AMMINISTRAZIONE CENTRALE
AREA RISORSE UMANE
UFFICIO PERSONALE TECNICO AMMINISTRATIVO



#### **SELECTION ANNOUNCEMENT NO. 2025S28**

BY EXAMINATIONS, TO RECRUIT NO. 1 LEVEL I RESEARCH TECHNOLOGIST (FINANCIAL POSITION EQUIVALENT TO THE EP1 LEVEL) ON A FULL-TIME, FIXED-TERM CONTRACT, FOR NO. 24 MONTHS, PURSUANT TO ART. 24-BIS OF LAW NO. 240 OF 30.12.2010, AND TO THE NATIONAL COLLECTIVE BARGAINING AGREEMENT OF 19.04.2018, AT THE DEPARTMENT OF STATISTICAL SCIENCES OF THE UNIVERSITY OF PADUA.

By implementing Art. 24-bis of Law no. 240 of 30.12.2010 and the National Collective Bargaining Agreement of 19.04.2018, the University of Padua plans to recruit Level I research Technologist (financial position equivalent to the EP1 level), by examinations, on a full-time fixed-term contract, for no. 24 months, at the Department of Statistical Sciences.

The candidate will provide technical support to the research team involved in the project "SPECOLA – Spatial Transcriptomics through the Lenses of Statistical Modeling and AI", funded by the European Research Council (ERC) under the Grant Agreement No. 101171662. The project aims to integrate Machine Learning, Artificial Intelligence (AI), and statistical modeling to analyze gene expression in a spatial and subcellular context, with the goal of advancing biomedical research, personalized medicine, and computer-assisted pathology.

Specifically, the technologist will be responsible for the following tasks:

- Installation, configuration, and maintenance of the software necessary for the analysis of biological data, such as genomic sequences or microscopy images, on high-performance computing (HPC) servers;
- Development, testing, and maintenance of open-source scripts and software packages for biological data analysis, including the production of binaries and containers;
- Monitoring the use of computing resources, ensuring appropriate security measures and data loss prevention;
- Collaboration with the core development team of the Bioconductor project for the review, distribution, update, and maintenance of software;
- Contribution to the drafting of technical documentation and to the writing of reports and scientific articles describing the results achieved.

The role involves a close collaboration with the project team, comprising the Principal Investigator and post-doctoral researchers, the access to an international research network, and the opportunity to contribute as a co-author to scientific publications.

The aforementioned activities require the following professional skills, knowledge and competences:

- Excellent knowledge, including through practical experience, of:
  - R, with particular focus on package development,
  - high-performance computing (HPC) environments,
  - the Linux operating system and major job scheduling tools (e.g., Slurm or similar);

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- Good knowledge of the software development lifecycle, version control tools (e.g., Git), creation and management of virtual environments (e.g., Docker, Singularity, etc.), and procedures for installing, configuring, and running bioinformatics software;
- Basic knowledge of other programming languages besides R, such as Python or C++;
- Basic understanding of biology, bioinformatics, or biostatistics concepts;
- Good command of English (reference level "C1");
- Teamwork skills;
- Motivation for the role and aptitude for the specific professional profile required.

### **Admission requirements**

Candidates must have the following requirements by the selection announcement deadline:

#### a) Academic qualification

Second-cycle Degree: Laurea magistrale ex D.M. n. 270/2004, <u>OR</u>: Laurea Specialistica ex D.M. n. 509/1999 (recognised as equivalent by Interministerial Decree 09/07/2009) <u>OR</u>: Degree (*Diploma di Laurea ante* D.M. n. 509/1999) recognised as equivalent by Interministerial Decree 09/07/2009.

#### Please note that:

Candidates holding a foreign degree may take part in the selection under the following conditions:

- if they hold a declaration of equivalence issued by an italian University;
- if they do not have any equivalence, the candidates are provisionally admitted to the selection, pursuant to Art. 38, paragraph 3 of Legislative Decree 165/2001. In this case, candidates shall declare, while submitting their application, that they hold a foreign degree officially recognised by the country in which they obtained the title, and, at the same time, should they pass the selection exams, they shall start the equivalency process by sending the request of equivalence to the Italian Ministry for Universities and Research (MUR) within 15 days from the publication of the final ranking.

