SZABOLCS NORMAN SZATHMÁRI

National Academy of Scientist Education, 2nd year

University of Szeged
Albert Szent-Györgyi Medical School, 3rd year

YEAR OF BIRTH

2003

FORMER SZENT-GYÖRGYI PUPIL

no

SZENT-GYÖRGYI MENTOR

Antal Nógrádi

JUNIOR MENTOR

Krisztián Pajer

SPECIALIZATION

neuroscience

SECONDARY SCHOOL

Deák Ferenc High School

NAME OF TEACHER

Laura Széplaki

LANGUAGES

English/advanced

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Spinal cord injuries (SCIs) in humans and other mammals lead to permanent, incurable functional and morphological deficits. A major challenge to neurotrophic factor or cytokine therapy after SCI is the short half-life of these molecules and their instability in circulation. In the recent years, transcribed nucleoside-modified messenger RNA has emerged as a very promising therapeutic protein delivery platform. In our previous study we have provided evidence that human IL-10-encoding nucleoside modified mRNA lipid nanoparticles (mRNA-LNP, delivered intraspinally induced significant functional recovery following spinal cord contusion injury. However, compared to intraspinal application of mRNA-LNP, intraperitoneal mRNA-LNP treatment appears to be a less invasive approach. Therefore, the proposed study aims at the evaluation of the efficacy of mRNA translation into the encoded protein following intraperitoneal delivery and the distribution pathway of the mRNA in peripheral immune organs and the injured spinal cord.

AMBITIONS AND CAREER GOALS

During my studies and research, my goal is to acquire as much knowledge as possible, as well as skills that will be useful in my later research and in my clinical work. Hundreds of thousands of people suffer spinal cord injuries every year. Throughout my research, I would like to deepen my knowledge in the mRNA treatment of spinal cord injuries since this would provide a new method to treat these people.

HONORS AND PRIZES

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PUBLICATIONS

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