BOTOND ROSKA

forrás: Semmelweis Egyetem

Hungarian neurobiologist

University professor, the Director of the Institute of Molecular and Clinical Ophthalmology Basel (IOB) in Basel

CAREER

He was born on 17th December in 1969 in Budapest. His mother was a pianist, his father was the Széchenyi and Bolyai Prize winner academic, Dr. Tamás Roska.

Botond Roska received a summa cum laude Doctor of Medicine degree in 1995 from Semmelweis University. During his university studies, in the framework of Scientific Students' Association, his research was supervised by Veronika Ádám in the Institute of Medical Biochemistry. In parallel with his general medical studies, he also graduated from Eötvös Loránd University in mathematics.

After obtaining the medical degree, he began his doctoral studies in the laboratory of Frank Werblin at the University of California, Berkeley, USA. Here he worked on the electrophysiology of the mammalian retina. He defended his PhD in neurobiology in 2002. He continued his research career in Boston. He returned to Europe in 2005 and founded his first independent working group at the Friedrich Miescher Institute in Basel, and since then he has been the head of the neurobiology research group at the Friedrich Miescher Institute for Medical Research. The goal of his multinational research group was the complex examination of the visual system. In addition to the retina, his work group examines the structure and function of the thalamus and visual cortex, using the entire arsenal of available techniques, and actively participates in creating and developing new methods. These novel genetic experiments to restore vision quickly became the focus of the scientific world's interest.

He is professor at the University of Basel from 2014. At the end of 2018, he founded the Institute of Molecular and Clinical Ophthalmology Basel (IOB). The aim of the new institution is combining laboratory and clinical research and promoting translational human ophthalmology research. In 2022, he was elected an external member of the Hungarian Academy of Sciences.The success of Botond Roska is indicated by numerous prestigious publications, professional awards and honors.

PROFESSIONAL ACHIEVEMENTS

- Fulbright-program (1997)
- W. Alden Spencer Award (2018)
- Louis-Jeantet Prize for Medicine (2019)
- Hungarian Order of Saint Stephen (2019)
- Semmelweis Budapest Award (2019)
- Körber European Science Prize (2020)

Furthermore, he is member or chairman of scientific advisory board of 9 international scientific organizations and 2 biotechnology companies. He holds 38 scientific patents.

Botond Roska ,s research is connected to the research work at Semmelweis University in several fields. Since 2014, the Retina Laboratory at the University's Institute of Anatomy, Histology and Development under the leadership of Dr. Arnold Szabó has a continuous and expanding collaboration with Dr. Botond Roska. The third partner of the collaboration is the Department of Ophthalmology led by Dr. Zsolt Zoltán Nagy. Within the framework of the collaboration they made experiments aimed at the genetic and functional characterization of the human retina and in the laboratory testing of gene therapy procedures. A Neuron publication in 2016 and a Nature Neuroscience publication in 2019 indicate the success of the joint work.