



**Laboratory of Quantum and Nano-Optics**  
Institute of Physics, Faculty of Basic Sciences, EPFL

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## Fully funded Postdoctoral Fellowship (2 years) Sensing of Neuronal Activity with NV Centers

[The Laboratory of Quantum and Nano-Optics](#) led by Prof. Galland,  
[The Laboratory of Photonic Micro- and Nanosystems](#) led by Prof. Quack, and  
[The Laboratory of Molecular and Chemical Biology of Neurodegeneration](#) led by Prof. Lashuel

are looking for an outstanding postdoctoral researcher to develop a diamond nanophotonic platform and explore different measurement techniques for magnetic and electric field recording of neuronal activity in real-time. The researcher will work on this interdisciplinary project under the co-supervision of the three groups, with a main affiliation in the Institute of Physics.

### Essential Skills:

- Proven academic achievements and PhD thesis in the field of sensing and metrology using NV centers (or closely related quantum systems).
- Excellent understanding of photonics, quantum sensing and spin physics.
- Ability to lead an interdisciplinary project, interact with partners from various backgrounds, supervise students, and write scientific papers
- Excellent communication skills and professional proficiency in English

### Valuable additional expertise:

- Surface or material science
- Biological sensing or in bio-imaging
- Micro/nano-fabrication and clean-room work
- Biochemistry, surface functionalisation

The exact start date can be arranged, but **cannot be later than October 1<sup>st</sup>, 2020.**

EPFL offers internationally competitive salaries, generous research support and outstanding research infrastructure. Minimum postdoc gross salary (first year after PhD) is 83'600 CHF/year. Academics in Switzerland enjoy many research funding opportunities, as well as an exceptionally high standard of living.

EPFL is an equal opportunity employer and family friendly university. It is committed to increasing the diversity of its faculty. We strongly encourage women to apply.

Applications should be submitted to Prof. Galland ([chris.galland@epfl.ch](mailto:chris.galland@epfl.ch)) **in a single PDF:** containing a resume and publication list, a motivation letter, transcripts of undergraduate and graduate studies.

Letters of recommendations are to be sent by referees directly to Prof. Galland.