20 months Postdoctoral position on the role of waterbirds in the dispersal of antibiotic resistance

Key information

This position is associated with a project from the Spanish National Plan, entitled **"**Dissemination of Antibiotic Resistance by Aquatic Birds" (DARABi), funded by the Spanish Ministry of Science, Innovation and Universities. This is a "coordinated" project between the University of Seville (US) and the Catalan Institute for Water Research (ICRA). The postdoc position is for subproject 1 "**Waterbirds as vectors for the dispersal of resistance: the role of bird ecology and environmental pollution**" (PID2019-108962GB-C21), based at the University of Seville and coordinated by Marta I. Sánchez.

The position, starting 1 October 2020, will be based at the Faculties of Biology and Medicine (University of Seville).

Gross annual salary: approximately **35.000€**

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Context of the project

Project DARABi (2020-2023) aims to assess the role of waterbirds as vectors for the dissemination of antimicrobial resistance (AMR) and to link this role to the level of anthropogenic pollution. The study plan adopts a **"One Health"** perspective which recognizes that AMR is easily spread between infected hosts (either humans or animals) and from them to the environment, and vice-versa. The research team includes ecologists with recognized international experience in bird-mediated dispersal processes, biomedical researchers working with antibiotic-resistant bacteria (ARB) in clinical settings, and microbial ecologists with a wide expertise in studying the effects of anthropogenic pollution on the dissemination of AMR in the environment. We will focus on different waterbird species, including both sedentary and migratory, from habitats of different degrees of anthropogenic disturbance. Our working hypothesis is that those species that spend more time in disturbed environments will host bacterial communities enriched in ARB and that these birds act as vectors for the active dissemination of ARB to new geographic areas.

Specific Tasks and responsibilities

The candidate will work in collaboration and under the supervision of the different teams involved in the project

- ✓ Field sampling (water, sediment and biological samples)
- ✓ Isolation and characterization of ARB in faeces from different bird species. Identification and characterization of bacterial isolates
- ✓ Development of a dispersal model to test how ARB and resistance genes are acquired, mobilized, transferred, and disseminated into the environment
- ✓ Writing of manuscripts

Required profile

- ✓ PhD degree in Biology, Ecology, Microbiology or related discipline.
- ✓ Demonstrated experience in writing manuscripts for peer-reviewed journals
- ✓ Knowledge of statistical methods
- ✓ Good written and verbal communication skills in English
- ✓ Work experience in microbiology and/or ecology, ideally both in the laboratory and the field
- ✓ Driving license
- ✓ Interest in working at the boundaries of several research domains
- ✓ Well-developed collaborative skills
- ✓ Experience with ARB is preferred, but not essential

How to apply?

- ✓ Cover letter
- ✓ CV containing a complete list of publications
- ✓ Two representative publications of your work
- ✓ Contact details for two referees
- ✓ Send before 15/08/20 to Marta I. Sánchez **msanchez85@us.es**