INEZ BOSNYÁK

National Academy of Scientist Education, Ph.D. 1st year

University of Pécs
Doctoral School of Theoretical Medicine
Ph.D. 1st year

YEAR OF BIRTH

1999

FORMER SZENT-GYÖRGYI PUPIL

yes

RESEARCH UNIT

University of Pécs

SZENT-GYÖRGYI MENTOR

Dóra Reglődi

JUNIOR MENTOR

Alexandra Atlaszné Váczy

SPECIALIZATION

ophthalmology, neuroendocrinology, neuroscience

SECONDARY SCHOOL

Nagy Lajos Grammar School of the Cistercian Order

NAME OF TEACHER

Éva Mostbacher,
Éva Csikyné Radnai,
Zsolt Nyisztor

LANGUAGES

English/intermadiate
German/intermadiate

IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

The retina has very high oxygen consumption, so lack of oxygen supply can cause visual impairment. Hypoxia plays a key role in the pathogenesis of the most common vision-threatening diseases. Appropriate, side-effect free therapeutic options are not available to treat these conditions.
Hypoxic animal model is created by common carotid artery occlusion. Then we perform optical coherence tomography, electroretinography and molecular measurements.
Our aim is to find the most sensitive cell types and to understand the pathogenesis of ischemic retinopathy in time-dependent manner. Afterwards we would like to investigate the role of endogenous pituitary adenylate cyclase activating polypeptide (PACAP), which is a retinoprotective neuropeptide.
In summary, our aim is to understand the pathogenesis of ischemic retinopathy and to find new potential therapeutic targets.

AMBITIONS AND CAREER GOALS

Our research group aims to understand the pathogenesis of various common retinal diseases and to find new potential therapeutic targets. In addition, we would like to investigate the role and protective effects of PACAP in these diseases. During my university years, I would like to master as many techniques as possible and improve professionally to become the best researcher/physician I can be.

HONORS AND PRIZES

2023 University of Pécs, Student's Research Conference, 1st place, 2nd place and Special Award
2022 I. Romhányi György conference 1st place

PUBLICATIONS

Koppan, M., Nagy, Zs., **Bosnyak, I.**, Reglodi, D. (2022) Female reproductive functions of the neuropeptide PACAP. **Front Endocrinol 13:** 982551.

Kiss, P., Farkas, J., Kovacs, K., Gaal, V., Biro Zs., Szabo, A., Atlasz, T., **Bosnyak I.**, Toth, G., Tamas, A., Reglodi, D. (2022) Effects of pituitary adenylate cyclase activating polypeptide (PACAP) in corneal epithelial regeneration and signal transduction in rats. **Int J Pept Res Ther 28:** 92.

Patko, E., Szabo, E., Toth, D., Tornocky, T., **Bosnyak, I.**, Vaczy, A., Atlasz, T., Reglodi, D. (2022) Distribution of PACAP and PAC1 receptor in the human eye. **J Mol Neurosci 72:** 2176–2187.