of Directors) of SCF (representing the regional sections 2012-2017).

HIUPAC: National Representative 2015-2019 and Titular Member since 2019 (Division II: Inorganic Chemistry). Appointed visiting scholar at MIT in 1997-98 and 2013 and Invited professor at the National Institute of Materials Science (Tsukuba, Japan) in 2007 and 2010 and at the University of Rome Tor Vergata in 2009, 2011 and 2022.

SESSION

NANOTECHNOLOGY AND DRUG DELIVERY I

APRIL 05 | 9:55 AM - 10:45 PM | SESSION CHAIR: DR. WOLFGANG ENSINGER, TECHNISCHE UNIVERSITÄT DARMSTADT, GERMANY

Titles: Design and Evaluation of Nanocarrier Embedded Hybrid Hydrogels for Topical Delivery of Hydrophobic Molecules

NDDTE 119

Time: 9:55 - 10:10

Presenter: Reatul Karim, East West University, Bangladesh

Authors: Reatul Karim, Farhana Rizwan, Md. Mahbubur Rahman Tanim, Sabrin Islam Khan

Titles: Alginate Aldehyde-Gelatin Nanogel as Sustainable Drug Delivery System of Azithromycin: Development, Characterization and In Vitro Evaluation

NDDTE 108

Time: 10:10 - 10:25

Presenter: Samin A. Dastjerd, Istanbul Technical University, Turkey

Authors: Samin A. Dastjerd, Melike Sessevmez, Erdal Cevherand Gülhayat Nasun-Saygılı

Titles: Solid Lipid Nanoparticles for Ocular Delivery of Posaconazole: Design, Optimization and Evaluation

NDDTE 116

Time: 10:25 - 10:40

Presenter: Ali Asram Sagioglu, Bezmialem Vakif University, Turkey

Authors: Ali Asram Sagioglu

Titles: Development of a Long-Acting Injectable Formulation of Rilpivirine Based On PLGA Microspheres

NDDTE 143

Time: 10:40 - 10:45

Presenter: Yulia Ulianova, D. Mendeleev University of Chemical Technology of Russia, Russia

Authors: Yulia Ulianova, Yulia Ermolenko, Vladimir Trukhan, Vladimir Ivanov, Ildar Iusupov, Alexander Kurkin, Svetlana Gelperina

[Return to Top](#)

SESSION

NANOMATERIALS APPLICATIONS

APRIL 05 | 10:45 AM - 12:15 PM | SESSION CHAIR: DR. MARTA SEVIERI, UNIVERSITÀ DEGLI STUDI DI MILANO, ITALY & DR. MARÍA DEL MAR COLLADO GONZÁLEZ, UNIVERSITY OF MURCIA, SPAIN

Titles: Aggregation-Induced Changes in Optical Characteristics of CdSe/ZnS Quantum Dots

ICNNFC 157

Time: 10:45 - 11:00

Presenter: Tatiana Oskolkova, ITMO University, Russia

Authors: Tatiana Oskolkova, Ekaterina Kolesova, Anna Orlova

Titles: Green Synthesis, Mechanism, & Intrinsic Properties of Kraft Lignin Nanoparticles

ICNNFC 166

Time: 11:00 - 11:15

Presenter: Ahilan Manisekaran, Luxembourg Institute of Science and Technology, Luxembourg

Authors: Ahilan Manisekaran, Patrick Grysan, Benoît duez, Damien Lenoble, and Jean-Sébastien Thomann

Titles: Exotemplate-based Fabrication of 1-dimensional Hybrid Nanostructures for Catalysis and Sensing

ICNNFC 173

Time: 11:15 - 11:30

Presenter: Dr. Wolfgang Ensinger, Technical University Darmstadt, Germany

Authors: Khaled M. Amin, Tim Boettcher, Martin C. Scheuerlein, Wolfgang Ensinger

Titles: Responsive Nanoparticles for Triggered Delivery of Anti-scar Drug to the Burn Wound

ICNNFC 135

Time: 11:30 - 11:45

Presenter: Farinaz Jonidi Shariatzadeh, University of Manitoba, Canada

Authors: Farinaz Jonidi Shariatzadeh, Sarvesh Logsetty and Song Liu

[Return to Top](#)

