

Young Researchers Retreat



25-26

June

2024

PROGRAMME

Aula Magna Navile - UE1

Via della Beverara 123/1, Bologna



Tuesday, 25th June

9:00 – 9:15 Registration
 9:15 – 9:30 Opening session
 Barbara Monti
 Full Professor
 Head of the Department

Opening Lecture

9:30 – 10:00 **European projects: opportunities, challenges and strategies to succeed**
 Luca Fontanesi
 Full Professor
 Delegate for competitive projects

Session I - 10:00-10:55 -

Pharmacology

Chairs: Libero Gurrieri, Sofia Gasperini

10:00 – 10:15 **Electronic cigarettes: smoking by any other name**
 Fabio Vivarelli
 RTDA - Molecular Toxicology Lab

10:15 – 10:40 **miRNAs as potential diagnostic and predictive biomarkers in gynecological malignancies**
 Gloria Ravegnini
 RTDB - Predictive Toxicology Lab

New Biomarkers in Alzheimer's disease: innovation for diagnosis and treatment
 Giulia Sita
 RTDA - Predictive Toxicology Lab

10:40 – 10:55 **Protein engineering for higher crop yield: testing the approach on an algal enzyme and ongoing results**
Libero Gurrieri
RTDA - Molecular Plant Physiology Lab

10:55 – 11:15 **Coffee Break, Poster Viewing and Networking**

Session II - 11:15-12:20 -

Drug discovery and development

Chairs: Angela Abruzzo, Agnese Graziosi

11:15 – 11:30 **Molecular characterization of SARS-CoV-2 Mpro activity and inhibition, a new toolbox for drug discovery**
Luca Mazzei
RTDA - Bioinorganic Chemistry Lab

11:30 – 11:45 **Genetically modified M13 bacteriophages for precise photodynamic cancer eradication**
Paolo Costantini
Research fellow (RTT from October 2024) - Molecular Biotechnology Lab

11:45 – 12:10 **Tricyclic-based bifunctional compounds for neurodegenerative diseases**
Elisa Uliassi
RTDB – Bolognesi's MedChem Lab

Pursuing the PROTAC approach to fight emerging flavivirus infections

Eleonora Diamanti

RTDA – Bolognesi's MedChem Lab

12:10 – 12:20 **Obeticholic acid consumption in AUSL Romagna**

Lorenzo Evangelisti

Resident in Hospital Pharmacy – 'Segreteria Commissione del Farmaco Area Vasta Romagna' – Ospedale Infermi di Rimini

Keynote Lecture

12:20 – 13:20 **The multifaceted role of core facilities in the academic setting**

Valentina Adami

Coordinator of the core facilities IRBIO, University of Trento – Italian network of core facilities NICO

13:20 – 14:30 **Lunch Break**

13:20 – 14:30 Poster Session I

Session III - 14:30-16:00 -

Neuroscience

Chairs: Elisa Uliassi, Giulia Pierfelice

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| 14:30 – 14:45 | <p>Study of molecular mechanisms underlying neuronal alterations in chronic pain</p> <p>Francesco Formaggio
 <i>RTDA - Cellular and Molecular Physiology Lab</i></p> |
| 14:45 – 15:00 | <p>Microsampling and mass spectrometry for targeted metabolic profiling in murine models of amyotrophic lateral sclerosis</p> <p>Michele Protti
 <i>RTDB - Pharmaco-Toxicological Analysis Lab</i></p> |
| 15:00 – 15:15 | <p>Characterization of a novel humanized knockin mouse model carrying the E364X patient mutation for CDKL5 deficiency disorder</p> <p>Corinne Quadalti
 <i>RTDA - Neural Repair Lab</i></p> |
| 15:15 – 15:30 | <p>Microglia across neurodegenerative diseases: role of EVs-miRNAs in neuroinflammation</p> <p>Francesca Massenzio
 <i>RTDA - Cellular Neurobiology Lab</i></p> |
| 15:30 – 15:35 | <p>Evaluation of the role of the NEGR1 pathway and IgLON family members in a mice model of depression based on stress exposure</p> <p>Marco Salluzzo
 <i>Research fellow - Neuropsychopharmacology Lab</i></p> |

