

# 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 János St., RO-400028, Cluj-Napoca

**Laboratories/Seminars for the following subjects:** Bioreactors I, Bioreactors II, Biocatalysis, Bioprocess Engineering, Biotechnology of Foods

### 15.09.2020-1.08.2021

### RESEARCH ASSISTANT

Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11 Arany János 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. Bencze László Csaba; E-mail: laszlo.bencze@ubbcluj.ro

#### 1.10.2019-15.09.2020

### RESEARCH ASSISTANT

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

Project: MIO-enyzme toolbox for the synthesis of non-natural amino acids, PROMYS, IZ11Z0\_166543/1

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

### 1.06.2014- 30.09.2015

### LABORATORY ASSISTANT

SC SoilTesting SRL, 114 Donath St., Cluj-Napoca

E-mail: ali soiltesting@yahoo.com

• Geotechnical studies, Particle size analysis, Documentation

### 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

### Projects:

- The International Conference "Students for students",
- Charitable project for orphans "Suflet pentru Suflet"
- ChemCup football event



• FCIC Open Gates

#### **EDUCATION AND TRAINING**

### Oct 2017-present PhD in Chemistry

ISCED level 8

Babeş Bolyai University – Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Enzymology and Applied Biocatalysis Research Center

Scientific advisor: Prof. Eng. Florin-Dan Irimie

#### Oct 2015-Jul 2017

### MSc degree in Engineering of Organic and Biochemical Processes

ISCED level 7

Babes 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. László-Csaba Bencze and Assist. Prof. Alina Filip

 Advanced Biochemistry; Bioprocess Engineering; Green Chemistry; Advanced Organic Chemistry; Advanced Enzymology; Biotransformations applied in food, pharmaceutical and organic industries; Rheology of disperse systems; Organic and Organometallic precursors for materials;

#### Oct 2011-Jul 2015

### BSc degree in Chemical Engineering Food Chemistry and Biochemical Technologies

ISCED level 6

Babes 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. Eng. Csaba Paizs

 Biochemistry; Enzymology; Chemical Process Control; Food Biotechnology; Organic Chemistry; Inorganic Chemistry; Bioinorganic Chemistry; Industrial Water Treatment; Mathematics; English; Microbiology; Instrumental and analytical chemistry; Transport Phenomena and Unit Operations;

#### Oct 2012-Jun 2015

### **Level 1 Teaching Module Certificate**

ISCED level 6

Teacher Training Department (DPPD) Cluj-Napoca, Babes Bolyai University

Psychopedagogic, psychosocial and class management competences

### Oct 2015-Jun 2017

### **Level 2 Teaching Module Certificate**

ISCED level 7

Teacher Training Department (DPPD) Cluj-Napoca, Babes Bolyai University

**Thesis title:** Learning style inventory (LSI) after Kolb's model: Its application in higher education Scientific advisor: Prof. Liliana Ciașcai

• Science integrated study, Psychopedagogy of adolescents, young people and adults

### Sept 2007-Jun 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	
C2	C2	C2	C2	C2

English

DLSS Certificate of Language

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Common European Framework of Reference for Languages

#### Research related skills

Overexpression of recombinant proteins in *Escherichia coli*, isolation and purification of PAL/PAM 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, organic synthesis, enzyme immobilization.

### 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 I and II

### **Digital competences**

Microsoft Office Word; Excel; Power Point ViewerLite; ChemDraw; GraphPAD

PhotoScape; Web Browsing

Chromas Lite; CLC Sequncing; Snapgene

PyMOL; ChemCAD; LabView; Matlab; C++ (basic skills)

### **Driving licence**

В

### ADDITIONAL INFORMATION

### Awards

- The XIII<sup>th</sup> Edition of the International Conference "Students for Students" Cluj-Napoca *Immobilization and substrate domain expansion of RtPAL* **Award** given by the **Romanian** Chemistry Society, 2016
- The XIV<sup>th</sup> Edition of the International Conference "Students for Students" Cluj-Napoca *Novel PcPAL mutants exhibiting broadened substrate scope* **THE GO GREEN! APPROACH award** granted by **SPI (Special Pro Instalații)**, **2017**
- Excellentia Award 2017, granted by CSUBB and Babeş-Bolyai University, category: student
- Excellentia Award 2021, granted by CSUBB and Babeş-Bolyai University, category: doctoral student



### **Scholarships**

- Scholarship awarded for the academic results during the Bachelor's programme and Master's programme by the Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, 2011-2015, 2017
- Scientific Performance Scholarship, awarded by Babeş-Bolyai University (Star-UBB Institute), 2016-2017
- World Federation of Scientist (WFS) Scholarship, awarded by Professor Gheorghe Stratan, National Representative of the WFS in Romania, 2016-2017

#### **Conferences**

- Tork S.D., Radu A., Paizs C., Medium engineering for enhanced biocatalytic power of various PAL enzymes, XII<sup>th</sup> Edition of the International Conference "Students for Students" Cluj-Napoca, 2015
- <u>Tork S.D.</u>, Filip A., Bartha-Vári J.H., Bencze L.C., Irimie F.D., *Immobilization and substrate domain expansion of RtPAL*, XIII<sup>th</sup> Edition of the International Conference "Students for Students" Cluj-Napoca, **2016**
- Filip A, <u>Tork S.D.</u>, 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**
- <u>Tork S.D.</u>, Filip A., Nagy Z., *Novel PcPAL mutants exhibiting broadened substrate scope*, XIV<sup>th</sup> Edition of the International Conference "Students for Students" Cluj-Napoca, **2017**
- <u>Tork S.D.</u>, 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*, 14<sup>th</sup> International Symposium on Biocatalysis and Biotransformations, Groningen (Netherlands), 2019
- <u>Tork S.D.</u>, 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

#### **Articles/Conferences**

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