Job Reference

334_21_ES_ESS_R2

Position

Postdoctoral researcher - environmental change and infectious disease modelling (R2)

Data de tancament

Dimarts, 16 Novembre, 2021
Reference: 334_21_ES_ESS_R2
Job title: Postdoctoral researcher - environmental change and infectious disease modelling (R2)

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, and is a hosting member of the PRACE European distributed supercomputing infrastructure. 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 700 staff from 49 countries.

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

Context And Mission

The Global Health Resilience (GHR) Team 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 disentangling the impacts of global environmental change on infectious disease risk and developing impact-based forecasting models at sub-seasonal to decadal timescales.

The mission of GHR Team 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, and infectious disease emergence. The GHR Team is part of the Earth System Services Group (ESS) within the Earth Sciences Department, 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 develop infectious disease prediction models using open-source and stakeholder provided data at both global and local spatial scales. The candidate will tackle research questions related to the impact of land use and land change and extreme climatic events on infectious disease outcomes, including vector and water-borne diseases in lower- and middle-income countries and across Europe. The candidate 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 across Europe and worldwide. The position holder will enjoy joining one of the leading and most dynamic European groups in the field of climate services.

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 health impact modelling and an interest in applied research in the context of climate services for the health sector.

**Key Duties**

- Co-create decision support systems to enhance public health resilience to climate change
- 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 stakeholders and policy makers

**Requirements**

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

- **Essential Knowledge and Professional Experience**
  - PhD in epidemiology, applied statistics 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 professional environment within a transdisciplinary and international team

- **Additional Knowledge and Professional Experience**
- Knowledge on some of the following topics: Bayesian statistics, spatial epidemiology, transmission 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, a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible working hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- Duration: 2 years (renewable)
- 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: Between Jan-Mar 2022

**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
- 1 page research summary outlining key research questions to address during the 2-year post.

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 of 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 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.

This position is reserved for candidates who meet the requirements and have the legal status of disabled persons with a degree of disability equal to or greater than 33%. In case there are no applicants with disabilities that meet the requirements, the rest of the candidates without declared disability will be evaluated.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación