

Via A. Gabelli 63 - 35121 Padova
C.F. 80006480281 - P.IVA 00742430283

For legal purposes refer only to the Italian version of the Call. This translated version is intended only for a better comprehension.

Re. n. 5877 dated 20.12.2023

University of Padova – Department of Molecular Medicine

Selection announcement for the awarding of 01 research fellowship post lauream entitled

“Engineering bacteriophages with CRISPR interference system to counteract antibiotic resistance in *Pseudomonas aeruginosa*”

Candidates shall also refer to the forms and documentation related to the selection announcement available at the links hereunder:

<https://www.medicinamolecolare.unipd.it/> under the section “bandi”

<https://www.unipd.it/borse-di-ricerca>

Having regard to par. 4 of Art. 80 of the University's “Regolamento di Ateneo per l'amministrazione, la finanza e la contabilità” (Regulations Governing Administration, Finance, and Accounting) and “Regolamento delle borse per lo svolgimento di attività di ricerca”, (Regulations Governing Research Fellowships) a selection announcement for qualifications has been published for the awarding of 01 research fellowship post lauream at the Department of Molecular Medicine, under the supervision of the Research Project Supervisor, Prof. Paola Brun (MED/07).

The research fellowship shall last for **6 months**.

The research fellowship shall be for a total amount of **€ 7.500,00** and it is financed by the research project "Restoring Antibiotic sensitivity in Bacteria: a synthetic biology approach (ReActing)" financed by Bando di Ricerca Scientifica di Eccellenza 2021 from Fondazione Cassa di Risparmio di Padova e Rovigo (UGOV code: BRUN_ECCE22_01, CUP code C93C21000070007), of which Prof. Paola Brun is responsible. The research fellowship will be paid in deferred monthly instalments.

The Research Fellowship Holder must carry out the following research activity: In Italy, *Pseudomonas aeruginosa* is responsible for 7.6% of antibiotic-resistant bacterial infections. Due to

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the pathogen's high frequency of mutations and numerous virulence factors, the treatment of *P. aeruginosa* infections represents a global challenge. Phage therapy stands in this context as a new selective approach. This project will address the optimization of efficiency, functionality and safety of *P. aeruginosa*-specific phages using techniques of synthetic biology. Specifically, an expression plasmid for *P. aeruginosa* will be developed to enable the development of a phage vector carrying the CRISPRi system capable of silencing the expression of genes related to antibiotic resistance in this bacterium.

Admission requirements

Bachelor's Degree in Biotechnology

(The eligibility of qualifications awarded abroad will be verified by the Selection Committee.)

Required skills:

- English knowledge;
- Computer skills: Use of Microsoft Office and programs to perform statistical analysis. Ability to query online databases of scientific-medical literature.

Consideration will be given to:

- Documented relevant study and research activities.

Incompatibility

The fellowships within this announcement may not be combined with:

- other research grants;
- fellowships of any other kind, except for those awarded by national or foreign institutes to integrate, with periods abroad, the specific research activities required by this announcement.

In the case of self-employed, employed or parasubordinate employed, compatibility shall be determined by the Research Project Supervisor.

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Research Fellowship Holder may not have family or kinship relationships up to the fourth degree with lecturers or researchers working at the Department elected as "Research Base", or with Rector, or Director General, or a member of the University Board of Governors.

Procedures for submission of application form:

The deadline for submitting the application form is **10th January 2024 at 01:00 p.m.**

The application must be filled out using only the form available on the Department of Molecular Medicine webpage at the link <https://www.medicinamolecolare.unipd.it/> under the section "Bandi", and it can be submitted as follows:

1) delivered in person to Segreteria Amministrativa del Dipartimento di Medicina Molecolare, via U. Bassi 58/b, room 60 (4° floor North Complesso Vallisneri) - 35131 Padova, on the following days: Monday – Friday from 09:00 to 13:00; **please note that envelopes will be received until December 22nd, 2023 and on January 8th, 9th, 10th, 2024;**

2) sent by certified e-mail (PEC) to dipartimento.medicinamolecolare@pec.unipd.it

3) sent by e-mail to the address of Segreteria Amministrativa del Dipartimento di Medicina Molecolare - Settore Ricerca and Terza Missione to ricerca.dmm@unipd.it activating the return receipt option.

The envelope or subject heading of the email must indicate the following: "Selection Announcement for the Awarding of Research Fellowship -" *insert the title of the research fellowship and the number*" at the Department of Molecular Medicine.

The application must include:

- a) a dated and signed Europass CV, available at the links indicated on the selection announcement;
- b) a photocopy of a valid identity document (Identity Card or Passport);
- c) any other document, qualification or publication (for example: thesis) useful for the selection process;
- d) the substitutive declaration of certification (made in order to declare the conformity of a document to the original) dated and signed, available on the web page of the Department <https://www.medicinamolecolare.unipd.it/> under the section "Bandi"

referring to the specific call.

Selection procedure

Candidates' applications shall be evaluated by a Selection Committee that will be nominated in accordance with the "Regulations Governing Research Fellowships," based on their qualifications.

Prior to assessing candidates, the Selection Committee shall establish the maximum score, criteria, and the procedure to be used in evaluating qualifications.

At the end of the selection process, the Selection Committee shall send the report to the Head of the Department for approval.

After verifying the legality of the deeds, the Head of Department shall approve by decree the ranking order and the awarding of the research fellowship.

The administrative office of the Department that issued the selection announcement shall notify the successful candidate.

The winner must accept the award within ten days of notification. Otherwise, the winner shall forfeit the right to the research fellowship. In case of renunciation, the fellowship will be awarded to the next eligible candidate, according to the ranking order.

The ranking order will be published on the Department's web page at the following address <https://www.medicinamolecolare.unipd.it/> and on the University's website.

Return of Documents and Publications

Any documents and publications sent to the University can be returned at the applicant's expense after two months from the completion of the selection process, subject to any ongoing litigation.

Processing of personal data

The processing of personal data provided by the candidates will be done in accordance with the provisions of EU Regulation 27.04.2016 no. 679 (General Data Protection Regulation - GDPR).

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Competitors' personal data will be processed, in paper or computer form, for the purposes of this procedure and the possible award of the grant.

The provision and collection of data are mandatory for the purposes of participation in the selection process and, if sensitive data are involved, they are carried out in accordance with Law 68/1999 and Law 104/1992.

The full information on the processing of personal data is available at the following link:

<http://www.unipd.it/privacy>

The person responsible for administrative proceedings

In accordance with Art. 5 of Law no. 241 dated 7 August 1990, the person responsible for the selection process (RPA) is Dr. Edda Fassari, Secretary of the Department of Molecular Medicine, e-mail: edda.fassari@unipd.it - Tel. n. 049 8218681. For any clarification or information regarding the call, write to the following email address: ricerca.dmm@unipd.it

Final provisions

For anything not specified in this selection announcement, see the University of Padova's current regulations regarding the awarding for research fellowships.