

Call 09/2024

All. 1

Public selection by qualifications and interview for the assignment of n. 1 junior research grants on the topic of "Genome-scale metabolic model implementation for the marine diatom Pseudo-nitzschiamultistriata" for the Oceanography Section of the National Institute of Oceanography and Experimental Geophysics – OGS.

Art. 1 – Descriptions of the activities

The National Institute of Oceanography and Experimental Geophysics - OGS, in order to comply with its activities within the framework of "National Biodiversity Future Center - NBFC" (CUP F83B22000050001), funded by the MUR in implementation of mission 4 "Education and Research" of the PNRR supported by Next Generation EU funds, announces a public selection by qualifications and interview for the award of no. 1 junior research grant on the topic of "Genome-scale metabolic model implementation for the marine diatom Pseudo-nitzschiamultistriata" for the Section of Oceanography.

Genome-scale metabolic models (GSMs) are computational objects for elucidating the operating principles of cellular metabolism. Applications of such approaches to marine unicellular organisms are still limited, but, undoubtedly, their implementation will vastly increase our understanding of marine species and communities and will be a resource for further research. For implementing genome-scale modeling in the diatom framework, we propose building metabolic models for the pennate Pseudo-nitzschia multistriata. Diatoms are key components of marine ecosystems, they fix solar energy and carry out the same ecological function that plants have on the land. P. multistriata has been extensively studied in the past years and has become a model for the study of diatom life cycles. Ecological knowledge, population genetics data, gene expression and metabolomics datasets, and genomic resources, including a fully sequenced genome, are already available for this species. GSMs for other model diatoms are available and can represent a reference (Thalassiosira pseudonana and Phaeodactylum tricornutum). We will first deploy a recent top-down metabolic model reconstruction technique on available data, then we will propagate these GSMs as new trait based on molecular knowledge to assess the consequences of sexon biogeochemical cycles. Finally, we will embed the new GSM in a synthetic biology framework. The recruited scientist will work closely with modelers, oceanographers, ecologists and molecular biologists to apply different strategies for the development of the above strategy for P. multistriata.

SCIENTIFIC DISCIPLINARY SECTOR:

- BIO/07 Ecology
- BIO/11 Molecular biology
- GEO/12 Oceanography and physics of the atmosphere

The research fellowship may not be combined with any other fellowships with the exception of those awarded by national or international institutions aimed at integrating the research activity of the grantees with stays abroad.

The research fellowship is compatible neither with the participation in degree courses, master's degrees, fellowship PhD, in Italy or abroad, nor with fixed-term or permanent contracts, with the exception of unpaid leave from work.

OGS may not pay any additional payments to grantees.

This selection notice is available on the OGS institutional web page at <https://www.ogs.it/it/concorsi> together with all the information, news and notices referred to this Call.

Art. 2 – Duration and salary amount

The fellowship for each profile has a duration of 12 months each and may be renewed. The fellowship renewal may be proposed to the OGS General Director. Even in the case of any possible renewals, the duration of the fellowship cannot exceed six years. The total duration of the fellowships also includes the fellowships implemented in other organizations or universities, with the exception of the time during which the fellowship overlapped a PhD course (not paid) to a maximum duration of the course itself.

The fellowship cannot be awarded to applicants who have already benefited from a fellowship, further renewals included, for a period of six years, with the exclusion of the above-mentioned paragraph.

In the case that the successful applicant has already benefited from fellowships for a period of less than six years, the annual research fellowship and/or its possible renewal shall be granted within the above-mentioned termination.

The gross annual salary of the research professionalizing fellowship, net for charges borne by OGS and including the social security contributions concerning the part borne by the grantee, is equal to € 25,000.00 and shall be paid in monthly instalments.

From the third year, the annual amount of the fellowship, net for charges borne by OGS and including the social security contributions concerning the part borne by the grantee, will be re-modulated for the total amount of € 27,000.00, when there is financial provision and subject to the positive evaluation of the research activities of the fellow by a Selection Board appointed by the Director of the Section/Department and consisting of the same Director of the Section/Department, the person in charge of the research project and an expert in the field.

The amount of the fellowship does not include any possible allowance for missions in Italy and abroad which may be deemed necessary for the implementation of the research activities connected to the fellowship. The mission allowance is determined in proportion to the allowance paid to the OGS staff belonging to the III professional level.

Fiscal and social security regulatory provisions in force are applied to all fellowships.

