

PUBLIC NOTICE

Reference: REQUIMTE_VC_01_2021

Title: COMPETITION FOR GRANTING (32) RESEARCH INITIATION SCHOLARSHIP

A tender is open for the attribution of (32) Research Initiation Scholarships within the scope of the R&D project “Verão com Ciência, no LAQV - Laboratório Associado para a Química Verde/ REQUIMTE – Rede de Química e Tecnologia - Associação, funded by the Special Support "Summer with Science" awarded by Science and Technology Foundation, I.P., in collaboration with the Directorate General for Higher Education (DGES), under the following conditions:

1. **Scientific Area:** Chemistry, Biochemistry, Biology and Engineering.

2. **Recipients profile/category:**

Mandatory requirements: Candidates must be undergraduate or master's degree students, enrolled in the academic year 2021/2022, with active enrollment and regular status.

Bill's can only be awarded to those who do not exceed, with the conclusion of the scholarship contract in question, including possible renewals, an accumulated period of one year in this type of scholarship, consecutively or interpolated.

Bill's cannot be awarded to those who have already benefited from research grants directly or indirectly funded by the FCT, awarded under the terms of the Research Fellowship Statute.

3. **Work Plan:** The work plan includes the development of a research project within the scope of the second edition of the “LAQV - Laboratório Associado para a Química Verde/ REQUIMTE – Rede de Química e Tecnologia - Associação” with the following schedule:

Week 1 to 3

- Development of individual scientific project (140 hours), according to the list of proposed projects.

Week 4

- Final Activity Report and Scientific Symposium (36 hours): Preparation of the activity report and organization, by the students, of a symposium in congress format where the results of each individual project will be presented. It is intended that students propose one or two speakers for invited oral communication.

List of scientific projects:

1: Title: Preparation and characterization of mesoporous silica materials from biomass residues, SUPERVISOR: Susana Natércia Oliveira Ribeiro, CIÊNCIA ID: 0E10-E54E-4314, LOCAL: FCUP.

2: Title: Development of functionalized materials for removing pollutants from water. SUPERVISOR: Andreia Leite, CIÊNCIA ID: 8916-50A6-41A9, LOCAL: FCUP.

3: Title: Synthesis of xanthene derivatives with environmental and biomedical applications. SUPERVISOR: Ana M. G. Silva, CIÊNCIA ID: DF12-5BA6-7CDE, LOCAL: FCUP.

4: Title: Synthesis of new biosensors for diagnostic and imaging techniques. SUPERVISOR: Carla Queirós, CIÊNCIA ID: 891E-DC9A-65BC, LOCAL: FCUP.

5: Title: Determination of Protein Oxidation Levels in Human Whey Proteins. SUPERVISOR: André Moreira Neto da Silva, CIÊNCIA ID: 8B17-285E-C0CE, LOCAL: FCUP.

6: Title: Chemical characterization of Southeast Asian medicinal plants and identification of molecules with anti-

inflammatory activity. SUPERVISOR: Nelson Gonçalo Mortágua Gomes; Maria de Fátima Gomes Fernandes, CIÊNCIA ID: DC11-EFB8-2085, LOCAL: FFUP.

7: Title: Lipid Nanosystems Containing Flavonoids to Modulate Adipocyte Metabolism - A New Therapeutic Approach for Type 2 Diabetes. SUPERVISOR: Romeu António Videira, Andreia Patrícia da Silva Oliveira, CIÊNCIA ID: 131B-C9A9-5463, LOCAL: FFUP.

8: Title: Development of in-flow bioconjugation strategies aimed at the synthesis of fluorescent lipid probes. SUPERVISOR: Marcela Segundo e Eduarda Silva, CIÊNCIA ID: 0A14-B7A6-E805, LOCAL: FFUP.

9: Title: Castanea sativa shells as a new source of active ingredients for Functional Food and Cosmetic applications: a sustainable approach. SUPERVISOR: Francisca Rodrigues and Cristina Delerue-Matos, CIÊNCIA ID: 4F19-3D98-2CBA, LOCAL: ISEP.

10: Title: Electrochemical sensors for the detection and quantification of trace amounts of allergens in food products. SUPERVISOR: Hendrikus Nouws and Maria Freitas, CIÊNCIA ID: 9B1A-9CED-6EE3, LOCAL: ISEP.

11: Title: Firefighting occupational exposure and early effects on the health of operational forces. SUPERVISOR: Marta Oliveira and Simone Morais, CIÊNCIA ID: 0A1C-A89D-641A, LOCAL: ISEP.

12: Title: Sensors for assessment of contaminants of emerging concern in fishery commodities. SUPERVISOR: Simone Morais and Álvaro Torrinha, CIÊNCIA ID: B111-BBFB-F200, LOCAL: ISEP.

13: Title: (Bio)markers of exposure to pollutants: a precious tool for studying health-related effects. SUPERVISOR: Simone Morais and Marta Oliveira, CIÊNCIA ID: B111-BBFB-F200, LOCAL: ISEP.

