

An abstract graphic of a human brain in profile, facing right. The brain is composed of various shades of green and white, with a low-poly, geometric structure. It is surrounded by numerous small, dark green dots and larger, lighter green circles, creating a sense of neural activity or data points. The background is a light cream color with a subtle pattern of small green dots.

Enabling the Nervous System to Repair Itself

CORPORATE PRESENTATION

November 15, 2022

Financial Disclosure Statement

Not an offer or solicitation: This document is provided for general information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any security in any jurisdiction. The contents of this document have not been approved or disapproved by any securities commission or regulatory authority in Canada, the U.S. or any other jurisdiction. It is neither sufficient for, nor intended to be used in connection with, any decision relating to the purchase or sale of any existing or future securities. Investors considering the purchase or sale of any securities should consult with independent professional advisors.

Forward-looking statements: Certain statements in this document about the Company's current and future plans, expectations and intentions, results, levels of activity, performance, goals or achievements, or any other future events or developments constitute forward-looking statements, including, without limitation, statements regarding the advancement of NVG-291 in clinical development, the timing of human trials and regulatory approval, the potential efficacy of the Company's products and technology, and the potential to identify, evaluate and develop other drug candidates. The words "may", "will", "would", "should", "could", "expect", "plan", "intend", "trend", "indication", "anticipate", "believe", "estimate", "predict", "likely" or "potential", or the negative or other variations of these words or other comparable words or phrases, are intended to identify forward-looking statements. Forward-looking statements are based on estimates and assumptions made by the Company in light of management's experience and perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate and reasonable in the circumstances. Many factors could cause the Company's actual results, level of activity, performance or achievements or future events or developments to differ materially from those expressed or implied by the forward-looking statements, including those described in the "Risk Factors" section of the Company's Annual Information Form, Short Form Base Shelf Prospectus, financial statements and Management Discussion and Analysis which can be found on SEDAR.com. All clinical development plans are subject to additional funding. Readers should not place undue reliance on forward-looking statements made in this document. Furthermore, unless otherwise stated, the forward-looking statements contained in this document are made as of the date of this document, and the Company has no intention and undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. The forward-looking statements contained in this document are expressly qualified by this cautionary statement.

NervGen's Clinical Trials are Led by Experienced Drug Developers



Bill Radvak
Executive Chairman
& Interim CEO

- Co-founder of NervGen
- Previously CEO and Director of multiple start-up companies
- Founder and CEO of Response Biomedical, a publicly listed medical device company, which he led from its inception to a 90-employee sales and manufacturing company



Adam Rogers, MD
Interim President
& Board Member




- Principal of Boston based PFP Biosciences Holdings and a board-certified ophthalmologist
- Co-founded Hemera Biosciences in 2010, a clinical stage gene therapy biotech company and assumed the role of CEO in 2017
- Oversaw all aspects of the company until the Hemera assets were acquired in December 2020 by Janssen Pharmaceuticals, a subsidiary of Johnson & Johnson



