

Thursday 14 October

9:00-9:40

Welcome

Session NANOPARTICLES and NANOTECHNOLOGY Chair: Carlos Renero

9:40-9:45

David Vila-Liarte

O-1

Chiral self-assembly of achiral plasmonic nanoparticles

9:45-9:50

Cristina de la Encarnación Bermúdez

O-2

Magnetic and plasmonic nanoparticles for multimodal bioimaging

9:50-9:55

Elisa Lenzi

O-3

SERS bioimaging of complex 3D cellular systems monitoring

9:55-10:00

Lydia Martínez-Parra

O-4

Calcium carbonates nanoparticles as diagnostic tools in atherosclerosis

10:00-10:05

Cecilia Wetzi

O-5

Graphene field effect transistors for neurotransmitter monitoring

10:05-10:10

Tanja Ursula Lüdtkke

O-6

Characterization of self-assembled, PEGylated Poly(allylamine hydrochloride) nanocarriers by means of Fluorescence Correlation Spectroscopy

10:10-10:15

Javier Santiago-Arcos

O-7

Employ of X-Ray Fluorescence to study spatial distribution on biocatalysts

10:15-10:55

Global discussion

10:55-11:30

Coffee break

Session PROTEIN ENGINEERING Chair: Eleftheria Diamanti

11:30-11:35 **Daniel Andrés-Sanz** O-8

Selective Co-immobilization of His-tagged Enzymes on Yttrium-Stabilized Zirconia Monoliths for Continuous Asymmetric Bioreductions

11:35-11:40 **Nicoll Zeballos** O-9

Design of enzyme surface clusters as new path to control the orientation of enzyme immobilization

11:40-11:45 **Guillermo García-Marquina** O-10

Engineering of Acyltransferase LovD for Simvastatin

11:45-11:50 **Cristina Risueño Fernández** O-11

A modelling view of the interaction between the Hepatitis C virus glycoprotein E2 core with its cellular receptor CD81_{LEL}

11:50-11:55 **Laura Pérez-Chirinos** O-12

A bottom-up multidisciplinary approach to design supramolecular co-assemblies based on amyloid-like peptides and engineered proteins.

11:55-12:00 **Silvia Vázquez-Díaz** O-13

Biocatalytic synthesis of nano-atomic clusters for bioanalysis

12:00-12:05 **Alba Ledesma-Fernández** O-14

Design of consensus tetratricopeptide repeat (CTPR)-based orthogonal scaffolding units for the ordered assembly of enzymes

12:05-12:10 **Laura Filomena Mazzei** O-15

Design of Hybrid Structure for Bioorthogonal Drug Photoactivation and Photocatalysis

12:10-12:50 **Global discussion**

12:50-15:00 **Lunch break**

Session BIOLOGICAL INTERFACE Chair: Lucia Cardo

15:00-15:05 **Anna Ballesteros** O-16

Preparative Scale Release of N-Glycans with Sodium Hydroxide

15:05-15:10 **Andrea Fernández-Martínez** O-17

Synthesis and Evaluation of Glycomimetics as potential Siglecs Immunomodulators

15:10-15:15 **Damián Pérez-Martínez** O-18

Design and Synthesis of N-glycomimetics with high affinity for DC-SIGN

15:15-15:20 **Raquel Ruiz Hernández** O-19

3D models to study Mesenchymal cell differentiation

15:20-15:25 **Unai Mendibil** O-20

Cartilage decellularized extra cellular matrix materials for preclinical products application

15:25-15:30 **Paula Vázquez-Aristizabal** O-21

Development of customized nanoparticle-based bioinks for 3D printing of dynamic cancer model

15:30-15:35 **Donato Mancino** O-22

Functionalization of Carbon Nanotubes for applications in tissue engineering.

15:35-16:15 **Global discussion**

16:15-16:35 **Coffee break**

Session IMAGING Chair: Kepa Beloso

16:35-16:40	María Jesús Sánchez-Guisado	O-23
	<i>Pulmonary arterial flow measurement with magnetic resonance imaging for pulmonary hypertension diagnosis in mice</i>	
16:40-16:45	Irati Aiestaran-Zelaia	O-24
	<i>The proposed COVID-19 drug, 2 deoxy-D-glucose, augments the mitochondrial respiratory chain in heart</i>	
16:45-16:50	Ana Joya Villanua	O-25
	<i>Multimodal imaging evaluation of the role of hyperglycemia in experimental SAH</i>	
16:50-16:55	Lucía Fadón Padilla	O-26
	<i>Characterization of Pulmonary Hypertension</i>	
16:55-17:00	José Alberto Suárez	O-27
	<i>SncRNA charged EVs as vehicle to the CNS</i>	
17:00-17:05	Cristina Simó	O-28
	<i>Urease-powered nanobots show enhanced tumour accumulation in a mouse model of bladder cancer</i>	
17:05-17:10	Zuriñe Blasco	O-29
	<i>The Role of Notch3 Pathway in Pulmonary hypertension</i>	
17:10-17:15	Riccardo Rovina	O-30
	<i>In vivo fate studies of glyco NPs and biocorona stability</i>	
17:15-17:55	Global discussion	

Friday 15 October

10:00-12:00

Poster Session

12:00-12:30

Closing Remarks and Photo Contest Prize announcement

Posters

Jakub F. Kornecki	P-1
<i>Selective synthesis of 2,5-hydroxymethyl furane (BHMF) catalyzed by self-sufficient immobilized multi-enzyme systems</i>	
Peio Azcoaga	P-2
<i>Imaging the effect of OSM on breast cancer</i>	
Marina Piñol-Cancer	P-3
<i>miRNA delivery through calcium carbonates nanoparticles</i>	
Oscar Moreno	P-4
<i>In vivo quantification of Aβ oligomers preceding amyloid plaques using Positron Emission Tomography: a longitudinal study</i>	
Liher García González	P-5
<i>Engineered artificial proteins for biological light-emitting diodes</i>	
Nicolette Czarniewicz Rother	P-6
<i>Surface engineering of transaminases to tailor protein immobilization on microreactors</i>	
Pablo Salvador Valera	P-7
<i>Analysis of Cancer Biomarkers in Complex Tissue by Surface-Enhanced Raman Spectroscopy</i>	
Rocío L. Domene	P-8
<i>Engineered metalloproteins as artificial biocatalysts</i>	
Gabriela Guedes	P-9
<i>Protein-based functional materials for biomedical applications</i>	
Laura Fernández Méndez	P-10
<i>Novel drug delivery nanocarriers for crossing cellular and non-cellular biological barriers</i>	
Bruno Espuche	P-11
<i>Semi-interpenetrated and core-shell nanogels based on poly(pentafluorophenyl methacrylate) amine functionalization for gene delivery</i>	
Saioa Alzola Aldamizetxebarria	P-12
<i>Mapping genetic expression of ferritin with MRI</i>	
Uxue Aizarna Lopetegui	P-13
<i>3D printed smart-hybrid multifunctional bioinks for disease modelling</i>	
Nicola Scanu	P-14
<i>Targeted ¹⁹F-MRI probes for in vivo detection of cardiovascular diseases</i>	
Bahaa Doau	P-15
<i>CNT-based 3D hydrogel for Electroactive Tissue Regeneration and in-situ Biosensing</i>	