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**SELECTION ANNOUNCEMENT
FOR THE AWARDING OF RESEARCH GRANTS (TYPE A)**

THE HEAD OF CENTRE OF PADOVA NEUROSCIENCE CENTER - PNC

HAVING REGARD TO Law no. 168 dated 9 May 1989;

HAVING REGARD TO the Statute of the University of Padua, published in the Official Gazette no. 300 dated 27 December 2011, plus subsequent amendments and integrations;

HAVING REGARD TO Art. 22 of Law no. 240 dated 30 December 2010, which envisages the awarding of research grants in accordance with budget availability;

HAVING REGARD TO Ministerial Decree DM no. 102 dated 9 March 2011, which establishes the minimum annual gross amount of research grants, published in accordance with Art. 22 of Law no. 240 dated 30 December 2010;

HAVING REGARD TO the current "Regulations Governing Research Grant Awards" pursuant to Art. 22 of Law no. 240 dated 30 December 2010;

HAVING REGARD TO Legislative Decree DL no. 17 dated 9 January 2008, pertaining to the admission of third-country nationals for the purposes of scientific research;

HAVING REGARD TO Italian Presidential Decree D.P.R. no. 62 dated 16 April 2013, "Regulations governing code of conduct for civil servants" in accordance with Art. 54 of Law no. 165 dated 30 March 2001, which has extended, where relevant, the obligations under the code of conduct for collaborators and consultants with any type of contract or role;

HAVING REGARD TO Law no. 11 dated 27 February 2015, converted into law with amendments of Decree-Law No. 192 dated 31 December 2014, containing provisions on the extensions of deadlines provided for by law, extending the duration of the working relations established in accordance with Art. 22, Paragraph 3 of Law No. 240 dated 30 December 2010 by two years.

HAVING REGARD TO the decision of the *Centre Board* made on 10/07/2018 which approved the establishing of n.1 grants to carry out research activity related to the project titled "Development, validation and application of microscopic imaging of animal models with optogenetics" at the Padova Neuroscience Center PNC acting as the Research Base.

IT BEING DEEMED EXPEDIENT to issue a selection announcement for the awarding of no. 1 research grants.

HEREBY DECREES

Art. 1 - Purpose

A selection announcement has been published for the awarding of n. 1 research grants for the research project entitled “Development, validation and application of microscopic imaging of animal models with optogenetics” to be conducted at the Padova Neuroscience Center under the supervision of Professor [name of professor], who is the Research Project Supervisor.

The research grant, which shall last for 24 *months* and be for a gross amount of 30.000 *euro* per annum, is issued in accordance with the current Regulations Governing Research Grant Awards and Art. 22 of Law no. 240/2010 for the aforementioned research project, in Scientific Area no. 07, and Scientific Sector and Discipline (SSD, BIO/09, FIS/07, ING/06).

The purpose of this research grant, which is funded by [funding body], is the setup, the characterization and the experimental validation of: 1. A two-photon imaging system, with the possibility to enable super-resolution acquisition in 2PE-pSTED mode and targeted optogenetic stimulation with CW or pulsed sources, in combination with electrophysiological recordings; 2. A mesoscale imaging system combined with targeted optogenetic stimulation and electrophysiological recordings. The tasks above require, along with a design phase, workloads on the hardware aspects for the setup of the optical and electronic components required for the acquisition, and on aspects of software interface for the acquisition and the analysis of the signals and the system checkup. Importantly, periodical reports are required about the status and the performances of the instrumentation based on standardized samples. The activity will also require the training and the support of the research staff in the *in vivo* application. The candidate will be offered with the possibility to extend her/his knowledge about cutting edge microscopy and electrophysiological techniques and the applications in Neuroscience research.

Art. 2 - Admissions requirements

The following are entitled to take part in this selection announcement PhD in engineering or Physics or others with characterized by activities in the research applications listed below:

1. experience with at least one of the following optical and fluorescence microscopy techniques: Wide-field, bright field, laser scanning microscopy with CW or Pulsed sources, phase modulation and interference techniques, methods for spatial and temporal control of the distribution of the light intensity, methods for super resolution acquisitions and optogenetic stimulation, methods for aberration corrections, holographic optical tweezers, single photon detection strategies;
2. proven skills in at least one of the following programming languages and development frameworks: C, C++, Python, Matlab, Labview, Cuda, OpenCL, Zemax or simili, ANTs, CalmAn;
3. experience in at least one of the following tasks: interfacing complex electrophysiological and microscopy systems, devices for wavefront engineering (SLM, DM, DMD), design of automated procedures for real time signal processing and feature extraction, computer vision and machine learning, temporal focusing, set-up or design of optical systems, fiber lasers and system for electrophysiological multisite recordings.

