



Two-year Postdoctoral Fellowship in Ecotoxicology and host-parasite interactions

Offer

A postdoctoral position is available at EPHE - PSL University from June 2023 or as soon as possible thereafter, in the research group of Aurelie Goutte. This is a fully funded postdoctoral position for 24 months, located in Paris, Sorbonne University (UMR 7619 METIS).

Scientific description:

The project is part of a research program funded by the French National Research Agency (ANR) and dedicated to studying the effects of environmental pollutants on host-parasites interactions.

Some intestinal parasites, and especially acanthocephalans, have the remarkable ability to accumulate contaminants from their host. This could lead to an attenuation of ecotoxicological effects, as highlighted in freshwater fish. We thus expect that parasites are helpful for their host when pollutant sequestration provides higher benefits than the cost of infection. Environmental pollution can also affect host-parasite interactions, by inducing deleterious effects on parasites' life history traits.

The aim of the project is to test whether environmental pollution may modulate the strength and directions of biotic interactions. More specifically, we will study the effects of pollutants (pesticides and drug residues) on European chubs *Squalus cephalus* and their acanthocephalan parasites. An experimental study will be conducted in mesocosms at the CEREAP-ECOTRON IleDeFrance service unit, and especially in the National Experimental Platform in Aquatic Ecology (PLANAQUA).

Responsibilities and tasks

Your major work will focus on:

- conducting field and experimental studies (capture of chub and acanthocephalan in rivers, experiments in mesocosms)
- Performing lab work and statistical analyses to assess the impact of pollutants on the physiology, behaviour, morphology, and life-history traits of freshwater fish and on their parasites.
- Drafting manuscripts describing project results. A minimum of two articles in international peer-reviewed ecology journals are expected.
- Supervising master's students and undergraduate's students
- Participating in an international symposium

Qualifications

We are looking for a highly motivated post-doctoral researcher. Candidates should have :

- a PhD degree in ecotoxicology or in host-parasites interactions, or similar. Young researchers at the early stages of their scientific career are welcome.
- First-author papers in good international journals
- Creative and independent thinking. Candidates are strongly encouraged to propose their own ideas.
- Good communication skills in English
- Ambition to work in science and to continue an academic career
- Validated training course in the field of ethical practices in animal experimentation

Speaking French is not mandatory but the candidate should be comfortable with working in a French environment.

Facilities / collaborations

You will interact with an interdisciplinary team :

1. Ecotoxicology and environmental chemistry (EPHE / UMR METIS) : analytical methods and materials (GC-MS/MS and LC-MS/MS) for quantifying pesticides and drug, as well as pollutants' metabolites
2. Host-parasite interactions (in collaboration with T. Rigaud and A. Bauer at Biogeosciences)
3. Evolutionary ecophysiology (iEES-Paris, S. Meylan and C. Biard)
4. Environmental microbiology and molecular ecology (M2C Rouen, T. Berthe and Y. Colin)
5. Experimental aquatic ecology (CEREEP-Ecotron, B. Decencière, A. Millot, S. Agostini).

Please note that during the course of the experiment, there is accommodation facilities at the CEREEP-Ecotron.

Terms and salary

The position is available for a period 24 months starting preferably in June 2023.
Gross salary is at least €2,271 per month and increases with experience. Review of applications will begin as soon as candidates are applying and continue until the position is filled. The initial appointment is for 24 months (full-time) with potential renewal contingent on additional funding.

How to proceed

Applications should include a single pdf file with a curriculum vitae including a full list of publications, a cover (motivational) letter with a brief description of skills and research interests, and contact details and recommendation letters from 1 to 3 referees.

The application forms must be sent in by e-mail to Aurelie Goutte (aurelie.goutte@ephe.psl.eu).
For more details on the offer and/or application process you can contact Aurélie Goutte.

We encourage you to apply irrespective of age, gender, gender identity, disability, ethnicity, religious belief, sexual orientation or other characteristics.