Art. 3 – Requirements

The requirements for the admission to the public selection are:

- Master's Degree in scientific disciplines obtained in accordance with the current Italian legislation prior to the Ministerial Decree no. 509/99 or Master's Degree within Ministerial Decree no. 270/04 in all assimilated classes pursuant Interministerial Decree dated 9th July 2009 and according to the table annexed to the same Decree, obtained by Italian Universities or degrees issued by Universities abroad;
- either at least two years of research activities or enrolment to the third year of a PhD course in the topics related to each profile;
- possession of a suitable professional scientific curriculum related to each profile;
- good knowledge of the English language;
- knowledge of basic computer applications

Candidates who obtained a qualification abroad that has been declared equivalent by the Italian competent educational authorities or validated according to the rules in force (Art. 38 Legislative Decree 165/2001), are admitted to participate in the call.

The candidate without such requisite at the date of the application shall submit a detailed documentation concerning his/her education in order to allow the Selection Board to evaluate the application limited to the present call for applicants.

The admission requirements must be fulfilled at the date of publication of this notice of recruitment.

Art. 4 – Application form: terms and conditions

The application forms for the participation in the Call shall be sent on simple paper, according to the form herewith attached (Annex 1), signed with handwritten or digital signature and sent by one of the following options:

- By personal PEC (Electronic Certified Email), in conformity with the current legislation on the matter, to the following PEC address: ogs@pec.it

Please note: the maximum PEC size limit is **30 MB**. Should the attachments exceed this limit the candidate has to send more than one e-mail (indicating in the subject the e-mail number, for example: "Name, surname, title of the Call, e-mail no. X out of Y"). Files with ".zip" extension are **not** accepted.

Only and exclusively for non-national candidates or Italian citizens living abroad: application forms for the participation in this Selection shall be filled out according to the form herewith attached (Annex 1), signed with handwritten or digital signature, and sent:

- By e-mail, to the following e-mail address: protocollo@ogs.it.

Please note: the maximum e-mail size limit is **30 MB**. Should the attachments exceed this limit the candidate has to send more than one e-mail (indicating in the subject the e-mail number, for example: "Name, surname, title of the Call, e-mail no. X out of Y"). Files with **“.zip”** extension are **not** accepted.

The application form must be sent at the latest **by 11.59 pm** on the closing date.

All the communications related to the procedure shall be sent to the personal PEC / e-mail of the applicant. The applicant is directly responsible in case of failed delivery of the notifications. OGS assumes no responsibility for the incorrect indications of PEC / e-mail address or for missed or late notification of change in the PEC / e-mail address.

Different methods of delivery will not be accepted.

Under his/her own responsibility, the candidate must declare the following information:

- Surname and name;
- Place and date of birth;
- Residence (address, city, province/state, zip code, country);
- Citizenship;
- Not have been convicted or found guilty of any criminal offence, or, if any, what kind of criminal offence the candidate has been found guilty;
- To be in possession of the required qualifications, with all the details concerning date, place of issue, final mark;
- The candidate's position with reference to the awarding of other fellowships;
- To be in possession of the further requirements as per art. 3 of this Call;
- The chosen address for the Call.

The candidate shall attach to the application form the following documents:

- A **Curriculum Vitae et Studiorum** (possibly in European format) written either in Italian or English, dated and signed with handwritten or digital signature; in the CV the applicant shall include all the useful information for the evaluation. **at the bottom of the curriculum, the following statements should be included:**
 - o "The information contained in this curriculum vitae is made under the personal responsibility of the undersigned in accordance with Articles 46 and 47 of Presidential Decree no. 445 of 28.12.2000, aware of the criminal responsibility provided for in Article 76 of the same Presidential Decree no. 445 of 28.12.2000, for the hypotheses of falsity in deeds and false statements";
 - o "I authorize the processing of my personal data in the curriculum vitae in accordance with Legislative Decree no. 196 of June 30, 2003 "Code on the protection of personal data" and Article 13 of the GDPR (EU Regulation 2016/679)".
- **Qualifications and documents** that will be considered useful by the applicant to submit to the Selection Board; qualifications and documents must be submitted in the form of a declaration in lieu of certification or affidavit in accordance with Articles 46 and 47 of Presidential Decree No. 445 of 28.12.2000;
- **A copy of a valid Identity Document.**

Art. 5 – Exclusions

All exclusions from the competition, for whatever reason they may be envisaged, may be ordered, at any moment of the competition procedure, with a provision from the General Manager on the indication and proposal of the person in charge of the procedure and/or the Examining Commission pursuant to art. 6.