Candidates must have their degree by the selection announcement deadline.

Should the candidate's degree or PhD have been awarded abroad, then, for the sole purposes of this selection procedure, it must be declared to be the equivalent of an Italian specialisation degree

(*specialistica/magistrale*) by a Selection Committee. Similarly, if the PhD has been awarded abroad, then it must have been conducted over a minimum of three years and, for the sole purposes of this selection procedure, must be declared to be the equivalent of an Italian PhD by a Selection Committee.

In accordance with Art. 22 of Law no. 240 dated 30 December 2010, the Grant Holder may not be a permanent employee at the following universities, institutes and public research and experiment organisations: the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the Italian Space Agency (ASI), the European University Institute, the *Scuola Normale Superiore di Pisa*, the *Scuola Superiore di studi universitari e di perfezionamento di Pisa*, the *Scuola internazionale superiore di studi avanzati di Trieste*, and the other Italian post-graduate schools that provide the equivalent of doctoral researcher courses.

The maximum period of time of research grant contracts awarded in accordance with Art. 22 of Law no. 240 dated 30 December 2010, including extensions, shall not exceed 6 years, excluding the time that coincides with the completion of a PhD and that is within the maximum legal time limit of the related course.

In accordance with Art. 18 of Law no. 240/2010, Research Grants may not be awarded to anyone who is related to or has an affinity with, up to and including the fourth degree of kinship, a professor or researcher working at the Department elected as "Research Base", or the Rector, Director General, or a member of the University Board of Governors.

Candidates shall be admitted to the selection procedure with reserve. The Department/Centre that published the selection announcement may at any moment, even after the examinations have been held, exclude candidates for not having the aforementioned requisites by reasoned order from the Head of the Department/Centre.

Art. 3 – Application

The application to take part in this selection procedure must be written on unstamped paper and addressed to the Head of the Padova Neuroscience Center; it must, under penalty of exclusion, be submitted in one of the following methods within 15 days of this selection announcement being published in the Official University Register:

- 1) delivered in person in a sealed envelope to the following address:
Head of the **Segreteria Amministrativa del Padova Neuroscience Center – c/o segreteria della clinica Neurochirurgia - piano terra, Via Giustiniani n. 5 – 35128 Padova.**
- 2) posted by registered mail with advice of receipt to the following address:
Head of the **Segreteria Amministrativa del Padova Neuroscience Center – c/o segreteria della clinica Neurochirurgia - piano terra, Via Giustiniani n. 5 – 35128 Padova.**

Should the application be sent by registered letter, the postmark will not be accepted as evidence of meeting the application deadline.

Alternatively, the application can be sent to the Department's certified e-mail (**PEC**) address centro.neuroscienceec.unipd.it by the deadline. If using this method, the application must be sent:

- through certified e-mail (**PEC**). The application must be signed and any documents for which a traditional signature is required must carry the applicant's digital signature.
- through certified e-mail (**PEC**). The copy of the application must have an original signature, together with a copy of the applicant's identity document. Any electronic documents that

are required to have a traditional signature must be sent in simultaneously with the application. Only scanned copies shall be accepted. through his/her personal certified e-mail (c.d. CEC PAC) (in accordance with the Decree of the President of the Council of Ministers (DPCM) dated 27/9/2012 together will all the relevant documentation.

If using electronic mail, documents must be sent in a fixed and not directly editable format without macros or executable codes, preferably in PDF. Documents must not exceed 1 MB.

Any additional documents must be included with the application and submitted by the Selection Announcement deadline.

Documents submitted at a later date will not be accepted.

The University shall accept no liability should it not be able to locate candidates or should any correspondence be lost due to candidates providing imprecise addresses, or no or late notice of any change to the address stated in the application. Neither shall the University accept any liability for postal, IT or third-party errors, nor for errors due to chance or force majeure.

