



**RESEARCH AREA**  
**Research training office**

COMPARATIVE EVALUATION PROCEDURE FOR THE AWARD OF A RESEARCH GRANT, OF ONE YEAR DURATION, RENEWABLE, FOR RESEARCH ACTIVITIES WITHIN THE PROJECT PRIN 2022 PNRR “HYDRIB DEVICES AND MACHINE LEARNING FOR FOOD AND ENVIRONMENTAL SAFETY (HYDEAL4SAFETY)” - CUP: C53D23007760001 - NATIONAL RECOVERY AND RESILIENCE PLAN UNDER THE OWNERSHIP OF THE MINISTRY OF UNIVERSITY AND RESEARCH, MEASURE M4C2 INVESTMENT 1.1 FUND FOR THE NATIONAL RESEARCH PROGRAM (PNR) AND PROJECTS OF RELEVANT NATIONAL INTEREST (PRIN) - CALL PRIN 2022 PNRR - DIRECTOR'S DECREE NO. 1409 OF 14/09/2022 - SECTOR PE4 - CODE P2022T3HFA\_02 - CUP C53D23007760001, ENTITLED “DEVELOPMENT OF NANOSTRUCTURED ELECTROCHEMICAL SENSORS COUPLED TO MOLECULAR MOLDED POLYMERS”.

**THE RECTOR**

**GIVEN** the Law of 30 December 2010, no. 240 and, in particular, art. 22;

**GIVEN** the Ministerial Decree of 9 March 2011, no. 102, with which the gross annual amount of the aforementioned research fellowships was recalculated;

**GIVEN** the Law of 12 November 2011, no. 183 and, in particular, art. 15, relating to urgent formalities for the application of the new provisions on certificates and self-declarations;

**GIVEN** the Rector's Decree 9 February 2017, no. 32, with which the regulation of research fellowships was issued, and, in particular, art. 2, second point (finalized research fellowship);

**GIVEN** the Regulation (EU) 2016/679 of the European Parliament and of the Council, of 27 April 2016, concerning the protection of individuals with regard to the processing of personal data, as well as the free circulation of such data and which repeals Directive 95/46 / EC (General Data Protection Regulation);

**GIVEN** the PRIN 2022 Call for Proposals issued by Directorial Decree No. 1409 of 14/09/2022 PNRR intended for the funding of public research projects, with a total allocation of 420,000,000.00 euros, which pertains to investment 1.1. Mission 4 “Education and Research” - Component 2 “From Research to Enterprise” of the National Recovery and Resilience Plan (PNRR). The University had an allocation of 21 projects and a total two-year funding of 1,970,407.00 euros;

**GIVEN** the Ministerial Decree No. 1141 of October 7, 2021 c.d. Guidelines for System Initiatives of Mission 4: Education and Research - Component 2: From Research to Enterprise;

**GIVEN** the reporting guidelines for implementing entities of the PNRR Italy interventions of which the Ministry of University and Research is the titular administration and the related Check Lists and in particular the aspects regarding the principles of “equal opportunities, generational and gender” and “Do No Significant Harm (DNSH)” i.e., according to which no measure financed by the notices must cause harm to environmental objectives;

**GIVEN** the resolutions of the Academic Senate of October 24, 2023 and the Board of Trustees of October 31, 2023, whereby it was resolved to approve the implementation of the PRIN 2022 projects funded by the MUR, which involve research units based at the University of Teramo;

**GIVEN** the resolution of the Council of the Department of Biosciences and Agri-food and Environmental Technologies of DECEMBER 14, 2023, transmitted by note prot. no. 17755 of MAY 21, 2024, approving the activation of a one-year research grant from the PRIN 2022 PNRR project “HYDRIB DEVICES AND MACHINE LEARNING FOR FOOD AND ENVIRONMENTAL SAFETY (HYDEAL4SAFETY)” - National Recovery and Resilience Plan under the ownership of the Ministry of University and Research, Measure M4C2 Investment 1. 1 Fund For The National Research Program (NRP) and Projects of Significant National Interest (PRIN) - PRIN 2022 PNRR Call - Directorial Decree no. 1409 of 14/09/2022 - Sector PE4 - CUP C53D23007760001, entitled “DEVELOPMENT OF

