Case Western Reserve Universit(y and NervGen Pharma Corp., based in Vancouver, have entered into an exclusive licensing agreement to research, develop and commercialize a patented technology with potential to bring new therapies for spinal-cord injury and other conditions associated with nerve damage.

The technology was developed in the laboratory of Jerry Silver, a leading spinal-cord injury and regenerative medicine researcher at Case Western Reserve. Silver’s research has implicated protein tyrosine phosphatase sigma (PTPs) as a key neural receptor which inhibits nerve regeneration through regions of scarring in spinal-cord injury and other medical conditions.

Targeted treatment against PTPs with an agent known as ISP promoted regeneration of damaged nerves and functional improvement in animal models for various medical conditions. A series of receptor antagonists that can be delivered systemically have been identified, including an analogue of ISP that is ready for clinical development.

NervGen plans to advance this ISP analogue into the clinic to treat spinal-cord injury while leveraging the technology to identify additional therapeutic candidates for other related medical conditions, such as stroke, multiple sclerosis, peripheral nerve injury and heart attack.

“We are extremely excited to be advancing this important nerve regeneration technology, as there is currently no approved therapy known to enhance nerve regrowth in patients suffering from nerve damage,” said Ernest Wong, NervGen’s chief executive officer. “The functional recovery observed in animal models is unprecedented and consistent across multiple preclinical models in several independent university laboratories.”

“We are very excited to work with NervGen to drive our PTPs program toward clinical testing, as it holds the possibility of improving the lives of millions of spinal-cord injury patients,” said Silver, co-inventor and professor of neurosciences at Case Western Reserve’s School of Medicine.
As NervGen advances its lead candidate through clinical development, it will continue to collaborate with Silver and his co-inventor, Brad Lang, an executive-in-residence at BioEnterprise in Cleveland, as advisors to advance the technology and science.

Translational research support for this project came from Case Western Reserve’s Council to Advance Human Health, the Ohio Third Frontier Technology Validation and Start-up Fund, and the Case-Coulter Translational Research Partnership. In addition, the National Institutes of Health’s Center for Accelerated Innovations at Cleveland Clinic provided support for related work directed toward cardiac applications.

The license agreement also includes technologies co-developed with Oregon Health & Science University, Ohio State University and Hong Kong University.

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