DOCTORAL EDUCATION
AT KAROLINSKA INSTITUTET

RESEARCH THAT SPANS THE ENTIRE MEDICAL FIELD

WORLD-CLASS RESEARCH AND OUTSTANDING RESEARCH STAFF

WORLDWIDE COLLABORATIONS
Karolinska Institutet is one of the leading medical universities in the world and the high quality of our research is internationally known. Our PhD students are an important and integrated part of that research. The aim for me and the Board of Doctoral Education is that all students leaving Karolinska Institutet with a doctoral degree are properly equipped with the tools they need to succeed in a competitive global arena.

**All of our doctoral** students are offered an individual research project, a well-educated supervisor and the opportunity to work as part of leading research groups. Karolinska Institutet also collaborates extensively with prominent universities from around the world, which ensures exceptional opportunities for international exchanges.

**We are constantly** seeking highly motivated, curious and analytically competent students from every corner of the globe to join our team of leading researchers. We invite you to accept the challenge and apply for one of Karolinska Institutet’s much sought after doctoral education position.
Doctoral education resulting in a PhD normally requires a total of four years' full-time study. During your doctoral education at Karolinska Institutet you will conduct research under supervision, as described in your individual study plan, which you write together with your supervisor. Doctoral education also includes short courses and numerous other learning activities as well as the writing of a doctoral or licentiate thesis.

The aim of doctoral education at Karolinska Institutet is to advance knowledge in the field of medical science and contribute to societal development within this field. Doctoral education should therefore provide a broad base of knowledge and prepare students for research and other work, both within academia and in society as a whole.

After taking a licentiate degree or doctorate, our graduates may continue their careers within research, as combined researchers and teachers in higher education, as managers with research expertise in industry or healthcare, as scientific journalists or in other relevant employments.

Upon completion of your doctoral education at Karolinska Institutet, you will possess a cutting edge scientific expertise in the research area covered by your thesis, as well as other competencies and skills useful for your future career.

There are approximately 2200 active doctoral students at Karolinska Institutet. Every year around 350 Doctor of Philosophy (PhD) degrees are awarded, which is around one third of all PhD degrees in the field of medicine in Sweden. Approximately one third of the PhD students at KI are international doctoral students, creating a lively and international environment which uses English as its principal working language.
HELENA KARLSTRÖM, SUPERVISOR:

“Arrive at a good research plan through discussion”

WHAT ARE THE GREATEST ADVANTAGES OF BEING A DOCTORAL STUDENT AT KAROLINSKA INSTITUTET?
– The greatest advantage is probably that Karolinska Institutet has a wide range of very high quality courses and programmes. Doctoral education lasts three years in other countries, but here it is four and can be perceived as rather hard as we ask a lot of doctoral students. Another advantage of completing your doctoral education at Karolinska Institutet is that our university has such great reputation internationally and this can be of value if you want to go on to conduct research abroad.

HOW DOES THE DOCTORAL STUDENT–SUPERVISOR RELATIONSHIP WORK HERE AT KI?
– The doctoral student and the supervisor are mutually dependent on each other, it is therefore important that the expectations of both parties are clear. Supervisors need to be thoroughly committed to their doctoral students and have enough time for them.

CAN YOU TELL US A LITTLE MORE ABOUT KAROLINSKA INSTITUTET’S SUPERVISOR TRAINING?
– The compulsory supervisor training lasts one week and deals with a variety of aspects like recruitment, admission, non-discrimination, research ethics, documentation, diversity and intercultural communication. These aspects are enhanced through the role-playing activities we perform.

ANY ADVICE FOR THOSE WHO WILL BE DOING THEIR DOCTORAL EDUCATION AT KAROLINSKA INSTITUTET?
– Think through what you are interested in and make sure you are very involved in arriving at a good research plan through discussion with your supervisor so that it is realistic, but still challenging in terms of the schedule. In that way you’ll be prepared for hard work and periods in which not everything is running smoothly, but above all you will gain a great deal of knowledge, experience and a network you’ll have for the rest of your life.