The degree-equivalency application form is available at the following link:

https://www.funzionepubblica.gov.it/it/il-dipartimento/documentazione/moduli-equivalenza-titoli-di-studio/

#### b) Specific professional and/or cultural qualification:

- at least 2 years of professional experience and/or at least two-year research grants/ higher education experiences (e.g., PhD) in the design, implementation, and management of systems, software, devices, and infrastructures for data and information transmission and processing, relevant to the required profile;
- c) Italian citizenship (Italians who are not citizens of the Republic of Italy have the same rights as Italian nationals), or citizenship of an EU Member State.
  - Following the implementation of Art. 7 of Law 97/2013, family members of citizens of an EU Member State who do not have citizenship of an EU Member State, but do have the right of residence, or the permanent right of residence; and third-country nationals with a long-term EU permit of stay, with refugee status, or with subsidiary protection status, may also apply for the selection procedure;
- d) Full political rights;
- e) Physically suitable for the position.

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#### Non-Italian nationals are required to:

- · Have full civil and political rights in their country of origin;
- Fulfil the same requirements as Italian nationals, with the exception of the possession of Italian citizenship;
- Have a good knowledge of the Italian language.

Those who have been excluded from the exercise of active electoral rights, as well as those who have been dismissed or excluded from employment with a public administration due to persistent inadequate performance, pursuant to Article 2, paragraph 7 of D.P.R. (Presidential Decree) no. 487/1994, in accordance with sectoral regulations, or removed for the same reasons or for disciplinary reasons pursuant to legal or contractual regulations in force, or declared disqualified for having obtained the appointment or employment by producing false documents or documents affected by irremediable nullity, as well as those who have been convicted of offences constituting an impediment to employment in a public administration, are not eligible for selection.

#### **Application form**

The application form, with all the required attachments, for this selection announcement <u>must be submitted</u> <u>online</u> with the Pica platform at: <u>https://pica.cineca.it/unipd/tipologia/pta</u>.

To apply online, candidates must have a valid email address so that they can register with the system. They must also provide all of the information needed to complete the application and attach the required documents in electronic form.

The system allows the application to be saved in draft form until the submission deadline. The online application procedure and submission must be completed by 2 pm of the 15<sup>th</sup> day from the day of publication, when the selection announcement closes.

The system will certify the date that the online application form is submitted by emailing candidates an automatic receipt. Once the submission deadline has expired, the system will shut down access and applications can no longer be sent.

If necessary, a submitted application form can be withdrawn and another one submitted before the application deadline (2:00 p.m. of the fifteenth day).

Each application will be given an identification number which must be included in any correspondence, along with the selection announcement code stated in the online procedure. Candidates must complete each and every part of the application form in accordance with the online instructions. In case of access through SPID, no signature will be required when submitting the application. In case of accessing the system by another mode, the application is to be completed as follows:

- with a digital signature using a smart card, USB token or remote signature that enables the user to sign documents with signature software. Alternatively, a web portal may be used to provide a certified remote signature. Candidates with a smart card or USB token for digital signing can check for compatibility with the server's digital-signing system. If compatible, the user may sign the application on the server;
- candidates who do not have compatible digital-signing devices and users of remote digital signatures
  without web portal access for signing documents will have to save a system-generated pdf file on their
  computer. After which, they must not edit the file and e-sign it in CAdES format. A file with a p7m extension
  will be generated and uploaded into the system. If the file is edited before the e-signature is applied, the
  system will be unable to verify whether the content of this document matches the original. If this occurs, the
  application will be rejected;

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If none of the aforementioned options are available:
 print and hand-sign the application form, then upload a scanned copy along with a scanned form of
 identification. Candidates not providing identification may be excluded from the selection
 procedure.

The system may be momentarily offline for technical reasons.

Non-Italian candidates are to submit their application form as per the methods and deadlines stated in this application procedure.

Documents must be in a static, non-editable format and must not contain executable codes or macro-instructions. PDF is the preferred format. Documents must not exceed 30 MB.

The University of Padua is not liable for undelivered correspondence should candidates not provide a complete address, or when late or no notification is provided should the address on the application form change. Nor is it liable for problems caused by third parties, misfortune or force majeure.

For additional information or queries about the application procedure, please contact the Technical and Administrative Personnel office on +39 049/827 1562 or 3155 between 9 am and 1 pm.

For technical problems only, contact the following link at home page PICA CINECA supporto.

Candidates must state under their own responsibility their surname and first name, their date and place of birth, their permanent address, any telephone number, any criminal convictions and pending criminal procedures, that they enjoy full political rights, a detailed statement they meet the aforementioned requirements, and the exact contact address for any correspondence.

