GOTTARG
Glutamate Oxaloacetate Transaminase Nanoparticles targeted to the Brain for Neuroprotection in Ischemic Stroke

Coordinator:
Marc A Gauthier, Institut National de la Recherche Scientifique (INRS), Varennes, Canada

Contact:
gauthier@emt.inrs.ca

Partners:
- Maria Pérez-Mato, Instituto de Investigación Sanitaria de Santiago de Compostela (FIDIS), Clinical University Hospital (CHUS), SERGAS, Santiago de Compostela, Spain
- Devrim Gozuacik, Sabanci University Nanotechnology Research and Application Center (SUNUM), Sabanci University, Istanbul, Turkey
- Espen Mariussen, Norwegian Institute for Air research, Kjeller, Norway

The aim of this project is to develop and test the first targeted and long-acting nanomedicine with neuroprotective properties for ischemic stroke, that will also have potential application in other neurological diseases related with glutamate excitotoxicity. Our first aim is to demonstrate that the targeted delivery of a long-acting glutamate oxaloacetate transaminase (GOT) nanoparticle to- or near to- the brain enhances the neuroprotection in a model of ischemic stroke. Our second aim is to investigate the mechanism of neuroprotection to conclude pre-clinical studies and place the research project team in a position to embark upon clinical testing.