

Job offer: PhD or Postdoctoral Position on Epidemic models at the Climate and Health Group (Climate and Health Group, TipESM EU project)

por webadmin - miércoles, marzo 27, 2024

<https://www.biometricsociety.net/2024/03/27/job-offer-phd-or-postdoctoral-position-on-epidemic-models-at-the-climate-and-health-group-climate-and-health-group-tipesm-eu-project/>

The Climate and Health Group (led by ICREA Professor Xavier Rodó) invites applications for a postdoctoral position (exceptional PhD candidates may also be considered) in the area of mathematical modelling of zoonotic spillovers and the epidemiological dynamics of communicable diseases. The position is full-time available immediately and for a fixed-term period of 24 months with the possibility of extensions pending on successful evaluations.

We are seeking a highly motivated individual with a degree (PhD) in mathematics, physics, engineering, computer science, meteorology or theoretical ecology. A broad interest in natural sciences and more specifically in ecology is essential. We are looking for candidates motivated by science with the ability to run simulations and eventually help develop code and to integrate scientific knowledge into numerical schemes.

This position is funded by TipESM, a project funded by the European Union. TipESM is funded by the European Union, Horizon Europe Funding Programme for research and innovation under GA Nr. 101137673.

KEY RESPONSIBILITIES

Candidates will be expected to lead modeling and data analysis projects and contribute to articles and proposal writing. Main task will involve among others, the development of theoretical models of pathogen's spillover between animals and humans, the handling and integration into those simulations of climate change projections from Earth System Models simulating ecosystem's collapse. The development of a computational platform for simulation of future scenarios for malaria in Africa will also be the other important task. Prior research experiences and strong interest in infectious diseases modeling, stochastic computational modeling, and experience with ecological niche modeling are required for this position. Additional desirable skills and experience include one or more of the following: animal disease epidemiology, model fitting/calibration to empirical data, and/or advanced statistical analyses. Candidates will need to work independently and as effective members of multidisciplinary collaborative teams.

This job description reflects the present requirements of the post but may evolve at any time in the future as duties and responsibilities change and/or develop providing there is appropriate consultation with the post-holder.

This job description is not a definitive or exhaustive list of responsibilities but identifies the key responsibilities and tasks of the post holder. The specific objectives of the post holder will be subject to

review as part of the individual professional assessment process .

TRAINING AND EXPERIENCE /QUALIFICATIONS

- A Ph.D. degree in a quantitatively-oriented field, such as mathematical epidemiology, theoretical physics, or applied mathematics from a reputable and ranked western institution.
- Robust research experience in mathematical modelling and building different kinds of models.
- Experience in analytical and quantitative methods, such as deterministic and stochastic differential equations, integral equations, nonlinear dynamics, probability theory, and stochastic processes.
- Extensive experience in scientific computing involving programming, numerical analysis, symbolic and logical analysis, Monte Carlo simulations, and computer graphics.
- Experience in Matlab, Mathematica, Python and R
- Experience with statistical data analysis of large databases.

Conditions:

Duration: 2 years

Starting date: March 1, 2024

Contract: Full-time

Salary Range: Salary is commensurate with spanish standards and offered at the ISGlobal Postdoctoral level A or B depending on the qualifications. You will have up to 30 days of annual leave + 15 days «Reduction of Working Time». You can benefit of Hybrid System of telecommuting (weekly presence requested).

HOW TO APPLY

Applicants must fill in the [request form](#) and include the following code reference position: Epidemiologist_TipESM_Mar24, attach the CV and a Cover Letter. Each attached document must be named with the candidate name and surname.

[Link to job offer](#)

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