Post-doctoral position

AI for genomics & phenomics analysis for clinical decision support: applications to intellectual disability disorders

SECTOR: Higher Education Institution

INSTITUTION: Univ. Grenoble Alpes, University of Innovation

One of the major research-intensive French universities, Univ. Grenoble Alpes**1 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 dynamic ecosystem, grounded on a close interaction between research, education and 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

LOCATION: France, Grenoble

MANDATORY REFERENCES:

IDEX PROJECT TITLE: MIAI

1 Univ. Grenoble Alpes
JOB PROFILE (Title): Post-doctoral fellow


SUPERVISER’S NAME: Julien Thevenon

CONTACT: JThevenon@chu-grenoble.fr

RESEARCH FIELD: Human Genomics, Bioinformatics, Machine learning

RESEARCHER PROFILE:

□ Recognized researcher (PhD holder not yet fully independent)

JOB PROFILE (Description):

Population and nation-wide genomic plan pave the way for the implementation of genomic medicine in routine medical practice. The Plan France Médecine Génomique 2025 (PFMG2025) has identified two regional pilot genomic platforms to prepare the future national organisation. Grenoble-Alps University is a partner of the regional genome sequencing platform AURAGEN.

Through the Interdisciplinary institute for Artificial Intelligence (3IA) MIAI@Grenoble-Alps, Grenoble University is the meeting point of the IA plan and the PFMG2025. Our team focuses on developing and promoting IA methods to the multi-omics and high-throughputs approaches in biology.

DEFIDIAG is a national research cohort of 1500 individuals with intellectual disability disorders. Included subjects will benefit from multimodal data acquisition, notably including trio-based whole-genome sequencing, expert clinical phenotyping, brain MRI. Leveraging on this unique dataset, we aim at developing a framework for variant interpretation project integrating genome, phenome and imaging data into a clinical decision support tool. A complementary sub-project on analyzing brain imagings from DEFIDIAG will be headed by Emmanuel Barbier team (https://neurosciences.univ-grenoble-alpes.fr/fr/annuaire/m-emanuel-barbier--627195.htm).

The applicant will be responsible for genome-phenome sub-project in the development and implementation of methods for analyzing phenomic and genomic data and to apply the methods to the DEFIDIAG dataset. One PhD student in bioinformatics (2 year) and one MD-PhD student will be involved in the genome-phenome sub-project. Direct supervision of students is possible.

Required languages: English, French

TYPE of CONTRACT: temporary, 24 up to 36 months

JOB STATUS (Full time or part time): full time

HOURS PER WEEK: 35

CONTRACT STARTING DATE: 2019, October

APPLICATION DEADLINE: 2019, July 29th
ELIGIBILITY CRITERIA

Applicants must hold a PhD degree (or be about to earn one) or have a University degree equivalent to a European PhD (8-year duration)

Applicants will have to send an application letter in English and attach:
- Their last diploma
- Their CV
- Letters of recommendation are welcome.

Address to send their application to: JThevenon@chu-grenoble.fr