

Call for awarding 2 Research Fellowships for Bachelor Degree Holders

Ref. 2BI-LIC-MICROSWIMMERS

Two (2) Research Fellowships, for Bachelor's Degree holders are available with **Faculdade de Ciências da Universidade de Lisboa**, in the exploratory research project of the FCT2015 Researcher Program, Ref. IF/00322/2015, "*Engineering controlled motion of chemically active microswimmers*", financed by Fundação para a Ciência e a Tecnologia, I.P. (FCT)/MCTES, under the following conditions:

1. **Scientific Area:** Physics
2. **Requirements for admission:**

Mandatory:

- Bachelor's degree in Physics or related field.

Preferential:

- Bachelor degree finished less than 2 years ago;
- Research experience in Soft Condensed Matter.

3. **Work Plan:**

Colloidal particles can self-propel in a liquid environment when parts of their surface catalyse a chemical reaction in the surrounding liquid. Controlling the self-organization of such active particles in specific structures at the macroscopic scale is a fundamental problem of high practical interest. Generally, the formation of these structures occurs far from the thermodynamic equilibrium, posing new theoretical and experimental challenges.

The selected candidates will numerically study the non-equilibrium dynamics of the self-organization of active particles with the main focus on the effects of interparticle interactions in addition to those of excluded volume.

4. **Legislation framework:**

Law No. 40/2004, of August 18th, as amended and republished by Decree-Law No. 202/2012 of August 27th, by Decree-Law No. 233/2012 of October 29th, by Law No. 12/2013, of January 29th, and by Decree-Law No. 89/2013 of July 9th and Lisbon University Fellowships Regulation, published by Order (extract) No. 6977/2015 of June 23th (<https://dre.pt/application/file/67564222>).

5. **Place of work:**

The work will be developed at the Centro de Física Teórica e Computacional, Faculdade de Ciências da Universidade de Lisboa.

6. **Scientific supervision:**

Mykola Tasinkevych, PhD.

7. **Fellowships duration:**

These fellowships are opened for 03 (three) months, eventually renewable until a maximum period of 06 (six) months, including the first period of contract. It is expected to begin in January 2019.

8. **Monthly allowance and Social Security:**

8.1. The fellowships amount to € 745,00 (seven hundred and forty five euros), according to Lisbon University Fellowships Regulation (<https://dre.pt/application/file/67564222>). It will be paid monthly by bank transfer.

8.2. The candidate to be hired may exercise his right to social insurance by joining the voluntary social insurance scheme, under the terms of the Statute of the Research Fellowship. The financing entities assume the costs resulting from the contributions provided for this Social Insurance, according to the Statute of the Research Fellowship.

9. **Selection criteria:**

Candidates will be assessed based on their CV and personal interview.

The interview will be conducted to the top 3 candidates.

The final classification will be the arithmetic average of CV assessment (50%) and interview (50%).

10. **Selection Committee:**

Mykola Tasinkevych, PhD (President), Professor Margarida Maria Telo da Gama (1st Effective Member), Professor Nuno Miguel Azevedo Machado de Araújo (2nd Effective Member), Professor Cristóvão de Sousa Dias (1st Alternate Member) and Professor José Maria Castro Tavares (2nd Alternate member).

11. **Publication/notification of results:**

The final results of the evaluation will become public, through a final grade ordered list which will be posted at the entrance hall of Faculdade de Ciências da Universidade de Lisboa, C4 bdg, Campo Grande, 1749-016 Lisboa.

All applicants will be notified of the results of the evaluation to the email address used for sending the respective application, or by post to the applicant's address.

12. **Deadlines:**

This call for applications is open from 04th to 18th of October 2018.

13. **Application:**

Application may be sent via e-mail to candidaturas@ciencias.ulisboa.pt, with the subject **"2BI-LIC-MICROSWIMMERS"**, or personally, during office hours (9.30 a.m. to 4.00 p.m.), at the office address of Núcleo de Expediente da Faculdade de Ciências da Universidade de Lisboa, Edifício C5, piso 1, Campo Grande, 1749-016 Lisboa, until the deadline. **Whatever the form of submission of the application, it**

should mention the reference “2BI-LIC-MICROSWIMMERS”, under penalty of not being considered in the present call.

Applications must be accompanied by the following documents:

- **In the case of being Portuguese citizen**, copy of identification document (ID or citizen card);
- **In the case of not being Portuguese citizen**, copy of identification document (ID card or passport) as well as residence authorization, permanent residence authorization or long-term resident status, if applicable;
- If you agree to be notified for your post address, please send obligatorily the declaration annexed to this Notice;
- Official document proving registration in Bachelor’s or Integrated Master’s Program in Physics or related field;
- Declaration, dated and signed by the candidate, that he/she had never been registered in another institution of Higher Education, in any Bachelor Degree or Integrated Master;
- Curriculum Vitae, detailed and updated, stating obligatorily the full candidate’s address;
- Document of employment status, indicating the nature of the bond and functions; this document can be replaced by a declaration under honor commitment if there is any professional activity or the provision of services;
- Cover letter;
- Optionally, letters of recommendation.

DECLARATION

_____ (name of the candidate), declare that if the selection jury chooses to communicate and or notify applicants by e-mail, I agree that such communications and or notifications are made to the email address used for submission of my application.

(Date)

(Signature)