

RAN
CONGRESS

8th WORLD CONGRESS ON RECENT ADVANCES IN NANOTECHNOLOGY



March 23 - 25, 2023 | Lisbon, Portugal

Dr. Wolfgang Ensinger
Technische Universität Darmstadt, Germany

Dr. Josef Jampilek
Comenius University, Slovakia

CONGRESS CHAIR

CONGRESS CO-CHAIR

Thursday, March 23

10:00 AM
to 12:00 PM Registration

FRIDAY, March 24

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8th WORLD CONGRESS ON RECENT TRENDS IN NANOTECHNOLOGY

March 23 - 25, 2023 | Lisbon, Portugal

The Organizing and Scientific Committees would like to welcome you to the 8th World Congress on Recent Trends in Nanotechnology (RAN'23).

RAN'23 consists of two conferences:

- 8th International Conference on Nanomaterials, Nanodevices, Fabrication and Characterization (ICNNFC'23)
- 8th International Conference on Nanomedicine, Drug Delivery, and Tissue Engineering (NDDTE'23)

The Congress aims to become one of the leading international annual events in the field of nanotechnology. This Congress will provide excellent opportunities for scientists, researchers, and industrial specialists to present their research achievements and to develop new collaborations and partnerships with experts in the field.

In the eighth meeting of this Congress, two plenary speakers and three keynote speakers will share their expertise in a wide spectrum of fields and applications. In addition, approximately 36 papers will be presented by professors, students, and researchers from across the world.

The Congress is organized in Lisbon, Portugal. Lisbon, is capital of Portugal and it is the westernmost capital city in continental Europe and serves as the country's chief port, largest city, and commercial, political, and tourist centre in Portugal. We hope you will have time to enjoy the ambience and hospitality of this city.

We thank you for your participation and contribution to the 8th World Congress on Recent Trends in Nanotechnology (RAN'23).

We wish you a very successful and enjoyable experience.

Dr. Wolfgang Ensinger
Technische Universität Darmstadt, Germany
Congress Chair

Dr. Josef Jampilek
Comenius University, Slovakia
Congress Co-Chair

8th International Conference on Nanomaterials, Nanodevices, Fabrication and Characterization (ICNNFC'23)

The Organizing Committee of the 8th International Conference on Nanomaterials, Nanodevices, Fabrication and Characterization (ICNNFC'23) would like to thank the following members for accepting to contribute to the conference.

Scientific Committee Members:

Dr. Toqeer Ahmed, COMSATS University Islamabad, Pakistan

Dr. Daolun Chen, Toronto Metropolitan University, Canada

Dr. Erik Díaz-Cervantes, Universidad de Guanajuato, Mexico

Dr. Fengge Gaom, Nottingham Trent University, UK

Dr. Antonio Vicente Herrera Herrera, Universidad de La Laguna, Spain

Dr. Byeong Hee Kim, Kangwon National University, South Korea

Dr. Bilgin Kaftanoğlu, University of Pardubice, Czech Republic

Dr. Dongyang Li, University of Alberta, Canada

Dr. Rahul M. Mane, Shivaji University, India

Dr. Petr Němec, Atılım University, Turkey

Dr. Ram Prasad, Mahatma Gandhi Central University, India

Dr. Jie Yang, RMIT University, Australia

Dr. Mustafa Yavuz, University of Waterloo, Canada

Dr. Hande Yondemli, Selçuk University, Turkey

8th International Conference on Nanomedicine, Drug Delivery, and Tissue Engineering (NDDTE'23)

The Organizing Committee of the 8th International Conference on Nanomedicine, Drug Delivery, and Tissue Engineering (NDDTE'23) would like to thank the following members for accepting to contribute to the conference.

