Computational PhD Position (f/m/d) in Pediatric Cancer Initiation

Location:
Vienna

Research group:
Polina Kameneva Group

Working hours:
Full time

Are you a computation biologist and looking for a high-impact PhD project? Do you like analyzing single-cell sequencing data? Would you like to understand why some cells become cancerous and others don't? Then this position is ideal for you!

We are seeking a talented Computational Biologist/Bioinformatician to join our team for a PhD position.

In the Pediatric cancer initiation group, we are building models based on human iPSC to decipher early events in the transformation of cancer in the developmental context. The projects are funded by the Austrian Science Fund (FWF) START grant and Paradifference with a focus on the tumors that emerge in the developing adrenal gland: neuroblastoma, pheochromocytoma, and paraganglioma. These are rare and devastating diseases.

In our group, we apply high-throughput single-cell omics pipelines to analyze a plethora of events that cells undergo when they are being hit by cancer-associated mutations. With this, we aim to find and characterize the ontogenically vulnerable and resistant cellular states and look for ways to reduce the risk of pediatric cancer initiation.

Find more information about

- our research focus: https://ccri.at/research-group/kameneva-group/
- and the project: https://scilog.fwf.ac.at/en/magazine/how-a-mutation-becomes-cancer

Your responsibilities

As a PhD student, you will:

- work on ambitious interdisciplinary research projects on modeling pediatric tumor initiation focusing on data analysis (single-cell RNA/ATAC-sequencing, CUT&RUN, CHIP seq, CRISPR screens, clonal analysis, RNA dynamics and regulation, etc.)
- contribute from the start, including planning of experiments, data acquisition, analysis, and presentation of results
- monitor the literature and community resources to keep abreast of the latest developments and to identify information, data, and methods to integrate into your own work
- provide thorough and creative thinking that makes these projects a success
- present your research at local seminars and international conferences, write papers, apply for fellowships, and contribute to grants
- help with data management and presentation (mediate workflows with the computational cluster and run the lab-based database for data visualization and sharing)

Your profile

What you bring to this position:

- Master's degree with a relevant focus (bioinformatics/computation biology in the areas of molecular biology, cancer, genetics, and developmental biology)
- An understanding of molecular and developmental biology, ideally in the field of cancer research
- An understanding and previous experience with the data acquisition and analysis pipelines (for example, data acquisition: droplet-based single-cell sequencing, ATAC-seq, CHIP-seq, analysis: RNA velocity, Scenic, scFates)
- Excellent technical skills: confident use of one computer programming/scripting language (R, Python), competent in working in a Linus/Unix-based computing environment
- Motivation to pursue an ambitious research agenda
- Enthusiasm, determination, creativity, scientific curiosity, and desire to learn
- Ability to work in a team and individually, committed to the success of the project with a proactive problem-solving attitude
- Excellent verbal and written communication skills in English (German is not required)

Our offer

Does this sound interesting? This is our offer to you:

- An exciting, multi-disciplinary environment with a strong support for your personal and professional development from your supervisor, team, and peers
- An outstanding working atmosphere in young and dynamic team
  - find more information on Kununu and Glassdoor
- Access to state-of-the-art infrastructure
- Flexible working hours, discounted lunch and other great benefits
- Great location in the center of Vienna, a capital of biomedical research in Europe with excellent quality of life. Vienna ranks as the most livable city multiple years in a row with attractive prices for accommodation, transport, food, and excellent and diverse recreational options.
- An attractive salary package according to the Austrian Science Fund FWF (https://www.fwf.ac.at/en/funding/steps-to-your-fwf-project/further-information/personnel-costs)

Who we are

The St. Anna Children's Cancer Research Institute (St. Anna CCRI), located in the center of Vienna, the most livable city in the world and one of the most important sites for biomedical research in Europe. St. Anna CCRI is a multidisciplinary and internationally networked center of excellence whose goal is to contribute to a sustainable improvement in the cure rates of childhood and adolescent cancers through innovative research and development. Due to the close cooperation between clinic and research, St. Anna CCRI offers the ideal environment for cutting-edge research at a high international level and its implementation in clinical practice. and its translation into clinical practice.

St. Anna CCRI is an equal opportunity employer. We value diversity and are committed to providing a work environment of mutual respect to everyone without regard to race, colour, 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://ccri.at/

Your application

Your application should contain **all the documents** listed below:

1. **Curriculum Vitae**
2. **Motivation statement** (Why do you want to do a PhD? Why in this field? Why in this lab?) - *max 300 words*
3. **Academic transcripts**
4. **Contact details of two reference**

All parts are mandatory!

The application deadline is **09.04.2025**.
The applications will be reviewed on **a rolling basis**. Selected applicants will be asked to perform a theoretical and practical task before the final hearing.

We are looking forward to your application! Thank you!

Apply now