- 15:35 – 15:40 **Understanding the molecular mechanisms at the basis of AGC1 deficiency pathogenesis**
Eleonora Poeta
Research fellow - Cellular Neurobiology Lab
- 15:40 – 15:45 **Silent Killers in your everyday products: unveiling the neurotoxic effects of Endocrine Disrupting Molecules**
Agnese Graziosi
Research fellow - Predictive Toxicology Lab
- 15:45 – 15:50 **Biochemical and computational approaches to dissect the effect of MT-CYB pathogenic mutations on respiratory chain activity and assembly**
Gaia Tioli
Research fellow - Mitochondrial Biochemistry and Biology Lab
- 15:50 – 16:00 **Q&A session**
- 16:00 – 16:30 **Coffee Break, Poster Viewing and Networking**

Session IV - 16:30-17:45 -

Computational chemistry and biology

Chairs: Simone Rampelli, Giacomo Foschi

- 16:30 – 16:45 **Genetic and functional characterization of rare sequence variants in Autism Spectrum Disorder**
Marta Viggiano
RTDA - Human Molecular Genetics
- 16:45 – 17:10 **Associating multifunctional proteins with diseases and pathways**
Giulia Babbi
RTDA - Biochemistry, Computational Biology and Bioinformatics Lab
- Large-scale comparison of AI-based protein structure prediction tools on the human reference proteome**
Castrense Savojardo
RTDB - Biochemistry, Computational Biology and Bioinformatics Lab
- 17:10 – 17:25 **Geometric deep learning methods for biological data**
Ferdinando Zanchetta
RTDA - Geometry for physical and biological applications Lab

- 17:25– 17:30 **DNA damage and genome instability induced by Topoisomerase I cleavage complexes**
Marco Russo
Research fellow - Cancer Genome Instability Lab
- 17:30 – 17:45 **Q&A session and Closing remarks**

Wednesday, 26th June

Session V - 9:00-10:30 -

Microbiology

Chairs: Daniele Ghezzi, Giorgia Palladino

9:00 – 9:15 **Culture supernatants from beneficial vaginal lactobacilli: old friends with new perspectives**

Carola Parolin

RTDB - Beneficial Microbes Lab

9:15 – 9:30 **Deciphering the interactions between bacteria and macrophages in *ex vivo* human organ perfusion models**

Daniele Ghezzi

RTDA - Microbial Genetics of Infection Lab

9:30 – 9:55 **Zonation of the *Vitis vinifera* microbiome in VINO Nobile di Montepulciano production area**

Simone Rampelli

RTDA - Microbiome Science and Biotechnology Lab

Routes of dispersion of antibiotic resistance genes from the poultry farm system

Daniel Scicchitano

RTDA - Microbiome Science and Biotechnology Lab

- 09:55 – 10:10 **Blueprinting Gene Regulation in *Helicobacter pylori***
Andrea Vannini
RTDB - Molecular Biology and Genomics of Prokaryotes
- 10:10 – 10:15 **Continuous antibiotic prophylaxis has long-lasting effects on the gut microbiome structure and functionality in infants with vesicoureteral reflux**
Federica D'Amico
Research fellow - Microbiome Science and Biotechnology Lab
- 10:15– 10:20 **Characterization of *Limosilactobacillus vaginalis* derivatives as food supplements**
Barbara Giordani
Research fellow - Beneficial Microbes Lab
- 10:20 – 10:30 **Q&A session**
- 10:30 – 11:00 **Coffee Break, Poster Viewing and Networking**

Keynote Lecture

- 11:00 – 12:00 **The National Facility for Genomics: technologies, services available and mode of access**
Clelia Peano
Head of National Facility for Genomics - Human Technopole, Milano

Session VI - 12:00-14:50 -

Drug discovery and development

Chairs: Fabio Vivarelli, Martina Rossi

- 12:00 – 12:15 **Nanosystems for the treatment of local bacterial infections**
Angela Abruzzo
RTDB - Drug Delivery Research Lab
- 12:15 – 12:30 **Spray congealed microparticles for oral drug administration: recent developments, current challenges and future directions**
Serena Bertoni
Research fellow (RTT from October 2024) - Pharmaceutical Technology Lab
- 12:30 – 12:45 **Searching for inhibitors of the DNA repair protein RAD52**
Federico Falchi
RTDB - Medicinal Computational Chemistry Lab

