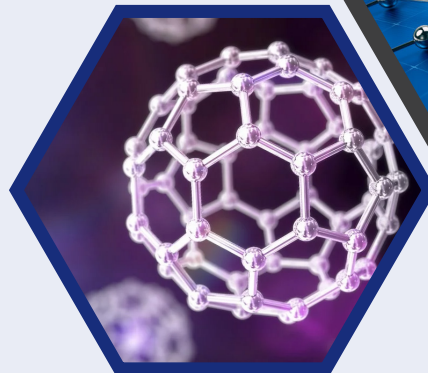
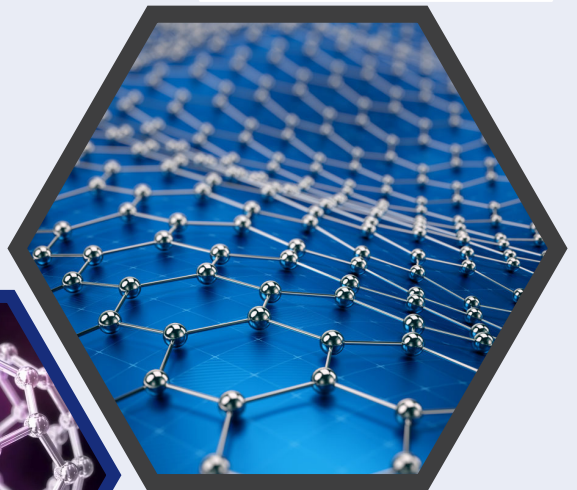
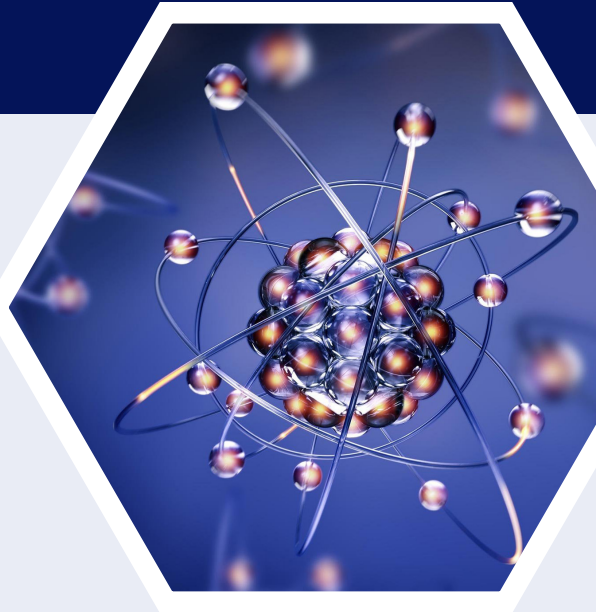


International Conference on

# Materials Science and Engineering

March 27-28, 2023

Millennium Hotel Paris Charles De  
Gaulle, Paris, France



**Scisynopsis LLC**

Atlanta, GA 30326  
USA

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# Conference Programme

March 27-28, 2023, Millennium Hotel Paris Charles De Gaulle, Paris, France

## Day 1, March 27, 2023

Meeting Hall: Blériot

8.30 - 8.45

Registrations

8.45 - 9.00

Introduction

## Keynote Presentations

9.00 - 9.45

**Sina Khoshima**, Jozef Stefan Institute, Slovenia

**Title:** An Environmentally Friendly Approach to Selective Chemical Leaching and  $\text{Nd}_2\text{Fe}_{14}\text{B}$  Magnetic Phase Extraction from Feedstock  $\text{Nd}_2\text{Fe}_{14}\text{B}$  Type Powders

9.45 - 10.30

**Viktoria Milkova**, Bulgarian Academy of Sciences, Bulgaria

**Title:** Design of Biopolymer-Based (Nano) Formulations for Potential Treatment of Coronavirus Infection

## Group Photo: 10.30 - 10.45

Networking and Refreshments @ Foyer: 10.45 - 11.00

## Oral Presentations

Session Chair:

**Sina Khoshima**, Jozef Stefan Institute, Slovenia

Session Chair:

**Valeri Ligatchev**, Member of The Electrochemical Society, Singapore

Session Chair:

**Mothibeli Pita**, University of South Africa, South Africa

Session Co-chair:

**Hosam El-Sayed**, National Research Centre, Egypt

**Sessions:** Materials Science and Engineering | Functional Materials | Smart Hybrid Materials | 3D Printing & Additive manufacturing | Polymer Technology and Plastics | Graphene Technology | Forensic Nanotechnology | Nano Mechanics | Fundamentals and Properties of Nanomaterials | Applications of Nanotechnology | Materials Chemistry | Metals and Mining Materials | Nanoengineering and It's Applications | Structural Materials | Composite, Coating and Ceramic Materials | Carbon Nanotubes | Metallurgy | Chemical Engineering | Lipid Nanotechnology | Polymer Nanotechnology | Quantum Nanotechnology | Nano Medicine & Life Sciences | Nano Physics & Nano Chemistry | Molecular Nanotechnology | Nnotoxicology | Computational Nanotechnology

11.00 - 11.25

**Michał Pikuła**, Medical University of Gdańsk, Poland

**Title:** Adipose-Derived Stromal Cells as A Tool in Biomedical Engineering and Nanotechnology

11.25 - 11.50

**Mothibeli Pita**, University of South Africa, South Africa

**Title:** Investigation of the Effect of Tool Temperature on Microstructure and Mechanical Properties of Aluminium 6061-T6 Alloy During Friction Stir Welding

11.50 - 12.15

**Valeri Ligatchev**, Member of The Electrochemical Society, Singapore

**Title:** On Nature of Cooper Pairs Formation Mechanism in Phonon-Mediated Superconductors

12.15 - 12.40

**Stepan Gamanov**, CEITEC Brno University of Technology, Institute of Physics of Materials, Czech Academy of Sciences Czech Republic

**Title:** Manufacturing and High Temperature Properties of Fe-10Al-4Cr-4Y<sub>2</sub>O<sub>3</sub> ODS Nanocomposite, Aimed for Structural Applications Above 1100°C

12.40 - 13.05

**Hosam El-Sayed**, National Research Centre, Egypt

**Title:** Preparation of Nonionic Softener Based on Wool Wax and its Utilization in Functionalization of Textile Fabrics

**Lunch @ Restaurant: 13.05 - 14.00**

14.00 - 14.25

**Galina Lasko**, Institute for Materials Testing, Materials Science and Strength of Materials, Germany

**Title:** FEM-Simulations of Fatigue Crack Initiation in the Oligocrystalline Microstructure of Stents

14.25 - 14.50

**Zhengming Wu**, Heidelberg Instruments Nano AG, Switzerland

**Title:** NanoFrazor Lithography for Advanced 2D & 3D Nanodevices

14.50 - 15.15

**Mohamed Hassen V. Baouab**, University of Monastir, Tunisia

**Title:** Macrocycles Tetra Aza-Microcrystalline Bacterial Cellulose Doped with Magnetite Nanoparticles Catalytic and Microbiological Application

15.15 - 15.40

**Bertrand Roussillo--David de Beaufort**, French Atomic Energy and Alternative Energies Commission, France

**Title:** Improvement of Electrospun Carbon Nanofiber Material as Gas Diffusion Layer for Proton Exchange Membrane Fuel Cell

15.40 - 16.05

**Mavis Sika Okyere**, University of Ghana, Ghana

**Title:** Flow Improvers and Pipeline Internal Coating Benefits and Limitations with Respect to Pipeline Capacity Enhancement: A Case Study

### Networking and Refreshments @ Foyer: 16.05 - 16.30

16.30 - 16.55

**Emilia Visileanu**, The National Research and Development Institute for Textiles and Leather, Romania

**Title:** Composite Structures for Emergency Medicine

16.55 - 17.20

**Sergey Suchkov**, Institute for Biotech & Global Health of RosBioTech, and A.I. Evdokimov MGMSU, Russia

**Title:** Antibody-Proteases as Translational Tools of the Next-Step Generation to be Applied for Bioindustry and Clinical Applications