Scientific Committee Members:

Dr. Osman Adiguzel, Firat University, Turkey

Dr. Seongtae Bae, University of South Carolina, USA

Dr. Todd Giorgio, Vanderbilt University, USA

Dr. Jingjiao Guan, Florida State University, USA

Dr. Josef Jampilek, Comenius University, Slovakia

Dr. Guillermo Rus, University of Granada, Spain

Dr. Alexandra Marques, University of Minho, Portugal

Dr. Marta Sevieri, Università degli Studi di Milano, Italy

Dr. Dejian Zhou, Leeds University, UK



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8:00 AM - 9:00 AM **Registration**

9:00 AM - 9:15 AM **Official Opening of the Congress**

Dr. Wolfgang Ensinger, Technische Universität Darmstadt, Germany

ICNNFC PLENARY VIRTUAL SESSION

Plenary Lecture

9:15 AM - 10:10 AM **SESSION CHAIR:**

Dr. Wolfgang Ensinger, Technische Universität Darmstadt,
Germany



Graphene Origami Enabled Mechanical Metamaterials

Dr. Jie Yang,
RMIT University, Australia

Dr. Yang is a full professor in the School of Engineering, RMIT University, Australia. He obtained PhD degree in solid mechanics at Shanghai Jiao Tong University, China, in 2002 and was a postdoctoral research fellow at the University of Queensland, Australia before moving to City University of Hong Kong as a Research Fellow in late 2004 then a Lecturer in 2005. He joined RMIT University, Australia in late 2007 as a Lecturer where he was promoted to Professor in 2016. His main research interests include advanced composite structures, graphene enabled mechanical metamaterials, Nanomaterials Synthesis Characterization, advanced composite structures, structural stability and dynamics, smart structures and control, and nano/micro-mechanics. He is an author of over 350 papers including 260 journal papers which have so far attracted over 18300 Google Scholar citations with h-index 78. He is the Highly Cited Researcher (Cross Field) in 2023, 2020, 2021 by Clarivate Analytics and is named by Australian Research Magazine as Global Field Leader in Mechanical Engineering in 2020, Australia's Research Field Leader in Mechanical Engineering in 2023, 2020, 2021, and Australia's Research Field Leader in Structural Engineering in 2021. Prof Yang is the Editor-in-Chief of Engineering Structures (JCR Q1), Associate Editor of Mechanics Based Design of Structures and Machines, and the editorial board member of Mechanics of Advanced Materials and Structures, Thin-Walled Structures, International Journal of Structural Stability and Dynamics, Scientific Reports, Materials, and Shock and Vibration, etc.

NDDTE KEYNOTE VIRTUAL SESSION

Keynote Lecture

10:10 AM - 10:55 AM

SESSION CHAIR:

Dr. Wolfgang Ensinger, Technische Universität Darmstadt,
Germany

**Multifunctional Nanomedicine Platforms for Imaging and Treatment of Cancer and Other Diseases*****Dr. Oleh Taratula****Oregon State University, USA*

Oleh Taratula received his Ph.D. in chemistry from Rutgers, The State University of New Jersey in 2008. After that, he completed his postdoctoral research with Professor Tamara Minko at Ernest Mario School of Pharmacy in 2011. Oleh Taratula is currently a Professor of Pharmaceutics in the College of Pharmacy at Oregon State University (OSU) and a co-director of the Center for Innovative Drug Delivery and Imaging. He is also an Affiliate Research Member of the Knight Cancer Institute and Adjunct Faculty in the Department of Biomedical Engineering, Oregon Health & Science University. The major focus of his research is the development of multifunctional nanoplat-forms for imaging and specific eradication of cancer, endometriosis, and other diseases. His research accomplishments have been recognized with various awards, including the 2020 AAPS Best Abstract Award, and the 2016 Richard T. Jones New Investigator Award. Oleh Taratula has obtained four patents and published 53 peer-reviewed papers in many high-impact journals (ACS Nano – Impact Factor 18.0, Small – 15.1, and others). His papers have been cited more than 5,000 times (h-index: 32) and one patent has been licensed to a company. Since joining OSU in 2011, Oleh Taratula has raised over \$9 million in funding and currently holds three NIH grants (two R01, and R37).

