Post-doctoral position in bioinformatics/metabolic modeling of Next Generation Probiotics

University of Tartu (UT), Estonia is collaborating with the Center of Food and Fermentation Technologies (CFFT) to develop a platform for the characterization and optimization of industrial production of next-generation probiotics (NGPs).

BACKGROUND

University of Tartu belongs to the top 2% of Universities in the world and ranks 3rd in the QS University Rankings for Emerging Europe and Central Asia. ERA Chair in Synthetic Biology at the University of Tartu is a research group established in 2016 to advance bio-based technologies for energy and chemical production. In the current project, CFFT is collaborating with UT to develop a platform for the characterization of NGPs. NGPs will be experimentally characterized individually and in consortia, supported by genome-scale metabolic modeling and systems biology analysis.

UT is currently seeking a bioinformatics post-doc to lead analysis on metabolic modeling and large-scale data analysis of next-generation probiotics. Duration of the project is 2.5 years.

MAIN DUTIES/RESPONSIBILITIES

As a post-doc in the project, the candidate will develop and apply different computational approaches, including constraint-based methods for ecosystems, metabolic reconstructions, applies integrative data analysis of large-scale data and data-driven (machine-learning) methods. Strong interaction with the experimental group will be essential.

SUPERVISION

The candidate will report to the project Principal Investigator Arvi Jõers and will be supported and supervised by co-principal investigator Petri-Jaan Lahtvee.

QUALIFICATIONS

We are looking for a highly motivated, critical, and ambitious postdoctoral researcher with a background and experience in computer science (bioinformatics), (bio)physics or (computational) systems biology. The candidate should be flexible and eager to work in a research consortium in a dynamic setting. Ph.D. degree in Bioinformatics / Computational Biology / Biostatistics or equivalent subject is required.

PREFERRED EXPERIENCE

- Prior experience in stoichiometric modeling using genome-scale models.
- Prior experience working with large-scale omics datasets.
- Strong background in statistics.

SKILLS & PERSONAL CHARACTERISTICS

- Organisation and precision in work.
- Openness and an excellent ability to communicate with others.
- Ability to independently solve problems and know when to seek help.
- Strong drive and motivation for personal development.
- Good English language skills.

Applicants are requested to write a letter, in which they describe their abilities and motivation, accompanied by their curriculum vitae and the names and contact information of at least two referees. Written applications should be sent before April 7, 2018, by email to: lahtvee@ut.ee. Project start from April 2018 or earliest possible date thereafter. Work will be carried out at the University of Tartu, Estonia.