



Postdoctoral Researcher in the functional metabolic profiling of lipid mediators in lung disease

The project: We have an opening for an individual wishing to join a multidisciplinary project aimed to understand the role of lipid mediators in obstructive lung disease. Chronic lung disease is one of the largest noncommunicable diseases globally, with 4 million deaths in 2012 alone. The successful candidate will be expected to use and further develop mass spectrometry-based methods for metabolic profiling of lipid mediators (*e.g.*, prostaglandins, leukotrienes, oxylipins) and related molecules in a range of biological matrices. Analyses will involve development of novel chromatography approaches including chiral and UPC2 methods for applications in clinical cohorts as well as experimental models to map the biochemical role of lipid mediators in the pathobiology of inflammation. Functional studies will be performed in multiple cell types, in *ex vivo* lung tissue as well as in animal models to generate a biochemical map of both pro-inflammatory and pro-resolving lipid mediators. The identified lipid mediator profiles will be used to guide systems medicine-based studies to stratify patients in order to understand the mechanisms driving this heterogeneous disease, with the aim of identifying sub-phenotypes to inform patient diagnosis and treatment strategies.

The Environment: The successful applicant will belong to the Integrative Molecular Phenotyping laboratory (<http://metabolomics.se>) in the Department of Medical Biochemistry and Biophysics. The Karolinska Institute is one of the world's leading medical universities. Its mission is to contribute to the improvement of human health through research and education. The Karolinska Institute 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 the Karolinska Institute has selected the Nobel laureates in Physiology or Medicine. The research environment includes working with state-of-the-art equipment, including multiple mass spectrometers in a new custom designed state-of-the-art facility. This full-time position is temporary (two years), with potential for renewal for at least 2 more years.

Qualifications: We are looking for highly motivated candidates with a Ph.D. in quantitative mass spectrometry or bioanalytical chemistry. The successful candidate will be expected to use and further develop mass spectrometry-based methods for metabolic profiling of lipid mediators. Accordingly, applicants need to document their experience in small molecule mass spectrometry by LC-MS/MS. We are especially interested in candidates with prior experience working with eicosanoids or other bioactive lipid mediators in inflammatory systems. Experience in cell culture and FACS analysis would be a significant merit as is experience with multivariate statistics, biomedical training, clinical research or studies of metabolism. Excellent communication skills and an ability to interact socially and scientifically with other members of the laboratory and with collaborators in various networks are essential. Previous post doc experience and a strong publication record are also strong merits.

Entry requirements: A person is eligible for a position as Postdoctoral Researcher if she or he has obtained a PhD or a foreign qualification deemed equivalent to a doctorate, no more than five years before the last date of employment as postdoc. Applicants who have completed their degree no more than three years before the last date for applications will be given priority. Applications consisting of cover letter, full CV and references should be submitted to Craig Wheelock (craig.wheelock@metabolomics.se). The start date is negotiable, but the selected candidate would ideally begin in August 2019. Applications will be evaluated as they are received.