



NOTICE

BASIC INFORMATION

Position available within the research project entitled: "MIO-enzyme toolbox for the synthesis of non-natural amino acids", project number IZ11Z0_166543

Title*: *Scientific research assistant*

Offer Description*: *Scientific work in the field of biocatalysis, protein engineering*

Researcher Profiles *: *(se bifează opțiunea dorită)*

- | | |
|---|---|
| <input checked="" type="checkbox"/> First Stage Researcher (R1) | <input type="checkbox"/> Recognised Researcher (R2) |
| <input type="checkbox"/> Established Researcher (R3) | <input type="checkbox"/> Leading Researcher (R4) |

Research field *:

Type of Contract*:

Job Status *:

Hours Per Week*: *40 h/week*

Application Deadline *: *20.09.2019*

Envisaged Job Starting Date: *01.10.2019*

Is the job funded through a EU Research Framework Programme? *

Is the Job related to staff position within a [Research Infrastructure](#)? *(se bifează opțiunea)*

How to Apply *:

Contact person*: Dr. Laszlo-Csaba Bencze

E-mail adress*: cslbencze@chem.ubbcluj.ro

Internal Application form needed (.pdf files) *(se bifează opțiunea, dacă este cazul)*

* - Câmpuri obligatorii

HIRING INFO & WORK LOCATION

Number of positions available*:

Company/Institute*: *Faculty of Chemistry and Chemical Engineering/Biocatalysis and Biotransformation Research Center*

Department*: *Biocatalysis and Biotransformation Research Center*

REQUIREMENTS

Required Education Level *(se completează unul sau mai multe câmpuri, după caz)*

Main Research Field*:

Level*:

Main Research Field*:

Level*:

Skills/Qualifications: *experiences and skills in cloning techniques, PCR, site-directed mutagenesis, expression, isolation and structural analysis of recombinant proteins/enzymes, enzyme kinetic measurements and rational design of the proteins are suitable for the position.*

Specific Requirements: at least two scientific publications sustaining the expertise in biocatalysis/enzymology

Required Languages *english and romanian or hungarian*

Language *

Level*

Language *

Level*

Required Research Experience *(se completează unul sau mai multe câmpuri, după caz)*

Research Field *

Years of Research Experience *

Research Field *

Years of Research Experience *

ADDITIONAL INFO

Website for additional job details: *(câmp opțional)*

Benefits: *(câmp opțional)*

Eligibility criteria: *Ph.D students performing their doctoral studies in the field of Chemistry or Biology*

Selection process: step 1. eligibility test (eliminary); step 2. interview; step 3. selection process based on practical test from the following topics: 1. synthesis of optically pure amino acids using phenylalanine ammonia lyases; 2. monitoring the phenylalanine ammonia lyase catalyzed enzymatic reactions.

Minimal note of each selection step: 8 (at scale 1-10). The candidates are hierarchized based on the final note, which is calculated as the average of notes obtained at selection steps 1,2,3.

Additional comments:

References for the topics of the practical test:

1. Gloge A, Zoń J, Kóvári Á, Poppe L, Rétey J. Phenylalanine ammonia-lyase: the use of its broad substrate specificity for mechanistic investigations and biocatalysis. Synthesis of l-arylalanines. *Chem. Eur. J.* **2000**, *6*, 3386.
2. Paizs C, Katona A, Rétey J: The interaction of heteroaryl-acrylates and alanines with phenylalanine ammonia-lyase from Parsley. *Chem Eur. J.* **2006**, *12*, 2739-2744.
3. Paizs C, Katona A, Rétey J: Chemoenzymatic one-pot synthesis of enantiopure l-arylalanines from arylaldehydes. *Eur J Org Chem* **2006**, 1113-1116.
4. Paizs C, Toşa MI, Bencze LC, Brem J, Irimie FD: 2-Amino-3-(5-phenylfuran-2-yl) proprionic acids–phenylfuran-2-yl acrylic acids are novel substrates of phenylalanine ammonia lyase. *Heterocycles* **2011**, *82*, 1217-1228