

Name e-mail address Teaching activity	Location Topic of the internship Further information	Available positions
Catia Arbizzani catia.arbizzani@unibo.it Biosensors	Bologna Ciamician Electrochemical Biosensors Contact details other than UNIBO Available as academic tutor and thesis supervisor for those who will find a project of their interest on Electrochemical Biosensors or related topics in Italy or abroad	1
Elisa Michelini elisa.michelini8@unibo.it Biosensors	Bologna Ciamician Optical Biosensors. Development of luminescent and colorimetric biosensors and smartphone-based portable analytical devices for analytes of clinical and environmental interest	1
Giovanni Capranico giovanni.capranico@unibo.it Genomics of Diseases – Molecular Mechanisms of Diseases	Bologna FaBiT DNA repair, non-canonical DNA structures and immune response; RNA structures; 3D chromatin structure https://site.unibo.it/capranico-lab/en Contact details other than UNIBO <ul style="list-style-type: none"> • CABIMER, Seville, Spain; • Erasmus Cancer Center, Rotterdam, The Netherland; • Karolinska Institute, Stoccolma, Svezia; • Toulouse Cancer Center, INSERM, Tolosa, Francia. 	1 to 2

<p>Fabrizio Ferré</p> <p>fabrizio.ferre@unibo.it</p> <p>Genomics of Diseases – Applied Genomics</p>	<p>Bologna FaBiT</p> <p>Application and development of computational methods for the analysis of the functional and regulatory roles of non-coding RNAs</p>	<p>enquire</p>
<p>Monica Baiula</p> <p>monica.baiula@unibo.it</p> <p>Pharmacotherapy of Biological Drugs</p>	<p>Bologna FaBiT</p> <p>Characterization of innovative integrin-selective ligands to develop novel anti-inflammatory, antiviral, and anticancer agents.</p> <p>Development of co-culture cell models to investigate novel integrin ligands as potential innovative therapeutics.</p> <p>RNA-based therapeutics to mitigate microglia activation contributing to secondary neuronal damage in neurodegeneration.</p>	<p>1</p>
<p>Contact details other than UNIBO</p> <ul style="list-style-type: none"> • Dr. Elisa Martella, ISOF-CNR, Bologna; innovative approach for drug delivery for cancer therapeutics. • Dr. Carla Ferreri, CNR, Bologna; lipidomic and cell membranes: chemical-biological approach for precision nutraceuticals. • Dr. Giovanna Damia, Istituto Mario Negri, Milano; ovarian cancer preclinical models. • Dr. Antonino Asaro, EPFL, Losanna; Spatial and functional characterization of neuronal lipids. • Prof. Pier Paolo D'Avino, University of Cambridge, UK; study of the mechanisms and signalling pathways that control the mechanics and regulation of cell division in normal and cancer cells. • Prof. Andrea Banfi, Cell and Gene Therapy Department of Biomedicine, Basel Development of novel therapies for ischemic diseases, and controlled vascularization regenerative medicine applications 		<p>enquire</p>
<p>Andrea Bedini</p>	<p>Bologna FaBiT</p>	<p>1</p>

andrea.bedini@unibo.it

Pharmacotherapy of Biological
Drugs

Characterization of innovative, functionally selective opioid ligands to develop more effective and safer therapeutics for pain, addiction and related comorbidities.

Molecular pathway analysis of opioid receptor expression and activation in primary cultures of neuronal cells to develop Quantitative Systems Pharmacology platforms.

Study of TRL3 and TLR4 effects on neuroinflammation and neuroglial interactions at the level of intracellular signal transduction, modulation of gene expression.

Contact details for other research groups

enquire

- Prof. Stefano Ferroni, University of Bologna; functional characterization of in vitro glial cell models to study neuroinflammation and neurodegeneration.
- Dr. Alberto Caligiana/Prof. John Sedivy, Brown University, Providence RI (USA)
Single-cell assays of telomere-initiated senescence, signaling pathways between dysfunctional telomeres and the cell cycle
- Prof. Jonathon Pines, The Institute of Cancer Research, London
Study of how the machinery that controls cell division is regulated in space and time.

