

Call for applications for non-statutory research staff positions
Tests for selecting a Postdoctoral Researcher

CALL FOR APPLICATIONS: PI26026

CONDITIONS OF THE CALL FOR APPLICATIONS

1. Regulations

The regulations governing competitive selection processes are the following:

- Organic Law 2/2003, 22 March, of the University System.
- Law 1/2003, of 19 February, of the Catalan universities, and the regulations under this law.
- Statute of the Universitat Rovira i Virgili, approved by the Governmental Agreement GOV/244/2025, of 21 October, of the Department of Research and Universities.
- Collective agreement of the teaching and research staff of the Catalan public universities, of 10 October 2006 (DOGC 14.02.07)
- Royal decree-law 32/2021, of 28 December, of urgent measures for employment reform, the guarantee of employment stability and the transformation of the job market
- Royal decree-law 8/2022, of 5 April, for the adoption of urgent measures in the field of non-statutory contracts of the Spanish System of Science, Technology and Innovation.
- Law 14/2011, of 1 June, on Science, Technology and Innovation, modified by Law 17/2022, of 5 September.
- Regulations for hiring research personnel funded by research project financing, approved by the Governing Council on June 19, 2025.

2. Details of the position

- Category/scale: Postdoctoral researcher
- **Line of research:** Complex systems
- Description of responsibilities:
 - Develop and validate an astrocyte-gated Hopfield associative memory model in which synaptic connectivity is multiplicatively modulated by astrocytic gain variables evolving on a simplex through an entropy-regularized replicator equation.
 - Establish the Lyapunov structure of the coupled neuron-astrocyte dynamics to prove global convergence, characterize fixed points as softmax-normalized allocations over pattern similarity scores, and demonstrate that this gain-based routing mechanism realizes an emergent form of self-attention.
 - Evaluate retrieval performance under high memory load and strong pattern interference, benchmarking the model against classical Hopfield networks and existing neuron-astrocyte associative-memory baselines.

3. Candidate requirements

3.1 General:

Candidates must

- be between 18 and the retirement age;
- not have any illness that prevents them from carrying out their corresponding functions in a normal manner;
- not have left the service of any of the public administrations for disciplinary reasons, or be forbidden from carrying out public functions; and
- not be disqualified in any of the ways listed in Law 53/1984, of 26 December, regarding the disqualification of personnel from the public administrations.

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Tests for selecting a Postdoctoral Researcher

3.2 Specific:

Candidates must

- hold the title of doctor or equivalent.

The candidates must satisfy these requirements at the latest by the last day of the period for submitting applications.

3.3 Profile and merits to be assessed:

- PhD physics
- Expertise in machine learning

4. Details of employment contract

- Department: Department of Computer Engineering and Mathematics
- Non-statutory research staff
- Permanent contract for scientific-technical activities, in compliance with Royal decree-law 8/2022, of 5 April, for the adoption of urgent measures in the field of non-statutory contracts of the Spanish System of Science, Technology and Innovation.
- Full time: Full time (37.5 hours/week)
- Location: Department of Computer Engineering and Mathematics.
- Research project: The activity of this contract will be carried out as part of the line of research "Complex systems" within the project "Experimental Sciences & Mathematics - ICREA-Academia", funding from ICREA ACADEMIA, project 2022ICREA-ACADEMIA-01.
- Project code: 2022ICREA-ACADEMIA-01
- Principal investigator or person in charge: Dr. Alejandro Arenas Moreno
- The initially planned duration to carry out the related tasks in this call is until December 31, 2026, without prejudice to carrying out other projects on the same line of research and within the same functional area.

However, project funding is expected to end on 31/12/2027

- Remuneration is in accordance with the agreement set out in Annex 1 of the Regulations for hiring research personnel funded by research project financing, approved by the Governing Council on June 19, 2025, corresponding to sublevel 1 of the postdoctoral researcher category. The annual gross salary will be 28.620,72 euros.
- The contract may be terminated for the reasons stated in article 49 of the revised text of the Law on the Workers' Statute and the regulations under this law. Likewise, the contract may also be terminated for the objective reasons in article 52, and particularly section e), which stipulates that permanent contracts can also be terminated due to insufficient funding providing they are entered into by non-profit organisations to carry out certain public plans and programmes, they have no stable source of funding and they are financed by public administrations through annual budgetary or extra-budgetary assignments via earmarked external funding.