NANOSTRUCTURED ELECTROCHEMICAL SENSORS ACCOMPANIED TO MOLECULAR MOLD POLYMERS,” whose scientific disciplinary area of reference is ANALYTICAL CHEMISTRY (CHIM/01), Tutors Prof. Dario Compagnone and Dr. Flavio Della Pelle, project code BIRI00318;

**VERIFIED** compliance with the principle of “Do No Significant Harm to the Environment” (DNSH), pursuant to Article 17 of Regulation (EU) 2020/852, which implies that the implementation of the project must be consistent with the specific principles and obligations of the NRP as well as relevant EU and national environmental legislation.

## DECREES

### Art. 1

A comparative evaluation procedure is announced for the award of a check for collaboration in research activities, for a one-year period, possibly renewable, entitled: “DEVELOPMENT OF NANOSTRUCTURED ELECTROCHEMICAL SENSORS ACCOMPANIED TO MOLECULAR MOLDED POLYMERS,” under the scientific responsibility of Prof. Dario Compagnone and Dr. Flavio Della Pelle, in the CUN 03 area, scientific-disciplinary sector CHIM/01 ANALYTICAL CHEMISTRY:

### RESEARCH PROJECT

- The project is in a line of work to propose and develop analytical devices for the assessment and monitoring of agri-food quality and safety, and aims to solve analytical problems using electrochemical platforms coupled to molecular molded polymers (MIPs). The work will focus on the fabrication of nanostructured and/or activated electrochemical sensors through emerging benchtop strategies. Devices will be designed to integrate analytical steps including sample pretreatment (i.e., extraction, analyte concentration, etc.) using microfluidic channels and sampling pads made from cellulosic substrates. Innovative and low-cost fabrication strategies such as xurography, laser modeling, stencil printing, preprinted template-assisted printing, and thermoadhesive plastic assembly will be used. Integration of MIPs into devices will be attempted either by using electropolymerization strategies or by coupling externally produced MIPs inside specially designed flexible and/or cellulosic devices. The best performing devices will be selected and used to determine different types of analytes, with a focus on emerging pesticides and mycotoxins. The devices will be tested at different concentrations, performing calibration curves and evaluating selectivity and cross-reactivity. Subsequently, the matrix effect using real samples will be tested by using complex matrices validated by routine analytical methods. The ultimate goal is to develop innovative and low-cost hybrid electrochemical devices for the selective determination of pesticides and mycotoxins present in complex food matrices.
- CUN Area: AREA 07.
- S.S.D. of reference: CHIM/01 ANALYTIC CHEMISTRY.
- Foreign language required: English.
- Topics the colloquium will focus on: Mastery of basic analytical principles, Ability to use and understand electrochemical analytical techniques, Ability to synthesize molecular mold polymers, Ability to use and handle nanomaterials for the modification/fabrication of electrochemical devices.
- Location of the check activities: University of Teramo, Department of Agri-food and Environmental Biosciences and Technologies, analytical chemistry laboratories.
- Requirements to participate in the selection: Pre-reform degree ex DM 509/1999 (old system) in: Chemistry, Food Science and Technology, Biotechnology, Pharmacy, or Master's Degree ex DM no. 509/99 in: Chemical Sciences (Class 62/S), Food Science and Technology (Class 78/S), Medical, Veterinary and Pharmaceutical Biotechnology (Class 9/S), Pharmacy and Industrial Pharmacy (14/S), or Master's Degree ex DM no. 270/04 in: Chemical Sciences (Class LM-54), Food Science and Technology (Class LM-70), Medical Biotechnology (Class LM-9), Pharmacy and Industrial Pharmacy (LM-13), Equivalent foreign degrees will be evaluated.
- Categories of evaluable qualifications and their scoring: Evaluation of qualifications (maximum 55/100):
  - A Master's degree grade: from 0/100 to 5/100;
  - B Ph.D. in topics relevant to the topics of the call for papers: from 0/100 to 20/100;
  - C Impact and relevance of publications with respect to the Area of Analytical Chemistry and/or related areas with special regard to the topics of the call for papers: from 0/100 to 15/100;