Dan Mikol, MD, PhD
Chief Medical Officer

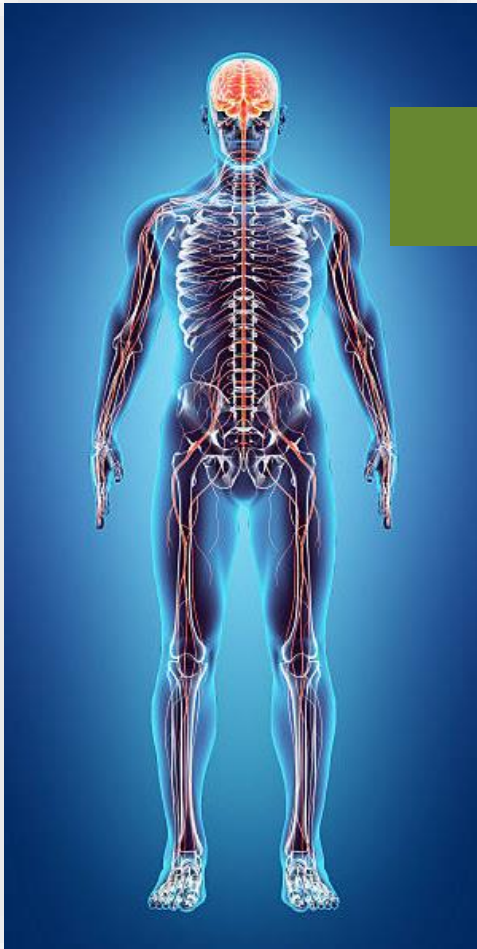
- 25+ years pharma experience and as practicing neurologist conducting clinical research
- Joined NervGen from Amgen where he was Executive Director and Global Therapeutic Development Head, Neurology and Nephrology
- Participated in development and/or commercialization of natalizumab (Tysabri), fingolomod (Gilenya), cladribine (Mavenclad), interferon- β -1a and erenumab (Aimovig)

NVG-291: A Pipeline in a Product

INDICATION	STAGE OF DEVELOPMENT		ESTIMATED COST	MARKET OPPORTUNITY
	Phase 1	Next clinical trial		
Spinal Cord Injury		1b/2a	\$10 M	<ul style="list-style-type: none"> ~18,000 new patients per year in the US ~300,000 chronic patients Lifetime costs range from \$1 to >\$5 million
Alzheimer's Disease		1b/2a	\$20 M	<ul style="list-style-type: none"> ~6,000,000 patients in the US US market potential of over \$300 billion Substantial pharma deal dynamics
Multiple Sclerosis		2	\$20 M	<ul style="list-style-type: none"> ~900,000 patients in the US US market potential of over \$30 billion Currently there are multiple blockbusters

Proof of concept readouts for all three indications expected in 18-24 months from trial initiation

Revolutionizing the Treatment of Nervous System Damage

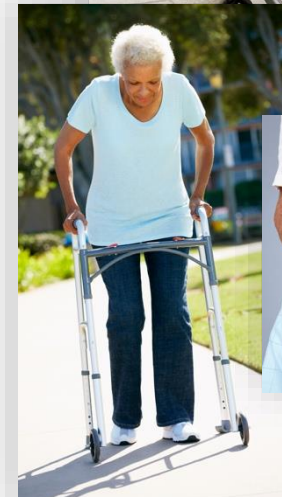


Everyone **KNOWS...**

The nervous system is a **complex system** that controls thought, movement, senses, etc.

Everyone **BELIEVES...**

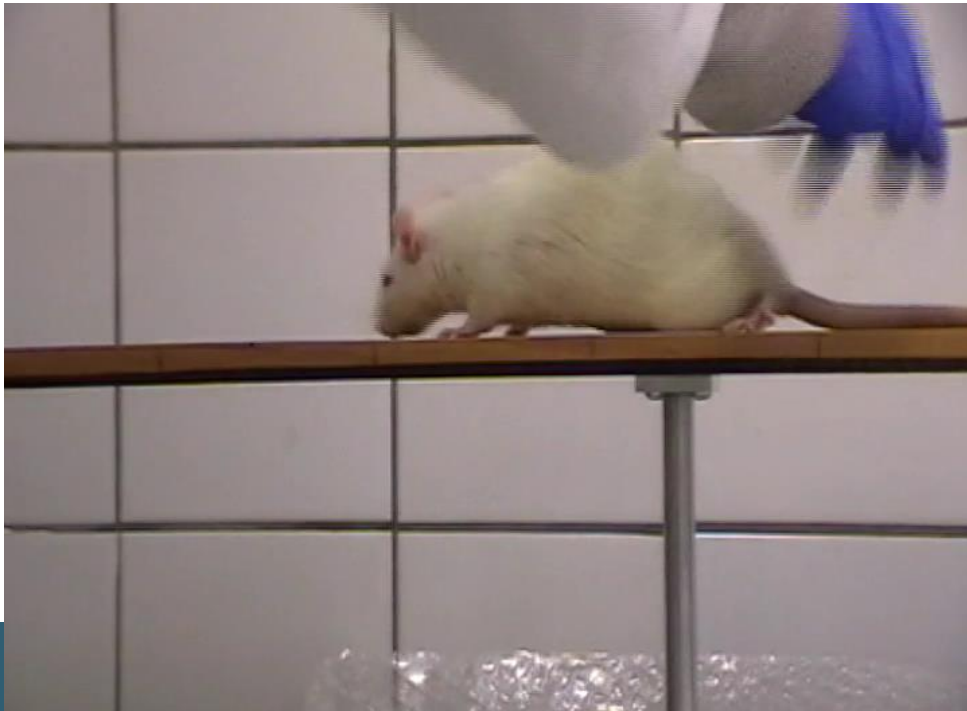
The nervous system **cannot** repair itself