12:45 – 13:00 **Playing covalent: looking for valid chemical probes to study neurodegenerative diseases**

Filippo Basagni

Research fellow (RTT from October 2024) - Medicinal Chemistry - Synthesis of biologically active small molecules Lab

13:00 – 13:15 **Metabolomic patterns in response to abiotic stimuli of *Cladonia* lichens from dry grasslands**

Ilaria Chiocchio

Research fellow (RTT from October 2024) - Pharmaceutical Botany Lab

13:15 – 14:15 **Lunch Break**

13:15 – 14:15 Poster Session II

14:15 – 14:25 **The use of pre-exposure prophylaxis (PrEP) in the control of HIV infection and other sexually transmitted diseases (STDs). Descriptive-observational analysis in an italian polyclinic**

Davide Cicetti

Resident in Hospital Pharmacy – ‘Azienda Ospedaliero Universitaria di Bologna’ – IRCCS Policlinico Sant’Orsola-Malpighi

14:25 – 14:35 **The role of the counselor pharmacist in the management, education and care of the patient in chronic obstructive pulmonary disease (COPD)**

Silvia Bartoli, Mariangela Parca

*Residents in Hospital Pharmacy – ‘Azienda
USL della Romagna’ – Ospedale M Bufalini,
Cesena*

14:35 – 14:40

**Leveraging N-Acylhydrazone-based
dynamic combinatorial chemistry to
develop RAD51-BRCA2 protein-protein
Inhibitors as potential synthetic lethal
anticancer agents**

Greta Bagnolini

*Research fellow - Medicinal Chemistry -
Chemical Biology Lab*

14:40 – 14:50

Q&A session

Keynote lecture

14:50 – 15:50

Research publishing and peer-review

Elisa Floriddia

Senior Editor of Nature Neuroscience

Session VII - 15:50-17:40 -

Cancer biology

Chairs: Giorgio Milazzo, Michela Nigro

- 15:50 – 16:05 **New insights in the G-Quadruplex-mediated genome instability to promote an innate immune response in cancer cells**
Giulia Miglietta
RTDA - Cancer Genome Instability Lab
- 16:05 – 16:20 **SPARC release upon respiratory Complex I impairment supports survival and migration of ovarian cancer cells**
Manuela Sollazzo
RTDA - Mitochondrial Biochemistry and Biology Lab
- 16:20 – 16:35 **Molecular and functional characterization of the novel master regulator RCOR2 in MYCN-driven tumors**
Giorgio Milazzo
RTDB - Functional Genomics and Epigenetics Lab
- 16:35 – 17:00 **Coffee Break, Poster Viewing and Networking**

17:00 – 17:15	3D multicellular osteosarcoma models for drug screening Martina Rossi <i>Research fellow (RTT from October 2024) – Cellular Biochemistry, Molecular Imaging and Biosensors Lab</i>
17:15 – 17:20	Impact of osteosarcoma cells differentiation on biomineralization and mitochondrial morphology Francesca Rossi <i>Research fellow - Cellular Biochemistry, Molecular Imaging and Biosensors Lab</i>
17:20 – 17:25	The metabolic setting of ovarian cancer cells modifies response to chemotherapy Luigi D'Angelo <i>Research fellow – Mitochondrial Biochemistry and Biology Lab</i>
17:25 – 17:30	Generation of complex tumor spheroids for in vitro drug toxicity, towards personalized medicine Emanuela Mensà <i>Research fellow - Molecular pathology of solid tumors</i>
17:30 – 17:40	Q&A session
17:40 – 18:00	<i>Closing remarks</i>

A01

Development of sustainable and innovative Spanish Broom dressings containing *Glycyrrhiza glabra* L. and Spanish Broom extracts to heal skin wounds

Elisa Corazza (*Research fellow – Drug Delivery Research Lab*)