- D Research experience in the Area of Analytical Chemistry and/or related areas with special regard to the topics of the call for papers: from 0/100 to 15/100.

- Tutor in charge: prof. Dario Compagnone and Dr. Flavio della Pelle.
- Duration: 12 months.

#### Art. 2

##### *General admission requirements*

Those who meet the requirements of Article 1 may participate in the comparative evaluation procedure.

Preferential qualifications are a Ph.D. and having worked on topics related to the field of research on the themes of the project.

Non-European Union citizens who possess a similar academic degree obtained abroad, previously recognized by the competent authorities in accordance with current regulations, may also participate.

For failure to meet the requirements, the exclusion of the candidate may be ordered at any procedural moment by a note from the person in charge of the procedure; any admission must therefore be considered in any case to be made with reservations.

#### Art. 3

##### *Incompatibility*

Pursuant to art. 8 of the University Regulations for research fellowships, cannot be the holder of a research fellowship:

a) permanent staff at universities, institutions and public research and experimentation bodies, the National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) and the Italian Space Agency (ASI), as well as the institutions whose scientific specialization diploma has been recognized as equivalent to the title of research doctor pursuant to article 74, fourth paragraph, of the decree of the President of the Republic of 11 July 1980, no. 382;

b) staff serving in public administrations other than those referred to in point a), without prejudice to the possibility of benefiting from the research fellowship after placement on unpaid leave at their own administration, for the duration of the fellowship;

c) students enrolled in bachelor's, specialist or master's degree courses;

d) PhD students with scholarships;

e) students enrolled in Specialization Schools. For those enrolled in Specialization Schools who are successful in the research fellowship, the suspension of the course of study until the end of the fellowship is applied;

f) those enrolled in postgraduate and master courses in Italy and abroad only if incompatibility with the use of the research fellowship is expressly provided for in the calls for enrollment in these courses.

Those who will be awarded of research fellowship in this insolvency procedure will not be able to hold legal positions or carry out activities declared incompatible pursuant to the aforementioned article.

The fellowships covered by this announcement cannot be combined with scholarships awarded for any reason, except for those granted by national or foreign institutions useful for integrating, with stays abroad, the research activity of the holders.

Pursuant to art. 3, last paragraph of the University Regulations for research fellowships, cannot be the holder of a research fellowship: those who have a degree of kinship or affinity, up to and including the fourth degree, with the scientific manager of the research grant, with a professor or researcher belonging to the Faculty or to the structure where the research fellowship is located, with the Rector, the General Director or a member of the University's Board of Directors, without prejudice to further incompatibilities pursuant to the legislation current.

#### Art. 4

##### *Application and submission deadline*

To participate in the procedure referred to in this call, the candidate must complete the appropriate application following the scheme in Annex A, published, together with the call and the information pursuant to art. 13 of the EU Regulation no. 2016/679, on the website [www.unite.it](http://www.unite.it). The application must be delivered by hand or by post to the General Affairs Office (Protocol Office) of the University of Teramo (Via R. Balzarini n.1 - Teramo) or sent by certified e-mail to the address [protocollo@pec.unite.it](mailto:protocollo@pec.unite.it) by the peremptory deadline of **Monday, July 8, 2024**.

