

Weekend reading #2

Hungarian expert awarded for therapy that could restore sight to the blind

Teacher: prof. Aleksandra Žerjav

Author: Anton Luka Šijanec, 2. a

September 15, 2020

Abstract

Hungarian researcher Botond Roska is this year's recipient of the million-euro Körber European Science Prize. He received the award for his research into gene therapy to restore vision, which is already at the stage of clinical testing.

This award exists since 1985

Roska, who works in Basel, Switzerland, has developed a gene therapy that reprograms the cells in the eye to perform functions otherwise performed by light-sensitive receptors that are otherwise needed to create an image, the Körber Foundation wrote in a statement. They added that there is hope that this procedure would reactivate the retina of blind people, on which the image as we see it gets formed.

The Hungarian neurobiologist, one of the world's leading experts in the field of vision and retina, explained that the process is at a stage where it provides sight that is similar to watching television in black and white. Clinical trials in blind volunteers are already underway. Roska and her research team are investigating how different cells in the visual system obtain visual information from the environment. Based on molecular mechanisms, new gene therapies for restoring vision are in development. As Hungary Today reports, the scientist did pioneering work in recognizing about 100 different types of cells in the retina and their complex involvement in image creation.

"Roska's research has raised hopes that new treatments could restore sight to the blind," Hamburg Mayor Peter Tschentscher was quoted as saying by Deutsche Welle at Monday's awards ceremony.

The Körber Prize, awarded to scientists who push milestones with their approaches, was first awarded in 1985. In the last ten years, six recipients of the Körber Prize have later received the Nobel Prize. Last year, Bernhard Schölkopf, a German scientist in the field of artificial intelligence, received the award.

Roska, the son of a computer scientist and pianist, is the recipient of numerous awards, including the Hungarian Order of St. Stephen last year, the highest state decoration awarded to him by President Janos Ader.

My opinion

I think that the development of appliances that help people with physical or mental disabilities is a crucial step in providing better live quality for everyone and for socially including disabled people with normal people. Inventions like such are subject to awards for a good reason; it encourages inventors to publicise their finding and contribute to the society in aim to creating a better world.

Glossary

- **gene therapy** — an experimental technique that uses genes to treat or prevent disease.
- **retina** — a blunt-ended surgical instrument used for exploring a wound or part of the body.

Continue reading and sources:

- fleekus <https://ž.ga/sg2ar2r1>
- Hungary Today — <https://ž.ga/sg2ar2r2>
- reddit — /r/Futurology — <https://redd.it/1ooqvkk>
- Körber-Stiftung — <https://ž.ga/sg2ar2r3>
- reddit — /r/UpliftingNews — <https://redd.it/1orxoh>