



## VACANCY NOTICE – 2023-IPR-S4001-FGIV-022702

### FG IV Scientist - Exploratory Research Project

### Epidemiological Preparedness for Emerging Pathogens and Epidemics (EIPREP)

<b>Type of contract</b>	Member of the European Commission's contract staff, Function Group IV (article 3b of the <a href="#">Conditions of Employment of Other Servants</a> )
<b>Duration of contract</b>	36 months employment contract for the Exploratory Research Project Epidemiological Preparedness for Emerging Pathogens and Epidemics (EIPREP). Employment contracts for this category of staff can be renewed up to maximum 6 years.
<b>Area</b>	Health, Lifestyle and Diseases
<b>Place of employment</b>	Ispra (IT)
<b>Indicative basic salary</b>	3877,47 - 5616,29 € (applicable as of 1 <sup>st</sup> of July 2022) For more detailed information please consult: <a href="#">Working Conditions</a>

#### **WE ARE**

The [Joint Research Centre \(JRC\)](#) provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

The current vacancy is in the Digital Health Unit of the Directorate for Health and Food of the JRC. The unit aims to facilitate digital innovation in health-related topics, such as preparedness and response to emerging health threats using information technology/computer science and mathematical tools.

The Scientific Development Programmes Unit is in charge of the overall JRC Exploratory Research Programme.

The vacancy is within the **Exploratory Research Project Epidemiological Preparedness for Emerging Pathogens and Epidemics (EIPREP)**. The JRC Exploratory Research Programme is a strategic initiative characterised by ideas that might lead to novel results and qualitatively enrich current JRC scientific work.

We offer:

An excellent opportunity to acquire experience in working with complex data (epidemiological, environmental, etc.) on exciting research topics, under the supervision of experienced and productive scientists, helping to tackle key health challenges in the EU through high impact research.



## **WE PROPOSE**

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The successful candidate will work in a multidisciplinary team at the JRC and external collaborators, developing and implementing approaches for retrieving data from diverse relevant research, surveillance and statistics databases, transforming them in the appropriate formats and analysing them with statistical, geographical analysis, and artificial intelligence approaches to estimate and gain insights on the geographical distribution and abundance of vectors and pathogens.

S/he will work on the study of environmental and non-environmental factors affecting the health burden from vector-borne and respiratory infections in a globally changing environment in the scope of the EIPREP project.

The aim of this project is to assess the risk of pathogen emergence at the EU level, focusing on vector-borne and respiratory infections to develop a framework for the risk analysis on different geographical and temporal scales that could be used for outbreak forecasting

## **WE LOOK FOR**

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A Computational/Statistical Scientist with the following essential qualifications:

- A doctoral diploma (PhD) in Statistics, Computer Science, Bioinformatics, Engineering, Physics, Applied Mathematics or related field, alternatively completed university studies of at least three years attested by a diploma and at least five years professional experience in a research or analysis field relevant to the position;
- Strong quantitative background with robust statistical and computational skills, ideally with experience in machine learning, neural networks and deep learning;
- Demonstrated ability to conduct research utilising large data sets;
- Proficiency in Python, R or Matlab (at least one);
- Excellent written and spoken English (C1);
- Ability to work autonomously, and as part of a team;
- Ability to communicate scientific concepts in writing and orally.

In addition, the following competences will be considered as an advantage:

- A good research publication record;
- Knowledge and use of spatial statistics;
- Experience with mathematical models in infectious disease epidemiology and agent based systems;
- Experience with Reinforcement Learning or Optimal Control Theory;
- Demonstrated ability in management of large data sets, including data retrieval, transformations and analysis;
- Experience in the areas of infectious disease epidemiology, surveillance, modelling, spatial epidemiology;
- Knowledge and experience from the areas of transmission dynamics, immunity, host-vector-pathogen interactions, pathogen evolution;
- Work in international research teams and multidisciplinary fields.

## **HOW TO APPLY**

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If you are **already on a valid CAST FG IV reserve list**, or you **have already applied to one of the calls below**, you can directly submit your application at <http://recruitment.jrc.ec.europa.eu/?type=AX>.



**Interested candidates should provide a CV and cover letter explaining their motivation and aptitude for the vacancy and the described research areas and tasks. In the list of publications accompanying the CV, please highlight your five most relevant publications.**

If not, before applying to this position, **you must register** for one of the two following:

- the [Call for Expressions of Interest | EU Careers \(europa.eu\)](https://europa.eu) (CAST Permanent FG IV), which is used by a wide range of organisations (institutions, bodies, offices and agencies of the European Union), or
- the [specialised call for researchers](#) (JRC Call COM/1/2015/GFIV – Research), which is mainly used by the JRC.

Note that each of the calls above has **different minimum eligibility requirements and different selection tests**.

*The JRC cultivates a workplace based on respect for other people and the environment, and embraces non-discriminatory practices and equality of opportunity. In case of equal merit, preference will be given to the gender in minority.*