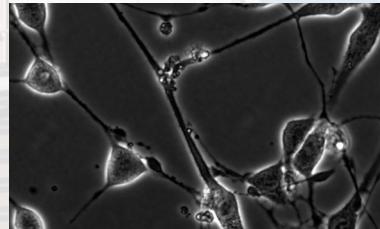


LABORATORY OF NEURODEGENERATIVE DISORDERS



ABOUT US

Laboratory of neurodegenerative disorders is focused on investigation of cerebellar degenerations. Functional impacts of cerebellar damage on motor function as well as cognitive and emotional processes are studied in several mouse models of hereditary cerebellar degeneration. The next research area is investigation of experimental neurotransplantation and regenerative therapy of neurodegenerative diseases. This research includes »in vitro« and »in vivo« studies of the effect of trophic and morphogenetic factors on proliferation and development of neural stem cells.

MEMBERS

- Jan Cendelin, M.D., Ph.D. – Research Group Leader
- Jan Tůma, MSc.
- Pavel Ostašov, Ph.D., MSc.
- Yaroslav Kolinko, Ph.D., MSc.
- Assoc. Prof. František Vožeh, M.D., Ph.D.

WE OFFER

- Tests of effects of chemical substances including pharmaceuticals on neural function.
- Design of the experimental protocol.
- Motor and behavioural tests in laboratory mice.
- Analysis and statistical processing of the data.
- Application of stem cells and chemical substances directly into mouse brain.

SELECTED PUBLICATIONS

- Babuska V, Houdek Z, Tuma J, Purkartova Z, Tumova J, Kralickova M, Vozeh F, Cendelin J.: Transplantation of Embryonic Cerebellar Grafts Improves Gait Parameters in Ataxic Lurcher Mice. *Cerebellum*: in press.
- Kolinko Y., Krakorova K., Cendelin J., Tonar Z., Kralickova M.: Microcirculation of the brain: morphological assessment in degenerative diseases and restoration processes. *Rev Neurosci* 26:75-93, 2015.
- Cendelin J., Tuma J., Korelusova I., Vozeh F.: The effect of genetic background on behavioral manifestation of Grid2Lc mutation. *Behav Brain Res* 271:218-227 2014.
- Cendelin J.: From mice to men: lessons from mutant ataxic mice. *Cerebellum & Ataxias* 1:4, 2014.
- Purkartova Z., Tuma J., Pesta M., Kulda V., Hajkova L., Sebesta O., Vozeh F., Cendelin J.: Morphological analysis of embryonic cerebellar grafts in SCA2 mice. *Neurosci Lett* 558:154-158, 2014.
- Cedikova M, Houdek Z, Babuska V, Kulda V, Vozeh F, Zech N., et al. Fate of two types of cerebellar graft in wild type and cerebellar mutant mice. *J Appl Biomed* 12:17-23, 2014.

COST ACTION MEMBERSHIP

- BM0901 – European systems genetics network for the study of complex genetic human diseases using mouse genetic reference populations (SYSGENET)
- BM1001 – Brain Extracellular Matrix in Health and Disease (ECMNet)

