# 1st SCIENTIFIC MEETING 'PASSION FOR SCIENCE'



MEDIKUNTZA PERTSONALIZATUKO UPV/EHU i+Med GELA AULA DE MEDICINA PERSONALIZADA UPV/EHU i+Med





19th November, 2024

FACULTY OF PHARMACY. UNIVERSITY OF THE BASQUE COUNTRY (UPV/EHU), Alava Campus, Vitoria-Gasteiz.

#### Organized by:

"Aula de Medicina Personalizada UPV/EHU i+Med" Faculty of Pharmacy (UPV/EHU)

### Sponsored by:

Vice-Rectorate for Scientific-Social Development and Transfer and "Aula de Medicina Personalizada UPV/EHU i+Med"

## **Organizing Committee:**

Mirari Ayerbe (Dean of the Faculty of Pharmacy, UPV/EHU)

Rosa Hernández (Director of the "Aula de Medicina Personalizada UPV/EHU i+Med")

Sandra Benito (Member of the Governing Council of the Cooperative, i+Med) Nekane Martín (Cooperative member, i+Med)

#### **Scientific Committee:**

Gontzal García del Caño (Department of Neurosciences, UPV/EHU).

Javier Vicario (Department of Organic Chemistry I, UPV/EHU)

Edorta Santos (Department of Pharmacy and Food Sciences, UPV/EHU)

Lourdes Basabe (Department de Zoology and Animal Cell Biology, UPV/EHU)

Jon Andrade (Cooperative member, i+Med)

## 1st SCIENTIFIC MEETING 'PASSION FOR SCIENCE'

**Location:** Faculty of Pharmacy Auditorium (UPV/EHU). Vitoria-Gasteiz

## **PROGRAMME**

## 19th November, 2024

08:30 - 09:00	Registration & Presentations uploading/poster placement
	Main hall of the Faculty of Pharmacy (UPV/EHU)
09:00 – 09:15	Welcome session
	<b>Dr. Manoli Igartua</b> (Vice-Rector of the Álava Campus, UPV/EHU)
	<b>Dr. Mirari Ayerbe</b> (Dean of the Faculty of Pharmacy, UPV/EHU)
	Sandra Benito (Laboratory Manager and Member of the Governing Council of the Cooperative of i+Med)
	<b>Dr. Rosa Hernández</b> (Director of the Aula de Medicina Personalizada UPV/EHU i+Med)
09:15 – 10:00	PLENARY SPEAKER I
	<b>Ana Beloqui.</b> Research Associate F.R.SFNRS & WELBIO Investigator at the Université Catholique de Louvain
	Exploiting the pathophysiology of the gut towards innovative oral peptide delivery strategies
	<b>Chairperson</b> : Edorta Santos-Vizcaino
10:00 – 10:45	Oral presentations. Session I
	Selected talks: 7-minute presentation, 3 minutes for Q&A
	<b>Chairperson</b> : Edorta Santos-Vizcaino
	O1: Establishing a Scalable and Reproducible Framework for Using Extracellular Vesicles as Biologic Drug Delivery Vehicles. Zuriñe Eraña-Perez.
	O2: Nanoparticle functionalization for targeted drug delivery. Ainhoa Goenaga.

	O3: Combined Gene Therapy for Fabry Disease: Golden Lipid Nanoparticles as nanomedicines for siRNA and pDNA co-
	delivery. Marina Beraza Millor.
	O4: Generation and characterization of patient-specific
	neurogenic 3D spheroids from human Dental Pulp Stem Cells for disease modeling and therapies. Jon Luzuriaga.
10.45 – 11.30	Coffee break and Poster viewing
	PLENARY SPEAKER II
11.30 12.13	i Elivino, di Evineiri
	<b>José Luis García Cordero</b> . Head of Microtechnologies Group. Roche Institute of Human Biology. Basel.
	Organoid-on-a-chip technologies at Roche's Institute of Human Biology.
	Chairperson: Lourdes Basabe-Desmonts
12:15 – 13:00	Oral presentations. Session II
	Selected talks: 7-minute presentation, 3 minutes for Q&A
	<b>Chairperson</b> : Lourdes Basabe-Desmonts
	O5: Microfluidic passive device for plasma enriched in platelets separation from whole blood made of acrylic and tape. Pablo E. Guevara-Pantoja.
	O6: Paper-based microfluidic detection and quantification of a stress response indicator in crops: the microrna408. F. Nicolas Nazar.
	O7: Autonomous microfluidic device for the naked-eye detection of benzodiazepines in adulterated beverages. Isabel Poves Ruiz.
	O8: Study of the effect of the fungus Candida albicans in B16- F10 melanoma cells. Leire Aparicio Fernandez.
13:00 – 14:30	Lunch Break and Poster Viewing
14:30 – 15:15	PLENARY SPEAKER III
	Zaira García Carvajal. Senior Researcher, i+Med
	Development of polymeric hydrogels and the use of nanotechnology for the encapsulation of molecules in health applications

