Research lines Cycle XXXVIII PhD experimental Medicine

Maladaptive expression of memory as important determinant of Post-Traumatic Disorders
Requirements: The ideal candidate is already expert in most molecular biology techniques. Preferential skills include experience with in vivo experiments, behavioral analyses and pharmacological approaches.

Battaglioli Elena
Rusconi Francesco Sebastiano

Combined pharmacological approaches for Regenerative Medicine
Requirements: Motivated students with a strong commitment to basic and translational research are invited to apply. The candidate should have well-developed social skills, a hands-on attitude and be able to work in a team

Bifari Francesco

New mechanisms controlling macrophages functions: role of MS4A proteins
Requirements: Basic cellular and molecular biology; biochemical competences

Borroni Elena Monica

Priming of Mesenchymal Stem/ Stromal Cells to increase their secretome therapeutic potential in counteracting osteoarthritis through EV action
Requirements: Strong scientific motivation with a hardworking attitude. Any experience in cell culture and molecular biology is appreciated together with the skill in problem solving. Strong commitment to basic and translational research and good group communications are welcome.

Brini Anna Teresa Maria

Study of the pathogenic mechanisms underlying the aberrant communication of tumor and the surrounding microenvironment
Requirements: Strong motivation, expertise in basic cellular and molecular biology methods, knowledge of cancer cell biology and immune system

Chiaramonte Raffaella
Casati Lavinia

A Multiomic Approach To Dissect Signatures Of Response and Resistance To Immunotherapy Approaches for Large B-Cell Lymphoma

Corradini Paolo

Immunopathogenesis of thymic epithelial tumors and related autoimmune disorders

Della Bella Silvia Angela Maria
S. FRANZESE

New mitochondrial-based therapy to promote muscle regeneration in Duchenne Muscular Dystrophy
Requirements: Students should be interested in the investigation of mitochondrial-dependent pathways involved in the progression of DMD and in the setting of preclinical studies with different DMD models to test the impact of their manipulation.

De Palma Clara

Heart and kidney inflammation in obesity: focus on the crosstalk between Dipeptidyl Peptidase-4 (DPP4), Glucagon-Like Peptide-1 Receptor (GLP-1R) and Angiotensin-converting enzyme 2 (ACE2) as risk factors and potential therapeutic targets in COVID-19
Requirements: Knowledge of the main techniques of cellular and molecular biology [cell cultures, gene silencing, gene and protein expression analysis (RT- Real Time PCR, Western blot)], and biochemical assays for the evaluation of biomarkers in fluids [e.g. enzyme immunoassays (ELISA)].

Dozio Elena
Corsi Romanelli Massimiliano Marco

Study of the role of lncRNAs and transcriptional dysregulation in the pathogenesis of Congenital Central Hypoventilation Syndrome using patient-derived Induced Pluripotent Stem Cells (iPSCs).
Requirements: Basic cellular and molecular biology techniques (PCR, RNA extraction, RT-qPCR, western blot), mammalian cell culture and immunofluorescence.

Fornasari Diego Maria Michele
Di Lascio Simona

Analysis of GABAergic circuitry in Pcdh19 mouse model of Developmental and epileptic encephalopathy 9 (DEE9)

Francolini Maura

Evaluation of the diagnostic and prognostic potential of osteoimmunology markers in patients with osteomyelitis
Requirements: Molecular and cellular biology, enzyme immunoassays, real time PCR, evaluation of laboratory medicine parameters

Galliera Emanuela Rita

Identifying and characterizing novel modifier genes for Rett syndrome
Requirements: No specific requirement although previous experience in molecular and/or cellular biology will be an advantage

Landsberger Nicoletta
Frasca Angelisa

Study of the IL7-R+ monocyte subset in infection and tumor settings
Requirements: Basic cellular and molecular biology

Locati Massimo
Savino Benedetta

Identification of molecular mechanisms involved in the risk of pediatric multiple sclerosis
Requirements: Experience in DNA, mRNA and stool extraction for gut microbiota; experience in cell culture; ability to maintain clinical and laboratory database

Martinelli Boneschi Filippo

Targeting the tumor-escape mechanisms from immune-surveillance of metastatic colon rectal cancer.
Requirements: Advanced knowledge/experience on analytical approaches with computational methods and programming language, preferred experience in handling NGS data. Availability of spending periods abroad for training and collaborations. Experience in computational medicine biology will be preferred to develop the analytic and computational part of the project.

