



Postdoctoral position in Analytical Chemistry / Molecular Biology / Microbiology

Type of employment: Fixed-term employment, 2 years with possibility for renewal

Location: Department of Marine Sciences, Gothenburg, Sweden

Closing date: May 15, 2021

First day of employment: Negotiable, but preferably prior to September 1, 2021

Subject areas aquaculture / feed supplements / pathology / aquaponics / biofilters / hydroponics / biofloc / biofilms / neuroendocrine

A postdoctoral position is available with a research focus on (i) bivalve neuroendocrine physiology; or (ii) microalgal production for shellfish aquaculture; or (iii) aquaponics.

The first project involves examining cell lineages of melanocytes and biomarkers in melanocyte differentiation, specifically focused on the role of G-protein-coupled receptors in *Crassostrea gigas* (oysters). The second project will focus on optimizing *Chaetoceros calcitrans* production in microalgal cultures for shellfish aquaculture in conjunction with an industrial partner. The third project will examine the role of microbial populations in recirculating aquaculture systems (RAS), biofilters, anaerobic digesters and hydroponics (HP) units within aquaponics systems that optimize growth from appropriate nutrient transfers between units. The third project will also involve work on bacterial relationships related to biofloc, biofilms and pathogens in RAS systems.

We are seeking a candidate who is independent and self-motivated; details of the project can be adjusted based on a candidate's skills and interests. The candidate will be expected to lead their project but i) develop and discuss their ideas with team members and the PI; ii) initiate and carry out their work within a collaborative environment; iii) write well-formulated reports and academic articles. The candidate will be responsible for running applied experiments in several different labs (Europe, Australia, Southeast Asia) thus requiring flexibility for extended stays in various locations as well as frequent international travel to participate in meetings, working groups, conferences and visits with industry partners. The candidate will be working in a multidisciplinary team of aquatic science researchers, engineers and food scientists in several international research groups, thus good team skills, effective communication in English and the ability to travel are required.

The position is fulltime for an initial 2-year contract with the possibility of renewal. International applicants are welcome. Although based at the University of Gothenburg, Sweden, the position also involves considerable international travel (once that becomes possible again due to the COVID situation), so applicants must be prepared to work for extended periods in locations outside of Sweden.

The exact start date for this position is negotiable depending on the availability of a suitable candidate, but a start date of September 1, 2021 is desirable. Salary is approximately \$3500 USD per month (salary is paid in Swedish kroner so is relative to exchange rate). Position includes a full spectrum of vacation and travel benefits, as well as coverage from national health and business travel insurance.

Qualifications:

At a minimum, the candidate must possess a PhD in cell or molecular biology, microbiology, biochemistry, bioengineering, biotechnology, veterinary sciences, bioinformatics, nutrition or related disciplines. Demonstrated experience in forms of microscopy, various molecular and biochemical analytical techniques, and statistical software are essential. Knowledge of cell cultures, cell signaling, and/or polymeric chemistry would be desirable. For the second and third topic, additional experience in bioanalytical assays and work with microalgae, fungi, or cyanobacteria would be considered assets. It is not a requirement to have prior experience with aquaculture, aquaponics or hydroponic crop production (commercial greenhouse facilities), but such experience would be advantageous. For the second and third topics, please note clearly on your application if you have any relevant skills such as technical operation of aquarium, aquaculture tanks or multiphase bioreactors, as well as experience in hydroponic, plant nutrition or irrigation systems.

The successful candidate must have excellent English verbal and written communication skills. In addition to exemplary teamwork and communication skills, the position will involve project planning and coordination (experimental design, purchasing, logistics), therefore demonstrated independence in that regard would be assets.

The application must include:

- A CV and cover letter that describes how the applicant meets the selection criteria
- Evidence of strong academic writing skills (full text of at least three two first-author peer-reviewed manuscripts, any reports or project/grant proposals written, and a copy of the PhD dissertation)
- If not included on the CV, name and contact details of three referees attached in a file entitled References 'your name'.pdf

If the following items are not evident on the CV, please state clearly in the cover letter (a) your willingness to travel internationally for research periods in collaborating labs (b) evidence of teamwork (c) competence with specific statistical software.

Institution: The University of Gothenburg has 38 000 students and 6 000 employees, and is one of the largest universities in Scandinavia. Strong research and study programs attract scientists and students from around the world. The position is within the Department of Marine Sciences: <https://www.gu.se/en/marina-vetenskaper>

For more information, please contact Dr. Alyssa Joyce alyssa.joyce@gu.se