PhD Position
Metabolite detection by FRET and LC-MS to analyze metabolic shifts and their effects on epigenetic marks

SECTOR: Higher Education Institution

LOCATION: France, Grenoble

RESEARCH FIELD: Molecular and cellular biology

RESEARCHER PROFILE: First stage researcher

INSTITUTION: Univ. Grenoble Alpes

One of the major research-intensive French universities, Univ. Grenoble Alpes enjoys an international reputation in many scientific fields, as confirmed by international rankings. It benefits from the implementation of major European instruments (ESRF, ILL, EMBL, IRAM, EMFL). The vibrant ecosystem, based on a close interaction between research, education and private companies, has earned Grenoble to be ranked as the 5th most innovative city in the world. Surrounded by mountains, the campus benefits from a natural environment and a high quality of life and work environment. With 7000 foreign students and the annual visit of more than 8000 researchers from all over the world, Univ. Grenoble Alps is an internationally engaged university.

A personalized Welcome Center for international students, PhDs and researchers facilitates your arrival and installation.

In 2016, Univ. Grenoble Alpes was labeled «Initiative of Excellence ». This label aims at the emergence of around ten French world class research universities. By joining Univ. Grenoble Alpes, you have the opportunity to conduct world-class research, and to contribute to the social and economic challenges of the 21st century ("sustainable planet and society", "health, well-being and technology", "understanding and supporting innovation: culture, technology, organizations" "Digital technology").

* ESRF (European Synchrotron Radiation Facility), ILL (Institut Laue-Langevin), IRAM (International Institute for Radio Astronomy), EMBL (European Molecular Biology Laboratory), EMFL (European Magnetic Field Laboratory)

Key figures:
- + 50,000 students including 7,000 international students
- 3,700 PhD students, 45% international
- 5,500 faculty members
- 180 different nationalities
- 1st city in France where it feels good to study and 5th city where it feels good to work
- ISSO: International Students & Scholars Office affiliated to EURAXESS
REFERENCES:

CDP-Ixex project:
SYMER – a systems approach to new paradigms in metabolic and epigenetic regulation

SUBJECT TITLE:
Metabolite detection by FRET and LC-MS to analyze metabolic shifts and their effects on epigenetic marks

SCIENTIFIC DEPARTMENT (LABORATORY’S NAME):
Laboratory of Fundamental and Applied Bioenergetics (LBFA) – UGA / Inserm U1055

DOCTORAL SCHOOL’S:
Ecole Doctorale Chimie Sciences du Vivant (EDCSV)

RESPONSIBLE:
Prof. Uwe Schlattner

SUBJECT DESCRIPTION:

We have an opening for a Ph.D. student in an interdisciplinary multi-team consortium at the University Grenoble Alpes that addresses the emerging interplay between metabolism and epigenetics (SYMER project). The PhD project will analyze cellular changes of specific metabolite concentrations upon metabolic shifts and their potential effects on epigenetic marks. It applies a broad panel of methodologies in molecular and cell biology as well as metabolomics. The project will also include opportunities for laboratory training with external collaborators in Bristol (UK) and Zürich (Switzerland).

The successful, highly motivated candidate should have a solid background in biochemistry and molecular biology, as well as team spirit and interest in training visits abroad. Experience with cell culture and/or metabolomics is an advantage, but not essential. He/she should have a strong interest in the analysis of metabolism at the cellular level by cutting-edge technologies. Applied methods will comprise optimization and cellular deployment of a novel genetically encoded FRET sensor, observed by fluorescence/confocal microscopy, the establishment of a LC-MS based metabolomics pipeline for detection of specific metabolites, as well as the application of these technologies to metabolically challenged cells (1-3).

We are a small, multidisciplinary, and successful group at LBFA/Inserm U1055 working in the field of bioenergetics and metabolism (4-8), located on the St. Martin d’Hères/Gières University campus. We offer an appointment for the duration of three years and an excellent research environment within our new laboratory building and recognized local and international collaborators.

ELIGIBILITY CRITERIA
Applicants must hold a Master's degree (or be about to earn one) or have a university degree equivalent to a European Master's (5-year duration).

Applicants will have to send an application letter in English and attach:
- Their last diploma
- Their CV
- A short presentation of their scientific project (2 to 3 pages max)
- Letters of recommendation are welcome.

Address to send their application:
uwe.schlattner@univ-grenoble-alpes.fr and in cc: edwige.hiriart-bryant@univ-grenoble-alpes.fr

SELECTION PROCESS
Application deadline: 29/07/2018 at 17:00 (CET)
Applications will be evaluated through a three-step process:

1. Eligibility check of applications in July 2018
2. 1st round of selection: the applications will be evaluated by a Review Board and candidates informed until 31/07/2018.
3. 2nd round of selection: shortlisted candidates will be invited for an interview session in Grenoble during August 2018.

TYPE of CONTRACT: temporary-3 years of doctoral contract
JOB STATUS: Full time
HOURS PER WEEK: 35
OFFER STARTING DATE: 01/11/2018
APPLICATION DEADLINE: 29/07/2018
Salary: 1768.55 € per month

Financements de la thèse: IDEX CDP SYMER