

## Thursday 27 October

### Auditorium of the Scientific and Technological Park

9:15-9:40 **Welcome, Aitziber López Cortajarena**  
**PhD program in CICbiomaGUNE, Ander Abarategi**

**Session: MOLECULAR IMAGING**

**Chair: Ane Ruiz de Angulo**

9:40-9:45 **Irati Aiestaran-Zelaia** O-1

*Characterizing and combating mitochondrial dysfunction in aging*

9:45-9:50 **María Jesús Sánchez-Guisado** O-2

*Effect of nutrient availability in the development of pulmonary arterial hypertension in mice*

9:50-9:55 **Oscar Moreno** O-3

*Longitudinal study with the second-generation [18F]RO-948 tau PET tracer in a rat model of Alzheimer's disease*

9:55-10:00 **Peio Azcoaga** O-4

*Deciphering the role of the OSM/OSMR/lactate axis in the breast cancer microenvironment*

10:00-10:05 **Zuriñe Blasco** O-5

*Jagged2-Notch3 pathway promotes the development of pH associated with fibrosis disease*

10:05-10:10 **Marina Piñol-Cancer** O-6

*Understanding nano-bio interactions to improve nanocarriers for pulmonary administration of antifibrotic drugs*

10:10-10:15 **Gabriela Guedes** O-7

*Protein-stabilized nanomaterials as novel MRI contrast agents*

10:15-10:55 **Global discussion**

10:55-11:30 **Coffee break**

**Session BIOLOGICAL INTERFACE**

**Chair: Javier Plou**

11:30-11:35	<b>Andrea Fernández-Martínez</b>	O-8
	<i>Synthesis and evaluation of glycomimetics as potential Siglecs immunomodulators</i>	
11:35-11:40	<b>Damián Pérez-Martínez</b>	O-9
	<i>Lewis<sup>x</sup> biantennary N-glycan mimetics for DC-SIGN</i>	
11:40-11:45	<b>María Regato-Herbella</b>	O-10
	<i>Stimuli –Responsive Hydrogels for Biomedical Applications</i>	
11:45-11:50	<b>Pablo S. Valera</b>	O-11
	<i>Analysis of Cancer Biomarkers in Complex Tissue by Surface-Enhanced Raman Spectroscopy</i>	
11:50-11:55	<b>Raquel Ruiz Hernández</b>	O-12
	<i>Boosting osteointegration using Mesoporous Titania Films</i>	
11:55-12:00	<b>Unai Mendibil</b>	O-13
	<i>Cartilage decellularization to obtain dECM for in vitro and in vivo applications</i>	
12:00-12:05	<b>Uxue Aizarna-Lopetegui</b>	O-14
	<i>Smart-hybrid multifunctional bioinks for a 3D printed pulmonary artery model</i>	
12:05-12:10	<b>Paula Vázquez-Aristizabal</b>	O-15
	<i>Development of Customized Bioinks for 3D Printed Dynamic Cancer Models</i>	

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

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

**Session PROTEIN ENGINEERING**

**Chair: Silvia Collavini**

15:00-15:05 **Javier Santiago-Arcos** O-16

*Exploring the co-immobilization of multi-enzyme system to scale up stepwise biotransformations*

15:05-15:10 **Daniel Andrés-Sanz** O-17

*Asymmetric Bioreductions of Beta-Ketoesters by Enantio-Selective Self-Sufficient Heterogeneous Biocatalyst*

15:10-15:15 **Alba Ledesma-Fernández** O-18

*Design of protein scaffolding for the assembly of novel multi-enzymatic systems*

15:15-15:20 **Laura F. Mazzei** O-19

*Designing protein-based Hybrids for Bioorthogonal Drug Photoactivation and Photocatalysis*

