



UNIVERSITETET FOR MILJØ- OG BIOVITENSKAP

The Norwegian University of Life Sciences (UMB) is recognised as a leading international centre of knowledge, focused on higher education and research within environment- and biosciences. Together with other research institutes established at Aas, UMB provides state-of-the-art knowledge based on a broad range of disciplines. A broad range of study programmes are offered at Bachelor, Master and PhD level. In total, UMB has some 3000 students of which about 290 are PhD students. There are many different nationalities at UMB; the international students make up over 10% of all students at the University. Of the 900 University staff, more than half hold scientific positions. UMB is located 35 km South of Oslo. See www.umb.no.

Ph.D. fellowship – Biotechnology – Protein Engineering (Reference no 09/402)

We are looking for a candidate for a three year Ph.D. fellowship at the Department of Chemistry, Biotechnology and Food Science. The Ph.D. student will be formally employed by the Norwegian Academy of Science and Letters, but will have his/her working place at UMB. The Ph.D. student will work in the "Protein Engineering and Proteomics" group, which consist of about 15 persons. The group has considerable research focus on enzyme technology for biomass processing (pep.umb.no).

The project

The Ph.D. student will work on the project "Characterization and direct evolution of carbohydrate-binding modules (CBMs) for biomass conversion", which is funded by StatoilHydro via the VISTA-programme managed by the Norwegian Academy of Science and Letters. There will be collaboration with the University of Minnesota. The fellowship can only be given to students who were among the best in their class during their MSc studies. Through yearly meetings the new Ph.D. student will interact with other VISTA fellows.

The goal of the project is to develop accessory proteins and protein domains that act synergistically with hydrolytic enzymes, such as cellulases, by making the recalcitrant substrate more accessible for enzymatic attack. More efficient enzyme technology is one of the key issues that need to be solved in order to achieve economically and environmentally sustainable production of second generation biofuels. The project is focussed on fundamental science, a major goal being to create insight into how such accessory proteins or domains work. The Ph.D. student will be using techniques such as gene expression, site-directed mutagenesis, directed evolution, high-throughput screening of mutant libraries, bioinformatics, protein biochemistry and enzymology.

Qualifications

- We are looking for a highly motivated person with a relevant MSc degree. You must be able to document very good performance during your studies so far. Note: when applying, it is essential that you provide all information that we need to judge your performance. For example, if possible, try to rank your performance by comparing it to average performance levels.
- You need to be highly interested in (fundamental) science and you need to be willing and able to carry out part of the research in Minneapolis, USA (details to be discussed).
- You need to have good speaking and writing skills in English.
- You need to have experience in relevant experimental techniques.

The successful candidate will be enrolled in UMB's Ph.D. programme and in the newly established National Graduate School in Structural Biology, the goal being to complete a Ph.D. thesis in three years. Your employment contract will be according to Norwegian national rules.

UMB wants to recruit more females to science. If two or more applicants are considered to be equally

qualified for the position, and at least one of them is a female, the female will be employed.

Annual salary starts at level 45 on the Norwegian Government salary scale (approximately NOK 353,000 (EUR 44,125)). Increases in salary will be according to seniority rights.

For further information, you may contact Professor Vincent Eijsink, phone +47 64965892, e-mail: vincent.eijsink@umb.no. See also pep.umb.no.

The application should preferably be submitted via the link "Apply for this position" on <https://secure.jobbnorge.no/visstilling2.aspx?stillid=56705> by April 20th 2008. In case of problems you may send your application electronically to Professor Vincent Eijsink.

Printed material which can not be sent electronically (e.g. copies of verified testimonies, certificates, publications including Masters thesis etc) should be sent threefold (3 copies of each) by regular mail to Norwegian University of Life Sciences, Dept. of Chemistry, Biotechnology and Food Science, P.O Box 5003, N-1432 Aas, Norway. **Reference number: 09/402**

The position follows the Norwegian government pay scale and includes membership in the national pension plan (2%). The profile of employees in the Norwegian government shall aim to reflect the composition of the population. A balanced composition in terms of age and gender, as well as persons with an immigrant background, is therefore a goal. Persons with immigrant background are encouraged to apply.