Funded by the European Union

MPS NOVA KICK-OFF MEETING

Nov 7 - 8th | 2024 | ITQB NOVA

Advanced Microphysiological Systems and Pluripotent Stem Cell Technologies to Unveil Chronic Disease Mechanisms and Host-Microbe Interactions

MPS NOVA | iTQB nova | NOVA MEDICAL SCHOOL

UNIVERSITÄTS KLINIKUM jena | HUMAN TECHNOPOLE | MAX DELBRÜCK CENTER BIMSB Berlin Institute for Medical Systems Biology | OEIRAS VALLEY PORTUGAL | MUNICÍPIO OEIRAS

DAY 1 . 7 NOV . MANAGEMENT MEETING . 8TH FLOOR

09:00 **Management Check-In & Welcome Meet and Greet**

09:30 **Management meeting of MPS_NOVA Consortium** (includes Coffee break)

12:30 **Management Lunch**

DAY 1 . 7 NOV . MPS_NOVA MEETING . ITQB NOVA AUDITORIUM

13:00 **Participants Check-In** (ITQB NOVA front desk)

14:00 **MPS_NOVA Twinning Opening**
Raquel Sá Leão (ITQB NOVA Vice-Dean)

14:10 **MPS_NOVA general introduction**
Sarela Santamarina, Cláudia Santos

SESSION: PARTNERS' EXPERTISE IN MICROPHYSIOLOGICAL SYSTEM
Chairs: Sarela Santamarina, Cláudia Santos

14:30 **Organ-on-Chip for Dissecting Mechanisms of Host-Pathogen Interaction**
Alexander Mosig, UKJ

15:15 **Organoids to Model Human Brain Development and Brain Diseases**
Agnieszka Rybak-Wolf, MDC

16:00 **The First Italian Platform for Disease Modelling**
Giovanni Faga, Jacopo Zasso, FHT

16:45 **Coffee break & Poster Session**

THEMATIC ROUND TABLE

17:15 **State-of-art knowledge in Organ-on-Chip for Chronic Diseases, Host-Microbe Interactions Research, and the Translational Potential of MPS and Stem Cells in Therapeutic Developments**
Leads: Alexander Mosig, UKJ
Participants: Elena Martínez, Martin Raasch, Inês Figueira, Paul Wilmes

18:30 **Cocktail & Poster Session**

20:00 **Dinner at Casa da Dizima**, Paço de Arcos

DAY 2 . 8 NOV . MPS_NOVA MEETING . ITQB NOVA AUDITORIUM

09:00 **Participants Check-In** (ITQB NOVA front desk)

SESSION: BRAINS IN A DISH: ORGANOIDS & CHIPS
Chair: Miguel Seabra, NOVA Medical School

09:30 **Twinning on MPS to determine how Alzheimer's-linked Endosomal Trafficking Defects cause Synapse Dysfunction**
Cláudia Almeida, NOVA Medical School

09:45 **MPS for disclosing Molecular Nutrition Benefits toward Brain Health**
Inês Figueira, NOVA Medical School

10:00 **Exploring Carotid Body Connections using MPS**
Fátima Martins, NOVA Medical School

10:15 **Advancing Chronic Disease Research through MPS_NOVA: Bridging Drosophila and Human Models**
Catarina Homem, NOVA Medical School

10:30 **Innate Immune Microenvironments in Disease and Therapeutic Response**
Catarina Brito, ITQB NOVA

10:45 **Advancing Retinal Disease Models Through Retinal Organoids**
Sandra Tenreiro, NOVA Medical School

11:00 **Coffee break & Poster Session**

SESSION: ADVANCES IN SKIN MICROPHYSIOLOGICAL SYSTEMS
Chair: Cristina Silva Pereira, ITQB NOVA

11:30 **Staphylococci and Skin Interactions during Health and Disease**
Maria Miragaia, ITQB NOVA

11:45 **Reconstructed Skin Models in Pigmentation and Cutaneous Melanoma Research** Duarte Barral, NOVA Medical School

12:00 **3D-Reconstructed Human Epidermis Models: towards more Realistic Environments for developing Antimicrobials that preserve a Balanced Skin Microbiome,** Ana Coelho, ITQB NOVA

12:15 **Controlling Aspergillus Fumigatus Core Endohyphal Bacteria to Hinder the Fungal Host Pathogenicity,** Cristina Silva Pereira, ITQB NOVA

12:30 **Lunch, room 2.13**

DAY 2 . 8 NOV . MPS_NOVA MEETING . ITQB NOVA AUDITORIUM

SESSION: ADVANCES IN MICROPHYSIOLOGICAL SYSTEMS FOR OTHER ORGANS
Chair: Duarte Barral, NOVA Medical School

14:00 **Potential application of the organ-on-chip platform for testing new therapeutic strategies in Breast Cancer by targeting immunosuppressive neutrophils,** Guadalupe Cabral, NOVA Medical School

14:15 **Novel model systems to study the interaction between Bilophila wadsworthia and the host,** Andreia Pimenta, ITQB NOVA

14:30 **Clostridioides difficile spores are toxin delivery vehicles**
Adriano Henriques, ITQB NOVA

14:45 **Exploring host-microbe interactions with Listeria monocytogenes using microphysiological systems**
José Andrade, ITQB NOVA

15:00 **Human Liver Organoids for Investigating Inflammation in Chronic Metabolic Liver Disease**
Michel Kranendonk, NOVA Medical School

15:15 **Using Nasopharyngeal Organoids to Study Streptococcus pneumoniae Colonization, Viral Interactions, and Biofilm Formation**
Raquel Sá-Leão, ITQB NOVA

15:30 **Coffee Break**

Advisory Board Round Table
Chairs: Cláudia Santos, Sarela Santamarina

16:00 Bruno Pereira, i3S Porto, Portugal
Elena Martínez, IBEC, Spain
Martin Raasch, Dynamic 42, Germany
Paula Alves, IBET, Portugal
Paul Wilmes, University of Luxembourg

17:00 **Closing Remarks**

FORGING THE FUTURE OF DISEASE MODELLING