Executive Summary
Researchers at UHN’s Toronto Western Hospital have discovered a new way to repair injury to the central nervous system through axon regeneration and alteration of the blood brain barrier: Repulsive Guidance Molecules (RGMs). They have also elucidated their mechanism of action. Through use of a recombinant protein which ameliorates the function of RGMs and prevents neuronal injury, this discovery has the potential to become a therapeutic treatment for multiple indications.

Team
This experienced team of discovery biologists is led by Dr. Philippe Monnier. Dr. Monnier has a track record of starting new ventures based on early stage discovery. He also has an impressive list of peer-reviewed publications.

Target Market
Primary: Orphan diseases
Secondary: Neurodegenerative diseases: age-related macular degeneration multiple sclerosis, traumatic brain injury, spinal cord injury
This is a platform technology which can be utilized for any of the above-mentioned indications. Orphan diseases such as retinitis pigmentosa would be an attractive market entry.

Clinical Need
There is a strong unmet clinical need for treatments that both promote neuronal cell survival and axon growth/regeneration.

Product
Biopharmaceutical products to alter the function of RGMc and RGMa, or to disrupt RGMa/Neogenin interactions.

Competition
There is currently only one product in clinical (Phase 1) trial for spinal cord injury and multiple sclerosis: Abbvie’s elezanumab (mAb RGM domain family member A inhibitor).

Intellectual Property
Agents directed against a cis RGMα/neogenin interaction of lipid rafts and use of the same in methods of treatment filed on 14/08/2014, pending in Australia, Canada, China, Europe, Japan, Mexico, South Korea and USA;
RGMC and interaction with RGMA in modulating blood brain barrier integrity and in re-myelination (RGMa-RGMC BBB) filled on 23/03/2018, pending in Canada, Europe and USA.