



## Bioinformatics analysis of antibody-related sequencing data

The **Vrije Universiteit Brussel (VUB)** is seeking candidates for a **bioinformatics software engineer** who will develop a **framework to analyze sequencing data for antibodies**. The successful candidate will work at the Structural Biology Brussels (SBB) research group at the VUB, which is part of the leading VIB Flanders Institute for Biotechnology. The work is in close collaboration with, and with expert input from, experimentalists working in this area.

### *Job description*

Antibodies exhibit high sequence variation in localised CDR regions, which remains a challenge for current sequence analysis tools. Using high throughput sequencing data, you will develop an innovative software framework that is tailored to help in the molecular design of antibody-containing proteins. The end product of the project will be a flexible and user-oriented sequence data analysis tool that focuses on antibody discovery and design.

You will work at the interface of antibody engineering, protein design and high-throughput sequencing, and will connect directly to researchers at the VIB-VUB Structural Biology Research Centre (<http://sbrc.vub.ac.be>), who have extensive domain expertise on the experimental aspects of this research. Tasks will include, for example, defining and ranking families of antibodies and engineered antibody-containing proteins, as well as ensuring the overall correctness of the obtained sequences based on the error rates of the technologies and number of sequencing reads. Supervision will be provided both on the experimental (Prof. Steyaert) and the computational (Prof. Vranken) side. You will in addition have the opportunity for computational feedback through the (IB)<sup>2</sup> Interuniversity Institute of Bioinformatics in Brussels (<http://ibsquare.be>), an interfaculty and interuniversity institute that brings together bioinformatics expertise at the VUB and Université Libre de Bruxelles (ULB), the two main universities in Europe's capital.

### *Your profile*

- A Masters degree in Computer Sciences, Bioinformatics, or a related field.
- Advanced skills and preferably experience in developing and maintaining a user-oriented software tool.
- Excellent communication skills in English: within the context of this project you will be interfacing with scientists of different backgrounds.
- Experience in bioinformatics and Python programming is a bonus

### *Offer*

A **full-time position** for the duration of **1 year**, starting as soon as possible. An extension of the position beyond this time is envisaged if financing is secured.

### *Application information*

Please contact Prof. Wim Vranken ([wim.vranken@vub.be](mailto:wim.vranken@vub.be)) if you have additional questions or to send in your application: submit a 1) **cover letter** detailing your background and interest in this position, 2) a **full CV** and 3) at least **two references** (with name, email, address, phone number). Applications will be considered until a suitable candidate is found.