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#### **NOTICE**

#### **BASIC INFORMATION**

Position available within the research project entitled: "Computational design of cationic polymers as gene delivery vectors", code PN-III-P4-ID-PCE-2016-0474, Contract No. 36/2017

Title\*: ASSISTANT RESEARCHER

### Offer Description\*:

The candidate is expected to be already enrolled as a doctoral student in physics, to be familiar with gene delivery mechanisms and cationic polymers, and to possess solid knowledge of numerical methods, molecular mechanics, and operation with well-established molecular dynamics (MD) codes (NAMD or Gromacs). They will be actively involved in:

- Development of a coarse-grained (CG) force field for protonated polyethyleneimine (PEI, as gene carrier), by mapping atomistic residues to CG beads and adjusting the interaction parameters by Boltzmann inversion relative to reference atomistic MD simulations.
- Atomistic- and CG MD investigations of DNA-PEI condensation under diverse conditions, aiming at enhanced efficiency of practical condensation/transfection processes.

### Researcher Profiles \*:

First Stage Researcher (R1)		Recognised Researcher (R2)
Established Researcher (R3	<b>S</b> )	Leading Researcher (R4)
Research field *: Physics	▼	
Type of Contract*: Temporary   ▼		
Job Status *: Part-time		
Hours Per Week*: 20		

Application Deadline \*: 23 October 2018

Envisaged Job Starting Date: 1 November 2018 Is the job funded through a EU Research Framework Programme? \* Not funded by an EU programme Is the Job related to staff position within a Research Infrastructure? (se bifează opțiunea) How to Apply \*: **Contact person\*:** Titus Beu (nume, prenume persoană de contact) **E-mail adress\*:** titus.beu@phys.ubbcluj.ro (adresa de e-mail a persoanei de contact) Internal Application form needed (.pdf files) (se bifează opțiunea, dacă este cazul) **HIRING INFO & WORK LOCATION** Number of positions available\*: 1 Company/Institute\*: Babeş-Bolyai University **Department\*:** Faculty of Physics / Department of Biomolecular Physics **REQUIREMENTS Required Education Level Physics** Main Research Field\*: Master Degree or equivalent Level\*: or Please Select Main Research Field\*:

## Skills/Qualifications:

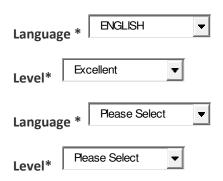
Please Select

PhD student in Physics.

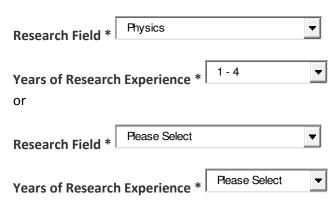
Experience with numerical methods, scientific programming, and molecular dynamics simulations.

### **Specific Requirements:**

# **Required Languages**



## **Required Research Experience**



# **ADDITIONAL INFO**

Website for additional job details: (câmp opțional)

Benefits: (câmp opțional)

Eligibility criteria: (câmp opțional)

**Selection process**: (câmp opțional)

Additional comments: (câmp opțional)