17.20 - 17.45

**Mohammed Saad Al-Ghamdi**, King Abdulaziz University, Saudi Arabia

**Title:** Effect of Quantum Confinement on Electrical Properties in GaInP Semiconductor Laser Diode Structures

17.45 - 18.10

**Lakshmi Sathi Devi**, University of Camerino, Italy

**Title:** Exploring Cyclodextrin/Hyaluronan Multifunctional Delivery Systems for Anticancer Therapy

18.10 - 18.35

**Francisco E Alban-Chacón**, ESPOL, Ecuador

**Title:** A Novel Physical Mechanism to Model Brownian yet Non-Gaussian Diffusion: Theory and Application

18.35 - 19.00

**Magda Silva**, University of Minho, Portugal

**Title:** Ligament Scaffolds based on PLA/Graphite Nanoplatelet Composites

19.00 - 19.25

**Mohammed Saad Al-Ghamdi**, King Abdulaziz University, Saudi Arabia

**Title:** Effect of Barrier Width on Optoelectronic Properties of InAsP Quantum Dot Laser Diodes

**Day 1 Concludes**

**Day 2, March 28, 2023**

**Meeting Hall: Blériot**

**Keynote Presentation**

10.00 - 10.45

**Henrique Eisi Toma**, Universidade de São Paulo, Brazil

**Title:** A New Green Nanotechnological Process for Gold Extraction

**Oral Presentations**

Session Chair:

**Henrique Eisi Toma**, Universidade de São Paulo, Brazil

Session Chair:

**Sabrina Belbekhouche**, Université Paris Est Creteil, CNRS, France

Session Chair:

**Yun-Hae Kim**, Korea Maritime and Ocean University, South Korea

**Sessions:** Nanomaterials and Nanotechnology | Nanoscience And Technology | Advanced Materials and Functional Devices | Nanoelectronics and Nanophotonics | Biomedical Engineering and Nanobiotechnology | Carbon Nanotubes | Graphene and Fullerenes | Materials Science and Engineering | Polymer Technology and Plastics | Graphene Technology | Nature and Properties of Materials | Computational Material Science | Magnetism and Multiferroism | Biomaterials and Medical Devices | Semiconductors | Nanodevices and Nanosensors | Industrial Nanotechnology | Advanced Energy Materials | Metamaterials | Polymers & Biopolymers

10.45 - 11.10

**Asmaa Fathy Elfiky**, National Research Centre, Egypt

**Title:** Easily-Dyeable Polypropylene Fabric using Oxygen or Nitrogen Plasma-Mediated Treatments

**Networking and Refreshments @ Foyer: 11.10 - 11.30**

11.30 - 11.55

**Joice Maria Joseph**, University of Camerino, Italy

**Title:** The Art of Preparations of PFCE Encapsulated PLGA Nanoparticles using Sonication and Homogenisation

11.55 - 12.20

**Mothibeli Pita**, University of South Africa, South Africa

**Title:** Experimental Investigation of Different Spindle Rotational Speed and Constant Acceleration on Mechanical Properties and Microstructure of Aluminum 6082T651 During Friction Stir Welding

12.20 - 12.45

**Chang Liu**, Beijing Sport University, China

**Title:** Gold Nanoparticle-based Point-of-Care Sensor for Rapid and Simultaneous Detection of Multiple Doping in Blood and Urine Samples

12.45 - 13.10

**Donats Erts**, University of Latvia, Latvia

**Title:** Bi<sub>2</sub>Se<sub>3</sub>/SWCNT Heterostructures as A Perspective Anode for Lithium-ion Batteries

**Lunch @ Restaurant: 13.10 - 14.00**

14.00 - 14.25

**Ali Al-Samydai**, Al-Ahliyya Amman University, Jordan

**Title:** The Effectiveness of Rutin in Improving Anticancer Effect and Stability of PEGylated Nanoliposomes

14.25 - 14.50

**Sabrina Belbekhouche**, Université Paris Est Creteil, CNRS, France

**Title:** New Generation of Drug Delivery System Based on Stimuli-Responsive Particles (Capsules, Porous Particles...)

14.50 - 15.15

**Sudip Barman**, National Institute of Science Education and Research (NISER), India

**Title:** Metal Nanostructures for Electrochemical Energy Conversion and Storage

15.15 - 15.40

**C S Ezeanyanaso**, National Agency for Science and Engineering Infrastructure, Nigeria

**Title:** Nanotechnology: The Emerging Field for Remediation, Restoration and Cleanup of Liquid Petroleum Hydrocarbon Spillage

