eBio-hub

EMPLOYMENT POSITION

eBio-hub Post-Doctoral Researcher in Bioinformatics

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The deadline for the applicants is June 11th 2023

1. University Politehnica of Bucharest

University Politehnica of Bucharest (UPB) is the largest and the oldest technical university in the country and among the most prestigious universities in Romania.

UPB pretends the status of advanced research and Education University. Its mission is designed at the intersection of education with its applications: vocational training, scientific research, knowledge production, innovation as the main objectives of the society and the economy based on knowledge, as recorded in the European and Romanian research strategy. UPB assumes the concept of an innovative university, in terms of human capital formation, which conditions a country's innovation capacity and scientific research, which produces knowledge, innovation and technological upgrading that condition the country's economic growth. The university's teaching and research staff performing - 1379 academic staff working in 53 departments and 38 research centres. Their work is supported by auxiliary staff - 696 people and over 600 people in the administrative field.

The Strategic Field of UPB (according to the UPB Strategy) is the biomedical engineering, biotechnology, medical and environmental technologies, micro- and nanotechnology and advanced materials, the university encouraging in this area:

- the development of research centres – eBio-hub is a priority,
- the business of creating and maintaining links with the socio-economic environment for harnessing the competitive edge leader in the field of technical education of UPB,
- cross the master programs on research lab / scientific research centres of UPB, and encouraging doctorate in strategic areas,
- encouraging international competitiveness in strategic areas.

UPB has close ties with Romanian companies and foreign enterprises. Our partners include multinational corporations and Romanian companies. As we are fully aware of the importance of knowledge and skills in obtaining our financial sources, we are increasingly developing our market-oriented activities every year.

2. eBio-hub project

The main objective of **eBio-hub** is to establish a *National Center of Excellence in Bioengineering* within the Politehnica University of Bucharest (UPB). The goal of **eBio-hub** project is to unlock and foster excellent research in biomedical engineering, capitalizing the existing knowledge in UPB and integrating with local research and clinical expertise from University of Bucharest, Carol Davila University of Medicine and Pharmacy and local hospitals as well as making use of the state-of-the-art research infrastructure in biomedical engineering (INOVABIOMED) by setting up a strong research group and attracting top academics in the field, rising the competitiveness of UPB research in the European Research Area (ERA).

eBio-hub will operate as an interdisciplinary research center at the interface between chemistry, biology, IT, micro and nanotechnology and medicine. The project aims to develop micro, nano and bio-integrated solutions that will address major global challenges in the biomedical field. In this context, eBio-hub will increase the attractiveness and impact of the University Politehnica of Bucharest through research excellence (illustrated quantitatively and qualitatively through indicators such as publications in peer reviewed journals, national and international collaboration or grants). Furthermore, the project will contribute to the growth of Romanian and EU economy by attracting and nurturing research talents, creating portfolios of intellectual properties, supporting the local industry or commercializing new technologies.

More information can be found https://ebio-hub.upb.ro/

3. Position offered: Post-Doctoral Researcher in Bioinformatics

The eBio-hub Post-Doctoral Researcher is expected to conduct research in bioinformatics in the field of molecular diagnostics, particularly to develop software applications and databases to analyse biological data.

Special focus will be given to the following areas of activity:

- Development of algorithms to support next-generation sequencing
- Design of strategies for DNA, RNA, protein and metabolite analysis
- *In silico* evaluation of drug candidates
- Quantitative analysis of biological images
- Data visualisations for use in manuscript and scientific reports
- Statistical analysis of experimental data

The possible research directions include but are not limited to microbiome analysis and engineering, pathogen detection, biomarker discovery and validation, tailored point-of-care biosensors for liquid biopsy and wearable sensors.

4. Expectations

The Post-Doctoral Researcher applicant needs to fulfil the following conditions: meet the criteria for R2 (PhD holders or equivalent who are not yet fully independent) researcher profile based on the descriptors of the European Framework for Research Careers (https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors);

- excellent written and spoken English;
- informatics skills: Decision Techniques; Support Systems; Neural Networks; Genetic Algorithms, Fuzzy systems and data mining;
- experience with softwares such as R, Weka, dTree, Netica;
- special social skills: teamwork, ability to motivate co-workers
- good communication skills.

5. Rights and responsibilities

The Post-Doctoral Researcher will have the following rights and responsibilities:

- to manage large databases, develop data frameworks, and create and modify algorithms;
- to research independently in the context of research projects within a specific working area;
- to apply for research projects on a national and international level;
- to publish research work (preparation of scientific papers; active participation at conferences and other scientific events).

6. Remuneration package

eBio-hub is offering an attractive remuneration package to the Post-Doctoral Researcher, which will be detailed presented once the hiring level and the candidate's work experience is known. Moreover, there are also other financial benefits (involvement in other research activities/projects) that depend on the performances of candidate and national regulations.

7. Application

The job offer for this position will be opened on May 8th 2023 and close on June 11th 2023.

Applications should contain (in the same order):

1. Copy of the relevant document proving that the candidate holds the required qualifications;
   a. Curriculum vitae including the following:

   b. evidence of the required expertise in the field of Bioinformatics,
   c. research record,
   d. experience in research projects,
   e. list of publications, including h-index (WOS) and citations;
2. Motivation letter (2 pages maximum) describing the vision of the applicant in the field of Bioinformatics,
3. Two Recommendation letters,
4. Other materials considered relevant by the candidate (Copies of Training certificates, Excellence diplomas, etc).

Applicants have to use the position name "**eBio-hub Post-Doctoral Researcher in Bioinformatics**" in the title of their application.

Applications should be in English and sent to the following e-mail address: ebio-hub@upb.ro

Additional information is available on: https://ebio-hub.upb.ro/, Project director, Horia Iovu (horia.iovu@upb.ro)   and the ERA Chair Holder Ciprian Iliescu (ciprian.iliescu@upb.ro).

The selection will be done in two rounds: 1st all applicants will be evaluated to rank the candidates and, in the 2nd step the selected applicants will be invited to the interview with ERA Chair Holder.

The recruitment will be based on open, transparent, merit-based process, agreeing with the Open recruitment policy and the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

We welcome applications from all qualified candidates who fulfil the requirements specified in the announcement.