



PhD position in Medical Bioinformatics

Domain

Medical bioinformatics, cancer, data integration, protein function, molecular understanding

Project

This Ph.D. position offers a unique opportunity to explore the potential of **data-driven, personalized health care**, by leveraging biomedical data available at the UZ Brussel. The position is part of the interdisciplinary TumorScope project, where the UZ Brussel hospital and the VUB (faculties of Sciences, Pharmacy & Medicine and Law) work towards a digital health research platform. The successful candidate will assist in a proof of concept study that integrates patient-centric data to provide information that helps the decision-making process of medical doctors. This study is in the field of oncology, more specifically solid tumors such as breast cancer and brain tumors. During the project, we will combine existing clinical and imaging data with genetic information (genomics) and its interpretation on the protein level (proteomics). This includes the incorporation of public data and identification of resources that can help with the deeper understanding of the molecular make-up of the tumors. Data integration is therefore a key part of the expected work, as is the exploration of machine learning based approaches to do so.

Requirements

The TumorScope project is highly interdisciplinary and will require working with specialists from different domains. We are looking for a candidate with a Masters degree of Science (MSc), and with strong skills in **computer science**, ideally with experience in **machine learning** and **data integration**. Prior experience in working on **biomedical** questions and problems is desirable, an interest mandatory. Ideally, the candidate will have already some knowledge about cell biology, gene level, protein function and interactions, and genetic variants. Candidates must be motivated to learn about all disciplines relevant to the project, have excellent communication skills, and be fluent in English.

Practical information

The position is for a full Ph.D. of 4 years, starting on 02/2020 the earliest. The key work locations will be the BRIGHTcore center (<http://www.brightcore.be/>; VUB Jette/UZ Brussel) and the (IB)² Interuniversity Institute of Bioinformatics in Brussels (<http://ibsquare.be/>; VUB Etterbeek).

Applications and further information

Please contact Wim.Vranken@vub.be for additional information.

For a valid application, please fill in the form at <https://tinyurl.com/phd-tumor>.

It is mandatory to include 1) a CV including contact information for at least 2 references, 2) a complete motivation letter.