



**Karolinska
Institutet**

Postdoctoral Researcher in Metabolomics of Pulmonary Medicine

Area of responsibilities/description of the work We have an opening for an individual wishing to join a multidisciplinary team aiming to understand mechanisms in asthma, COPD and other respiratory diseases. The successful candidate will be expected to use and further develop LC-MS-based methods for both non-targeted and targeted metabolomics. A primary focus of the position will be to provide metabolomics analyses for the U-BIOPRED (Unbiased BIOMarkers in PREDiction of respiratory disease outcomes) project in severe asthma. U-BIOPRED aims to use samples and medical information from hundreds of adults and children with severe asthma to identify different subphenotypes of the disease. These efforts will involve comparing the metabolomics profiles of severe asthmatics to profiles from people with mild asthma, no asthma and chronic obstructive pulmonary disease (COPD). The metabolomics data will be integrated into the overall “handprint” of ‘omics data including lipidomics, proteomics and transcriptomics. Accordingly, the selected candidate will have significant opportunity to interact with other analytical groups and bioinformatics efforts from several laboratories across the EU. The other major component of the position will involve working with the new Karolinska Institutet AstraZeneca Joint Research Program in Translational Science on the project *New biomarker patterns for phenotyping of asthma, allergies and COPD*. For these efforts, the successful candidate will perform molecular phenotyping with metabolomics data. These metabolite data will be incorporated with other experimental platforms (e.g., transcriptomics, proteomics, miRNA) and patient metadata in a systems medicine approach to investigating mechanisms in respiratory disease. These efforts will involve the use of multivariate statistics and network analysis to construct models of disease.

The successful applicant will belong to the Division of Physiological Chemistry II in the Department of Medical Biochemistry and Biophysics. The daily working environment will include the KI analytical core facility consisting of >30 researchers working with state of the art equipment including 6 Orbitraps, 1 Agilent QToF, and 2 QqQs coupled to dedicated nanoflow and normal flow separation modules. The environment has a strong and internationally recognized research tradition in the physiology and pathobiology of bioactive lipids. The project is funded by leading Swedish and international foundations.

Qualifications We are looking for highly motivated candidates with a Ph.D. in mass spectrometry or bioanalytical chemistry and experience in small molecule mass spectrometry as well as biological sample preparation techniques. Candidates should have demonstrated experience in LC-MS based metabolomics. We are especially interested in candidates with prior experience working with large clinical studies. In addition, the applicant must have significant and demonstrable experience in dealing with data acquisition, analysis protocols and associated software. Experience with computer programming (e.g., R, Matlab) and multivariate statistics (e.g., SIMCA) would be highly advantageous. 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.



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Start date: Funding is available immediately, and the ideal candidate would be able to start as soon as possible. This position is initially available for 24 months, with potential renewal for at least an additional 12 months based upon mutual agreement.

Salary: Salary will be based upon the applicant's experience and will include health insurance.

Applications: Applications including research experience, CV and at least two references should be submitted via the Karolinska Institutet NetRecruiter System <https://ki.mynetworkglobal.com/en/what:job/jobID:44231/where:/>. For questions or general inquiries contact Craig Wheelock (craig.wheelock@metabolomics.se). The position is open until filled and applications will be evaluated as received. For full consideration, applications should be received by December 1st.

Further Information: For additional details of the department and research interests:

<http://www.metabolomics.se/>

<http://www.mbb.ki.se>

<http://ki.se/en/startpage>

<http://www.europeanlung.org/en/projects-and-research/projects/u-biopred/home>

<http://ki.se/en/research/translational-science-centre>