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

**Registration No:260/08.01.2024**

## **CONTEST ANNOUNCEMENT FOR THE POSITION OF POSTDOCTORAL RESEARCHER**

“Iuliu Hațieganu” University of Medicine and Pharmacy Cluj Napococa announces a competition for the position of PhD Researcher within the project entitled: “ Nanoplatforms for the rapid electrochemical detection of Staphylococcus aureus by specific markers”, financing contract no. TE TE 89/2022:

### **Postdoctoral Researcher – 1 position**

- Working hours: maximum 15hours/ month
- Determined period:10 months
- Type of competition evaluation:
  - Analysis of the application file (eliminary)
  - Interview

Venue of the competition: "Iuliu Hațieganu" University of Medicine and Pharmacy - Department of Analytical Chemistry on 13.02.2024, at 10:00 AM.

### **The competition will unfold as follows:**

- Submission of competition applications: January 9, 2024 to February 8, 2024.
- Application review on February 9, 2024.
- Appeals: February 12, 2024.
- Interview on February 13, 2024, at 10:00 AM, 4 Louis Pasteur Street, Analytical Chemistry and Instrumental Analysis Department, 1<sup>st</sup> floor.
- Submission of appeals: February 14, 2024.
- Final results: February 15, 2024.

**General conditions:**

- citizenship of Romania or of other EU member states or of the states belonging to the European Economic Area or citizen with right to work on the territory of Romania;
- knows the Romanian language, written and spoken;
- has an adequate state of health for the position for which he/she is applying;
- meets the studies conditions and, as the case may be, seniority or other job-specific requirements;
- was not convicted of any crime.

**Specific conditions:**

- Doctor in Medical/Pharmaceutical Sciences.
- Workload: maximum 15hours/month.
- Contract period: fixed-term: 10 months.
- Possesses theoretical and practical knowledge regarding the preparation and management of clinical studies and the interpretation of the obtained results.
- Has knowledge of PC operation and skills in using specific softwares.
- Author/co-author in a minimum of 2 ISI scientific articles written in English.
- Demonstrates excellent communication and dissemination skills.
- Demonstrates competence and experience in microbiology, isolation, cultivation, and identification of microorganisms, as well as establishing antibiotic sensitivity.

**Activities within the project:**

- The isolation, cultivation, and identification of microorganisms (bacteria and fungi) using standard methods (bacterioscopic and bacteriological), biochemical methods (API, Vitek), and serotyping. Additionally,
- Assessment of the antibiotic sensitivity of isolated microorganisms using the Kirby-Bauer method and establish minimum inhibitory concentrations (MIC) and bactericidal concentrations (MBC).
- Testing the antimicrobial activity of plant extracts (aqueous, alcoholic, oily) on bacterial strains,
- Applying serological diagnostic tests (ELISA, SN) for monitoring economically relevant or zoonotic diseases. Other activities include estimating the number of microorganisms and determining the antibiotic sensitivity of isolated microorganisms using various methods.
- Disseminates research results by participating in national and international symposiums and congresses and publishing scientific articles on the project theme.
- Involved in coordinating doctoral students and other junior members of the group.
- Participates in drafting funding applications in the field.
- Involved in scientific communication with the general public and other institutions conducting relevant research activities.

In order to participate in the competition, candidates will submit their application files by February 8, 2024, at 3:00 PM, at the Department of Research, Development, and Innovation, 4 Louis Pasteur Street, 3rd floor, office 10, contact person Ec. Rodica Romitan.

**Content of the application file:**

- a) Application for enrollment in the recruitment and selection process (standard application form attached to the recruitment and selection announcement – should include the job title for which the candidate is applying);
- b) CV, dated and signed on each page, in Europass format, mentioning the project and the candidate's targeted position;
- c) Copies of the identity card or any other document certifying identity, according to the law, as applicable (certification will be performed by comparison with the original documents by the commission secretary);
- d) Certified copies of identity documents and study certificates (certification will be performed by comparison with the original documents by the commission secretary);
- e) Original certificates/diplomas attesting the completed specializations (originals are required for certification);
- f) Criminal record or a sworn statement that the candidate does not have criminal records that would make them incompatible with the position for which they are applying; the criminal record must be presented by the designated winning candidate within 10 working days from the publication of the final result of the recruitment and selection process;
- g) Medical certificate attesting a suitable health condition issued no more than 6 months before the recruitment and selection procedure by the candidate's family doctor or authorized health units;
- h) Declaration of availability regarding the time allocated to the project, per day and per month;
- i) Agreement on the processing and storage of personal data.

### **Calendar of the competition:**

The competition will consist of 2 phases as follows:

- **Phase 1:** Verification of the eligibility of the files submitted by candidates. All received CVs and other documents will be analyzed using the Recruitment and Selection Grid. The selection committee will announce the result of the file evaluation on February 8, 2024, and schedule the interview on the [www.umfcluj.ro](http://www.umfcluj.ro) website, indicating "admitted" or "rejected."
- **Phase 2:** The Interview. Verification of candidates' knowledge and/or skills will be conducted through individual interviews. The interview will follow the interview plan prepared by the recruitment and selection committee on the day of this phase, based on evaluation criteria. The maximum possible score for a candidate will be 100 points, with the minimum allowable being 60 points. The results of candidates at the interview stage represent the arithmetic average of the scores given by the committee members and will be published on the [www.umfcluj.ro](http://www.umfcluj.ro) website on February 13, 2024.

### **Resolution of Appeals:**

Any appeals must be submitted within a maximum of one working day from the posting of the results of the file selection and/or interview, except for mandatory rest days (Saturday and Sunday) or legal holidays, in which case the deadline extends until the first subsequent working day. Appeals will be resolved by the Appeals Resolution Committee.

The score awarded after appeals remains final. The final result will be posted on the [www.umfcluj.ro](http://www.umfcluj.ro) website on February 15, 2024.

### **Theme:**

- Isolation, cultivation, and identification of microorganisms (bacteria and fungi) through standard methods (bacterioscopic and bacteriological), as well as biochemical methods (API, Vitek), or serotyping.
- Estimation of the number of microorganisms.
- Determination of antibiotic sensitivity of isolated microorganisms through various methods.

### **Bibliography:**

1. Pauter, K., Szultka-Młyńska, M., & Buszewski, B. (2020). Determination and Identification of Antibiotic Drugs and Bacterial Strains in Biological Samples. *Molecules*, 25(11), 2556.
2. Timm, C. M., Loomis, K., Stone, W., Mehoke, T., Brensinger, B., Pellicore, M., ... Karig, D. K. (2020). Isolation and characterization of diverse microbial representatives from the human skin microbiome. *Microbiome*, 8(58)
3. Khan, Z. A., Siddiqui, M. F., & Park, S. (2019). Current and emerging methods of antibiotic susceptibility testing. *Diagnostics*, 9(2), 49
4. Vaou, N., Stavropoulou, E., Voidarou, C., Tsigalou, C., & Bezirtzoglou, E. (2021). Towards Advances in Medicinal Plant Antimicrobial Activity: A Review Study on Challenges and Future Perspectives. *Microorganisms*, 9(10), 2041.
5. Rodríguez-Prieto, V., Vicente-Rubiano, M., Sánchez-Matamoros, A., Rubio-Guerri, C., Melero, M., Martínez-López, B., ... Sánchez-Vizcaíno, J. M. (2015). Systematic review of surveillance systems and methods for early detection of exotic, new and re-emerging diseases in animal populations. *Epidemiology & Infection*, 143(9), 2018–2042.