

# LÁSZLÓ CSANÁDY



Professor, Head of  
**Semmelweis University, Institute of Biochemistry and Molecular Biology**

**Results for the Talentum Prize 2023 nomination:**

Understanding the molecular background of temperature-sensitive activity of an ion channel which serves as a thermometer in the thermoregulatory center of the brain.

**Title of his presentation:** A supersensitive thermometer in the brain

**Date of presentation:** 28 March 2023, 9:40

## CAREER

After obtaining an MD degree at Semmelweis University in 1995, László Csanády spent five years at Rockefeller University, New York, as a PhD student. Following his graduation he obtained a position in the Department of Medical Biochemistry of Semmelweis University, for which he served as an interim head between 2019-2020, until its institutional merger. Currently he is Head of the Institute of Biochemistry and Molecular Biology.

His research is centered on ion channel structure and function, with a focus on two medically relevant ion channel-enzymes, the CFTR anion channel and the TRPM2 cation channel. CFTR mutations cause cystic fibrosis, whereas its hyperactivity leads to secretory diarrhea. TRPM2 contributes to immune cell activation, insulin secretion, and the maintenance of core body temperature. The research group has contributed to understanding the function of these two ion channels by unraveling several molecular mechanisms and structural details.

## PROFESSIONAL ACHIEVEMENTS

1992-1995	Fellowship of the Hungarian Republic
1999	Gosau Young Investigator Award (FEBS Advanced Lecture Course)
2006	Gedeon Richter Research Career Award
2006-2009	János Bolyai Research Fellowship (Hungarian Academy of Sciences)
2007-2011	Fogarty International Research Collaboration Award Basic Biomedical
2007-2011	Wellcome Trust Project Grant
2007-2010	OTKA-F Research Grant
2008	Tivadar Huzella Award (Semmelweis University)
2010-2012	János Bolyai Research Fellowship (Hungarian Academy of Sciences)
2010-2015	National Institutes of Health Research Grant (R01)
2012-2014	Merit Award (Semmelweis Egyetem)
2012-2017	Howard Hughes Medical Institute International Early Career Scientist Award
2012-2017	Momentum Award (Hungarian Academy of Sciences)
2013	Habilitation (Semmelweis University)
2014	Distinguished Teacher Award (Semmelweis University)
2014-2016	Merit Award (Semmelweis University)
2015-2017	Cystic Fibrosis Foundation Research Grant
2015	Paul Cranefield Award (Society of General Physiologists)
2016	Doctor of the Hungarian Academy of Sciences
2016-2018	Merit Award (Semmelweis University)
2017	Academy Award (Hungarian Academy of Sciences)
2017-2019	Cystic Fibrosis Foundation Research Grant
2017-2022	Momentum Award (Hungarian Academy of Sciences)
2018-2020	Merit Award (Semmelweis University)
2019-2021	Cystic Fibrosis Foundation Research Grant
2019-2024	Hungarian Centre of Excellence for Molecular Medicine Research Group
2021-2023	Cystic Fibrosis Foundation Research Grant
2021	Széchenyi Award (State of Hungary)
2022-2027	Eötvös Loránd Research Network Supported Research Group
2022-2027	NRDIO Forefront Research Excellence Programme