PhD CALL FOR APPLICATIONS

Institute of Microbiology, Bioenergies and Biotechnology of Aix-Marseille Université

Deadline for applications: 30 April 2020*

The Institute of Microbiology, Bioenergies and Biotechnology (IM2B) is financing **4 PhD positions** starting in October 2020.

The PhD projects described below are eligible for funding under this call for applications. These 8 interdisciplinary projects rely on inter-laboratory collaborations and are related to the scientific theme of the Institute: exploring the diversity and functioning of the microbial world, at the molecular, cellular and ecosystem levels or through its close association with other organisms (plants, microbiota, etc.) with a view to developing innovative biotechnological solutions in the fields of renewable carbon for Green Chemistry and Energy, Environment and Health.

Future PhD students will benefit from the personalised support offered by the Plinius PhD Cursus. They will thus be able to train in a wide range of cutting-edge technologies, and also prepare their professional project in a multidisciplinary and international environment.

At the end of a two-steps selection procedure, conducted in first by the co-directors of the PhD project and then by a selection board during an audition to be held in June, the selected applicants will be granted with a 3-year fellowship (salary of €1421 net / month).

How to apply?

The application file includes :

- A CV in English, specifying the level of English
- A copy of the diplomas obtained and the transcripts of Master 1 and Master 2 grades.
- A cover letter in English
- 2 letters of recommendation sent directly by their authors to the co-directors

All documents must be sent to the co-directors of the PhD project. The deadline for sending applications is **April 30, 2020***. Nevertheless, we strongly encourage you to let us know as soon as possible of your intention to apply, by contacting the project leaders.

***The deadline is subject to change as the current health situation evolves. We invite you to keep yourself informed of any change in dates by contacting the project leaders or by writing to the following address: im2b-direction@univ-amu.fr**

To learn more about the PhD projects, click on the titles below.

Biodiversity, molecular mechanisms and machines

Copper tolerance systems in *Pseudomonas aeruginosa*: role in defense against phagocytosis

Metabolism diversity and cellular approaches

Study of Fe-S dependent secondary-metabolites of myxobacteria

Identification and characterization of Cysteine-rich proteins from giant viruses

Inter-organism interactions

Experimental evolution of Photosymbiosis

Biofilm biogenesis in *Shewanella oneidensis*: from a complex regulatory network to the exopolysaccharides of the matrix

Inter-organism interaction within marine iron-rich microbial mats: Analyses by global and AI-assisted quantitative microscopy approaches.

Biotechnologies: bioenergy, environment, health

Functional characterization of intrinsically disordered regions in fungal LPMOs

Deciphering protein oxidation during biomass degradation by filamentous fungi using chemoproteomic approaches

About the Institute of Microbiology, Bioenergies and Biotechnology

Created in 2019 by Aix-Marseille Université, this Institute brings together more than 400 permanent staff, 250 Masters students, 150 PhD students and 160 post-docs, to strengthen interdisciplinary Research and Teaching in the field of Microbiology and its applications in Bioenergies, Environment and Health. Relying on a network of 10 internationally renowned research laboratories and a network of leading facilities, the IM2B brings together recognized expertise in viruses, bacteria, archaea, fungi, protists and photosynthetic organisms. It covers a large range of approaches, including bioinformatics, mathematical modelling, structural and cellular biology, molecular genetics, biophysics, biochemistry, biodiversity, chemistry. **The research effort of IM2B is focused on the integration of all the scales of study, from the atom to the ecosystem, and its biotechnological applications on the different systems studied.** The targeted applications are in particular in the field of **energy** such as CO_2 storage, production of biofuel, biogas or bioethanol, new bio-inspired materials, biosensing or biosourced molecules, but also in the field of the **environment** (biodepollution...) or **health** (infectious diseases).

For further information