NORGES IDRETTSHØGSKOLE

Jobbnorge ID: 296037
Deadline: 3/11/2026
Website: http://www.nih.no
Scope: Fulltime
Duration: Fixed Term

About NIH

The Norwegian School of Sport Sciences (NIH) is a specialized university and serves as the premier education and research institution of sport science in the Nordic countries. Our mission is to educate, investigate and present a broad range of topics within theoretical and practical sport science. Our Bachelor's degree, Master's degree and PhD programmes aim to be of great relevance.NIH has approximately 2300 students and a staff of 240 in four departments, two research centres, six administrative units and a library. The campus and sports facilities are located near Sognsvann. For more information on NIH, visit http://www.nih.no

Experienced Post-Doc in Skeletal Muscle Molecular Physiology and Epigenetics

About the Position

A full-time, 4 year position as an experienced Post Doctoral Researcher in Skeletal Muscle Molecular Physiology and Epigenetics is available at the Department of Physical Performance at Norwegian School of Sport Sciences (NIH) from May 2026 or soon thereafter.

The Department of Physical Performance has a long history of basic and applied research, focusing on biological effects of physical training from molecule to integrated physiology.

The research includes exercise/molecular exercise physiology, skeletal muscle biology, biomechanics, technology and discipline specific sports research in collaboration with national and international sport federations and industry.

The position is embedded in NIH's strong research environment in human muscle biology, molecular physiology and exercise epigenetics, with the primary research activity conducted in the research group of Professor Adam P. Sharples.

The researcher will work closely with Professor Sharples as the NIH project lead, and in collaboration with Professors Tinna Stevnsner and Kristian Vissing at Aarhus University (Denmark).

The position is part of the Novo Nordisk Foundation funded EMMA project, with a total award of approximately 26 million NOK across the three principal investigators, of which around 9 million NOK is allocated to Professor Sharples. The project is delivered jointly with the two international partner groups. In addition, the research team has been appointed to coordinate the Networking Activities for the entire Novo Nordisk Metabolic Ageing call, providing the researcher with valuable opportunities for scientific networking, collaborative engagement and travel across Nordic partner institutions (Finland, Sweden, Norway & Denmark).

The successful candidate will contribute to human and in vitro experimental work, tissue and cell analysis, and to multi-omics data processing, interpretation and visualization.

The role provides opportunities for scientific development, co-supervision of Master and PhD students, and delivering limited teaching (approximately 10-15 percent, in English) in cell biology/molecular exercise physiology and the research process.

Short Description of the Project

The position is funded by the Novo Nordisk Foundation collaborative grant: Epigenetic Memory of Mitochondrial Function in Ageing Skeletal Muscle (EMMA). The project investigates how ageing affects epigenetic regulation of mitochondrial function in human skeletal muscle, whether specific training modalities can reprogram or restore mitochondrial epigenetic signatures, and whether a mitochondrial memory exists during training, detraining and retraining. The work integrates human training interventions, deep phenotyping of skeletal muscle, multi-omics (metabolomics, RRBS methylome, RNA-seq, and potentially proteomics), functional mitochondrial assays and primary muscle cell culture. The researcher will contribute to the multi-omics, molecular biology and cell biology components of the project, working closely with two partner laboratories at Aarhus University.

Competence Requirements

The department is seeking to appoint a highly skilled and motivated researcher with strong experience in cell and molecular biology, skeletal muscle biology and multi-omics.

The candidate must hold a PhD in exercise physiology, molecular biology, cell biology or a closely related field, and must document a strong international research profile.

The candidate must have relevant research experience obtained after completing their PhD.

