

MATBIO2017 programme

VENUE

Lectures: Sala Actes Carles Miravittles at the ICMAB

Meeting point for hands-on activities: MATGAS hall



Monday 19th June 2017

8:30-9.00	Registration
9:00-9.10	OPENING
	Xavier Obradors – Director Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)
TISSUE ENGINEERING (Chair: Nieves Casañ)	
9.10-10.10	Oscar Castaño (Institute for Bioengineering of Catalonia - IBEC) Tissue Engineering: towards 3D artificial tissues
10.10-11.10	Ann Rajnicek (Institute of Medical Sciences, University of Aberdeen) Tissue engineering for nervous system and tissue repair.
11.10-11.30 COFFEE BREAK – ICMAB ground floor	
THERAPY (Chair: Anna Roig)	
11.30-12.30	Vanesa Sanz (Institute of Photonic Sciences – ICFO) Applications of plasmonic nanoparticles on lab-on-a-chip technology and nanomedicine
12.30-13.30	Puerto Morales (Institute of Materials Science of Madrid - ICMN) Magnetic hyperthermia: fundamentals, progress and limitations
13.30-15:00 Lunch – Restaurant Ciències UAB	
15:00-18:00	HANDS-ON ACTIVITIES (1h sessions) – MATGAS hall
	Coffee break and change of activity 16:15-16:45 at MATGAS hall
	Polymer swelling in scCO ₂ - Ana López-Periago
	Electroactive materials as implants – Nieves Casañ
	Synthesis of Au-NPs - Anna Laromaine, Soledad Roig
	Synthesis and modification of 2D Materials – Stefania Sandoval, Gil Gonçalves
	Soft-lithography; Microcontact printing to create patterns of molecules – Sandra Giraldo, Ezhil Amirthalingam, Raul Díaz
	Synthesis of boron-based molecular materials - Mahdi Chaari, Rosario Núñez
scCO ₂ -Nanovesicles - Nathaly Segovia, Amable Bernabé	

Tuesday 20th June 2017

DRUG DELIVERY (Chair: Núria Aliaga)	
9.00-10.00	Marcelo Calderón (Institute of Chemistry and Biochemistry, University of Berlin) Environmental Responsive Dendritic Polymers for Theranostics
10.00-11.00	Nataschia Grimaldi (Institute of Materials Science of Barcelona – ICMAB) Nanovesicles and compressed-fluid based technology: can they represent a paradigm shift in Nanomedicine?
11-11.30 COFFEE BREAK – ICMAB ground floor	
BIOSENSORS (Chair: Imma Ratera)	
11.30-12.30	Pilar Marco (Institute of Advanced Chemistry of Catalonia, IQAC) Nanobiotechnologic perspectives for in vitro diagnostics
12.30-13.30	Encarnación Lorenzo (Autonomous University of Madrid - UAM) Biosensors: Fundamentals and biomedical applications
13.30-15 Lunch – Restaurant Ciències UAB	

15:00-16.30	HANDS-ON
	Simulation - Jordi Faraudo, Silvia Illa
	Technology Transfer (Chair: Susana Garelik) Isabel Gavilanes (Institute of Microelectronics of Barcelona IMB-CNM)
16.30-18.00	SCIENCE DATING

Wednesday 21st June 2017

9.00-11.00	HANDS-ON (1h sessions) – Meeting at MATGAS hall
	EPR - Vega Lloveras
	DLS/Z-potential - Amable Bernabé, Nathaly Segovia
	Magnetic properties – Bernat Bozzo <i>C. elegans</i> - Luo Zhongrui, Anna Laromaine
11-11.30	COFFEE BREAK – MATGAS hall
11.30-13.30	HANDS-ON (1h sessions) – Meeting at MATGAS hall
	X-ray diffraction – Anna Crespi, Fco. Javier Campos
	SEM - Anna Esther Carrillo
	Hydrogen Peroxide Biosensor Based on Horseradish Peroxidase - Isabel fuentes AFM - Andrés Gómez
13.30-15	Lunch – Restaurant Ciències UAB
MATERIALS CYCLE (Chair: Clara Viñas)	
15.00-16.00	Fernanda Marujo (Centre for Nuclear Sciences and Technologies – University of Lisboa) In vitro/in vivo biological evaluation of prospective antitumour drugs: insights into the mechanism of action by nuclear tools
16.00-17.00	Beatriz Morancho (Vall d’Hebron Institute of Oncology - VHIO) Immunotherapy: using the immune system to treat cancer
17.00-18.00	Angel Menargues (Barcelona Science Park - PCB) Overview and reflection on ecotoxicological risk assessment

Thursday 22nd June 2017

IMAGING (Chair: José Vidal-Gancedo)

9.00-10.00	Anna Roig (Institute of Materials Science of Barcelona – ICMAB) Introduction to in-vivo medical imaging techniques from materials science and nanoscience view point
10.00-11.00	Jordi Llop (CIC biomaGUNE) Radiochemistry and nuclear imaging: application to the in vivo investigation of nanomaterials
11-11.30	COFFEE BREAK – ICMAB ground floor
BIOENGINEERED SCAFFOLDS (Chair: Concepción Domingo)	
11.30-12.30	M ^a Pau Ginebra (Polytechnic University of Catalonia - UPC) Biomimetic ceramic scaffolds for bone engineering
12.30-13.30	Julio San Román (Institute of Polymer Science and Technology - ICTP) Learning from the nature the structure and morphology of nanoparticles for advanced applications in nanomedicine
13.30	End-of-school