



postdoctoral researcher in medical image analysis

About the position

This position is a fixed term, full time (100 %) position for three years starting in autumn 2019.

The position offers challenging and varied tasks in an environment characterised by active, committed and skilled employees.

The postdoc will be part of the MR Cancer Group, which is a multidisciplinary research group working within the field of personalized cancer medicine. For more information about the research group, please visit the following web page: <http://www.ntnu.edu/isb/mr-cancer>. The position offers challenging and varied tasks in an environment characterized by active, committed and skilled employees.

Prostate cancer affects approximately 1 in 8 men during their lifetime. Incidence is increasing due to the aging population, and new clinical tools are urgently needed. MRI has become a key component in the diagnostic workup. However, the interpretation of MRI images relies on the manual and qualitative reading by experienced radiologists, which is a time and cost-intensive resource, underusing the quantitative nature of the images. In this interdisciplinary project, the postdoc will contribute to the development of a transparent decision support system that combines deep and model-based machine learning methods. The ultimate goals are to accurately and efficiently detect prostate cancer, differentiate between high-risk and low-risk disease, and target prostate biopsies. The research results will be validated in a hospital setting during the project period, and the postdoc will be an important link between the university and hospital partners to facilitate this.

The position reports to the Head of the MR Cancer Group, professor Tone F. Bathen (<https://www.ntnu.edu/employees/tone.f.bathen>)

Main duties and responsibilities

- Processing and analysis of multiparametric prostate MR images
- Development and validation of machine learning methods
- Interaction with local, national and international interdisciplinary researchers
- Writing, publishing and communication of results to peers, users and the general public

Qualification requirements

A postdoctoral research fellowship is a qualification position in which the main objective is qualification for work in academic positions. Completion of a Norwegian doctoral degree in medical image analysis 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:

- Strong background in MRI, biophysical modelling and/or image analysis.
- Excellent programming skills - in one or more of: Matlab, Python, C++
- Demonstrated research capability via a good publications record
- Demonstrated ability to work independently as well as collaboratively
- The position requires strong English oral and writing skills

Emphasis will also be placed on:

- Hands-on experience with MRI
- Experience with machine learning
- Experience with participation in interdisciplinary collaborative research projects

Personal characteristics

- Strong analytical skills
- Strong writing skills, capable of synthesizing and expressing complex ideas clearly
- Team player, collaborative, and respectful; values the inputs and opinions of others
- Self-motivated, ambitious, resilient, resourceful, result-oriented, and independent

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 515 200 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, especially women, regardless of their 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.

For further information about the position:

Professor Tone F. Bathen , email: tone.f.bathen@ntnu.no, telephone: 00 47 95020196

Researcher Mattijs Elschot , email: mattijs.elschot@ntnu.no, telephone: 00 47 73598633

For enquires regarding the application procedure:

HR Consultant Julie Hoff, email: Julie.hoff@ntnu.no, telephone: 00 47 576984

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

How to apply:

Please submit your application electronically using the appropriate link in <http://www.jobbnorge.no>. Applicants will only be assessed on the information submitted and it is the applicant's responsibility to ensure everything is submitted by the deadline of August 7th 2019.

Please complete the online application form. The applicant's personal qualification and motivation for applying for the specific position must be mentioned in the cover letter. In addition, the following pdfs must be attached:

- Relevant transcripts and diplomas, including diploma supplement
- Short statement from a former supervisor/tutor/teacher
- Publication list, if applicable
- Chosen applicants will be invited to undergo an interview.

Candidates from universities outside Norway are requested to send a Diploma Supplement or similar official document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree:

<https://europass.cedefop.europa.eu/documents/european-skills-passport/diploma-supplement>.

Candidates from non-English speaking countries outside the Nordic countries must provide official documentation of their English competence. Approved tests and results are:

- TOEFL: 600 / writing 4.5 (paper-based test), 92 / writing 22 (internet- based test)
- IELTS: 6.5, with no section lower than 5.5 (only Academic IELTS tests accepted)
- Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE): grade A or B

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.

Application deadline: 07.08.2019.

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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.

The Department of Circulation and Imaging (ISB) has 260 employees, and its research units are at the Cardiothoracic Centre at St. Olav's Hospital, integrated with collaborating clinical divisions. The Department of Circulation and Medical Imaging (ISB) includes anaesthesiology, radiology, radiography,

ultrasound, magnetic resonance imaging, exercise physiology, cardiovascular physiology, pulmonary physiology, pulmonary medicine, cardiology, vascular surgery, thoracic surgery and biomedical engineering. The department is also responsible for the Centre for Innovative Ultrasound Solutions (CIUS), the Medical Simulation Centre and the MR Centre. More information about the department is available at <http://www.ntnu.edu/isb>

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