

GÁBOR JUHÁSZ



Hungarian biologist

Results for the Talentum Prize 2022 nomination: Together with his research group, they have shed light on the autophagy-independent role of several genes required for autophagy self-digestion and renewal in eukaryotic cells.

Title of his presentation: Canonical and non-canonical roles of autophagy genes

Date of his presentation: 7 april 2022. 12:25-12:50

CAREER

Gábor Juhász is the scientific advisor of the Institute of Genetics at the Biological Research Centre of the Hungarian Academy of Sciences in Szeged and a lecturer at the Institute of Biology and the Department of Anatomy, Cell, and Developmental Biology at Eötvös Loránd University.

Gábor Juhász received his PhD degree in Biological Sciences from Eötvös Loránd University in 2004 and has been a Doctor of the Hungarian Academy of Sciences since 2016. His research investigates the role and regulation of autophagic-lysosomal degradation in human cells and *Drosophila* (fruit fly) using genetic, molecular and cell biological methods.

During autophagy, the cell breaks down its own components. This process ensures that no waste accumulates in the cells, even though there is a constant turnover of proteins, cellular particles, and other substances. Under certain conditions (for example, starvation or growth factor deficiency), the cell, unable to take up food, is forced to use up its own stores. In such cases, this degradation process becomes more intense, as the cell can only adapt to the changed conditions by creating new macromolecules and must produce raw materials by recycling the parts of itself that it does not need. The phenomenon also plays an important role in the defence against infections, as cells can selectively autophagy to break down invading bacteria and viruses, reducing the number of pathogens.

PROFESSIONAL ACHIEVEMENTS

- 1998 – Republican scholarship
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- 2007 – János Bolyai Research Fellowship
- 2011 – János Bolyai Research Fellowship
- 2015 – Bolyai Plaque
- 2016 – habilitation, ELTE
- 2016 – Head of the Doctoral Program in Molecular Cell and Neurobiology at ELTE
- 2018 – Editor of *Autophagy*
- 2020 – Editor of *FEBS Open Bio*