ILARIA GHIA

PhD Student

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N° iscrizione albo sez. A: AA_090004

EDUCATION

Ongoing: PhD in Neuroscience, University of Turin, Italy

2021: Master's Degree in Cellular and Molecular Biology (*summa cum laude* and honorable mention), University of Turin, Italy

2017: Bachelor's degree in Biological Sciences, University of Turin, Italy

PREVIOUS POSITIONS

2021 – up to now: PhD student, Department of Life Sciences and System Biology, Department of Neuroscience Rita Levi Montalcini and Neuroscience Institute Cavalieri Ottolenghi (NICO). PI: Prof. Paolo Peretto. Supervisors: Prof. Silvia De Marchis and Prof. Serena Bovetti.

2021: Hospital Laboratory Technician (swab tester), DanteLabs and AIDACruises (Gruppo Costa Crociere).

2018–2021: Master student, Department of Life Sciences and System Biology and Neuroscience Institute Cavalieri Ottolenghi (NICO). PI: Prof. Paolo Peretto. Supervisor: Prof. Federico Luzzati.

2018: *Post-lauream* apprentice at Neuroscience Institute Cavalieri Ottolenghi (NICO). PI: Prof. Paolo Peretto. Supervisor: Prof. Federico Luzzati.

2017: Undergraduate student, Department of Life Sciences and System Biology and Neuroscience Institute Cavalieri Ottolenghi (NICO). PI: Prof. Paolo Peretto. Supervisor: Prof. Federico Luzzati.

MAIN RESEARCH INTEREST AND EXPERTISE

The main idea of my PhD project is to investigate how the olfactory dopaminergic cells process ethologically relevant odors to understand how salient cues are represented in the mouse brain. Specifically, I am focusing on odors from conspecifics of the opposite sex (sexual odors), since reproduction is one of the fundamental behaviors in which olfaction is mainly involved at least in rodents. During my previous research experiences, I gained expertise in histological and cytological procedures as well as in the use of fluorescence and confocal microscopy. I also acquired extensive ability in serial section reconstruction and 3D neuron segmentation.

At present, I'm gaining expertise in surgical procedures for direct viral vector delivery and two-photon microscopy as well as in tissue clearing and light-sheet microscopy. Moreover, I'm deepening my knowledge in coding and computational neuroscience for data analysis.