NVG-291 – First-in-Class *Neuroreparative* Drug

Representative of Placebo Group

(Back Legs and Tail Dragging)



Representative of NVG-291 Group

(Back Legs and Tail Active)



Remarkable and robust repair across multiple models

NervGen's Technology Was Invented by Dr. Jerry Silver

Known in the Spinal Cord Injury Field as the "Oracle"



Jerry Silver, PhD

Professor and Researcher,



Adjunct Professor,



Dr. Silver's Spinal Cord Research

- Discovered why the nervous system does not repair itself
- Identified the surprising molecules responsible

Dr. Silver Has Received Numerous Prestigious Awards Including

- Ameritec Prize
- Christopher Reeve-Joan Irvine Research Medal
- Jacob Javits Neuroscience Investigator Award

Dr. Silver's research revolutionized
the understanding of the nervous system

STRONG IP PORTFOLIO

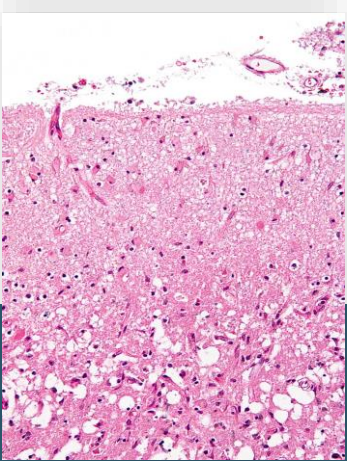
NervGen licensed
the technology from
Case Western and
**owns global rights for
all indications**

Intellectual property
protection on NVG-291
until 2037

The Evolution of Our Proprietary Science

Pre 1990

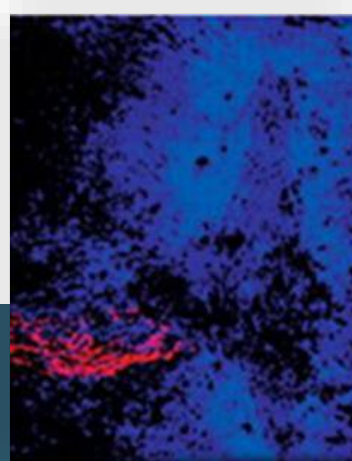
It was demonstrated that **glial scars** form at the site of injury to the nervous system and that scars in the brain cause neurons to be dysfunctional. Scars were later identified as the primary impediment of recovery



Micrograph of a glial scar

1990s

Dr. Silver identified a class of molecules called **CSPGs**, present in scars in the brain and spinal cord, that stop the body's natural repair mechanisms



Spinal cord nerve (red) trapped in the scar by CSPGs (blue)¹

2009

Dr. Silver and collaborators from Harvard co-discovered that CSPGs bind with a receptor (**PTP σ**) present in the brain and spinal cord and that this interaction stops cells from repairing damage



