

MSCA Individual Fellowships - Archive

H2020 MSCA - IF 2018

Lukáš Alán - The role of Von Willebrand Domain-containing Protein 8 in mitochondrial physiology (2020 - 2023)

Information about the Project: [Mitobetes](#)



Lukáš, mainly interested in cell metabolism and bioenergetics, did his PhD at the Charles University in Prague, Czech Republic; meanwhile, he was working at the Institute of Physiology of the Czech Academy of Sciences on mitochondrial DNA biology. Later, he worked as an associated researcher in the field of the mitochondrial ATP synthase assembly at the same Institute.

In his project as MSCA fellow at the Department of biology, under the supervision of Prof. Luca Scorrano, he will be investigating the role of recently discovered Von Willebrand Domain-containing Protein 8 (VWA8) mitochondrial physiology. He will use the cell lines with downregulated VWA8 and mouse cell lines deficient for this protein to understand the function of VWA8.

Luca Corti - NINA: Rethinking the Natural Side of Normativity. Towards a New Hegelian Paradigm (2020 – 2023)



He studied philosophy in Italy, Germany and the United States, obtaining his PhD at the Research Center on Classical German Philosophy in Padua. Working on topics as Classical German Philosophy, American Philosophy, epistemology and theory of norms, he has been awarded a DAAD Post-Doctoral Fellowship at the University of Bonn, a Marie-Curie Co-Fund Post-Doctoral Fellowship at the University of Louvain, a Swiss-Excellence Post-Doc at the University of Zurich and an FCT post-Doctoral Fellowship at the University of Porto.

He is currently coordinator of a 2017-2020 DAAD project on naturalism in Classical German Philosophy

At the Department of Philosophy, Sociology, Education and Applied Psychology - under the supervision of Prof. Luca Illetterati - he is on NINA project, whose aim is to recover neglected ideas from the historical tradition of Classical German Philosophy and update them in favour of current conversation on normativity. In particular, the project aims to analyse the idea that some natural phenomena cannot be described without using normative vocabulary.

Viktoria Ivanovskaya - SMART THEME: Surface-supported Molecular Architectures: THEory Meets Experiment (2020 – 2023)

Information about the Project: [SMART THEME](#)



She is a computational material scientist applying state of the art density functional based methods to study the fundamental aspects of various types of nanostructures. Her research has been conducted in several countries (Russia, Germany and France).

In her project which will be conducted at the Department of Chemical Science under the supervision of Mauro Sambi, she will employ novel methods in density functional theory to simulate complex molecular configurations and reactions paths. The ultimate goal of the project will be to build an irreplaceable theoretical tool to rationalize experiments and to drive them towards optimal synthesis routes.

Viktoria has published 62 research articles and 4 book chapters regarding her fields of interest: Theoretical and computational chemistry; Graphene, carbon nanotubes; Nanochemistry; Supramolecular chemistry; Surface chemistry.

Cecilia Laterza - NeuroStemX: In vitro model of Fragile X Syndrome using naïve iPSCs (2020 – 2023)

Information about the Project: [NeuroStemX](#)



Cecilia Laterza is an Italian neuroscientist. Her scientific interests span from stem cell biology, regenerative medicine, reprogramming and in vitro modeling of neurological disease. Cecilia studied medical biotechnologies at the University of Padova, then she moved to Vita-Salute San Raffaele University, in Milan, where she received her PhD in experimental neurology in 2013. Her PhD dealt with induced pluripotent stem cell (iPSC)-based therapy in the experimental model of multiple sclerosis and in vitro modeling of multiple sclerosis, starting from patient's skin cells reprogrammed and differentiated into brain cells.

In 2015 Cecilia moved to Sweden, at Lund University, where she studied the therapeutic efficacy of iPSC-derived neural stem cells in experimental models of stroke and the interplay between inflammation and neural stem cells into stroke injured mice.

In 2017 she moved to Padova, where she started working with human naïve iPSCs and she implemented the neuronal differentiation of iPSCs using microfluidics.

In 2019 she has been awarded a H2020-MSCA-2018 Individual Fellowship. Her project NeuroStemX will focus on the development of an innovative in vitro model based on naïve iPSCs aimed at investigating the cause and disease mechanism of Fragile X syndrome and paving the way to the development of new therapeutic approaches.

