junior bioinformatician (human genomics)

Sciensano

The Belgian Institute of Health (Sciensano) provides support for health policy through scientific research, expert opinions and divisional tasks. On the basis of scientific research, we formulate recommendations and solutions for a proactive health policy at the Belgian, European and international levels; assess the status of health (indicators) within a certified quality framework; and develop advanced solutions for the diagnosis, prevention and treatment of current and emerging diseases.

Recently, Sciensano wishes to better understand and address the role of the genome in personal and population health to integrate genomics into the domain of public health coupled to sustainable evidence-based development to address relevant societal demands. For this, Sciensano is building a human population genomics infrastructure allowing to address critical research and policy questions on the contribution of genome elements in personal and public health issues. Within this context, Sciensano aims to better understand to which extent genomics information can contribute to the health condition of both the individual and population.

Your function

You will work in the Bioinformatics Platform at Sciensano contributing to the development and implementation of this human genomics platform. More specifically, you will:

- Take care to timely meet project deliverables and contribute to the progress of the project. You will report directly to, and be supervised by, the head of the Bioinformatics Platform, but are also capable of providing feedback to the different stakeholders involved in the implementation of the human genomics platform at Sciensano.
- As a junior scientist performing research, be capable to realize and manage original scientific research, and communicate research findings in the form of scientific reports, peer-reviewed publications, and presentations at conferences.
- As a junior scientist providing service provision, follow-up required administrative tasks, support providing scientifically motivated expert advice and opinions to the competent authorities, allowing the implementation of genomics into public health policy.
- Be integrated in a small bioinformatics team that works closely together to develop specialized workflows and pipelines for the analysis of genomics data.
- Design and develop bioinformatics workflows for the analysis of next-generation sequencing (NGS) data from human samples.
- Tweak, optimize, and validate quality control and performance metrics for the analysis of human genomics data to assure the optimal quality of results.
- Interact closely with the ICT department to deploy developed and validated solutions on state-of-the-art high-end infrastructure by searching for and identifying novel ICT solutions to manage, process and analyze large data volumes.

- Collaborate closely with epidemiological and public health experts to ensure the necessary data are generated that are required for the epidemiological follow-up investigation (e.g. linking with the health and food consumption surveys) to ensure the successful implementation of 'precision health'.
- Collaborate closely with experts from other services of Sciensano (on Chronic Diseases, Infectious diseases and Rare diseases etc.).
- Progressively scale up the analysis to thousands of human genomes, whilst also exploring more advanced data analysis methods (machine learning etc.).

Your profile

- MSc with a specialization track in bioinformatics or equivalent through experience with demonstrated proficiency in bioinformatics.
- Prior experience with the analysis of NGS data for human genomics.
- High proficiency with scripting languages such as Python.
- Strong familiarity with working on the Linux command line.
- Good knowledge of statistics and epidemiology.
- Good insight of biology and its interplay with genomics.
- English language proficiency.
- A team player with excellent interpersonal, organizational, and communication skills.
- Solution-oriented with strong strategic and analytical problem-solving skills, being able to tackle tough problems independently.
- A quick learner that feels at home in a fast evolving environment.

Complementary strengths: prior exposure and/or collaboration with epidemiological investigations or clinical settings (oncology / human genetics) is considered a strong asset; familiarity with High-Performance-Computing (SGE, PBS, SLURM…), statistical/mathematical packages (Matlab, R, SAS, SPSS…), and other programming languages (Java, Perl, C…); knowledge of relational databases (MySQL, PostgreSQL…), web servers (Apache, nginx…), and automation systems (Ansible…); Dutch and/or French language proficiency; strong mathematical background.

We offer

- A fixed contract.
- A challenging and fascinating project in a fast evolving domain.
- A knowledge-intensive position in a renowned health institute that operates on an international level.
- The possibility to impact public health policy regarding human genomics.
- A young enthusiastic team of colleagues.
- Be paid according to the Belgian government barema SW11.

- Advantages: insurances, flexible hours in a 38-hour working week, reimbursement of public transport…
- Starting date: as soon as possible.

Interested?

Send your application via our website (direct link: https://wiv-isp.hr-technologies.com/content/jobpage.asp?a=DETAIL&jdkid=650&l=DUTCH).

For more information about Sciensano and/or the job description, contact:

- Sciensano Jobcenter: jobs@sciensano.be
- Kevin Vanneste (Bioinformatics Platform): kevin.vanneste@sciensano.be