Giorgio Gallinella

Bologna FaBiT

1

giorgio.gallinella@unibo.it

Antiviral & Antimicrobial
Strategies

Parvovirus B19 as a model system: genetics, virus-cell interactions, development of antiviral compounds, viral vectors

Contact details other than UNIBO

Available as an academic tutor and thesis supervisor, on a topic also chosen independently in the microbiological field, upon interview and direct agreement

Matteo Masetti

Bologna FaBiT

enquire

matteo.masetti4@unibo.it

Biomolecular Simulations for
Drug Design - Module 2

Modelling and simulation of drug-target complexes

Possibility to carry out part of the thesis abroad (to be defined)

<p>Patrizia Brigidi</p> <p>patrizia.brigidi@unibo.it</p> <p>Industrial Processes for Recombinant Drugs</p>	<p>Bologna DIMEC</p> <p>Role of human gut microbiome in the onset and progression of different disorders; development of microbiome-based therapeutic approaches</p>	<p>2</p>
<p>Contact details other than UNIBO</p>		
<ul style="list-style-type: none"> • Maria Rescigno, Humanitas, Milano, Italia • Philippe Langella, Micalis Institute, INRA, Jouy en Josas, France; • Adele Costabile Roehampton, London, UK; 		
<p>Anna Maria Porcelli</p> <p>annamaria.porcelli@unibo.it</p> <p>luisa.iommarini2@unibo.it</p> <p>Molecular Interaction Networks</p>	<p>Bologna FaBiT</p> <p>Survival mechanisms in tumor cells defective for oxidative phosphorylation; Identification and characterization of novel assembly factors of respiratory complex I; Molecular regulators of ovarian cancer cells metabolism and chemoresistance.</p>	<p>2</p>
<p>UNIBO collaborators:</p>		
<ul style="list-style-type: none"> - Prof. Giuseppe Gasparre, DIMEC - Prof. Caterina Garone, DIMEC - Dr. Leonardo Caporali, DIBINEM 		
<p>Contact details other than UNIBO</p>		

- Prof. Diego De Stefani, Department of Biomedical Sciences, University of Padua
- Prof. Sirio Dupont, Department of Molecular Medicine, University of Padua
- Prof. Paolo Pinton, Department of Medical Sciences, University of Ferrara
- Prof. Andrea Morandi, Dipartimento di Scienze Biomediche, Sperimentali e Cliniche, University of Florence
- Dr. Matteo Calassanzio, RENOLAB GLP, Bologna
- Prof. Gyorgy Szabadkai, University College London, Department of Cell and Developmental Biology, Consortium for Mitochondrial Research, London, UK
- Dr. Micol Falabella, University College London, Department of Neuromuscular Diseases, London, UK
- Dr. Angelo de Milito, Sprint Biosciences, Sweden
- Dr. Manuela D'ALESSANDRO, Genetics and Neurobiology of *C. elegans*, Institut NeuroMyoGène, CNRS UMR5310 | INSERM U1217, Université Claude Bernard Lyon 1
- Dr. Cristina Munoz Pinedo, Bellvitge Biomedical Research Institute (IDIBELL), Barcelona, Spain
- Dr. Gloria Brea-Calvo, CABD - CENTRO ANDALUZ DE BIOLOGÍA DEL DESARROLLO, Universidad Pablo de Olavide, Seville, Spain
- Prof. Christian Frezza, CECAD - Cologne Excellence Cluster on Aging and Aging-Associated Diseases, Cologne, Germany
- Dr. Arcangela Iuso, Computational Health Center - Institute of Neurogenomics, Helmholtz Zentrum München, Germany

Manuela Bartolini

Bologna FaBiT

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manuela.bartolini3@unibo.it

Analytical Challenges In The Biopharmaceutical Field

Overexpression and functional characterization of orphans G-protein coupled receptors (Thesis at the Medical University of Lublin, Poland. Prof. Krzysztof Jozwiak within Erasmus + exchange program or departmental grants)

Research options at the University of Coimbra, Portugal (within Erasmus + exchange program or funding through departmental grants)

Contact details other than UNIBO

Prof. Krzysztof Jozwiak, Medical University of Lublin, Poland.