Mavilio Domenico
R. PIAZZA

Role of oxidative stress in the vulnerability for psychiatric diseases and in the mechanism of action of psychotropic drugs
Requirements: Curiosity about science, interest in neuroscience and mental health, willingness to get involved and grow in a group through discussion, ask questions and think about how to find answers. Expertise in gene and protein expression analyses, cell culture

Molteni Raffaella
Cattaneo Maria Grazia

Deciphering the molecular hubs shaping CD4 T regulatory lymphocyte function
Requirements: Molecular biology expertise

Pagani Massimiliano

In vivo zebrafish model to dissect novel pathological pathways and potential therapies for congenital highly-disruptive diseases
Requirements: Experience in endocrine regulatory mechanisms of reproduction and/or thyroid development, whole exome sequencing technique and analysis, molecular biology techniques for gene expression studies, zebrafish model

Persani Luca
Bonomi Marco

Molecular mechanisms regulating insulin like growth factor (IGF) system in adrenocortical carcinomas
Requirements: Cell cultures; cell transfection and silencing; protein detection (western blot, co-/immunoprecipitation); nucleic acid extraction, PCR.

Peverelli Erika Maria
Catalano Rosa

Zebrafish as a tool to study the role of the innate immune system in the pathogenesis of human diseases and identify possible pharmacological treatments
Requirements: Expertise in cellular and molecular biology

Pistocchi Anna Silvia
Marchesi Federica

Dissecting nuclear and axonal transport defects in ALS patient-derived iPSC-motoneurons carrying TARDBP and C9orf72 gene mutations

Ratti Antonia
C. COLOMBRITA

Tumor-associated microbiota as new player in modulating the immune response in the tumor microenvironment and in promoting immunotherapy resistance

Sfondrini Lucia
Le Noci Valentino Mario

Adipo-NETwork: inside the crosstalk between adipose cells and gastroenteropancreatic neuroendocrine tumors (GEP-NETs)
Requirements: Strong interest for basic and translational research. Previous experience in cell culture and molecular biology is appreciated.

Vitale Giovanni
G. GAUDENZI

Correction of the genetic defect in induced pluripotent stem cell lines by chromosome transplantation
Requirements: The candidate has to demonstrate experience in the main techniques of cell and molecular biology, mammalian cell culture and immunofluorescence assays. Experience in culturing induced pluripotent stem cells (iPS) and in basic cytogenetic techniques (chromosome preparations, karyotype analysis) and basic molecular cytogenetics (FISH) will be considered as a preferential title.

Locati Massimo
PAOLO VEZZONI
MARIANNA PAULIS

Surface topography-mediated foreign body response and tumorigenesis: an integrated study on the role of implants' texturization
Requirements: Basic experience/knowledge of molecular and cellular biology techniques. Knowledge of flow cytometry will be an advantage. Availability of spending periods abroad for training and collaborations. Experience in immunology or medicine biology will be preferred.

Mavilio Domenico
Klinger Marco Ettore Attilio

Integrating pharmacogenomic and pharmacometabolomic data towards personalized opioid therapies for cancer pain
Requirements: Strong background in genetics (population genetics, genetic epidemiology), knowledge of molecular genetics and biology methodologies, omics technologies, data analysis, bioinformatics, medical statistics. Strong scientific motivation with positive attitude to work, especially in groups; collaborative attitude and good interpersonal and communication skills.

Battaglia Cristina
Francesca COLOMBO