SESSION

NANOMATERIALS APPLICATIONS

APRIL 05 | 10:45 AM - 12:15 PM | SESSION CHAIR: DR. MARTA SEVIERI, UNIVERSITÀ DEGLI STUDI DI MILANO, ITALY & DR. MARÍA DEL MAR COLLADO GONZÁLEZ, UNIVERSITY OF MURCIA, SPAIN

Titles: Development of Room-Temperature H₂S Gas Sensor Using Flower-Like ZnO Nanorods

ICNNFC 162

Time: 11:45 - 12:00

Presenter: Sara Ghaderahmadi, University of Victoria, Canada

Authors: Sara Ghaderahmadi, Nishat Tasnim, Mohammad Arjmand, Mina Hoorfar

Titles: Double Layer Graphene Oxide Loaded With Propylammonium Nitrate for Selective Adsorption of Inorganic Salts

ICNNFC 147

Time: 12:00 - 12:15

Presenter: Hadil Abu Khalifeh, Abu Dhabi University, UAE

Authors: H. AbuKhalifeh, I. M. AlNashef, B. Zhuman, I. Zuburtikudis

[Return to Top](#)

ICNNFC'22 KEYNOTE LECTURE

APRIL 05 | 12:45 PM - 1:30 PM | SESSION CHAIR: DR. JOSEF JAMPILEK, COMENIUS UNIVERSITY, SLOVAKIA



Titles: The Role of the Biomolecule Corona in Determining Biocompatibility of Nanoscale Materials

[Dr. Iseult Lynch, University of Birmingham, UK](#)

[View Abstract](#)

[Return to Top](#)

Professor Iseult Lynch undertook her PhD in Physical Chemistry at University College Dublin developing responsive polymeric materials for use in medical devices and as tissue growth substrates. She subsequently did several years of postdoctoral research at Physical Chemistry 1, Lund University in Sweden, including as an EU Marie Curie Fellow, investigating several aspects of colloid and interface science and biophysics. She returned to University College Dublin in 2006 where she led the nanoparticle synthesis and bio-characterisation group at the Centre for BioNano Interactions (CBNI). She then became the Strategic Research Manager for CBNI, and was instrumental in securing multiple large scale national and EU funding bids. In March 2013 she joined the University of Birmingham as a Lecturer in Environmental Nanosciences, becoming Senior Lecturer in 2015 and Professor of Environmental Nanosciences in 2016.

SESSION

DETECTING AND MONITORING OF NANOMATERIALS I

APRIL 05 | 1:30 PM - 02:00 PM | SESSION CHAIR: DR. SERGEJ TOMIĆ, INSTITUTE FOR THE APPLICATION OF NUCLEAR ENERGY, SERBIA

Titles: Indocyanine Green-Loaded Ferritin Nanoparticles for Intraoperative Detection of Cancer Tissue

NDDTE 142

Time: 01:30 - 01:45

Presenter: Marta Sevieri, Milano University, Italy

Authors: Marta Sevieri, Serena Mazzucchelli, Arianna Chesi, Cristina Sottani, Fabio Corsi

Titles: Selective Detection of Natural Gas Odorants Using Microfluidic Gas Sensors with Embedded Micro- and Nanofeatures

ICNNFC 163

Time: 01:45 - 02:00

Presenter: Mahan Ghazi, University of British Columbia, Canada

Authors: Mahan Ghazi, Nishat Tasnim, Mina Hoorfar

[Return to Top](#)

SESSION

NANOTECHNOLOGY: MODELING AND SIMULATION

APRIL 05 | 2:00 PM - 02:40 PM | SESSION CHAIR: DR. MARTA SEVIERI, UNIVERSITÀ DEGLI STUDI DI MILANO, ITALY & DR. MARÍA DEL MAR COLLADO GONZÁLEZ, UNIVERSITY OF MURCIA, SPAIN

Titles: In Silico Characterization of Nanomaterials

ICNNFC 170

Time: 02:00 - 02:15

Presenter: Anais Colibaba, University College Dublin, Ireland

Authors: Anais Colibaba, Konstantinos Kotsis, Vladimir Lobaskin

Titles: Hamaker Constants for Bionano Interactions in Water

ICNNFC 171

Time: 02:15 - 02:30

Presenter: Konstantinos Kotsis, University College Dublin, Ireland

Authors: Konstantinos Kotsis, Vladimir Lobaskin

Titles: Multi-Scale Modelling Of the Formation of the Nanoparticle-Protein Corona

