ALEXANDRA JÚLIA POP

National Academy of Scientist Education, 6th year

Semmelweis University
Faculty of Medicine, 6th year

YEAR OF BIRTH

2000

FORMER SZENT-GYÖRGYI PUPIL

no

SZENT-GYÖRGYI MENTOR

Viktória Zsiros

JUNIOR MENTOR

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SPECIALIZATION

molecular cell biology

SECONDARY SCHOOL

Németh László Highschool

NAME OF TEACHER

Október Kovács

LANGUAGES

English/C1
Romanian/conversational level
Italian/A2, B1

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

The main aim of our research is to study the peritoneum of female rats and to understand its morphological changes. The important question behind our studies is to understand why some female rats heal more efficiently than males and what molecular mechanisms mediate this difference. Our experiments have provided statistical evidence that one of the reasons for the difference in the rate of recovery is different levels of estrogen. Our short- and long-term plans include investigating the specific effects of estrogen and its role in inflammation and regeneration. The aim of this approach is that biomarkers from the results can be potentially used to predict peritonitis. In practice, this could lead to early detection and more effective treatment of the disease. In addition, a deeper understanding of the relationship between estrogen and various molecular mechanisms may provide general applicability in therapeutic processes.

AMBITIONS AND CAREER GOALS

My research career aims to master critical thinking, with which I will be able to solve complex problems and answer related questions. Joining the Program truly supports and motivates me to continue our current research as a Ph.D. student after finishing my gradual education. I would like to apply the knowledge gained during our scientific work as a pathologist as well to become a doctor and researcher who can innovatively contribute to the improvement of medicine and people's better health.

HONORS AND PRIZES

2024 SE Students' Scientific Conference, 1st place
2024 SE Students' Scientific Conference, 3rd place (as a co-author)

PUBLICATIONS

Zsiros, V., Dóczi, N., Petővári, G., **Pop, A.**, Erdei, Z., Sebestyén, AL., Kiss, A. (2023) BMP-induced non-canonical signaling is upregulated during autophagy-mediated regeneration in inflamed mesothelial cells. **Sci Rep 13(1):** 10426.