

AMMINISTRAZIONE CENTRALE
AREA RISORSE UMANE
UFFICIO PERSONALE TECNICO AMMINISTRATIVO



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

SELECTION ANNOUNCEMENT NO. 2025S55

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 PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES - DSB 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 no. 1 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 Pharmaceutical and Pharmacological Sciences.

In particular, the Technologist will be called to carry out the following **activities**:

- Design, development and optimisation of experimental protocols for screening synthetic chemical compounds, peptides and probes used in affinity, cytotoxicity, in vitro and cellular (enzymatic or cellular) assays, ensuring their reliability and reproducibility. Participation in sample preparation, including the use of automated/robotic platforms for high-density supports for chemical compounds, peptides and probes, and cell culture management. Quality control of the data produced, to ensure robust and meaningful results;
- Support for the Screening Facility of the Department of Pharmaceutical and Pharmacological Sciences (SF@DSF) for all the above-mentioned activities, such as the use and maintenance of equipment and user training;
- Technical participation in research projects.

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

Excellent knowledge, including through experience, of:

- Use and maintenance of multimodal microplate readers and advanced cell monitoring systems, with the ability to perform biochemical and biophysical assays of fluorescence, luminescence, UV/Visible spectrophotometry, polarimetry with real-time kinetic measurements;
- Implementation and optimization of advanced experimental protocols for Drug Discovery, including biochemical, biological, cellular and biomolecular interaction assays, ensuring robustness, sensitivity and reproducibility of data (Principles of Assay Development);
- Characterization of drugs and synthetic products, proteins, antibodies and small molecules, as well as management and automation of experimental workflows;
- Management of label-free biomolecular analysis systems for monitoring cell viability and proliferation (e.g. xCELLigence/RTE);
- Techniques for characterizing kinetics and binding competition (e.g. Surface Plasmon Resonance - SPR, Isothermal Titration Calorimetry - ITC, Differential Scanning Fluorimetry - DSF/TSA, Fluorescence Polarization - FP);
- Automation of laboratory workflows using advanced robotic platforms (e.g. High Throughput Screening-HTS) with expertise in programming, instrument integration and optimization of high-throughput processes;

- Knowledge of cellular signaling and signal transduction mechanisms, including the main pathways and roles of receptors and second messengers. Analysis of protein-protein interaction (PPI) networks and knowledge of experimental and bioinformatic methodologies for their study. Cell engineering techniques for the generation of modified cell lines, including genetic editing and transfection methodologies. Skills in the principles of molecular pharmacology, including drug targets, mechanisms of agonism, antagonism and allosteric modulation, as well as the ability to interpret experimental data such as dose-response curve;
- Knowledge of safety regulations in research laboratories (Legislative Decree No. 81/2008 and subsequent amendments). Assessment of specific risks in a screening laboratory (chemical and biological risks, use of complex equipment; obligations and responsibilities of workers and employers, emergency procedures and management of hazardous substances;
- Good interpersonal skills with users “internal” (teachers, researchers, students) and “external” to the Department;
- Ability to organize and complete tasks within set deadlines;
- Ability to work in a team;
- Problem-solving skills;
- Computer skills (*Office* package). Knowledge of scientific software for the acquisition and control of complex instrumentation; statistical processing and analysis; management of compound databases and experimental results (LIMS - Laboratory Information Management System). Basic principles of computer science applied to research (data management, IT security);
- Knowledge of technical English (reference level “B2”).

Admission requirements

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

a) Academic qualification

Single-cycle *Laurea magistrale* pursuant to Ministerial Decree no. 270/2004, class LM-13 - Pharmacy and Industrial Pharmacy,

OR *Second-cycle Degree - Laurea magistrale ex* D.M. n. 270/2004, classes: LM-6 - Biology, LM-7 - Agricultural Biotechnology, LM-8 - Industrial Biotechnology, LM-9 - Medical, Veterinary and Pharmaceutical Biotechnology, LM-54 - Chemical Sciences, LM-60 - Natural Sciences, LM-61 - Human Nutrition Sciences, LM-75 - Environmental and Territorial Sciences and Technologies, LM/SNT3 - Technical Health Professions Sciences,

OR Single-cycle *Laurea magistrale* pursuant to Ministerial Decree no. 509/1999, recognised as equivalent by Interministerial Decree 09/07/2009, class 14/S - Pharmacy and Industrial Pharmacy,

OR *Laurea Specialistica ex* D.M. n. 509/1999 (recognised as equivalent by Interministerial Decree 09/07/2009), classes: 6/S - Biology, 7/S - Agricultural Biotechnology, 8/S - Industrial Biotechnology, 9/S - Medical, Veterinary and Pharmaceutical Biotechnology, 62/S - Chemical Sciences, 68/S - Natural Sciences, 69/S - Human Nutrition Sciences, 82/S - Environmental and Territorial Sciences and Technologies, SNT/03/S - Technical Health Professions Sciences,

OR Degree (*Diploma di Laurea ante* D.M. n. 509/1999) in Pharmacy, Chemistry and Pharmaceutical Technologies or Chemistry and Pharmaceutical Technology,

OR Degree (*Diploma di Laurea ante* D.M. n. 509/1999) recognised as equivalent by Interministerial Decree 09/07/2009, in: Agro-industrial biotechnology, Biotechnology specialising in agricultural plant biotechnology, Biotechnology specialising in pharmaceutical biotechnology, Biotechnology specialising in

industrial biotechnology, Biotechnology specialising in medical biotechnology, Biotechnology specialising in veterinary biotechnology, Chemistry, Environmental sciences, Biological sciences, Natural sciences.