Helena Karlström is a senior research fellow and docent at the Centre for Alzheimer Research at the Department of Neurobiology, Care Sciences and Society.
STRONG RESEARCH ENVIRONMENTS

BIOMEDICUM
Karolinska Institutet is investing heavily in new buildings to meet future needs of research and education. One example is the Biomedicum, a new ultramodern laboratory building for experimental biomedical research that opens in 2018. Becoming one of Europe’s largest laboratories, it will facilitate the sharing of experiences, ideas and technologies across scientific borders. The investments at Karolinska Institutet is part of the development of the Hagastaden district with a new university hospital, flats and offices.

SciLifeLab
The Science for Life Laboratory (SciLifeLab) on the Karolinska Institutet campus in Solna is a national resource centre for high-throughput bioscience with a focus on genomics, proteomics, bioimaging and bioinformatics. SciLifeLab was created jointly by the Royal Institute of Technology (KTH), Stockholm University, Uppsala University and Karolinska Institutet. The life science industry, academia and healthcare systems all benefit from SciLifeLab thanks to active collaboration, access to advanced instrumentation and programmes for knowledge transfer.

EPIDEMIOLOGY
Sweden is in a unique position for the pursuit of epidemiological research thanks to our long tradition of personal identity numbers, access to national demographic and health registries and uniform provision of high quality healthcare. This enables research to be conducted on very large populations. The world-class resources for epidemiological research available at Karolinska Institutet include the Karolinska Institutet Biobank, longitudinal cohorts such as the Swedish Twin Registry and an expanding expertise in biostatistics. This puts Karolinska Institutet at the forefront of epidemiological research internationally.

RESEARCH AT KAROLINSKA INSTITUTET IS VERY EXTENSIVE AND IS CONDUCTED IN AREAS SUCH AS:

- Cancer and haematology
- Cell, molecular and structural biology
- Circulation and respiration
- Developmental biology, stem cells, reproductive, regenerative and reparative medicine
- Endocrinology and metabolism
- Epidemiology and public health
- Health care sciences
- Immunology, infection, inflammation and microbiology
- Neuroscience, psychiatry and behavioural science

BASIC AND TRANSLATIONAL RESEARCH
Research at Karolinska Institutet is conducted in 22 departments, most of which are situated within or adjacent to Stockholm’s teaching hospitals. This creates ample opportunities for translational research in which new experimental results are rapidly implemented for the benefit of the patients, and where clinical observations provide a basis for new research ideas.
HANNA SABELSTRÖM, DOCTORAL STUDENT:

“I have learnt a lot about leadership”

CAN YOU TELL US ABOUT YOUR RESEARCH?
– The research I have been working on is in Jonas Frisén's group at the Department of Cell and Molecular Biology at Karolinska Institutet and we have been investigating the spinal stem cells of mice. We have succeeded in identifying specific cells that are critical to the healing process following a spinal injury.

WHY DID YOU CHOOSE TO APPLY TO STUDY FOR YOUR DOCTORATE AT KAROLINKSA INSTITUTET?
– I have been interested in stem cells since I was in high school and I interviewed Jonas Frisén while working on my project in third year. I knew straight away that this was what I wanted to work with!

HAS ANYTHING SURPRISED YOU DURING YOUR DOCTORAL STUDIES?
– I have learnt an incredible amount about leadership, group dynamics, project planning and time management, which I didn't expect. I have also been working much more independently that I thought as my supervisor has a lot of confidence in me, therefore I have been able to make many contacts all over the world.

WHAT ARE YOUR FUTURE PLANS?
– My future plans are that I would like to move towards clinical work now that I have done a lot of work involving basic research. There is an abundance of new businesses in the USA focusing on stem cells so it is likely that I will be moving there.
International collaboration increases the quality of education and creates unique opportunities for students at all levels to connect with other research environments.

There are many different ways that doctoral students can engage in international collaborations. Many international doctoral students choose to pursue their entire education at Karolinska Institutet, whereas others participate in 'sandwich' programmes, dividing their time between the home and partner institutions. Some doctoral students also participate in short-term exchange programmes or conduct research within an overseas research group.

Many international partnerships are informal and initiated by individual researchers or research groups. In addition, doctoral students at Karolinska Institutet have the opportunity to participate in international collaborations based on formal agreements between Karolinska Institutet and universities in a long list of countries, including China, Japan, Singapore, South Africa, Uganda and the USA.

