

Jobbnorge ID: 192499
Deadline: 10/7/2020
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Temporary

The Department of Clinical and Molecular Medicine has a vacancy for a

PhD Position within Nanomedicine - Nanoparticles for High Throughput Diagnostics

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.

You will find more information about working at NTNU and the application process [here](#).

Video: <https://www.youtube.com/watch?v=cJgKd1SwGLI>

About the position

The Department of Clinical and Molecular Medicine has a vacancy for a PhD student within the field of nanomedicine. The earliest start date for the position will be November 2020.

The appointment has a duration of 3 years with the possibility of a further 1 year extension with 25% teaching duties in agreement with the department.

Project Description

The cross-disciplinary project **Nano-Medicine Initiative: Functional Nanoparticles in Medicine**, funded by NTNU Health, NTNU Rectorate, Faculty of Natural Sciences (NV) and Faculty of Medicine and Health Sciences (MH) aims to synthesize and tailor-make nanoparticles for a wide range of biomedical applications including diagnostic testing of various diseases such as microbial infections, cardiovascular disease and cancer by detection of antibodies, proteins, nucleic acids and metabolites. The focus is to develop real-time high throughput strategies for diagnosis. The technology developed in these projects can also be applied in other sectors such as agriculture, aqua culture and food industry. The project further aims to develop understanding of the growth mechanisms of nanoparticles in batch and continuous processes to obtain a better control of particle size and size distribution.

Thematic Area: Study and optimization of surface properties to develop high throughput diagnostic tests for testing of antibodies, proteins, and nucleic acids (RNA and DNA).

Duties of the position

The research work will involve:

- Functionalization of inorganic and polymeric nanoparticles.
- Develop nanoparticle based protocols for extraction of nucleic acids and proteins from various specimens.
- Implement protocols on high throughput systems.

The candidate is expected to participate actively in the group activities, including mentoring and co-supervision of students. More information about the group can be found here: <https://www.ntnu.edu/employees/magnar.bjoras>

The candidate is expected to be flexible in regard to short-term or long-term international research stays.

Travelling with respect to conferences, meetings, workshops may be expected as part of the position.

Required selection criteria

The PhD-position's main objective is to qualify for work in research positions. 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 molecular biology and cell biology or equivalent education within related fields such as nanomedicine, protein chemistry, microbiology or DNA/RNA technology 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.

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](#).

Preferred selection criteria

- Strong experimental background in molecular biology and cell biology.
- Experience in protein chemistry, nucleic acid technology and microbiology.
- Good written and oral English language skills

Personal characteristics

- Positive, creative and enthusiastic.
- Seeks new challenges at work.
- Has keen interest working in interdisciplinary teams.
- Communicates information with clarity and ease, both orally and in writing.

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 up to 1 year extension with 25% teaching duties in agreement with the department.

Appointment to a PhD position requires that you are admitted to the PhD programme in Medicine and Health Sciences (<https://www.ntnu.no/studier/phmed>) 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 the institution daily.

About the application

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

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

[Working at NTNU](#)

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 Magnar Bjørås (Department of Clinical and Molecular Medicine), telephone +47 950 81 497, email: magnar.bjoras@ntnu.no

If you have any questions about the recruitment process, please contact HR Advisor Vebjørn Andreassen (Department of Clinical and Molecular Medicine), telephone +47 73 41 25 77, e-mail: vebjorn.andreassen@ntnu.no

Please submit your application electronically via jobbnorge.no with your CV, motivation letter (maximum 2 A4 pages), 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 \(CHS\)](#).

The position requires spoken and written fluency in the English language. Applicants from non-English-speaking countries outside Europe must document English skills by an approved test. Approved tests are TOEFL, IELTS and Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE).

If you are invited for interview you must include certified copies of transcripts and reference letters.

Application deadline: 07.10.2020

NTNU - knowledge for a better world

NTNU - knowledge for a better world

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

The Department of Clinical and Molecular Medicine (IKOM):

The Department of Clinical and Molecular Medicine (IKOM) is NTNU's largest department, with 450 employees. Our research and teaching help to improve treatment and health.

IKOM has expertise in basic, clinical and translational research within broad disciplinary areas. We study children's and women's health, cancers, blood disorders and infectious diseases, gastroenterology, inflammation, metabolic disorders, laboratory sciences and medical ethics. The Department offers teaching in medicine at master's and PhD level. We also offer continuing education for employees in the health services.

Additional information

Place of service:

Øya, Trondheim