10:55 AM - 11:15 AM **COFFEE BREAK**

MORNING SESSION

11:15 AM - 12:00 PM

Nanomedicine

SESSION CHAIR: Dr. Monika Szeftczyk, Wroclaw University of Science and Technology, Poland

NDDE 106

11:15 - 11:30

The Accumulation of Upconverting Nanoparticles in Different Subtypes of Breast Cancer Cells

Presenter: Evelina Voronovic, Biomedical Physics Laboratory of National Cancer Institute, Vilnius Gediminas Technical University, Vilnius University, Lithuania

Authors: Evelina Voronovic, Simona Steponkiene, Greta Jarockyte, Dominyka Dapkute, Vitalijus Karabanovas, Ricardas Rotomskis

NDDE 119

11:30 - 11:45

Immunomodulatory Nanoparticles as a Multimodal Approach to Attenuate Immune Dysregulation in Severe Inflammation and Sepsis

Presenter: Nhu Truong, University of Maryland, USA

Authors: Nhu Truong, Shruti Dharmaraj, Andrea Cottingham, Jacob Shaw, Jackline Joy Martin Lasola, Brianna Scotland, Ryan M. Pearson

ICNNFC 125

11:45 - 12:00

Assessment of Cytotoxicity of Gold Nanoparticles Functionalized With Brazilian Red Propolis in 2D And 3D Models of Urological Cancers

Presenter: Caroline E. Apolinário Botteon, University of São Paulo, Brazil

Authors: Caroline E. A. Botteon, Robson L. F. Amaral, Letícia B. Silva, Priscyla D. M. Gaspari

NDDTE KEYNOTE VIRTUAL SESSION

Keynote Lecture

12:00 PM - 12:55 PM

SESSION CHAIR:

Dr. Wolfgang Ensinger, Technische Universität Darmstadt, Germany

**Designing Next Generation Drug Delivery Systems for the Prevention of Sexually Transmitted Infections**

Dr. Emmanuel A. Ho,

University of Waterloo, Canada

Dr. Emmanuel Ho is currently an Associate Professor in the School of Pharmacy at the University of Waterloo and the theme lead for the Therapeutics & Theranostics section of the Waterloo Institute for Nanotechnology. His current research program is focused on the development and characterization of innovative nanomedicines, medical devices and biomaterials for imaging, treatment, and prevention of diseases including HIV/AIDS, cancer, and chronic wounds. Dr. Ho is the past President of the Canadian Chapter of the Controlled Release Society, the past Treasurer of the Canadian Society for Pharmaceutical Sciences (CSPS) and is currently an Associate Editor for Drug Delivery and Translational Research and the Journal of Pharmacy & Pharmaceutical Sciences. He was awarded the 2021 Leslie Dan Faculty of Pharmacy Leadership in Pharmaceutical Sciences Award, 2015 Association of Faculties of Pharmacy of Canada New Investigator Research Award and the 2014 GlaxoSmithKline / CSPS Early Career Award.

12:55 PM - 01:00 PM **GROUP PHOTO**

01:00 PM - 02:00 PM **LUNCH**

AFTERNOON SESSION

2:00 PM - 3:15 PM

Nanotechnology and Drug Delivery

SESSION CHAIR: Dr. Chiara Gaetani, Elsevier, Italy

NDDTE 122

02:00 - 02:15

A Novel, Rapid Diagnostic Molecular Method for Sars-Cov-2 Detection by Nanoprobes

Presenter: Pablo Cea-Callejo, Universidad Complutense de Madrid, BioAssays SL, Spain

Authors: Pablo Cea-Callejo, Sonia Arca-Lafuente, Laura Benítez Rico, Ricardo Madrid

NDDTE 129

02:15 - 02:30

Structure-Property Relationship in CaCO₃ for Developing pH-sensitive Drug Delivery Vehicles

Presenter: Daria Trushina, First Moscow State Medical University, Russian Academy of Sciences, Russia

Authors: Daria Trushina, Tatiana Pallaeva, Alexander Mikheev, Roman Akasov, Tatiana Bukreeva

NDDTE 104

02:30 - 02:45

Nanomechanical Changes of Cells Infected by The SARS-CoV-2 Virus

Presenter: Agata Kubisiak, Jagiellonian University, Poland

Authors: Agata Kubisiak, Agnieszka Dabrowska, Tomasz Kolodziej, Maksymilian Szczypior, Zenon Rajfur, Krzysztof Pyrc, Marta Targosz-Korecka

NDDTE 133

02:45 - 03:00

Magnetic Oxygen-Loaded Nanodroplets: Role of Perfluorocarbon Core and Polymeric Coating in Magnetic Droplet Vaporization for Oxygen Release

Presenter: Simone Galati, Politecnico di Torino, INRiM – Istituto Nazionale di Ricerca Metrologica Italy

