

Postdoctoral position "Computational Discovery of Mechanisms Linking Metabolism, Inflammation, and the Gut–Brain Axis" IDIBGI & RMIT University

Offer Description

IDIBGI, in collaboration with RMIT University, is looking for a Postdoctoral Fellow to join the AuSpire Program.

This position will focus on **Computational Discovery of Mechanisms Linking Metabolism, Inflammation, and the Gut–Brain Axis**. Applicants are invited to propose a research project around computational and integrative approaches to metabolism and inflammation, encompassing multi-omics data analysis and inter-organ communication. For more information, please visit: <https://idibgi.org/en/grups/nutricio-eumetabolisme-i-salut/>

The **Australia-Spain Network for Innovation and Research Excellence (AuSpire)** is an ambitious, interdisciplinary program co-funded by the European Union's Horizon Europe research and innovation program under the Marie Skłodowska-Curie grant agreement N° 101177949 that links Spanish and Australian research communities through 28 Postdoctoral Fellowships. Centred on the concept of Planetary Wellbeing, AuSpire aims to address global challenges by fostering research with meaningful, positive impacts on the planet's inhabitants and ecosystems.

The successful candidates will be **employed in Spain** by renowned companies, research centres, and universities for **36 months (3 years)** and benefit from international and/or intersectoral co-supervision and **secondments with counterpart organisations in Spain and Australia for up to 12 months** of duration.

Where to apply: <https://rmiteuropeprograms.slideroom.com/#/Login>

Requirements:

Research Field: Biological sciences

Education Level: PhD or equivalent

Skills/Qualifications:

The expected candidate profile for the position is as follows:

Education and Background

- PhD degree in a relevant quantitative discipline such as Bioinformatics, Statistics, Mathematics, Data Engineering, or Biomedical Engineering.
- Prior training or a Master's degree in Omics Data Analysis, Bioinformatics, or Computational Biology is highly desirable.



Technical and Methodological Expertise

- Excellent background and demonstrable expertise in Systems Biology and Metabolism.
- Proven experience in analysing large-scale omics datasets (metabolomics, transcriptomics, and metagenomics) and their multimodal data integration.
- Advanced practical knowledge of statistical and programming packages is mandatory, including R, Python, and/or SQL.
- Extensive experience with advanced statistical techniques and algorithms, such as Machine Learning, Cluster Analysis, Survival Analysis, and Pattern Recognition Methods (e.g., for microbiome compositional data analysis).
- Familiarity with neuroimaging and computational tools like MATLAB, SPM, and FSL is a strong asset, given the focus on the Gut-Brain Axis. Ability to formulate experimental objectives and hypotheses and appropriately test them using sound statistical techniques.
- Relevant research experience in the project's thematic area will be highly valued.

Soft Skills and Dissemination

- Proven capacity for both team-oriented and independent work.
- Strong communicative skills and ability to effectively integrate and synthesize complex scientific information.
- Extensive experience in academic writing, demonstrated by a track record of peer-reviewed publications (high impact factor) and presentations at international scientific congresses.
- Demonstrated experience working effectively in multidisciplinary research teams.
- Language Proficiency: Advanced level of English is mandatory. Native proficiency in Catalan and/or Spanish is highly desirable.

For more details, please see the position description: [IDIBGI-PF1](#)

Languages: ENGLISH, Level: Excellent

What we offer:

- a full-time employment contract in Spain for 36 months (3 years) with attractive salaries including social security benefits. The salaries offered by AuSpire are above the average salary for postdoctoral researchers in Spain. You may find an estimation of your gross annual salary in the [Position Description](#) (the definite amount to be received by the Postdoctoral Fellow is subject to Spanish tax legislation).
- 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]
- 314 EUR monthly family allowance offered to candidates who meet the criteria [1][2]
- 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]
- Innovative projects of high societal and commercial value in a unique international research environment and multidisciplinary network of researchers and chief investigators from leading industries, research centres and universities.
- Unique training in Planetary Wellbeing and the opportunity to shape your research to offer true value to society and a positive impact on our planet's inhabitants and ecosystem.

[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).

For more details, please see AuSpire website for more information: [Selection Process – Auspire](#)

Eligibility criteria

AuSpire is open to excellent researchers of any age, nationality, and gender. Applicants must fulfil ALL the following minimum eligibility criteria at the date of the call deadline (07 September 2026):

- Academic requirements: Applicants must be in possession of a doctoral degree at the call deadline. If you have successfully defended your thesis but you have not yet been awarded your PhD degree at the time of the call deadline for applications, you must upload a provisional degree certificate from your institution. The successful defence must be unconditional (no further requirements/corrections that need to be addressed) and take place before the call deadline. Supporting documentation may be requested.
- MSCA mobility rule: Applicants can be of any nationality and they must not have resided or carried out their main activity (work, studies, etc.) in the country of the recruiting beneficiary or implementing partner – Spain, including its overseas territories – for more than 12 months in the 36 months immediately before the deadline of the co-funded programme's call (i.e., since 07 September 2023). The country of the main activity refers to the country where the researcher is physically based when carrying out the main activity and the



country of the institution for which the main activity is performed (e.g., employer)

- MSCA employment rule: applicants must not be already permanently employed by your chosen Employing Entity.
- Exclusive dedication: applicants must be available to work full-time and exclusively for the action and cannot benefit from another Marie Skłodowska Curie Action during the employment time.
- English proficiency [1]: applicants must have a demonstrable C1 level of English (both speaking and writing). In the absence of a recognised certificate, English proficiency will be assessed based on the level of the written project proposal and during the interview.

[1] Native English speakers are exempt from this requirement.

Selection process:

1. Online application: Submit your complete application through the ([SlideRoom](#)) online portal, before 07 September at 11:59 PM CET.
2. Eligibility check: AuSpire Program Management Team will check that the application complies with requirements and meets the MSCA eligibility criteria.
3. Evaluation of eligible applications and first ranking: Eligible applications will be assessed by the Selection Panel against the Evaluation Criteria detailed in section 4 of the [Guide for Applicants](#).
4. Interviews: Applicants shortlisted by the Selection Panel will be invited for an interview (by videoconference). Applicants will be contacted at least 5 days ahead of the interview)
5. Final ranking and allocation of positions: The preferred candidate will receive a conditional offer letter for admission into the AuSpire Program.
6. Onboarding of successful Applicants: Formalise your employment contract at the Employing Entity.
7. Start your postdoctoral fellowship in January 2027.

Application deadline: 07 September 2026, 23:59pm CET

Job Type: Postdoctoral fellow, full-time, temporary

Email: auspire.help@rmit.edu.au

Website: <https://auspire.eu/open-positions/>