In the application form, the interested party must declare under his own responsibility:

- a) surname and first name;
- b) the date and place of birth;
- c) the tax code;
- d) the residence, with the indication of the street, the house number, the city, the province, the postal code;
- e) the citizenship possessed;
- f) the degree held, the University at which it was obtained, as well as the date of achievement;
- g) the required foreign language (English);
- h) not to have a relationship of marriage, kinship, affinity, up to and including the fourth degree, with the scientific manager of the research fellowship, with a professor or researcher belonging to the Faculty or to the structure where the fellowship is located research, with the Rector, the General Director or a member of the University's Board of Directors, and not to find themselves in further situations of incompatibility pursuant to current legislation;
- i) the address where you wish to send any communications relating to the competition that is the subject of the application, as well as the telephone number and the commitment to make known any subsequent changes.

The interested party must attach to the application:

- 1) a curriculum vitae;
- 2) a photocopy of the tax code card;
- 3) a photocopy of an identity document.

Academic qualifications and any professional qualifications to be evaluated must be presented in the form of a self-certification, pursuant to art. 46 of Presidential Decree 445/2000, by filling in the appropriate annex B.

The publications can be submitted in copies declared conform to the original by means of a certificate signed by the candidate in accordance with the Presidential Decree 28 December 2000, no. 445, using Annex C or in original.

For the other qualifications for which evaluation is requested, these can be presented in a copy declared conform to the original by means of a certificate signed by the candidate pursuant to Presidential Decree 28 December 2000, n. 445, using Annex C.

Acts and documents in a foreign language (except publications) must be accompanied by an Italian translation certified as conforming to the foreign text, drawn up by the competent diplomatic or consular representation, or by an official translator.

The candidates with disabilities, to obtain, in accordance with the provisions of art. 20 of the law 5 February 1992, no. 104, the granting of the aids necessary in relation to one's handicap, as well as any additional time for carrying out the interview, must attach the relative medical-health certification to the application form.

The candidate must put his signature at the bottom of the application, under penalty of exclusion.

Without prejudice to the cases of exclusion expressly indicated in the announcement, the regularization of applications may be requested at any time which, signed and sent within the deadline, should prove to be formally irregular due to remediable defects, inaccurate or non-compliant with the application form attached to this decree.

The Administration assumes no responsibility for the dispersion of communications resulting from incorrect indication of the address by the applicants or from failure or late communication of the change of address indicated in the application or for any postal or telegraphic errors or in any case attributable to third parties, fortuitous event or force majeure.

## **Art. 5**

### *Evaluation of qualifications and interview*

According to the provisions of Article 15 of the University Regulations for grants for collaboration in research activities, the evaluation of the qualifications and interview will be based on criteria set in advance by the Selection Committee, with the awarding of a maximum of 100 points.

In determining the criteria, the Commission will have to take into account the provisions of Article 47 of DL 77/2021, providing for ways to support the participation of women and the participation, enhancement and protection of young people or ensure a share of at least 40% of new hires - if any - necessary for the conduct of research activities to both youth employment and women's employment, for the purpose of promoting gender equality and youth protection and enhancement.

The work of the Commission and the conduct of the interview may take place, at the discretion of the Commission, in telematic mode.

The evaluation of qualifications must precede the interview.

The interview is aimed at ascertaining the candidate's degree of preparation in the specific scientific-disciplinary fields and his or her aptitude for scientific research activities.

In addition, the candidate must demonstrate sufficient knowledge of the required foreign language.

The diary of the interview, with the indication of the time and the way it will be held, will be published on the University website. This communication will have the value of notification for all purposes to the candidates.

Failure of the candidate to appear on the days set for the examination tests, even if dependent on force majeure, will be considered equivalent to an explicit declaration of renunciation of this selective procedure.

To attend the interview, candidates must present themselves with appropriate identification.

#### **Art. 6**

##### *Commission of selection*

The judging commission, composed of three teachers, proposed by the scientific director of the project and approved by the Department Council, will be appointed by a rectoral decree.

