

# 2 years postdoc position in data-driven life science

We are looking for a postdoctoral researcher in Data-driven life science research to The Integrated Science Lab (IceLab) and the Department of Molecular Biology at Umeå University, Sweden. The opening is for two years (can be extended) and available immediately or as agreed.

**Umeå University** provides creative environments for learning and work. We offer a wide variety of courses and programs, world leading research, and excellent innovation and collaboration opportunities. More than 4 400 employees and 34 000 students have already chosen Umeå University. **IceLab** promotes transdisciplinary collaborations with a focus on cutting-edge research that integrates theoretical, computational, and empirical work. We combine mathematical and computational modeling expertise with a deep interest in working with empirical researchers.

For more information, see: www.icelab.se; www.molbiol.umu.se

We welcome your application!

# **Project**

The Cava lab at the Laboratory of Molecular Infection Medicine Sweden (MIMS) and the Department of Molecular Biology (Umeå University) studies cell wall biology and genetics in bacteria. Our goal is to improve the inventory of players in cell wall biogenesis, remodeling and regulation, characterize the function and interplay of known components, and evolve our work into quantitative studies and computational modelling.

The postdoc will get the opportunity to use a suite of systems biology and machine learning techniques to predict functional networks connecting cell wall chemical profiles with genetics and phenotypes for further mechanistic and physiological studies. This data will have an extraordinary potential as novel targets for the development of antimicrobials.

The recruited postdoc will be part of a multidisciplinary team with complementing expertise in molecular infection biology, systems biology, and machine learning.

#### **Oualifications**

Candidates must hold a university degree in bioinformatics or computational biology equivalent to a European University PhD at the time of recruitment. You should be highly motivated, have very good communication skills with senior colleagues and peers and the ability to interact in a team.

It is particularly qualifying to have excellent skills in modern computer programming languages such as C++, Python, MATLAB or R. Enthusiasm, the ability for good teamwork, and a good command of the English language are also key qualifications.

## **Application**

A complete application should be sent in English to Felipe Cava (<u>felipe.cava@umu.se</u>) including: (i) a cover letter summarizing your qualifications and motives for applying, (ii) a curriculum vitae, and (iii) the names and contacts of three references. Application submitted electronically (MS Word or PDF).

## **Information**

For further information please contact Dr. Felipe Cava, felipe.cava@umu.se

https://thecavalab.com/

http://www.mims.umu.se/groups/felipe-cava.html

https://icelab.se/about/team/felipe-cava/

https://kaw.wallenberg.org/en/research/unearthing-bacterial-cell-wall-diversity-search-new-antibiotics