15.40 - 16.05

**Banshidhara Mallik**, National Institute of Advanced Manufacturing Technology, India

**Title:** Study on Synthesis and Characterisation of Al-Base *In-situ* Metal Matrix Nano Composites by Stir Casting

**Networking and Refreshments @ Foyer: 16.05 - 16.30**

16.30 - 16.55

**Valeri Ligatchev**, Member of The Electrochemical Society, Singapore

**Title:** Size-Dependent Melting Temperatures of Graphene and MoS<sub>2</sub> Nano-Flakes

16.55 - 17.20

**Mohamed A.E.M. Ali**, Military Technical College, Egypt

**Title:** Static Performance and Gamma Shielding Characteristics of Ilmentite Cementitious Plaster

17.20 - 17.45

**Lucy Vojtova**, CEITEC - Central European Institute of Technology, Brno University of Technology, Czech Republic

**Title:** Biomimetic Polydopamine-Modified Nanofibrous Bilayer Scaffolds used for Full-Thickness Skin Regeneration in a Porcine Animal Model

17.45 - 18.10

**Jeetendra Gupta**, Institute of Engineering and Ocean Technology, Oil and Natural Gas Corporation Ltd , India

**Title:** Failure Analysis of A Metallic Ring Gasket: A Case Study

## Poster Presentations

P-01

**Henry R. Chance**, Georgia Institute of Technology, USA

**Title:** Nanoscale 3D Printed Microsupercapacitors

P-02

**Abir Razzak**, University Of Gafsa, Tunisia

**Title:** Production of Cellulose Nanofibrils from *Schinus molle* by Enzymatic Hydrolysis: Preparation and Characterization

P-03

**Oleksandr Dekhtiar**, G.V. Kurdyumov Institute for Metal Physics of National Academy of Sciences of Ukraine, Ukraine

**Title:** Improving the Fatigue Properties of Ti-6Al-4V Powder Alloy by Surface Carbon Deposition with the Help of Graphite Evaporation by Laser Irradiation

P-04

**Lorenzo Signorelli**, Friedrich-Alexander University, Germany

**Title:** Design of Magnetolectric Nanofibers for Wireless Electrical Neuromodulation

P-05

**Abir Razzak**, University Of Gafsa, Tunisia

**Title:** Preparation and Characterization of Nanofibrils Obtained by Tempo Mediated Oxidation of Alkaline Pulp from *Schinus molle*

P-06

**Elif Koçar**, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

**Title:** Functionalization and Optimization of Magnetic Nanoparticle Systems: Designing Magnetic Protein Sensors

P-07

**Didzis Salnajs**, University of Latvia, Latvia

**Title:** Synthesis and Characterization of Nanostructured Bi<sub>2</sub>Se<sub>3</sub> films and Bi<sub>2</sub>Se<sub>3</sub>@SWCNT Heterostructures

P-08

**Yun-Hae Kim**, Korea Maritime and Ocean University, South Korea

**Title:** Synergetic Effects of Nanoparticles in Thermoset Composites

P-09

**Hesham A. Hamad**, City of Scientific Research and Technological Applications, Egypt

**Title:**  $\text{Co}_x\text{Cu}_y\text{Fe}_2\text{O}_4$  as Novel Nanocatalysts for Production of Biodiesel from Waste Frying Oil

## e-Poster Presentations

EP-01

**Saulius Grigalevicius**, Kaunas University of Technology, Lithuania

**Title:** New Fluorene Based Derivatives for Solar Cells

EP-02

**Joanna Sypniewska**, Gdansk University of Technology, Poland

**Title:** Surface Structure Properties of  $\text{Ti}_{13}\text{Nb}_{13}\text{Zr}$  Titanium Alloy Subjected to Laser Modification and MAO Process

**Day 2 Concludes followed by Panel Discussion - Awards & Closing Ceremony**



# Virtual Programme

## March 27-28, 2023, Virtual Program

Day 1 March 27, 2023 GMT (London Time: 10.00 - 15.50)

10.00 - 10.15

Introduction

### Oral Presentations

10.15 - 10.40

**Zihao Tan**, Institute of Metal Research, Chinese Academy of Sciences, China

**Title:** Thermal-Mechanical Fatigue Behavior and Damage Mechanisms of A Fourth-Generation Single Crystal Superalloy

10.40 - 11.05

**Ailar Assambayeva**, I.M.Sechenov First Moscow State Medical University (Sechenov University), Russia

**Title:** The First Experience of Using Tissue-Engineered Constructs for Surgical Correction of Anterior Vaginal Wall Prolapse

