



SELECTION ANNOUNCEMENT NO. 2023T24

BY EXAMINATIONS, TO RECRUIT NO. 1 LEVEL II RESEARCH TECHNOLOGIST (FINANCIAL POSITION "D3") ON A FULL-TIME FIXED-TERM CONTRACT, FOR NO. 36 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 - DSF.

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 II research technologist (financial position "D3") by examinations on a full-time fixed-term contract, for no. 36 months, at the Department of Pharmaceutical and Pharmacological Sciences – DSF, to provide technical-administrative support for the development of the Department project *Mass Spectrometry Facility*.

The Technologist will then be called to carry out the following **activities**:

- support to the *Mass Spectrometry Facility* of the DSF (MSF@DSF) for research activities in the area of chemical characterization of small organic molecules, biological macromolecules (peptides, proteins, nucleic acids and synthetic polymers) and for proteomics and metabolomics studies
- development of *Hydrogen-Deuterium Exchange Mass Spectrometry* (HDX-MS) techniques for the study of the structure and dynamics of biological macromolecules (eg: proteins and nucleic acids), for the identification of conformational changes in proteins due to amino acid mutations, chemical and post-translational modifications, as well as *native Mass Spectrometry* and HDX-MS techniques for molecular recognition studies in drug-receptor, antigen-antibody, protein-protein, protein-nucleic acid interaction systems
- performing analyses and supporting users in sample preparation, developing analysis protocols, instrumentation setup, data processing and interpretation
- participation in research projects
- monitoring and routine and non-routine maintenance of the instrumentation
- support to the *Mass Spectrometry Facility* of the DSF (MSF@DSF) regarding access, reservations, use of the Service.

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

- excellent knowledge, also through experience, of:
 - techniques, instrumentation and methodologies in the chemical, chemico-analytical and biophysical fields useful in the chemical and conformational characterization of biological macromolecules (e.g., proteins and nucleic acids) and in the study of molecular recognition
 - structure of biological macromolecules and molecular interaction models and mechanisms, as well as techniques and instrumentation used in the areas of chromatography and mass spectrometry
 - ionization and vaporization techniques (e.g., ESI, MALDI) in mass spectrometry, mass analyzers (e.g., quadrupole, TOF, Orbitrap), and liquid chromatography-mass spectrometry (UPLC-MS) couplings
 - HDX-MS techniques for studying the structure and dynamics of biological macromolecules and molecular recognition
- knowledge of scientific applications and software for managing complex instrumentation, data interpretation and processing

- ability to organize and manage a multi-user service from a technical-logistical point of view
- knowledge of safety regulations in the workplace (D.Lgs. 81/2008)
- good interaction skills with users "internal" (faculty, researchers, students) and "external" to the DSF
- ability to organize and carry out own activities in compliance with established deadlines
- ability to work in a team
- problem solving skills
- knowledge of English language (reference level "B2").

Admission requirements

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

- **academic qualifications:**

- a first-cycle degree (*Laurea Triennale*) (ex D.M. 270/2004), in class: L-2 - Biotechnologies, L-13 - Biology, L-27 - Chemistry, L-32 - Environmental sciences,
or a first-cycle degree (*Laurea Triennale*) (ex D.M. 509/1999) recognised as the equivalent by D.I. 09.07.2009, in class: 01 - Biotechnologies, 12 - Biology, 21 - Chemistry, 27 - Environmental sciences,
or an Italian University Diploma ex D.P.R. n. 162/1982, recognised as the equivalent by D.I. 11.11.2011: *Tecnico in biotecnologie, Tecnico specialista in impianti biotecnologici, Tecnico di Laboratorio biomedico,*
or an Italian University Diploma (ex Law 341/1990) recognised as the equivalent by D.I. 11.11.2011: *Analisi chimico-biologiche, Biologia, Biotecnologie agro-industriali, Biotecnologie industriali, Chimica, Scienza dei materiali, Scienze e Tecniche cartarie, Tecnico dello sviluppo ecocompatibile e Tecnici in biotecnologie, Tecnico di Laboratorio biomedico,*
or an Italian University Diploma (ex Law 341/1990) recognised as the equivalent by D.I. 08.01.2013: *Operatore tecnico ambientale;*
- a second-cycle degree (*Laurea Magistrale "a ciclo unico"*) (ex D.M. 270/2004) in class: LM-13 - Pharmacy and industrial pharmacy.
or a second-cycle degree (*Laurea Magistrale*) (ex D.M. 270/2004) in class: LM-6 - Biology, LM-7 - Agrarian Biotechnologies, LM-8 - Industrial Biotechnologies, LM-9 - Pharmaceutical, Veterinary and Medical biotechnologies., LM-54 - Chemistry, LM-61 - Nutrition, LM-75 - Environmental and land sciences,
or a second-cycle degree (*Laurea Specialistica "a ciclo unico"*) (ex D.M. 509/1999) recognised as the equivalent by D.I. 09.07.2009 in class: 14/S - Pharmacy and industrial pharmacy,
or a second-cycle degree (*Laurea Specialistica*) (ex D.M. 509/1999) recognised as the equivalent by D.I. 09.07.2009 in class: 6/S - Biology, 7/S - Agricultural biotechnologies , 8/S - Industrial biotechnologies, 9/S - Pharmaceutical, veterinary and medical biotechnologies, 62/S - Chemistry, 69/S - Nutrition and health sciences, 82/S - Environmental and land sciences and technology,
or a degree (*Diploma di Laurea V.O.*) (prior to D.M. 509/1999) recognised as the equivalent by D.I. 09.07.2009 in: *Farmacia, Chimica e Tecnologie Farmaceutiche o Chimica e tecnologia farmaceutiche,*
or a degree (*Diploma di Laurea V.O.*) (prior to D.M. 509/1999) recognised as the equivalent by D.I. 09.07.2009 in: *Scienze biologiche, Biotecnologie agro-industriali, Biotecnologie indirizzo Biotecnologie agrarie vegetali, Biotecnologie indirizzo Biotecnologie farmaceutiche, Biotecnologie indirizzo*

Biotechnologie industriali, Biotechnologie indirizzo Biotechnologie mediche, Biotechnologie indirizzo Biotechnologie veterinarie, Chimica.

