The project focuses on the development of novel strategies for the treatment of stroke and spinal cord injuries using stem cells in combination with innovative biomaterials and advanced imaging technologies that can effectively monitor the effects of treatment. The main tasks are to optimize biomaterials for their use as carriers of cells into lesions after stroke or spinal cord injury and to evaluate the regenerative effects of enhanced rehabilitation using behavioral tests on the laboratory animals which underwent treatment. It also evaluates possibilities of utilizing advanced techniques such as MRI and ultrasound in the diagnosis of damaged nerve tissue.

The project’s promoter is the IEM the Czech Republic’s leading institution specialized in biomedicine, particularly in fields of neurobiology, neurophysiology, stem cell and nervous system regeneration. As part of its mission, the IEM bridges the space between basic research and the clinical application of research results.

Project partner:

NTNU
Norwegian University of Science and Technology

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