ICNNFC 172

Time: 02:30 - 02:35

Presenter: Ian Rouse, University College Dublin, Ireland

Authors: Ian Rouse, David Power, Stefano Poggio, Erik Brandt, Hender Lopez, Alexander Lyubartsev, Vladimir Lobaskin

Titles: Multiscale Modelling of Milk Protein Interaction With Iron and Aluminum Surfaces

ICNNFC 174

Time: 02:35 - 02:40

Presenter: Parinaz Mosaddeghi Amini, University College Dublin, Ireland

Authors: Parinaz Mosaddeghi Amini, Julia Subbotina, Vladimir Lobaskin

[Return to Top](#)

APRIL 06

8:00 AM - 8:45 AM

ICNNFC'22 KEYNOTE LECTURE

Ion Damage Tracks in Polymers - Fabrication of 1-Dimensional Nanostructures: Nanochannels, Nanowires and Nanotubes

Dr. Wolfgang Ensinger, Technische Universität Darmstadt, Germany

8:45 AM - 9:30 AM

NDDTE'22 KEYNOTE LECTURE

Nanoscale Antimycotics and Antifungal Active Nanocomposites

Dr. Josef Jampilek, Comenius University, Slovakia

9:30 AM - 09:40 AM

BREAK

9:40 AM - 10:50 AM

SESSION

NANOCOMPOSITES

10:50 AM - 11:30 AM

SESSION

Nanotechnology and Biomedical Applications

11:30 AM - 12:00 PM

Lunch Break

[Return to Top](#)

APRIL 06

12:00 PM - 12:45 PM **ICNNFC'22 KEYNOTE LECTURE**

**Nanostructuration in Hydrogels and
Electrospun Fibre Mats for Biomedical
Applications**

**Dr. Alexander Korsunsky, University of Oxford,
UK**

12:45 PM- 01:05 PM **SESSION**
THIN FILMS

01:05 PM- 02:50 PM **SESSION**
NANOTECHNOLOGY AND DRUG DELIVERY II

Return to Top

KEYNOTE LECTURE

APRIL 06 | 8:00 AM - 8:45 AM | SESSION CHAIR: DR. JOSEF JAMPILEK, COMENIUS UNIVERSITY, SLOVAKIA



Titles: Ion Damage Tracks in Polymers -
Fabrication of 1-Dimensional Nanostructures:
Nanochannels, Nanowires and Nanotubes

[Dr. Wolfgang Ensinger, Technische Universität Darmstadt, Germany](#)

[View Abstract](#)

[Return to Top](#)

Wolfgang Ensinger studied chemistry and physics at the Universities in Karlsruhe and Heidelberg in Germany. He received his PhD in 1988 from Heidelberg University. Thereafter, he was a guest researcher at Osaka National Research Institute in Japan, lecturer at Institute of Solid State Physics at University Augsburg and professor of Analytical and Nuclear Chemistry at University of Marburg. Since 2004, he is a full professor of Material Analysis at Technical University of Darmstadt in Germany. His research topics include formation of thin films and nanostructures, including nanochannels, nanowires and nanotubes. He has authored/co-authored more than 200 peer-reviewed scientific publications.

KEYNOTE LECTURE

APRIL 06 | 8:45 AM - 9:30 AM | SESSION CHAIR: DR. WOLFGANG ENSINGER, TECHNISCHE UNIVERSITÄT DARMSTADT, GERMANY



Titles: Nanoscale Antimycotics and Antifungal Active Nanocomposites
[Dr. Josef Jampilek, Comenius University, Slovakia](#)

[View Abstract](#)

[Return to Top](#)

