Jobbnorge ID: 187253
Deadline: 6/15/2020
Website: http://www.ntnu.no
Scope: Fulltime
Duration: Temporary

The Department of Biotechnology and Food Science has a vacancy for

2 PhD positions in the Norwegian Seaweed Biorefinery Platform

This is NTNU

At NTNU, creating knowledge for a better world is the vision that unites our 7 400 employees and 42 000 students.

We are looking for dedicated employees to join us.

Video: https://www.youtube.com/watch?v=clgKd1SwGLI

About the positions

The two PhD positions are part of the Norwegian Seaweed Biorefinery Platform, a project funded by the Research Council of Norway and hosted by Department of Biotechnology and Food Sciences, NTNU.

The Norwegian Seaweed Biorefinery Platform (SBP-N) http://seaweedplatform.no/ is looking for two candidates to be hired for three-years with the possibility of 1 year extension due to teaching duties. The positions will belong to the Department of Biotechnology and Food Science at Norwegian biopolymer laboratory (NOBIPOL), Faculty of Natural Sciences and Technology. NOBIPOL is a multidisciplinary research group within NTNU devoted to the field Biopolymer Engineering, with focus on the science and technologies of marine polysaccharides. Based on more than 60 years of continuous research in the field, NOBIPOL possesses unmatched competence and experience in all aspects related to science and technology of marine polysaccharides. The current activities of NOBIPOL take place in close collaboration with the Department of Physics and the Department of Clinical and Molecular Medicine at NTNU, as well as SINTEF Industry.

You will report to Professor Finn L. Aachmann

Duties of the position

Norway is in a unique position regarding marine biomasses and these resources play an important role in our economy. However, the potential for value creation based on marine resources is currently underexploited, and there is a need for the development of new enabling technologies for realizing this potential. A key element in SBP-N is to establish a biorefinery process for the fractionation, isolation and modification of targeted products from seaweed. Here PhD#1 is expected to develop the initial processing steps for the biorefinery of seaweed. PhD#2 is expected to identify and characterise enzymes working on sulphated polysaccharides as well as their enzymatic product. Both PhD candidates are foreseen to work collaboratively on some aspects of the projects and will interact with the Norwegian NMR Platform at NTNU. The supervisor for both candidates will be Prof. Finn L. Aachmann.

Required selection criteria

For both PhD-positions, the main objective is to qualify the applicants for future work in research positions in industry or academia. The qualification requirement is that you have completed a master's degree or second degree (equivalent to 120 credits) with a strong academic background in biotechnology, biochemistry, biophysics or equivalent education with a grade of B or better in terms of NTNU's grading scale. If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you are unable to meet these criteria you may be considered only if you can document that you are particularly suitable for education leading to a PhD degree.

PhD#1: The applicant will work on pre-processing and processing of seaweeds with focus on developing fractionation methods for targeted end products. The applicant should have a strong documented experience in analytical chemistry, preferable on polysaccharides. Further experience with biophysical techniques on characterizing polysaccharides (e.g. NMR, SEC, SEC-MALS, UV-VIS, CD, MS and ITC) will be considered as an advantage. In addition, experience in processing of seaweed, enzymes and enzymatic modification of polysaccharide with a good understanding of enzymes and carbohydrates is highly desirable.

PhD#2: The applicant will use sulphated polysaccharide active enzymes to characterize sulphated polysaccharides, as well as different sulphated polysaccharides to characterize the activity of the enzymes. To accomplish such tasks, the applicant should have a documented

background in molecular biology, polysaccharide chemistry or structural biology. Experience with protein expression and purification of proteins, polysaccharide chemistry and enzymatic modification of carbohydrates will be considered as an advantage. Furthermore, additional experience in biophysical techniques (e.g. NMR, UV-VIS, CD, fluorescence spectroscopy and ITC) along with a solid understanding of protein science and polysaccharide chemistry is also highly desirable.

The applicants should clearly state which position they have applied for and how their competence fits to the position.

The applicant should have practical experience with some of the central methods. Good collaboration skills e.g. through planning and conducting research, co-authoring research papers, as well as the ability to conduct independent research will be emphasized. The applicant should have excellent English skills (oral and written).

In the evaluation of which applicant is best qualified, emphasis will be placed on education, experience and personal suitability, in terms of the qualification requirements specified in this position announcement.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and national guidelines for appointment as PhD, post doctor and research assistant.

Personal characteristics

A successful applicant should be creative and ambitious, with a strong ability to work problem-solution orientated. The applicant should be flexible, enjoy interdisciplinary research, and be able to work both as part of a team and independently.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability.

We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and inclusive work environment with dedicated colleagues
- favourable terms in the Norwegian Public Service Pension Fund
- employee benefits

Salary and conditions

PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 479 600 per annum before tax, depending on qualifications and seniority. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is 3 years with the possibility of 1 year extension due to teaching duties. Appointment to a PhD position requires that you are admitted to the PhD programme in Biotechnology (https://www.ntnu.edu/studies/phbiot) within three months of employment, and that you participate in an organized PhD programme during the employment period.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criteria in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

It is a prerequisite you can be present at and accessible to the institution on a daily basis.

About the application

The application and supporting documentation to be used as the basis for the assessment must be in English or a Scandinavian language.

Publications and other scientific work must follow the application. Please note that applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

The city of Trondheim is a modern European city with a rich cultural scene. Trondheim is the innovation capital of Norway with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

NTNU is committed to following evaluation criteria for research quality according to The San Francisco Declaration on Research Assessment - DORA.

As an employee at NTNU, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the position, please contact Prof. Finn L. Aachmann, email finn.l.aachmann@ntnu.no.

Please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from China Credentials Verification (CHSI).

Together with the application we request an up to one page "Personal motivation letter" for the position. If you are invited for interview you must include certified copies of transcripts and reference letters. Please refer to the application number **NV-63/20** when applying.

Application deadline: 15.06.2020

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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

Our activities contribute to increased exploitation of existing and new ingredients for sustainable food production as well as next-generation energy solutions and medical technology. We educate graduates for a wide range of careers in industry, public administration and academia. The Department of Biotechnology and Food Science is one of eight departments in the Faculty of Natural Sciences.

Additional information

Place of service:

Trondheim 7491 Trondheim (Trondheim Municipality)