Two (2) Special Research Assistant Positions

[Ref # ORZ-0570]

The research groups of "Regenerative Pharmacology" and "Biomaterials and Biodevices" under the European Program **HORIZON-EIC2022-PATHFINDEROPEN-01**, entitled "Minimally-Invasive Soft-Robot-Assisted Deep-Brain Localized Therapeutics Delivery for Neurological Disorders - SoftReach" (Program Coordinator Prof. Ioannis Charalampopoulos) invites applications for two (2) motivated Special Research Assistants to assist with the biofabrication and optimization of implants that interact with robots and tissues.

About the lab

The "Regenerative Pharmacology" lab, led by Prof. Ioannis Charalampopoulos, focuses on the molecular mechanisms of cell survival and regenerative capacity in the adult nervous system. The lab emphasizes neurotrophins and their receptors, develops novel analogs of neurotrophin ligands with desired pharmacological properties and evaluates them in neural cultures (primary, human iPS-induced), and mouse models of neurodegeneration and CNS injury.

The (under establishment) "Biomaterials and Biodevices" lab, led by Prof. Dimitrios Tzeranis, focuses on the development of novel biomedical devices and systems around biologically-active biomaterials. By integrating biomaterials, engineering, computational science, imaging, robotics and biology, we focus on major unmet needs (organ regeneration, treatments for neurodegeneration) related to the Nervous System.

About the project:

SoftReach is an EIC project that aims to develop an innovative robotic platform for minimally-invasive localised delivery of therapeutics in hard-to-reach brain regions by integrating robotics, neurobiology, biomaterials, imaging and *in silico* modelling.

Position Description:

We are looking for two talented engineers with strong hands-on background interested in the bioengineering of novel implantable devices. The position has the following duties and responsibilities:

• Setup instrumentation and protocols for scaffold fabrication, tissue construct preparation & maturation.
• Design, fabricate & characterize scaffolds for diverse applications including stem cell and drug delivery.
• Design and fabricate related experimental systems (optics, phantoms, devices, bioreactors).
• Collaborate with post-graduate and post-doctoral group members, supervise students.
• Collaborate with international partners, engage in networking activities.
• Write research articles & proceedings, give talks in international conferences, compile technical reports.

Required qualifications:

– BSc in engineering (preferably mechanical).
– Demonstrated experience in the design of mechanical systems using 3D CAD software.
– Demonstrated experience in the fabrication of mechanical systems using CAM software.

Desired qualifications:

– Hands-on experience in CNC manufacturing or 3D printing.
– Demonstrated experience in the design & development of mechanical systems.
– Background in robotics, programing, MATLAB/Simulink.
– Excellent oral and written skills in English language.

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	Evaluation criteria	Maximum score
1.	BSc in engineering or physics (degree GPA × 1)	10
2.	Background in engineering design using 3D CAD software (5 points per year of hands-on experience; 5 points per software package)	20
3.	Background in manufacturing via CAM software (10 points per year of hands-on experience; 5 points per software package)	20
4.	Hands-on experience in CNC manufacturing (5 points per year of hands-on experience)	20
5.	Demonstrated portfolio in the original design & development of mechanical systems (5 points per design)	20
6.	Experience in robotics and programing (5 points each)	10
Total score		**100**

Contract Duration: 4 months with the possibility of extension according to the project needs

Total budget: Depending on experience and qualifications, in accordance with the provisions of the Greek legislation (Law 4354/2015).

Envisaged starting date: 1 January 2024.

Application submission: Interested applicants should submit their application electronically by **November 27th 2023 @ 13:00 (Greece time)**

The application should consist of:
1. Application Form (see below)
2. CV
3. Brief statement of purpose
4. The names and contact details of two referees
5. Scanned copies of academic titles
6. Scanned copies proving all the qualifications

Submission of applications: orz0570@imbb.forth.gr

Evaluation procedure

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

Applicants that do not fulfill required qualifications will be excluded from evaluation. Applicants that are evaluated with score less than 60/100 will be excluded from further consideration.

In case of titles and qualifications awarded by foreign Higher Education Institutions, the provisions of the Law 55/2023 (article 36) and 4957/2022 (article 304) are implemented.

The results of the selection will be announced on the website of IMBB-FORTH. Applicants have the right to appeal the selection decision, by addressing their written objection to the IMBB secretariat within five days since the results announcement on the web. Objections are submitted in one of the following ways: in person, by an authorized person, by post, by courier. They also have the right to access (a) the files of the applicants as well as (b) the table of applicants' scores (ranking of applicants results). All the above information related to the selection procedure will be available at the secretariat of IMBB-FORTH in line with the Hellenic Data Protection Authority. Access to personal data of co- applicants shall be limited to personal data (and relevant data) and supporting documents which have been the basis of the evaluation of the applicants for the specific post(s). Prior to the announcement of the personal data and/or documents of the co- applicants to the applicant, FORTH will inform the data subjects in an appropriate way.

The selected applicants will be notified personally regarding the success of his/her application and will be requested to submit certified copies of his/her degrees. If the submitted documents do not agree with the original application, the applicant will be dismissed.

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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 applicants have submitted. 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. Under the Regulation EU/2016/679, applicants have the rights to be informed about their personal data, access to, rectification and erasure, restrictions of process and objection to as provided by applicable regulation and national laws. Applicants have the right to file a complaint to the national Data Protection Authority. For any further information regarding exercise of personal data protection rights, applicants may contact the Data Protection Officer at FORTH at dpo@admin.forth.gr.

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

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APPLICATION FORM

Name: _____

Surname: _____

Date of birth *(dd/mm/yy)*:   _____

Address: _____

Telephone number: _____

Email address: _____

TO

FOUNDATION OF RESEARCH AND TECHNOLOGY (FORTH)

INSTITUTE OF MOLECULAR BIOLOGY AND BIOTECHNOLOGY

Hereby I submit my application for the position:

In the framework of the project: _____

Position code [Ref #]   _____

Submitted with this application:

1. _____

2. _____

3. _____

4. _____

5. _____

I certify that:

A) I accept the terms and conditions of the job announcement

B) I possess all the necessary certificates and documents and I can present them in their original

form to the committee without any delay if I am asked to do so

C) I am able to complete the project within the foreseen time -frame

D) all the information given in the framework of this application are accurate and true.

Date: _____

Applicant name

_____

(signature)