11.05 - 11.30

**Łukasz Pawłowski**, Gdańsk University of Technology, Poland

**Title:** Properties of Smart CS/EE100 and CS/P4VP Biopolymer Coatings Electrophoretically Deposited on Modified Titanium Surfaces

11.30 - 11.55

**Athanasios Katsouras**, University of Ioannina, Greece

**Title:** Design and Development of Binary Blends Consisted of New Conjugated and Diblock Copolymers for Applications in Active Packaging

11.55 - 12.20

**Debojyoti Mandal**, Lovely Professional University, India

**Title :** Formulation and Optimization of Sinapic Acid (SA) Loaded Guar Gum Nanoformulation *via* Box–Behnken Design Against Diabetic Wound Healing

12.20 - 12.45

**Khadija Boukholda**, Faculty of Sciences of Sfax, Tunisia

**Title :** Silica Nanoparticles Induce Neurotoxicity in Striatum Region by Activating Oxidative Stress and Apoptosis-Related Gene Expression in Adult Male Rats: Possible Involvement of Nrf2/HO-1 and Apoptotic Pathways

12.45 - 13.10

**Tan Eng Pei**, Universiti Tunku Abdul Rahman, Malaysia

**Title:** Antifungal Activity of Zinc Oxide Nanoparticles Against *Saccharomyces Cerevisiae*

**Lunch (13.10 - 13.40)**

13.40 - 14.05

**Venu Madhav V. V.**, Velagapudi Ramakrishna Siddhartha Engineering College, India

**Title:** Influence of the Laminate Thickness and the Thermal Loads on the Buckling of a Cylindrical Shells

14.05 - 14.30

**Refka Sai**, Université de Carthage, Tunisia

**Title:** Impact of Iron Pyrite Nanoparticles Sizes in Photovoltaic Performance

14.30 - 14.55

**Ali Rezaei**, Iran University Of Science And Technology, Iran

**Title:** Graphene-Oxide (GO) Electrophoretic Thin Film Deposition on Titanium

14.55 - 15.20

**Alicja Stanislawska**, Gdansk University of Technology, Poland

**Title:** Determination of Nanomechanical Properties of Bacterial Nanocellulose Modified *In situ* with Hyaluronic Acid

### Keynote Presentation

15.20 - 15.50

**Orlando Auciello**, University of Texas-Dallas, USA

**Title:** Science and Technology of Unique Multifunctional Ultrananocrystalline Diamond (UNCD™) Coating for New Generations of Industrial, High-Tech and Implantable Medical Devices/Prostheses

### Day 1 Concludes

## Day 2 March 28, 2023 GMT (London Time: 10.00 - 16.45)

### Keynote Presentations

10.00 - 10.30

**Token Ahmad**, Jamia Millia Islamia, India

**Title:** Binary and Ternary Heterostructured Nanomaterials for Catalysis in H<sub>2</sub> Generation

10.30 - 11.00

**Osman Adiguzel**, Firat University, Turkey

**Title :** Deformation-Temperature Dependent in Memory Behavior of Shape Memory Alloys

### Poster Presentation

11.00 - 11.15

**Phanitchanun Thanawattana**, Chulalongkorn University, Thailand

**Title:** Effect of PLA-g-HA on Mechanical and Thermal Properties of PLA/PCL Blend Nanocomposites

11.15 - 11.30

**Hameed Ullah**, Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, China

**Title:** A Fast Method for Nanocomposite PbS Synthesis: Preparation and Characterization

11.30 - 11.45

**Alicja Stanislawska**, Gdansk University of Technology, Poland

**Title:** Determination of Nanomechanical Properties of Coatings Produced by the Micro Arc Oxidation Method on 5056 and 7075 Aluminum Alloys

11.45 - 12.00

**Maryam Moghtaderi**, Islamic Azad University, Iran

**Title:** PEGylated Bleomycin-Loaded Liposomes as a New Approach to Cancer Treatment

12.00 - 12.15

**Yakov G. Verkhivker**, Odessa National University of Technology, Ukraine

**Title:** Use of Nanotechnologies in the Production of Canned Ketchup and Sauces

12.15 - 12.30

**Ales Mishchenko**, A.A. Galkin Donetsk Institute for Physics and Engineering, Russia

**Title:** Effect of Structure Defects on Spectrum of Electromagnetic Excitations in Coupled Microcavities Array Containing Quantum Dots

