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**UMF**  
UNIVERSITATEA DE  
MEDICINĂ ȘI FARMACIE  
IULIU HAȚIEGANU  
CLUJ-NAPOCA

**No. registration 1741/26.01.2024**

### **OPEN POSITION FOR Postdoctoral researcher**

The University of Medicine and Pharmacy "Iuliu Hațieganu" Cluj Napoca is organizing a competition for the nomination within the project PN-III-P1-1.1-TE-2021-0939 with the title "*Development of a gene therapy vector by modifying bacteriophage M13 for targeting cancer cells*", contract no. TE 66/2022, of the following position:

#### **Postdoctoral researcher: 1 position**

- Working hours (maximum 20 hours/month)
- Fixed contract: 09.03.2024-12.05.2024
- Type of evaluation tests: - Application file (eliminary)  
- Interview

*Venue of the contest:* Research Center for Functional Genomics, Biomedicine and Translational Medicine, Street Gheorghe Marinescu No. 23, Floor 4, Cluj-Napoca, Romania, on **04.03.2024**, 10.00 am.

#### **1. The content of the application file:**

- competition registration document
- ID copy and document of marital status
- employment certificate from the current employee institution
- CV with publication list
- copy of diplomas
- certificate issued by the family doctor regarding the appropriate state of health
- declaration on personal responsibility that the candidate has no criminal history that would make her/him incompatible with the position for which she/he is applying

#### **2. General conditions for filling the position:**

- has Romanian citizenship or other EU member states or states belonging to the European Economic Area;

- knows the Romanian language, written and spoken;
- have a thorough knowledge of written and spoken English language;
- has a state of health corresponding to the position for which she/he is applying;
- meets education requirements and, depending on the case, or other job-specific requirements;
- he has not been convicted of any crime.

**3. Specific conditions necessary to occupy the position:**

- holds the title of PhD in Biology or Chemistry;
- experience as a postdoctoral researcher or experienced researcher certified by participation in at least 5 research projects in the field of oncology research;
- a minimum of 20 ISI-listed publications as first author and co-author;
- at least 5 years of experience in cell culture techniques, as certified by full-time employment in a research institution that holds such facilities.

**4. The competition calendar:**

- *Application files* will be submitted between 29.01.2024-28.02.2024 until 3 p.m., at DEPCDI, Street Pasteur No. 4, 3<sup>rd</sup> Floor, room 7, Cluj-Napoca, Romania, contact person: Pavel Sas Alina, Tel. +4 0374 834 148.
- *Evaluation of the application files* will take place on 29.02.2024, 10:00 a.m., and the results with the mention accepted/rejected will be recorded in a report;
- *The interview* will take place on 04.03.2024, at 10:00 a.m. The maximum score for the interview is 100 points and the minimum passing score is 50 points;
- The deadline for submitting appeals is one working day from the date of the results communication;
- The final results are communicated on the next working day after the deadline for submitting appeals, until 12 pm, on 06.03.2024.

**5. Topics for the interview**

1. Methods for in vitro cultivation of malignant and normal cells
2. Cytotoxicity and cell viability assays, cell cycle
3. Cell apoptosis and characterization methods by functional assays
4. Cell transfection/transduction with exogenous genetic material
5. Cellular endocytosis
6. Types of vectors used in anti-tumor gene therapy
7. The life cycle of bacteriophage M13
8. Peptide expression on the bacteriophage M13 viral cap and peptide-display libraries

▪ Bibliography:

1. Methods in Molecular Biology, vol. 290: Basic Cell Culture Protocols, Third Edition Edited by: CD Helgason and CL Miller © Humana Press Inc., Totowa, NJ
2. Phage Display: A Laboratory Manual. CF Barbas, Cold Spring Harbor Laboratory Press 2001
3. Specialized literature on the topics for the interview in the PubMed database <https://pubmed.ncbi.nlm.nih.gov/>