Authors: Simone Galati, Marta Vassallo, Alessandra Manzin, Adriano Troia

ICNNFC 109

03:00 - 03:15

Alternative Carriers in Drug Delivery Systems – Peptide Foldamers

Presenter: Monika Szefczyk, Wrocław University of Science and Technology, Poland

Authors: Monika Szefczyk, Juan Lizandra Pérez, Anna Szczepańska, Paulina Fortuna

03:15 PM - 04:50 PM

Virtual Session**SESSION CHAIR:** Dr. Josef Jampilek, Comenius University, Slovakia**ICNNFC 124**
03:15 - 03:25
Vibration Analysis of Nanoporous AAO Membrane by Using High-Frequency Excitation Technique in Electrochemical Reactor*Presenter:* Urte Cigane, Kaunas University of Technology, Lithuania*Authors:* Urte Cigane, Arvydas Palevicius**ICNNFC 133**
03:25 - 03:35
Applications of Biological Magnetic Nanoparticles in Nanobiotechnology*Presenter:* Juliana Guimarães Ferreira, Universidade Federal do Rio de Janeiro, Brazil*Authors:* Juliana G. Ferreira, Vinavadini Ramnarain, Igor Taveira, Júlia de Castro, Rogerio Presciliano, Beatriz A. Vessalli, Dris Ihiawakrim, Ovidiu Ersen, Fernanda Abreu**ICNNFC 122**
03:35 - 03:45
Anatase Nanoparticles for Raman Nanothermometry*Presenter:* Raffaella Signorini, University of Padova, Italy*Authors:* Thomas Pretto, Marina Franca, Veronica Zani, Silvia Gross, Danilo Pedron, Roberto Pilot, Raffaella Signorini**ICNNFC 164**
03:45 - 03:55
Advanced Computational Modelling of Interface Properties*Presenter:* Konstantinos Kotsis, University College Dublin, Ireland*Authors:* Konstantinos Kotsis**NDDTE 105**
03:55 - 04:05
Optimization and Characterization of Curcumin Microemulsion Formulations with Aromatic Turmerone-rich Extract*Presenter:* Beyza Sumeyye Aydin, Bezmialem Vakif University, Turkey*Authors:* Beyza Sumeyye Aydin, Ali Asram Sagiroglu, Fatemeh Bahadori

NDDTE 127 **SIRNA Delivery Mediated By Inulin Based Polycations**

04:05 - 04:15

Presenter: Carla Sardo, University of Salerno, Italy

Authors: Carla Sardo, Carmela Tommasino, Tiziana Esposito, Giulia Auriemma, Rita Patrizia Aquino

NDDTE 126 **Innovative Phytodefense Colloidal Delivery System Based On Chestnut Spiny Bur Extract**

04:15 - 04:25

Presenter: Tiziana Esposito, University of Salerno, Italy

Authors: Tiziana Esposito, Francesca Sansone, Teresa Mencherini, Francesco Del Prete, Anna Lucia Cannoniere and Rita P. Aquino

ICNNFC 130 **Numerical Analysis of Microstructures Thermal Formation in a Polymeric Material**

04:25 - 04:30

Presenter: Justas Ciganas, Kaunas University of Technology, Lithuania

Authors: Justas Ciganas, Giedrius Janusas

NDDTE 123 **New Approaches to Improve PCL Performances as Biomaterial**

04:30 - 04:40

Presenter: Giulia Auriemma, University of Salerno, Italy

Authors: G. Auriemma, C. Tommasino, C. Sardo, R.P. Aquino

ICNNFC 161 **Adsorption of Cations Using Graphene Oxide Loaded with Ionic Liquid: A Molecular Dynamic Simulation**

04:40 - 04:50

Presenter: Yara Gamaleldin ElGazar, Abu Dhabi University, UAE

Authors: Soumaya Grira, Yara Gamaleldin ElGazar, Hadil Abu Khalifeh, Mohammed Alkhkeder

ICNNFC KEYNOTE SESSION

Keynote Lecture

9:00 AM - 9:45 AM

SESSION CHAIR:

Dr. Josef Jampilek, Comenius University, Slovakia

**Ionomers and Electrocatalysts for Anion Exchange Membrane Fuel Cells***Dr. Maria Luisa Di Vona,*

University of Rome Tor Vergata, Italy

Professor in Chemistry at the University of Rome Tor Vergata. Responsible of the International Laboratory "Ionomer Materials for Energy" at the Department of Industrial Engineering. Principal investigator of several Research Projects and Educational Projects. Italian coordinator of the Master Erasmus Mundus "Chemical Nano-engineering". Invited professor at Aix-Marseille University, France and Nat. Inst. Mater. Sci. NIMS, Japan. Principal organizer of many international symposia. Research Interests: Synthesis of organic-inorganic materials. Development of ionic polymeric conductors. 190 international publications.

