

PERSONAL INFORMATION

Jessica Tiberi

EDUCATION

- November 2020-May 2024** **PhD student in Behavioral Neuroscience – Psychobiology and Psychopharmacology cycle XXXVI**
University La Sapienza of Rome.
Thesis project: Studying the effect of cholesterol/sphingolipid dyshomeostasis on neuronal and glial cell functional maturation using mouse models of Niemann Pick C disease.
Tutor: Maria Teresa Fiorenza
- July 2020** **State Examination** for Biologists.
- October 2017-March 2020** **Master's degree in Molecular and Cellular Biology**, University of Roma Tor Vergata.
110/110 cum laude
Thesis project: Transglutaminase II negatively regulates cGAS/STING pathway.
Tutor: Mauro Piacentini.
- October 2013-July 2017** **Bachelor's degree in biological sciences**
96/110.
*Thesis project: Study of *in vitro* seed germination of Drosera Nidiformis Debbert.*
Tutor: Antonella Canini.

PROFESSIONAL SKILLS

Laboratory Techniques

Molecular and Cellular Biology:

- Cell culture, maintenance and cryopreservation of mammalian eukaryotic cells (primary, immortalized and cancer cells).
- Lipofectamine transfection and drug dosages.
- Genome editing (CRISPR/Cas9) to generate knockout cellular models and sequencing (bands excision and purification from agarose gels).
- Fluorescence microscopy: immunofluorescence on cells and mouse tissue cryosections (Cryostat).
- Isolation, purification, and dosage of nucleic acids (DNA and RNA).
- Analysis of transcripts expressions *via* q-Real Time-PCR.

- Isolation and quantification of protein for Western Blot, Immunoprecipitation, Co-immunoprecipitation, Nucleus-cytosol fractionation, and lipid rafts isolation.

-analysis of cell death *via* cytometry.

Mouse models manipulation

- Management of mice colonies.

-Determination of mouse genotype by tail enzymatic digestion.

-Isolation of mouse principal brain structures: cortex, cerebellum, hippocampus, olfactory bulb both from embryonic and adult mice.

-Isolation of mouse principal organs (heart, liver, lungs).

-Isolation of mouse brain progenitor stem cells from embryo cortex, medial ganglionic eminences.

-Isolation of Mouse Embryonic Fibroblasts from mouse skin.

-Isolation of Bone Marrow-derived macrophage from mouse tibia and femur.

COURSES, TRAINING ACTIVITIES, UPDATES**November 2023**

Participation to the Society for Neuroscience Annual Meeting, held in Washington D.C., and presentation of the poster entitled:
“The effect of redox signalling dysregulation on neuronal development in a mouse model of lysosomal storage disorder”.

July 2022

Participation to the FENS Forum 2022, held in Paris, and presentation of the poster entitled:
“Defective intracellular cholesterol mobilization deranges the proliferation/differentiation balance of neuronal precursors in a mouse model of Niemann Pick C disease”

July-September 2022

Certificate of attendance to training seminars organized by the Research and Services Center for "Preclinical Experimentation and Animal Welfare".

November 2022

Participation in the preclinical experimentation and animal welfare (FSPBA) training course for personnel working with animals for scientific purposes.

Teaching Assistant in “Applied Neurobiology”

LANGUAGE SKILLS

Native language	italian			
Other languages	COMPREHENSION		ORAL	WRITTEN PRODUCTION
	LISTENING	READING	INTERACTION	
Inglese	B2	B2	B2	B2

SCIENTIFIC PUBLICATIONS

-**Tiberi J**, Segatto M, Fiorenza MT, La Rosa P. Apparent Opportunities and Hidden Pitfalls: The Conflicting Results of Restoring NRF2-Regulated Redox Metabolism in Friedreich’s Ataxia Pre-Clinical Models and Clinical Trials. *Biomedicines*. **2023**; 11(5):1293. <https://doi.org/10.3390/biomedicines11051293>.

-**Tiberi J**, Cesarini V, Stefanelli R, Canterini S, Fiorenza MT, La Rosa P. Sex differences in antioxidant defence and the regulation of redox homeostasis in physiology and pathology. *Mech Ageing Dev*. **2023** Apr; 211:111802. doi: 10.1016/j.mad.2023.111802. Epub **2023** Mar 21. PMID: 36958540.

-Rava A, La Rosa P, Palladino G, Dragotto J, Totaro A, **Tiberi J**, Canterini S, Oddi S, Fiorenza MT. The appearance of phagocytic microglia in the postnatal brain of Niemann Pick type C mice is developmentally regulated and underscores shortfalls in fine odor discrimination. *J Cell Physiol*. **2022** Nov 2. doi: 10.1002/jcp.30909. Epub ahead of print. PMID: 36322609.

ABSTRACTS

-The effect of redox signalling dysregulation on neuronal development in a mouse model of lysosomal storage disorder. **Tiberi, Jessica**; Camuso, Serena; Stefanelli, Roberta; Canterini, Sonia; La Rosa, Piergiorgio; Fiorenza, Maria Teresa. 2023.

-Olfaction impairment in lysosomal storage disorders: insights from a mouse model of Niemann Pick type C disease. Stefanelli, Roberta; Camuso, Serena; **Tiberi, Jessica**; Massa, Greta; La Rosa, Piergiorgio; Canterini, Sonia; Fiorenza, Maria Teresa. 2023.

-Impaired cerebellar development/function in a mouse model of Niemann-Pick C1. Massa, Greta; Camuso, Serena; **Tiberi, Jessica**; Stefanelli, Roberta; La Rosa, Piergiorgio; Fiorenza, Maria Teresa; Canterini, Sonia. 2023.

-Investigating Cerebellar Abnormalities in a mouse model of lysosomal lipid storage disease: Implication for Social Behavior. Massa, Greta; Camuso, Serena; **Tiberi, Jessica**; Stefanelli, Roberta; La Rosa, Piergiorgio; Fiorenza, Maria Teresa; Canterini, Sonia. 2023.

-Defective intracellular cholesterol mobilization deranges the proliferation/differentiation balance of neuronal precursors in a mouse model of Niemann Pick C disease. **Tiberi, Jessica**; Camuso, Serena; Canterini, Sonia; La Rosa, Piergiorgio; Fiorenza, Maria Teresa. 2022.

-Altered cerebellar BDNF signaling and synaptic anomalies in a mouse model of cholesterol dyshomeostasis. Camuso, Serena; **Tiberi, Jessica**; La Rosa, Piergiorgio; Fiorenza, Maria Teresa; Canterini, Sonia. 2022.

-Postnatal BDNF-mediated cerebellar granule cell development is impaired in a mouse model of Niemann-Pick

type C1 disease. Camuso, Serena; Rava, Alessandro; **Tiberi, Jessica**; La Rosa, Piergiorgio; Fiorenza, Maria Teresa; Canterini, Sonia. 2021.