

Curriculum vitae

Dr. László Csaba Bencze; Ph. D

Assist. Prof./ Faculty of Chemistry and Chemical Engineering/Babeş-Bolyai University



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Personal data:

Place and date of birth: Odorheiu-Secuiesc, Romania; 25.12.1983
Nationality: Romanian, Hungarian
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1. Education:

Institution	Period	Degrees or diplomas
Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering	2002-2006	Bachelor's Degree in Chemistry
Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering	2006-2007	Master's Degree in Advanced Techniques in Chemical Synthesis
Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering	2007-2011	Ph.D in Chemistry/Biocatalysis

2. Professional experience

2014-present: - *Assistant Professor* of Biochemistry, Department of Chemistry, Babeş-Bolyai University: teaching (Biochemistry practical courses and seminars) and research activities (biocatalysis, enzymology)
2014-2015.: - *Post-doctoral fellowship* (Biocatalysis and Biotransformation Group, Department of Chemistry, Babeş-Bolyai University): biocatalytic synthesis of unnatural amino acids through lipase mediated dynamic kinetic resolutions and ammonia lyase catalyzed processes (16 months)
2011-2014: - *Post-doctoral researcher* (University of Zürich, Department of Chemistry, Prof. Dr. John A. Robinson): Identifying the mechanism of action of novel peptide antibiotics – binding site determination: purification of LptD_PAOI outer membrane protein, protein folding studies, site-directed mutagenesis,

in-vitro LptD-ligand binding assay, binding site determination techniques (33 months)

• **Stages:**

- 2015: Institute of Enzymology, Hungarian Academy of Science, Prof. Dr. Beáta Vértessy: Genetic engineering and structural studies of ammonia lyases (4 months)
- 2010: Budapest University of Technology and Economics, Department of Organic Chemistry and Technology, Prof. Dr. Poppe László: Immobilization of Phenylalanine- and Histidine Ammonia Lyases (2 months)
- 2009: Eötvös Lóránt University, Faculty of Science, Department of Organic Chemistry, Dr. Vass Elemer: Determination of the absolute configuration by VCD spectroscopical methodologies -1 month, Domus Fellowship
- 2007: Budapest University of Technology and Economics, Department of Organic Chemistry and Technology, Prof. Dr. Lajos Novak, Pheromone synthesis - 7 months, Agora and Erasmus Fellowship
- 2006: Chinoi-Sanofi-Adventis, Budapest-Hungary, Dr. Hermeicz István, Drug synthesis - 2 months, Erasmus mobility

3. Experience (including managerial experience) in national/international programmes/projects:

Programme/Project	Position	Period
MIO-enzyme toolkit with expanded and defined targetability, PN-II-RU-TE-2014-4-1668	Manager	2015-2017
Developing novel peptidomimetics based on unnatural amino acids, post-doctoral project POSDRU/159/1.5/S/137750	Manager	2014-2015
Stereoselective biotransformations of homo- and heteroaromatic diols, BD 384/2008	Manager	2008-2010
Integrated green technology system for producing advanced biofuels; PN-II-PT-PCCA-2013-4-1006; 65/2014	Member	2014-2016
Continuous flow enzymatic dynamic kinetic resolutions for stereoselective bioorganic processes, PCE-2011-3-0775	Member	2011-2016
Biocatalyst - click chemistry down streaming tandem based innovative kit for optically pure fine chemicals synthesis; PN-II-PT-PCCA-2013-4-0734	Member	2014-2016
Technology based on enzymatic transesterification process in order to obtain 2 nd generation biofuels, CARENZI; Nr 22094/01.10.2008	Member	2008-2011

4. Languages: english, hungarian, romanian

5. Technical skills and competences:

Advanced knowledge in: biocatalysis, organic synthesis, chromatographic separation of chiral compounds, enzymatic kinetic studies, enzyme immobilization, protein purification techniques, membrane protein isolation, *in vitro* protein-ligand binding assays, microbiology (cloning techniques, site-directed mutagenesis), proteomics

Experiences in: NMR (Nuclear Magnetic Resonance) spectroscopy, High Performance Liquid Chromatography (HPLC), Gas Chromatography (GC), Fast Protein Chromatography (FPLC), UV-VIS spectroscopy, Gelelectrophoresis (SDS-PAGE, agarose gels), Fluorescence Polarization (FP), Western-Blot (WB), Polymerase Chain Reaction (PCR), CD spectroscopy

Computer skills: Microsoft Office; Computational Chemistry: Chemoffice, Spartan, Gaussian, Hyperchem, Pymol; Instrumentational Analysis: Topspin, Mestrec, Chemstation

6. Other relevant informations

Researcher ID: E-6793-2013

Project evaluator at national level for Romania.

Scientific referee for: *Biocatalysis & Biotransformation, Studia Universitatis "Babeş-Bolyai"-Chemia*

Scientific articles: 14, H_{index} 6

7. Referees name and adress:

1. Prof. Dr. Csaba Paizs – Str. Arany János, Nr. 11., Cluj-Napoca, RO-400028, Romania, email: paizs@chem.ubbcluj.ro

2. Prof. Dr. Florin-Dan Irimie - Str. Arany János, Nr. 11., Cluj-Napoca, RO-400028, Romania, email: irimie@chem.ubbcluj.ro

3. Prof. Dr. László Poppe – Str. Szent Gellért tér, Nr. 4, Budapest, H-1111, email: poppe@mail.bme.hu

4. Prof. Dr. John A. Robinson – Winterthurerstrasse 190, 8057 Zurich, Switzerland, email: robinson@oci.uzh.ch

I hereby state on my own responsibility that the data presented is accurate.

Date: 06.10.2015