A02

Continuous antibiotic prophylaxis has long-lasting effects on the gut microbiome structure and functionality in infants with vesicoureteral reflux

Federica D'Amico (*Research fellow – Microbiome Science and Biotechnology Lab*)

A03

The metabolic setting of ovarian cancer cells modifies response to chemotherapy

Luigi D'Angelo (*Research fellow – Mitochondrial Biochemistry and Biology Lab*)

A04

Characterization of *Limosilactobacillus vaginalis* derivatives as food supplements

Barbara Giordani (*Research fellow - Beneficial Microbes Lab*)

A05

Biosurfactant from vaginal lactobacilli as emerging biotherapeutic agent to counteract *Candida* infections

Federica Monti (*Research fellow - Beneficial Microbes Lab*)

A06

Structural and functional characterization of extracellular vesicles isolated from vaginal lactobacilli

Aurora Botti (*Research fellow - Beneficial Microbes Lab*)

A07**Miniaturize DCHQ5 assay for intracellular magnesium**

Lorenzo Anconelli (*Research fellow - Cellular Biochemistry, Molecular Imaging and Biosensors Lab*)

A08**Evaluation of the role of the NEGR1 pathway and IgLON family members in a mice model of depression based on stress exposure**

Marco Salluzzo (*Research fellow – Neuropsychopharmacology Lab*)

A09**Understanding the molecular mechanisms at the basis of AGC1 deficiency pathogenesis**

Eleonora Poeta (*Research fellow – Cellular Neurobiology Lab*)

A10**Meta-analysis of the Cetacea gut microbiome: diversity, co-evolution, and interaction with the anthropogenic pathobiome**

Giorgia Palladino (*Research fellow – Microbiome Science and Biotechnology Lab*)

A11**Impact of osteosarcoma cells differentiation on biomineralization and mitochondrial morphology**

Francesca Rossi (*Research fellow – Cellular Biochemistry, Molecular Imaging and Biosensors Lab*)

A12

The impact of cannabidiol on neuropathic pain-induced dynorphinergic and BDNFergic dysregulation within brain circuitry

Laura Rullo (*Research fellow – Molecular Neuropharmacology Lab*)

A13

DNA damage and genome instability induced by Topoisomerase I cleavage complexes

Marco Russo (*Research fellow – Cancer Genome Instability Lab*)

A14

Cell-cycle phase specific roles of alternative DNA polymerases and R-loops in genome instability by G-quadruplex structures

Simona Pepe (*Research fellow – Cancer Genome Instability Lab*)

A15

Human DNA topoisomerase I poisoning causes R-loop-mediated genome instability attenuated by transcription factor IIS

Renée Concetta Duardo (*Research fellow – Cancer Genome Instability Lab*)

A16

First insights into the epigenetic mechanisms regulating lipid biosynthesis in *Rhodococcus* bacterial strains

Umberto Genchi (*Research fellow – Molecular Environmental Microbiology Lab*)

A17

Generation of complex tumor spheroids for in vitro drug toxicity, towards personalized medicine

Emanuela Mensà (*Research fellow – Molecular pathology of solid tumors Lab*)

A18

Leukocyte Integrin ligands as a Promising strategy to tackle inflammatory diseases

Monica Baiula (*RTDB – Cellular and Molecular Pharmacology Lab*)

A19

Leveraging N-Acylhydrazone-Based Dynamic Combinatorial Chemistry to Develop RAD51-BRCA2 protein-protein Inhibitors as potential synthetic lethal anticancer agents

Greta Bagnolini (*Research fellow – Medicinal Chemistry – Chemical Biology Lab*)

A20

Employing mass spectrometry and volumetric microsampling for comprehensive pharmacokinetic profiling of cannabinoids

Mohammadreza Mahdavijalal (*Research fellow – Pharmacotoxicological Analysis Lab*)

A21

Depletion of membrane cholesterol modifies structure, dynamic and activation of Nav1.7

Simone Albani (*Research fellow – Bioinorganic Chemistry Lab*)

A22

Production of the neuroblastoma driver protein MYCN with Baculovirus Expression System for protein-protein interaction analyses

