

Ph.D. in genetics, molecular and cellular biology, XXXVIII cycle

PhD student: Maria Teresa Venuti - 527436

PhD project

Title: Diabetes - Alzheimer's axis: study of the cellular and molecular mechanisms involved, from the periphery to the CNS

Supervisor: Prof.ssa Maria Grazia Bottone

Co-Supervisor: Prof.ssa Paola Rossi

Reviewer: Prof.ssa Sonia Francia

CV

Personal information:

Surname and Name: Maria Teresa Venuti

Place and date of birth: Taranto, 1 December 1997

Permanent address: Piazza trentino 2, 74027 San Giorgio Ionico (TA), Italy

Current address: Viale Cremona 6, 27100 Pavia (PV), Italy

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Education:

2010/2015: High school leaving qualification in scientific studies, Liceo Scientifico G.Moscati,Grottaglie (TA), Italy. Final mark: 92/100

2016/2019: Bachelor's degree in Biological sciences, University of Pavia, Italy. Thesis: Study of lung metastases in mice after syngeneic breast cancer implantation triple negative. Final mark: 96/110

2019/2021: Master's Degree in Neurobiology, University of Pavia, Italy. Thesis: Glioblastoma, a channelopathy of potassium channels? Investigation of a possible "Gain of function" of Kir channels. Final mark: 110/110 *cum laude*

2021/2022: Master of Second Level in Human Nutrition, University of Pavia, Italy.
Achievement of 24 CFU for teaching.

Languages:

Italian: mother tongue.

English: scholastic knowledge.

Professional skills

- Patch-clamp recordings in Voltage Clamp and in Current Clamp *in vitro* (U251 cell line);
- Manipulation and maintenance of cell lines (fibroblasts, U251 and 4T1) in culture;
- ELISA test, MTT, MTS and clonogenic assay;
- Evaluation of the safety and efficacy of the products tested (supplements, cosmetic products and medical devices) through toxicological tests and innovative protocols for studying their effectiveness on alternative biological models such as cell cultures and reconstructed human tissues.

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- Use of the microtome, immunocytochemistry and immunohistochemistry;
- Creation of glycemc curves and study of glycemc indices;
- Handling of laboratory animals;
- Behavioral test on mice: novel object recognition test (NOR), object location test (OL), Y-Maze test, Emergence Test, Elevated 0 maze test, Rotarod test;
- Blood sampling from the lateral tail vein of mice;
- Good knowledge of Windows and Office, Clampex and Clampfit, Smart v3.0 PanLab, Origin, GraphPad Prism, LASX, Fiji and Imagej.

Work experiences and stage

From June 2022: Scholarship in Neurobiology and Integrated Physiology Laboratory, University of Pavia, Italy.

10/2021-12/2021: University tutor in “individual exercises with an optical microscope for the observation of histological preparations from different species of vertebrates” at the Department of Biology and Biotechnology “L. Spallanzani”, University of Pavia, Italy.

Co-relator of students of the three-year degree (biological sciences and biotechnology).

Paper

- Ratto D, Roda E, Romeo M, **Venuti MT**, Desiderio A, Lupo G, Capelli E, Sandionigi A, Rossi P. The Many Ages of Microbiome-Gut-Brain Axis. *Nutrients*. 2022 Jul 18;14(14):2937.

Pavia,

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