



CNRS UPMC

Station Biologique  
Roscoff

## Post-doc position in Microbiology

An 18-months postdoctoral position is available in the Department "Integrative Biology of Marine Models" (LBI2M, UMR8227 CNRS-UPMC) at the Station Biologique de Roscoff (France), to work in the Marine Glycobiology group<sup>1</sup>. The position is offered through the RegAI project supported by the Brittany region and supervised by Dr. François Thomas and Dr. Benoit Sarels.

The Marine Glycobiology group studies all aspects linked to marine macroalgal polysaccharides and their degradation by environmental bacteria. In particular, we seek to elucidate the metabolic pathways involved in polysaccharide utilization by marine bacteria, and the regulations involved. Over the past 10 years, the group has developed the flavobacterium *Zobellia galactanivorans*, with exceptional capacity for macroalgal biomass degradation, as a novel bacterial model<sup>2</sup>. Notably, we characterized a complete degradation pathway for alginate encoded by at least two operons and several isolated genes, the expression of which is tightly controlled<sup>3</sup>. The RegAI project aims at studying the gene expression controls and the role of a predicted regulator for alginate recognition, by combining genetics, transcriptomics, biochemistry, bio-informatics and mathematical modeling.

The postdoctoral researcher will study a *Z. galactanivorans* strain deleted for the predicted regulator. Further, he/she will develop RNA-seq and ChIP-seq approaches to map the regulator binding sites on the genome, identify the genes under its control and the kinetics of regulation. All results will be integrated in a mathematical model for the alginolytic pathway.

**SPECIFIC REQUIREMENTS:** Applicants should have less than two years of professional experience after their Ph.D., and have spent at least 12 months outside France between June 2013 and June 2016. The expected starting date is May 2017.

**DESIRED QUALIFICATIONS:** Applicants should be highly motivated and committed to interdisciplinary research. Applicants must have extensive training in microbiology and molecular techniques. Good language and communication skills (English) are necessary. Working knowledge in ChIP-seq analysis and prior experience in scientific programming (e.g. Matlab, Python) will be an asset.

Applications are due for March 15, 2017 but will be accepted until the position is filled. Applicants should send a motivation letter including a brief statement of research experience, technical expertise and interests, a CV, a list of publications and contact details for two referees to: Dr. François Thomas, [fthomas@sb-roscoff.fr](mailto:fthomas@sb-roscoff.fr) and Dr. Benoit Sarels, [benoit.sarels@sb-roscoff.fr](mailto:benoit.sarels@sb-roscoff.fr)

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<sup>1</sup> <http://www.sb-roscoff.fr/fr/equipe-glycobiologie-marine>

<sup>2</sup> Barbeyron, Thomas *et al.*, 2016. Environmental Microbiology 18: 4610-27

<sup>3</sup> Thomas *et al.*, 2012. Environmental Microbiology 14 (9): 2379-94.