She will work with Prof. Nicola Elvassore at the Department of Industrial Engineering.

Benjamin Mary - GROWING: Geophysical Roots Observation for Water saving in arboriculture, viticulture and agronomy (2020 – 2023)

Information about the Project: [GROWING](#)



Benjamin completed his MA in Applied Geophysics (UPMC) and obtained in 2015 his PhD in Environmental Geosciences at Aix-Marseille University. His Ph.D. was a contribution to OT-Med a “Laboratoire d’excellence” (LABEX) devoted to the study of climatic and anthropogenic changes and natural hazards.

Under the supervision of Prof. Giorgio Cassiani, Benjamin is currently a post-doctoral researcher at the Department of Geosciences of the University of Padua, where his research focuses on the application of geophysical methods to energy and environment related topics, including hydro- and bio-geophysical monitoring of subsurface hydrological processes; the development of novel imaging approaches for plant root and root-soil interactions.

His project GROWING, is dealing with the use of minimally invasive methods for roots monitoring, with the specific aim of improving water use in arboriculture, viticulture and general agronomy. During his MSCA, he will be in charge of the geophysical activities carried out at several field sites all around the Mediterranean area (Italy, France, Tunisia, Morocco) and in California (USA).

Elena Mercedes Pérez-Monserrat - Bricks manufacturing technologies to increase built heritage resilience and to raise common identities of peoples (CLAYONRISK) (2019 – 2022)

Information about the Project: [CLAYONRISK](#)



Elena Mercedes Perez-Monserrat achieved her PhD in Geology from the Complutense University of Madrid (Spain) and a master's degree in Architectural and Urban Conservation from the Polytechnic University of Madrid (Spain). She has conducted her research activity at the Geosciences Institute of Madrid (Spain). Her research area includes: ceramic materials, built heritage, archaeological methodologies, petrographic features, physical properties, decay assessment.

The purpose of the project, on which she works under the supervision Prof. Lara Maritan at Department of Geosciences in Padova, is to set up the influence of the bricks manufacturing processes on their physical behaviour in order to strength ancient structures to disaster resilience, trough archaeometric methodologies, ageing test performance and physical parameters determination.

[BRICKS WALKING WITH US: shaping the built heritage of Padua](#)

Valentina Poletti - Ex vivo gene therapy for GM1-gangliosidosis (2020 – 2023)

Information about the Project: [GT-GM1](#)



Her scientific career started in June 2005 when she joined the Gene Therapy Laboratory of Prof. Mavilio at University of Modena and Reggio Emilia (Modena, Italy). During her thesis, she worked at the design of ex vivo gene therapy strategies for genetic diseases of human epithelia, namely Junctional Epidermolysis Bullosa and Meesmann's Corneal Dystrophy. Then, she moved to Milan for her PhD in Molecular Medicine at the University Vita-Salute San Raffaele (Milan, Italy), where she studied the regulatory changes occurring at neural commitment of human embryonic stem cells (ESCs). She had a first post-doctoral fellowship in the laboratory of Prof. Parolin at University of Padua (Padua, Italy), contributing to the design of a gene therapy strategy for AIDS. In 2014, she moved to Paris as a staff scientist in Genethon, a French institute dedicated to translational research in gene therapy for rare diseases. She spent four years there, where she developed pre-clinical studies of gene therapy for X-linked severe combined immunodeficiency and sickle-cell disease. Both studies were instrumental for the approval of two clinical trials by the FDA and the ANSM, respectively at the Boston Children's Hospital of Harvard Medical School and at the Necker Children's Hospital in Paris. In 2018, she moved to Boston as an instructor at the Gene Therapy Program of the Dana-Farber/Boston Children's Cancer and Blood Disorders Center of Harvard Medical School, where she is currently working on the clinical development of gene therapy approaches for metabolic and neurodegenerative diseases. From 2020, under the supervision of Prof. Alessandra Biffi, as MSCA fellow she will be responsible of the study "Ex vivo gene therapy for GM1-gangliosidosis" at the Department of Women's and Children's Health at University of Padova.

