

Two-year postdoctoral position at IBS Grenoble (France)
CEA-funded

CHARACTERISATION AND STABILIZATION OF SOLUBILISED MEMBRANE PROTEINS

Determination and control of the association states of membrane proteins is one of the challenges of modern biophysics. The effects of detergent on membrane proteins stability, auto-association and crystallisation capability are not well understood.

The project is to adapt new methods, mainly analytical ultracentrifugation, for the characterization of different membrane proteins, including *Ca⁺⁺ ATPase* and transporters. Detergent-solubilised membrane proteins but also complexes with synthetic lipid derivatives (*nanosomes*) will be studied. The possible relationships between solvent composition and membrane proteins solubility/auto-association will be investigated.

The project will be carried out in collaboration with G. Brandolin, J.-M. Jault and E. Pebay-Peyroula (Grenoble France), M. le Maire and C. Mioskowski, (Saclay France), and P. Schuck (NIH, USA).

Techniques to be used: analytical ultracentrifugation, small angle neutron scattering, liquid chromatography, thermodynamic approaches, molecular biology and biochemical techniques.

Formal conditions (exceptions are possible in cases of outstanding qualifications and non-French curricula): candidates should hold a PhD and not be older than 29 years; the contract is initially for 1 year, renewable for 1 more year, and will start in 2006. Candidates should send a cover letter describing their expertise and interest for the position, a detailed CV, list of publications, and at least two letters of recommendation or names of referees.

Send applications to: Christine EBEL (christine.ebel@ibs.fr)
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