Prof. Alexandrina Ferreira Mendes, University of Coimbra, Portugal

<p>Roberto Tonelli</p> <p>roberto.tonelli@unibo.it</p> <p>Safety Pharmacology and Toxicology of Biopharmaceuticals</p>	<p>Bologna FaBiT</p> <p>Preclinical evaluation of biotechnological oncological drugs</p>	<p>2</p>
<p>Contact details other than UNIBO</p>		
<p>Preclinical evaluation of biotechnological oncological drugs c/o BIOGENERA SpA, Ozzano Emilia (BO) 2</p> <p>Prof. Oscar Della Pasqua, Clinical Pharmacology, University College of London, UK</p>		
<p>Giampaolo Zuccheri</p> <p>giampaolo.zuccheri@unibo.it</p> <p>Nanobiotechnologies</p>	<p>Bologna FaBiT</p> <ol style="list-style-type: none"> 1. Nanomechanical characterization of eukaryotic cells 2. Nucleic acids nanostructures and their applications in cells 3. Development of 3D cell culture methods for testing pharmaceuticals 4. Development of point-of-care assays for the detection of circulating biomarkers 	<p>2</p>
<p>Contact details other than UNIBO</p>		
<ul style="list-style-type: none"> • Univ. of Leeds (UK) - Prof. Matteo Castronovo. Design of nucleic acids nanostructures and their biomedical applications. The specific project needs to be defined with the UK teacher. • Istitute of nanobiophotonics, Leibnitz Institute, Jena, Germany - Dr. Wolfgang Fritzsche. Biosensors based on plasmonic nanoparticles. • Ecole Polytechnique Federal, Lausanne - Prof. Carlotta Guiducci. Separation and characterization of extracellular vesicles and nanostructures with microfabricated devices. Project to be defined with the Swiss teacher in case of interest • Univ. of Edinburgh (UK) - Prof. Katherine Dunn. 1. Bionanotechnology for energy applications; 2. Using engineered DNA molecules for understanding, diagnosing or treating diseases 		

Isabella Orienti isabella.orienti@unibo.it Nanoformulation of Biologicals	Bologna FaBiT Nanoencapsulation of Retinoids for Antitumor Therapy	1
Paolo Blasi p.blasi@unibo.it Nanoformulation of Biologicals	Bologna FaBiT Functionalized Nanoparticles for Brain Targeting	1
Cristiana Boi cristiana.boi@unibo.it Industrial Biotechnological Applications	Bologna, DICAM Isolation of extracellular vesicles and investigation of their potential use as drug delivery vectors.	1
Francesco Alviano francesco.alviano@unibo.it Stem Cells and 3D Organoid System	Biotech Company: - Stem Sel® S.r.l. (University of Bologna spin-off); - CellDynamics Application of amniotic membrane stem cells for in vitro pancreatic islet recreation	1
Stefano Iotti stefano.iotti@unibo.it Advanced Techniques for the Study of Metabolism In Vivo	Bologna FaBiT A) Study of the anti-proliferative and reverting activity of the multiple resistance to drugs of phytocomplexes and new synthetic molecules. B) Synthesis and characterization of new nanoparticles for drug delivery. C) 3D cultures of bone cells on biocompatible materials.	1
Contact details other than UNIBO		

- CellDynamics - Bio Eco Active S.r.l.
- LEBSC S.r.l.
- Università Milano, Dipartimento di Scienze Biomediche e Cliniche L. Sacco
- Politecnico di Milano, Dipartimento di Fisica
- CNRS Marseille: Centre de resonance Magnetique Biologique et Medicale
- University of Iceland, Biomedica Center, Institute of Biomedical and Neural Engineering, Reykjavik University

Rossella Breveglieri rossella.breveglieri@unibo.it Neurobiotechnology	Bologna DIBINEM Studying the cerebral functions using transcranial magnetic stimulation	1
Stefano Salvioli stefano.salvioli@unibo.it Advanced Immunology	Bologna DIMEC Role of GDF15 in aging and age-related diseases and its connections with lipid metabolism and perilipins	1
Gloria Ravegnini gloria.ravegninni2@unibo.it Pharmacotherapy of Biological Drugs	Bologna FaBiT Evaluation of circulating / exosomal miRNAs in ovarian cancer; Identifying DNA damage repair-related vulnerabilities in leiomyosarcoma Genome editing to study genetic alterations in endometrial cancer Analysis of new molecules as novel therapeutic options in gastrointestinal stromal tumors	1
Contact details other than UNIBO		

- Prof Fletcher, Department of Pathology, BWH, Harvard Medical School, Boston, MA, US
- Prof Serrano Sarcoma Translational Research Group, Vall d'Hebron Institute of Oncology (VHIO); Barcelona, Spain
- Prof Trond, Molecular Pathology Group (Gap junction team) VHIR Vall d'Hebron Research Institute, Barcelona, Spain
- Prof Bakr, Division of Cancer Epigenomics, German Cancer Research Center (DKFZ), Heidelberg, Germany,
- Prof voorberg, Department of Molecular and Cellular Hemostasis, Sanquin Research and Landsteiner Laboratory, Amsterdam UMC, University of Amsterdam Plesmanlaan 125
- Prof Altmeyer, Department of Molecular Mechanisms of Disease, University of Zurich, Zurich, Switzerland.
- Prof Wennerberg, Biotech Research & Innovation Centre (BRIC), University of Copenhagen, Denmark

Patrizia Fattori

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Neurobiotechnology

Studying the cerebral functions in non-human primates using electrophysiology and neuroanatomy. Studying the kinematics of the human movement with motion tracking methods.
