1 PhD and at least 2 Postdoc opportunities – Diet, gut microbiota, mucosal barrier function

In the group of Björn O. Schröder at The Laboratory for Molecular Infection Medicine Sweden (MIMS), the EMBL Nordic Node at Umeå University, Sweden, new PhD student and Postdoc opportunities are available. The laboratory is located in the Department for Molecular Biology at Umeå University.

Background
To prevent infection by or translocation of the gut microbiota into underlaying tissues, the intestinal epithelium exhibits defense mechanisms, such as the production of intestinal mucus and antimicrobial peptides (AMPs). Our research projects will focus on how dietary and other factors influence the interaction between gut microbiota and the mucosal barrier (intestinal mucus and AMPs) and we will investigate the relevance of this interaction in the context of diseases, such as inflammatory bowel disease and metabolic diseases. In the laboratory we will use a combination of gut microbiota analyses, microbiota transplantations (FMT), state-of-the-art ex vivo mucus measurements, antimicrobial assays, as well as confocal and fluorescence microscopy. In addition, we will use dietary interventions in mice and humans and closely work with Norrlands University Hospital Umeå (NUS) to analyze relevant patient samples.

Qualifications
Successful candidates must hold a university degree (PhD or equivalent for postdoctoral applications) in a subject area relevant for the positions. Furthermore, applicants for a postdoctoral position should have experience in mucosal barrier function and/or gut microbiota research and must have good knowledge of standard molecular biology and biochemical methods. For all candidates, working experience with mouse studies, gut microbiota analyses + manipulations and/or imaging techniques are strong merits. Successful candidates need to be highly motivated, have very good communication skills and are expected to be at ease collaborating with other scientists. They should have high capacity to independently organize and lead projects. International experience is a merit while good skills in both oral and written communication in English is a must. Great emphasis will be placed on personal suitability.

Contact/ Application
Interested candidates are welcome to contact Björn Schröder for more information and/or send a letter of interest as one .pdf file in English to bjorn.schroder@umu.se, including: (i) a cover letter, summarizing qualifications and motives for applying, (ii) a curriculum vitae, and (iii) the names and contacts of three references (up to two references for PhD student applications).

Further information:  www.mucubacter.org  www.mims.umu.se
Working at Umeå University

Umeå University, with its location in the north of Sweden, might seem a distant place to most. However, the bustling and growing city of Umeå nurtures creativity at the same time as the closeness to nature also gives us time to reflect, to think big and outside the box. This is probably why so many visiting researchers and students from all over the world like Umeå so much.

Umeå offers breath-taking nature, an abundance of shopping, first-class restaurants, a rich cultural life and a packed events calendar of a major city. More than 50 languages are spoken - with English widely used everywhere - and there is a thriving network of associations and clubs that represent people and cultures from across the globe.

Umeå is a clean and green city, where people and businesses respect the beautiful northern landscape and really care about protecting the environment. The city's green credentials are underlined by the fact that Umeå is known as the "City of Birches". Nearly 3,000 birch trees were planted along the city’s wide avenues following a devastating fire that destroyed large parts of the city back in 1888.

Quick facts about Umeå University

Students: over 30,000
Teachers/researchers: over 2,000
Employees: over 4,000
Founded in: 1965 as the fifth university in Sweden

Did you know that Umeå University ...
• lies within biking distance of the entire city?
• has its own ice-skating rink on the university pond in winter?
• is located right next to the best university hospital in Sweden?