



Postdoctoral Researcher in the molecular profiling of urinary markers of lung disease

The Project: We have an opening for an individual wishing to join a multidisciplinary project aimed to identify sub-phenotypes of obstructive lung disease. 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) and related molecules in urine. Additional efforts will involve developing methods to identify urinary adducts formed from reactive electrophiles (*e.g.*, lipid peroxidation products). Analyses will involve a combination of clinical cohorts and experimental models to map the biochemical role of lipid mediators in the pathobiology of asthma and COPD. Lipid data will be incorporated with other experimental platforms (*e.g.*, metabolomics, adductomics) and patient metadata in a systems medicine approach to understand mechanisms in lung disease. Key efforts will involve developing a diagnostic panel of markers for performing molecular sub-phenotyping of respiratory disease. The assay should be suitable for high-throughput applications in a clinical setting using plate-based technologies. The developed panel will be applied in multiple large clinical cohorts with clinical collaborators in order to determine the utility for molecular sub-phenotyping.

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 mass spectrometry, bioanalytical chemistry or pharmacology and experience in small molecule mass spectrometry as well as biological sample preparation techniques. We are especially interested in candidates with prior experience quantifying biomolecules in urine and work in respiratory disease. Experience in method development, quantification, and World Anti-Doping Agency (WADA) protocols for urinary analysis is a significant merit. Demonstrated excellent communication skills and an ability to interact socially and scientifically with other post docs and students in the laboratory and with collaborators in various networks are essential. Previous post doc experience and a strong publication record are strong merits.

Application 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 at least two 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.