

MATBIO2017 programme

Monday 19th June 2017

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 Rajnicsek (Institute of Medical Sciences, University of Aberdeen) Tissue engineering for nervous system and tissue repair.
11.10-11.30	COFFEE BREAK
THERAPY (Chair: Anna Roig)	
11.30-12.30	Vanessa 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/ ICMAB tour
15:00-18:00	HANDS-ON ACTIVITIES (1h sessions)
	Polymer swelling in scCO ₂ - Anna López-Periago
	Electroactive materials as implants – Nieves Casañ
	Synthesis of Au-NPs - Anna Laromaine
	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	Natascia 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
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/ ICMAB tour
15:00	HANDS-ON
16.30	Simulation - Jordi Faraudo
	TECHNOLOGY TRANSFER (Chair: Susana Garelik)
	Isabel Gavilanes (Institute of Microelectronics of Barcelona IMB-CNM)
16.30-18.00	SCIENCE DATING

Wednesday 21 st June 2017	
9.00-11.00	HANDS-ON (1h sessions)
	SEM - Anna Esther Carrillo
	DLS/Z-potential - Amable Bernabé, Nathaly Segovia
	C.Elegans - Luo Zhongrui, Anna Laromaine
11-11.30	COFFEE BREAK
11.30-13.30	HANDS-ON (1h sessions)
	TEM - Judith Oró-Solé
	EPR - Vega Lloveras
	Hydrogen Peroxide Biosensor Based on Horseradish Peroxidase - Isabel fuentes
	AFM - Andrés Gómez
13.30-15	Lunch/ ICMAB tour
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 Moranco (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 22 nd 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
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