

## Ultrafast imaging preclinical investigation of of the Williams-Beuren syndrome in animal model and on the potential therapeutic effect of chlorzoxazone

A postdoctoral position, for 2 years minimum is available in the laboratory of Marco Canepari at the *Laboratory of Interdisciplinary Physics*, in Grenoble France. The project, funded by the French agency ANR, aims at characterising a mouse model of the Williams-Beuren syndrome and to investigate the therapeutic effect of chlorzoxazone as enhancer of the Ca<sup>2+</sup>-activated K<sup>+</sup> channel BK. We use ultrafast imaging techniques developed in our laboratories to explore action potential generation and propagation in neocortical layer-5 pyramidal neurons (Filipis et al., 2023; Blömer et al., 2024). The contract is extendable and our team is engaged in a parallel activity of technology transfer that may give interesting long-term career opportunities for the future.

The candidate must have a PhD and proven record in patch clamp techniques in brains slices, together with necessary experience in animal handling and slice preparation. Candidates without this minimum requisite will be discarded without notice of rejection. Experience in computer programming and biophysical modelling will be taken into account in the selection, but they are not compulsory for the application. The deadline for applying to this job is August 31<sup>st</sup> 2026, but the position might be filled before if a suitable candidate is found. The successful candidate can start as early as October 1<sup>st</sup> 2026.

To apply send: (1) a full CV; (2) a letter of intention; and (3) at least of reference from a senior scientist supporting the application to:

Marco Canepari ([marco.canepari@univ-grenoble-alpes.fr](mailto:marco.canepari@univ-grenoble-alpes.fr)).

The PI will attend the FENS Forum in Barcelona from July 6<sup>th</sup> to July 10<sup>th</sup> in Barcelona and this occasion may be taken to discuss in person about the project.

Filipis L, et al. (2023) Nav1.2 and BK channel interaction shapes the action potential in the axon initial segment. *J Physiol*, 601: 1957-1979. doi: [10.1113/JP283801](https://doi.org/10.1113/JP283801).

Blömer LA, et al. (2024) Kinetics and functional consequences of BK Channels activation by N-type Ca<sup>2+</sup> channels in the dendrite of mouse neocortical layer-5 pyramidal neurons. *Front Cell Neurosci*, 18: 1353895. doi: [10.3389/fncel.2024.1353895](https://doi.org/10.3389/fncel.2024.1353895).