



IGNITE Research Fellow (PhD candidate)

Comparative and functional genomics of oogenesis and animal-vegetal embryonic axis specification

There is a vacancy for a PhD position (Early Stage Researcher) for a fixed term of 3 years at the Sars International Centre for Marine Molecular Biology affiliated with the project "Comparative Development of Animals". The Sars Centre belongs to the University of Bergen and is partner with the [European Molecular Biology Laboratory \(EMBL\)](#). The place of work will be at the Sars Centre. The starting date is negotiable but should be no later than 15. August 2018.

The PhD position is financed by the MSC Innovative Training Network "IGNITE" (<http://www.itn-ignite.eu>). IGNITE is a Marie Skłodowska-Curie Innovative Training Network that will gather together this European excellence to train a new generation of scientists skilled in all aspects of invertebrate genomics. We will considerably enhance our knowledge and understanding of animal genome knowledge by generating and analysing novel data from undersampled invertebrate lineages and by developing innovative new tools for high-quality genome assembly and analysis. The well-trained researchers emerging from IGNITE will be in great demand in universities, research institutions, as well as in software, biomedical, agrofood and pharmaceutical companies. Through their excellent interdisciplinary and intersectoral training spanning from biology and geobiology to bioinformatics and computer science, the graduates will be in a prime position to take up leadership roles in both academia and industry in order to drive the complex changes needed to advance sustainability of our knowledge-based society and economy.

About the project/work tasks:

The research group, headed by Andreas Hejnol, studies the evolution of animal organ systems using a broad diversity of animal taxa (e.g. nemerteans, priapulids, rotifers, gastrotrichs). The group is particularly interested in studying the molecular and cellular basis of organ system development using a comparative approach.

The project will focus on the oogenesis and animal-vegetal axis establishment in Ecdysozoa. The animal vegetal axis of the fertilized egg is the first embryonic axis (primary axis) around which the major body axes (e.g., anterior-posterior, dorsal-ventral and left-right) are organized. The aims of the project is to understand primary axis formation in animals and to reconstruct the evolutionary history of the primary axis specification using comparative genomics and transcriptomics and functional validation of the finding in diverse undersampled ecdysozoan invertebrates (priapulids, marine nematodes and nematomorphs and spiralian outgroups (Nemertea, Gastrotricha)). The fellow will combine single cell transcriptomics, comparative genomics and organismal approaches to determine the genes involved in oogenesis across taxa to detect major evolutionary changes. Single cell and tissue transcriptomics of gonadal tissue and oocytes will deliver a list of new candidate genes. The fellow will test identified genes for their function by detection of mRNA during oogenesis and localization in the fertilized egg. A survey of publically available genomes and novel genomes sequenced in IGNITE will allow to reconstruct the evolutionary history of target genes and provide insights into the variability of the essential process of axis determination in animals.

Qualifications and personal qualities:

- At the time of recruitment, the candidate must not have resided or carried out their main activity (work, studies, etc.) in Norway for more than 12 months in the 3 years immediately prior to start of the project. Short stays such as holidays and/or compulsory national service are not taken into account. Candidates can be of any nationality, but are required to undertake transnational mobility. Candidates must be within the first four years of their research career (measured from the date when they obtained the degree which formally entitles them to embark on a doctorate in the country in which the degree was obtained). Applications from candidates who already possess a doctoral degree will not be considered.
- The applicant must hold a master's degree or the equivalent in a biological field, or must have submitted the master's thesis for evaluation before expiry of the application deadline. It is a condition of employment that the master's degree has been awarded
- Experience in molecular biology and bioinformatics (command line) is essential while experience in morphology and developmental biology are highly desirable
- A high motivation is essential and ability to work both independently and in close collaboration with others in a structured manner is essential
- Proficiency in both written and oral English

About the research training:

As a PhD Candidate, you must participate in an approved educational programme for a PhD degree within a period of 3 years. A final plan for the implementation of the research training must be approved by the faculty within three months after you have commenced in the position. It is a condition that you satisfy the enrolment requirements for the PhD programme at the University of Bergen.

We can offer:

- Early Stage Researchers will enjoy a multi-disciplinary and international environment with plenty of training opportunities and exchange with all labs involved in the Network
- A professional, challenging and international working environment
- Well-equipped and modern laboratories
- Starting salary at pay grade 50 upon appointment (code 1017/pay grade 20/alt. 8); currently NOK 436.900 gross p.a. Further promotions are made according to length of service in the position
- Enrolment in the Norwegian Public Service Pension Fund
- A position in an inclusive workplace (IA enterprise)
- Good welfare benefits

Your application in English must include:

- A brief account of the applicant's research interests and motivation for applying for the position
- The names and contact information for two reference persons. One of these must be the main advisor for the master's thesis or equivalent thesis
- CV
- Transcripts and diplomas showing completion of the bachelor's and master's degrees, or official confirmation that your master's thesis has been submitted
- Relevant certificates/references
- List of publications or other relevant scientific work

The application and appendices with certified translations into English must be uploaded at Jobbnorge. Please go to "Apply for this job" - [see here](#). Please note that applications will be assessed only with the

information available in JobbNorge when the deadline expires. It is the applicant's responsibility to ensure that all relevant attachments are submitted by the deadline.

Applications by e-mail only will not be considered

Application deadline: May 11, 2018

General information:

Detailed information about the position and project can be obtained from Group Leader Andreas Hejnol, tel. +47 55 58 43 28, email andreas.hejnol@uib.no.

The state labour force shall reflect the diversity of Norwegian society to the greatest extent possible. Age and gender balance among employees is therefore a goal. It is also a goal to recruit people with immigrant backgrounds. People with immigrant backgrounds and people with disabilities are encouraged to apply for the position.

The University of Bergen applies the principle of public access to information when recruiting staff for academic positions.

Information about applicants may be made public even if the applicant has asked not to be named on the list of persons who have applied. The applicant must be notified if the request to be omitted is not met.

The successful candidate must comply with the guidelines and regulations that apply to the position at all times.