POSTER SESSION

Posters Presentations

09:45 AM - 10:30 AM **SESSION CHAIR:** Dr. Daria Trushina, First Moscow State Medical University, Russian Academy of Sciences, Russia & Dr. Simona Steponkiene, National Cancer Institute, Lithuania

NDDE 120 **Conformational Changes during DNA Mismatch Repair Studied by Vibrational Spectroscopy and Scanning Probe Microscopy**

Presenter: Dawid Lupa, Jagiellonian University, Poland

Authors: Dawid Lupa

NDDE 103 **Bioactive Ureasil-Polyether Membranes for Glucose Controlled Release**

Presenter: Leila Aparecida Chiavacci, São Paulo State University, Brazil

Authors: Camila Garcia da Silva, João Augusto Oshiro Junior, Thúlio Wliandon Lemos Barbosa, Leila Aparecida Chiavacci

NDDE 117 **Positively-Charged Di-Block Copolymers for Delivery and Controlled Release of Nucleic Acids**

Presenter: Eliška Hrdá, Charles University, Czech Academy of Sciences, Czech Republic

Authors: Eliška Hrdá, Richard Laga, Ladislav Androvič

ICNNFC 159 **Co-Precipitation Method With Post-Thermal Treatment As A Scalable Tool In Preparation Of High Content E-Fe₂O₃ Phase Materials**

Presenter: Zdenka Medříková, Palacký University Olomouc, Czech Republic

Authors: Zdenka Medříková, Michaela Polášková, Viktorie Víchová, Josef Kašlík

ICNNFC 160 **In-Situ X-Ray Diffraction Study Of The Thermally Induced Recrystallization Of Sulfide Shell On The Surface Of Zero-Valent Iron Nanoparticles**

Presenter: Viktorie Víchová, Palacký University, Czech Republic

Authors: Viktorie Víchová, Josef Kašlík, Gabriela Macháčková

ICNNFC 149 **A Study on the Direct Conversion and Hydrogen Production of Low Concentration Carbon Dioxide Emissions Using DARM**

Presenter: Hyo Sik Kim, Institute for Advanced Engineering, Republic of Korea

Authors: Hyo Sik Kim, Ji-Hyeon Kim, Suk-Hwan Kang

ICNNFC 150 **Evaluation of Volatile Organic Compounds Removal Characteristics by Catalyst Combustion**

Presenter: Hyo Sik Kim, Institute for Advanced Engineering, Republic of Korea

Authors: Hyo Sik Kim, Hyun-Ji Kim, Suk-Hwan Kang

NDDTE 130 **Drug Delivery Systems for Bone Tissue Regeneration: Functionalized Porous Zirconia Scaffolds**

Presenter: Iwona Pudełko, AGH University of Science and Technology, Poland

Authors: Iwona Pudełko, Małgorzata Krok-Borkowicz, Karolina Schickle, Elżbieta Pamuła

NDDTE 131 **Microparticles Based On Poly(Sebacic Acid) And Poly(3-Allyloxy-1,2-Propylene Succinate) As Azithromycin Delivery Systems**

Presenter: Karolina Knap, AGH University of Science and Technology, Poland

Authors: Karolina Knap, Konrad Kwiecień, Weronika Patuszyńska, Daria Niewolik, Dorota Ochońska, Alicja Kazek-Kęsik, Katarzyna Jaszcz, Monika Brzychczy-Włoch, Elżbieta Pamuła

ICNNFC 110 **Evaluating the Cytotoxicity of the Azo Polymer PAZO on ATCC TIB-208 Cell Lines**

Presenter: Ani Stoilova, University of Chemical Technology and Metallurgy, Bulgaria

