

## **Trip Report**

### **Conference: 41st International Conference on Environmental Geochemistry and Health (SEGH2026) in Ljubljana, Slovenia, 13–17 July 2026**

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I participated in the 41st International Conference on Environmental Geochemistry and Health (SEGH2026), held in Ljubljana, Slovenia, from 13 to 17 July 2026. I represented Eötvös Loránd University together with Saeed Bidar Kahnamuei and our supervisors, Dr. Anita Erőss and Prof. Ákos Horváth. The conference brought together researchers working in environmental geochemistry, hydrogeology, environmental radioactivity, medical geology, and human health.

On 13 July, I attended the workshop entitled “From the Field to the Map: Applied Methods for Measuring and Mapping Environmental Radioactivity.” The workshop was delivered by Prof. Quentin Crowley, Dr. Anita Erőss, Prof. Ákos Horváth, and Prof. Javier de Elio Medina. It combined lectures with practical field activities, including soil-gas radon measurements, gamma-radiation surveys, and the sampling and measurement of radioactivity in water. The final session focused on compiling and interpreting the collected field data. This activity strengthened my understanding of field-based radioactivity measurements and their use in environmental mapping and hydrogeological studies.

On 14 July, I gave an oral presentation during the Environmental Radioactivity session entitled “Natural Radioactivity in Drinking Water: Application of Environmental Tracers and Regional Groundwater Flow Analysis in Northwestern Hungary.” I presented how hydrochemical data, radionuclide-specific measurements, environmental tracers, and groundwater flow-system analysis can be integrated to investigate elevated gross alpha activity in drinking-water wells. The results showed that dissolved uranium is the main contributor to elevated gross alpha activity in several samples and that its occurrence is related to oxidizing conditions, recharge areas, and local groundwater flow systems.

The session also included presentations by Dr. Anita Erőss on environmental radioisotopes as hydrogeological tracers and drinking-water quality parameters, and by Saeed Bidar Kahnamuei on the hydrogeochemistry and medicinal radioactivity of Lake Hévíz. These presentations placed my research within a broader framework connecting groundwater flow systems, environmental radioactivity, drinking-water safety, and thermal-water research.

I gained valuable insights in my participation to SEGH2026 which supplement my professional and doctoral development. I gained experience presenting my research to an international audience, responding to questions, and explaining the practical importance of my findings. I also attended sessions on microplastics

in groundwater, mining-related contamination, geochemical risk assessment, and contaminant mobility. The conference expanded my scientific knowledge, provided useful feedback for my research, and created opportunities for international networking and future collaboration.

I am grateful to the ELTE Talent Support Council for supporting my participation in this important scientific event.

