The University of Veterinary Medicine, Vienna is active in teaching and research and provides services in connection with ensuring animal health in Austria. These tasks represent our contribution to maintaining the health of humans and their animal companions as well as to producing healthy food.

To meet our objectives, our institute Unit of Veterinary Public Health and Epidemiology (Institute of Food Safety, Food Technology and Veterinary Public Health/Department for Farm Animals and Veterinary Public Health) is looking for a

PhD candidate in network analysis of animal movement data and infectious disease epidemiology

Grade: B1
Level of employment: 30 hours
Length of employment: 4 years
Deadline for applications: 08.07.2021

Job description
We are looking for a highly motivated PhD student to join the Infectious Disease Epidemiology Group to investigate how retrospective network analysis of pig movements can be used to inform surveillance and control programmes. Animal movements may favour rapid dissemination of infectious diseases among animal holdings. Network analysis of pig movement data is a critical tool for modelling pathogen spread and predicting the effectiveness of surveillance and control measures. The PhD student will benefit from an interdisciplinary research environment: at the interface of veterinary science, data science, and public health (University of Veterinary Medicine Vienna, Complexity Science Hub Vienna, Österreichische Agentur für Gesundheit und Ernährungssicherheit -AGES- Graz).

Responsibilities
- Network analysis of pig trade data.
- Simulation of disease introduction and spread through the network.
- Testing of different scenarios of surveillance and control measures.
- Investigating the dynamics of African swine fever spread in the Austrian pig network and assess surveillance and mitigation strategies.
- Presentation/ publication of results at international meetings and in peer-reviewed journals.

Necessary knowledge and qualifications
- Graduation at a Master’s level (or equivalent) in computer science, data science, or equivalent.
- Strong knowledge and experience in computational modelling, statistical analysis, and data science is required.
- Experience in programming languages for data retrieval and statistics (for example, Python and R).
- Proficient in the English language, both written and spoken (B2-level).
Skills and Abilities

- Experience with network analysis and large-scale data sets.
- Ability to conduct research relatively independently.
- Interest in multi-disciplinary research approaches.
- High initiative and persistence, creativity.
- Former education in biology, epidemiology or (veterinary) medicine would be a plus.
- Scientific publications would be a plus.

Contact /Further Information

Ass.-Prof. Amélie Desvars-Larrive
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Minimum salary

The minimum salary for university staff is regulated by the collective contract and at the level given above amounts to EUR 2,228,60 gross per month (14 times/year). The minimum salary may be increased when previous employment and other salary components are taken into account.

Applications

Please submit applications quoting the reference number 2021/0622 via e-mail (preferably) to bewerbungen@vetmeduni.ac.at or by post to the Personnel Department of the University of Veterinary Medicine, Veterinärplatz 1, 1210 Vienna. Please do not forget to include the reference number or we shall be unable to relate your application to the correct vacancy announcement.

The Vetmeduni Vienna is attempting to increase the proportion of female staff, particularly in senior positions, and in accordance with § 41 of the 2002 Universities Act it is striving to attain a balanced representation of men and women, especially on its scientific staff. Applications from qualified women are thus particularly welcomed. If women are underrepresented (below 50%), female applicants who are as well qualified as the best qualified male applicants will be given preference, provided that there are no strong reasons for favouring a particular male candidate.

Applicants have no entitlement to reimbursement of any travel or accommodation costs they may incur as a result of the application procedure.

The Vetmeduni Vienna is proud to have been awarded the certificate “hochschuleundfamilie” (career and family). We should thus be especially pleased to receive applications from people with families. Applications from persons with disabilities are similarly welcome.