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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Department of Biotechnology and Food Science

Faculty of Natural Sciences

# PostDoctor position in Systems and Network Biology

One PostDoc position is available at the Department of Biotechnology and Food Science. The position is financed by the Research Council of Norway through the ERAnet program ERA-CoBioTech, and the appointment has a duration of 2 years with the possibility of until 1 year of extension with teaching duties. The position will be in the research group of Prof. Eivind Almaas. <http://www.ntnu.edu/almaaslab>

## Job description

ERA-CoBioTech project CoolWine, "Model-guided evolution for balanced attenuation of wine ethanol content by developing non-GMO yeast strains and communities". The yearly contribution of wine exports to the EU trade balance is above €6 billion, and accounts for >5 million jobs. However, increasing temperature in the European wine producing regions is having a negative impact on this key sector. Climate change results in a lack of balance between technological and phenolic ripening of wine grapes and, as consequence, alcohol increase in wines (2 -3 % during the last thirty years). The aim of this project is to combine adaptive laboratory evolution combined with computational analysis of yeast metabolism to reduce the ethanol yield from fermentation. This project is related to the ERA-SysApp project WineSys.

The candidate will be part of an interdisciplinary research team consisting of partners in Norway, Sweden, Germany and Spain. The candidate will play a central role in the systems biology data analysis and computational modeling. Focus will be on complex network analysis and constraint-based optimization of metabolism, such as dynamic Flux Balance Analysis (dFBA), to identify optimal target strategies for experimental evolution.

## Qualifications for the position

The successful applicants will have PhD degree within the fields of Systems Biology, Computational Biology, Biostatistics or a closely related field. The ideal candidate will have knowledge of basic biology / biochemistry and solid experience with (1) programming and complex network analysis, preferably experience with network biology, and (2) constraint-based analyses. The successful candidate should be creative, with a strong ability to work problem oriented and independently. He/she should also enjoy interdisciplinary research and take keen interest in learning and working / mentoring in teams.

The position requires spoken and written fluency in the English language.

## Terms of employment

The appointment of the Postdoc position will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees.

NTNU's personnel policy objective is that the staff must reflect the composition of the population to the greatest possible extent.

The position as Postdoc is remunerated according to the Norwegian State salary scale. There is a 2% deduction for superannuation contribution.

## The application

A complete application will include (1) a CV that has information about education, scientific work and previous work experience. It will also include (2) contact information for three references, and (3) a 2 page discussion of the candidate's experience with systems and network biology research.

Applications must be submitted electronically through [www.jobbnorge.no](http://www.jobbnorge.no).

Applications submitted elsewhere will not be considered.

The reference number of the position is: **NV-97/18**

Application deadline: **November 1, 2018**

For questions about the position, contact:

Prof. Eivind Almaas, [eivind.almaas@ntnu.no](mailto:eivind.almaas@ntnu.no).

Further information about the Department can be found at <https://www.ntnu.edu/ibt>

Jobbnorge ID: 158415, Deadline: The application deadline has passed