

**PERSONAL
INFORMATION**

Souad-Diana TORK

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WORK EXPERIENCE

01.10.2020 - 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

03.01.2024 - present

ASSISTANT RESEARCHER

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

Project: PNRR-760042/23.05.2023, Advanced (multi)-enzymatic synthesis and purification processes for biobased furan derivatives – ASPIRE

Project manager: Prof. Dr. Anton Alexandru Kiss)

Type of business or sector Biochemistry

15.09.2020-15.09.2022

ASSISTANT RESEARCHER

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

ASSISTANT RESEARCHER

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
Scientific Research Center**

ISCED level 8

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 *Escherichia coli*, 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: 25.05.2024

