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To ELTE's Talent Support Council

Participation report: Hungarian Molecular Life Science Conference 2025
Eger, Hungary | March 28–30, 2025

I was honored to present my research at the Hungarian Molecular Life Science Conference 2025 through a poster titled *"The role of Ca²⁺ transporter in autophagy"*. My work focused on the interplay between SERCA, VMP1, and VPS13D in autophagy regulation using *Drosophila* models, which sparked lively discussions during the three-hour poster session. Have in-depth conversations with about 20 researchers who were genuinely curious about my findings. It was particularly exciting when Péter Vilmos, Principal Investigator at BRC, Szeged of the Hung. Acad. Sci., spent nearly 20 minutes discussing my EM results showing stalled phagophores in SERCA RNAi cells. Answer thought-provoking questions that gave me new perspectives, including: *"Have you considered examining this in human cells?"* (asked by Evdokimova Daniela) *"How do your findings compare to PMCA?"* (from a PhD student in Szeged)

Received valuable suggestions for improving my experimental approach from several experienced researchers. Make new professional connections, including two researchers who offered to share their lab's protocols for protein-protein interaction assay.

Beyond my own presentation, I attended several fascinating talks, including:

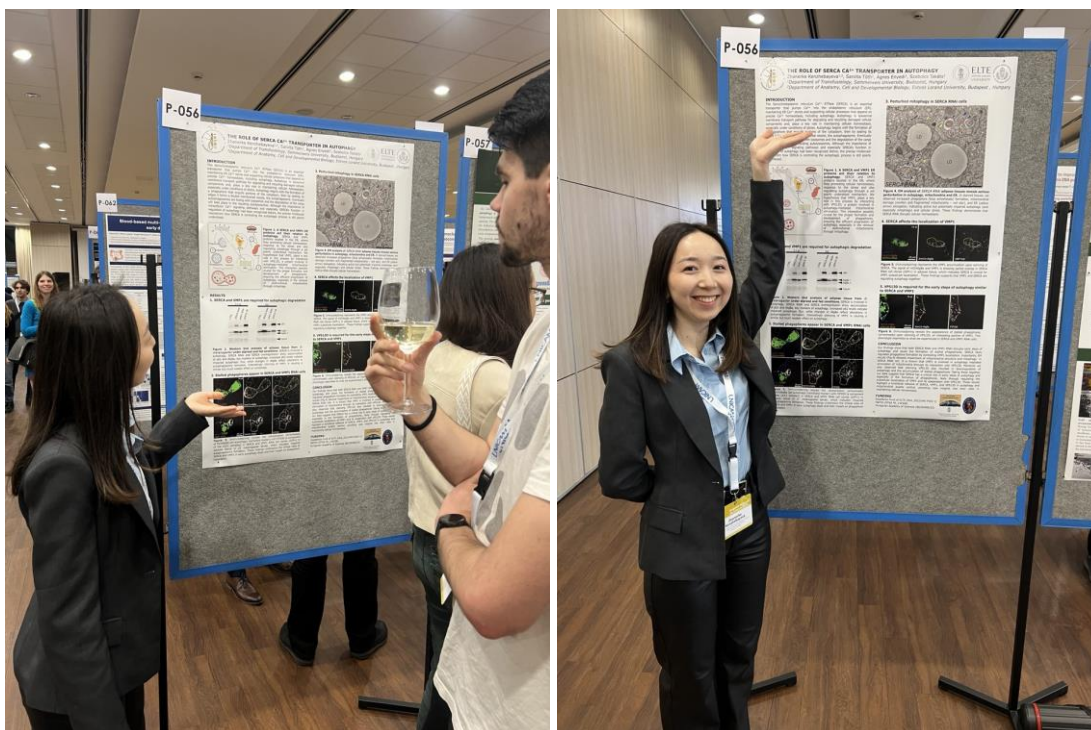
A keynote by Bodo Atilla about Dynein-regulated autophagosome transport ensures proper fusion efficiency in *Drosophila* fat cells that gave me ideas for the regulation of autophagosome motility before fusion with lysosomes.

Emerging research presentations that introduced me to in *Drosophila* larval nephrocytes as an interesting model.

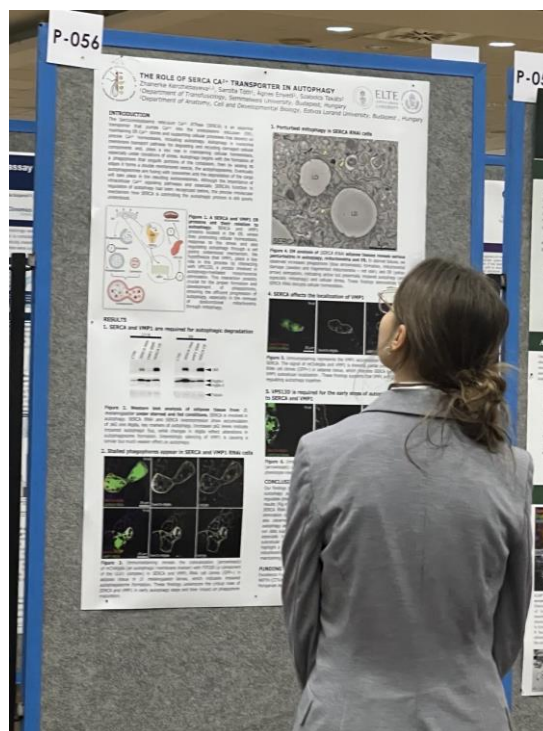
Participated in other poster sessions where I learned about Glial phagocytosis of ECM material in *Drosophila*. Joined informal discussions with other early-career scientists about Heterogeneity of human lysosomes, Synaptic sculpting by glial phagocytic pathways during *Drosophila* optic lobe development.

The conference provided excellent opportunities to meet fellow young researchers from Szeged during coffee breaks; Get career advice from senior Scientist; Exchange contact information with potential future collaborators.

My personal reflections about this experience: Helped me see my research in a broader context; Gave me concrete ideas for improving my methodology; Strengthened my confidence in discussing my work with others.



Me explaining my poster to a group of researchers



A close-up discussion about my EM results



With colleagues from Molecular Tumorbiology and Autophagy Research Group

I'm grateful to Dr. Szabolcs Takats, Dr Agnes Eneydi, Dr Sarolta Toth, Excellence Fund of ELTE, NKFIH, Hungarian Academy of Sciences and the organizers for making this valuable experience possible.