

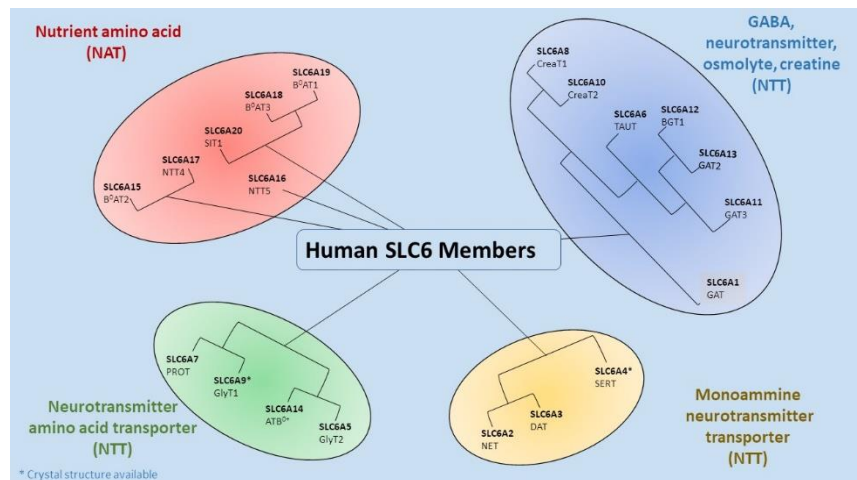
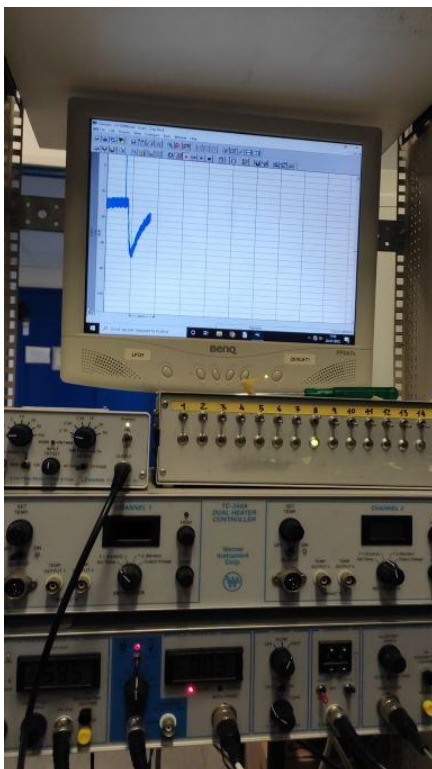
**Membrane Transporters in health and diseases. Role of the substrates, inhibitors, and modulation. PI: Elena Bossi Lab: Laboratory of Cellular and Molecular Physiology**

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The membrane transporters belonging to SLC6 and SLC1 families are mainly expressed in neurons and glia and involved in the excitation/inhibition balance regulation. These proteins have vital roles in the control of excitability in any brain circuit. Consequently, the comprehension of the functions and dysfunction of these proteins and the possible modulation is fundamental for understanding their roles in many neurological/neurodegenerative/cognitive disorders.

The aim of the project is to investigate the role of substrate and inhibitors in the transport activity and expression, in the presence or absence of regulatory proteins. The biophysical characterization of neurotransmitter transporters, in particular, GABA (GATs), Glycine (GlyTs), and glutamate transporters (EAATs) is the main goal of this research project. The activity of the transporters will be studied by heterologous expression and classical two-electrode voltage clamp, in addition to that, immunochemistry and molecular biology will also be part of the laboratory work. Moreover, different bioinformatics tools will be used to complete the picture of the structure and function interactions.



The team consists of Prof. Elena Bossi (PI), Prof. Cristina Roseti, Dr. Raffaella Cinquetti (Tech.), supported by three PhD students, two master's students, and five bachelor's students. Our team has a very international background with multiple collaborations spanning across Europe and beyond. If you are interested in this project and would like to be part of our vibrant team, please contact before the application the PI ([elena.bossi@uninsubria.it](mailto:elena.bossi@uninsubria.it)). Orcid <https://orcid.org/0000-0002-9549-2153>

