

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. 5801 dated 14.12.2022

University of Padova – Department of Molecular Medicine

Selection announcement for the awarding of 01 research fellowship entitled

“Combination of viro-oncolytic and photodynamic therapy for the treatment of glioblastoma”

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 and interview has been published for the awarding of 01 research fellowship at the Department of Molecular Medicine, under the supervision of the Research Project Supervisor, **Prof.ssa Arianna Calistri**.

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

The research fellowship shall be for a total amount of **€ 7.500,00** financed by the research project CALI_PRIV22_02- Calistri – Donation from NUOVA ISOPAK S.r.l Unipersonale, of which Prof.ssa Arianna Calistri is responsible and will be paid in deferred monthly instalments.

The Research Fellowship Holder must carry out the following research activity: he/she will have to develop genomic sequence circuits with the function of logic operators in order to optimize vectors based on herpes simplex virus type 1 expressing photoactivatable proteins for the treatment of glioblastoma. He/she will also have to contribute to the generation of viral mutants

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based on the developed circuits and their validation in in vitro systems. Finally, support is required for the analysis of transcriptomics data in order to exploit them in the optimization of viral vectors.

Admission requirements

Specialization degree (a second level degree - D.M. 509/99 and D.M. 270/04)

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

Required skills:

- Computer skills:

- 1) knowledge of programming languages: Python and C++,
- 2) ability to use MATLAB software for circuit design of genomic sequences with the function of logical operators, for graph construction, for use of statistical tools, for data analysis;
- 3) theoretical and application knowledge of machine learning for data analysis;
- 4) ability to use COMSOL Multiphysics software for simulation of nanoparticles (including viral nanoparticles) in cellular environment and for analysis of electromagnetic fields in photodynamic therapy.

- Knowledge of photodynamic therapy from a physical point of view;

- Theoretical knowledge of lasers, lamps and LEDs.

Titles considered:

- Documented academic and research activities.

Incompatibility

The fellowships within this announcement may not be combined with:

- other research grants;

- fellowships of any other kind, with the exception of those awarded by national or foreign institutes to integrate, with periods abroad, the specific research activities required by

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this announcement.

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

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 **11th January 2023 at 13:00**.

The application form to use is available at the links indicated on the selection announcement and alternatively, 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, 2022 and on January 9th, 10th, 11th, 2023**;
- 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 of the call*" with 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 useful for the selection process (it is recommended to attach a copy of the thesis);
- d) the substitutive declaration of certification (made in order to declare the conformity of

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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," on the basis of their qualifications and interview.

Prior to assessing candidates, the Selection Committee shall establish the maximum score, criteria and the procedure to be used in evaluating qualifications, any minimum score for admission to the interview, the methods and criteria for the interview.

If the Selection Committee considers the qualifications as sufficient to evaluate the candidates' eligibility, it can decide not to hold interviews.

The online oral tests will be held on the same day as established in this call for applications. The oral tests, including remote tests, are public.

The interview is scheduled for **16th January 2023 at 09:00 via Zoom multimedia platform.**

Candidates must expressly indicate, in the application form, that they agree to use the multimedia option to take the oral test and must ensure that the device is equipped with a functioning webcam - essential to verify the identity of the candidate - and has a microphone and headphones/speakers.

On 13th January 2023 the link to the Zoom platform, useful for the selection interview, will be communicated by the Administrative Secretariat of the Department to the candidates via email to the email address stated in the application form.

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.

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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

In accordance with Legislative Decree no. 196 dated 30 June 2003 and s.m.i, it is hereby stated that any data provided, in print or electronic format, shall be handled only for the purposes of this announcement and the entering into and managing of the relationship with the University.

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. 049 827 2313. For any clarification or information regarding the call, write to following email address: ricerca.dmm@unipd.it

Final provisions

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