A. HUNGARIAN BIONIC VISION CENTER

Directors: KRISTÓF KARACS PhD, Associate Professor; ÁKOS KUSNYERIK PhD
Advisors: JÁNOS NÉMETH MD, DSC, Professor, ILDIKÓ SÜVEGES MD, DSC, Professor, BOTOND ROSKA PhD, Head of Laboratory, Friedrich Miescher Institute, Basel, ÁKOS ZÁRÁNDY DSC, Professor
Graduate students: MIHÁLY RADVÁNYI, ATTILA STUBENDEK

The goal of the Hungarian Bionic Vision Center is to restore vision of visually impaired patients to the maximum extent and to improve the quality of their lives through using medical and technological aids. We run programs to study promising medical and engineering technologies under active research.

CURRENTLY ACTIVE PROGRAMS

I. Research, development and testing of universal electronic devices for visually impaired people

II. Taking part in international clinical studies for retinal implants and establishing these practices in Hungary (control, preoperative and postoperative follow up)

III. Optogenetic techniques

The main focus of Program I is the development and testing of the bionic eyeglass in cooperation with organizations representing visually impaired people. In the framework of Program II we mostly deal with subretinal implants. Program III concentrates on the very promising research in optogenetics.

The operation of the center is based on the cooperation between the Dept. of Ophthalmology of the Semmelweis University and the Jedlik Laboratories at the Faculty of Information Technology of the Pázmány Péter Catholic University. The center is scientifically supervised by Prof. János Németh, director of the Dept. of Ophthalmology, and Prof. Tamás Roska, founding dean of the Faculty of Information Technology. We put a strong emphasis on partnership with blind organisations. Our most important partner is the IT for visually impaired foundation.

REFERENCES


