FEDERICA VIRLA

Address: Via F. Malfer 3, 37135 Verona, Italy
Date of birth: 21/06/1994
Nationality: Italian
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Actual position

April 2023 – Now **Post-Doc Fellow**
Dept. of Neuroscience, Biomedicine and Movement Sciences, University of Verona
Project: Detailed immunological assessment of blood, serum and CSF of patients with progressive multiple sclerosis
Supervisor: Prof. Calabrese Massimiliano

Education

Oct. 2019 – Dec. 2022 **PhD in Neuroscience, Psychological and Psychiatric Sciences, and Movement Sciences**
University of Verona, Italy
Field of study: Extracellular vesicles from adipose mesenchymal stem cells: a therapeutic strategy for neurodegenerative diseases
Supervisor: Prof. Mariotti Raffaella

2013 - 2019 **Master Degree in Pharmaceutical Chemistry and Technologies**
University of Turin, Italy
Thesis: "Administration of exosomes isolated from adipose-derived stromal cells in a murine model of Spinal Muscular Atrophy: effects of a new potential therapeutic strategy"
Supervisor: Prof. Boido Marina

2008 - 2013 **High school certificate in Science**
Liceo Scientifico A. Avogadro, Biella, Italy

Scientific experiences

July – October 2022 **Traineeship at Exosomes Laboratory, CIC bioGUNE, Bizkaia Technology park, Derio, Spain**
Traineeship title: Adipose stem cells-derived extracellular vesicles fluorescent labelling and characterization
Supervisor: Prof. Falcon-Perez Juan Manuel

June 2018 - April 2019 **Internship (Master's research thesis)**
Neuroscience Institute Cavalieri Ottolenghi, Orbassano, Italy

February - May 2018 **Erasmus Traineeship in Hospital Pharmacy**
Hospital Sousa Martins USL, Guarda, Portugal

Oct. 2017 - January 2018 **Internship in Pharmacy**
Farmacia Rolando N., Vigliano Biellese, Italy

Sept. 2016 - February 2017 **Erasmus project for courses and exams**
University of Seville, Spain

Skills profile

Languages: Italian (mother tongue), English (C1), Spanish (B1).
Digital competence: Good knowledge of Microsoft office software, Internet, E-mail. European Computer Driving License (ECDL).

Personal skills

Ability to plan *in vitro* and *in vivo* experiments and to analyze and communicate scientific results.

Capacity to work with flexibility, both autonomously and in teams. Keen on learning and able to approach with a critical attitude.

Technical skills

- In vivo studies: handling and care of laboratory animals (mice), behavioral/motor tests for neonatal and adult mice, perfusion and tissue isolation. Intranasal and intracerebroventricular drugs administrations in mice using stereotaxic instrument. Genotyping of transgenic animals.
- Cellular biology: primary culture from tissues and cell lines culture, mesenchymal stem cells. *In vitro* assays for cell viability. Isolation and characterization of extracellular vesicles derived from stem cells and biological fluids.
- Histology: sample preparation for histochemical and immunohistochemical staining, use of instrument for tissues cutting (cryostat and microtome). Sample preparation for SEM and TEM.
- Biochemistry: ELISA assay, fluorescent based immunoassays (Multiplex, ROS quantification).
- Molecular biology: Nucleic acid extraction and quantification, DNA amplification (PCR), Protein extraction and quantification and Western blot.
- Other equipment: optical and fluorescence microscope, Nanosight, cytofluorimeter.
- Software: ImageJ, StereoInvestigator, Neurolucida, Excel and GraphPad Prism.
- Experimental planning using *in vivo* and *in vitro* models.

Publications

- Turano, E., et al., Extracellular Vesicles from Mesenchymal Stem Cells: Towards Novel Therapeutic Strategies for Neurodegenerative Diseases. Int J Mol Sci, 2023. 24(3).
- *Bonafede R, Turano E, Scambi I, Busato A, Bontempi P, Virla F, Schiaffino L, Marzola P, Bonetti B, and Mariotti R*. ASC-Exosomes Ameliorate the Disease Progression in SOD1(G93A) Murine Model Underlining Their Potential Therapeutic Use in Human ALS. Int J Mol Sci. 2020;21(10):3651.

Verona, 24 July 2023

Federica Virla