	Chairperson: Jon Andrade
15:15 – 16:00	Oral presentations. Session III
	Selected talks: 7-minute presentation, 3 minutes for Q&A
	Chairperson: Gontzal García del Caño
	O9: Development of hyaluronic acid injectable hydrogels based on thiol chemistry. Luis Pérez Pérez
	O10: Development of a broad-spectrum SARS-CoV-2 nanovaccine focused on highly conserved S2 regions. Madalen Arribas Galarreta.
	O11: First advances in the characterization of the biofilm composition of Arcobacter butzleri. Adrián Salazar-Sánchez.
	O12: Beneficial effect of Opuntia extracts on oxidative stress and inflammation in a model of murine diet-induced liver steatosis. Irene Besné-Eseverri.
16:00 – 16:45	Research career perspective and how to access an ERC grant
	Ana Beloqui. Research Associate F.R.SFNRS & WELBIO Investigator at the Université Catholique de Louvain Aitor Maestro Posdoctoral Researcher at Organic Chemistry II Department (UPV/EHU)
16:45 – 17:30	Oral presentations. Session IV
	Selected talks: 7-minute presentation, 3 minutes for Q&A
	Chairperson: Javier Vicario
	O13: The azo-Povarov cycloaddition, a potential bioorthogonal reaction. Xabier Jiménez-Aberásturi.
	O14: Phosphorated antiproliferative agents, a new alternative for cancer treatment. Alba Rodríguez.
	O15: Enantioselective synthesis of dihydroquinoline-hydantoin hybrids and their applications as antiproliferative agents. Zuriñe Serna-Burgos
	O16: Toward hybrid organic/inorganic interfaces: how carbon-based nanomaterials can promote reorganisation and boosted activity in neuronal networks. Denis Scaini.

17:30 – 18:15	Coffee-break and Poster Viewing
18:15	Closing Remarks and Award Ceremony

#### **POSTERS**

- 1. Synthesis of aziridines via Joullié-Ugi reaction as potential therapeutic agents. J. Allende.
- 2. mTOR inhibition increases channel expression in a model of LQTS2 in vitro. Beatriz. Sáenz-Díez Pérez.
- 3. Mechanical Stimulation of Hydrogel-based Scaffolds Using a Bioreactor: Development of a Support System for Tendon Tissue Engineering. Ruiz-Alonso Sandra.
- 4. Influence of physical characteristics of the design of orodispersible 3D printlets on their disintegration time. N. Paccione.
- 5. Development and evaluation of a bioink for the 3D bioprinting of in vitro chronic wound models. Mikel Salmerón.
- 6. Regulatory framework for 3D bioprinted corneal constructs: From design to market authorization. Hodei Gómez Fernández
- 7. Bioink Enrichment with Growth Factor-Loaded Nanoparticles: Enhancing Clinical Efficacy of Regenerative Scaffolds. Jorge Ordoyo-Pascual.
- 8. Addition of Gamma-tocopherol rich Extract: impact on sunflower oil degradation process at frying temperatures. Susana Abrante Pascual.
- Development of hydrogen suflide-activated theranostic prodrugs for selective cancer treatment through tetrazine dynamic chemistry. Oier Encinas.
- 10. Simple synthesis of 1,2-dihydroquinoline/hydantoin hybrids and the evaluation of their anticancer properties. Ainara Pellicer.

- 11. Determination of the MBIC and MBEC of amikacin, aztreonam and meropenem in Pseudomonas aeruginosa biofilms. Ohiana Rodríguez Medina.
- 12. Gene therapy for dry age-related macular degeneration with ionizable nanovectors: mRNA vs Pdna. P. Fernández-Muro.
- 13. Synthesis of nitrogen heterocyles as human topoisomerase i inhibitors. Leyre López de Aguileta.
- 14. Towards alternative diagnostics tools for fungal infections in patients with Cystic Fibrosis. L. Martin-Souto.
- 15. The importance of health care in the preferred-language chosen by the patient from a quality perspective. Jon Zarate.
- 16. Potential anti-obesity effects of three different microalgae extracts. Helen Carr-Ugarte.
- 17. Antimicrobial and biosurfactant production by halophilic bacteria. Elena Valgañón-Pérez.
- 18. 3D bioprinting of a novel graphene-based (bio)ink for tissue engineering. Irene Díez Aldama.
- 19. Investigating T cell activation through cytokine secretion using a novel cell monitoring platform. Sara Lpz. de Lacalle-Arregui.
- 20. Real-time visualisation of biochemical streptavidin-biotin interaction using gold nanoparticles and fiber optic. Sukayna Ezquerro Berdouzi.
- 21. Alginate/TiO2 Bead Biosystem for Cholesterol Determination in a Microfluidic device. Juncal A. Alonso-Cabrera.
- 22. Synthesis of functionalized chitosan polymeric nanoparticles and their properties for controlled drug release. Nekane Martin Mendia.
- 23. Showcasing the potential of different pharmacokinetic modeling approaches for the optimization of antimicrobial therapy. Ana Alarcia-Lacalle.
- 24. DUBs substrates: deciphering the UCH family. Erik P. Barrio.
- 25. Advances in Cell Affinity Assays with SCADA: Simple and Rapid Analysis of Cell-Molecule Interactions. Asier Inchaurraga Llamas.

- 26. Development of an Alginate Bead Biosystem for the Visual Detection of Cortisol. Sepideh Izaddoust.
- 27. Assessing Breast Cancer in vitro through Smart Bioelectronics. Gema del Rocío López-Buenafé.
- 28. New frontiers in antimycolata agent discovery: modification of known antibiotics. Angela Trejo Nogales.
- 29. Effects of Opuntia extracts. A comparison between epididymal and subcutaneous adipose tissue in a murine model of obesity. Iker Gómez García.
- 30. Viable Lactobacillus rhamnosus GG shows superior prevention over its inactivated variant on high-fat high-fructose diet-induced MAFLD prevention in rats. Laura Arellano García.
- 31. Food insecurity and health outcomes among the Spanish sub-cohort of the FINESCOP study. L. Garcia-Iruretagoyena.
- 32. A Novel Method for Advancing Bispecific Antibodies. Arkaitz Cano.
- 33. Functional stability of tetracycline: practical information for its use in bacterial selection. Adrián Salazar-Sánchez.
- 34. Construction and characterization of pIMM24, the first Escherichia coli Arcobacter butzleri shuttle vector. Adrián Salazar-Sánchez.