The postal envelope or email subject must include the title of the selection announcement the candidate is applying for: Selection for **“Development, validation e application of optical and electrophysiological systems for studying mechanisms of the brain circuits in vivo using high resolution imaging and optogenetics.**

The application form, a copy of which can be downloaded from <https://elearning.unipd.it/servizioricerca/mod/resource/view.php?id=213>, must include the candidate's:

- 1) surname and name;
- 2) Italian tax payer's code (*codice fiscale*)
- 3) date and place of birth;
- 4) nationality
- 5) fixed address and domicile address for the purposes of this selection announcement;
- 6) telephone number and email;
- 7) a statement saying that he/she has the qualifications required by this selection announcement;
- 8) a statement saying that he/she is not a permanent employee at a university or the other organisations listed in Art. 22 of Law 240/2010;
- 9) a statement saying that he/she is not related, or does have not an affinity, up to and including the fourth degree of kinship, to a professor working in the Department or Centre where the research is based, or to the Rector, Director General, or a member of the University's Administrative Board;
- 10) a list of the qualifications and publications the candidate is presenting;
- 11) a statement declaring that the information included in the CV is true and that the qualifications and publications enclosed with the application are true copies of the originals (required in accordance with Art. 46 and 47 of Italian Presidential Decree DPR 445/2000.)

The following must be enclosed with the application:

1. a photocopy of a valid form of identification;
2. an academic and professional curriculum vitae, duly signed and dated on each page;
3. a list of the qualifications and publications the candidate is presenting with his application;
4. two letters of presentation of professors or researchers from Italian or foreign universities or research institutes.

European citizens may self-certify their academic and professional qualifications. Publications may be presented as originals or as copies with a statutory declaration in accordance with DPR 445/2000.

Non-European citizens may present their original qualifications, authenticated copies thereof, or copies that have been declared to comply with the original. Non-European citizens may submit statutory declarations, as if they were European citizens, should they have to provide evidence of statuses, information and personal qualities that can be certified or attested to by Italy's Public Administration, or should a self-certification be envisaged by international conventions between Italy and the candidate's country of origin.

In circumstances other than the aforementioned, at the time of the award, the status, personal qualities and facts declared in the application must be certified true by the foreign state's competent authorities, accompanied by an Italian translation that is certified it conforms to the original by the Italian Consulate, as specified in Art. 3 of Presidential Decree no. 445/2000.

According to Law no. 104 dated 5 February 1992, candidates with a recognized disability must specify in their application any special aids or additional time they may need during the interview and which is relevant to their status.

The candidate undertakes to notify the Administration of any changes to the contact details listed in the application form.

Art. 4 – Selection Procedure

Candidates are selected by a comparative evaluation of their qualifications, academic and professional curriculum vitae, publications and an interview *and letter of presentations*. Candidate applications shall be evaluated by a Selection Committee appointed by the Head of the Centre; the Selection Committee shall comprise three members who are experts in the field of research, one of which, normally, shall be the Research Project Supervisor.

The Selection Committee has 100 points to evaluate the candidates and they shall be awarded for:

- **qualifications max points 10:** degree, PhD, specialisation degree, postgraduate certificates (awarded in Italy and abroad). If a PhD or an equivalent qualification obtained abroad or, for relevant research areas, specialisation degrees in medicine together with adequate scientific production output, is not deemed compulsory, for ranking purposes these qualifications will be considered desirable.
- **the curriculum vitae max points 25:** performance of documented research activity at public and private organisations with contracts, grants or appointments (both in Italy and abroad) relevant to research stated in this selection announcement.
- **publications max points 20:** including postgraduate dissertations (*Laurea Specialistica/Magistrale*) or PhD theses.
- **the letters of presentation max points 40:** candidates will be asked for a presentation on their professional experience and on their scientific publications

The date of the interview is set for 02/08/2018 at 14:30 at VIMM (Via G. Orus, 2) Padova.

Candidates who have not been notified of their exclusion from the selection are required to attend the interview, without prior notice, on the days and at the times aforementioned.

Absence from the interview, whatever the cause, will be considered as the candidate's withdrawal from the selection.

In order to be admitted to the interview, candidates must provide a valid identity document.

At the end of the evaluation, the Selection Committee shall draw up a provisional ranking based on the total of the scores the candidates were awarded for each category.

To be included in the ranking, candidates must be awarded a minimum overall score of 50 points. In the event of a tie, preference will be given to the younger candidate.

The selection report and the provisional ranking shall be officially approved by a Rector's Decree and then published in the Official University Register.

Art. 5 - Entering into the agreement

Research grants are awarded with bespoke research activity agreements entered into with the Centre that published the announcement.

An individual agreement will establish the successful candidate's specific tasks, rights and duties, assigned tasks and research activities, payable salary and social security

The Centre shall notify the winner of the date by which he or she must enter into the agreement, under penalty of cancellation.

