



January 25, 2011

Engineer or Postdoctoral Researcher in Cellular Microbiology

We are searching for an engineer (AI/IE) or postdoctoral researcher to work on an ANR-funded project (12-month salary with possibility of 6-month extension). The position is in the group of Agamemnon Carpousis, (LMGM, UMR 5100, CNRS & University of Toulouse III), which is recognized internationally for its contributions to the field of mRNA degradation (1-5). Candidates should send a CV and a letter of motivation to Agamemnon.Carpousis@ibcg.biotoul.fr.

Laboratory

The LMGM studies the organization, evolution and expression of the genomes of bacteria and archaea, and their viruses. Our research, which ranges from the study of single molecules to living cells and their interaction with the environment, employs approaches that include molecular genetics, biochemistry, and bioinformatics. We work with model prokaryotic organisms that are of interest for fundamental research as well as for applications in biotechnology, the food industry and the medical sciences.

Project

Recent work has shown that the RNA degradosome is localized to a filament-like structure on the inner cytoplasmic membrane of *Escherichia coli* (6-9). We plan to use video imaging and FRAP to study the higher-order structure and dynamics of the RNA degradosome. In parallel, we will begin to develop methodologies permitting the imaging of polyribosomes formed on *lacZ* mRNA. Recently published work indicates that polyribosomes in bacterial cells are constrained and co-localize with the gene from which the mRNA is transcribed (10). The long-term objective of this part of the project is to analyze the localization and dynamics of translation and mRNA degradation in living bacterial cells.

Qualifications

We are searching for an engineer or postdoctoral researcher with experience in cellular microbiology. The successful candidate will work with a newly installed fluorescence microscope dedicated to imaging microorganisms. For recruitment at the level of engineer, the candidate should have a strong background in fluorescence microscopy and methodologies involving the collection, treatment and storage of images. For recruitment at the level of postdoctoral researcher, the candidate should have completed a Ph.D. within the past 5 years and have experience with microscopy and imaging methodologies (or strong motivation to rapidly acquire these methodologies). The aptitude to work as part of a team and to interact with other users of the microscope will be an important consideration.

References

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