## Oral Presentations

12.30 - 12.55

**Twinkle Garg**, Banasthali Vidyapith, India

**Title:** Design, Development and Characterization of Rivastigmine Loaded Herbal Hybrid Nanoparticles for Treatment of Alzheimer's Disease

12.55 - 13.20

**Thierno Souleymane Barry**, Pan African University Institute for Basic Sciences Technology and Innovation, Kenya

**Title:** Bayesian Joint Spatial Modelling of Anemia and Malaria in Guinea

13.20 - 13.45

**Niharika**, Metro College of Health Sciences and Research, India

**Title:** Pressure Sensitive Adhesives in Transdermal Drug Delivery

13.45 - 14.10

**Sujoy Kumar Dey**, Sikkim Manipal University, North East Regional Institute of Science and Technology (NERIST), India

**Title:** Porous PEEK/HA Composites: A Candidate of Orthopedic Implant Material

14.10 - 14.35

**Vladimir V. Egorov**, FSRC“Crystallography and Photonics”, Russian Academy of Sciences, Moscow, Russia

**Title:** Quantum-Classical Mechanics: Principles, Applications, and Prospects

14.35-15.00

**Zaineb Bakari**, National Engineering school of Sfax, Tunisia

**Title:** Potential Valorization of Agricultural Waste into Low-Cost Activated Carbon for the Removal of Organic and Inorganic Contaminants from Wastewater

15.00-15.25

**Subhajit Kar**, Indian Institute of Science Education and Research, India

**Title:** Carbon Based Nanomaterials for Energy Application

15.25-15.50

**Ali Rezaei**, Iran University Of Science And Technology, Iran

**Title:** Dc Electroplating of Cobalt-Nickel Thin Film on Copper Substrate for Magnetic Applications

15.50-16.15

**Jagadish Chandra Tarafdar**, Indian Council of Agricultural Research, India

**Title :** Nanofertilizer: Unique Material for Global Farming

## Video Presentation:

16.15 - 16.30

**Yarub Al-Douri**, American University of Iraq, Iraq

**Title :** Quinternary Alloy for Optoelectronic Applications

16.30 - 16.45

**Shymaa S. Medany**, Cairo University, Egypt

**Title:** NiO Nanoparticles as an Electrocatalyst for Urea Electro-Oxidation in Alkaline Medium

**Day 2 Concludes Followed by Vote of Thanks**

For time reference please check with time Zone at:  
<https://www.worldtimebuddy.com/>

# Forthcoming Events

International Conference on **Biomaterials and Biodevices**

September 25-26, 2023 | Paris, France



2<sup>nd</sup> International Conference on **Neurology and Brain Disorders**

November 2-3, 2023 | London, UK



Internarional Conference on **Hematology and Blood Disorders**

November 6-7, 2023 | Paris, France



European Conference on **Human Genetics**

November 6-7, 2023 | Paris, France



International Conference on **Gynecology and Obstetrics**

November 6-7, 2023 | Dubai, UAE



International Conference on **Biomedical Science and Engineering**

November 6-8, 2023 | Dubai, UAE



International Confernce on **Clinical Case Reports**

November 8-9, 2023 | Dubai, UAE



2<sup>nd</sup> International Conference on **Materials Science & Engineering**

November 8-9, 2023 | Dubai, UAE



2<sup>nd</sup> European Congress on **Chemistry and Applied Sciences**

November 9-10, 2023 | Paris, France



2<sup>nd</sup> International Conference on **Catalysis & Chemical Engineering**

November 9-10, 2023 | Paris, France



European Congress on **Renewable Energy and Sustainable Development**

November 16-17, 2023 | Rome, Italy



European Congress on **Biopolymers and Bioplastics**

November 16-17, 2023 | Rome, Italy



2<sup>nd</sup> International Conference on **Nanomaterials and Nanotechnology**

November 20-21, 2023 | Vienna, Austria



2<sup>nd</sup> European Congress on **Microbiology**

November 20-21, 2023 | Vienna, Austria



2<sup>nd</sup> International Conference on **Infectious Diseases**

November 20-21, 2023 | Vienna, Austria



2<sup>nd</sup> International Conference on **Addiction & Psychiatry**

November 20-21, 2023 | Vienna, Austria