Mariagrazia Ranzini - Action-based routes for numbers: unveiling the core networks of reaching, grasping and number processing in brain damaged and healthy individuals (2020 – 2023)

Information about the Project: [GRINP](#)



Mariagrazia Ranzini is an experimental psychologist with a strong interest in cognitive neurosciences. She obtained her master's degree and PhD in Psychology at the University of Pavia (Italy). During her PhD, she has been visiting student at the neuroimaging lab Neurospin (France), and she collaborated with the University of Milano-Bicocca. After her PhD, she has carried out her research in national and international environments (University of Bologna, University of Padova, Université Libre de Bruxelles (ULB)). She is currently senior research Fellow at the Department of General Psychology of the University of Padova. Her main domain of expertise concerns numerical cognition. She studies numerical cognition in relation to other aspects of human cognition, such as spatial attention, working memory, hand action, synaesthesia.

For her project GRINP, Mariagrazia Ranzini will work at the Department of Neurosciences under the supervision of prof. Carlo Semenza, and in collaboration with the IRCCS San Camillo Hospital (Lido of Venice). GRINP will permit to investigate to which extent the process of number magnitude recruits the same sensorimotor brain network involved in planning and executing hand movements.

[Perché contiamo con le mani?](#)

Mohammad Shojafer - PRISENODE: Privacy- and secuRity-aware solutions in SoftwarE-defiNed fOg Data cEnter (2020 – 2023)

Information about the Project: [PRISENODE](#)



He was a Senior Researcher in SPRITZ Security and Privacy Research group at the University of Padua in 2018. Also, he was CNIT Senior Researcher at the University of Rome Tor Vergata contributing on European H2020 "SUPERFLUIDITY" project. Mohammad contributed to some Italian projects named "SAMMClouds", "V-FoG", "PRIN15" projects aim to address some of the open issues related to the Software as a Service (SaaS) and Infrastructure as a Service (IaaS) systems in Cloud and Fog computing. He received the Ph.D. degree from Sapienza University of Rome, Italy, in 2016 with an "Excellent" degree.

His fields of interest are: Computer Security, SDN Security, Fog Networking, Cloud Networking, Security and Privacy in Computer System.

In March 2020 he will start his MSCA-Global Fellowship in Padua at the Department of Mathematics under the supervision of Prof. Mauro Conti.

Emanuela Zuccaro - Decoding alpha motor neurons diversity and selective vulnerability to disease (2020 – 2023)

Information about the Project: [MOVEMeNT](#)



Emanuela Zuccaro obtained her PhD in Neuroscience, Nanotechnology, Robotics and Drug Discovery from the University of Genova in 2012. She spent her PhD training at the iit of Genova and then moved to Harvard University as Postdoctoral Fellow, where she focused her research on cortical development and neural diversity in vivo and in vitro. In 2018 and 2019 she has been awarded the Umberto Veronesi Foundation Postdoctoral Fellowships.

Emanuela in her MSCA project “MOVEMeNT” – at the Department of Biomedical Sciences under the supervision of Prof. Maria Pennuto - aims at deciphering the motor neuron diversity in the mouse spinal cord to ultimately underpin the molecular logics responsible for their eclectic remodelling capacity and disease vulnerability.

Her research focuses on understanding the molecular mechanisms that govern the establishment of neuronal diversity in the mammalian central nervous system and its impairment during neurodegenerative diseases, such as amyotrophic lateral sclerosis and spinal and bulbar muscular atrophy.

Bjørn Wessel-Tolvig - EyeGestLearn –Applying eye-tracking to investigate information uptake from gestures in online learning environments (2020 – 2023)

Information about the Project: [EyeGestLearn](#)



Bjørn Wessel-Tolvig did his PhD in cognitive linguistics at the Centre for Language Technology at the University of Copenhagen. After his PhD he has been working as a science journalist.

His fields of interest are: cognitive linguistics, second language acquisition, gesture studies, eye-tracking, statistics.

As MSCA fellow, the Danish researcher will work on his project entitled “EyeGestLearn – Applying eye-tracking to investigate information uptake from gestures in online learning environments” under the supervision of Prof. Maria Grazia Busà at the Department of Linguistics and Literary Studies.