It is specified 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 DL 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** related to the type of activities the candidate will carry out:

- **At least one year of professional experience in public or private research facilities and/or scholarships or advanced training (Doctoral courses, Advanced Professional Courses - Master, in Italian - etc.) relevant to research activities in conducting medium - to high - throughput screening, real-time cell assays, and label-free analysis for the study of biomolecular interactions;**

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.

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 and appendices for this selection announcement **must be submitted online** with the Pica platform at: <https://pica.cineca.it/unipd/tipologia/pta>.

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 15th 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;
- 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 3155 - 3183 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.

Examinations

Examinations will comprise a written test and an oral examination.

- **The written test** will consist of open-ended questions, and may focus on the following topics:

Principles and applications of biophysical and biochemical assays for the characterisation of xenobiotics and the study of molecular interactions:

- Spectroscopy (UV-Vis fluorescence, luminescence);

- Label-free techniques for monitoring cell viability, proliferation and death (e.g. xCELLigence/RTE);
- Techniques for the study of protein-ligand interactions (e.g. Surface Plasmon Resonance - SPR, Isothermal Titration Calorimetry - ITC, Differential Scanning Fluorimetry - DSF/TSA);
- Binding competition techniques (e.g. Fluorescence Polarization - FP).

Development, optimization and validation of biological assays for drug discovery:

- Principles of Assay Development and High-Throughput Screening (HTS);
- Enzyme activity assay;
- Cell-based assays: reporter gene assays, second messenger assays, localization assays;
- Critical issues and parameters of a biological assay (Z-factor, signal/background, variability, dose-response curves - IC50/EC50);
- Laboratory automation and robotics.

Cell and molecular biology applied to drug discovery:

- Signaling and signal transduction mechanisms;
- Interactomics (protein-protein interaction networks, PPI);
- Cell engineering methodologies for the generation of cell lines for assays;
- Principles of molecular pharmacology (drug targets, agonism/antagonism mechanisms, allostery).

Regulations on workplace safety, with particular reference to research laboratories:

- Provisions of the Consolidated Law on Health and Safety at Work (Legislative Decree No. 81 of 9 April 2008, as amended). In particular:
 - Assessment of specific risks in a screening laboratory (chemical risk (REACH, CLP), biological risk, use of complex equipment);
 - Obligations and responsibilities of workers and employers;
 - Emergency procedures and management of hazardous substances.

- **The oral examination** will focus on assessing the candidate's technical, design and management skills.

The specific topics covered in the interview are as follows:

Technical and methodological skills:

- Main analytical, biophysical, biochemical and biological techniques for the characterization of bioactive molecules and the study of molecular interactions;
- Methodologies for the development, optimization and validation of biological assays for the identification of "hits" in drug discovery, including enzymatic, cell-based and binding assays;
- Analysis and interpretation of complex experimental data (e.g. dose-response curves, screening data, interaction studies).

Experimental design:

- Planning of experimental workflow, resource management (instruments, reagents) and time optimization in a service context;
- Criteria for project prioritization and internal and external user management.

IT skills:

- Assessment of knowledge and ability to use scientific software for: the acquisition and control of complex instrumentation; the processing, statistical analysis and visualization of scientific data; the management of databases of compounds and experimental results (LIMS - Laboratory Information Management System);
- Knowledge of the basic principles of IT applied to research (data management, IT security);
- Assessment of knowledge of the Office suite.

Workplace safety:

- Verification of current regulations on health and safety at work, with particular reference to research laboratory environments (Legislative Decree 81/2008 and subsequent amendments). Obligations and responsibilities of workers and employers. Emergency procedures.

Assessment of technical English language skills (reference level “B2”).

The examinations pass mark is 21/30 (equivalent to 7/10).

Examinations will take place with the following schedule (no further notice will be given):

- **Written test:** on **2nd December 2025**, at **9.30 am**, in the *Aula Informatica - DSF*, at the *Building B* of the Department of Pharmaceutical and Pharmacological Sciences, Via Marzolo n. 5 - Padua;
- **Oral examination:** on **9th December 2025**, at **2.00 pm**, in the *Sala riunione di Direzione*, at the *Building A* of the Department of Pharmaceutical and Pharmacological Sciences, Via Marzolo n. 5 - Padua.

Publication of this calendar it is to be considered as an 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 Director of the Student Services Office, so that the Administration can plan in good time how and when to ensure regular participation in the examinations.

Approved candidates must come on the date and at the 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 waived 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 Pharmaceutical and Pharmacological Sciences, Via Marzolo n. 5 - Padua, and posted on the University of Padua website at <https://www.unipd.it/selezione-2025S55>.

All Commission sessions during the oral examination are public.

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 Pharmaceutical and Pharmacological Sciences, Via Marzolo n. 5 - Padua, and on the University of Padua website at <https://www.unipd.it/selezione-2025S55>

Candidates will be able to access the list by using 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 State;
- 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;
- l) 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-quinques, 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%).

The overall ranking will be published in the University of Padua Official Register. Any appeals may be filed the day after the ranking is published. The overall ranking is immediately effective.

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: <http://www.unipd.it> (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 3183 - 3539 - 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