KATHOLIEKE UNIVERSITEIT LEUVEN

Postdoc

At the KU Leuven Diabetes Lab, headed by Professor Dr. Chantal Mathieu and Dr. Conny Gysemans, we are dedicated to preventing and treating type 1 diabetes through pioneering research and global collaborations.

Our mission is to translate laboratory discoveries into life-changing clinical solutions, working toward a future free from type 1 diabetes. Leveraging novel single-cell and spatial multi-omics technologies to investigate the molecular and cellular mechanisms driving type 1 diabetes development presents a powerful and integrated approach to uncover the disease's complex pathogenesis. These technologies can provide insights into cellular heterogeneity, tissue niches and interactions, and pathogenic pathways, leading to the identification of biomarkers of early diagnosis and disease progression as well as uncovering novel therapeutic targets. However, methods to analyze these complex data sets are still largely lacking. We are looking for an interdisciplinary scientist that is eager to develop approaches to analyze and integrate mouse and human single-cell, single-nucleus, and spatial data across modalities and apply these methods to further progress our understanding of type 1 diabetes development and propose therapeutic options. You will work very closely together with our wet lab for data generation and experimental validations.

Responsibilities

1. Develop, test, and apply approaches to integrate single-cell and spatial omics data across modalities.
2. Analyze type 1 diabetes data from mouse models and patient samples.
3. Inform experimental design for spatial transcriptomic measurements.
4. Disseminate these methods with written manuscripts and academic presentations at international meetings.
5. Interface with clinicians, biologists, and core facilities (Single Cell Core, LISCO)
6. Work in a collaborative environment with a dynamic and agile team.
7. Support PhD thesis projects and contribute to interdisciplinary projects within KU Leuven Diabetes Lab.

Profile

1. PhD in computer science, physics, mathematics, or a related field.
2. Experience in the analysis of single-cell and/or spatial omics data.
3. Proficient in at least one modern programming language such as Python, Julia, and R.

4. Excellent analytical, technical, and problem-solving skills.
1. Strong organizational and time management skills; capable of handling multiple tasks.
2. Ability to work independently and as part of a team.
3. Fluent in English.

The following is considered a plus:

1. Experience with analyzing and reporting on large-scale datasets (INNODIA data warehouse) and/or single-cell, bulk (multi-)omics data.
2. Experience in computational, statistical, or machine learning method development in any discipline.
3. Good practice in software development.
4. Strong communication skills.
5. Experience in supervision of students.

Offer

Career Development

1. A one-year postdoctoral position with the possibility to extend. Candidates are encouraged to apply for additional (inter)national funding and fellowships.
2. Scientific training & career center with tailored offers.

Scientific Resources

1. State-of-the-art infrastructure and Core Facilities.

Family Support

1. On-site kindergarten, holiday care.

Health Promotion

1. Sports, institute physicians, mental health initiatives.

International Staff Service

1. Support with the relocation and integration process in Leuven, a historic, dynamic, and lively city in the heart of Belgium, within close proximity to major European capitals.

Interested?

For more information, please contact dr. Conny Gysemans, tel.: +32 16 37 74 54, mail: conny.gysemans@kuleuven.be or Prof. dr. Chantal Mathieu, mail: chantal.mathieu@uzleuven.be

You can apply for this job no later than December 31, 2024 via the online application tool

KU Leuven strives for an inclusive, respectful, and socially safe environment. We embrace diversity among individuals and groups as an asset. Open dialogue and differences in perspective are essential for an ambitious research and educational environment. In our commitment to equal opportunity, we recognize the consequences of historical inequalities. We do not accept any form of discrimination based on, but not limited to, gender identity and expression, sexual orientation, age, ethnic or national background, skin color, religious and philosophical diversity, neurodivergence, employment disability, health, or socioeconomic status. For questions about accessibility or support offered, we are happy to assist you at this email address.