

Position Description

1. General information

Position reference	BSC-PF4: AI-Driven Multimodal Biomedical Data Integration
Research area	Developing AI approaches for integrating multimodal biomedical data in rare disease research, leveraging advanced multilayer and graph-based representations
Research fields	Bioinformatics, Computational Biology, Systems Medicine, Data Science, AI/Machine Learning
Supervisors	• Davide Cirillo (BSC) • Karin Verspoor (RMIT) • Estrid He (RMIT)
Available research capabilities	Resources available at BSC include access to high-performance computing clusters, secure biomedical data repositories, multimodal rare disease datasets, and collaborations with clinical and research groups across biomedical and data-science domains. They will have access to diverse datasets and interdisciplinary expertise to support methodological innovation and impactful applications in rare diseases
Find out more about the research groups	• https://www.bsc.es/discover-bsc/organisation/research-departments/machine-learning-biomedical-research
Position funded by	• COFUND, Marie Skłodowska-Curie Actions (MSCA), Horizon Europe, European Union • BSC • RMIT University
Employing entity	Barcelona Supercomputing Center
Seconding entity	RMIT University
Foreseen start date	June 2026
Gross annual salary	40,000 EUR plus complements defined below

2. Expected Candidate Profile

The expected candidate profile for the position:

- Strong background in bioinformatics, computational biology, data science, or related quantitative fields, ideally with 4-5 years of experience in research or industry.
- Experience with machine learning, network science, or graph-based methods, including practical application of these approaches to biological or biomedical data.
- Ability to work independently and collaboratively in an interdisciplinary research environment, demonstrating strong communication skills and a proactive approach to problem-solving.

3. Employment Conditions

The Barcelona Supercomputing Center (BSC) offers a 36-month (3-year) postdoctoral full employment contract to work at its facilities in Barcelona, Spain as part of the AuSpire researcher training program, co-funded by the European Commission under the MSCA COFUND scheme. The total working hours per week are 37.5 and there is a probation period of 6 months.

The remuneration, in line with the European Commission rules for Marie Skłodowska-Curie grant holders, will consist of a gross annual salary of 40,000 EUR. The definite amount to be received by the Postdoctoral Fellow is subject to Spanish tax legislation.

The position will be jointly supervised by BSC (Employing Entity) and RMIT University (Seconding Entity), where the Postdoctoral Fellow must undertake a secondment at the premises of the latter in Melbourne, Australia for up to 12 months. Additionally, the program includes compulsory annual in-person workshops at various locations across Spain, along with online training and networking activities.

Benefits include

- 4,000 EUR relocation for employment stipend to cover costs associated with taking up employment (flights, visa, insurance, etc.), to be distributed monthly as a top-up to the gross salary.¹
- 9,000 EUR relocation for secondment stipend to cover compulsory project-related travel and accommodation costs (flights, visa, insurance, accommodation, etc.).¹
- 3,000 EUR travel stipend to cover flights and accommodation for participating in compulsory AuSpire training and networking events in Spain over the 3 years.¹
- 314 EUR monthly family allowance offered to candidates who meet the criteria.^{1 2}
- Becoming a Marie Skłodowska-Curie fellow and be invited to join the [Marie Curie Alumni Association](#).
- Spanish Social Security coverage.
- Sick leave.
- Parental leave.
- Holidays: 22 days of holidays + 6 personal days + 24th and 31st of December per our collective agreement

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, and support to the relocation procedures.

¹ The definitive amount to be received by the Postdoctoral Fellow may be subject to Spanish tax legislation.

² According to MSCA-COFUND requirements, Fellows with family obligations are entitled to a family allowance (i.e. persons linked to Postdoctoral Fellow by (i) marriage, or (ii) a relationship with equivalent status to a marriage recognised by the legislation of the country or region where this relationship was formalised; or (iii) dependent children who are actually being maintained by the Postdoctoral Fellow).