



## Two (2) positions for Engineers/Technologists (Post doc or MSc)

### POSITION 1 [Ref # ORZ-0281]

The research group of Biosensors at IMBB-FORTH under the European Program **H2020-BG-07-2019-2020**, entitled “Technologies for Ocean Testing” (Acronym: TechOceanS) invites applications for one (1) engineer/technologist to work on the:

**Development of a prototype combining nucleic acid amplification and acoustic detection of genetic biomarkers.**

#### **Project details**

The candidate is expected to develop an integrated platform for nucleic acid amplification and detection using an acoustic wave biosensor. The system should be able to function autonomously in the marine environment and become integrated with a sample purification-module. The work will be performed as part of an EC project (<https://cordis.europa.eu/project/id/101000858>) coordinated by the National Oceanography Centre in Southampton; it will be carried out in collaboration with partners primarily from the UK, Spain, Italy and Ireland. TechOceanS addresses the challenge of developing sensors and miniaturized platforms based on innovative technologies for the remote and *in situ* measurement of the marine ecosystem, i.e. environmental DNA of invasive marine metazoans, pathogens and parasites.

#### **Qualifications**

Applicants should have an (electrical, mechanical, biomedical) engineering or relevant 1<sup>st</sup> degree and a PhD or MSc in a similar area. Demonstrated experience **in one or more** of the following areas is necessary:

- design/manufacturing of instrumentation, ideally at ultrasound (MHz) operation (acoustic wave devices)
- design of electronic circuits
- design/manufacturing of biosensing-platforms
- expertise with (micro)-fluidics
- code developing for smart phone apps

**Additional selection criteria:** Ability to start as soon as possible

**Submission of applications:** [orz0281@imbb.forth.gr](mailto:orz0281@imbb.forth.gr)

### POSITION 2 [Ref # ORZ-0282]

The research group of Biosensors at IMBB-FORTH under the European Program **H2020-FETOPEN-862840**, entitled “Towards an instrument-free future of molecular diagnostics at the point-of-care”, Acronym: FREE@POC (Program Coordinator Prof. Electra Gizeli) invites applications for one (1) engineer/technologist to work on the:

**Design and fabrication of 3D-printed cartridges including a transparent cover to be used for performing colorimetric detection via a smartphone.**



**Project details**

The candidate is expected to develop several cartridges using biocompatible plastics/materials. The cartridges will include specifically designed wells for performing isothermal amplification of genetic human (HIV and Influenza) and plant-pathogen (*Xylella*) targets while colorimetric detection will take place through the transparent cover via a smart phone-app. Ability to combine the cartridges with a basic heating element for operation at 60° as well as room temperature is part of the project. The work will be performed within an EC project coordinated by FORTH and in close collaboration with Pasteur Institute (France), UCLH (UK) and CNR (Italy). The developed system will be transferred for testing by end users such as agronomists in Italy and medical doctors in the UK and S. Africa. The aim of the project is to provide a robust, cost-effective and simple device for the detection of nucleic acids in the field or the point-of-care.

**Qualifications**

Applicants should have an (electrical, mechanical, biomedical) engineering or relevant 1<sup>st</sup> degree and a PhD or MSc in a similar area. Demonstrated experience **in one or more** of the following areas is necessary:

- experience with 3D-printing
- design/manufacturing of instrumentation
- design of micro/resistive-heaters
- expertise with (micro)-fluidics
- code developing for smart phone app

**Additional selection criteria:** Ability to start as soon as possible

**Submission of applications:** [orz0282@imbb.forth.gr](mailto:orz0282@imbb.forth.gr)

**POSITIONS 1 & 2**

**About the Lab.** Biosensors lab is a multi-disciplinary environment with group members working in a wide range of areas: acoustic biophysics, molecular biology, surface chemistry, engineering, technology transfer and commercial exploitation of results.

**Job description.** The successful applicants will be expected to work on a full-time basis and collaborate with biologists, chemists, bio-physicists and nano-technologists in the academia and industry. Participation in meetings and collaboration with European partners as well as active engagement in the management of the project(s) are mandatory, together with excellent knowledge of English.

**Innovation-driven research.** The lab has a longstanding tradition in developing innovative solution for healthcare applications and agro/food safety. Previous results and relevant IP are now exploited by two SMEs, one of which (<https://biopix-t.com/>) is ready to bring a product in the market in April 2021. Candidates with interest in innovation and technology transfer are strongly encouraged to apply.

**Contract Duration:** Initially for 12 months, extended to 2 more year

**Salary:** Competitive salary depending on qualifications and experience

**Envisaged starting date:** 1 May 2021

**Application submission:** Interested candidates should submit their application electronically by **6<sup>th</sup> March 2021 @ 13:00 (GMT+2)**

**The application should consist of:**

1. CV
2. Brief statement of purpose
3. The names and contact details of two referees

**Evaluation procedure**

Applications will be evaluated by a three-member evaluation committee. In case of interview procedure, candidates will be invited to participate in person or teleconference.

The announcement of the results will be posted on the website of FORTH-IMBB. This publication confers the right to object to the results within 5 working days of the date of the results announcement.

The selected candidates will be notified personally regarding the success of his/her application and will be requested to submit certified copies of his/her degrees. In the event that the documents submitted do not agree with the original application, the candidate will be dismissed.

#### **GDPR Disclaimer**

FORTH is compliant with all legal procedures for the processing of personal data as defined by the Regulation EU/2016/679 on the protection of natural persons with regard to the processing of personal data.

FORTH processes the personal data and relevant supporting documents that you have submitted to us. Processing of that data is carried out exclusively for the needs and purposes of this specific call. Such data shall not be transmitted to or communicated to any third party unless required by law.

FORTH retains the above data up to the announcement of the final results of the call, unless further process and reservation is required by law or for purposes of exercise, enforcement, prosecution of certain one's legitimate legal rights' as defined in the Regulation EU/2016/679 and/or in national law.

We inform you that under the Regulation EU/2016/679 you have the rights to be informed about your personal data, access to, rectification and erasure, restrictions of process and objection to as provided by applicable regulation and national laws.

We acknowledge also to you, that you have the right to file a complaint to the national Data Protection Authority. For any further information regarding exercise of your personal data protection rights, you may contact the Data Protection Officer at FORTH at [dpo@admin.forth.gr](mailto:dpo@admin.forth.gr).

You have the right to withdraw your application and consent for the processing of your personal data at any time. We inform you that, in this case, FORTH shall destroy such documents and/or supporting documents submitted and shall delete the related personal data.