

Germans Trias i Pujol Research Institute (IGTP) endorses the Requirements and Principles of the European Charter for Researchers, the Code of Conduct for the Recruitment of Researchers, and Open, Transparent, Merit-based recruitment promoted by the European Commission and follows Equal Opportunities policies. On 22 August, 2019, IGTP was awarded the "HR Excellence in Research" logo. This recognition reflects the commitment of the Institute to the continuous improvement of its human resources policies in line with the Charter & Code. The Institute works to ensure fair and transparent recruitment and appraisal procedure

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## BIOINFORMATICIAN (REF.: 2024/46)

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### 1. JOB DESCRIPTION

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A bioinformatics position is offered for a person with training and experience in bioinformatics (including genomic epidemiology and phylogeny), and in biostatistics.

The candidate will join the Clinical and Experimental Microbiology Group at Germans Trias i Pujol Research Institute and Hospital. Specifically, she/he will join the research line on genomic epidemiology and surveillance of pathogens, in the Sequencing Area, located in the Microbiology Department of Germans Trias i Pujol Hospital, under the supervision of Dr. Pere-Joan Cardona (Head of the Microbiology Department) and Dr. Elisa Martró (Research Group Leader). Therefore, the candidate will be exposed to a multidisciplinary research team.

This role offers the candidate the possibility of developing new diagnostic and genomic epidemiology analyses and applications for their application in the clinical practice and in public health.

### 2. QUALIFICATIONS AND EXPERIENCE

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The applicant must have the following qualifications:

- a) Hold a PhD degree, Master's degree or Master's student in a discipline related with Bioinformatics and Data Science, with proven experience in next-generation sequencing data analysis (including pipeline development and phylogeny) in the field of infectious diseases.
- b) Training in bioinformatics (programming skills, command line and knowledge of Linux bash scripting, R, Python... and statistical data analysis) and training in research.
- c) High knowledge of the English language for participation in international projects.
- d) Competences:
  - Good willingness to work in multidisciplinary groups, both with collaborators within the Can Ruti Campus and externally.

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- Strong analytical and problem-solving skills.
- Good communication skills to discuss complex data findings.
- Commitment to data quality and attention to detail.

The following items will be of value:

- e) Experience in next-generation sequencing with Oxford Nanopore technology.
- f) Experience in microbiota and microbiome bioinformatics analyses.
- g) Experience in relational database design, implementation and maintenance (MySQL).
- h) Experience using version control platforms, e.g., github.
- i) Knowledge of Nextflow.
- j) Demonstrated track record of achievements including first-author publications in peer-reviewed journals.
- k) Highly developed organization skills; Multi-tasking, problem solving and proactive attitude; Capable of easily interacting with people of different scientific backgrounds; Team Player; Ability to plan work and meet deadlines; Adaptability to a changing environment.

### **3. KEY TASKS AND RESPONSIBILITIES**

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- a) Bioinformatics analysis of raw data from Oxford Nanopore and Illumina next-generation sequencing platforms, and phylogenetic analyses to characterize outbreaks.
- b) Data Management and Pipelines: Develop and maintain efficient data management processes, including data collection, storage, cleaning, integration, and automated data pipelines for diverse datasets.
- c) Workflow Optimization: Streamline data analysis workflows to ensure the efficient and timely delivery of insights and recommendations.
- d) Data Visualization: Create compelling visualizations and reports to communicate findings and insights to stakeholders, including clinicians and public health officers.
- e) Collaboration: Collaborate with a multidisciplinary team of data scientists, healthcare professionals, and biologists to design studies, conduct research, and develop data-driven solutions.

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- f) Quality Control: Ensure data accuracy and maintain rigorous quality control measures to uphold the integrity of healthcare data.
- g) Data Interpretation: Interpret statistical results and provide reports with actionable recommendations.
- h) Documentation: Maintain detailed documentation of data management processes, analysis methodologies, results, and data sources.
- i) Continuous Learning: Stay updated with the latest developments in bioinformatics and biostatistics, data management, and genomic epidemiology to drive innovation.
- j) Preparation of manuscripts and oral presentations.
- k) Contribute to scientific discussion and participation in other activities of the research group.

#### 4. WE OFFER

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- a) Open-ended contract (Ley de la Ciencia 14/2011).
- b) Full time contract.
- c) Date of incorporation: May 2024.
- d) Annual gross salary depending on the value of the candidate distributed in 12 payments.
- e) 23 vacation days + 5 personal days per year.
- f) Flexible remuneration (daycare ticket).
- g) Training capsules paid by the company.
- h) Be part of an excellent multidisciplinary research center with the HRS4R badge.
- i) Location at the Can Ruti Campus, a top-level translational research environment in the Barcelona area, in a very stimulating scientific environment. The IGTP provides a supportive, friendly and collaborative ecosystem to promote professional development and help you achieve your research goals. Annual gross salary according to the value of the candidate.

#### 5. FURTHER INFORMATION

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<https://www.germantrias.org/en/research/infectious-diseases/1/clinical-and-experimental-microbiology>

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<https://www.germantrias.org/en/research/infectious-diseases/10/pathogen-diagnostics-and-genomic-epidemiology>

## 6. HOW TO APPLY

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Interested persons should send a cover letter explaining their interest in the position, their CV and contact details of 2-3 references by email to [seleccio@igtp.cat](mailto:seleccio@igtp.cat).

### **APPLICATIONS THAT DO NOT INDICATE THE REFERENCE OF THE OFFER IN THE SUBJECT LINE WILL NOT BE CONSIDERED.**

Applications will be evaluated in accordance with the guiding principles and objectives of the supply systems, following the process described below:

- a) **Curricular evaluation:** analysis of the curriculum vitae to assess aspects related to training, professional career and experience in positions related to the job position under selection.
- b) **Personal interview:** once the résumé has been evaluated, the selected candidates will be called for a personal interview to verify and expand on the information detailed in the résumé and to evaluate aspects related to experience and professional skills.

Applications that do not meet the requirements, that are not included in the cases foreseen or that are not processed in accordance with the established procedure will not be considered in the selection process.

## 7. APPLICATIONS CLOSE

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The deadline for submitting applications will end in May 2<sup>nd</sup>, 2024.

**The IGTP, in its commitment to equal opportunities, guarantees equal treatment between candidates and persons with a degree of disability equal to or greater than 33 per 100, as accredited by the Spanish Autonomous Regions or the State Administration, or who have been declared to have a total permanent disability in a different profession through a resolution of the National Institute of Social Security, while retaining functional capacity for the completion of the tasks of the post will be positively considered.**



#EXCELLENCE IN RESEARCH



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