



PhD-candidate in the field of in-vivo biopolymer engineering

About the position

We have a vacancy for a PhD-candidate in the field of in-vivo biopolymer engineering.

The position reports to Associate Professor Jochen Schmid.

Main duties and responsibilities

There is available a PhD position within Biopolymers and Biomaterials at the Department of Biotechnology and Food Science. The position is related to the in-vivo biopolymer engineering by use of synthetic biology approaches. The project will focus on genome editing by use of CRISPR-Cas systems for in-vivo engineering of microbial polysaccharides. The scope of the topic will be a combination of using synthetic and molecular biology for genome editing, with fermentation technology to produce the desired products as well as analysis and characterization of the novel biopolymer variants. The PhD project will include work with Gram-negative as well as Gram-positive microbes. Technologies that are relevant to study are; molecular biology, cloning techniques, development of novel CRISPR-Cas tools, gene deletions and gene insertions, metabolic engineering and up- and down-regulation of specific biosynthetic pathways and genes. The candidate should have good knowledge in molecular biology and analytics, and basic knowledge in fermentation technology. The appointment has a duration of 3 years with the possibility of until 1 year extension with 25 % teaching duties in agreement with the department.

Qualification requirements

PhD candidate:

The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is completion of a master's degree or second degree (equivalent to 120 credits) with a strong academic background in [subject area] or equivalent education with a grade of B or better in terms of [NTNU's grading scale](#). Applicants with no letter grades from previous studies must have an equally good academic foundation. Applicants who are unable to meet these criteria may be considered only if they can document that they are particularly suitable candidates for education leading to a PhD degree. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or a similar document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree:

ec.europa.eu/education/tools/diploma-supplement_en.htm.

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, postdoctor and research assistant](#)

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

Personal characteristics

We search for a person that is creative, innovative and can work independently. The applicant should have good communication skills and be fluent in English, both orally and written. The candidates will be a part of the Biopolymers and Biomaterials research group that is working on a variety of topics related to Microbial Biotechnology and Biopolymer Engineering. It is thus important that the applicant is willing to collaborate with other researchers, enabling them to be a part of the team. Tentative start-date of the appointments will in the Autumn of 2019. Information about the Department can be found online at ntnu.edu/ibt and the Biopolymers and Biomaterials Research Group at <https://www.ntnu.edu/ibt/research/biopol#/view/about>, as well as the Biopolymer Engineering Research Group:

<https://www.ntnu.edu/biotechnology/ntnu-biopolymer-engineering#/view/people>, and the Microbial Biotechnology Group:

<https://www.ntnu.edu/ibt/research/microbial#/view/about>

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

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 449 400 before tax per year. 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 until 1 year extension with 25 % teaching duties in agreement with the department. Appointment to a PhD position requires admission to the PhD programme (ntnu.edu/nv/phd) in Biotechnology and Food Science (<https://www.ntnu.edu/studies/phbiot>).

As a PhD candidate, you undertake to participate in an organized PhD programme during the employment period. A condition of appointment is that you are in fact qualified for admission to the PhD programme within three months.

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. Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

Questions about the position can be directed to Associate Professor Jochen Schmid, e-mail : jochen.schmid@ntnu.no

About the application:

Publications and other academic works that the applicant would like to be considered in the evaluation must accompany the application. Joint works will be considered. If it is difficult to identify the individual applicant's contribution to joint works, the applicant must include a brief description of his or her contribution.

Please submit your application electronically via jobb Norge.no with your CV, diplomas and certificates. Applicants invited for interview must include certified copies of transcripts and reference letters. Please refer to the application number **NV-56/19** when applying.

The application should contain:

- CV, including list of publications with bibliographical references
- Testimonials and certificates (including transcript of grades from BSc and MSc)
- A one-page motivation letter with a brief description of the candidate's research experience, interests and motivation for applying for the position
- Documentation of fluency in English if English or a Scandinavian language is not the applicant's mother tongue
- Other documents which the applicant would like to present

Application deadline: 01.07.2019

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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](#).

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