Josef Jampilek completed his Ph.D. degree in Medicinal Chemistry at the Faculty of Pharmacy of the Charles University (Czech Republic) in 2004. In 2004-2011, he worked in expert and managerial posts in the R&D Division of the pharmaceutical company Zentiva (Czech Republic). Prof. Jampilek deepened his professional knowledge at the Medicinal Chemistry Institute of the Heidelberg University (Germany) and at multiple specialized courses. In 2017, he was designated as a Full Professor of Medicinal Chemistry. At present he works at the Regional Centre of Advanced Technologies and Materials, Palacky University in Olomouc (Czech Republic) and the Faculty of Natural Sciences, Comenius University in Bratislava (Slovakia). In addition, he is a visiting professor at the University of Silesia in Katowice (Poland) and Hong Kong Baptist University (Hong Kong SAR, China) and an invited professor/expert at various higher educational institutions. He is an author/co-author of more than 30 patents/patent applications, more than 200 peer-reviewed scientific publications, 7 university textbooks, more than 30 chapters in monographs, and many invited lectures at international conferences and workshops. He also received several awards for his scientific results, e.g., from Aventis, Elsevier, Willey, Sanofi and FDA. The research interests of Prof. Jampilek include design, synthesis, and structure-activity relationships of heterocyclic compounds as anti-invasive and anti-inflammatory agents as well as nanosystems. He is also interested in ADME, drug bioavailability and solid-state pharmaceutical analysis.

SESSION

NANOCOMPOSITES

APRIL 06 | 09:40 PM - 10:50 AM | SESSION CHAIR: DR. JOSEF JAMPILEK, COMENIUS UNIVERSITY, SLOVAKIA & DR. KONSTANTINOS KOTSIS, UNIVERSITY COLLEGE DUBLIN, IRELAND

Titles: Optical Properties of Al₂O₃-Ni-Al Nano-Composite Films
ICNNFC 104

Time: 09:40 - 09:45

Presenter: Yoo Su Kang, Kangwon National University, South Korea

Authors: Yoo Su Kang, Woong Ki Jang, Young Ho Seo, Byeong Hee Kim

Titles: Fabrication of Nanoporous Hemi-Spherical Micro-Shell Array for 3D Cell Culture

ICNNFC 156

Time: 09:45 - 09:50

Presenter: Se Hyong Lee, Kangwon National University, South Korea

Authors: Byeong Hee Tae, Eui Don Han, Se Hyong Lee, Byeong Hee Kim, Young Ho Seo

Titles: Self-supported LDH-decorated Nanotube Networks as 3D Platforms for Electrochemical Applications

ICNNFC 140

Time: 09:50 - 10:05

Presenter: Khaled M. Amin, Technical University of Darmstadt, Germany

Authors: Khaled M. Amin, Wolfgang Ensinger

Titles: Influence of Diatomaceous Biosilica on the Properties of Composites Based On Dielectric Elastomers

ICNNFC 159

Time: 10:05 - 10:20

Presenter: Weronika Brzozowska, University of Szczecin, Poland

Authors: Weronika Brzozowska, Izabela Wojtczak, Myroslav Sprynskyy, Ewa Olewnik-Kruszkowska, Bogusław Buszewski

SESSION

NANOCOMPOSITES

APRIL 06 | 09:40 PM - 10:50 AM | SESSION CHAIR: DR. JOSEF JAMPILEK, COMENIUS UNIVERSITY, SLOVAKIA & DR. KONSTANTINOS KOTSIS, UNIVERSITY COLLEGE DUBLIN, IRELAND

Titles: On the Importance of Mucin Corona to prevent Nanocapsules Aggregation for Oral Delivery

ICNNFC 175

Time: 10:20 - 10:35

Presenter: Mar Collado-González, University of Leeds, UK

Authors: Mar Collado-González, Gurmeet Kaur, Yadira González-Espinosa, Rebecca Brooks, and Francisco M Goycoolea

Titles: New Consideration in Achievement of (Bio) Colloid Nanocomposites

ICNNFC 176

Time: 10:35 - 10:50

Presenter: Railean Viorica, Nicolaus Copernicus University in Torun, Poland

Authors: Railean Viorica, Anna Król-Górniak, Pomastowski Pawel, Buszewski Boguslaw

SESSION

NANOTECHNOLOGY AND BIOMEDICAL APPLICATIONS

APRIL 06 | 10:50 AM - 11:30 AM | SESSION CHAIR: DR. SOFIA LIMA, UNIVERSITY OF PORTO, PORTUGAL & DR. SERGEJ TOMIĆ, INSTITUTE FOR THE APPLICATION OF NUCLEAR ENERGY, SERBIA

