



Vlaams Instituut voor de Zee vzw
Flanders Marine Institute

VACANCY

Researcher bioinformatics and marine systems biology

SITUATION

For 20 years, the Flanders Marine Institute (VLIZ) has been strengthening the accumulation of marine knowledge and the excellence of marine scientific research in Flanders. VLIZ is a coordination and information platform, a focal point for marine and coastal research, which also serves as an international contact point for marine science. Important activities are national and international networking, information and data management, scientific communication for policy and industry, education and the general public, and logistical support of marine research. Since 2017, the institute also initiates, promotes and executes innovative and multidisciplinary marine research, and this at the service of, in collaboration with or complementary to Flemish and international marine research groups.

To strengthen its research capacity, VLIZ is hiring 14 new colleagues in its Research Department. Join our multidisciplinary team in Oostende at the Belgian coast and be part of a new wave of marine research in Flanders. You will work in a unique institute in which your science will be supported by state-of-the-art data systems and services, research infrastructure, science communication and an extensive marine library. Moreover, VLIZ is part of a wide network of Belgian and international marine research groups, offering many opportunities for scientific collaboration.

In addition to these open positions, VLIZ sets up a recruitment reserve for potential temporary jobs. Opportunities may arise for the following profiles: ecological modeler, environmental data analyst/modeler with experience in R, marine biologist/taxonomist, molecular ecologist, marine geologist. Candidates with such a profile are encouraged to make a spontaneous application.

For each function, VLIZ considers enthusiastic involvement, open servitude, excellent professionalism and integrity as important characteristics.

RESEARCHER BIOINFORMATICS AND MARINE SYSTEMS BIOLOGY

Natural ecosystems are often too complex to study them under controlled laboratory conditions. Organisms interact with their environment in multifaceted ways. Our understanding of how species traits, species interactions and evolution of individual species contribute to ecosystem functions is therefore still very fragmentary. Nevertheless, we urgently need better insights in the functioning of ecosystems to predict how they will change under anthropogenic pressures such as global warming or ocean acidification.

In this research line, VLIZ aims to unravel important processes in natural plankton communities such as ecosystem functions, and mutualist and antagonistic interactions among different species using an ecosystems biology approach. Specifically, VLIZ wants to use high throughput sequencing to describe the composition (metagenomics) and functions (meta-transcriptomics) of plankton communities. This information will be used to model relevant ecosystem processes such as biogeochemical cycling. VLIZ is furthermore interested to investigate how such processes will alter under various scenarios of global change.

The study area is primarily the southern North Sea, where field surveys can readily be conducted to cover seasonal and spatial dynamics of plankton communities. Next to the regional focus, we will encourage collaboration in international consortia to work on global datasets.

Within this context, VLIZ wants to address the following research questions:

- 1) How are plankton communities composed and which factors define their spatial and temporal dynamics?
- 2) Which key species and key traits can we identify using gene expression profiles?
- 3) How can we use meta-transcriptomics data in ecosystem models (e.g. to investigate biogeochemical processes)?
- 4) Can we use these models to predict the effect of anthropogenic change (e.g. global warming or ocean acidification)?

To develop this research, VLIZ hires a post-doctoral researcher in the Research Department. This research will be performed in close collaboration with a junior scientist. The researcher will also collaborate with colleagues at VLIZ in other research lines concerning bio-informatics.



MAIN RESPONSIBILITIES

- To conduct research on ecosystems biology of plankton communities with internal funds. This involves bioinformatics analysis of meta-genomics and meta-transcriptomics data and the use of computational methods for statistical analysis and modelling;
- To contribute to other research projects in the VLIZ research department that involve bioinformatics analyses, to interact and collaborate with colleagues at VLIZ to increase interdisciplinarity in various projects, to give advice on colleagues' research;
- To write high quality research papers in peer-reviewed scientific journals;
- To write proposals and to prospect for external funding (in collaboration with relevant colleagues at the institute and with external partners) to initiate new projects in molecular ecology;
- To possibly contribute to research and innovation projects in collaboration with partners from the Blue Economy;
- To supervise MSc and PhD students;
- To network at national and international level with other (marine) scientists;
- To present research at national and international conferences;
- To contribute to events organized by the Department or the Institute, such as the VLIZ Marine Science Day;
- To review research proposals, manuscripts and abstracts.

PROFILE

- PhD in Exact or Applied sciences with strong skills in bioinformatics and interest in systems biology;
- Expertise with analysis and management of high throughput sequence data;
- Affinity or experience with meta-genomics or meta-transcriptomics is a plus;
- Documented and strong academic track record;
- Critical and creative;
- Scientifically integer;
- Strong interpersonal skills, a motivated team player;
- Open minded and taking initiative;
- Good oral and written English communication skills;
- Documented project writing skills;
- Experience with project management and supervision of students is a plus;
- Documented strong Academic track record;
- Willing to learn new skills on a regular basis;
- Willing to work in an international context.



ADDITIONAL INFORMATION

For more information concerning this vacancy, please contact:

- Pascal Hablützel, head of the research unit Nature Changes & Solutions
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- Michiel Vandegehuchte, Research Director VLIZ
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OUR OFFER

- We offer a challenging job in the dynamic environment of VLIZ.
- A contract of three years as post-doc researcher, which can be followed by a tenure track position in case of a positive evaluation, or a contract in a tenure track position, depending on your profile and qualifications. The salary follows the salary scales of scientific personnel in the Flemish Government.
- Fringe benefits: holiday pay, end-of-year bonus, meal vouchers, hospitalization insurance, bike allowance, free public transport for home-work commuting and an attractive holiday arrangement.



DOES THIS VACANCY APPEAL TO YOU?

Send in your cover letter and CV until May 15th 2019 (23:00 CEST):

- By post: Jan Mees, General director VLIZ, InnovOcean site, Wandelaarkaai 7, 8400 Oostende
- By mail: jobs@vliz.be with subject "03 NCS - Vacancy Bioinformatics"

Contact us by telephone on +32 (0)59 34 21 30.

VLIZ promotes equality and diversity in the workplace. You will be recruited based on competencies. Qualities of people are decisive, regardless of gender, religion, ethnic origin, age, sexual orientation or any disability.

PROCEDURE

Based on the received motivation letters and CVs, a select group of candidates will be invited for a job interview. You will be informed by email. The job interviews take place in the offices of VLIZ.

Employment can start immediately after the selection procedure and ideally not later than 1st October 2019.

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