14: Title: From sea to brain: green neuroprotective extracts for nanoencapsulation and functional food production. SUPERVISOR: Clara Grosso and Cristina Delerue-Matos, CIÊNCIA ID: 711B-1170-4C32, LOCAL: ISEP.

15: Title: New reasons to care honey from the Natural Park of Montesinho: a bioindicator of environmental quality & its therapeutic potential. SUPERVISOR: Cristina Delerue-Matos, CIÊNCIA ID: 9A1A-43FB-5C27, LOCAL: ISEP.

16: Title: Preparation of Catalytic Membranes Incorporating Inorganic Active Centers. SUPERVISOR: Salete S. Balula, CIÊNCIA ID: E71B-9980-14F5, LOCAL: FCUP.

17: Title: Thermal modification of coordination polymers applied in sustainable catalytic processes. SUPERVISOR: Luís Manuel Cunha Silva, CIÊNCIA ID: 4D15-6F4B-80A2, LOCAL: FCUP.

18: Title: Transdermal drug delivery using natural biomaterials for inflammation control. SUPERVISOR: Salette Reis and Sofia Lima, CIÊNCIA ID: 8711-9CCC-B3BA, LOCAL: FFUP.

19: Title: Study of the interaction of modified gold nanoparticles with oligonucleotides and target DNA. SUPERVISOR: Eulália Pereira, CIÊNCIA ID: C21F-6B71-2272, LOCAL: FCUP.

20: Title: Study of the interaction of modified gold nanoparticles with L protein and antibodies. SUPERVISOR: Eulália Pereira, CIÊNCIA ID: C21F-6B71-2272, LOCAL: FCUP.

21: Title: Evaluation of the stability of peptides in the presence of transition metal cations under physiological conditions. SUPERVISOR: Paula Gameiro, CIÊNCIA ID: 3E10-2AAF-86CF, LOCAL: FCUP.

22: Title: Cellulose chemical modification in homogeneous conditions. SUPERVISOR: Luísa Ferreira; CIÊNCIA ID: 8214-3938-3887, LOCAL: FCT-NOVA.

23: Title: Synthetic approach for the synthesis of a new family of phosphoglycerol. SUPERVISOR: Paula Branco; CIÊNCIA ID: 3D12-0B91-9DD0, LOCAL: FCT-NOVA.

24: Title: Sustainable synthesis of unnatural aminoacids. SUPERVISOR: Maria Manuel Marques; CIÊNCIA ID: D619-3938-1187, LOCAL: FCT-NOVA.

25: Title: PAHs monitorization by GC/MS and GC-FID. SUPERVISOR: Marco Gomes da Silva; CIÊNCIA ID: 861E-FDD1-385F, LOCAL: FCT-NOVA.

26: Title: GC/MS/MS method to quantify the presence of vanillin in cork stoppers. SUPERVISOR: Marco Gomes da Silva; CIÊNCIA ID: 861E-FDD1-385F, LOCAL: FCT-NOVA.

27: Title: Cloning, expression, purification and characterization of a Fur-type regulator from a psychrotrophic bacteria; SUPERVISOR: Marta S. P. Carepo; CIÊNCIA ID: 321E-DE6D-C700, LOCAL: FCT-NOVA.

28: Title: Engineering of a new luminescence-based assay as a fast detection tool for antibacterial properties of dye-functionalized nanocarriers. SUPERVISOR: Elisabete Oliveira; CIÊNCIA ID: ED1D-3724-1DF4, LOCAL: FCT-NOVA.

29: Title: Luminescent Lanthanide complexes Encapsulated in polymer materials as counterfeiting imaging tools

to detect food contaminants and fraud. SUPERVISOR: Carlos Lodeiro Y Espiño; CIÊNCIA ID: EF14-1F71-9406, LOCAL: FCT-NOVA.

30. Title: Pathway centered analysis evolution of bladder cancer patients.. SUPERVISOR: José Luis Capelo Martínez and Hugo Santos; CIÊNCIA ID: 5310-A1D3-5225, LOCAL: FCT-NOVA.

31. Title: Development of Ionic Liquids and Eutectic Systems for Drug Formulation. SUPERVISOR: Zeljko Petrovski and Luís Branco; CIÊNCIA ID: FF1E-0EB6-3E3C, LOCAL: FCT-NOVA.

32. Title: Pharmaceutical Ionic Liquids as an Effective Treatment against Mycobacterium marinum. SUPERVISOR: Miguel M. Santos e Mário Diniz; CIÊNCIA ID: 4C1A-CA63-AD4F, LOCAL: FCT-NOVA.

33. Title: Luminescent compounds with Delayed Fluorescence in Aggregate State for Imaging Applications. SUPERVISOR: Artur Moro; CIÊNCIA ID: F21C-32FD-8845, LOCAL: FCT-NOVA.