Candidates with no Italian citizenship, must declare to have an adequate knowledge of the Italian language.

Pursuant to Article 16 of Legge (Law) no. 68/1999 and Article 20 of Legge (Law) no. 104/1992, applicants must make an explicit request concerning the assistance they require and the possible need for additional time to complete the tests. To this end, candidates must enclose with their application to participate in the selection procedure a suitable certification issued by the appropriate Public Medical Board, to enable the Administration to prepare in good time the means and tools needed to ensure regular participation in the selection procedure.

Pursuant to Legge (Law) no. 170/2010, as amended and supplemented, candidates with specific learning disorders (SLD) may ask the Committee to have the written test replaced by an interview, or to make use of any technical aids to compensate for reading, writing and calculation difficulties, in order to take the aforementioned tests, as well as to make use of additional time not exceeding 50% of the time allocated for the test.

The request must be prepared following the instructions available in the online application procedure.

The adoption of the above measures will be determined at the sole discretion of the Selection Committee, based on the documentation provided by the candidate in the application.

Candidates are admitted to the selection procedure conditionally. Should any of the requirements not be met, candidates may be excluded from the selection procedure at any moment, even after they have taken the tests.

#### Selection

Candidates are selected by examinations.

A total of 60 points are awarded for the examinations. They are divided as follows:

- 30 points for the written test;
- 30 points for the oral examination.

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#### **Examinations**

Examinations will comprise a written test and an oral examination.

- The written test will consist of open-ended questions, and will focus on the following topic:
  - Software management and software development lifecycle,
  - Programming in R and R package development,
  - HPC cluster management in a Linux environment,
  - Configuration of scientific computing environments for HPC activities,
  - Development of scripts for bioinformatics analysis.

The written test will be entirely conducted in English.

- The oral examination will cover theoretical and practical questions, possibly including the use of a computer, on the following topics:
  - Programming languages such as R, Python, or C++
  - Installation, management, and use of R packages
  - Creation and management of virtual environments (e.g., Docker, Singularity, etc.)
  - System administration for Linux-based computing environments
  - Management of workflows for bioinformatics analyses
  - Statistical techniques for the analysis of biological data

Part of the oral examination will be conducted in English.

For each examination, the pass mark is 21/30 (equivalent to 7/10).

Starting from 2:00 pm on **24<sup>th</sup> July, 2025, the examination schedule** will be published on the University of Padua's Official Register (<a href="https://protocollo.unipd.it/albo/viewer">https://protocollo.unipd.it/albo/viewer</a>) and on the University of Padua website at the following page: <a href="https://www.unipd.it/selezione-2025S28">https://www.unipd.it/selezione-2025S28</a>

No further notice will be given.

#### The publication of this calendar will constitute official notification.

Candidates who are unable to comply with the aforementioned schedule due to pregnancy or breastfeeding will be entitled to participate in the examinations, also by holding asynchronous tests and, in any case, appropriate spaces will be made available to allow for breastfeeding.

Wherever possible, the candidates concerned will promptly notify the Selection Procedure Manager, so that the Administration can plan in good time how and when to ensure regular participation in the examinations.

All candidates who have not received a notification of exclusion must show up on the date and time communicated. No further notice will be given.

Candidates must show a valid ID document before being admitted to the examinations.

Any candidates not coming to the examinations will be deemed to have waivered their place, regardless of the reason.

The list of candidates admitted to oral examinations will be published, with their scores for the written test, on the noticeboard of the Department of Statistical Sciences, Via C. Battisti n. 241, Padua, and posted on the University of Padua website at https://www.unipd.it/selezione-2025S28

All Commission sessions during the oral examination are public.

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At the end of each oral examination session, the Commission will draw up a list of the candidates assessed with a score for those who have passed the examination. This list will be posted on the noticeboard of the Department of Statistical Sciences, Via C. Battisti n. 241, Padua, and on the University of Padua website at https://www.unipd.it/selezione-2025S28

Candidates can access the list with a personal password provided to all selection participants.

#### Overall ranking

The final score is calculated by adding up the marks obtained for the written test and the oral examination.

