



ANNUAL MEETING OF THE PhD PROGRAMME “BIOMEDICAL SCIENCES AND TECHNOLOGIES” (STB)

February 3rd - 4th, 2025

Lecture hall 6, Department of Science, Viale G. Marconi 446, Rome

February 3rd, 2025

9:15 - 9:30 Prof. Fabio Polticelli - Welcome and opening remarks of the Director of the PhD Programme

XXXIX PhD Programme STB (10 min presentation; 5 min discussion)

Biochemistry, Cell Physiology and Pharmacology

Chairs: Prof. FIOCCHETTI, Prof. PALLOTTINI, Prof. TREZZA

9:30 - 9:45 QUADROTTA VIRGINIA

Computational studies of the structure and function of the mitochondrial SLC25 family members (tutor POLITICELLI)

9:45 - 10:00 RENNA ALESSANDRO

Role of Neuroinflammation in G protein-related movement disorders (tutor DI MASI; co-tutor BONSI)

10:00 - 10:15 ROSSI GIULIA

Unraveling the role of neuron inflammasome pathway as cellular target in neurological disorders (tutor FIOCCHETTI)

10:15 - 10:30 IONTA MARTA

Synaptic dysfunction in rodent and hiPSC-derived models of G protein-related disorders (tutor TREZZA; co-tutor BONSI)

10:30 - 10:45 CAPUTO SARA

Neuroprotective mechanism(s) of neuroglobin may involve cholesterol metabolism (tutor PALLOTTINI)

10:45 - 11:00 ERCOLANO CHIARA

Development of quantitative magnetic resonance imaging methods of the spinal cord (tutor FIOCCHETTI; co-tutor GIOVE)

11:00 - 11:15 CARLETTA OLGA

The role of TBK1-dependent immune signalling pathways in Amyotrophic Lateral Sclerosis: disease mechanisms and therapeutics (tutor DI MASI; co-tutor GERBINO)

11:15 - 11:30 Coffee Break

11:30 - 11:45 FUMAGALLI GIULIA

AAV vector-mediated bispecific ErbB3 and CD3 antibody delivery (tutor ACCONCIA; co-tutor MUZI)

11:45 - 12:00 RANALDI MARCO

Gold nanorods loaded with radiopharmaceuticals for the development of innovative theranostic techniques in nuclear medicine (tutor VENDITTI; co-tutor GRANDE)

Microbiology and Immunology

Chairs: Prof. GASPERI, Prof. SACCHI, Prof. VENDITTI

12:00 - 12:15 RIGGIO FILIPPO PASQUALE

Combining metagenomic and cultured-based approaches to study the structures and functions of the underground microbial populations in Rome (tutor VISCA; co-tutor LUCIDI)



12:15 - 12:30 GUIDUCCI ALESSANDRA

Study of the intracellular lifestyle of the pathogen *Pseudomonas aeruginosa* (tutor LEONI)

12:30 - 12:45 CIOLFI SERENA

Autophagy mechanisms regulating virus-induced pathogenesis: from virus containment to immune response modulation (tutor SACCHI)

12:45 - 13:00 DI PLACIDO DANIELA

Exploring the impact of influenza vaccination on immune response and trained immunity: towards personalized vaccine strategies (tutor SACCHI; co-tutor VENDETTI)

13:00 - 13:15 FALCE CHIARA

Development of a safe viral vector-based neutralization assay platform for Arboviruses (tutor SACCHI; co-tutor CARA)

13:15 - 13:30 GRECO MARIANTONINA

A DNA-based vaccine to prevent Lyme Disease (tutor POLITICELLI; co-tutor CONFORTI)

13:30 - 14:30 Lunch

XXXVIII PhD Programme STB (15 min presentation; 5 min discussion)

Biochemistry, Cell Physiology and Pharmacology

Chairs: Prof. ACCONCIA, Prof. DE SIMONE

14:30 - 14:50 FRANZA MARIA

In vitro and *in vivo* characterization of new molecular targets for the treatment of acute promyelocytic leukemia (tutor DI MASI)

14:50 - 15:10 LAVECCHIA DI TOCCO FRANCESCO

Development of a Field Effect Transistor based biosensor for the detection of oncoMiR (tutor BIZZARRI)

