

Postdoctoral Position at the Paris Brain Institute (ICM), Paris, France

A Postdoctoral position is available at the ICM – Institut du Cerveau | Paris Brain Institute in the group of Alberto Bacci.

Our research mainly focuses on the cellular physiology of various elements of cortical microcircuits, the properties and plasticity of their synaptic connections and their contribution to the generation of various cognition-relevant network activities¹. Through our collaborators, we also study cortical circuit deficits in several animal model of brain disease.

The successful candidate will work on inhibitory circuits formed by parvalbumin (PV)-expressing interneurons, and how their specific connectivity properties are involved in the generation and orchestration of fast oscillations in the mouse visual cortex. In particular, we aim to understand the functional role of strong autaptic self-inhibition of PV cells within cortical circuits in visual perception².

We use a combination of single and multiple-cell electrophysiology, 2-photon imaging and electrophysiology *in vivo*, pharmacology, anatomy, immunocytochemistry, molecular manipulations of specific neuron types and computational approaches (through established collaborations).

Applications must consist of a single pdf file and must be sent to alberto.bacci@icm-institute.org

Please include:

- Curriculum Vitae (CV)
- 1 page summary of previous research
- Brief statement of current research interest
- Contact information of at least two referees

Applicants with a strong background in *in vivo* 2-P microscopy, electrophysiology and/or computational neuroscience will be preferred, but it will not be a pre-requisite. Highly motivated candidates are encouraged to apply.

Excellent verbal and written communication skills in English are required.

Contact Information:

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¹ Lourenço, J. et al. *Cell Rep.* 30, 630-641 (2020); Zorrilla de San Martín, J. et al. *eLife* (2020); Deleuze, C. et al. *PLoS Biol.* 17, e3000419 (2019); Faini, G. et al. *eLife.* 7, (2018); Marinelli, S., *Nat. Neurosci.* 12, 1488-1490 (2009); Bacci, A. & Huguenard, J.R. *Neuron* 49, 119-130 (2006); Bacci, A., et al., *Nature* 431, 312-316 (2004).

² Bacci A. et al., *J. Neurosci.* (2003), *Neuron* (2006); Deleuze C. et al., *Curr. Op. Neurobiol.* (2014); Deleuze C. et al., *PLoS Biol* (2019)