

YAHYA SULOK



National Academy of Scientist Education, 2nd year

Semmelweis University
Faculty of Medicine, 3rd year

YEAR OF BIRTH

2003

FORMER SZENT-GYÖRGYI PUPIL

no

SZENT-GYÖRGYI MENTOR

Balázs Hangya

JUNIOR MENTOR

Írisz Szabó

SPECIALIZATION

neurophysiology

SECONDARY SCHOOL

Apáczai Csere János
Practising High School of
Eotvos Lorand University

NAME OF TEACHER

Judit Bakonyi

LANGUAGES

English/B2
German/B2

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

The brain is capable of employing numerous different learning strategies to adapt to constantly changing environments, thereby enhancing individual fitness. Implicit sequential learning, a form of learning where we unconsciously acquire a particular sequence, is one such strategy. Examples of tasks that result from this type of learning include activities such as cycling, playing basketball, or speaking. Improvement in reaction time during the mastery of such tasks clearly demonstrates learning. In our research, we investigate the neural mechanisms of sequential learning, focusing on the role of important neurotransmitters such as dopamine, acetylcholine, serotonin, and noradrenaline, which are crucial in learning. We measure the release of neurotransmitters in animals during learning using fiber photometry, allowing us to compare their release characteristics. One of the primary aims of our research is to develop an analogous model to human studies, to enable comparison of characteristics measured in humans and animals.

AMBITIONS AND CAREER GOALS

Besides my medical studies, I find it crucial to participate in medical research. In my opinion, healthcare and healing rest on two main pillars: treatment and research. Understanding diseases through research enables us to treat them effectively. Later on in my medical career, I would like to do research, because I think that's how I can do the most for healing as a doctor.

HONORS AND PRIZES

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PUBLICATIONS

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