

PERSONAL INFORMATION



Souad-Diana TORK

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WORK EXPERIENCE

1.10.2020 - present

ASSISTANT PROFESSOR

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11 Arany Janos St., RO-400028, Cluj Napoca

Laboratories/Seminars for the following subjects: Bioreactors I, Bioreactors II, Biocatalysis, Bioprocess Engineering, Food Industry Biotechnologies, Biochemistry

Type of business or sector Biochemistry

15.09.2020-present

RESEARCH ASSISTANT

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11 Arany Janos St., RO-400028, Cluj Napoca

Project: Rational redesign of phenylalanine ammonia-lyases for reversing their natural selectivity, PN-III-P1-1.1-TE-2019-2118, contract number: TE95/2020

Project manager: Lect. Dr. Bencze László Csaba; E-mail: laszlo.bencze@ubbcluj.ro

Type of business or sector Biochemistry

1.10.2019-15.09.2020

RESEARCH ASSISTANT

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11 Arany Janos St., RO-400028, Cluj Napoca

Project: MIO-enzyme toolbox for the synthesis of non-natural amino acids, PROMYS, IZ11Z0_166543/1

Project manager: Lect. Dr. Bencze László Csaba; E-mail: laszlo.bencze@ubbcluj.ro

Type of business or sector Biochemistry

1.11.2015- 30.09.2019

WFS and academic performance scholarships (for young researchers)

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11 Arany Janos St., RO-400028, Cluj Napoca

E-mail: chem@chem.ubbcluj.ro

Type of business or sector Biochemistry

1.06.2014- 30.09.2015 **LABORATORY ASSISTANT**

SC SoilTesting SRL, 114 Donath St., Cluj Napoca

E-mail: ali_soiltesting@yahoo.com

- Geotechnical study
- Particle size analysis
- Documentation

Type of business or sector Geology

15.10.2012- 1.10.2014 **Volunteer**

OSC Cluj, Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11 Arany Janos St., room 23, RO-400028 Cluj-Napoca, Romania

E-mail: organizatiastudentilorchimisti@gmail.com

- The International Conference “Students for students”
- Charitable project for orphans “Suflet pentru Suflet”
- ChemCup – football event
- FCIC Open Gates

EDUCATION AND TRAINING

October 2017-April 2023 **PhD in Chemistry, Biocatalysis and Biotransformations**

ISCED level 8

Scientific Research Center

Babeş Bolyai University – Faculty of Chemistry and Chemical Engineering, Cluj-Napoca

Scientific advisor: Prof. Eng. Florin-Dan Irimie

Doctor title (with *Summa cum Laude*) awarded on April 28th 2023

Thesis title: *Engineered PALs for preparative-scale production of L- and D-phenylalanine analogues*

October 2015-July 2017 **MSc degree in Engineering of Organic and Biochemical Processes**

ISCED level 5

Babeş Bolyai University – Faculty of Chemistry and Chemical Engineering, Cluj-Napoca

Thesis title: *Novel mutant MIO-enzymes for the synthesis of unnatural amino acids*

Scientific advisors: Prof. Eng. Florin-Dan Irimie, Lect. Dr. László-Csaba Bencze and Univ. Assist. Alina Filip

October 2011-July 2015 **BSc degree in Chemical Engineering
Food Chemistry and Biochemical Technologies** ISCED level 6
 Babeş Bolyai University – Faculty of Chemistry and Chemical Engineering, Cluj-Napoca
Thesis title: *Enzymatic technology for obtaining D-phenylalanine from racemate 2-amino 3-phenylpropanoic acid*
 Scientific advisors: Prof. Eng. Florin-Dan Irimie and Prof. Habil. Eng. Csaba Paizs

October 2012-June 2015 **Level 1 Teaching Module Certificate** ISCED level 6
 Teacher Training Department (DPPD) Cluj-Napoca, Babeş Bolyai University

October 2015-June 2017 **Level 2 Teaching Module Certificate** ISCED level 6
 Teacher Training Department (DPPD) Cluj-Napoca, Babeş Bolyai University
Thesis title: *Learning style inventory (LSI) after Kolb's model: Its application in higher education*
 Scientific advisor: Prof. Dr. Liliana Ciascai

September 2007-June 2011 **Baccalaureate degree** ISCED level 3
 Onisifor Ghibu Highschool Cluj-Napoca, section: Maths-Informatics
 Mathematics, Computer Science, Chemistry, Physics, Biology, Literature, History, English

