



UNIVERSITÀ DI PAVIA  
Dipartimento di  
Biologia e Biotecnologie  
"Lazzaro Spallanzani"

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Research Project:

**A combined genetic, structural biology and medicinal chemistry approach to investigate the molecular bases of anxiety-depressive disorders in menopausal women**

Our group within the Structural Biology Laboratory (team Claudia Binda, PI of the project) at the University of Pavia offers a pre-doctoral/post-doctoral position (1 year with renewal possibility) to work on the aforementioned project. For years we have been working on enzyme drug targets with a special focus on human Monoamine Oxidases (MAOs), mitochondrial membrane-bound flavoproteins involved in the oxidative deamination of neurotransmitters and neuroactive monoamines. In particular, the MAO A isoform is still partly unexplored and is recognized as a target for treating depression. This project is specifically devoted to study the molecular bases of depressive conditions in women in relation to hormonal modifications occurring during menopause. A multidisciplinary approach will be undertaken to screen genetic markers (including MAO genes) in patients compared to a control group. The role of our group will be to biochemically and structurally characterize protein variants that may be identified by the medical genetics team and, in parallel, the current work on MAO inhibitors will continue in collaboration with medicinal chemists.

The candidate should have a master degree in Biology/Biotechnology areas (PhD degree is welcomed but not essential) and laboratory experience in protein production and purification. The contract will be a fellowship ("assegno di ricerca") and may start in May/June 2025. Applications can be sent by E-mail to Claudia Binda ([claudia.binda@unipv.it](mailto:claudia.binda@unipv.it)) along with a CV and the contact of a referee.