5. Applications

5.1. Individuals who wish to participate in this competitive process and who meet the requirements to do so must present the corresponding application form by completing the model on the website of the URV: [Calls for Contracted Research Staff](#).

Applications should preferentially be submitted online via the URV's electronic registry. Click on the following link to the General Registry of the Universitat Rovira i Virgili: <https://seuelectronica.urv.cat/registre.html>, and then click on "Accés al registre electrònic" and fill in a "Instància genèrica" (general application form).

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Tests for selecting a Postdoctoral Researcher

Other options for submitting applications are:

- A) The General Registry of the URV. See location and opening times at <https://seuelectronica.urv.cat/registre.html>
- B) The channels specified in article 16 of Law 39/2015, of 1 October, on the common administrative procedure of the public administrations (BOE no. 236, of 02/10/2015).

If the documentation is sent by any means other than the Electronic Registry or the General Registry of the Universitat Rovira i Virgili, the applicant must notify the Human Resources Service by sending an email to the address **gestiodepersonalinvestigador@urv.cat**, before the deadline for applications, with the application and the appropriate justification attached.

Deadline for applications: **July 16, 2026**

5.2 In compliance with Law 39/2015, there is no need to send any documentation that the University can obtain from other administrations. However, the URV is in the process of implementing the corresponding interoperability tools for consulting information and documentation so the following documentation must be submitted with the application:

- a) General:
 - Photocopy of a valid Spanish identity card (DNI), foreigner identity card (NIE) or passport
- b) Specific:
 - Application form
 - Photocopy of the doctoral degree and any other qualifications
 - Research and professional curriculum with the corresponding supporting documents
 - Proof of payment of the registration fee

Those merits that are not accredited will not be taken into account.

Work experience can be accredited by means of work contracts, certificates issued by the company, employment history, etc.

5.3 Fees for registering for the application process:

- a) All applicants must pay a registration fee of €72,05 into the Universitat Rovira i Virgili's bank account: BBVA, ES5701 8260 35 4102 0161 8358, SWIFT: BBVAESMM. Applicants must give their name and surname, tax identification number and the code of the position for which they are applying, in compliance with the provisions of Legislative Decree 3/2008, of 25 June, which approves the revised text of the Law on taxes and public prices of the Catalan Government and order PRE/112/2023, of 9 May, which makes public the list of current fees of the Department of the Presidency, and all dependent bodies and institutions.
- b) Exemptions: Applicants are exempt from paying the fee if they are unemployed and receive no financial assistance, are retired, or can demonstrate that they have a disability equal to or greater than 33%. Any exemption must be accredited with the appropriate documentation. To prove the situation of unemployment without receiving any economic benefit, the applicant must attach to the application a certificate from the Employment Office indicating that the applicant is unemployed and a certificate from the State Public Employment Service (SPEE) that certifies that the applicant is registered as a job seeker and does not receive any economic benefit; these certificates must have been issued during the application submission period.
- c) Applicants who are eligible for any discount in the registration fee as established by order PRE/112/2023, of 9 May, must provide appropriate documentary proof.
- d) Under no circumstances will payment to the bank be a substitute for submitting the application to the University before the deadline and in the manner described here.
- e) The fee payment is proved at the time of registration; and the corresponding deposit must be prior to the deadline for submitting applications.

Call for applications for non-statutory research staff positions
Tests for selecting a Postdoctoral Researcher

- f) Failure to pay the fee or payment outside the deadline entails excluding the applicant from the selection process. In the case of fees paid beyond the deadline, these may be returned at the request of the interested party.
- g) The refund of the fee will not be appropriate in the event of exclusion from the call for reasons attributable to the interested party.

6. List of admitted and excluded candidates

Once the deadline for presenting applications has expired, a provisional list of candidates who have been admitted and excluded will be published on the URV's website, [Convocatòries de Personal Investigador Contractat \(Calls for Contracted Research Staff\)](#). The reason for exclusion may or may not be stated.

