



MED – Mediterranean Institute for Agriculture, Environment and Development

MSc Level Research grant (BI) -1 vacancy

Ref.^a MIKS4Vine

26TH of October of 2022

A call for tenders is open for 1 Scholarship (Msc level) within the scope of the project “Vine&Wine - Driving Sustainable Growth Through Smart Innovation” (subproject – Miks4Vine), ref.^a cand67-ACC02/CO5-i01/2022, supported by the PRR - Recovery and Resilience Plan and by the European NextGeneration EU Funds, within the scope of the “Mobilizing Agendas for Reindustrialization” under the following conditions:

Scientific area: Agricultural Sciences

Admission requirements:

Masters in Agricultural Sciences.

Laboratory research experience in identification and quantification of bioactive compounds in fruits and evaluation of antioxidant activities.

Experience in the methodologies for evaluating oxidative stress in plants through enzymatic assays tests.

Field work experience and/or research experience in plant production

Experience of publishing at least 1 scientific article in Agricultural Sciences/Viticulture

Experience in NIR spectroscopy applied to fruits

Be enrolled in the PhD course in Agricultural Sciences at the University of Évora

As set forth FCT Research Scholarship Regulation No. 950/2019 of December 16, 2019, article 3 and 6, candidates for “**BI**” (Research Grants) must comply as a rule condition for the award of the scholarship, the effective inclusion in study cycles leading to the attribution of academic degrees or in courses not leading to an academic degree. Courses that do not confer an academic degree correspond to the courses provided for in subparagraph e) of paragraph 3 of article 4 of Decree-Law No. 74/2006 of 24 March and must be developed in a higher education institution in association with at least one R&D unit, including a course plan in one or several research areas of the unit.

Work plan:

1-Evaluate in the field the physiological performance of plants under different treatments through the methods commonly used for this purpose: determination of the water potential, sap flow, transpiration rate and photosynthetic efficiency. To register the phenological evolution of plants in the field, subjected to different treatments and productivity assessment.

2-Preparation of samples (grapes and leaves) for the analysis of quality parameters: SSC, titratable acidity, total phenols, total anthocyanins, starch content and chlorophyll content.

3-Development of the sample preparation method. Evaluation of antioxidant activity in fruits through the analysis of antioxidant enzymatic and non-enzymatic systems.

4 – Quantification of the main enzymes involved in antioxidant systems: Polyphenol oxidase, Glutathione peroxidase, Catalase etc.

5 – Use of NIR spectroscopy for the rapid evaluation of bioactive compounds in grapes

6 – Statistical analysis

7 – Articles publishing with the dissemination of the main results.

The main objective of this work is a comprehensive characterization of the physiological performance of the vines treated with different types of products to mitigate the effects of climate change. It will be also evaluated the effect of these products applied in the vines, on fruit quality to select the most effective compound.

Applicable legislation and regulations: The granting of the Research Scholarship will be carried out upon the signing of a contract between the University of Évora and the scholarship holder, as set in the template https://www.fct.pt/apoios/Minuta_Contrato_Bolsa.docx, pursuant to the Research Scholarship Statute (Law No. 40/2004 of August 18 and Decree-Law No. 123/2019 of August 28) and in accordance with the legislation and Regulation of Research Grants of the Foundation for Science and Technology, IP in force, regulation nº950/2019 of December 16, 2019: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt> and other applicable rules.

Place of work: The work will be developed at postharvest laboratory and Plant physiology laboratory of the University of Évora, under the scientific guidance of the Professor Ana Elisa Rato.

Duration of the scholarship(s): The scholarship will have a duration of 6 months, starting on January of 2023. The scholarship contract may be renewed until the end of the funding project's budget allocation.

Amount of monthly maintenance allowance: The amount of the scholarship corresponds to €1144,64, according to the table of scholarships awarded directly by FCT, I.P. in Portugal (<http://fct.pt/apoios/bolsas/valores>), payments being made monthly, by check or bank transfer.

Selection methods: The selection methods to be used will be the following:

- curriculum evaluation, 40%
- interview, 40%

- professional experience in the area of plant production, 20%

Composition of the Selection Jury:

Presidente: Professor Maria João Cabrita

1º Vogal – Professor Ana Elisa Rato

2º Vogal – Professor Maria do Rosário Félix

1º Suplente – Professor Renato Coelho

2º Suplente – Professor Raquel Garcia

Advertising/notification of results: The results of the evaluation will be publicized, through an ordered alphabetically list posted in a visible and public place of MED, being the candidate (a) approved notified through email.

To ensure the right of prior hearing of interested parties, the Final Classification project will be announced by any written means to all interested parties.

After communicating the provisional list of the results of the evaluation, candidates have a period of 10 working days to express their opinion in a preliminary hearing of interested parties.

Application deadline and submission of applications: The tender is open from 27th of October of 2022 to 11th of November of 2022 and the results of the selection will be published by 17th of November of 2022.

Applications must be formalized, obligatorily, by sending an application letter with the following documents: *Curriculum Vitae, certificate of qualifications, two letters of recommendation and a motivation letter.*

For the purposes of application, the evidence may be replaced by a declaration of honor signed by the candidate, but the failure to demonstrate that evidence, in the contracting phase, possession of the required degree on the deadline for application or the non-presentation of proof of enrollment in the study cycle or non-degree course, for scholarships with this component, imply the cancellation of the candidate's application.

Academic degrees obtained in foreign countries require registration by a Portuguese Institution in accordance with Decree-Law no. 66/2018, of August 16 and Ordinance No. 33/2019, of January 25th.

The presentation of the certificate is mandatory for the signing of the contract. More information can be obtained at: <https://www.dges.gov.pt/pt/pagina/recognition?plid=374>

Applications must be sent by e-mail, with the reference “Vine&Wine sub-project MIKS4Vine” in the Subject field to:

Professor Maria João Cabrita
MED, Universidade de Évora
e-mail: mjbc@uevora.pt



Funded by the European
Union – NextGenerationEU

