



Joint Event

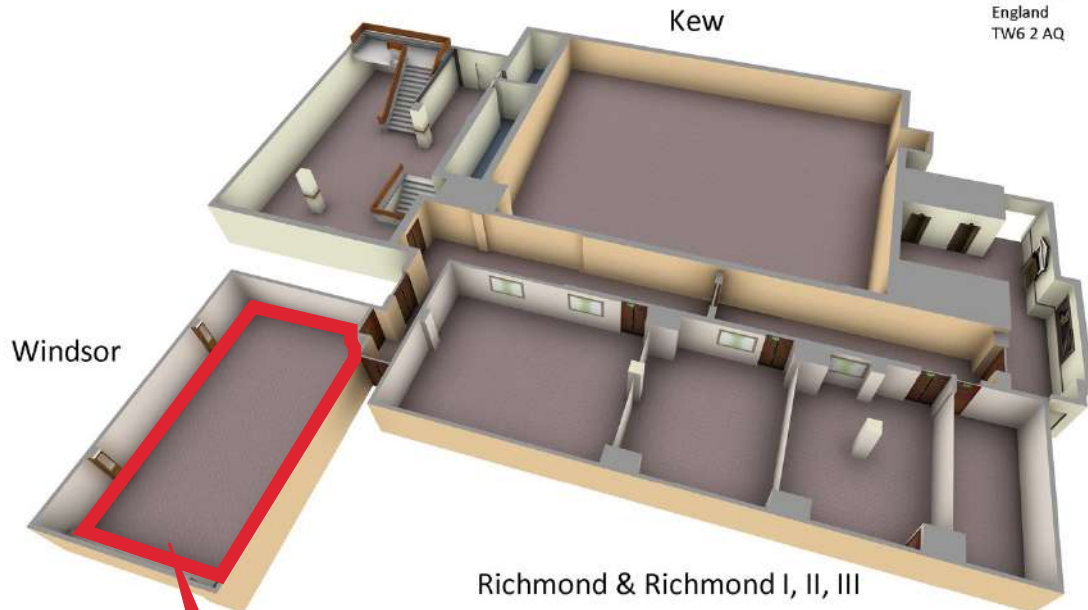
5th International Conference on
**ADVANCED FUNCTIONAL
MATERIALS**
&
BIOMATERIALS & BIODEVICES

October 14-15, 2024 | London, UK

Floor Map

LOWER GROUND FLOOR

R
RENAISSANCE®
LONDON HEATHROW HOTEL
Bath Road, Hounslow
England
TW6 2 AQ



All dimensions must be checked on-site and not scaled from drawing

Phone +44 20 88976363
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Conference Hall



Wi-Fi Details:

Username: Marriott Guest

Password not required - Open Wi-Fi

Conference Program

5th International Conference on **Advanced Functional Materials & Biomaterials & Biodevices**

Day 1 – October 14th 2024

Meeting Hall : Windsor Suite

08:00 -08:45 Registrations

08:45 - 09:00 Introduction

Keynote Presentations

09:00 - 9:40 Protective Nanocoatings from Polyelectrolytes: Flame Retardancy, Heat Shielding, and Super Gas Barrier

Jaime C. Grunlan, Texas A&M University, USA

09.40 - 10.20 Fully Bioresorbable Polymeric Scaffolds for Treatment of Peripheral and Coronary Diseases: Current Developments and Future Perspectives

Kadem Al-Lamee, Arterius Limited, United Kingdom

Networks & Refreshments (10.20 - 10.40) @York Lobby

10:40 - 11:20 Advanced Carbon Based Materials via Sustainable Synthetic Procedure for Sensing and Environmental Applications

Claudia Espro, University of Messina, Italy

Oral Presentations

Session chair **Jaime C. Grunlan**, Texas A&M University, USA

Session chair **Kadem Al-Lamee**, Arterius Limited, United Kingdom

Sessions:

Functional Hybrid Materials | Applications of Biomaterials | Carbon Based Materials | Biomimetic Materials | Bio-inspired Intelligent Biomaterials | Biomaterials in Drug Delivery Systems | Functional Materials, Synthesis and Characterizations | Advanced materials and Applications | Biomaterials & Nano technology | Biodevices and Biomedical Optics | Functional Materials | Energy Materials | Micro or Nano Materials | Biomaterials | Hydrogels | Sustainable Materials

11.20 - 11.45 From Biomimicry to Architecture: The Future of Responsive Shading

Maria João de Oliveira, ISCTE – Instituto Universitário de Lisboa, Portugal

11.45 - 12.10 Synthesis of Functionalized Chitosan Polymeric Nanoparticles and their Properties for Controlled Drug Release

Nekane Martin, I+Med S.Coop., EHU/UPV, Spain

12.10 - 12.35 Investigation on Corrosive Degradation of the Thermally Sprayed TiNbMoMnFe High Entropy Alloy Coatings in Simulated Body Fluid

Deepak Kumar, Indian Institute of Technology Delhi (IIT Delhi), India

12.35 - 13.00 The Impact of Metal Dots on Time-Resolved Luminescence of Aero-GaN

Tudor Braniste, Technical University of Moldova, Moldova

Group Photo (13.00 - 13.15)

Lunch (13.15 - 14.00) @Market Garden Restaurant

14.00 - 14.25 Machine Learning-Accelerated Analysis Synthesized the Characteristics of CaCO₃ Particles with the Methods of Microwave, Ultrasonic, and Magnetic Steering, as well as their Possible Applications

