

**Open Postdoctoral Position**  
FET open project “**ByAxon**” (H2020 program/2017-2020)  
**Towards an active bypass for neural reconnection**



## Low-field magnetoresistance in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ thin film based devices

**Context:**

The European project ByAxon is supported by an interdisciplinary consortium, going from material scientists and electronic experts to biologists and clinicians in order to design and build a prototype of an active implant that could work directly at the spinal cord (SC) level. This implant will be primarily focused on restoring the transmission of electrical signals in the injured SC, acting as an active local bypass, something not possible with current technology. The project is coordinated by IMDEA in Spain (Madrid), and involved 4 other partners: CNRS-GREYC in France, SISSA-ISAS in Italy, SESCAM in Spain, MFD Diagnostics GmbH in Germany.

**Role:**

The postdoctoral researcher will join the research laboratory CNRS-GREYC in Caen (France) to work on the byAxon project – particularly on the fabrication and design of low-field magnetoresistive sensors from  $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$  (LSMO) thin films.

He/she will use existing set-ups at GREYC such as Pulsed Laser Deposition and related characterization techniques, photolithography equipments, magnetoresistance and low frequency noise measurement set-ups, magneto-optical Kerr effect microscope.

**Required competences:**

The candidate must be an experimentalist with strong background in thin film growth, electrical characterization and/or magnetic characterization. She/he must have a good experience in analysing experimental data.

**Personal/complementary skills:**

He/she will also participate in the management of the project, the communication of the results, and the supervision of a master or PhD student. Therefore, the candidate should have an independent and efficient working attitude.

Fluent in spoken English or French, she/he should be able to write well-organized papers in English.

**Contract terms:**

Location: GREYC (CNRS UMR6072) – ENSICAEN – Univ. Caen Normandie (France)

Start: January 2017 (tentative)

Duration: one year, extension possible

Net salary: up to about 2800 euros/month depending on experience and achievements in the domain

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**Contact and  
How to apply**

Dr Laurence Méchin - laurence.mechin(at)ensicaen.fr

Please include a cover letter, a CV with publications and presentations, two references and their recommendation letters.

*Selection will start immediately, so early submissions are strongly encouraged.*