Titles: Functionalizing Gold Nanostars with Ninhydrin as Vehicle Molecule for Biomedical Applications

NDDTE 130

Time: 10:50 - 11:05

Presenter: Swati Mishra, Indian Institute of Technology, India

Authors: Swati Mishra

Titles: Nanobody Based Nanosystems to Contend Neisseria meningitidis and West Nile Virus

NDDTE 103

Time: 11:05 - 11:20

Presenter: Amod Kulkarni, University of Veterinary Medicine and Pharmacy, Slovakia

Authors: Amod Kulkarni, Jana Hrušková, Katarína Bhide, Patrícia Mertinková, Evelína Mochnáčová, and Mangesh Bhide

Titles: Adhesion, Viability and Differentiation of Adipose Tissue Derived Mesenchymal Stem Cells onto Micro/Nanostructured Polystyrene Substrates

NDDTE 135

Time: 11:20 - 11:25

Presenter: Anastasia Kanioura, Institute of Nuclear & Radiological Sciences & Technology, Greece

Authors: Anastasia Kanioura, Angelos Zeniou, Panagiota Petrou, Adamantia Papadopoulou, Eleni Mavrogonatou, Dimitris Kletsas, Angeliki Tserepi, Evangelos Gogolides, Sotirios Kakabakos

Titles: Biobased Elastomer Nanofibers for Guiding Skeletal Muscle Regeneration

NDDTE 134

Time: 11:25 - 11:30

Presenter: Aimee Cheesbrough, Centre for Gene Therapy and Regenerative Medicine, MRC Centre for Neurodevelopmental Disorders, Centre for Developmental Neurobiology, Kings College London, UK

Authors: Aimee Cheesbrough, Ivo Lieberam, Wenhui Song

[Return to Top](#)

KEYNOTE LECTURE

APRIL 06 | 12:00 PM - 12:45 PM | SESSION CHAIR: DR. JOSEF JAMPILEK, COMENIUS UNIVERSITY, SLOVAKIA



Titles: Nanostructuration in Hydrogels and Electrospun Fibre Mats for Biomedical Applications

[Dr. Alexander Korsunsky, University of Oxford, UK](#)

[View Abstract](#)

[Return to Top](#)

Professor Alexander Korsunsky is a world-leader in engineering microscopy of materials for optimisation of design, durability and performance. He leads the MBLEM lab (Multi-Beam Laboratory for Engineering Microscopy) at Oxford, and the Centre for In situ Processing Science (CIPS) at the Research Complex, Harwell. He consults Rolls-Royce plc on matters of residual stress and structural integrity, and is Editor-in-Chief of Materials & Design, a major Elsevier journal (2018 impact factor 5.770).

Alexander holds the degree of Doctor of Philosophy (DPhil) from Merton College, Oxford. He was Junior Research Fellow at Fitzwilliam College, Cambridge, and Lecturer at Newcastle University, before returning to Oxford. Each year he gives several keynote and plenary lectures at major international conferences. He has extensive links that include visiting appointments in Italy (Roma Tre), France (ENSICAEN) and Singapore (NUS, NTU, A*Star).

Prof Korsunsky's research interests concern improved understanding of integrity and reliability of engineered and natural structures and systems, from high-performance metallic alloys to polycrystalline ceramics to natural hard tissue such as human dentin and seashell nacre. He co-authored books on fracture mechanics (Springer), elasticity (CUP) residual stress (Elsevier), and published ~350 papers in scholarly periodicals on subjects ranging from multi-modal microscopy, neutron and synchrotron X-ray analysis, contact mechanics and structural integrity to micro-cantilever bio-sensors, size effects and scaling transitions. His h-index is 38, with his top publications cited over 500 times.

