2026 JPhD

10th edition

10th Scientific Meeting of PhD Students at UAB campus

Dates: November 25th-27th 2026

DETAILED PROGRAM

NOVEMBER 25TH		
8:15	Registration	
9:00	Welcome	
9:10	**Invited speaker: Dr. Inhar Imaz, ICN2** *Colloidal engineering of reticular materials* Sala d'Actes (C1/-178)	
	BIOMEDICINE I Sala de Graus (C1/070-1)	**SYNTHESIS AND CATALYSIS** Aula C3b/002
10:00	**Leonardo Pablo Madsen Choppi** Sperm and seminal extracellular vesicle proteomes of the gilthead seabream (Sparus aurata), a comparative model of male fertility	**Joseth Pachacama Ruíz** Design of Push–Pull Curcuminoids for Molecular Electronic Applications
10:10	**Adrian Rodriguez Rodriguez** Mimicking lymph node 3D architecture in a microfluidic platform	**Adrià López Pontanilla** Enabling Low-Pressure Methanol **Synthesis** from CO2 through Copper Confinement in ZIF-8 Frameworks: Role of Metal-Support Interactions and Cu Active Sites
10:20	**Chuanli Zhang** One-pot room-temperature synthesis of $Ce_{1-x}Zr_xO_2$ NPs with enhanced ROS scavenging property	**Eduarda Carolina Hagemann Lopes** Surface functionalization of Ruthenium Nanoparticles for the Hydrogen Evolution Reaction
10:30	**Mina Maleki** Tailoring Bacterial Cellulose Scaffolds to Support Limbal Stem Cells for Corneal Regeneration	**Ana Cecilia Leyva Castro** Synthesis of Citrate-Stabilized Iron Oxide Nanowires: From Experimental Design to Predictive Synthesis
10:40	**Andrea Fajardo García** Tunable gelatin-chitosan hydrogels for tumor microenvironment-inspired 3D models in cancer immunotherapy	**Paolo Fichiera** Copper-Modified Hydroxyapatite Surfaces as Catalysts in Environmental Processes: A Computational Perspective
10:50	**Invited speaker: Dr. Nerea Roher, UAB** *From Biomaterials to Vaccines: Innovative Strategies for Animal Health* Sala de Graus (C1/070-1)	
11:40	**Coffee break** Space behind the cafeteria (outdoors)	
12:00	**Seminar: María José Vermejo, Deputy Managing Editor MDPI** *Open acces and peer-review* Sala d'Actes (C1/-178)	

