

## **Postdoctoral bioinformatics position at the Interuniversity institute of Bioinformatics in Brussels**

We are recruiting a postdoctoral researcher to join our Oligogenic Group at the Interuniversity Institute of Bioinformatics in Brussels (IB)2. The researcher will work on the development and application of statistical and machine learning methods relevant to whole genome analysis to detect pathogenic modifiers associated with oligogenic diseases. This research continues the work conducted in the oligogenic team on the Variant Combinations Pathogenicity Predictor work (<https://doi.org/10.1073/pnas.1815601116>), as well as its associated developments, like ORVAL (<http://orval.ibsquare.be>).

Specific research directions in this context can be discussed yet certain deliverables need to be reached within the context of the project (G4BXL, funded by Innoviris) on which this position is opened. The postdoc position in this project concerns the detection of pathogenic modifiers in Marfan syndrome using a cohort of patients. One of the responsibilities is also to collaborate with technical support staff on the transfer of the ORVAL platform to a professional cloud environment hosted by the company FairGX and the Foundation 101 Genomes (<http://f101g.org>).

The position is in the context of the Interuniversity Institute of Bioinformatics in Brussels (<http://www.ibsquare.be>) and the ULB Machine Learning group (<http://mlg.ulb.ac.be>), under the supervision of professor Tom Lenaerts and in collaboration with Dr. Sofia Papadimitriou (Université Libre de Bruxelles), the PhDs working on this topic and the other partners of the G4BXL project, including the company FairGX. The position is available for 2 years. The position will be closed as soon as a suitable candidate is found.

### **How to apply**

Persons interested in this position should send a CV, publication list, motivation letter and 3 reference letters to [Tom.Lenaerts@ulb.be](mailto:Tom.Lenaerts@ulb.be). We kindly ask to make it explicitly clear in the motivation letter which of the skills listed below fit your profile.

### **Requested profile**

The ideal candidate has a PhD degree in computer science or related field, with prior expertise in data science, machine learning, bioinformatics or genetics to be a plus.

#### **The candidate has:**

- The analytical and critical mindset to help design novel machine learning algorithms
- Understanding of genetics and their relation to disease
- Practical knowledge of machine learning and techniques to make the methods explainable
- Familiarity with bioinformatics resources, formats, and general concepts
- Experience in writing and maintaining scientific papers
- Interest in open-source tools

#### **The following skills are a plus:**

- Familiarity with container technologies such as Docker
- Familiarity with Cloud computing architecture

#### **The candidate should have the following soft skills:**

- Good communication and presentation skills
- Capable of working independently but with a good team spirit
- Good organisational skills
- Good knowledge of English is needed to interact with the team
- Interest to work in an international environment