15:10 - 15:30 CALVINO GIULIA

(Epi)genomic analysis for the search of biomarkers of susceptibility and progression in the field of neurodegenerative diseases and development of computational systems for the integration of precision medicine into clinical practice (tutor VISCA; co-tutor BATTISTINI)

15:30 - 15:50 SOZZI SILVIA

HIPK2 role in the pathogenesis of liver fibrosis (tutor PALLOTTINI; co-tutor SODDU)

15:50 - 16:10 FRASCOLLA CARLOTTA

Generation of bladder cancer organoids from patients undergoing diagnostic TURB and cystectomy (tutor DI MASI; co-tutor BLANDINO)

16:10 - 16:30 FEO ALESSANDRO

Role of Neuroinflammation in Autism Spectrum Disorder (tutor TREZZA)

16:30 - 16:50 OLIVIERI ELENA

Study of innovative therapies for multiple sclerosis (tutor VENDITTI; co-tutor BATTISTINI)

16:50 - 17:10 Coffee Break

Microbiology and Immunology

Chairs: Prof. IMPERI, Prof. RAMPIONI

17:10 - 17:30 SPOSATO DAVIDE

The outer membrane of Gram-negative bacteria: mechanisms of biogenesis and target for antibacterial drugs (tutor IMPERI)



17:30 - 17:50 SPAGNOLI CINZIA

Transition to the viable but not culturable state as an adaptive strategy of bacterial pathogens to survive desiccation in hospital settings (tutor VISCA; co-tutors VISAGGIO-SKAAR)

17:50 - 18:10 VERDIANI ALICE

Study of adaptive and innate immune responses induced by viruses in multiple sclerosis (tutor SACCHI; co-tutor BATTISTINI)

18:10 - 18:30 PIRRONELLO MARTA

Study of B lymphocytes after oral treatment in PwMS (tutor SACCHI; co-tutors BATTISTINI-BORSELLINO)

February 4th, 2025

XXXVII PhD Programme STB (25 min presentation; 5 min discussion)

Biochemistry and Cell Physiology

Chairs: Prof. DI MASI, Prof. MARINO

9:30 - 10:00 DE LAURO ALFREDO

Development of a software platform for the design of therapeutic antibodies (tutor POLITICELLI)

10:00 - 10:30 VARRICCHIO ROMUALDO

Human Serum Albumin: from molecular aspects to biotechnological applications (tutor DI MASI)

10:30 - 11:00 BASTARI GIOVANNA

Role of extracellular trafficking of Neuroglobin in neurodegeneration and neuroprotection disorders (tutor FIOCCHETTI)

11:00 - 11:20 Coffee Break

11:20- 11:50 BENIGNI FEDERICA

Generation of isogenic lines using CRISPR/Cas9 technology from induced pluripotent stem cells (iPSCs) (tutor PALLOTTINI; co-tutor COMPAGNUCCI)

Microbiology and Immunology

Chairs: Prof. ANTONINI, Prof. LEONI

11:50 - 12:20 TOMASSETTI FEDERICA

Development of a new biological-based method for the detection of heavy metals in water sources (tutor ANTONINI; co-tutor GALLO)

12:20 - 12:50 D'ORSO SILVIA

How high efficacy therapy modulate the antiviral immune responses in multiple sclerosis patients (tutor VISCA; co-tutor BATTISTINI)

12:50 - 13:50 Lunch

XL PhD Programme STB (6 min presentation; 4 min discussion)

Chairs: Prof. POLITICELLI, Prof. VISCA

13:50 - 14:00 BONAZZA ENZA BRUNA

14:10 - 14:20 DRAGONETTI MARTINA

14:20 - 14:30 LIONETTI LUDOVICA

14:30 - 14:40 MAZZONELLO BENEDETTA MARIA



14:40 - 14:50 RIDOLFI CLAUDIA

14:50 - 15:00 TOMEI ROBERTA

15:00 - 15:15 Concluding remarks of the Director of the PhD Programme

15:15 - 15:30 Awarding Ceremony

15:30 - 17:30 Meeting of the *BIOMEDICAL SCIENCES AND TECHNOLOGIES* (STB) Scientific Board