



Marianna Maková

Work permit: Slovak **Nationality:** Slovak **Date of birth:** 20/12/1996

Place of birth: Liptovský Mikuláš, Slovakia **Gender:** Female **Phone number:** (+421) 917258196

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WORK EXPERIENCE

Slovak Academy of Sciences, Department of Imaging Methods – Bratislava, Slovakia

City: Bratislava | Country: Slovakia

Research Scientist

[2025 – Current]

- Conducting research in the field of advanced imaging methods, with a focus on clinical applications of Nuclear Magnetic Resonance (NMR).
- Engaged in the development, application, and evaluation of measurement and imaging techniques for biomedical research.
- Collaborating on interdisciplinary projects aimed at improving diagnostic and analytical methods.

Slovak technical university, Department of Physical Chemistry – Bratislava, Slovakia

City: Bratislava | Country: Slovakia

Research Scientist / Lecturer

[2025 – Current]

- Conducting research on advanced imaging and analytical methods, including the development and application of techniques for scientific projects.
- Leading and participating in national and international research projects.
- Delivering lectures and practical sessions in physical chemistry, supervising student projects and laboratory work.
- Collaborating with interdisciplinary teams to enhance experimental design and data analysis.

Doučovatelia s.r.o. – Bratislava, Slovakia

City: Bratislava | Country: Slovakia

Private Tutor – Mathematics, Physics, Chemistry

[2018 – 2025]

- Conducted individual online tutoring for primary and secondary school students.
- Developed customized learning materials, worksheets, and tests tailored to students' levels and needs.
- Prepared students for assessments and entrance exams.
- Focused on developing logical thinking, understanding connections, and systematically improving academic performance.

Mondelez International – Bratislava, Slovakia

City: Bratislava | Country: Slovakia

Quality Control and Data Processing Assistant

[2023 – 2024]

- Sampled Toblerone products during and after production.
- Performed visual and physical quality inspections according to established standards.
- Collected, processed, and analyzed quality control data.
- Prepared statistics and reports for internal production quality purposes.
- Collaborated with production and quality teams to identify deviations and propose improvements.

 **Labour, Social Affairs and Family Office – Bratislava, Slovakia**

City: Bratislava | Country: Slovakia

Personal Assistant

[2021 – 2024]

Provided personalized assistance to an individual with severe disabilities, adapting support to their specific needs.

 **STU Vital – Bratislava, Slovakia**

City: Bratislava | Country: Slovakia

Chemical Laboratory Technician

[2017 – 2018]

- Assisted with laboratory experiments as part of research projects.
- Performed support tasks in food processing procedures.
- Prepared and handled samples following safety standards.
- Recorded and analyzed experimental data.

 **– Liptovský Mikuláš, Slovakia**

City: Liptovský Mikuláš | Country: Slovakia

Self-Employed Service Provider

[2016 – 2017]

- Assisted with forestry-related tasks, ensuring compliance with safety and occupational health standards in a forest environment.

EDUCATION AND TRAINING

Physical Chemistry and Biophysical Chemistry, Doctoral Studies

Slovak University of Technology, Faculty of Chemical and Food Technology [2021 – 2025]

City: Bratislava | Country: Slovakia

Physical Chemistry, Master's Degree

Slovak University of Technology, Faculty of Chemical and Food Technology [2019 – 2021]

City: Bratislava | Country: Slovakia

Chemistry, Medical Chemistry, Chemical Materials, Bachelor's Degree

Slovak University of Technology, Faculty of Chemical and Food Technology [2016 – 2019]

City: Bratislava | Country: Slovakia

LANGUAGE SKILLS

Mother tongue(s): Slovak

Other language(s):

English

LISTENING C1 READING C1 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

German

LISTENING B1 READING A2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

[2025]

Effects of maternal depression and antidepressant treatment on neurotransmitters, brain regions, and mitochondrial function in rat dams.

DOI: 10.1016/j.neuint.2025.105981.

Authors: Maková, M., Kašparová, S., Bačiak, L., Gogola, D., Sumbalová, Z., Brucknerová, I., Bukatová, S., & Dubovický, M. | **Journal Name:** Neurochemistry International

[2023]

Mirtazapine modulates Glutamate and GABA levels in the animal model of maternal depression.

DOI: 10.1016/j.bbr.2023.114296

Authors: Maková, M., Kašparová, S., Tvrdík, T., Noguera, M., Belovičová, K., Csatlosová, K., & Dubovický, M. | **Journal Name:** Behavioural Brain Research

[2022]

Essential metals in health and disease. In Chemico-Biological Interactions

DOI: 10.1016/j.cbi.2022.110173

Authors: Jomová, K., Maková, M., Alomar, S. Y., Alwasel, S. H., Nepovimova, E., Kuča, K., Rhodes, C. J., & Valko, M. | **Journal Name:** Chemico-Biological Interactions

SKILLS

Research and Professional Experience

- Operated laboratory workflows and instrumentation in a magnetic resonance (MR) laboratory.
- Participated in research projects on maternal depression, pancreatic tumor pathogenesis, neurodegenerative diseases, effects of unhealthy diet, and other interdisciplinary studies.
- Secured and conducted an independent research grant.
- Completed an international internship at the Deutsches Zentrum für Neurodegenerative Erkrankungen (Germany), training in functional magnetic resonance imaging (fMRI) for preclinical research.
- Teaching experience: conducted laboratory exercises in physics and physical chemistry, basics of MR imaging, and supervised final theses.
- Prepared laboratory exercises for secondary and primary school students to promote science education.
- Presented research findings at international conferences.
- Actively participated in professional seminars.
- Experienced in data analysis using software tools: ImageJ, LCMoDel, ANTs, MRtrix, C3d, Chenomix.

ADDITIONAL INFORMATION

Research & Academic Contributions

- Publications: 8 including 4 first-author articles
- Conferences and publications in proceedings: 7 including 4 international conference contributions
- Thesis Consultant: 5 including 1 supervision of secondary school scientific activities
- Projects: 4 including 1 as principal investigator

VOLUNTEERING

[Current] Bratislava, Slovakia

Community Engagement & Event Coordination

- Planned and led community meetups under the *ZMYSEL* project, promoting mental and physical well-being through group training sessions and social activities.
- Coordinated event logistics, participant management, and program delivery to ensure seamless execution.

[Current] Slovakia

Science Outreach & Education

- Delivered lectures, workshops, and interactive chemistry demonstrations at *ChemDay*, *ChemShow*, and *ChemWeek*.
- Supported public engagement initiatives aimed at sparking interest in science and raising awareness of its impact.

DRIVING LICENCE

Driving Licence: B

18/06/2015 – 02/07/2029

HOBBIES AND INTERESTS

Personal Interests

In my free time, I enjoy continuous learning through reading and exploring new topics. Sports help me stay active and maintain good physical condition, while art provides an outlet for my creativity. I also appreciate relaxing with music and discovering new places.