Job Reference

496_23_ES_GHR_R2

Position

Postdoctoral researcher – climate-sensitive infectious disease modelling (R2)

Data de tancament

Diumenge, 31 Desembre, 2023
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About BSC

The Barcelona Supercomputing Center - Centro Nacional de Supercomputación (BSC-CNS) is the leading supercomputing center in Spain. It houses MareNostrum, one of the most powerful supercomputers in Europe, was a founding and hosting member of the former European HPC infrastructure PRACE (Partnership for Advanced Computing in Europe), and is now hosting entity for EuroHPC JU, the Joint Undertaking that leads large-scale investments and HPC provision in Europe. The mission of BSC is to research, develop and manage information technologies in order to facilitate scientific progress. BSC combines HPC service provision and R&D into both computer and computational science (life, earth and engineering sciences) under one roof, and currently has over 900 staff from 55 countries.

Look at the BSC experience:
BSC-CNS YouTube Channel
Let's stay connected with BSC Folks!

We are particularly interested for this role in the strengths and lived experiences of women and underrepresented groups to help us avoid perpetuating biases and oversights in science and IT research.

Context And Mission

The Global Health Resilience (GHR) group led by ICREA Research Professor Rachel Lowe at the BSC-CNS is seeking a highly motivated postdoctoral scientist to conduct cutting-edge methodological research on tracking past, present and future risk of climate-sensitive diseases and developing robust data-driven modelling approaches to predict the risk of outbreaks at sub-seasonal to decadal time scales.

The mission of GHR group is to apply a transdisciplinary approach to co-designing policy-relevant
methodological solutions, to enhance surveillance, preparedness and response to climate-sensitive disease outbreaks and health outcomes. The group conducts cutting-edge methodological research on disentangling the impacts of global environmental change on infectious disease risk and co-developing impact-based forecasting models at sub-seasonal to decadal timescales in collaboration with public health, disaster risk management, and humanitarian agencies. The GHR group works closely with the Earth System Services (ESS) group, whose mission is to research the impact of weather, atmospheric chemistry and climate upon socio-economic sectors, including renewable energy, agriculture, water management, forest fires, urban development and health and demonstrate the ongoing value of earth system services to society and the economy.

The selected candidate will co-develop data harmonisation and modelling tools using open-source and stakeholder provided data to provide decision-support toolkits at multiple spatial scales and different forecasting horizons for a diverse set of decision-makers. The candidate will interact with international partners of projects funded by the Wellcome Trust (HARMONIZE and IDExtremes) and Horizon Europe (IDAlert and E4Warning). The candidates will benefit from interdisciplinary training opportunities tailored to their experience and interests. The research will be positioned within the context of WMO’s Global Framework for Climate Services (GFCS), whose aim is to provide actionable climate information to key sectors of society. This position presents an opportunity to work alongside a wide range of leading international climate and health scientists delivering cutting-edge climate services for the health sector to inform policy makers in Latin America and the Caribbean, Europe, and worldwide.

Successful candidates will benefit from expert training and BSC-CNS staff benefits: international multidisciplinary scientific environment and advanced applied research training. We encourage applications from highly motivated candidates with demonstrated experience in impact modelling for public health and an interest in applied research in the context of climate and environmental change.

**Key Duties**

- Co-create decision support systems to enhance public health resilience to climate change
- Harmonise multi-source, multi-scale climate, land-type, demographic, socio-economic, human movement and health datasets
- Formulate statistical and mathematical models to understand the impact of environmental change and socio-economic factors on infectious disease risk and health outcomes
- Develop indicators to track the impact of climate change on infectious disease risks and health outcomes
- Disseminate research outputs in peer-reviewed scientific papers and international conferences
- Interact with scientists in the group, department, center and other institutions in Barcelona to enhance synergies
- Apply for competitive grants and projects
- Engage with local communities, stakeholders and policy makers
- Develop training materials and deliver training workshops to researchers, data managers and stakeholders
- Support administrative duties of the group, including arranging meetings, taking minutes, writing deliverable and mission reports, maintaining Wiki/webpages, etc

**Requirements**

- Education
- BSc and MSc in Epidemiology, Biology, Ecology, Meteorology, Environmental Sciences, Physics or Mathematics (or equivalent)

- **Essential Knowledge and Professional Experience**
  - PhD in infectious disease epidemiology, statistical, ecological or environmental modelling or related field
  - Experience in data management and statistical analyses
  - Proficiency in scientific programming in a suitable language (e.g., R, Python)
  - Excellent written and verbal communication skills in English, demonstrated in scientific publications
  - Ability to work in a collaborative professional environment within a transdisciplinary and international team

- **Additional Knowledge and Professional Experience**
  - Knowledge on some of the following topics: Bayesian statistics, spatial epidemiology, infectious disease transmission modelling, human movement modelling, statistical downscaling, multi-model combination techniques, and bias adjustments techniques
  - Experience working with public health stakeholders and international agencies

- **Competences**
  - Problem-solving, pro-active, result-oriented work attitude
  - Excellent communication skills

**Conditions**

- The position will be located at BSC within the Earth Sciences Department
- We offer a full-time contract (37.5h/week), a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible working hours, extensive training plan, restaurant tickets, private health insurance, support to the relocation procedures
- Duration: Open-ended contract due to technical and scientific activities linked to the project and budget duration
- Holidays: 23 paid vacation days plus 24th and 31st of December per our collective agreement
- Salary: we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- Starting date: 1 Jan 2024
Applications procedure and process

All applications must be made through BSC website and contain:

- A full CV in English including contact details
- A Cover Letter with a statement of interest in English, including two contacts for further references - Applications without this document will not be considered

In accordance with the OTM-R principles, a gender-balanced recruitment panel is formed for every vacancy at the beginning of the process. After reviewing the content of the applications, the panel will start the interviews, with at least one technical and one administrative interview. A profile questionnaire as well as a technical exercise may be required during the process.

The panel will make a final decision and all candidates who had contacts with them will receive a feedback with details on the acceptance or rejection of their profile.

At BSC we are seeking continuous improvement in our recruitment processes, for any suggestions or feedback/complaints about our Recruitment Processes, please contact recruitment [at] bsc [dot] es.

For more information follow this link

Deadline

The vacancy will remain open until a suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

OTM-R principles for selection processes

BSC-CNS is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit-based Recruitment principles (OTM-R). This is applied for any potential candidate in all our processes, for example by creating gender-balanced recruitment panels and recognizing career breaks etc.

BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

For more information follow this link

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