

Doctoral fellow

Last application date	Jul 31, 2022 00:00
Department	LA22 - Department of Animal Sciences and Aquatic Ecology
Contract	Limited duration
Degree	The preferred candidate should have a degree in a data science field, such as Applied Data Science, Genetics, and Quantitative biology
Occupancy rate	100%
Vacancy type	Research staff

Job description

On July 1st 2021, a EU funded research project called DECIDE with 19 partners in 11 countries will start started for a period of five years. About 9 PhD students and several postdoctoral researchers will be are hired by the partner organizations In the DECIDE project.

The DECIDE project will develop aims at developing data-driven decision support tools, which present (i) robust and early signals of disease emergence and options for diagnostic confirmation; and (ii) options for controlling the disease along with their implications in terms of disease spread, economic burden and animal welfare.

DECIDE will focuses on respiratory and gastro-intestinal syndromes in the three most important terrestrial livestock species (pigs, poultry, cattle) and on growth reduction and mortality in salmonids. For each of these, we will (i) identify the stakeholder needs; (ii) determine the burden of disease and costs of control measures; (iii) develop data sharing frameworks based on federated data access and meta-information sharing; (iv) build multivariate and multi-level models for creating an early warning system. Together, all of this will form the decision support tools to be integrated in existing farm management systems wherever possible and to be evaluated in several pilot implementations in farms across Europe.

The results of DECIDE will lead to improved decisions on disease control to increase animal health and welfare and protect human health and the food chain in Europe and beyond.

At Utrecht University and Ghent University we have vacancies for host four PhD students that are keen to work on the interface of data science, veterinary science and economics in an international setting. Close collaboration is foreseen with partners in the DECIDE project that identify the stakeholder needs (ETHZ, CH) and build multivariate and multi-level models for creating an early warning system (UCPH, DK). For all four positions, the selected candidates are should be team players that are able to collaborate interdisciplinary and have a very good spoken and written ability in English.

Below is the description of the first PhD project and of the requirements for a suitable candidate for this project.

PhD 1. Development of data sharing frameworks based on federated data access and meta-information sharing (UGent/UU)

The main objective of this PhD project is

- to explore the different approaches for data access and data usage to support animal health by combining existing and new data and data streams.

The PhD candidate will be the main responsible (in collaboration with the main supervisor).

- to develop a common ontology that allows data from different sources to be interpreted consistently through-out the entire project.
- to develop and test alternative approaches for data access and define best practices for sustainable data access (data-to-the-code vs code-to-the-data, federated querying, federated learning)

Job profile

- The candidate has experience with ontology design
- The candidate has an affinity with the livestock production systems
- The candidate has experience with or is able to learn (statistical) programming and/or coding.
- Proficiency in English, both written and oral is required.
- Good communication skills are essential for this interdisciplinary and international collaboration project.
- The candidate can work both on her/his own, but also enjoys interaction with an interdisciplinary team and international colleagues

The student will hold a PhD position at Ghent University in strong collaboration with Utrecht University. More information about this position can be obtained from Ass. Prof. Dr. Miel Hostens (m.m.hostens@uu.nl or miel.hostens@ugent.be).

<https://www.ugent.be/bw/asae/en/research/lanupro/projects/decide> offers an overview of the project and of the 4 PhD profiles.

How to apply

Please submit your application by email to Miel Hostens (miel.hostens@ugent.be) before 1 August 2022.

Applications must be submitted in English and should include a copy of your CV, your academic transcripts and a separate motivation letter (max. 1 page) describing your research interests, skills and motivation to apply for the position.

Incomplete applications will not be considered.

From the submitted applications, a shortlist of candidates will be selected and will be invited for an interview. The interviews of the candidates from the shortlist will take place in August.