

## FLAGSHIP PROJECT 7 MID-TERM PLENARY WORKSHOP

### Advanced and automated innovation labs for diagnostic and therapeutic biopharma solutions ROMA TRE UNIVERSITY (Aula Magna, via Ostiense 133, Roma) - JUNE 13, 2024

#### 9.00-9.40 Welcome

Massimiliano Fiorucci, Magnifico Rettore, Università Roma Tre  
Alberto Attanasio, Direttore Generale, Università Roma Tre  
Sabrina Saccomandi, Direttrice Generale, Fondazione Rome Technopole  
Franco Alberto Fossati, Direttore Scientifico, Fondazione Rome Technopole

#### 9.40-10.00 Project overview and educational offer of Rome Technopole in Biopharma & Health

9.40-9.50 Augusto Giardini (Catalent), Giuseppe Roscilli (Takis Biotech), *FP 7 overview*  
9.50-10.00 Silvia Conforto (Roma Tre University), *The educational offer of Rome Technopole for health and biopharma*

#### Topic: Monoclonal antibodies development and characterization (flash talks 10.00-11.00)

10.00-10.10 Giuseppe Roscilli (Chair, Takis Biotech), *Overview of the research topic*  
10.10-10.20 Giovanni Bulfaro (Sapienza University of Rome) *Development and characterization of high-affinity monoclonal antibodies targeting ErbB3*  
10.20-10.30 Valentina Peluzzi (Campus Biomedico University) *Evaluation of anti-HER3 antibody and bispecific T cell engager in a 3D model*  
10.30-10.40 Daniela Giovannini (ENEA) *Targeted delivery of plant-produced biomolecules for cancer care*  
10.40-10.50 Valentina Gallo (Roma Tre University) *Design of class-G monoclonal antibodies for the treatment of cutaneous T-cell lymphoma (DOGMA)*  
10.50-11.00 Valerio Chiarini (Takis Biotech) *An in-silico drive-through for mAbs discovery*

#### Coffee break 11.00-11.30

#### Topic: Biosensors, Biomarkers, innovative medical device development, and bio-active molecules for biopharmaceutical/nutraceutical products (flash talks 11.30-12.30)

11.30-11.40 Andrea Battistoni (Chair, Tor Vergata University), *Overview of the research topic*  
11.40-11.50 Giovanni Antonini (Roma Tre University) *A new point-of-care test for the rapid antimicrobial susceptibility assessment of uropathogens*  
11.50-12.00 Giulio Maria Bianco (Tor Vergata University) *Co-design of a four-chip NFC system and microfluidic channel for point-of-care electrochemical sensing*  
12.00-12.10 Riccardo Mirabelli (Sapienza University of Rome) *Development of a new generation of radio-guided surgery probes for beta detection*  
12.10-12.20 Selene Baschieri (Enea) *Production and functional characterization of a detoxified gluten-protein for the development of innovative foods for special medical purposes*  
12.20-12.30 Alberto Sinibaldi (Sapienza University of Rome) *Direct competitive assay for ERBB2 detection in cell lysates and human plasma using 1-D photonic crystals-based biochips*

#### Topic: Tech Transfer for bio-products and use of emerging technologies in the biopharma environment (flash talks 12.30-13.00)

12.30-12.40 Augusto Giardini (Chair, Calatent), *Overview of the research topic*  
12.40-12.50 Claudia Cruciani (Catalent) *Tech transfer on a pre-filled syringe line: bioproducts and small molecules*

12.50-13.00 Matteo Monti (Catalent) *Electronic Manufacturing Batch Record and Manufacturing Execution System implementation*

### Light lunch 13.00-14.00

#### Topic: New agents for infection control (flash talks 14.00-15.10)

14.00-14.10 Paolo Visca (Chair, Roma Tre University) *Overview of the research topic*

14.10-14.20 Silvia Cammarone (Sapienza University of Rome) *Identification of new therapeutic strategies against multi-drug resistance infections*

14.20-14.30 Massimiliano Lucidi (Roma Tre University) *Screening platforms for the identification of new antibacterial compounds*

14.30-14.40 Giordano Rampioni (Roma Tre University) *Drug repurposing to inhibit Pseudomonas aeruginosa adaptation to the cystic fibrosis lung environment*

14.40-14.50 Jacopo Forte (Sapienza University of Rome) *Versatile Essential Oil Nanoemulsions as new strategies to counteract "superbugs" infections*

14.50-15.00 Riccardo Polani (Sapienza University of Rome) *Bacterial genomics of clinically relevant Gram-Negative Bacteria exhibiting resistance to newest antibiotics*

15.00-15.10 Enzo Tramontano (Cagliari University), *Antiviral Discovery Initiatives: Educating Next-Gen Scientists (ADVISE)* (Spoke 3 Cascading Grant holder)

#### Topic: Toolboxes for testing metabolic, inflammatory, neurologic, and tumoral disorders (flash talks 15.10-15.50)

15.10-15.20 Cristina Limatola (Chair, Sapienza University of Rome) *Overview of the research topic*

15.20-15.30 Claudio Babiloni (Sapienza University of Rome) *Two-week computerized cognitive training affects resting-state electroencephalographic rhythms in Parkinson's disease patients with cognitive deficits*

15.30-15.40 Bernadette Basilico (Sapienza University of Rome) *Acute gut dysbiosis induces alterations in neuronal network excitability and triggers neuroinflammation in the brain*

15.40-15.50 Marco Fiocchetti (Roma Tre University) *Neuronal protective effects of soluble and vesicle-delivered extracellular neuroglobin*

### Coffee break 15.50-16.20

#### Topic: Drug discovery, development, and delivery (flash talks 16.20-17.10)

16.20-16.30 Luciano Castiello (Chair, Istituto Superiore di Sanità, Rome) *Overview of the research topic*

16.30-16.40 Valentina Pallottini (Roma Tre University) *In search of a new therapeutic target for Niemann-Pick disease*

16.40-16.50 Eliana Capecchi (University of Tuscia) *Synthesis of pharmacologically active scaffolds using bioreactors based on sustainable lignin nanoparticles from sustainable sources*

16.50-17.00 Alessandro Rava (Roma Tre University) *Cannabidiol and positive effects on object recognition memory in an in vivo model of Fragile X Syndrome: obligatory role of hippocampal GPR55 receptors*

17.00-17.10 Beatrice Vallone (Sapienza University of Rome) *CryoEM complex of human ferritin with receptor CD71 drives protein engineering for protein-based nanoparticles*

#### General discussion (17.10-18.00)

All participants