Keynote Speakers

Jonas Frisén

Jonas Frisén, (MD, PhD) is Professor of Stem Cell Research at Department of Cell and Molecular Biology, Karolinska Institutet.

After receiving his doctoral degree in neuroscience at Karolinska institutet he was a postdoctoral fellow at the Department of Molecular Biology, BMS, Princeton, USA. He is since 2001 The Tobias Foundation Professor of Stem Cell Research at the Karolinska Institute and is member of The Noble Assembly. He has received the Eric K. Fernström Foundation Nordic Prize and the International Research Foundation for Research in Paraplegia Prize. Professor Frisén is internationally renowned for his work on stem cells in tissue homeostasis and regenerative medicine in particular related to spinal cord injury. He has observed how stem cells in the normal adult mammalian spinal cord is inactive while after a spinal cord injury adult stem cells are activated to give rise to certain cellular lineages. He has developed a unique method to study cell turnover by analysing the integration of 14C derived from nuclear bomb tests in DNA, and use this to assess cell renewal.

Since many disorders and lesions, including spinal cord injury, are characterized by cell loss, it is of crucial interest to develop strategies to stimulate cell renewal. To be able to do this we must understand how stem cells work and how cell renewal in the central nervous system is regulated.

Homepage: frisenlab.org

Keynote Abstracts

Scar formation in the injured spinal cord: mechanisms and opportunities

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Summary of Jonas Friséns talk:
Scar formation in the injured spinal cord: mechanisms and opportunities

The scar tissue that forms at spinal cord injuries are made up of reactive astrocytes as well as a fibrotic core made by fibroblasts and extracellular matrix. Work in experimental spinal cord injury models in mice will be presented that reveal the origin and function of these different scar components. Manipulation of these scar formation processes can promote axonal regrowth and functional recovery in experimental animals.