



**Jobbnorge-ID:** 141039

**Søknadsfrist:** Avsluttet

**Nettside:**

**Omfang:**

**Varighet:**

## Postdoctoral fellow in biorefining of lignocellulose

The Protein Engineering and Proteomics (PEP) group at the Faculty of Chemistry, Biotechnology and Food Science (KBM) at the Norwegian University of Life Sciences (NMBU) has a vacant a Postdoctoral-position within the field of pre-treatment and enzymatic processing of lignocellulosic biomass. The project entails a research collaboration with the Bioprocess Technology and Biorefining (BTB) group at KBM and with SINTEF Materials and Chemistry. Two companies, Borregaard AS and St1 Biofuels, are also involved. The duration of the fellowship is 2,5 years.

The KBM faculty is located at Ås Campus, 30 km south of Oslo, and has approximately 130 employees spread over 13 research groups, including the PEP and BTB groups, which together comprise approximately 40 persons, with focus on fundamental and applied enzymology, enzyme discovery, microbiology, microbial ecology, and bioprocesses technology, including anaerobic digestion.

### Research Project

The postdoctoral fellow will work on a project funded by the ENERGIX program of the Research Council of Norway, entitled "Innovative enzyme technology for sustainable biofuels". The overall goal of the project is to co-develop pretreatment and enzymatic conversion technologies for more efficient saccharification of lignocellulosic biomass (work done primarily at NMBU), while at the same time maximizing the value of the lignin fraction (work done primarily at SINTEF). Borregaard and St1 will provide the project with industrially relevant substrates. This project will be tightly connected with the Centre for Environment-friendly Energy Research (FME) called Bio4Fuels, and collaborative work is envisaged.

### Main tasks

- Pretreatment of lignocellulosic biomass
- Identification of limiting factors in the enzymatic conversion of pretreated biomass, with particular focus on the roles of lytic polysaccharide monoxygenases and hemicellulases. This includes production of enzymes, development of enzyme cocktails, and lab-scale process development
- Clone, produce and characterize relevant enzymes
- Interact with (potential) research partners in the lignocellulose field and take part in development of new project proposals.
- Take part in the supervision of MSc and PhD students.
- Write scientific publications

### Academic Qualifications

The main purpose of the post-doctoral position is to qualify for work in high-level scientific positions. A PhD degree is required.

#### *Required Academic qualifications*

- A PhD degree in an area that relates to the main tasks (described above).
- Good scientific performance, documented by high quality scientific publications, including multiple first-authorships.
- Relevant experience in enzymology. Proven track record in cloning, production and characterization of enzymes.
- Experience in the analytical tools required to study enzymatic conversion of polysaccharides.
- Good knowledge of bioinformatics and experimental tools for enzyme discovery.

#### *Desired Academic qualifications*

- Experience in working with lignocellulose or similar substrates.
- Experience in working with glycoside hydrolases and lytic polysaccharide monoxygenases.
- Experience in bioprocess development.

### Personal skills

We are looking for a person who is

- Hard-working, ambitious and accurate
- Genuinely interested in scientific research and its industrial application
- A pleasant future member of our research group, with good social and communicative skills and who has a clear view on how to develop his/her scientific career.
- Good communicative skills, orally and written, in English and, preferably, also a Nordic language, are essential for this position.

### NMBU offers:

- An optimistic academic institution with focus on professional development, dissemination and competence.
- An interdisciplinary and inclusive environment that provides exciting research- and development opportunities.
- Daily contact with inspiring students and skilled colleagues.

- Various welfare schemes.
- Beautiful surroundings just outside Oslo.

### **Remuneration**

The position is placed in government pay scale position code 1352 Postdoctoral Fellow, wage framework 24 (salary grade 57-77), depending on qualifications. Seniority Promotion in position

### **Further information**

For further information, please contact Professor Vincent Eijsink; E-mail: [Vincent.eijsink@nmbu.no](mailto:Vincent.eijsink@nmbu.no) ; phone +47 67232463.

### **Application**

To apply online for this vacancy, please click on the '**Apply for this job**' button above. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

### **Application deadline: August 23 2017**

Up to ten publications selected by the applicant as most relevant must be attached to the application. If it is difficult to identify the contribution of the applicant in multiple-author publications, a short explanation about the applicant's part of the work is suggested.

Printed material which cannot be sent electronically should be sent by surface mail to Norwegian University of Life Sciences, Faculty of Chemistry, Biotechnology and Food Science (KBM), P.O. Box 5003, NO-1432 Ås, within **August 23 2017**. Please quote reference number (17/03419).

Applicants invited for an interview will be asked to present verified copies of diplomas and certificates.

The position follows the Norwegian government pay scale A compulsory contribution of 2 % is made to the Norwegian Public Service Pension Fund. A good working environment is characterized by diversity. We encourage qualified candidates to apply, irrespective of gender, physical ability or cultural background. The workplace will if necessary be facilitated for persons with disabilities.

According to the Freedom of Information Act § 25 the list of applicants for this position may be made public irrespective of whether the applicant has requested that his/her name be withheld.

## **Tilleggsinformasjon**

### **Arbeidssted:**