

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

January 15th - 16th, 2025

Lecture hall 2, Department of Science, Viale G. Marconi 446, Rome

January 15th, 2025

9:00 - 9:10 Prof.ssa Alessandra di Masi - Welcome and opening remarks of the Director of the PhD Programme

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

Biochemistry, Cell Physiology and Pharmacology

Chairs: QUADROTTA VIRGINIA, RANALDI MARCO

9:10 - 9:40 CALVINO GIULIA

Axiom-Based Genotyping and Analysis Pipeline for Neurodegenerative Diseases: Insights from PD, AD and MCI Cohorts (tutor VISCA; co-tutor BATTISTINI)

9:40 - 10:10 FEO ALESSANDRO

Role of Neuroinflammation in Autism Spectrum Disorder (tutor TREZZA)

10:10 - 10:40 FRANZA MARIA

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

10:40 - 11:00 Coffee Break

11:00 - 11:30 LAVECCHIA DI TOCCO FRANCESCO

Development of a Field Effect Transistor biosensor (bioFET) for the detection of clinically relevant miRNAs (tutor BIZZARRI)

11:30 - 12:00 OLIVIERI ELENA

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

12:00 - 12:30 SOZZI SILVIA

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

12:30 - 13:10 Lunch

Microbiology and Immunology

Chairs: CIOLFI SERENA, DI PLACIDO DANIELA

13:10 - 13:40 PIRRONELLO MARTA

The role of unconventional memory B cells in the pathogenesis of multiple sclerosis (tutor SACCHI; co-tutors BATTISTINI-BORSELLINO)

13:40 - 14:10 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)

14:10 - 14:40 SPOSATO DAVIDE

Building the shield: new insights on cell envelope biogenesis and homeostasis in *Pseudomonas aeruginosa* (tutor IMPERI)

14:40 - 15:10 VERDIANI ALICE

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

Biochemistry, Cell Physiology and Pharmacology

15:10 - 15:40 FRASCOLLA CARLOTTA

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

15:40 - 16:00 Coffee Break

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

Biochemistry, Cell Physiology and Pharmacology

Chairs: CARLETTA OLGA, ROSSI GIULIA

16:00 - 16:15 DRAGONETTI MARTINA

The role of matrix stiffness in regulating head and neck cancer recurrence (tutor DI MASI; co-tutor BLANDINO)

16:15 - 16:30 LIONETTI LUDOVICA

The role of inflammation in Alzheimer's disease progression (tutor PALLOTTINI; co-tutor BOSSÙ)

16:30 - 16:45 MAZZONELLO BENEDETTA MARIA

Decoding the role of innate immune dysregulation in Parkinson's disease (tutor FIOCCHETTI; co-tutor BOSSÙ)

Microbiology and Immunology

Chairs: FALCE CHIARA, GUIDUCCI ALESSANDRA

16:45 - 17:00 BONAZZA ENZA BRUNA

Genomic analysis and identification of clinical and environmental *Legionella* isolates (tutor VISCA; co-tutor SCATURRO)

17:00 - 17:15 RIDOLFI CLAUDIA

Drug repurposing to inhibit *Pseudomonas aeruginosa* adaptation to the cystic fibrosis lung environment (tutor RAMPIONI)

17.15 - 17:30 TOMEI ROBERTA

Development of serological assays to study the spread of some emerging arboviruses with a One Health approach (tutor SACCHI; co-tutor CAPOCEFALO)

January 16th, 2025

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

Biochemistry, Cell Physiology and Pharmacology

Chairs: FEO ALESSANDRO, FRANZA MARIA

9:00 - 9:20 CAPUTO SARA (online)

Investigating the Role of Neuroglobin in Lipid Metabolism: A Spotlight on Cholesterol in Neuron-Derived Cells (tutor PALLOTTINI)

9:20 - 9:40 IONTA MARTA (online)

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

9:40 - 10:00 CARLETTA OLGA

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

10:00 - 10:20 ERCOLANO CHIARA

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

10:20 - 10:40 FUMAGALLI GIULIA

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

10:40 - 11:00 Coffee Break

Chairs: FRASCOLLA CARLOTTA, LAVECCHIA DI TOCCO FRANCESCO

11:00 - 11:20 QUADROTTA VIRGINIA

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

11:20 - 11:40 RANALDI MARCO

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

11:40 - 12:00 RENNA ALESSANDRO

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

12:00 - 12:20 ROSSI GIULIA

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

Microbiology and Immunology

Chairs: VERDIANI ALICE, PIRRONELLO MARTA

12:20 - 12:40 RIGGIO FILIPPO PASQUALE (online)

Characterization of psychrophilic hydrocarbon-degrading bacteria from a natural cave for eco-friendly bioremediation (tutor VISCA; co-tutor LUCIDI)

12:40 - 13:00 GRECO MARTIANTONINA (online)

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

13:00 - 13:20 CIOLFI SERENA

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

13:20 - 14:00 Lunch

Chairs: SPAGNOLI CINZIA, SPOSATO DAVIDE

14:00 - 14:20 DI PLACIDO DANIELA

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

14:20 - 14:40 FALCE CHIARA

Development of a viral vector-based platform for the safe evaluation of neutralizing antibodies against platform Arboviruses (tutor SACCHI; co-tutor CARA)

14:40 - 15:00 GUIDUCCI ALESSANDRA

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

15:00 - 15:20 Coffee Break

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

Chairs: RIDOLFI CLAUDIA, TOMEI ROBERTA

15:20 - 15:30 ARCOPIANTO LUDOVICA

15:30 - 15:40 BECCARINI MARTA

15:40 - 15:50 DONNINI MICAELA

15:50 - 16:00 FERRIERO ANTONIO MARIA

16:00 - 16:10 RUGGIERO ANDREA

16:10 - 16:20 TRANQUILLI BEATRICE

16:20 - 16:30 VULTERINI SERGIO

16:30 - 16:45 Concluding remarks of the Director of the PhD Programme

16:45 - 17:00 Awarding Ceremony

17:00 - 18:00 Meeting of the *BIOMEDICAL SCIENCES AND TECHNOLOGIES* (STB) Scientific Board

