

GELIFES PhD scholarship The role of the placenta (1.0 fte) Vacancy number B040216

The role of the placenta in transmitting disturbed serotonin levels from the maternal environment. A comparative study with live bearing fish, rats and humans

The placenta plays a pivotal role in embryonal development in various animal taxa and adapts to changes in the maternal environment. To unravel the mechanisms by which the placenta does this, the effects of serotonin levels in the maternal environment are assessed on the development of the offspring and alterations in the placenta. Furthermore we want to elucidate how conserved the alterations found in the placenta of *Poeciliidae* (live bearing fish), rats and humans are. Together this will deliver novel insight into the mediating role of the placenta during pregnancy.

Qualifications

Successful candidates will have completed a master's degree (or equivalent) in Biology or another field of science relevant for the position. They have good command of English (oral and written), are enthusiastic and have the ability to work in an interdisciplinary team, have a passion for science, are highly motivated to work within the life sciences, integrating evolutionary and mechanistic approaches, possess excellent communication skills and the ability to write scientific papers and deliver presentations.

Specific requirements for this position.

Ability to combine both genomics/bioinformatics approaches and empirical studies in rats and fish. The applicant will have experience with animal research, molecular techniques and bioinformatics, and an affinity to work with big datasets. In possession of a license to perform animal experiments (art. 9 Wet op de dierproeven; the Dutch Experiments on Animal Act) or willing to obtain this qualification.

Supervisors

Dr Jocelien Olivier, Prof. Bregje Wertheim, Dr Bart Pollux & Dr Torsten Plösch.

Conditions of employment

The PhD training programme

The PhD student will participate in the Faculty's Graduate School of Science training programme for PhD students and will draw up a personal training and supervision plan. The Graduate School also provides a progress monitoring programme to ensure an efficient PhD process resulting in a PhD thesis within 4 years. A Career Perspectives curriculum is part of the training, which aims to prepare students for their (academic or non-academic) careers after the PhD trajectory.

Information about the PhD training programme and scholarship can be found via:
<https://www.rug.nl/education/phd-programmes/phd-scholarship-programme/>

Host organization

The University of Groningen has an international reputation as a dynamic and innovative institution of higher education, offering high-quality teaching and research. Balanced study and career paths in a wide variety of disciplines encourage the 30,000 students and researchers to develop their own individual talents. The University of Groningen is proud to be among the global elite with a classification in the top 100 of the Shanghai ARWU, the QS World University Rankings, and the THE World University Rankings. It marks the 24th place in the global ranking of Best Places to Work in Academia, scoring 3rd best in Europe and 5th non-US university. Joining forces with prestigious partner universities and networks, the University of Groningen is truly an international place of knowledge.

The Groningen Institute for Evolutionary Life Sciences (GELIFES)

GELIFES, the largest institute of the Faculty of Mathematics and Natural Sciences (FMNS) fills a special niche in the life sciences by covering and integrating mechanistic, evolutionary and ecological approaches, aiming to understand adaptation on all levels of biological organisation. Researchers pursue fundamental questions while collaborating with partners from industry, medicine and other realms of society. For its new research programme, called Adaptive Life, which is one of the four focus themes of FMNS, the institute received a large university grant.

Our research fields include behavioural biology, chronobiology, ecology, evolutionary biology, genetics and genomics, neurobiology, physiology and theoretical modelling, using a wide array of research tools. Research levels range from molecular and organismal to population and community, performed under laboratory, semi-natural and field conditions. Studying mechanisms within the framework of evolutionary adaptation allows for a large diversity of model organisms, for which we have extensive facilities. A wide array of species is studied, from microbes, algae, plants and insects to vertebrates such as fish, birds, rodents, marine mammals and humans.

PhD students will be required to develop their own research project within the scope of the research. They will receive excellent training through cutting-edge research projects, advanced courses and training opportunities, complemented by workshops on generic research, transferable skills and teaching. As a PhD candidate, you are committed to conduct independent and original scientific research, to report on this research in international publications and presentations, and to present the results of the research in a PhD dissertation, to be completed within 4 years.

How to apply

Please send your complete application in English as a single PDF file **before 11 September 2016, 23:59 Dutch local time**. Please upload your entire application as "letter of motivation" by means of the application form (click on 'Apply' below on the advertisement on the university website).

The submission should contain the following:

1. a cover letter introducing yourself, describing your motivation and qualifications to conduct scientific research and especially your choice for the particular project
2. a full CV demonstrating academic excellence, including publications and presentations (if applicable), and a copy of your passport
3. a certified copy or scan of your MSc diploma (or equivalent; provide a certified University letter stating when your graduation will be if between the application deadline and start of the project) and academic records
4. proof of sufficient competence in English
5. names and contact details of two academic references.

After the initial selection, only top candidates for each position will be invited to independently write a 1-2 page research proposal in the context of the indicated research direction as listed above. The proposal should focus on the central research question, the proposed method of approaching and answering this question, as well as the project planning.

Information

For information on the research proposal, contact Dr Jocelien Olivier, phone: +31 50 3637221, mail: j.d.a.olivier@rug.nl).

For general information on the AL and/or PhD Programme, contact Dr C.M. Eising, administrative coordinator Adaptive Life Programme / GELIFES PhD coordinator, phone: +31 50 3639140, mail: c.m.eising@rug.nl).

More information about GELIFES and the Adaptive Life programme can be found on the respective websites: <http://www.rug.nl/research/gelifes/> and <http://www.rug.nl/research/fmns/themes/adaptive-life/>

Unsolicited marketing is not appreciated.

Timeline

Publication of the call: 20 July 2016

Deadline for application: 11 September 2016, 23:59 CET

Notification email on shortlist selection: Before 30 September 2016

Writing assignment top candidates: Before 15 October 2016

Interviews: 24 & 25 October 2016

Announcement of selected/rejected candidates: before 1 November 2016.