Leopoldina
Nationale Akademie
der Wissenschaften

Curriculum Vitae Professor Dr Tivadar Tulassay

Name: **Tivadar Tulassay**
Born: **18 January 1949**

Research Priorities: Paediatrics, neonatology, nephrology

Tivadar Tulassay is a medical expert. His research focuses on the post-natal adaptation and regulation of water and electrolytes, and on hypertension in children. The gynaecologist and paediatrician also investigates kidney development in premature babies.

Academic and Professional Career

since 2016	Head, Research Laboratory for Paediatrics and Nephrology, Hungarian Academy of Sciences and Semmelweis University, Budapest, Hungary
2003 - 2012	Rector, Semmelweis University, Budapest, Hungary
1999	Founding Member, Research Laboratory for Paediatrics and Nephrology, Hungarian Academy of Sciences and Semmelweis University, Budapest, Hungary
1995 - 2000	Deputy Rector and Clinical Rector, Semmelweis University, Budapest, Hungary
1992	Professor, Department of Paediatrics, Semmelweis University, Budapest, Hungary
1989	Doctorate, Semmelweis University, Budapest, Hungary
1985 - 1986	Guest Fellow, Humboldt-Universität zu Berlin, Berlin, Germany
1985	Postdoctoral Fellow, University of Heidelberg, Heidelberg, Germany
1983	Doctorate, Semmelweis University, Budapest, Hungary
1975	Doctor of Medicine, Semmelweis University, Budapest, Hungary

Functions in Scientific Societies and Committees

since 2011	President, Hungarian Academy of Paediatrics, Hungary
2011 - 2012	Co-President, Hungarian University Rector's Council, Hungary
2009 - 2012	President, Hungarian Society of University Clinical Centers, Hungary
1999 - 2003	Member, Standing Committee of European Medical Research Council, European Science Foundation

Project Coordination, Membership in Collaborative Research Projects (selected)

2018	Member, Project "Cytokine production pattern of T lymphocytes in neonatal arterial ischemic stroke during the first month of life – a case study", Hungarian Scientific Research Fund (OTKA), Hungary
2017	Coordinator, Project "Selective measurement of α smooth muscle actin: why β-actin cannot be used as a housekeeping gene when tissue fibrosis occurs", OTKA, Hungary
2011	Member, Project "Measurement of pulse wave velocity in children and young adults: a comparative study using three different devices", OTKA, Hungary
2010	Member, Project "Decreased number of FoxP3+ regulatory T cells in preeclampsia", OTKA, Hungary
2005	Member, Project "Association of Genetic Polymorphisms of Vascular Endothelial Growth Factor and Risk for Proliferative Retinopathy of Prematurity", OTKA, Hungary

Honours and Awarded Memberships

2021	Schoepf-Merei Medal, Hungarian Paediatric Society, Hungary
2019	Antal Genersich Prize, Dr. Antal Genersich Foundation, Budapest, Hungary
since 2016	Member, Academia Europaea
2013	University Award, University of Debrecen, Debrecen, Hungary
2013	Pázmány Péter Catholic University Award, Pázmány Péter Catholic University, Budapest, Hungary
2012	Member, European Academy of Sciences and Art
2011	Korányi Sándor Prize, Hungarian Society for Nephrology, Hungary
2010	Prima Primissima Award, Prima Primissima Foundation, Budapest, Hungary
2009	Virginia Apgar Award, American Academy of Pediatrics, USA

2008	International Dennis Gabor Award, NOVOFER Foundation for Technical and Intellectual Creation, Hungarian Academy of Sciences, Hungary
since 2007	Member, Hungarian Academy of Sciences, Budapest, Hungary
since 2006	Member, German National Academy of Sciences Leopoldina, Germany
2006	Kerpel Fronius Award, Hungarian Paediatric Society, Hungary
2004	Honorary Member, Slovakian Paediatric Society, Slovakia
2003	Dr. György Szabó Fellowship, George Hemingway Foundation, Semmelweis University, Budapest, Hungary
2002	Commander, L'Ordre de la Couronne, Belgium
since 1994	Corresponding Member, Austrian Society of Paediatrics & Adolescent Medicine, Austria
1985	Research Fellowship, Alexander von Humboldt Foundation, Bonn, Germany

Research Priorities

Tivadar Tulassay is a medical expert. His research focuses on the post-natal adaptation and regulation of water and electrolytes, and on hypertension in children. The gynaecologist and paediatrician also investigates kidney development in premature babies.

Tivadar Tulassay was the first to link the cause of kidney failure in newborns to respiratory failure. In the 1980s he described the regulatory role of the atrial natriuretic peptide (ANP) and the changes in the body's intravascular space related to this, as well as in human ANP activity. In the late 1990s he focused on experiments with human red blood cells and their activity changes in transport proteins such as in the case of insulin-dependent diabetes or mucoviscidosis.

He and his team were able to show that the Na/K/ATPase (sodium-potassium-ATPase enzyme) activity varies according to the maturity of a newborn. This provided an explanation for digoxin sensitivity in premature babies. Digoxin is a substance used to treat heart muscle weakness. It indirectly influences the exchange of sodium and calcium ions, which then increases the heart muscle's contraction strength. In further studies Tulassay showed that premature babies later suffer more often from chronic illnesses as young adults, such as high blood pressure, type 2 diabetes or osteoporosis.

In his current research he is investigating the negative effects of excessive salt consumption on children's immune and cardiovascular systems, as the excess salt is stored in the body.

With his pioneering work in paediatrics, Tivadar Tulassay has developed numerous treatment options for hormonal and genetic dispositions, cardiovascular illnesses in premature babies with low birth weights, prenatal diabetes and fibrosis.