	BIOMEDICINE II Sala d'Actes (C1/-178)	**ENERGY, SUSTAINABILITY AND ENVIRONMENT I** Aula C1/009
12:30	**Eva Casals Sanchez** Gate-Current Monitoring in Frequency-Division Multiplexed gSGFET Neural Interfaces	**Mehrafarin Hossein Panah** Title Early-Stage Life Cycle Assessment of Magnetic Iron Oxide Nanoparticles for Biohybrid Microrobots
12:40	**Orlane Nicolardot** Fully Integrated pH-Triggered Microbatteries for Smart Bioelectronics via ALD-alumina Growth	**Manasa Sreerama** Sustainable and Green Electronic Devices for Disposable Smart Patches
12:50	**Núria Termes Español** Conformable Tattoo Electrodes For Advanced Biomedical Applications	**Bushra Naz** Development of Atomically precise Nanoporous Graphene Membranes for molecular filtration
13:00	**Aleix Martí Maymó** Cellulose-Based Conductive ECG Electrodes for Sustainable Electrophysiological Monitoring	**Caterina Caules Ferrer** Mechanically responsive DNA-MOP sponges for enhanced molecular uptake
13:10	**Miquel Madrid Gimeno** Optimization of Reduced Graphene Oxide Microelectrodes for Efficient and Biocompatible Muscle Stimulation	**Roger Morales Perez** Bacterial cellulose containing iron oxide nanocubes for magnetically-triggered oil separation membranes
13:20	**Guillem Wetherell Mateu** Growing Microneedles: Biolithography as a Growth-Directed Strategy for Fabricating Bacterial Cellulose Microneedles	**Carlos López Orts** Biological Effects of 5G Millimeter Wave Electromagnetic Fields at 26 GHz on Caenorhabditis elegans: Toward a New Approach Methodology for Health Hazard Assessment
13:30	LUNCH BREAK	
14:30	**Invited speaker: Dr. Alba Garzón, UAB** *In situ (scanning) transmission electron microscopy for exploring the stability of catalytic materials* Sala d'Actes (C1/-178)	
	BIOMEDICINE III Sala d'Actes (C1/-178)	**ENERGY, SUSTAINABILITY AND ENVIRONMENT II** Aula C3b/002
15:20	**Celia Galindo Martin** Photonic Biosensor for Rapid, Urine-based Screening of Sexually Transmitted Infections.	**Ona Falcó Artero** Unravelling the intermediate phase in voltage-controlled SrFeO3-δ thin films
15:30	**Sandra Pérez Jiménez** Applying graphene solution-gated field-effect transistors (gSGFETs) for the detection of MUC1-specific antibodies tumoral biomarkers	**Shubham Kumar** Photovoltaic Response in Epitaxial $GdFeO_3$ Thin Films
15:40	**Piotr Poreba** Development of an SPR biosensor for detection of Candida albicans virulence-associated biomarkers	**Pol Pérez Quer** Correlative Multi-Edge MCR Analysis of Mn-Ni Evolution in Operando Layered Oxide Cathodes
15:50	**Laura Bono Ros** The Role of Reference and Counter Electrodes in the Stability of Graphene Solution Gated Field Effect Transistors (gSGFETs)	**Marlene Anzengruber** Unraveling Structure–Property Relationships in High-Entropy Oxide Solid oxide cell air electrodes Using Operando XPS and Freestanding Thin Films
16:00	**Jitendra Kumar** Neuromorphic Electrochemical Imagers for Advanced Organ Modeling and Medical Discovery on Chip	**Hmad Fatihi** Adsorption of nitrogen based ligands on Ru nanoparticles and their effect on hydrogen evolution reaction: A DFT study.
16:10	**Yuxuan Mao** Computational Mueller Matrix Microscopic Pathology Based on Mueller Decomposition for Medical Reference Mapping	**Youssef Salhi** Investigation of Electrolyte Composition and Solvation Chemistry for Improved SEI Stability in Sodium-Ion Batteries
16:20	**Chuanting Zhou** Metal-Free Radical Dendrimersomes for Dual-Modal (MRI/Fluorescence) Imaging	**Maria Hadid** Spray-Deposited and Water-Activated Batteries for IoT Surveillance System

16:30	**Poster session + coffee break** 1st floor hall (indoors) + Space behind the cafeteria (outdoors)
17:10	**Workshop: Dr. Ingeborg Porcar, UAB** *Mental health in Academia - Tools for Proactive Stress Management* Sala d'Actes (C1/-178)
18:30	End of day

NOVEMBER 26TH		
8:30	Registration	
9:00	**Invited speaker: Dr. Miquel Royo, ICMAB** *Vibrations from scratch: A First-principles Journey trough phonons', electric fields and magnetism* Sala d'Actes (C1/-178)	
	BIOMEDICINE IV Aula C3b/002	**ELECTRONIC AND OPTICAL PROPERTIES OF MATERIALS I** Sala d'Actes (C1/-178)
9:50	**Enric Casas Aguilera** Design of Anisotropic Magneto-Opto-Mechanical Nanocapsules for Cancer Treatment	**Nerea Río** Novel materials for the development of organic phototransistors for NIR detection
10:00	**Ana Otero Bello** Base-directed room-temperature synthesis of ultrasmall CeO_2 nanozymes: tuning properties and redox activity for MASH therapy	**Afoditi Koutsogianni** Controlling emission with Hybrid Plasmonic Modes
10:10	**Mercè Alemany Chavarria** Molecular mechanism of iron recognition and domain closure in the periplasmic ferric-binding protein FbpA from Mannheimia haemolytica	**Xavier Casi Pullés** Simultaneous in-situ measurement of surface potential and heat capacity of organic semiconductors
10:20	**Andrés Eduardo Márquez Chacón** Formulation of amorphous solid dispersions of a poorly water-soluble anticancer drug using Compressed Fluid and Spray Drying technologies	**Ronny De la Bastida Chiza** Engineering cooling dynamics in graphene by screeningne effects in twisted trilayer graphene
10:30	**Daniela Covaleda Cortés** Structural basis of covalent inhibition of ALDH1A3 by the acrylamide-based compound Z34	**Neus Alert Peret** Effect of BTO capping of ferroelectric La-Doped HfO2 on energy storage performance
10:40	**Elba Guasch García** Quatsomes nanovesicles as active antimicrobial ingredients for advanced wound care: combining antimicrobial activity with tissue regeneration	**Hugo José Lozano Fuster** Integration of vertical topologies in silicon-based technologies
10:50	**Daniela Casamayor Roberto** Engineering biomimetic hydrogels for patient-derived lung cancer organoids and nanoparticle-assisted radiotherapy	**Min Zhang** Alkyl-Chain-Length and Packing Frustration Control of Single-Layer to Bilayer Polymorphism in Ph-BTBT-Cn Thin Films
11:00	**Adriana Esmeralda Bombon Nuela** Impact of physicochemical properties on drug release and in vivo biodistribution of PLGA nanocapsules	**Ye Tu** Polarization-Controlled Multilevel Resistance States in Epitaxial Ferroelectric HfO2 Films
11:10	**Seminar: Dr. Ana Victoria Lechuga, IRB** *The road to becoming a PI: the good, the bad and the unexpected* Sala d'Actes (C1/-178)	
11:40	**Coffee break** Space behind the cafeteria (outdoors)	

