

Three postdoctoral positions for a translational research initiative investigating anaphylaxis

Karolinska Institutet, Centre for Allergy Research (CfA)

The CfA is a centre of excellence at Karolinska Institutet, operating on both national and regional levels to develop and support allergy research. The long-term goal is to eradicate all symptoms of allergy and improve quality of life for children and adults with allergies. For more information go to www.ki.se/cfa.

A Donation by Karin and Sten Mörtstedt CBD Solutions AB to the CfA, has allowed us to create the research initiative:

Better diagnosis and new treatments to prevent death by anaphylaxis (allergic shock)

For reasons that still remain unclear, some individuals respond violently to ingestion of certain food-stuffs, medications, bee-stings and other factors. This may cause anaphylaxis or very severe life-threatening reactions. There is a distinct lack of simple blood tests or other objective measures to predict the scale of these reactions and treatment is largely limited to adrenaline injections and steroids once the reactions have occurred. With this research initiative we intend to launch a new and coordinated effort to better describe the risk-factors and course of these severe allergic reactions as well as to identify new test methods and novel treatments. Our long-term goal is to be able to identify individuals at risk at an early stage, so that effective prevention and treatment methods can be implemented, in order to improve quality of life for such individuals.

This new research initiative will be managed by The Centre for Allergy Research (CfA) at KI and will support three post-doctoral fellows for a period of two years. The projects are intertwined and will be supervised by senior CfA researchers. The research initiative will be overseen by a Steering Committee comprised of the project supervisors, a chairman and a representative of Karin and Sten Mörtstedt CBD Solutions AB. The details of the individual projects have been defined within a general framework, allowing plenty of scope for candidates to bring their own ideas and experiences to the initiative. To this end, applicants are required to submit a proposal for a research project that they would like to carry out within the chosen area.

All applicants are required to have a doctoral degree (PhD) or equivalent, excellent team working skills as well as fluency in spoken and written English. Knowledge of allergy, anaphylaxis or other mast cell diseases is desirable.

For specific requirements see the job descriptions for each of the positions below:

Position/Area 1: *Epidemiology and the clinical perspective*

There are unique epidemiological and clinical databases at KI (BAMSE, ALADDIN, Swedish GA2LEN, the Karolinska Mastocytosis centre etc.) that have yet to be fully explored with respect to identification of factors that are critical for anaphylactic reactions and related hypersensitivities. This part of the project also involves interviews with affected individuals and their families to learn more about how the propensity to severe reactions afflicts quality of life and health economics. Solid knowledge and skills in epidemiological and relevant statistical methods is required. Experience from epidemiological research based on national registers with data on health, diseases, disabilities and socio-economic circumstances are highly relevant.

Position/Area 2. *Biomarkers, testing afflicted individuals to identify strategies for prevention*

Karolinska Institutet is a partner in Science for Life Laboratory, including world-leading state-of-the-art technology for: metabolomics analysis using mass-spectrometry, high-throughput sequencing for

genomics, transcriptomics and epigenetic analyses as well as a proteomics platform. The successful candidate working on this project will have the opportunity to work at this facility and use patient samples collected in areas 1 and 3 to identify and describe new biomarkers that may be used to predict the risk of life-threatening anaphylaxis. One important goal is to find a marker that can be measured in easily accessible samples, such as blood, saliva or urine. Excellent knowledge and experience in one or more –omics fields and/or systems biology is required.

Position/Area 3. Clinical science, the clinical course and treatment of anaphylaxis (50% FTE)

Preliminary observations have identified certain subjects that have increased risk of anaphylactic or pseudo-anaphylactic reactions. The objective of this part of the project is to use information from area 1 and other clinical registers to systematically identify clinical course and risk factors for anaphylaxis. The successful candidate will perform allergen challenges to test treatments and hypotheses generated in areas 1 and 2, as well as current hypotheses that have yet to be tested in patients. The successful candidate is expected to have a medical degree (MD or equivalent) be clinically trained in a relevant field to develop this project. Experience of performing allergen challenges in humans is a strong merit. Fluency in spoken and written Swedish is a requirement.

Your application should include:

1. A full CV, including date of thesis defence and date of graduation, title of thesis, previous academic appointments and exams, academic title, current position, academic distinctions and committee work, and other relevant experiences and qualifications. The KI qualifications portfolio may be used and can be downloaded from www.ki.se.
2. A full publication list, please provide separate lists for publications in peer-reviewed journals and other publications.
3. A brief outline of your current work (max. one A4 page).
4. A proposal for the research project that you would like to carry out within this research initiative (max three A4 pages). State which position you are applying to.
5. Contact details of two referees. Please provide name, address, bio-sketch, e-mail and telephone numbers for two persons that agree to provide a reference. State your relationship to these people. Please do not include open statements from your referees.
6. Your contact details (e-mail, address(es), telephones) during July-September 2013 to facilitate contact during the recruitment period.
7. Certificates testifying to sickness, service in the total defence, positions of trust in trade union organisations and student organisations, parental leave or similar circumstances (if applicable).
8. Verification from the Thesis Committee or equivalent body (only if you are planning to defend your thesis within three months after the application deadline).

For full details on how to apply, please go to:

<https://ki.mynetworkglobal.com/en/what:job/jobID:23416/where:4/>

Last date for applications is 1st July 2013

If you have any questions, please contact Esther Edlundh-Rose at esther.edlundh-rose@ki.se.

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.

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.