ANDRÁS BUZÁS-KAIZLER

National Academy of Scientist Education, 2nd year

Semmelweis University
Faculty of Medicine, 3rd year

YEAR OF BIRTH

2003

FORMER SZENT-GYÖRGYI PUPIL

no

RESEARCH UNIT

Institute of Experimental Medicine

SZENT-GYÖRGYI MENTOR

Éva Mikics

JUNIOR MENTOR

Máté Tóth

SPECIALIZATION

behavioural neurobiology

SECONDARY SCHOOL

Baar-Madas Reformed High School, Primary School and Student Home

NAME OF TEACHER

Dávid Vetlényi,
Hajna Tamásné Benkő Kovács

LANGUAGES

English/intermediate

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Perinatal asphyxia (PA) is one of the most significant early-life insults and is responsible for the death of approximately 1 million neonates each year. Besides its role in neonatal mortality, mild-moderate PA also contributes to various neurodevelopmental disorders leading to neuropsychiatric diseases such as ADHD, autism spectrum disorder, epilepsy, and schizophrenia. Neuroinflammation plays an important role in the pathomechanism of PA, which is considered crucial for the development of long-term disorders. We aim to reveal the connection between inflammation and the emergence of neuropsychiatric diseases. For our investigation, we use rat and mouse models of asphyxia developed by our group. These models do not involve surgical interventions and do not cause focal lesions, thus providing an authentic model for examining the pathomechanisms of PA. Our findings confirmed the reliability of the rodent models and highlighted the importance of neuroinflammation. Our research may contribute to a better understanding of neuropsychiatric disorders and provide clinically relevant information regarding the treatment of PA and the prevention of its long-term effects.

AMBITIONS AND CAREER GOALS

Since my childhood, I have always wanted to know everything. Secrets are something I cannot tolerate, even if they are kept by the human body or the universe. This aspiration for understanding and knowing drives me during my studies and research. My goal is to obtain solid and comprehensive knowledge within the field of Biomedical Science so that later I can use this knowledge to help people and contribute to the development of science. I believe that there is no such thing as useless knowledge, and everything contributes to our insight. Therefore, I aim to interiorize not just the Medical Science but also every intellectual pursuit.

HONORS AND PRIZES

2024 Semmelweis University Students' Scientific Conference, 2nd place

PUBLICATIONS

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