Human Inherited Neuropathies Unit
Division of Neuroscience
San Raffaele Scientific Institute, Milan-Italy

Subject area Neuroscience, Cell Biology.

Two positions are immediately available in the laboratory of Prof. Alessandra Bolino to work in the field of myelin biology and inherited disorders of the peripheral nervous system: *http://research.hsr.it/en/institutes/institute-of-experimental-neurology/human-inherited-neuropathies.html*

Candidates will contribute to the following projects aimed at:
1- Elucidating how poly-phosphoinositides (PIs) regulate cytoskeleton dynamics and membrane trafficking in myelin-forming cells, and how dysregulation of this process leads to hypermyelinating neuropathies. The candidate will identify PI effectors using proteomic approaches, and will evaluate the consequence of loss and gain of function of PI kinases, Rho GTP-ases and downstream effectors.

2- Clarifying the molecular mechanism by which Niacin, Nicotinic acid, enhances Tace secretase activity and ameliorates hypermyelinating neuropathies (*EMBO MM 2016*). The GPR109A niacin receptor will be investigated in the peripheral nervous system. The candidate will also assess whether Niacin-based treatments are beneficial for nerve regeneration.

For both projects, a combination of *in vivo* (mouse models) and *ex vivo* models (Schwann cell/DRG myelin-forming co-cultures and primary fibroblasts) will be used as well as several approaches including proteomic analysis, biochemistry, and cell biology.

Key References from the lab

- *Bolino A., Piguet F., Alberizzi V. et al.* ***EMBO Molecular Medicine*** *8:1438-1454. (2016).*
- *Noseda R., Guerrero-Valero M., Alberizzi V., et al.* ***PLoS Biology****. Apr 12;14(4):e1002440 (2016).*
- *Mironova YA, Lenk GM, Lin JP, et al.* ***Elife.*** *2016 Mar 23;5. pii: e13023 (2016)*
- *Noseda R, Belin S, Piguet F, Vaccari I, et al.,* ***Journal of Neuroscience*** *33: 15295-15305 (2013).*
- *K. Hnia, I. Vaccari, A. Bolino, J. Laporte* ***Trends in Molecular Medicine****, 18: 317-327 (2012).*
- *Vaccari I, Dina G, Tronchère H, et al.,* ***PLoS Genet****. Epub 2011 Oct 20 (2011).*
- *Visigalli I, Taveggia C, Bachi A, et al.,* ***Journal of Neuroscience*** *29: 8858-70 (2009).*
- *Bolino A, Bolis A, Previtali SC, et al.,* ***Journal of Cell Biology****, 167: 711-21 (2004).*
- *A. Bolino, M. Muglia, F.L. Conforti, et al.,* ***Nature Genetics****, 25: 17-19 (2000).*

Requirements

We are looking for highly motivated scientists who wish to advance in their academic training and consolidate the research experience in cell biology and neuroscience. A strong background in cell biology and molecular biology is required.

Salary

Both positions will be funded for 3-years. Salary will be based on seniority and expertise.

To apply

Please send your application including a synopsis of research interest, Curriculum vitae, and at least two contacts for reference by email to:

Prof. Alessandra Bolino, e-mail: bolino.alessandra@hsr.it

Skype interviews first and then in person interviews will be arranged for few selected candidates.