

Licentiate student position in Clinical Physiology with special emphasis on the regulation of skeletal muscle mass and function

Karolinska Institutet, Institutionen för laboriemedicin

The Department of Laboratory Medicine consists of 9 divisions and is active in many areas of Laboratory Medicine. The department is involved in advanced basic scientific, clinical and epidemiological research. The department is one of the largest departments of education at Karolinska Institutet.

A licentiate position is an available doctoral education project to which a student is to be recruited. After the selection process the process for admission to doctoral education will commence. An admission decision will not be taken until an individual study plan has been approved by the departmental admission board.

For more information regarding doctoral education, see: <http://www.ki.se/doctoral>.

Research group

The student will be working at the Division of Clinical Physiology, Department of Laboratory Medicine in Huddinge, in the Integrative Clinical Physiology research group led by Dr. Thomas Gustafsson. Our research in clinical physiology aims to increase awareness of the link between physical activity and health, and the causes of impaired body function such as muscle wasting during inactivity, disease or aging. Our research spans from the whole-body level down to specific tissues and organs at the molecular level. Research is conducted in close collaboration with the Physiology Department at the Karolinska University Hospital. Traditional metabolic and physiological measurements are combined with molecular analysis (gene and protein expression, arrays, and bioinformatics) in different tissues as well as in primary cell cultures.

The doctoral education project and the duties of the student

Age-related loss in skeletal muscle mass, i.e. sarcopenia, is associated with personal suffering and substantial social and economic costs. Research show that intake of anti-inflammatory drugs (NSAIDs) may modulate the muscle molecular response to acute resistance exercise, however, if this translates into clinically relevant alterations in whole-muscle adaptations after training is currently uncertain. The goal of this project is to examine the influence of NSAID consumption on muscle adaptations and molecular responses to resistance training in young and old individuals. The student will use established techniques for measurements of skeletal muscle size and function. Percutaneous muscle biopsies are obtained before, during and after training interventions. Both conventional and high-throughput molecular techniques (e.g. western blotting, q-PCR, immunohistochemistry and microarrays) will be used to study the molecular response to resistance exercise with and without NSAID consumption.

Entry requirements for doctoral education at KI

To be eligible for doctoral education following requirements has to be met:

General entry requirements

A person meets the general entry requirements for doctoral/third-cycle/PhD education (according to Higher Education Ordinance Chapt 7, section 39) if he/she:

1. has been awarded advanced/second-cycle/master qualification (i.e. master degree) or
2. has satisfied the requirements for courses comprising at least 240 credits of which at least 60 credits were awarded in the second-cycle/master level, or
3. has acquired substantially equivalent knowledge in some other way in Sweden or abroad.

Specific entry requirements

Proficiency in English equivalent to the course English B/English 6 at Swedish upper secondary school:

Proficiency in the English language can be documented by an internationally recognized test such as TOEFL or IELTS, see web-link below for more information.

Applicants who meet the general entry requirements (1 or 2 above) from a university in one of the Nordic countries fulfill the requirements in English.

For more information regarding general and specific entry requirements:

<http://ki.se/en/education/entry-requirements-eligibility-for-doctoral-education>

Skills and personal qualities

We are looking for a highly motivated student with a special interest in skeletal muscle and exercise physiology. The successful applicant should have a strong background in human physiology and preferably also molecular biology (e.g. medicine, biomedicine, molecular biology, nutrition, exercise science). Basic knowledge and experience in laboratory techniques (RNA/protein extractions, western blots, q-PCR, immunohistochemistry, cell cultures) and statistics is preferred. Experience of human training studies/clinical trials and/or human invasive experimentation is desired. Professional experience from working in human exercise physiology laboratories, and from planning and conducting human training studies, is advantageous.

Assessment criteria

A selection will be made among qualified applicants on the basis of the ability to benefit from doctoral education. Karolinska Institutet uses the following bases of assessment:

- Documented subject knowledge of relevance to the area of research
- Analytical skill
- Other documented knowledge or experience that may be relevant to doctoral studies in the subject

The qualifications of the applicants will be evaluated on an overall basis.

Terms and conditions for Licentiate degree

The most common way of financial support for doctoral students at KI is doctoral grant the first year and a doctoral studentship (doctoral employment) for forthcoming years. A licentiate degree should be equivalent to 2 years of full-time studies. During the time between recruitment and admission, a short-term employment can be offered for up to 6 months.

Application process

An application must contain the following documents in Swedish or English:

- A personal letter and curriculum vitae
- A copy of degree certificates and associated certificates

- A copy of degree projects and any previous publications

The application is to be submitted through the MyNetwork recruitment system.

Karolinska Institutet is one of the world's leading medical universities. Its mission is to contribute to the improvement of human health through research and education. Karolinska Institutet accounts for over 40 per cent of the medical academic research conducted in Sweden and offers the country's broadest range of education in medicine and health sciences. Since 1901 the Nobel Assembly at Karolinska Institutet has selected the Nobel laureates in Physiology or Medicine.

Pursuant to the regulations of the Swedish National Archives, applications are kept on file for two years after the appointment has gained legal force. The regulations do not apply to attachments that have been printed or otherwise published.

Karolinska Institutet strives to provide a workplace that has approximately the same number of women and men, is free of discrimination and offers equal opportunity to everyone.

For temp agencies and recruiters, and to salespersons: We politely, yet firmly, decline direct contact with temp agencies and recruiters, as well as those selling additional job announcements.

Type of employment

Doktorandplats

Contract type

Full time

Reference number

2-70/2017

Contact

Tommy Lundberg, tommy.lundberg@ki.se

Union representative

Carina Eklund, OFR, 08-585 826 65, carina.eklund@ki.se

Emilie Hultin, SACO, 08-585 811 68, emilie.hultin@ki.se

Karin Olsson, SEKO, karin.olsson@ki.se

Published

10.Jan.2017

Last application date

30.Jan.2017 11:59 PM CET



*Karolinska Institutet använder Varbi som
rekryteringssystem i rekryteringsprocessen.*

Cookies