15:20-15:25 **Laura Perez-Chirinos** O-20

*Computational study of the robustness of the CTPR superhelix*

15:25-15:30 **Liher García González** O-21

*Engineered artificial fluorescent proteins for biological light-emitting diode*

15:30-15:35 **Rocío L. Domene** O-22

*An emerging nanozyme class performing à la carte enzymatic-like activities through a variety of protein-metal NCs*

15:35-15:40 **Silvia Vázquez-Díaz** O-23

*Biocatalytic synthesis of nano-atomic clusters for bioanalysis*

15:40-16:15 **Global discussion**

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

**Session NANOPARTICLES and NANOTECHNOLOGY**

**Chair: Carlos Renero**

16:35-16:40	<b>Bruno Espuche</b>	O-24
	<i>pH-and thermo-responsive nanogels for gene therapy</i>	
16:40-16:45	<b>Cristina de la Encarnación</b>	O-25
	<i>Hybrid magnetic-plasmonic nanoparticles for bioimaging and hyperthermia</i>	
16:45-16:50	<b>David Vila-Liarte</b>	O-26
	<i>Chirality induction to plasmonic superlattices through asymmetric stretching</i>	
16:50-16:55	<b>Laura Fernández-Méndez</b>	O-27
	<i>Microfluidic synthesis of drug nanocarriers for crossing cellular and non-cellular biological barriers</i>	
16:55-17:00	<b>Bahaa Doau</b>	O-28
	<i>CNT-based Hybrid Materials as Neuronal Guidance Conduits for Sciatic Nerve Regeneration</i>	

17:00-17:35 **Global discussion**

## Friday 28 October

*CICbiomaGUNE (Atrium)*

10:00-11:30	<b>Poster Session</b>
11:00-11:30	<b>Coffee break</b>
11:30-12:00	<b>Closing Remarks and Photo Contest Prize announcement</b>

## Posters

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<b>Ainhoa Maiz Iginitz</b>	P-1
<i>Scalable synthesis of enantiopure <math>\beta</math>-hydroxy esters mediated by a step wise chemoenzymatic cascade process and their subsequent polymerization</i>	
<b>Balbino Yagüe</b>	P-2
<i>Urease-powered nanobots as a promising theranostic tool for bladder cancer targeting</i>	
<b>Garazi Larrañaga-Jaurrieta</b>	P-3
<i>Scaffolds that meet the electrochemical balance of the native cartilage for the regeneration of osteoarthritic joints</i>	
<b>Giuseppe Misia</b>	P-4
<i>Carbon Nanotubes-based Biosensor as a tool for sensing of Dopamine</i>	
<b>Lei Chen</b>	P-5
<i>Covalently linked MoS<sub>2</sub>-graphene heterostructures</i>	
<b>Laura Aguado</b>	P-6
<i>Different brain arteriovenous malformation animal models in rat for use in neuroimaging</i>	
<b>Laura Armero Hernandez</b>	P-7
<i>Aptamer-based nanostructures as promising diagnostic and therapeutic tools</i>	
<b>Marita Wagner</b>	P-8
<i>Gold Antennas for Surface-Enhancement of Raman Scattering (SERS) and Infrared Absorption (SEIRA)</i>	
<b>Michele Cesco</b>	P-9
<i>Low dimensional carbon materials as novel multifunctional platforms for biological applications and medical imaging</i>	

**Nerea Pascual**

P-10

*Toward cellular models for in vitro neurotransmitter sensing*

**Paula Piñeiro**

P-11

*Monitoring cell dynamics via 3D SERS imaging using biocompatible SERS tags*

**Kyle Van Gordon**

P-12

*Growth mechanisms and biomedical applications of chiral gold nanomaterials*

**Neda Khatami**

P-13

*Chitosan Based Structures derived from Tenebrio molitor for Bone and Cartilage Tissue Engineering*

**Sergio Fernando Castillo Pacheco**

P-14

*Biorthogonal Catalytic Activation of Platinum Prodrugs by NADH oxidase Enzymes*