The Commission may be integrated with linguistic experts and may make use, without additional costs to public finances, of highly qualified Italian or foreign expert auditors external to the University.

At the end of the work, the Commission will compile the general merit ranking based on the scores obtained by the candidates in the individual assessments, according to the decreasing order of the overall vote. In case of equal scores, preference will be given to the candidate with the least seniority.

#### **Art. 7**

##### *Approval of the acts*

Within thirty days from the delivery of the minutes by the commission of selection, the Rector will verify the regularity of the documents and approve the general merit ranking.

In the event that irregularities are found, the Rector will send the minutes back to the Commission for regularization with a motivated provision, establishing the deadline.

The decree will be included in the Official University Collection and published on the University website.

#### **Art. 8**

##### *Contract*

The winning candidate will be invited to stipulate, within the peremptory deadline of ten days, which runs from the date of notification of the communication of the grant award, a specific contract governing collaboration in the research activity.

Anyone who fails to sign the contract within the aforementioned term will be considered a renouncer. In this case, the next candidate in the ranking will take over.

The contract may be renewed annually upon expiry, for the continuation of the same research, for up to three years based on the progress and results of the project.

#### **Art. 9**

##### *Research fellowship*

The amount of the fellowship is determined at € 19,367.00 (nineteen thousand three hundred and sixty-seven/00 euros) gross per year, including the share relating to the INPS social security contribution, separately managed, to be paid by the researcher.

This amount will be paid to the beneficiary in deferred monthly installments.

The research fellowship cannot be combined with others or with scholarships awarded for any reason, except those granted by national or foreign institutions, useful for integrating research activities with stays abroad.

#### **Art. 10**

##### *Treatment of personal data*

Pursuant to Regulation (EU) 2016/679, the data provided will be processed by the University of Teramo solely for the purposes of managing this procedure in order to guarantee its security, integrity and confidentiality.

The data controller is the University of Teramo.

The provision of data is mandatory for participation in the procedure referred to in this announcement. When collecting data, the data subject is provided with the information attached to this notice relating to the processing of the same and authorization for the processing of data is also required.

If the consent to the processing of personal data, requested from the candidate in the application form, is not given in a clear, unambiguous and explicit manner, the same will be excluded from the selection procedure.

To exercise the rights provided for by EU Regulation 2016/679, relating to this procedure, the interested party may contact the data protection officer at the University of Teramo who can be contacted at the email address [rpd@unite.it](mailto:rpd@unite.it) or by sending a registered letter with return receipt to the University of Teramo, - GDPR Office - Via Balzarini, 1 64100 Teramo.

This announcement is published on the University website

#### **Art. 11**

##### *Return of documents and publications*

Candidates not properly placed in the ranking will be able to collect any publications and documents deposited at this University at their own expense, in any case no later than six months from the conclusion of the procedure.

After this deadline, this University will dispose of the material in question according to its needs, without any responsibility towards the candidates themselves.

#### **Art. 12**

##### *Publication*

This notice will be published on the website of the University of Teramo ([www.unite.it](http://www.unite.it)) and on the sites required by current legislation.

#### **Art. 13**

##### *Responsible for the procedure*

Pursuant to the law of 7 August 1990, no. 241, the person in charge of the procedure referred to in this announcement is Dr. Miriam Tullii - Head of Research Area - via R. Balzarini no. 1 - Coste S. Agostino Campus - 64100 Teramo (tel. 0861 / 266307-6335 - [assegni@unite.it](mailto:assegni@unite.it)).

**F.to THE RECTOR**  
Prof. Dino Mastrocola

Direttrice Generale: prof.ssa Angela Musumeci Responsabile ad interim dell'Area: dott.ssa Miriam Tullii Responsabile dell'Ufficio: dott. Sergio Altitonante Ha collaborato: dott. Marco Valleriani
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