Candidates **holding a foreign degree** may take part in the selection only after completing a degree-equivalency process pursuant to Art. 38, paragraph 3 of Legislative Decree DL 165/2001. Candidates are conditionally admitted to the selection procedure if the equivalency process is underway, but no final decision has been reached. They must have had their degree recognised as the equivalent of an Italian degree by the time they are recruited.

The degree-equivalency process must be started before the selection-announcement deadline, otherwise the candidate will be excluded from the selection procedure. Candidates must inform the procedure manager that they have applied for degree equivalency.

Pursuant to decreto-legge (decree-law) no. 228 of 30 December 2021, **the Public Function Department will conclude the recognition procedure only with regard to the successful candidates, who have the obligation, under penalty of forfeiture, to notify the Italian Ministry for Universities and Research (MUR) of the publication of the ranking list within 15 days.**

The degree-equivalency application form is available at:

<http://www.funzionepubblica.gov.it/strumenti-e-controlli/modulistica>;

- **specific professional qualification pertinent to the research:**
 - **professional experience, at least two years, carried out in public or private research structures, relevant to the research activity to be conducted by mass spectrometry in the field of chemical characterization and molecular recognition of small organic molecules, biological macromolecules (peptides, proteins, nucleic acids and synthetic polymers) and for proteomics and metabolomics studies;**
- 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 implementation of Art. 7 of Law 97/2013, the following may also apply for the selection procedure: family of citizens from 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;
- candidates with full political rights;
- candidates who are physically suitable for the position;
- candidates who have completed their military service.

Non-Italian nationals are required to:

- have full civil and political rights in their country of origin;
- fulfil the same requirements as Italian nationals, but do not need Italian citizenship;
- have a good knowledge of Italian.

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, 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 3159 - 3494 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, their military-service status, a detailed statement they meet the aforementioned requirements, and the exact contact address for any correspondence.

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 examinations. They are divided as follows:

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

Examinations

Examinations will comprise a written test and an oral examination.

- **The written test** will focus on the following topics:
 - techniques, instrumentation and methodologies in chemistry, analytical chemistry and biophysics
 - structure of biological macromolecules and models and mechanisms of molecular interactions
 - techniques and instrumentation used in the areas of chromatography and mass spectrometry
 - ionization and vaporization techniques in mass spectrometry, of mass analyzers, and liquid chromatography-mass spectrometry couplings (UPLC-MS)
 - HDX-MS techniques
 - *native Mass Spectrometry* techniques
 - use of scientific applications and software for managing complex instrumentation, interpreting and processing data.
- **The oral examination** will focus on the following topics:
 - techniques, instrumentation and methodologies in chemistry, analytical chemistry and biophysics
 - structure of biological macromolecules and models and mechanisms of molecular interactions
 - techniques and instrumentation used in the areas of chromatography and mass spectrometry
 - ionization and vaporization techniques in mass spectrometry, of mass analyzers, and liquid chromatography-mass spectrometry couplings (UPLC-MS)
 - HDX-MS techniques
 - *native Mass Spectrometry* techniques
 - use of scientific applications and software for managing complex instrumentation, interpreting and processing data
 - how to organize and manage a multi-user service from a technical-logistical point of view
 - safety regulation in research laboratories.

The possession of the knowledge of the English language (European Framework of Reference for Languages level "B2") will be tested during the oral examination.

Examinations will take place at the following times and venues. No further notice will be given:

- **the written test:** on **15th June 2023, at 9.00 a.m.**, at the Aula “Informatica” - Edificio di Scienze Farmaceutiche (Edificio B - Ex Pat. Gen.), Via Loredan, n. 16, Padova (PD);
- **the oral examination:** on **21th June 2023, at 10:00 a.m.**, at the “Sala Riunioni” ex Biblioteca - Edificio di Scienze Farmaceutiche (Edificio A), Via Marzolo, n. 5, Padova (PD).

Publication of this calendar is considered to be notification.

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

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 - DSF, Via Marzolo, n. 5, Padova (PD), and posted on the University of Padova website at <https://www.unipd.it/selezione-2023T24>.

All Commission sessions during the oral examination are public. At the end of all oral examination, 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 - DSF, Via Marzolo, n. 5, Padova (PD), and on the University of Padova website at <https://www.unipd.it/selezione-2023T24>.

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 score for the written test and the score for the oral examination.

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

The overall ranking is effective immediately.

The winner is entitled to the gross annual salary for the D category, financial position D3, 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 7th August 1990, the selection-procedure manager is 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 at the following times:

From Monday to Friday from 10 am to 1 pm and on Tuesday and Thursday from 3 pm to 4.30 pm.

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.

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Padua

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

Selection-procedure Manager	Department Manager
Cristian Poletti	Tommaso Meacci