Junnan Song, Ghent University, Belgium

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14.25 - 14.50	Advancing Uniform Stochastic Design in Photomatrix Therapeutic Systems Oleg Karaduta , University of Arkansas for Medical Sciences, USA
14.50 - 15.15	Green Carbon-Based Nanomaterials with Advanced Properties for Environmental Applications Viviana Bressi , University of Messina, Italy
15.15 - 15.40	SEWAT - Sustainable Energy by Waves Trap Giulio Teodoro Maellaro , Geco -Global Engineering Constructions S.R.L. ,Italy
15.40 - 16.05	Dual-Action Coatings for Implant Failure Prevention in Temporary Magnesium-Based Orthopaedic Implants Isabel Sousa , DEMaC/CICECO, University of Aveiro, Portugal

Networks & Refreshments (16.05 - 16.30) @York Lobby

Poster Presentations @ 16:30 - 18:00

Poster Judge	Kadem Al-Lamee , Arterius Limited, United Kingdom
PP-01	Experimental and Computational Studies of Crystal Violet Removal from Aqueous Solution using Sulfonated Graphene Oxide Olayinka Oluwaseun Oluwasina , The Federal University of Technology Akure, Nigeria
PP-02	Development of a Critical Time-Temperature Indicators (cTTI) using Thermosensitive Copolymers with Tunable LCST Seung Won Jung , Dongguk University, South Korea
PP-03	From Sea Urchins Waste to Tissue Regeneration: Innovative Composite Biomaterials Giordana Martinelli , University of Milan, Italy
PP-04	Comparative Evaluation of Sea Urchin Waste as a Sustainable Source of Bioactive Collagen-Based Biomaterials Margherita Roncoroni , University of Milan, Italy
PP-05	Flexible Thermoelectrics based on 3D Interconnected Magnetic Nanowire Networks Luc Piraux , UCLouvain, Belgium
PP-06	Tuning the Structure-Functional Relationship within Peptide-Mimicking Antimicrobial Hydrogels Samuel Attard , University of New South Wales, Australia
PP-07	Categorizing/Testing Biomaterials, A Major Challenge for Valeo Lighting Systems / Light Division Laurent Barre , Valeo Lighting Systems, France
PP-08	Food-Based Biomaterials: pH-Responsive Alginate/Gellan Gum/Cellulose Hydrogel Beads for Lactoferrin Delivery Lin Cao , Ghent University, Belgium
PP-09	Study of Ceramic Coatings as a Novel Radiation Receiver on Furnace Building Material using Thermal Spraying Technique Wu-Han Liu , Industrial Technology Research Institute, Taiwan

Day 1 Concludes followed by Certificate Felicitation

5th International Conference on **Advanced Functional Materials & Biomaterials & Biodevices**

Day 2 - October 15, 2024

Meeting Hall : Windsor Suite

Keynote Presentations

9.30 - 10.10 Nickel-Zinc Ferrite and Graphene Nanoplatelet-Enhanced Epoxy Hybrid Nanocomposites

Sahrim Ahmad, Universiti Kebangsaan Malaysia, Malaysia

10.10 - 10.50 An Environment-Friendly $\text{Na}_{0.4}\text{K}_{0.1}\text{Bi}_{0.5}\text{TiO}_3$ Ceramic for Direct Replacement of PZT-Based Ceramics in Multiple Applications

Ajit R. Kulkarni, Indian Institute of Technology-Bombay (IIT Bombay), India

Networks & Refreshments (10.50 - 11.15) @York Lobby

Oral Presentations

Session chair **Ajit R. Kulkarni**, Indian Institute of Technology-Bombay (IIT Bombay), India

Session chair **Kadem Al-Lamee**, Arterius Limited, United Kingdom

Sessions: Advanced Functional Materials | Functional Materials | Hydrogels | Biodegradable Biomaterials | Thin Films | 3D Bio Printing Technology | Biosensors & Biorobotics

11.15 - 11.40 Chemically Identical Hydrogels with Distinct Mechanical Properties

Xingjian Sun, Shenzhen Institute of Advanced Technology & Chinese Academy of Sciences, China

11.40 - 12.05 Exploring the Potential of CsPbBr_3 Perovskite Solar Cells: Experimental and Theoretical Investigations

Amina Laouid, Nicolaus Copernicus University in Torun, Poland

12.05 - 12.30 4D Printed Piezoelectric Bilayer Wound Dressing Mesh to Accelerate Skin Wound Healing

Gholamreza Mohammadi Khounsaraki, Institute of Materials Research, Slovakia

12.30 - 12.55 Advancements in Fiber Optic Biosensors for Real-Time Glucose Monitoring

Pallavi Dhillon, Shen Clinical Services LLP, India

12.55 - 13.20 Membrane Separation Technology in Direct Air Capture

Naiying Du, National Research Council of Canada (NRC), Canada

Lunch (13.20 - 14.30) @Market Garden Restaurant

14.30 - 14.55 Preparation, Function, and Safety Evaluation of a Novel Degradable Dermal Filler, The Cross-Linked Poly-L-Glutamic Acid Hydrogel Particles

Mian Chen, Shandong Academy of Pharmaceutical Sciences, China

14.55 - 15.20 Microwave-Synthesized Lanthanide Upconversion Nanoparticles: Light Nanotransducers for Biomedical Applications.

Gloria Lesly Jimenez Miranda, AGH University of Krakow, Poland

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15.20 - 15.45 Biopolymer Based in Situ Injectable Hydrogels Loaded with Curcumin Nanocrystals for Bone Tissue Engineering, (HydroBoneReg)

Syed Ahmed Shah, Institute of Fundame, Poland

15.45 - 16.10 To be announced..

Ketevan Tavamaishvili, Georgian American University, Georgia

Networks & Refreshments (16:10- 16:30) @York Lobby

Day 2 Concludes followed by Vote of thanks and Certificate Felicitaions

Bookmark The Dates

6th International Conference on

Biomaterials & Biodevices

September 22-23, 2025 | Vienna, Austria



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