Students involved in partnerships develop multiple scientific skills and some international collaborations provide the opportunity to receive a degree from both universities.
Sweden is one of the largest countries in Europe, with an enormously diverse landscape and climate. Its capital, Stockholm, is the largest university city in the Nordic countries and home to 80,000 students, 5,000 of which are international students.

Stockholm is built on 14 islands connected by 57 bridges and is considered to be one of the most beautiful capital cities in the world. Its architecture, green spaces, fresh air and proximity to water are distinctive.

When you study in Sweden, you’re encouraged to think independently, creatively and critically. At Swedish universities, the emphasis is firmly on developing your ability to question the status quo by evaluating information, seeking new perspectives and coming up with well-informed opinions. You’ll be free to think creatively because of the informal and non-hierarchical nature of Swedish society. Expect to have an open and informal relationship with your professors.

Almost all Swedes speak fluent English. In fact, many Swedish companies use English as their official working language. International students find that this prevalence of English makes adapting to their new surroundings much easier.
CAN YOU TELL US A BIT ABOUT YOURSELF?
– I come from the USA and work in Per Svenningsson’s group at the Department of Clinical Neuroscience. My research group studies the effects of antidepressant drugs.

WHY DID YOU CHOOSE TO APPLY TO STUDY FOR YOUR DOCTORATE AT KAROLINSKA INSTITUTET?
– KI collaborates with many universities abroad and some of the world’s premier researchers in my field work here. I chose Karolinska Institutet because the quality of the education is so high; Nobel Prize laureates lecture here and the research is very cutting edge. I also wanted to study abroad and get out of my “comfort zone” and it sounded exciting to study in Sweden.

HOW DOES STUDYING IN THE USA DIFFER FROM STUDYING IN SWEDEN?
– A lot of people think that Sweden and the USA are very similar, but that’s only superficially. In Sweden people approach things in a different way, there is greater gender equality and working life is calmer. For example, everyone has the right to take several weeks of vacation, where in the USA there is much more pressure to work “around the clock”. In Sweden the lifestyle is more relaxed and the hierarchies are less pronounced, which means my supervisor feels more like a friend.

DO YOU HAVE ANY ADVICE FOR FUTURE STUDENTS?
– Yes, I think that you have to live what you’re doing. You must not look at doctoral studies as a normal job and as a way to support yourself, it has to be something you have a genuine interest in. This is because you need to learn to master the fundamental research methods and techniques and really understand how the mechanisms work. As a student you should also be able to communicate clearly, learn to listen and see criticism as something constructive.

STAL SAURAV SHRESTHA, DOCTORAL STUDENT
“I wanted to go outside of my comfort zone”
HOW TO BECOME A DOCTORAL STUDENT

APPLYING FOR A DOCTORAL POSITION
Available doctoral education positions are advertised on the Karolinska Institutet website: ki.se/doctoralpositions
The research supervisor chooses the best qualified person to each position.

ENTRY REQUIREMENTS (ELIGIBILITY) FOR DOCTORAL EDUCATION
A person meets the general entry requirements for doctoral education if they:
- have been awarded a degree at advanced (second-cycle) level,
- have satisfied the requirements for courses comprising at least 240 Swedish higher education credits, of which at least 60 credits were awarded at advanced level, or
- have acquired substantially equivalent knowledge in some other way in Sweden or abroad.

Applicants must certify sufficient proficiency in English.

FINANCING DOCTORAL EDUCATION
Doctoral studies at Karolinska Institutet are financed in different ways. Some students have been awarded external stipends (which are paid directly to the doctoral student by the funding body), but most doctoral students are employed by the university and receive a salary during their four year education. There are no tuition fees for doctoral education at Karolinska Institutet.

Learn more about doctoral education at Karolinska Institutet on our website: ki.se/doctoral
Karolinska Institutet is one of the world’s leading medical universities. Its vision is to significantly contribute to the improvement of human health. 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. The Nobel Assembly at Karolinska Institutet selects the Nobel laureates in Physiology or Medicine.