The exclusions will be communicated to the interested parties within 5 days of the adoption of the relevant provision.

Art. 6 – Selection Board

The Selection Board shall be appointed by the OGS General Director.

The Selection Board may carry out the evaluation procedure with the aid of videoconference tools, ensuring in any case the complete communication security and traceability.

The session is open and closed by the President, who governs its execution and could suspend it in every moment, where necessary. The President has the duty of checking, before the start of the meeting, the participants' identity and assessing the presence of the required conditions of participation. These elements will be specified in the minutes, together with the indication of the technologies used by each member.

The Selection Board shall close the selection procedure within six months from the date of its first meeting. Should the Selection Board fail to respect this term, it shall collectively write a valid justification to the OGS General Director.

Art. 7 – Evaluable qualifications, interview and ranking list

The selection is based on qualifications and interview.

The Selection Board can assign up to 100 points, divided as follows:

- 30 points for the evaluation of the qualifications
- 70 points for the interview.

In order to pass the qualifications and interview the candidate should obtain a minimum score of:

- 21/30 score of qualifications;
- 49/70 score of interview.

QUALIFICATIONS (max 30 points out of 100)

The Selection Board preliminary adopts the criteria and the parameters to which it intends to apply, with specific reference to the characteristics of the research project.

The evaluating titles are:

- - PhD related to the required profile, preferably in Physics (LM-17), Computer Science (LM-18), Mathematics (LM-40), Biology (LM-6), Natural Sciences (LM-60), Data Science (LM_DATA);
- Scientific and methodological experience in public or private scientific institutions based on contracts, fellowships or assignments, both in Italy and abroad in the subject of the call;
- Attendance to *post lauream* professional courses, either in Italy or abroad;
- documented contribution to scientific publications and/or technical reports relevant to the topics outlined for each profile with emphasis on multidisciplinary;
- Knowledge and use of popular scientific programming languages.
- Knowledge of software for the interpretation and imaging of geophysical data (IHS Kingdom Site, Surfer, map publisher, Adobe illustrator)
- Knowledge of analysis of geospatial data and database (QGIS, arcGIS, Global mapper etc...)

In particular, a Ph.D. title, or an equivalent title obtained abroad, would be considered as an asset for the purpose of awarding the fellowship.

After the qualifications have been evaluated, the Selection Board makes a shortlist of applicants who will be invited to the interview.

The details on date, time and place will be published at least 20 days prior on the website of OGS

<https://www.ogs.it/it/concorsi>.

Such publication effectively constitutes an official notification.

INTERVIEW (max 70 points out of 100)

The interview may take place by means of videoconference call, ensuring anyway the adoption of technical solutions that guarantee the disclosure and transparency, the participant's identification, and the communication security.

The interview will focus on general themes related to the profile of the present Call, on the past experiences and the possible publications submitted. The interview could be held in English.

For the interview the candidates shall present a valid identification document.

The candidates who will not be present at the interview, or those who will not be connected in videoconference Call

according to the indications given by OGS, should the interview take place this way, will be excluded from the competition.

In order to pass the interview, the candidate should obtain a minimum score of 49/70.

After completion of the interviews, the Selection Board prepares a ranking list, with all the final scores obtained by each candidate, in descending order.

Candidates ranking list is drawn up according to the overall votes each candidate received. In the case of candidates with the same score, the preference will be attributed to the younger candidate.

The ranking lists with the indication of the fellowship winner will be published by the President of the Selection Board on the OGS website at the following page: <https://www.ogs.it/it/concorsi> .

Such publication effectively constitutes an official notification.

Art. 8 – Ranking list approval and appointment of the fellowship winner

The OGS General Director, once verified the formal validity of the documents transmitted to the Selection Board, approves the ranking list and appoints the fellowship winner.

In case of formal renunciation of the winner, or if the winner does not accept the fellowship within the prescribed period according to art. 9 of the present Call, the fellowship shall be awarded to the next eligible candidate in the ranking list.

The fellowships available following renunciation or resolution of the fellowship winner may be awarded to the candidates indicated in the ranking list within the limits of its duration.

