

IRP Research Grants

List of research projects funded 2022-24

IRP RESEARCH GRANTS – Basic

- Karova Kristyna, Institute of Experimental Medicine (IEM), Czechia Hyperactive PI3 Kinase and activated integrin for corticospinal regeneration Trying to combine the molecule P13K treatment with another treatment that has been extremely successful at promoting sensory regeneration. A project with thigh translational potential. CHF 150`000.- from 2022-24
- Prsa Mario, University of Fribourg, Switzerland Neural circuits of conscious proprioceptive sensation The project aims to understand the role of proprioception in the control of movement in the Spinal Cord and to work out how to replace normal proprioception with direct brain stimulation after Spinal Cord injury.
 CHF 149`000.- from 2022-24
- Takeoka Aya, NeuroElectronics Research Flanders (NERF), Belgium Learning to walk without the brain: age of injury-dependent transcriptomics profiling to motor recovery The project is based on the ability of newborn rodents to recover from partial Spinal Cord injury, while adults recover poorly. The project will use a very new and powerful method. The data will be very useful for projects in many laboratories. CHF 150`000.- from 2022-24

IRP RESEARCH GRANTS – Clinical

- Seif Maryam, Balgrist University Hospital, Switzerland *Revealing Spinal Cord Injury fingerprint on the Spinal Cord* The project follows on from a landmark study in 2011. The study has been important for understanding post-injury changes and for clinical outcome prediction and management. The new 7S scanner can give near-cellular resolution. CHF 140`000.- from 2022-24
- 5 **Zipser Carl,** Balgrist University Hospital, Switzerland Cerebrospinal fluid pressure monitoring as a biomarker of Spinal Cord decompression in Spinal Cord Injury. A prerequisite in clinical trials and practice

The idea is to use Cerebrospinal fluid pressure monitoring spinal decompression. During surgery, as the spinal canal is opened up, pulsatile pressure changes can be recorded again below the surgery site. It can therefore be used to show that the spinal canal is fully opened. **CHF 144`000.-** from 2022-24

Post-doc fellowship

6 Rosner Jan, Balgrist University Hospital/Aarhus University, Switzerland/Denmark Novel Biomarkers and Peripheral Therapeutic Targets for Neuropathic Pain after Spinal Cord Injury

The laboratory in the Aarhus University, Denmark, is a world-leading centre for chronic pain research. The general view of chronic neurological pain after spinal cord injury (SCI) is that it is generated by maladaptive plasticity in the spinal cord. This laboratory revealed that chronical pain after stroke and other conditions has a major component coming from overactivity in the peripheral nerves. The plan is to see whether a similar mechanism could be at work after SCI.

CHF 80`000.- from 2022-23