

A funded 3-year PhD position in host-microbiome associations in wild birds (University of Turku, Finland)

We are seeking an outstanding PhD (graduate) student to lead an exciting project exploring the causes and consequences of variation in gut microbiome in wild bird populations.

All organisms on our planet carry microorganisms in their gut. Human and animal model studies show that gut microbiome is strongly linked to health. Host and its full microbial community have been suggested to form an inseparable entity – the holobiont, yet the importance of gut microbiome is poorly understood in wild populations, for example in birds. The project goals are to understand the causes and consequences of variation in microbiome composition in wild populations, and whether microbiome can contribute to local adaptation and allow animals to respond to changing environment. The study system is the wild populations of the passerine great tit (*Parus major*), a well-known ecological model system.

The work will include (1) collecting and coordinating microbiome data collection at large spatial scale across European populations, (2) conducting experimental microbiome manipulations in wild populations of great tits and common-garden experimental designs (3) laboratory analyses of microbiome and physiological biomarkers (4) statistics and bioinformatics of microbial data (5) dissemination of project results via high-quality journal publications and conference presentations.

Requirements

- MSc degree in ecology, evolutionary biology, physiology, genetics or microbiology.
- Background knowledge in ecology, physiology and microbial ecology.
- High motivation to learn molecular, statistical and bioinformatic skills is essential.
- Experience laboratory work/ experimental designs and working in wild populations/ knowledge on avian ecology is a bonus.
- Excellent English writing and verbal communication skills are essential.
- *Ability to communicate in Finnish/ Finnish background/residence is required (a criteria by the funding organization, Aaltonen Foundation)*

We offer

- Funding for 3 years (25000€/year, partly tax-free). A further grant for the 4th year can be applied.
- Resources for travel to conferences or workshops abroad.
- Well equipped labs and state-of-the-art scientific equipment, software, access to journals and scientific databases
- Supervision in all aspects of the work (from field to lab to computational skills), possibility to join workshops to cement the skills in e.g. bioinformatics
- International, enthusiastic working environment (working language is English), large collaborator network.
- Starting date: Sept-Nov 2020

The PhD student will be positioned at the University of Turku, Finland, and supervised by Dr. Suvi Ruuskanen (Turku), and Dr. Kirsten Grond (University of Alaska Anchorage, USA).

The application deadline is 31.7.2020

Please email your applications as a single merged PDF (up to 10 MB) to Suvi Ruuskanen (skruus@utu.fi). The .pdf should contain:

- 1) A cover letter summarizing your motivation, research interests, experiences and qualifications
- 2) Curriculum vitae, including an account of relevant technical skills/prior experience.
- 3) Information for three references;
- 4) Master's degree diploma + list of grades received in the master's program (diploma supplement / transcript of records). If pending, please provide the expected date of graduation.

More information, please contact skruus@utu.fi and see Group pages: <https://sites.utu.fi/ruuskanengroup/>.

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