Authors: Ani Stoilova, Iliyan Manoylov, Petya Ganova, Yordanka Trifonova

NDDTE 118 **β -Carboline-Norfloracin Nanoconjugates as Antibacterial Nanophotocages for the Delivery of Norfloracin and Singlet Oxygen**

Presenter: Antara Sikder, Indian institute of technology Kharagpur, India

Authors: Antara Sikder, Saugat Mondal, Rabiya Rabiya, Pritha Biswas, Subham Pal, Ramkrishna Sen, N. D. Pradeep Singh

NDDTE 132 **Quercetin Delivery Systems for the Treatment of Burn Wounds**

Presenter: Anna Moskwik, AGH University of Science and Technology, Poland

Authors: Anna Moskwik, Katarzyna Reczyńska-Kolman, Elżbieta Pamuła

ICNNFC 111 **Hydrophobic Surface Fabrication of Metallic Materials**

Presenter: Woong Ki Jang, Kangwon National University, South Korea

Authors: Woong Ki Jang, Yoo Su Kang, Young Ho Seo, Seok Min Kim, Shin Ill Kang, Byeong Hee Kim

ICNNFC 158 **Fabrication and Characterization of Encapsulated CNT-Sb₂Te₃ Thermoelectrical Hybrid Structures**

Presenter: Elmars Spalva, 3D Strong Ltd, Latvia

Authors: Elmars Spalva, Krisjanis Buks, Jana Andzane, Loreta Brauna, Donats Erts

ICNNFC 167 **Delivery of Platinum-Based Drugs for Osteosarcoma Treatment via Graphene Oxide Nanoplatforms**

Presenter: Ludmila Žárská, Palacký University Olomouc, Czech Republic

Authors: Ludmila Žárská, Elena Giusto, Darren Fergal Beirne, Arianna Rossi, Giada Bassi, Andrea Ruffini, Monica Montesi, Diego Montagner, Václav Ranc, Silvia Panseri

AFTERNOON SESSION

Nanomaterials Synthesis Characterization

10:30 AM - 11:45 AM

SESSION CHAIR: Dr. Daria Trushina, Sechenov First Moscow State Medical University, Russia

ICNNFC 155
10:30 - 10:45 **Nano-Lattice Engineering of Cu-Oxides via Flame Spray Pyrolysis: Challenges for Promoting Artificial Photosynthesis Performance**

Presenter: Yiannis Deligiannakis, University of Ioannina, Greece

Authors: Areti Zindrou, Maria Solakidou, Yiannis Deligiannakis

ICNNFC 156
10:45 - 11:00 **Industrial-Scale H₂ Production From C1-Substrates At Near Ambient P,T: The Technology Of Nanohybrid Molecular Catalysts**

Presenter: Maria Louloudi, University of Ioannina, Greece

Authors: Christos Gatzouras, Konstantina Gravani, Maria Solakidou, Maria Louloudi

ICNNFC 129
11:00 - 11:15 **First Hyperpolarizability of Carbonaceous Nanoparticles**

Presenter: Sourav Saikia, Indian Institute of Science, India

Authors: Sourav Saikia, Jyoti Dutta, and Puspendu K. Das

ICNNFC 145
11:15 - 11:30 **Freeform Graphene Oxide-Quantum Dot Microstructures via Multiphoton Crosslinking**

Presenter: Shean-Jen Chen, National Yang Ming Chiao Tung University, Taiwan

Authors: Chun-Yu Lin, Shean-Jen Chen

ICNNFC 162
11:30 - 11:45 **Synthesis and Characterization of Hydroxyapatite Nanoparticles for Environmental Applications**

Presenter: Maribel Guzman, Pontifical Catholic University of Peru, Peru

Authors: Luis Ayala, Maribel Guzman, Betty C. Galarreta, Jose E. Herrera, Ya-Huei (Cathy) Chin, William Broomhead

ICNNFC KEYNOTE VIRTUAL SESSION

Keynote Lecture

11:45 AM - 12:30 PM

SESSION CHAIR:

