



Date of birth: Szeged, 04.12.1998.  
Address: 6353 Dusnok, Damjanich u. 22.  
Residence address: 6721 Szeged, Juhász Gyula utca 25. 3./10.  
E-mail: f.varkonyiegon@chem.u-szeged.hu  
Telephone: 06-62/544-336 | Mobile: 06-30/654-6575



**Egon F. Várkonyi**

Pharmaceutical Chemist, Teacher of Chemistry

## DATA ON EDUCATIONAL ATTAINMENT

- |                |   |   |
|----------------|---|---|
| 2023-currently | <b>University of Szeged, Doctoral School of Chemistry, Szeged</b><br><u>PhD student</u> ,<br>Program: Catalysis, surface, colloid and materials science.<br>Design of complex drug delivery particles containing anticancer (coordination) compounds. |    |
| 2022-2023.     | <b>University of Szeged, Faculty of Science and Informatics, Szeged</b><br><u>Teaching Chemistry MEd</u> (Master's Degree – Master of Education),<br>Qualified as a Teacher of Chemistry.<br><i>Grade of degree: excellent</i> [P81D001500]           |    |
| 2021-2023.     | <b>University of Szeged, Faculty of Science and Informatics, Szeged</b><br><u>Chemist MSc</u> (Master's Degree – Master of Science),<br>Qualified as a Chemist. Pharmaceutical Chemistry specialisation.<br><i>Grade of degree: good</i> [P81D001401] |  |
| 2018-2021.     | <b>University of Szeged, Faculty of Science and Informatics, Szeged</b><br><u>Chemistry BSc</u> (Bachelor's Degree – Bachelor of Science),<br>Qualified as a Chemist.<br><i>Grade of degree: good</i> [P81B067138]                                    |  |
| 2017-2018.     | <b>University of Szeged, Faculty of Science and Informatics, Szeged</b><br>Biology-chemistry teacher student – change.  |  |
| 2009-2017.     | <b>Our Lady Catholic School, Kalocsa</b><br>Primary and Secondary Grammar School studies.<br>Graduation [P44P058076]; Matriculation at advanced level (biology and chemistry).  |  |
| 2005-2009.     | <b>Dusnok-Fajsz Associated General Education Centre, Dusnok</b><br>Primary School studies.  |   |

## EXPERIENCE

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|------------|--|---|
| 2022-2023. | <b>Hungarian Academy of Sciences – University of Szeged,</b><br><b>”Momentum” Noble Metal Nanostructures Research Group</b><br>Activity: Interaction of noble metal nanoclusters with serum protein in |   |
|------------|--|---|

2D and 3D systems; research, preparative experience.

*Thesis leader: Juhászné Dr. Csapó Edit*

2022.  
summer-autumn

*Under the leadership of the Ministry of Innovation and Technology*  
**National Laboratory of Biotechnology, Biological Research Centre,  
Szeged – Centre of Excellence of the European Union,  
Institute of Biochemistry, Membrane and Stress Biology Unit**



Activity: Optimizing the composition of lipid nanoparticles for tissue specific targeting of mRNA. (Contract of assignment)

2022. summer

**CLNE Laboratory Kft., Szeged**



Activity: Product development for water analysis measurements, internship.

Products: pH calibration solutions, calibration solutions for conductivity measurements, reagents for photometers.

2022. june

**Hungarian Academy of Sciences – University of Szeged,  
"Momentum" Noble Metal Nanostructures Research Group**



Research activities (Contract of assignment).

Research, preparative experience.

2022. spring

**University of Szeged, Department of Inorganic and Analytical  
Chemistry and Department of Plant Biology**



Activity: Study of trace element and nanoparticle uptake of plants by LIBS elemental mapping. During a project work.

*Thesis leader: Prof. Dr. Galbács Gábor and Ördögné Dr. Kolbert Zsuzsanna*

2019-2021.

**University of Szeged, Department of Physical Chemistry and  
Materials Science – Colloids and Nanostructured Materials  
Research Group**



Activity: Design of liposomal carrier particles containing vitamin B<sub>1</sub>; research, preparative experience. This work has resulted in a scientific article.

*Thesis leader: Juhászné Dr. Csapó Edit and Janóné Dr. Ungor Ditta*

2019. july

**Hungarian Academy of Sciences – University of Szeged,  
"Momentum" Biocolloids Research Group**



Activity: Helping in a PhD work on Nanozymes; preparative experience.

*Thesis leader: Prof. Dr. Szilágyi István and Nizar B. Alsharif*

## OTHER IMPORTANT INFORMATION

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### Information about teaching

Teaching practice (group and individual) in (Ságvári) University of Szeged's Grammar School and Primary School.



Experience: grammar school 9-10. classes.

Rating of the exercise.: excellent

**36. National scientific student conference 2023., University of Szeged, Faculty of Science and Informatics – Local conference 2022. autumn (24th of nov.)**

Chemistry student group; Section: Organic chemistry / Biochemistry; Result: 2nd place

Thesis: Design of colloidal drug delivery systems for vitamin B1 encapsulation and tissue-specific targeting of mRNA.

*Thesis leader: Juhászné Dr. Csapó Edit (MTA-SZTE), Janóné Dr. Ungor Ditta Anita (MTA-SZTE), Dr. Gombos Imre (BNL-SZBK).*



**Scientific article**

12.09.2021.: MDPI – International Journal of Molecular Sciences

Title: The pH-Dependent Controlled Release of Encapsulated Vitamin B1 from Liposomal Nanocarrier

Available: <https://doi.org/10.3390/ijms22189851>

Author contribution: methodology, investigation.



**Computer skills**

Knowledge of Microsoft Office at user level

(e.g. dokumentation, processing measurement data).

**Language examination**

English Vantage (B2) complex (state accredited)


Oral: ELTE Origó [NG010-05124]

Written: iTOLC [QD320-01445].

**Driving licence**

Category B.

Szeged, 26.09.2023.



Egon F. Várkonyi