

Jobbnorge ID: 179486
Deadline: 1/15/2020
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Fixed Term

The Department of Energy and Process Engineering has a vacancy for a

Postdoctoral fellow in biomedical engineering related to exosome separation and manipulation

This is NTNU

At NTNU, creating knowledge for a better world is the vision that unites our 7 000 employees and 40 000 students.

We are looking for dedicated employees to join us.

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

About the position

A 2-year postdoc research fellow position is available in the Department of Energy and Process Engineering (EPT), Faculty of Engineering Science, Norwegian University of Science and Technology (NTNU). The position is part of the project Biomedical engineering platform for cardio exosomes financed by the NTNU Health strategic program involving the Department of Circulation & Medical Imaging (ISB) and the Department of Energy and Process Engineering (EPT).

Although the position is organized under EPT, close collaboration with ISB is required. The position deals with separation and characterization of exosomes using microfluidics platform. The position will start early in 2020. The head of the Department is Professor Terese Løvås. The position's supervision is by Professor Carlos Dorao. Co-supervisor is Researcher Morten Høydal.

Main duties and responsibilities

The position focuses in the isolation of exosomes from other microvesicles by size using acoustofluidics and being able to analyze the samples for biomarkers. The primary objectives are:

- to develop a microfluidic separation and characterization platform of exosomes
- to develop a nanoplasmonic biosensor for identifying particular biomarkers
- to perform experiments on purification of exosomes released in fluids from biological samples

Qualification requirements

A postdoctoral research fellowships is a qualification position in which the main objective is qualification for work in academic positions. Completion of a Norwegian doctoral degree in biomedical engineering, bio-nanotechnology, biological sciences or corresponding foreign doctoral degree recognized as equivalent to a Norwegian doctoral degree is required.

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](#).

Other qualifications

- Experience in micro-nano fabrication and working in clean rooms
- Experience in biosensors, biomaterials, surface functionalization, surface modification
- Experience in uses of electrochemical techniques
- Experience in immobilization enzymes, antibodies, DNA, etc.
- Experience in nanostructures chemical and physical synthesis
- Experience in laboratory work within the field of acoustofluidics, cellular and molecular biology as well as biomedical engineering
- Good written and oral English skills

Personal characteristics

- Self-motivated, enthusiastic, and dedicated
- Ambitious and goal-oriented
- Ability to solve complex technical tasks independently
- Excellent communication skills

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

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

Postdoctoral candidates are remunerated in code 1352, and are normally remunerated at gross from NOK 523 200 before tax per year. From the salary, 2 % is deducted as a contribution to the Norwegian Public Service Pension Fund.

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 criterias 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.

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 to Prof. Carlos A. Dorao, phone number +47 735 98462, e-mail carlos.dorao@ntnu.no, Researcher Morten Høydal, phone number +47 48 13 48 43 , email morten.hoydal@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 include the following with your application:

- A "research statement" briefly describing your PhD research or other previous research experience. This document should not exceed 1 page.
- A "qualifications" document explicitly listing each of the above qualifications and briefly describing how you meet each of the "required" qualifications and some or all of the "desired" qualifications. This document should not exceed 2 pages.

An application missing these two documents may be considered incomplete by the selection committee.

Please submit your application electronically via jobbnorge.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 IV-277/19 when applying.

Application deadline: 15.01.2020.

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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 Energy and Process Engineering

We conduct research and teaching covering the entire energy chain, from resources to the end-user. We look at how energy is produced and used by humans and machines in a sustainable way with regard to health, climate change and the resource base. [The Department of Energy and Process Engineering](#) is one of eight departments in the [Faculty of Engineering](#).

Additional information

Place of service:

NTNU Department of Energy and Process Engineering 7491 Trondheim (Trondheim Municipality)