SESSION

THIN FILMS

APRIL 06 | 12:45 PM - 01:05 PM | SESSION CHAIR: DR. KONSTANTINOS KOTSIS, UNIVERSITY COLLEGE DUBLIN, IRELAND

Titles: Statistical Distribution of Charge Carriers in β -HgS Quantized Layer in Lateral Electrostatic Field

ICNNFC 151

Time: 12:45 - 01:00

Presenter: Volodya Harutyunyan, Russian-Armenian University, Republic of Armenia

Authors: Volodya Harutyunyan

Titles: Hydrothermal growth: Influence of process parameters to design TiO₂ nanostructures

ICNNFC 169

Time: 01:00 - 01:05

Presenter: Walid Mnasri, CY Cergy Paris Université, France

Authors: Walid Mnasri, Sébastien Péralta, Xavier Sallenave

SESSION

NANOTECHNOLOGY AND DRUG DELIVERY II

APRIL 06 | 01:05 PM - 02:50 PM | SESSION CHAIR: DR. SOFIA LIMA, UNIVERSITY OF PORTO, PORTUGAL

Titles: Development FAP-Targeted Nanotherapy against Cancer-Associated Fibroblasts

NDDTE 141

Time: 01:05 - 01:20

Presenter: Arianna Bonizzi, University of Milan, Italy

Authors: Arianna Bonizzi, Marta Truffi, Leopoldo Sitia, Serena Mazzucchelli¹, Sara Negri, Luca Sorrentino, Marta Sevieri and Fabio Corsi

Titles: Study of Chitosan-Arginine with Different Degrees of Substitution at Chitosomes Nanoparticles Formulation for Gene Delivery

NDDTE 146

Time: 01:20 - 01:35

Presenter: Bianca Garcia, University of Sao Paulo, Brazil

Authors: Bianca Bonetto Moreno Garcia, Omar Mertins, Sang Won Han

Titles: Cellulose Nanocrystals as a Versatile Platform for Regulation of Myeloid Cell Immunogenicity

NDDTE 149

Time: 01:35 - 01:50

Presenter: Sergej Tomić, University of Belgrade, Serbia

Authors: Sergej Tomić, Marina Bekić, Miloš Vasiljević, Dušica Stojanović, Dragana Vučević, Petar Uskoković, Miodrag Čolić and Vanja Kokol

Titles: Surface Plasmon Resonance Imaging For the Characterization of Dual-Targeting-Peptides Liposomes

NDDTE 144

Time: 01:50 - 02:05

Presenter: Francesca Rodà, University of Modena and Reggio Emilia, Italy

Authors: Francesca Rodà, Silvia Picciolini, Alice Gualerzi, Valentina Mangolini, Francesca Re, Antonio Renda, Antonia Antoniou, Pierfausto Seneci, Sara Pellegrino, Marzia Bedoni

[Return to Top](#)

SESSION

NANOTECHNOLOGY AND DRUG DELIVERY II

APRIL 06 | 01:05 PM - 02:50 PM | SESSION CHAIR: DR. SOFIA LIMA, UNIVERSITY OF PORTO, PORTUGAL

Titles: Raman Spectroscopy for the Characterization of Multifunctional Nanoliposomes for Alzheimer's disease and Glioblastoma

NDDTE 145

Time: 02:05 - 02:20

Presenter: Valentina Mangolini, Laboratory of Nanomedicine and Clinical Biophotonics (LABION), Italy

Authors: Valentina Mangolini, Silvia Picciolini, Francesca Rodà¹, Alice Gualerzi, Francesca Re, Antonia Antoniou, Sabrina Giofrè, Marzia Bedoni

Titles: PBPK Modelling for Intratumoral Biodistribution of Magnetic Iron Oxide Nanoparticles

NDDTE 140

Time: 02:20 - 02:35

Presenter: Doaa Ahmed Mohamed, University of Liverpool, UK

Authors: Doaa Ahmed Mohamed, Alice Howarth, Ibane Abasolo, Maiara Montanha, Monserrat Llaguno, Paul Southern, Quentin Pankurst, Zamira V. Díaz-Riascos, Neill Liptrott

Titles: Comparing in vitro Permeability of a Nanocarrier-Hydrogel Hybrid System with an Alcoholic Hydrogel for Sustained Transdermal Drug Delivery

NDDTE 132

Time: 02:35 - 02:50

Presenter: Reatul Karim, East West University, Bangladesh

Authors: Reatul Karim, Farhana Rizwan, Md. Mahbubur Rahman Tanim, Sabrin Islam Khan