Art. 9 – Awarding of the fellowship

The OGS General Director, in compliance with the current legislation on the matter, awards the research fellowship to the fellowship winner. The fellowship winner will be duly notified of the result and shall send an official declaration of acceptance of the fellowship within 15 days after acknowledgement of receipt of the notice. Once obtained the declaration of acceptance from the winner candidate, a contract between the OGS General Director and the fellowship winner is prepared and signed. This contract states the terms and conditions of the cooperation, together with the research activities to be carried out.

Concerning taxation all the regulatory provisions referred to art. 4 of the Law dated August 13 1984 no. 476 are applied to research fellowships and, in terms of social security, the applicable law is referred to art. 2, paragraphs 26 and following, Law no. 335 dated August 1995 and subsequent amendments; for maternity leave matters the applicable law refers to provisions as per Ministerial Decree dated July 12 2007, published on the Official Journal no. 247 dated October 23 2007 and for matters concerning sick leave, art. 1 paragraph 788 of Law no. 296 dated December 27 2006 and subsequent amendments. During the maternity leave, the allowance paid by the Italian Social Security Institute (INPS) with reference to art. 5 of the above-mentioned decree dated July 12, 2007, is integrated by OGS up to the total amount of the research fellowship.

Art. 10 – Implementation of the research activities

The activities of the fellowship holder are carried out in complete autonomy and with no scheduled working time, within the specific research programme and according to the guidance provided by the scientific tutor.

The scientific tutor must coordinate the activities of the fellowship holder together with those of other participants in the programme, by providing all the necessary indications for the implementation of the activity object of the collaboration.

The activity of the fellowship holder is never considered a status of employment.

Art. 11 – Fellowship obligations

The fellowship holder must carry out the commitments envisaged by the research programme prepared by the scientific tutor and under his/her supervision. At the end of the fellowship the holder must submit to OGS a final research report that includes the obtained results. The report must be approved by the tutor.

All technical, scientific, and administrative data and information gathered by the fellowship holder during the implementation of the activity shall be considered confidential, therefore, it is not allowed to use such information for purposes different than those for which the fellowship has been awarded.

Concerning the protection of the intellectual property of the results or products obtained on the performance of the activity of the fellowship please refer to OGS regulations on patents and protection of intellectual property.

Art. 12 – Personal data management

In accordance with Article 13 of the EU General Data Protection Regulation 2016/679 (GDPR), candidates are informed that their personal data, provided by applying to this selection or to this end collected by the National Institute of Oceanography and Applied Geophysics – OGS (from now on, “OGS” or “the Controller”) will be exclusively collected and treated by authorised individuals, Selection Board included, for purposes strictly connected to the selection procedure, with or without the aid of electronic tools, even in case of possible communication to third parties or diffusion (e.g. ranking list publication for transparency purposes).

These treatments by OGS are legitimate as are necessary for the performance of contracts or of pre- contractual measures adopted upon request of the candidate, in compliance with a legal obligation to which OGS is subject, or for its own interest.

According to art. 15 et seq. of the above-mentioned Regulation 2016/679, the candidates have the right of access their personal data, the right of limitation and rectification, as well as the right of opposition and the right to delete their data, for legitimate reasons.

These rights may be exercised against the National Institute of Oceanography and Applied Geophysics – OGS (Data Controller) with head office in Borgo Grotta Gigante 42/c 34010 Sgonico (TS).

In order to exercise the rights recognized by the Regulation 2016/679, or for any information related to the personal data treatment, it is possible to contact the Data Controller at the following e-mail address: privacy@ogs.it. The Data Protection Officer appointed by OGS can be contacted at the following e- mail address: dpo@ogs.it

Art. 13 – Responsible of the Proceedings

In accordance with art. 5 of the Law dated 7/08/1990 no. 241, the Responsible of the Proceedings is dr. Paola Del Negro - General Director of OGS: direzione@ogs.it

Art. 14 – Accessibility

This Call for individual fellowship will be posted on the OGS website, on the Call’s website of MIUR and on the European Commission Internet portal Euraxess.

Art. 15 – Right of access

The right of access to the documents regarding this procedure may be exercised according to the indications of the Law dated 7/08/1990 no. 241 and subsequent amendments. For information on this matter, refer to the OGS Recruitment Office: concorsi@ogs.it

The requests of access will be published on the OGS website www.ogs.it, in the job’s opportunities section dedicated to this selection. This publication fulfils the obligation of informing the persons concerned.

Art. 16 – Final Proceedings

Anything not envisaged by the articles of this Call shall be regulated by the OGS “*Assegni di Ricerca Rules and Regulations*” approved by the Board of Directors with Resolution n. 83 dated 15/06/2017.

