



Curriculum Vitae

Tadeusz Wieloch, Professor, PhD

The Laboratory for Experimental Brain Research
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Appointments

Professor of Neurobiology, Department of Clinical Sciences, Faculty of Medicine, Lund University, Sweden	1993 - present
Head of The Laboratory for Experimental Brain Research, Department of Clinical Sciences, Lund University, Sweden	1996 - present
Associate Professor, Laboratory for Experimental Brain Research, Faculty of Medicine, Lund University, Sweden	1985 - 1993
Assistant Professor, Laboratory for Experimental Brain Research, Faculty of Medicine, Lund University, Sweden	1981 - 1985
Doctoral Student, Faculty of Medicine, Lund University, Sweden	1975 - 1981
Instructor in Physiological Chemistry, Department of Physiological Chemistry, Lund University, Sweden	1975 - 1980
Instructor in Physical Chemistry, Department of Physical Chemistry, Lund University, Sweden	1974 - 1979

Professional Memberships and Activities

Member of the Board of LUIS AB, Lund University Innovation System, Sweden	2009 - present
Chairman, Scientific Council of the Swedish Brain Fund	2009 - present
Corresponding member of the Polish Academy of Science	2008 – present
PI and WP leader of EU consortium ARISE	2007 - present
Head of the in vivo laboratory, Lund University Hospital animal facility, Sweden	2003 – 2011, 1996 - 2000
Chairman of The Clinical Experimental Research Center, Lund University, Sweden	1995 – 2002
Coordinator of BIOMED 2 project “Mechanisms of Ischemic Brain Injury”, BMH4 – CT96 – 0851,	1996 - 1997

European Commission	
Member of the expert review panel, European Commission	1996 - 1997
Visiting Professor, Department of Neurosciences, University of California, San Diego School of Medicine, La Jolla, USA	1987- 1988

Member of Editorial Board:

Journal of the Cerebral Blood Flow Metabolism, Journal of
Molecular Neurobiology

Educational Activities

Supervisor of 23 doctoral students:
Tutor and lecturer of Medical Students

Current Grants

Swedish Research Council – strategic network research grant, “Multipark”	7.5 MSEK/y	2010 - 2015
EU FP7 (the stroke grant awarded in the FP7 call), “Mechanisms of Brain Damage after Stroke”	1.2 MSEK/y	2008 - 2013
Swedish Research Council, ” Studies on Mechanisms Enhancing Functional Recovery after Experimental Stroke”	1.55 MSEK/y	2009 -2011
ALF, ”Translational Stroke Research”	2.4 MSEK/y	2008 – 2011

Published patents

Novel Polypeptides and Uses Thereof	2010
Sigma Ligands for Neuronal Regeneration and Functional Recovery	2007
Cerebral Temperature Control	2006
Animal Model Exhibiting Pathological Conditions of Alzheimer's Disease	2004
Regulated Gene In The Pathophysiology Of Ischemic Stroke	2003
Methods of Diagnosing, Preventing and Treating Neurological Disorders and Neuronal Injuries	2002

Scientific activity and productivity

More than 170 publications related to stroke, published in peer-reviewed journals.

Since 1981, the focus of the research has been on the mechanisms of ischemic brain damage, with particular emphasis on functional recovery of the brain after stroke in experimental rodent models. Of particular interest is the development of new stroke therapies based on the innovative research. During recent years the research has been focused on dynamic events ongoing in the damaged brain tissue and brain plasticity using magnetic resonance and optogenetic technologies and live imaging with 2-photon laser scanning microscopy.

Companies

Co-founder of two innovation companies (Quickcool AB and Auril AB)

10 selected peer-reviewed publications:

1. T. Wieloch. (1985) Hypoglycemia-induced neuronal damage is prevented by a N-methyl-D-aspartate receptor antagonist. *Science* 230:681-683.
2. Sakai, T., Johnson, K. J., Murozono, M., Sakai, K., Magnuson, M. A., Wieloch, T., Cronberg, T., Isshiki, A., Erickson, H. P. and Fassler, R., (2001) Plasma fibronectin supports neuronal survival and reduces brain injury following transient focal cerebral ischemia but is not essential for skin-wound healing and hemostasis, *Nat Med* 7:324-330..
3. Mattiasson G, Shamloo M, Gido G, Mirella Gonzalez-Zulueta, Craig H. Warden, Thorsten Melcher Nikolich K, Wieloch T (2003) Uncoupling protein-2 prevents neuronal apoptosis and diminishes brain damage and neuronal dysfunction following stroke and trauma. *Nature Medicine* 9:1062-1068.
4. Gisselsson L, Matus A, Wieloch T (2005) Actin redistribution underlies the sparing effect of mild hypothermia on dendritic spine morphology following in vitro ischemia. *J Cerebr Blood Flow Metabol.* 25:1346-1355.
5. Rytter A, Cardoso C, Johansson P, Cronberg T, Hanson MJ, Mattiasson G, Elmer E, Wieloch T (2005) The temperature dependence and involvement of mitochondria permeability transition and caspase activation in damage to organotypic hippocampal slices following in vitro ischemia. *J Neurochem*, 95:1108-11817.
6. Ruscher K, Johannesson E, Brugiere E, Erickson A, Rickhag M, Wieloch T. (2009) Enriched environment reduces apolipoprotein E (ApoE) in reactive astrocytes and attenuates inflammation of the peri-infarct tissue after experimental stroke. *J Cerebr Blood Flow Metab.* 29:1796-805.
7. Gomes J, Lobo A, Melo C, Inacio A, Wieloch T, Takano J, Iwata N, Saido T, Pereira de Almeida L, and Duarte C, (2011) Cleavage of the vesicular GABA transporter under excitotoxic conditions is followed by accumulation of a truncated VGAT in non-synaptic sites. *J Neurosci.* 31:4622-35.
8. Ruscher K, Shamloo M, Rickhag M, Ladunga S, Soriano L, Lenart Gisselsson L, Toresson H, Ruslim-Litrus L, Oksenberg D, Urfer R, B Johansson B, Nikolich K, Wieloch T (2011) The sigma-1 receptor enhances brain plasticity and functional recovery after experimental stroke. *Brain.* 134(Pt 3):732-46
9. Kucharz K, Wieloch T, and Toresson H. (2011) Reversible ER fission in hippocampal pyramidal neurons in organotypic hippocampal slices is dependent on extracellular Ca²⁺ and NMDA receptor activation. *J Neurosci Res.* 89:1150-1159.
10. Kucharz K, Wieloch T, and Toresson H. (2011) Rapid Endoplasmic Reticulum fragmentation in cortical neurons of the mouse brain following cardiac arrest. An in vivo study. *J Cerebr Blood Flow Metabol.* 31:1663-7.