Lorenzo Scrofani (*Research fellow – Functional Genomics and Epigenetics Lab*)

A23

Antimutagenicity and antioxidant activity of *Castanea sativa* Mill. bark extract

Sofia Gasperini (*Research fellow – Predictive toxicology Lab*)

A24

M13 phage as an anti-CD276 vector platform for precision targeting therapy for neuroblastoma

Suleman Khan Zadran (*Research fellow – Functional Genomics and Epigenetics Lab*)

A25

Biochemical and computational approaches to dissect the effect of MT-CYB pathogenic mutations on respiratory chain activity and assembly

Gaia Tioli (*Research fellow – Mitochondrial Biochemistry and Biology Lab*)

A26

Silent killers in your everyday products: unveiling the neurotoxic effects of endocrine disrupting molecules

Agnese Graziosi (*Research fellow – Predictive toxicology Lab*)

A27

Management of MDR infections with reserve antibiotics according to WHO AWaRE classification coordinated by an antimicrobial stewardship UOC

Eleonora Porfirio (*Resident in Hospital Pharmacy*)

A28**The Repository of Medical Devices (DM) in the Local Health Authority of Romagna**

Chiara Scolamacchia (*Resident in Hospital Pharmacy*)

A29**A retrospective cohort analysis of HIV adherence to evaluate the barriers and facilitators encountered by HIV-positive patients in an HAART adherence programme and the clinical outcomes**

Davide Cicetti (*Resident in Hospital Pharmacy*)

A30**The use of pre-exposure prophylaxis (PrEP) in the control of HIV infection and other sexually transmitted diseases (STDs). Descriptive-observational analysis in an italian polyclinic**

Davide Cicetti (*Resident in Hospital Pharmacy*)

A31**Cost/effectiveness analysis and assessment of adverse events associated with the administration of the long-acting cabotegravir - rilpivirine association**

Davide Cicetti (*Resident in Hospital Pharmacy*)

A32**Obeticholic acid consumption in AUSL Romagna**

Lorenzo Evangelisti (*Resident in Hospital Pharmacy*)

A33**Retrospective analysis of chronic therapies in polytreated patients: comparison between three direct delivery points of a polyclinic**

Gabriele Petito (*Resident in Hospital Pharmacy*)

A34

The role of the counselor pharmacist in the management, education, and care of the patient in chronic obstructive pulmonary disease (COPD)

Silvia Bartoli (*Resident in Hospital Pharmacy*)

A35

The clinical pharmacist in the multi-professional team at a community hospital (OsCo) of the Romagna AUSL: medication review and discharge counseling

Ilaria Pirazzini (*Resident in Hospital Pharmacy*)

A36

Analytical method and stability study for oral suspension of idebenone in Syrspend

Elirosa Minniti (*Resident in Hospital Pharmacy*)

A37

Cardiovascular toxicity analysis of BTK inhibitor drugs through a pharmacovigilance database

Daniele Tafuni (*Resident in Hospital Pharmacy*)

A38

Budesonide oral gel 1mg/4mL: a galenic formulation for eosinophilic esophagitis in children

Fabiana Fiorentini (*Resident in Hospital Pharmacy*)

A39

Centralised preparation of sterile syringes with customised dose of Luspatercept

Giacomo Foschi (*Resident in Hospital Pharmacy*)

A40

Labirinto tecnico

Filiera tecnica FaBiT

A41

Indovina Chi

Filiera tecnica FaBiT

A42

Può esserti utile? Strumenti condivisi

Filiera tecnica FaBiT

A43

RM: Research Manager o Razza Maledetta? Un compendio dell'Ufficio Ricerca

Ufficio Ricerca FaBiT

A44

CILDIC – ovvero il Mistero della Torre UE 5

Bacchilega R, Sanginario V, Venturini A e Verardi L

A45

Dal macro al micro: i retroscena dei laboratori didattici della Beverara

Laboratori didattici – Beverara

A46

Gruppo Comunicazione: quello che non sapevi di voler sapere

Gruppo di lavoro Comunicazione e Sito Web

Notes

Sponsors



Patronage



ordine dei farmacisti della provincia di bologna
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