

Curriculum Vitae

Personal Details

Name: Áron Soma Németh

Date of birth: 27/12/2001

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Current Positions

2025 Visiting PhD student, Anyo Labs, Gothenburg, Sweden

2025 - present PhD student, Budapest University of Technology and Economics (BME), Faculty of Chemical Technology and Biotechnology, Department of Organic Chemistry and Technology, Innovative Pharmaceutical and Chirotechnological Research Group

2024 - present MSc student, Budapest University of Technology and Economics (BME), Faculty of Chemical Technology and Biotechnology, Department of Organic Chemistry and Technology, Innovative Pharmaceutical and Chirotechnological Research Group

Previous Positions

2025 MSc student, The Lisbon School of Engineering (ISEL), ERASMUS+ mobility semester

2022 - 2024 BSc student, Budapest University of Technology and Economics (BME), Faculty of Chemical Technology and Biotechnology, Department of Organic Chemistry and Technology, Innovative Pharmaceutical and Chirotechnological Research Group (Dr. Erika Bálint)

2024 Summer internship at IOI Investment Ltd.

2023 Summer internship at IOI Investment Ltd.

Education

2020 - 2024 BSc in Chemical Engineering, Specialization in Pharmaceutical Industry, Budapest University of Technology and Economics (BME)

Research Experience

- Synthesis of Spirooxindole-dihydropyridines via Multicomponent reaction with green chemical technologies (experience: MW-assisted reactions, multicomponent reactions and solvent-free reactions).

- Total synthesis of potentially c-FLIP or TRADD/TRAF2 inhibiting molecules (experience: retrosynthetic analysis, lithiation reactions, C-C coupling reactions).
- Oxidation and racemization of selected C5 and C6 sugars using hydrogen peroxide in alkaline and Fenton reaction conditions (experience: handling of dangerous materials such as Hydrogen peroxide).
- Analytical measurements and their evaluations: Nuclear Magnetic Resonance (NMR) Spectroscopy, High-Performance Liquid Chromatography (HPLC), Mass Spectrometry (MS), Gas Chromatography (GC), Flash column chromatography.

Fellowships and Grants

- 3rd place Award of Students' Scientific Research Conference, Budapest University of Technology and Economics, 2023.
- Outstanding Student of Faculty, Budapest University of Technology and Economics (BME), Faculty of Chemical Technology and Biotechnology (2024, 2025).
- National Higher Education Scholarship, 2024/25.
- ERASMUS+ Scholarship, Mobility semester at The Lisbon School of Engineering (ISEL).

Most Important Publications Over the Last Five Years

1. Rávai, B.; Németh, Á. S.; Kelemen, Z.; Bálint, E. Microwave-Assisted Multicomponent Synthesis of Spirooxindole Dihydropyridine Bisphosphonates. *Eur. J. Org. Chem.* 2025, 28(6), e202400873. IF(2023/2024): 2.5. Independent citations: 3.
2. Köntös, Z.; Németh, Á. Mechanistic Insights into Sugar Racemization and Oxidative Degradation via Fenton and Alkaline Peroxide Systems. *Chemistry* 2025, 7, 2. IF(2023/2024): 2.4. Independent citations: 0.