Bioinformaticians (m/f/d) in Bioinformatics Core Unit

Location:
Vienna

Area:
Bioinformatics Core Unit

Working hours:
Full time

We are extending our bioinformatics team and are seeking for two enthusiastic bioinformaticians who would like to build and advance their career in translational cancer genomics and/or spearhead the implementation of next generation sequencing methodologies in routine cancer diagnostics and precision medicine.

As a bioinformatician, you will conduct analyses of genomics data from childhood /adult cancers, hereditary diseases and cancer predisposition syndromes in close collaboration with molecular biologists, geneticists, pediatric oncologists and other bioinformaticians. Examples of recent projects include the development of bioinformatic algorithms based on long-read panel sequencing technology for diagnostic approaches as well as genomic, transcriptomic and epigenomic analyses of pediatric leukemia and solid tumors on primary tumors and liquid biopsies, and the analysis of experimental model systems (e.g. Sheffield et al *Nature Medicine* 2017; Halbritter et al *Cancer Discovery* 2019; Kalinichenko A et al *Blood* 2021 and Popitsch et al *Bioinformatics* 2021; Schinnerl et al *Haematologica* 2019). The research institute CCRI and the diagnostic facility Labdia are also involved in several large-scale national and international research collaborations and are national reference centers for several clinical trials.

The two vacant positions are focused on acting as active members of the bioinformatics core unit and as service providers for the different research groups at the CCRI and diagnostic groups at Labdia but also offer opportunities for independent and applied research of novel bioinformatics methodologies related to the CCRI research programs.

Your responsibilities

- Lead bioinformatics design and analyses of transcriptomic datasets from bulk and single-cell RNA sequencing as well as NGS data and their integration with other data sources and -omics data as required
- Customize genomic analysis pipelines for advanced cancer research applications
- Provide bioinformatics support to different research groups at the CCRI as well as diagnostic groups at Labdia and provide guidance/supervision to group-associated bioinformaticians
- Develop and implement NGS analysis strategies for precision oncology
- Evaluate new open-source and commercial software packages for analysis, annotation, and interpretation of sequencing and cytogenomic data, and integrate with existing bioinformatics and genomics databases including in-house developed pipelines
- Introduce quality measurements and quality controls for NGS data and pipelines in order to meet the requirements for EN:ISO 15189:2012 accreditation and IVD regulations
- Document all procedures, reliably and actively communicate results to other bioinformaticians, researchers, the diagnostic teams and clinicians
- Keep up-to-date with current developments in the field, contribute ideas and help in designing novel cutting-edge genomics projects and diagnostic approaches

- Desirable: conduct own research and develop novel methodologies and algorithms for analysis; integration and interpretation of NGS data, molecular genomic and cytogenomic data, and evaluate these in close collaboration with CCRI and Labdia researchers; lead or contribute to grant applications

Your profile

- Master's or PhD degree or proven track record in bioinformatics, computational biology or data analysis
- Strong interest in cancer genomics and applied research; background in molecular genetics is of advantage
- Experience with clinical bioinformatics, working with sensitive clinical data and integration of clinical and omics data
- Experience in applied NGS data analysis such as transcriptomics (RNA-seq, scRNA-seq), panel sequencing (RNA, DNA, liquid biopsies), Whole Exome/Genome sequencing (WES/WGS), long-read sequencing (eg Oxford Nanopore) and Epigenomics (WGBS, ChIP-seq, ATAC-seq); additional experience with other omics methods is a plus
- Demonstrable experience in programming languages required for data analysis (R and/or Python); experience with other programming languages is of advantage
- Proficiency with Linux/Unix; experience with HPC is of advantage
- Experience building and maintaining bioinformatics tools/pipelines; experience with scientific and/or diagnostic software development is of advantage
- A solid foundation in statistics
- Ability to work independently, self-motivated and creatively
- Excellent communication skills in English with the ability to communicate effectively at different levels of technical knowledge
- Ability to assess new developments in the (NGS) field and apply them efficiently

Our offer

- A meaningful, inspiring, and international environment
- An outstanding working atmosphere in a strong team with excellent research and development opportunities
- Access to state-of-the-art infrastructure
- Flexible working hours and other great benefits
- Great location in the center of Vienna, a capital of biomedical research in Europe with excellent quality of life
- A fair and attractive salary package starting at € 3.000,-- gross (14x per year) on full-time basis with a view to increase based on your qualification and experience

Who we are

The St. Anna Children's Cancer Research Institute (CCRI), located in the center of Vienna, the world's most livable city and one of Europe's most important places for biomedical research and life sciences, is an international and multidisciplinary competence center striving to improve treatment of children and adolescents with cancer by connecting translational and clinical research with open-minded exploration of basic disease mechanisms. Through close cooperation between clinic and research, the CCRI provides an ideal environment for cutting-edge research and its translation into clinical practice. To achieve our ultimate goal of advancing the well-being of patients, the CCRI constantly pushes scientific boundaries and strongly promotes close collaboration and exchange with external institutions like the Medical University of Vienna, CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, the Institute of Molecular Biotechnology of the Austrian Academy of Sciences (IMBA) and the Institute of Molecular Pathology (IMP).

The Labdia Labordiagnostik GmbH (Labdia) specializes in the development and implementation of innovative diagnostic methods in the fields of hematology, oncology and infectiology in children and adolescents.

The CCRI and Labdia are equal opportunity employers. We value diversity and are committed to providing a work environment of mutual respect to everyone regardless of ethnicity, religion, national origin, age, gender identity or expression, disability, or any other characteristic protected by applicable laws, regulations and ordinances.

Find more information here: https://science.ccri.at/, https://labdia.at or https://kinderkrebsforschung.at/.

Your application

We are looking forward to your application! Applications should at least contain your Curriculum Vitae, a cover letter, list of

publications (please mark / explain your three top contributions), and the contact details of three references.

The application deadline is the 20th of October 2021. Applications will be reviewed on a rolling basis until the position is filled.

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