

Doctoral (PhD) student position in Neuroscience of Perception and Motivation

Do you want to contribute to better health for all?

To be a doctoral student means to devote oneself to a research project under supervision of experienced researchers and following an individual study plan. For a doctoral degree, the equivalent of four years of full-time doctoral education is required.

The research group

At the Nutritional Neuroscience Group (PI: Dr. Janina Seubert), we study the perceptual experiences associated with food consumption. Our goal is to understand the cortical processes that drive acquisition of new flavor preferences, their interactions with interoceptive feedback, and their role in appetite regulation. Separate lines of our research explore various aspects of these questions mainly through psychophysical testing and functional/structural neuroimaging, using smell and taste as our main stimulus modalities.

The doctoral student project and the duties of the doctoral student

Although human food consumption habits pose a significant threat to global health and ecological sustainability, large-scale changes of eating patterns are slow to take effect. While the intrinsic reward value of taste is often blamed for dietary preferences, there is to date a fundamental lack of knowledge about the perceptual and emotional mechanisms that link these rewards to the preference for very specific liked and disliked food items. As a PhD student on our new ERC Starting Grant, you will use complex food stimuli to investigate how the human brain acquires preferences for specific flavors, and how the successful retrieval of these preferences might be affected by different contextual circumstances. In this role, you will be designing and conducting psychophysical studies involving perceptual stimulation via nose and mouth, using our state-of-the-art smell and taste perception laboratory equipment. You will also conduct brain imaging studies using functional MRI, and will have the opportunity to work with collaborators both locally and internationally. You will be expected to write manuscripts and prepare them for publication, and to present your work at international conferences.

What do we offer?

A creative and inspiring environment full of expertise and curiosity. Karolinska Institutet is one of the world's leading medical universities. Our vision is to pursue the development of knowledge about life and to promote a better health for all. At Karolinska Institutet, we conduct successful medical research and hold the largest range of medical education in Sweden. As a doctoral student you are offered an individual research project, a well-educated supervisor, a vast range of elective courses and the opportunity to work in a leading research group. Karolinska Institutet collaborates with prominent universities from all around the world, which ensures opportunities for international exchanges. You will be employed on a doctoral studentship which means that you receive a contractual salary. Employees also have access to our modern gym for free and receive reimbursements for medical care.

Eligibility requirements for doctoral education

In order to participate in the selection for a doctoral position, you must meet the following general (A) and specific (B) eligibility requirements at latest by the application deadline.

It is your responsibility to certify eligibility by following the instructions on the web page [Entry requirements \(eligibility\) for doctoral education](#).

A) General eligibility requirement

You meet the general eligibility requirement for doctoral/third-cycle/PhD education if you:

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

Follow the instructions on the web page [Entry requirements \(eligibility\) for doctoral education](#).

*If you claim equivalent knowledge, follow the instructions on the web page [Assessing equivalent knowledge for general eligibility for doctoral education](#).

B) Specific eligibility requirement

You meet the specific eligibility requirement for doctoral/third-cycle/PhD education if you:

- Show proficiency in English equivalent to the course English B/English 6 at Swedish upper secondary school.

Follow the instructions on the web page [English language requirements for doctoral education](#).

Verification of your documents

Karolinska Institutet checks the authenticity of your documents. Karolinska Institutet reserves the right to revoke admission if supporting documents are discovered to be fraudulent. Submission of false documents is a violation of Swedish law and is considered grounds for legal action.

Skills and personal qualities

We are looking for a collaborative person with strong analytical skills, and a curiosity for understanding how perceptual information is represented in the human brain. You should have documented prior experience of research in psychology or cognitive neuroscience, conducting behavioral experiments and/or collecting MRI data. Experience working with a statistical software package (t. ex. R, SAS; SPSS) is a requirement. Prior knowledge of data analysis of brain imaging data, (for example with SPM or FSL), as well as programming skills in Python are desirable for the position. As the research group is internationally oriented and communication takes place mainly in English, very good knowledge of English is required in both speech

and writing. We are looking for an individual who shows initiative, attention to detail, and the ability to work independently.

Terms and conditions

The doctoral student will be employed on a doctoral studentship maximum 4 years full-time.

Application process

Submit your application and supporting documents through the Varbi recruitment system. Use the button in the top right corner and follow the instructions.

Your application should contain the following documents:

- A personal letter and a curriculum vitae (Swedish or English)
- Degree projects and previous publications, if any (Swedish or English)
- Any other documentation showing the desirable skills and personal qualities described above (Swedish or English)
- Documents certifying your general eligibility (see A above)
- Documents certifying your specific eligibility (see B above)

Selection

A selection will be made among eligible applicants on the basis of the ability to benefit from doctoral education. The qualifications of the applicants will be evaluated on an overall basis.

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.

All applicants will be informed when the recruitment is completed.

Read more about the Clinical Neuroscience Department and the Division of Psychology at Karolinska Institutet: <https://ki.se/en/cns/the-division-of-psychology>

Read more about the Nutritional Neuroscience group and the Perception Lab:
<https://www.perceptionlab.se/>

<https://ki.se/en/cns/janina-seuberts-research-group>

Want to make a difference? Join us and contribute to better health for all!