PERSONAL SKILLS

Mother tongue(s) Romanian

| Other language(s) | UNDERSTANDING | | SPEAKING | | WRITING |
|-------------------------------------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| <i>English</i> | C2 | C2 | C2 | C2 | C2 |
| <i>DLSS Certificate of Language</i> | | | | | |
| <i>French</i> | A2 | A2 | A1 | A1 | A2 |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

| | |
|---|---|
| Research skills | Overexpression of recombinant proteins in <i>Escherichia coli</i> , isolation and purification of proteins (Ni-NTA affinity chromatography, SDS-PAGE electrophoresis, Western Blot), UV-vis spectroscopy, HPLC, TECAN Spark® multimode reader, Nano differential scanning fluorimetry (NanoDSF), genetic engineering (site-directed mutagenesis and iterative saturation mutagenesis), PCR (polymerase chain reaction), DNA isolation. |
| Social skills and competences | Good teamwork skills developed while working on different projects and as a volunteer where I have proved myself to be a cooperative person; Adaptability to changes, honesty and fairness. |
| Organisational / managerial skills | Tendency to achieve all objectives and consequent good organizational skills, both individual and of a group; I have supervised research work carried out by undergraduate students (bachelor and master degree); Good time management skills, can set priorities and efficiently manage to write reports and prepare presentations; Didactic activities: laboratories and seminars, during 2017-Present: Elements of Biochemistry, Advanced Biochemistry, Food Biotechnologies, Biocatalysis, Bioprocess Engineering, Bioreactors |
| Digital competences | Microsoft Office Word; Excel; Power Point ViewerLite; ChemDraw; GraphPAD; Origin PhotoScape; Adobe Premier Pro Chromas Lite; CLC Sequencing; Snapgene; BioEdit PyMOL; ChemCAD; LabView; Matlab; C++ (basic skills) |
| Artistic skills and competences | Drawing, Sketching, Photography |
| Hobbies: | Cycling, travelling and exploring |
| Driving licence | B |

ADDITIONAL INFORMATION

Articles Publication list, books, conference publications are listed in the CV annex at <https://www.brainmap.ro>, UEFISCDI ID (UEF-ID): U-1900-064J-1785

Conferences

- Tork S.D., Radu A., Paizs C., *Medium engineering for enhanced biocatalytic power of various PAL enzymes*, XIIth Edition of the International Conference “Students for Students” Cluj-Napoca, **2015**
- Tork S.D., Filip A., Bartha-Vári J.H., Bencze L.C., Irimie F.D., *Immobilization and substrate domain expansion of RtPAL*, XIIIth Edition of the International Conference “Students for Students” Cluj-Napoca, **2016**
- Filip A, Tork S.D., Bencze L.C., Banoczi G., Irimie F.D., Poppe L., Paizs C. *MIO-enzyme toolbox: F137V mutant of phenylalanine ammonia-lyase from *Petroselinum crispum* with improved substrate tolerance and stereoselectivity*, Action COST CM1303 SysBiocat Training School, Siena, **2016**
- Tork S.D., Filip A., Nagy Z., *Novel PcPAL mutants exhibiting broadened substrate scope*, XIVth Edition of the International Conference “Students for Students” Cluj-Napoca, **2017**
- Tork S.D., Nagy E.Z.A., Filip A., Lang P., Schofield C.J., Brem J., Paizs C., Bencze L.C., *Active site mapping of phenylalanine ammonia-lyase from *Petroselinum crispum**, 14th International Symposium on Biocatalysis and Biotransformations, Groningen (Netherlands), **2019**
- Tork S.D., Nagy E.Z.A., Filip A., Irimie F.D., Monica I. T., Brem J., Paizs C., Bencze L.C., *Îmbunătățirea proprietăților catalitice a PAL din *Petroselinum crispum* prin tehnici de inginerie proteică*, Conferința Națională a Școlilor Doctorale din Consorțiul Universitaria, Ediția a II-a, Timișoara, **2019**
- Tork S.D., Moisă M.E., Bencze L.C *Redesign of phenylalanine ammonia-lyases for non-natural substrates*, Young Researchers’ International Conference on Chemistry and Chemical Engineering (YRICCCE III), Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania 2021
- Tork S.D., Paizs C., Bencze L.C *Engineered AtPALs for the production of l- and d-arylalanines*, The 13th International Symposium of the Romanian Catalysis Society, Băile Govora, Vâlcea County, Romania, 2022.

Workshops

- HPLC troubleshooting - Phenomenex Inc. (USA)&MUSO SRL, Trainer: Heiko Behr, at USAMV, Cluj-Napoca **2018**.

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

Date: 07.11.2023