Within 5 calendar days, applicants can amend their application or, if appropriate, present their arguments to the Vice-Rector for Teaching and Research Staff.

Once the deadline described in the point above has expired, the definitive list of candidates who have been excluded and admitted will be published at the same address as the provisional list.

Material errors can be amended at any time.

7. Committees

- Composition:

Chairperson: Dr. Alex Arenas
Secretary: Dra. Clara Granell
Committee member: Dr. Sergio Gómez

Deputy chairperson: Dr. Jordi Duch
Deputy secretary: Dr. Lluís Arola
Deputy committee member: Dr. David Soriano

8. Selection process

The selection committees must study and assess the research and professional curriculum of the candidates who have been admitted to the call, assessing the scientific, technical and professional merits, the research career and innovation, the suitability for the project and the potential for transfer and social impact. The members of the committee may agree to carry out a personal interview in order to justify the suitability of their profile to the needs of the University, highlighted in the call for the position. The committee must prepare a reasoned report on the merits of the candidates and must make a binding proposal to the rector.

The score detailed below will be taken into account when assessing the candidates:

Merits	Background Researcher and professional		Adaptation to the position profile	TOTAL
	Research curriculum	Profesional resume		
Score range	25/50 points	10/25 points	40/60 points	
Score	50 points	10 points	40 points	100 points

The candidate will be considered to be positively assessed when they obtain an overall assessment equal to or greater than 60% of the total score.

9. Proposal of candidates

Once the candidates have been evaluated, the committee will provide the rector of the University with a list, which will be binding, of all the candidates who have passed the selection process. The candidates

Call for applications for non-statutory research staff positions
Tests for selecting a Postdoctoral Researcher

will be listed in order of preference. The position may also be declared vacant. The Committee can make a unanimous or a majority decision. In the case of a majority decision, the dissenting member must state his/her assessment and rank the candidates assessed positively.

After seeing the proposal, the rector will pass a resolution naming a candidate for each vacancy in the order proposed by the committee until all the vacancies have been filled.

10. Signing the contract

From the day after the publication of the rector's resolution, candidates must submit the necessary documents to the People Management Service so that the contract can be signed.

If a candidate renounces their appointment or does not sign the contract, the rector will appoint the next candidate on the list in order of preference.

If the proposed candidate is from a non-EU country, he/she must comply with the necessary legal requisites in order to be employed and affiliated to the Social Security system.

Under no circumstances can the candidate begin work before he/she is affiliated to the Social Security system.

11. Claims

Any interested party may lodge an appeal against this call for applications and its conditions at the Social Court in Tarragona or at the court in their place of residence, provided that this court is within the jurisdiction of the Social Court of the Supreme Court of Catalonia. This appeal must be lodged within a period of two months starting on the date of publication of the call for applications, as specified in article 69 of Law 36/2011, of 10 October, which regulates the social courts.

Likewise, interested parties can appeal to the rector of the URV against the administrative actions of the committee within one month of having been informed of this decision. This appeal will be understood to have been rejected if the university administration publishes no resolution regarding the appeal within three months after it has been lodged.

Likewise, interested parties may lodge any other appeal they deem necessary to defend their interests.

INFORMATION ON PERSONAL DATA PROTECTION	
Data controller	The controller of your personal data is the Universitat Rovira i Virgili, tax number Q9350003A, with its registered headquarters at Carrer de l'Escorxador, s/n, 43003 Tarragona.
Purpose	Management of the staff selection process and covering vacancies for the University.
Rights	Data subjects have the rights of access, rectification, erasure, portability, limitation and opposition to processing and can exercise these rights by writing to the General Registry of the URV at the address of its registered headquarters or submitting the request to the University's General Registry in person or online in accordance with the procedure described at https://seuelectronica.urv.cat/registre.html.urv .
Further information	Data subjects can find additional information about the processing of personal data in the document entitled <i>Provisió i selecció de llocs de treball (Covering vacancies and selecting staff)</i> and about their rights at the URV's Processing Activities Registry, which is published at https://seuelectronica.urv.cat/rgpd , where they will also find the Privacy Policy of the URV. They can also ask our data protection officers any questions they may have about personal data protection at the email dpd@urv .