Should the agreement not be entered into by this date, the winner shall forfeit the right to the research grant. In the event of this, the second-placed candidate in the ranking shall be declared the winner.

Research activity may not be commenced before the winner has entered into the agreement, which shall normally come into force on the first day of the month after it was signed.

Should the winner be an employee of the Public Administration, then he or she must be placed on unpaid leave for the entire duration of this research grant.

The awarding of the research grant does not constitute subordinate employment nor does it entitle the Grant Holder to a permanent position at the University.

Grants shall be paid in deferred monthly instalments.

Art. 6 – Rights and Duties

The Grant Holder shall conduct his/her research activity personally and fully, which is of a flexible nature, with no set working hours, in a continuous and not merely occasional manner, autonomously

within the limits of the programme or stage thereof as laid out by the Research Project Supervisor and in accordance with his/her general instructions.

The grants within this announcement may not be combined with other grants or with study grants of any other kind, unless they have been awarded by national or international organisations and involve trips abroad as part of the Grant Holder's research.

Grant Holders are not allowed to enrol in degree courses, specialisation degrees (*specialistica/magistrale*), funded PhDs or medical specialisations in Italy or abroad. Nor is holding a research grant compatible with enrolment at specialisation schools. An employee of the Public Administration must be placed on unpaid leave.

Art. 7 - Confidentiality and intellectual property

Should the Grant Holder come into contact with information or data covered by confidentiality agreements signed by the Department/Centre for which he/she works during the performance of his/her duties, then the Grant Holder hereby pledges to keep all of this information and data confidential.

Attribution of the right to register a patent for the inventions produced on the basis of any scientific research activity carried out with the facilities and funds of the University of Padova is generally governed by the University's Patent Regulations.

Art. 8 - Tax, social security and insurance

The grants within this present announcement are governed by a series of laws:

- Art. 4 of Law no. 476 dated 13 August 1984, for tax;
- Art. 2, paragraphs 26 and following of Law no. 335 dated 8 August 1995, plus subsequent amendments and additions, for social security;
- the Ministry of Labour and Social Security decree dated 12 July 2007 for maternity leave (see Official Gazette no. 247 dated 23 October 2007);
- and Art. 1 paragraph 788 of Law no. 296 dated 27 Decembre 2006, plus subsequent amendments, for sick leave.

The University shall provide insurance coverage for accidents and civil liability in accordance with the conditions stated in the policies taken out by the University.

Should the Grant Holder be sent on leave for official university business, then the costs shall be sustained by the Research Project Supervisor's funds, or by the Grant Holder from his/her research funds, or by the host organisation in accordance with the University Regulations Governing Leave for Official University Business.

Art. 9 - Verifying the Grant Holder's activity

The evaluation method, determined by the Board of the Department which publishes the selection announcement, comprises the following:

- The preparation of a report at the end of the first year of activity with relative judgment by the Scientific Responsible of the project and the Director of the Department and approval of the Department Council;
- Preparation of a final report on all the activities carried out in the 24 months with relative judgment by the Scientific Responsible of the project and the Director of the Department and approval of the Department Council.

Art. 10 - Final Provisions

For anything not specified within this present announcement, reference shall be made to the provisions of Law no. 240/2010, to the University of Padua's current Regulations Governing Research Grant Awards in accordance with Art. 22 of Law no. 240/2010, and to current law.

The University Administration reserves the right to verify a candidate's self-certifications and statutory declaration, in accordance with Italian Presidential Decree DPR 445/2000, at any stage of the procedure. If the aforementioned statements are found to be false, then the declarer shall forfeit any benefits that he/she may have gained from the false statements, without prejudice to any sanctions envisaged by the Italian criminal code or by special laws governed by Art. 76 of Italian Presidential Decree DPR no. 445/2000.

The person responsible for the selection process is the Head of Department, Prof. Alessandro Martini.

Art. 11- Handling Personal Data

Treatment of personal data complies with the general elements of EU General Data Protection Regulation (GDPR, 27.04.2016 no. 679)

Personal data provided by candidates in print or electronic format is processed for the purposes of this announcement and the entering into and managing of the relationship with the University, strictly for the period relevant to administration of the grant.

The data obtained for this selection process is necessary for the administration of this selection announcement and, in the case of sensitive information, is handled in accordance with Law no. 68/1999 and Law no. 104/1992.

Complete version of information note on processing of personal data is available on this link: <http://www.unipd.it/privacy>.

Padova, 16/07/2018

The Head of Centre
Prof. Maurizio Corbetta