The successful candidate must demonstrate extensive experience in:

- **Human skeletal muscle biology**
  - Primary human muscle cell isolation, culture and differentiation
  - Establishment and characterisation of primary muscle cell lines (e.g., HDMCs, rodent primaries and MACS enrichment)
  - Immunohistochemistry and immunocytochemistry in skeletal muscle tissue and cells
- **Molecular biology and biochemistry**
  - RNA, DNA and protein extraction from human skeletal muscle tissue and cells
  - Assessment of nucleic acid and protein quality, quantity and purity
  - qRT-PCR
  - Western blotting
  - Preparation of samples for omics analysis
- **Omics and bioinformatics**
  - RNA-seq and RRBS sample preparation
  - Pre-processing pipelines for RNA-seq and RRBS
  - Differential gene expression (DEG), differential methylated position/region (DMPs/DMRs) analysis
  - Integration of multi-omics datasets
  - Competent R programming for omics workflows, data handling, statistical analysis and data visualisation.

Additional experience considered an advantage

- Analysis of mitochondrial function
- Analysis and interpretation of metabolomic data sets
- Mitochondrial assays (O2k respirometry, citrate synthase, mtDNA analyses)
- Human exercise biology and muscle biopsy handling

The candidate must be able to document a strong record of high-quality research. Emphasis will be placed on demonstrated experience and skills in collaborating on research projects with international research groups.

Selection Criteria

- When assessing applicants, emphasis will be placed on:
  Personal qualities, motivation, independence, initiative and communication skills
- Quality, relevance and scope of scientific work
- Demonstrated technical competence in skeletal muscle biology and omics
- Experience with collaborative research in international environments
- Ability to contribute to molecular and multi-omics components of the EMMA project
- Teaching and supervision experience
- Proficiency in oral and written English is required.

The Application

The Application

By the application deadline, please upload the following documents with your application:

- Application letter
- Academic CV (including research, supervision and teaching experience and the name and contact information of at least three references)
- Publications: The list should include up to 10 publications (.pdf files to be submitted) that the applicant believes to be most important, along with a statement for each publication indicating their relevance to the announced position.
- Copies of certificates/diplomas (including formal education in pedagogics, if applicable)
- A statement of future research plans and information about research activities

The application must be in English.

If the applicant wants other material to be considered in the evaluation (publications and other documentation of research and teaching qualifications, as well as management experience), such material must be clearly specified and available electronically.

Working Conditions

- Salary is offered according to the Norwegian State pay scale, employment code SKO 1352, on a scale from NOK 650 000 to NOK 750 000 yearly.
- The appointment will be made according to terms applying to civil servants.
- The NIH is a member of the Norwegian State Pension Fund.
- Working place is Department of Physical Performance at NIH.
- Excellent training facilities, corporate sports team, and opportunities for training during working hours.
- Immediate proximity to the subway, as well as free parking and locked bicycle parking.

Other Information

Selected candidates will be interviewed.

Inclusion and diversity are strengths, and NIH has a personnel policy goal of achieving a balanced gender composition. Furthermore, NIH seeks employees with diverse skills, subject combinations, life experiences, and perspectives.

If you are a qualified applicant with a disability, a gap in your CV, or an immigrant background, we encourage you to tick the box in the job applicant portal for this. NIH will invite at least one applicant for an interview if they are qualified, and if you get the job, we will strive to accommodate any needs you may have. The ticking is used solely for anonymized statistics, apart from selecting the right candidate.

According to the Norwegian Freedom of Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure. In our recruitment system, applicants will be given the opportunity to request to be exempt from public access, but it is up to the employer to determine whether the request shall be approved or not. If the applicant's desire to be exempt from public access is not approved by the employer, the applicant will be notified so that he/she can withdraw the application.

Contact us

Interested applicants are advised to contact the academic community in preparing the application. See below for contact information

Additional information

Contact persons:

- Klavs Madsen, Instituttleder - Head of Department
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- Adam Sharples, Project Leader
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- Elisabeth Olsen, Senior Adviser HR (for questions about Jobbnorge/submitting an application)
  Phone: | E-mail: elisabethol@nih.no

Place of service:

Sognsveien 220 0863 Oslo (Oslo Municipality)