Annex 1

To Istituto Nazionale di Oceanografia
e di Geofisica Sperimentale - OGS
ogs@pec.it
protocollo@ogs.it

APPLICATION FORM
SELF DECLARATION AFFIDAVIT
(art. 46 Presidential Decree 28.12.2000 no. 445)

The undersigned (name and surname)
fiscal code (mandatory for residents in Italy)
birthplace (born in and city/state/country)
birthday (day/month/year)
and resident in (city and prov./state)
address (street, number and postcode)
PEC: (mandatory for residents in Italy)
e-mail: (e-mail address)

Aware of the criminal liability which he/she may incur in the event of forgery of documents and false declarations pursuant to art. 76 of Presidential Decree no. 445 of 28.12.2000, asks to be admitted to the public selection, for qualifications and interview, of the following call:

Call 09/2024 - Public selection by qualifications and interview for the assignment of n. 1 junior research grants on the topic of "Genome-scale metabolic model implementation for the marine diatom Pseudo-nitzschiamultistriata" for the Oceanography Section of the National Institute of Oceanography and Experimental Geophysics – OGS.

Date
current date

Firma
candidate's signature

SELF DECLARATION AFFIDAVIT

(art. 46 Presidential Decree 28.12.2000 no. 445)

For this purpose, the applicant declares, pursuant to art. 46 of Presidential Decree no 445 of 28.12.2000, under his/her own responsibility:

- citizenship (indicate your nationality)
- not have been convicted or found guilty of any criminal (if any, please specify)
- to hold a:
 - preceding university's reform pursuant Ministerial Decree no. 509/99
 - master's degree pursuant Ministerial Decree no. 509/99
 - master's degree pursuant Ministerial Decree no. D.M. 270/04in (degree programme)
obtained on date (day/month/year)
at the University of (University)
with the score of (degree score)
 - PhD qualification
Phd cycle (PhD course cycle), academic year (academic year)
in (PhD subject)
obtained on date (day/month/year)
at the University of (University)
with the score of (degree score)*or*
 - enrolment (PhD course cycle) to the Phd course, academic year (academic year)
in (PhD subject)
obtained on date (day/month/year)
at the University of (University)
and having attended (how many years) years
 - the following specialisation qualification or certificate of attendance at a postgraduate specialisation course (specialization course)
obtained on date (day/month/year)
at the University of (University)
and having attended (how many years) years
- *If the qualification is obtained abroad (please tick the condition that applies)*
 - to have already obtained the recognition of the equivalence as per Art. 38 of the Legislative Decree

dated March 30 2001, n. 165, in view of the documents enclosed to the application

or

to have already applied for the recognition of the equivalence as per Art. 38 of the Legislative Decree dated March 30 2001, n. 165, in view of the documents enclosed to the application

or

to present the following detailed documentation of the attended training in order to allow the selection board to assess the recognition of equivalence only for the purposes of the applicant's participation in the mentioned Call.

- Pursuant to Article 22 of Law 240 of 30/12/2010 declares:

no research fellowship have been awarded before

the following research fellowship have been awarded

from (day/month/year) to (day/month/year)

at (institute)

from (day/month/year) to (day/month/year)

at (institute)

to currently hold a research fellowship

from (day/month/year) to (day/month/year)

at (institute)

to possess the further requirements included in the art. 3 of the present Call

- to hold the following **QUALIFICATIONS THAT MAY BE EVALUATED:**

(list the qualifications considered evaluable by the call)

He/she also **ENCLOSES** the following documentation and declares, pursuant to Article 47 of Presidential Decree no. 445 of 28.12.2000, under its own responsibility:

- *that the curriculum vitae, including information on scientific production, consisting of by no. (number of pages/sheets) sheets correspond to the truth*
- *that the identity document (identity card/passport number) is a true copy of the original*

Additional enclosed documents (to be completed for each attached document)

- *that the copy of the following title/document/publication (title/document/publication) consisting of no. (number of pages/sheets) sheets is a true copy of the original*
- ...

• ...

In the context of the procedure for which this declaration is made, the undersigned authorises, pursuant to Legislative Decree no. 196 of 30 June 2003 "Personal Data Protection Code" and to the GDPR (EU Regulation 2016/679), the processing and collection, including by IT tools, of personal data concerning the application and its enclosures.

Date

current date

Firma

candidate's signature

N.B. The declarant shall send attached to the declaration a **copy of a valid identification document**.