

English version

Position available: Research grant, 12 months

The announcement will be published on april 7th 2017

Application deadline, april 28th 2017

At: Laboratorio di Post-Genomica Funzionale e Ingegneria Proteica, Dipartimento di Biotecnologie e Scienze della Vita, Università degli Studi dell'Insubria, Varese

<http://www.dbsm.uninsubria.it/biochim/research.html>

Principal Investigator: Silvia Sacchi, Associate Professor in Molecular Biology

silvia.sacchi@uninsubria.it - <http://orcid.org/0000-0002-2338-2561>

Project title: "Exploring D-aspartate oxidase as a target for novel antipsychotic drugs"

Abstract: D-Asp acts as a NMDA receptor (NMDAR) agonist and is selectively degraded by the FAD-containing flavoenzyme D-aspartate oxidase (DDO). It plays an important role in cognitive processes as well as in NMDAR-related diseases. In particular, schizophrenic patients showed reduced D-Asp levels and the concomitant increase in DDO transcript. Thus, DDO has been proposed as a target for the design of new molecules that, acting as inhibitors, might be proposed as potential antipsychotic drugs.

During this project, an in depth characterization of the structural and functional properties of recombinant mouse and human DDO will be carried out. The collected data will be used for molecular docking studies and in silico screening to select promising inhibitors that will be tested in cell lines and eventually in animal models.

The possibility to regulate endogenous D-Asp levels by modulating DDO activity of might allow uncovering novel paths for the development of different therapeutic approaches.

Required Skills: biochemical techniques (development of enzymatic assays, expression of recombinant proteins in heterologous systems, immunolocalization), experience in cell cultures.

If interested, please send your CV to Prof. Silvia Sacchi, who is available to provide more information about the project and deadlines.