The categories of citizens who have a preference, merit being equal, are:

- a) recipients of military and civil valour medals, if they have left the service;
- b) amputees and invalids for service in the public and private sectors;
- c) orphans of the fallen and children of the mutilated, disabled and permanently incapacitated for work due to service in the public and private sectors, including the children of health professionals, social workers and socio-medical workers who died as a result of the Cov-2 Sars infection contracted when exercising their activity;
- d) those who have performed meritorious service in any capacity whatsoever for not less than one year in the administration holding the competition, where they have no other preferential qualification by reason of their service:
- e) higher number of dependent children;
- f) invalids and civilian amputees who do not fall under (b);
- g) military volunteers of the Armed Forces who were not dishonourably discharged at the end of the regular or extended period of military service
- h) athletes who have sporting employment relationships with military sports groups and the civil corps of the
- i) people who have successfully completed the further improvement period at the process office pursuant to Article 50, paragraph 1-quater, of decreto-legge (Decree-Law) no. 90 of 24 June 2014, converted, with amendments, by legge (Law) no. 114 of 11 August 2014;
- I) people who have successfully completed the traineeship at the judicial offices pursuant to Article 37, paragraph 11, of decreto-legge (Decree-Law) no. 98 of 6 July 2011, converted, with amendments, by legge (Law) no. 111 of 15 July 2011, while not being part of the process office, pursuant to Article 50, paragraph 1-guinques, of decreto-legge (Decree-Law) no. 90 of 24 June 2014, converted, with amendments, by legge (Law) no. 114 of 11 August 2014;
- m) people who have successfully completed the internship at judicial offices pursuant to Article 73, paragraph 14, of decreto-legge (Decree-Law) no. 69 of 21 June 2013, converted, with amendments, by legge (Law) no. 98 of 9 August 2013;
- n) people who hold or have held collaboration assignments given by ANPAL Servizi S.p.A., in implementation of the provisions of Article 12, paragraph 3, of decreto-legge (Decree-Law) no. 4 of 28 January 2019, converted, with amendments, by legge (Law) no. 26 of 28 March 2019;
- o) younger age.

Pursuant to Article 3, paragraph 4, of DPR (Presidential Decree) no. 487/1994, as amended by DPR (Presidential Decree) no. 82/2023, which states that notices of competition shall take into account the gender representativeness referred to in Article 6, as at 31.12.2024, the percentage of representativeness of the male gender is 45.2%, while that of the female gender is 54.8%, and therefore the gender differential is 9.6%, (lower than 30%).

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day after the ranking is published. The overall ranking is immediately effective.

The overall ranking will be published in the University of Padua Official Register. Any appeals may be filed the

The winner is entitled to the gross annual salary for the EP category, financial position EP1, as per the University section of the current National Collective Bargaining Agreement (C.C.N.L. *Comparto "Istruzione e Ricerca*"), as well as to an additional quota as specified in the "University Regulations for Recruiting and Regulating 'Fixed-term Research Technologists', in accordance with Art. 24-*bis* of Law no. 240 of 30 December 2010." The salary will be paid into a bank or post-office account only.

The administration may decide not to draw up the agreement should there cease to be the need, opportunity or resources to proceed.

The ranking is valid for three years from its publication date and may be used to recruit additional fixed-term technologists with the same profile and level. All other aspects of employment will depend on the University's specific needs.

Anything not stated above is covered by the "University Regulations for Recruiting and Regulating 'Fixed-term Research Technologists', in accordance with Art. 24-bis of Law no. 240 of 30 December 2010", available at: <a href="http://www.unipd.it">http://www.unipd.it</a> (see "Statuto e Regolamenti").

Pursuant to Law no. 241 of 7 August 1990, the selection procedure Manager is Dr. Cristian Poletti - *Ufficio personale tecnico amministrativo*, Riviera Tito Livio, 6, Padua, Italy.

The Technical-Administrative Staff Office (*Ufficio personale tecnico amministrativo*) is open to the public with the following schedule:

- From Monday to Friday from 10:00 a.m. to 1 p.m.,
- In addition, on Tuesdays and Thursdays from 3:00 p.m. to 4:30 p.m as well.

Office tel. 049/827 1562 - 3155

Office e-mail: reclutamento.pta@unipd.it

NB: This selection announcement has been translated into English for publication purposes only. The Italian version is valid for all legal purposes and for the resolution of any disputes.

The Director-General
Alberto Scuttari
digital signature (ex Legislative Decree 82/2005)

Selection procedure Manager	Department Manager
Dr. Cristian Poletti	Dr. Tommaso Meacci