34. Title: Material characterization of electrolytic prints (Telephotos) from the Torre do Tombo National Archive. SUPERVISOR: Maria da Conceição Lopes Casanova. CIÊNCIA ID: DE11-8BF1-5999, LOCAL: FCT-NOVA.

35. Title: Optimization of the co-digestion of WWTP sludge and raw water. SUPERVISOR: Nuno Lapa. CIÊNCIA ID: 5A14-EADB-672D, LOCAL: FCT-NOVA.

36. Title: Preparation of polysaccharide-based nanocomposite aerogels as L-Thyroxine hormone delivery systems. SUPERVISOR: Márcia Ventura. CIÊNCIA ID: 0815-EA7E-24F6, LOCAL: FCT-NOVA.

37. Title: Synthesis and characterization of alginate aerogels modified with methacryloxy-ethyl-trimethyl ammonium chloride for pollutant removal in aqueous media. SUPERVISOR: Ana Inês Paninho. CIÊNCIA ID: 0816-6E60-E944, LOCAL: FCT-NOVA.

38. Title: Conversion of used tire rubber into activated carbon with adsorbent potential. SUPERVISORS: Inês Matos e Maria Bernardo. CIÊNCIA ID: 2812-0BC5-3BF7, LOCAL: FCT-NOVA.

39. Title: Removal of organic micropollutants by nanofiltration. SUPERVISORS: João Crespo e Isabel Coelho. CIÊNCIA ID: CC1A-3CD0-EA8B, LOCAL: FCT-NOVA.

4. Applicable legislation and regulations:

Law No. 40/2004, of August 18, amended and republished by Decree-Law No. 202/2012 of August 27 (Statute of the Scientific Research Fellow) and amended by Decree-Law No. 233/2012 of October 29, by Law No. 12 /2013 of 29 January, by Decree-Law No. 89/2013, of 9 July and Decree-Law No. 123/2019, of 28 August; Regulation of Research Grants of NOVA.id.FCT – Association for Innovation and Development of FCT; Regulation of Research Grants of the Foundation for Science and Technology, I.P. in force (<https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>);

5. Workplace:

The work will be carried out at the Laboratories of LAQV - Laboratório Associado para a Química Verde, in Faculty of Science and Technology of NOVA University of Lisbon; in Faculty of Chemistry and in Faculty of Pharmacy of University of Porto; and ISEP – Instituto Superior de Engenharia do Porto. REQUIMTE – Rede de Química e Tecnologia - Associação will be the contracting Institution.

6. **Fellowship duration:** The scholarship will have duration of 1 months, starting in 1 September 2021.

7. **Monthly maintenance allowance amount:** The amount of the Scholarship corresponds to € 446,12, according to the table of values of grants awarded directly by FCT, I.P. in the Country, and the payment is made monthly by bank transfer.

8. **Selection criteria:** The selection methods to be used will be as follows: Curriculum Evaluation (60%), Experience in the required area (30%) and Letter of Recommendation (10%), with the respective valuation from 0 to 10 in each of the criteria, in a total of 20 values.

The jury reserves the right not to award all scholarships in case there are no candidates who match the desired profile.

9. Composition of the Selection Jury:

President of the Jury: Maria Manuel Martinho Sequeira Barata Marques, PhD;
Effective Jury Members: Luís Alexandre Almeida Fernandes Costa Branco, PhD; Marcela Alves Segundo, PhD
and Cristina Maria Fernandes Delerue Alvim de Matos PhD

10. Form of advertising/notification of results:

The evaluation results proposed by the jury will be notified, up to 90 days after the deadline for the submission of applications, by email, of the results proposed by the jury, with access to the minutes and the final ranking list.

After notification, candidates will have 10 working days to comment on the draft decision (prior hearing of interested parties, under the terms of the Code of Administrative Procedure). The final decision will be taken after the expiry of the prior hearing period, again notified to all candidates by e-mail. Of this final decision the candidates can file a complaint within 10 working days (to the e-mail address used for the notification).

11. Application deadline and form of application submission: Applications are open from 5th until 11th August 2021.

The application must consist of a single PDF file including: Application Letter; Curriculum vitae; Documents proving the academic degrees obtained and their classification; letter of motivation where the scientific project you are applying for must be explicitly indicated and other supporting documents considered relevant, including proof of enrollment in the current academic year; If they are not enrolled, at the time of application, in an academic degree or Master's degree, candidates must present a declaration of honor confirming that they are eligible to enroll in one of those training offers.

Candidates must allow the jury to assess compliance with the condition set out in the third paragraph of point 2 through the *Curriculum Vitae*.

Applications must be formalized, by sending an e-mail to Maria Manuel Marques, msbm@fct.unl.pt, indicating in the subject "Candidatura bolsa Verão com Ciência 2021".

Documentation to be provided in the context of contracting: Proof of enrollment in an ongoing "licenciatura" degree or Master degree