12:00	**Round table: Academia vs Industry: Two Career Paths After the PhD** Sala d'Actes (C1/-178)	
13:30	Lunch break	
14:30	**Invited speaker: Dr. Pilar Marín, UCM** *Amorphous Magnetic Microwires at Microwave Frequencies: From Wireless Sensors to Electromagnetic Absorbers* Sala d'Actes (C1/-178)	
	MAGNETISM AND QUANTUM MATERIALS Aula C3b/002	**ELECTRONIC AND OPTICAL PROPERTIES OF MATERIALS II** Sala d'Actes (C1/-178)
15:20	**Mihaela Floruc Darie** Semiconductor nanoelectronic devices based on single dopants	**Aysha Fasna** Electroactive Self-Assembled Monolayers: Three Viologen Derivatives for Generation of Potential Gradients
15:30	**Tang Chenjun** The antiferromagnetic transition of Beta-Fe2O3 iron oxide	**Hemant Agarwal** Oxygen ion ECRAMs for neuromorphic computing
15:40	**Xiaoming Liu** A Carborane-Based Platform for Multifunctional, Composition-Tunable Lanthanide Metal–Organic Frameworks	**Judit Bisbal Amat** Optimized incident polarization and isotropic depolarization filtering for Stokes imaging of biological samples
15:50	**Carolina Ugarte Pereyra** Template-Assisted Electrodeposition of FeMn Nanowires: Composition, Magnetic Properties, and Biodegradation	**Andrea Sanchis Moltó** Silicon Microdosimeters for HadronTherapy: Experimental Characterization and Monte Carlo Simulations
16:00	**Longyi Fan** Towards the preparation of stacked single crystalline oxide membranes	**Pol Gaya Salas** Development of MEMS-Based Silicon Carbide Detectors for Beam Monitoring in Advanced Radiotherapy
16:10	**Ona Mola Bertran** Growth rate dependence on nucleation, microstructure and vortex pinning in TLAG REBCO films	**Nerea Alvarez de Eulate Llano** Hybrid Graphene-Based Thin-Film Arrays for Bidirectional Neural Interfaces: Integration Challenges and Design Strategies
16:20	**Patricia Aguilar Merino** Anisotropic spin dynamics in proximitized graphene	**Anna Graf** From 6-inch Wafer to Brain: Scalable Fabrication of Graphene SGFETs for Neural Recording
16:30	**Fereshteh Masoudinia** Ultrathin Al2O3 Encapsulation for Scalable, Long-Term-Stable van der Waals Quantum Devices	**Mohibbul Aziz** Near-Field Imaging of PN-Junction-Free Photoresponse in Graphene Constrictions
16:40	**Poster session + coffee break** 1st floor hall (indoors) + Space behind the cafeteria (outdoors)	
17:20	**Plenary speaker: Prof. Dr. Luisa De Cola, Università degli Studi di Milano** *A material world - from design to applications through life* Sala d'Actes (C1/-178)	
18:20	Award ceremony and closing remarks	
18:30	End of day	