KOLOS NÉMETH



National Academy of Scientist Education, 3rd year

Semmelweis University
Faculty of Medicine, 4th year

YEAR OF BIRTH

2003

FORMER SZENT-GYÖRGYI PUPIL

no

RESEARCH UNIT

HUN-REN Institute of Experimental Medicin

SZENT-GYÖRGYI MENTOR

Viktor Varga

JUNIOR MENTOR

Márta Jelitai

SPECIALIZATION

neurophysiology

SECONDARY SCHOOL

Révai Miklós High School

NAME OF TEACHER

József Bacher

LANGUAGES

English/C1
German/C1

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Exploring the intricate interconnections among the hippocampus, entorhinal cortex, and medial septum is crucial to uncover the neural pathways of cognition. These regions do not operate in isolation but form a tightly integrated network crucial for various cognitive functions. The medial septum plays a key role in the generation of theta oscillations in both the hippocampus and the entorhinal cortex, whereas the entorhinal cortex is considered as the main interface between neocortical areas and the hippocampus. Understanding their interconnections provides a deeper insight into how the brain processes and stores information. Unraveling the complexities of these areas offers insights into the mechanisms underlying cognitive processes and provides a foundation for addressing cognitive disorders.

AMBITIONS AND CAREER GOALS

Psychiatric disorders entail immense suffering for humanity, and their treatment is often unbelievably complex. I believe that mapping the neural connections underlying these disorders will bring us closer to developing more effective therapies. My goal is to contribute to a deeper understanding of our own nervous system through my research work. Within the Program framework, mastering and utilizing the necessary technical tools for this purpose is the primary aim.

HONORS AND PRIZES

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PUBLICATIONS

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