### **16th IBEC SYMPOSIUM**

## BIOENGINEERING

# FOR FUTURE AND PRECISION MEDICINE

#### SESSION 1

ID Poster	NAME	TITLE	SESSION	SCREEN
1	Gaia Amato	3D models to study CAKUT disease: from CRISPR/Cas9-engineered hPSC lines to the differentiation of human kidney organoids.	1	1
2	Marta Badia Graset	A minimal model for the formation of non-toxic protein aggregates by TDP-43	1	1
3	David Bartolomé- Català	Designing in vitro platforms to study transendothelial T cell migration in colorectal cancer	1	1
4	Armando Cortés Reséndiz	Unraveling the NASH-Muscle Atrophy Connection: Functional Analysis of Sarcopenic Skeletal Muscle in vitro	1	1
17	Dolores Blanco- Almazán	Evaluating Breathing Pattern in COPD Patients using Thoracic Bioimpedance	1	2
18	David Gomez- Cabeza	CheShImP: Democratising MRSI Data Processing of Chemical Shift Images for Precision Medicine	1	2
19	Mariano Martín	The mutational landscape of a mammalian functional amyloid	1	2
20	Gian Marco Tuveri	Computational Study Of The Low-Density Lipoprotein Receptor-Related Protein 1 (Lrp1) Structure And Dynamics.	1	2
21	Juan Francisco Abenza Martínez	Mechanical control of the fibroblast circadian clock via YAP/TAZ	1	3
22	Ona Baguer	Role of nuclear mechanics in the regulation of EMT in pancreatic cancer cells	1	3
23	Nimesh Chahare	Harnessing active viscoelasticity for synthetic epithelial morphogenesis	1	3
24	Eleni Dalaka	Quantifying cellular forces in native tumour environments in 3D co-cultures of colorectal tumoroids and stromal cells	1	3
36	Joana Admella Pedrico	Investigating Bacterial Infections in Galleria mellonella Larvae: Insights into Pathogen Dissemination and Behavior	1	4
37	Lara Victoria Aiassa	Targeting macrophage polarization states for precision immunotherapy	1	4
38	Júlia Alcàcer Almansa	Insights on the regulation and transcription pattern of the Ribonucleotide Reductases of Burkholderia cenocepacia in infection-like conditions.	1	4
39	Marc Alorda Carreras	Processing of serological microarray data for COVID-19.	1	4
5	Judith Fuentes Llanos	Integration of ferrofluid into 3D bioprinted skeletal muscle-based actuators provides magnetic guidance and improves force contraction	1	5
6	Manuela Garay- Sarmiento	Designing zwitterionic granular hydrogels towards specific interactions with living matter	1	5
7	Amayra Hernandez Vega	Tau Dynamics and Cooperative Interactions: possible relevance for its role as a Microtubule Associated Protein and for its pathological Solid Transition in Neurodegenerative Diseases	1	5
8	Dayaneth Jácome Montero	Increased H3K9 acetylation in PRNP promoter correlates with up-regulated PrPC expression in hippocampal samples of preclinical Alzheimer's disease	1	5

#### **16th IBEC SYMPOSIUM**

#### **BIOENGINEERING**

## FOR FUTURE AND PRECISION MEDICINE

25	Laura Faure	Cell confinement in 3D leads to cell extensile forces	1	6
26	Isabela Corina Fortunato	Cell migration up and down fibronectin gradients	1	6
27	Miguel Gonzalez Martin	Designing synthetic mechanosensitive molecules for the mechanical control of cellular transcription.	1	6
28	Clément Hallopeau	Mechanisms of mechanical compartmentalization in intestinal organoids	1	6
40	Betsy Verónica Arévalo Jaimes	Died or not dyed: Assessment of viability and vitality dyes on planktonic cells and biofilms from C. parapsilosis	1	7
41	Yunuen Avalos	Application of aptamers targeting ESCRT-III proteins as a potential antiplasmodial tool	1	7
42	Valentino Barbieri	Designing hybrid polymersomes for thermoplasmonics and targeted photothermal therapy	1	7
43	Marco Basile	On the Amyloid-12 transcytosis across the blood-brain barrier	1	7
44	Núria Blanco- Cabra	Disturbing bacterial morphogenesis by antibiotic action	1	8
45	Barbara Borges Fernandes	Investigating chemotaxis in a minimum cell model	1	8
46	Margarita Bulatova	Understanding the Influence of Host-Guest Interaction on Fumarate Hyperpolarization	1	8
47	Núria Camarero Palao	Phototrexate, a photoswitchable antimetabolite for targeted photoactivated chemotherapy and psoriasis.	1	8