Dr. Josef Jampilek, Comenius University, Slovakia



Nanocomposites of Clay for Food and Agriculture Applications

Dr. Saji George,

McGill University, Canada

Dr Saji George is an Associate Professor in the Department of Food Science and Agricultural Chemistry at McGill University and Canada Research Chair in Sustainable Nanotechnology for Food and Agriculture. Previously, Dr George was spearheading Centre for Sustainable Nanotechnology at Nanyang Polytechnic, Singapore from where he completed several research projects addressing the health risks of nanomaterials and environmental contaminants. His research is aimed at understanding the relationship between nanomaterial properties and their hazardous and beneficial biological outcomes with the ultimate goal of developing sustainable nanotechnology applications for current and future challenges in food safety and security. He has authored 74 peer reviewed articles, five patents and >45 invited talks. He has been serving as reviewer and editorial board member for many leading journals in the field of nanotechnology (nano-bio interactions). His excellences in teaching and research have been recognized by Ministry of Education, Singapore through the best mentor award and PS21 ExCEL Gold/Silver Awards in 2015 and 2016 and Canada Research Chair (Tier 2).

12:30 AM - 01:15 PM **LUNCH**

AFTERNOON SESSION

Nanobiotechnology

01:15 PM - 02:00 PM

SESSION CHAIR: Dr. Leila A Chiavacci Favorin, UNESP, Brazil

ICNNFC 144 **Comparative Studies on Cytotoxicity of Gold Nanoparticles and Protein-Stabilized Fluorescence Gold Nanoclusters**
01:15 - 01:30

Presenter: Patrycja Gnacek, Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Poland*Authors:* Patrycja Gnacek, Anna Barbasz, Ditta Ungor, Agnieszka Czyżowska, Edit Csapó, Julia Maciejewska-Prończuk, Paulina Żeliszewska, Magdalena Oćwieja

ICNNFC 144 **Development of Acid-Functionalized Magnetic Nanoparticles and Their Efficacy in the Pre-treatment of Sugarcane Straw**
01:30 - 01:45

Presenter: Avinash Prabhakar Ingle, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, India*Authors:* Avinash Prabhakar Ingle, Mangesh Moharil, Shreshtha Saxena, Sanjay Sakhare, Rameshwar Ghorade

ICNNFC 157 **Synthesis and Functional Characterization of a Dual Drug-Loaded, Cell-Targeted Nanoparticles**
01:45 - 02:00

Presenter: Yaw-Kuen Li, National Yang Ming Chiao Tung University, Taiwan*Authors:* Yaw-Kuen Li**CRUISE TOUR**

07:00 PM - 10:00 PM

BOARDING ADDRESS: Veltagus, Norte – Doca de Alcântara, Cais Rocha Conde de Óbidos, 1399-059 Lisboa, Portugal
<http://www.veltagus.com/>



9th WORLD CONGRESS ON RECENT TRENDS IN NANOTECHNOLOGY

APRIL, 2024

Next year, the Congress will be held in April, 2024 and the location will be announced soon.

Please visit the website provided below for regular updates:

www.2024.rancongress.com

For inquiries and to obtain further information on the congress please email us at:

info@rancongress.com

or call us

+1-613-834-9999.

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JOURNAL PUBLICATION

Selected articles from the Congress will be published in the following journal after a secondary review process:

- International Journal of Theoretical and Applied Nanotechnology (IJTAN)

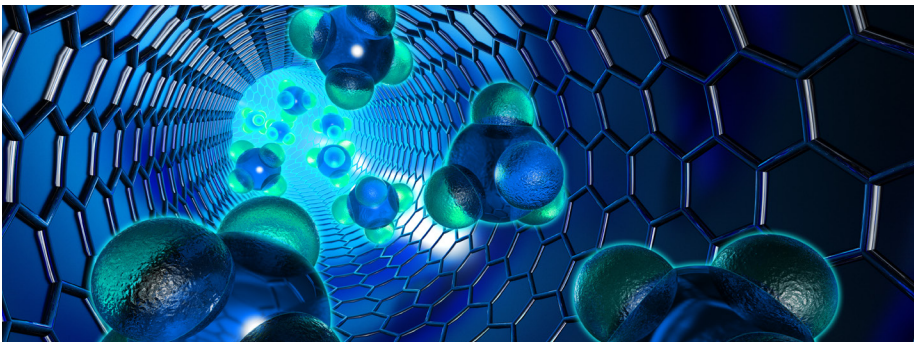
The publication fee will be waived for papers that win the Best Paper award.

This journal has adopted to the open-access model, meaning free access to the journal's articles and content with no need for subscription. This ensures a larger audience and therefore higher citations.

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