

Dr. Valentina Benfenati, National Research Council of Italy, Senior Researcher

Valentina Benfenati, Ph.D. is a senior researcher at CNR-ISOF. Her research interest regards understanding the role of astrocytes in brain function and pathologies. Toward this goal she is leading research on the development and validation of materials and devices that can stimulate/modulate/record/monitor the biochemical and biophysical properties of healthy and pathological glial cells, with particular regards to astrocytes. She pioneered and developed the concept of Glial Engineering and glial interfaces, with the vision to generate an ad hoc set of tools & technologies to enable fundamental studies on the multiscale role of glial cells in the brain's cognitive functions as well as, in perspective, to achieve glial-mediated neuromodulation (stimulation/inhibition) for the therapy of injuries and neurological disease. Past Adjunct Professor of Physiology at Biomedical Engineering Programme at the University of Bologna (UNIBO). PhD in Cell Physiology and Neurophysiology at UNISI. Post doc at UNIBO, Italy; Marie Curie Fellow; EMBO Fellow and Visiting Researcher at CMBN, University of Oslo, Norway; Marco Polo fellow, IEM, Czech Academy of Science, University of Prague.

She is PI/co-PI of AFOSR research grants ASTROMAT, ASTRONIR, ASTROLIGHT, ASTRODYNE, 3D Neuroglia, Army Research Office ASTROGOLD, coordinator of EU-MSCA-2020 ASTROTECH (www.astrotechproject.eu) and Deputy coordinator of FP7-MSCA-2020 Olimpia. National MIUR Project, Progetto Bandiera, SILK-IT; FIRB-Futuro in Ricerca (RBFR12SJA8_002). Main author of 50 publications, 3 book chapters, 5 international patents.