

Pierre-Emmanuel Milhiet Single Molecule Biophysics Department

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http://www.cbs.cnrs.fr/rubrique.php3?id rubrique=127

Post-Doctoral Position in Atomic Force Microscopy

A 2 years post-doctoral position starting in April 1, 2014 is available in the "Single Molecule Biophysics" Department of the CBS in Montpellier (France) to study molecular mechanisms involved in Tau fibrillization associated with neurodegenerative diseases. Our approach is using state-of-the-art atomic force microscopy (AFM) including high-speed AFM to image proteins isolated or in interaction with supported lipid bilayers.

We are seeking a motivated and talented postdoc with a strong background in AFM imaging in liquid and in the field of biological membrane and/or Alzheimer diseases. The candidate should be trained in physics or biophysics and expected to be scientifically independent.

The project aims to elucidate the structure and dynamics of Tau proteins using different AFM setups (high resolution AFM combined to fluorescence microscopy and high-speed AFM). We will focus on the ability of Tau to form fibrils in solution or when interacting with bio-membranes. The postdoc will have to set up the imaging conditions and the fabrication of model membranes.

Applicants must have a solid publication record (at least one paper as a first author in AFM). Please send a full CV as well as a letter of research interests and the name of 2-3 scientists who may provide recommendations to Pierre-Emmanuel Milhiet (pem@cbs.cnrs.fr).

*CBS (http://www.cbs.cnrs.fr) is an Institute dedicated to research at the forefront of structural biology and biophysics as a means to reveal the fundamental physical mechanisms underlying biological activity and its regulation. It is recognize as an IBISA platform with facilities in nmr, crystallography, bioinformatics and biophysics. Montpellier is a stunning city on the French Riviera with a significant international community.

Publications

P.E. Milhiet, D. Yamamoto, Berthoumieu, O., Dosset, P., Le Grimellec, C., Verdier, J.M., Marchal, S., Ando, T. (2010) Deciphering the structure, growth and assembly of amyloid-like fibrils using High-Speed Atomic Force Microscopy, PLOS One 5(10): e13240.