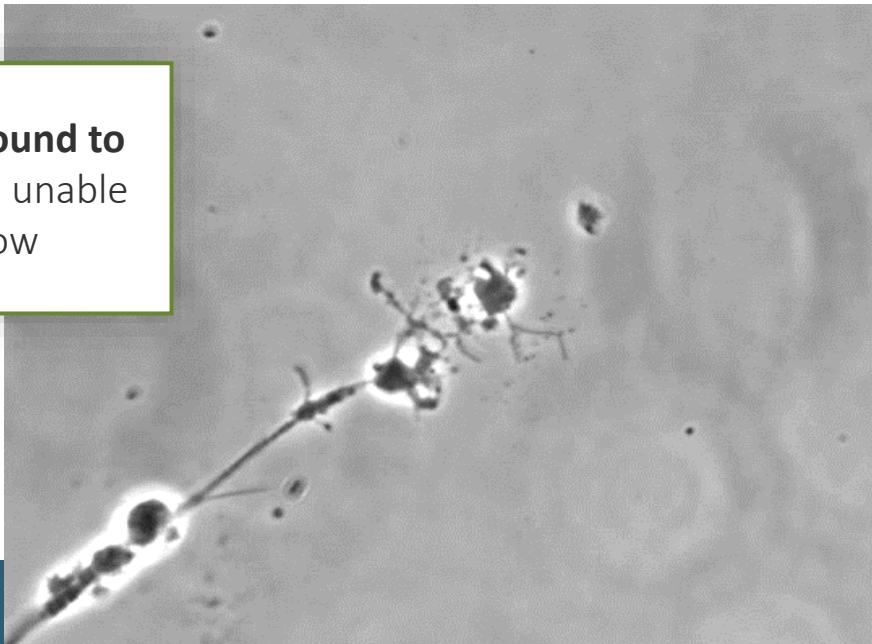
2015

Dr. Silver's team then identified **NVG-291**, a drug that targets the interaction between CSPGs and PTP σ and allows the nervous system to repair damage

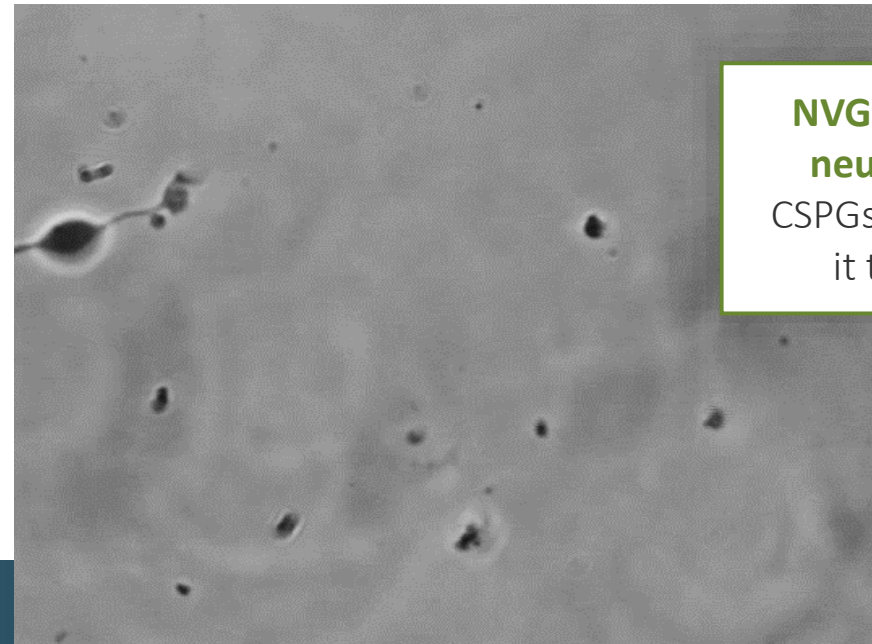


NVG-291 Allows Neurons to Grow in the Scar

Neuron bound to CSPGs and unable to grow



NVG-291 frees neuron from CSPGs and allows it to grow

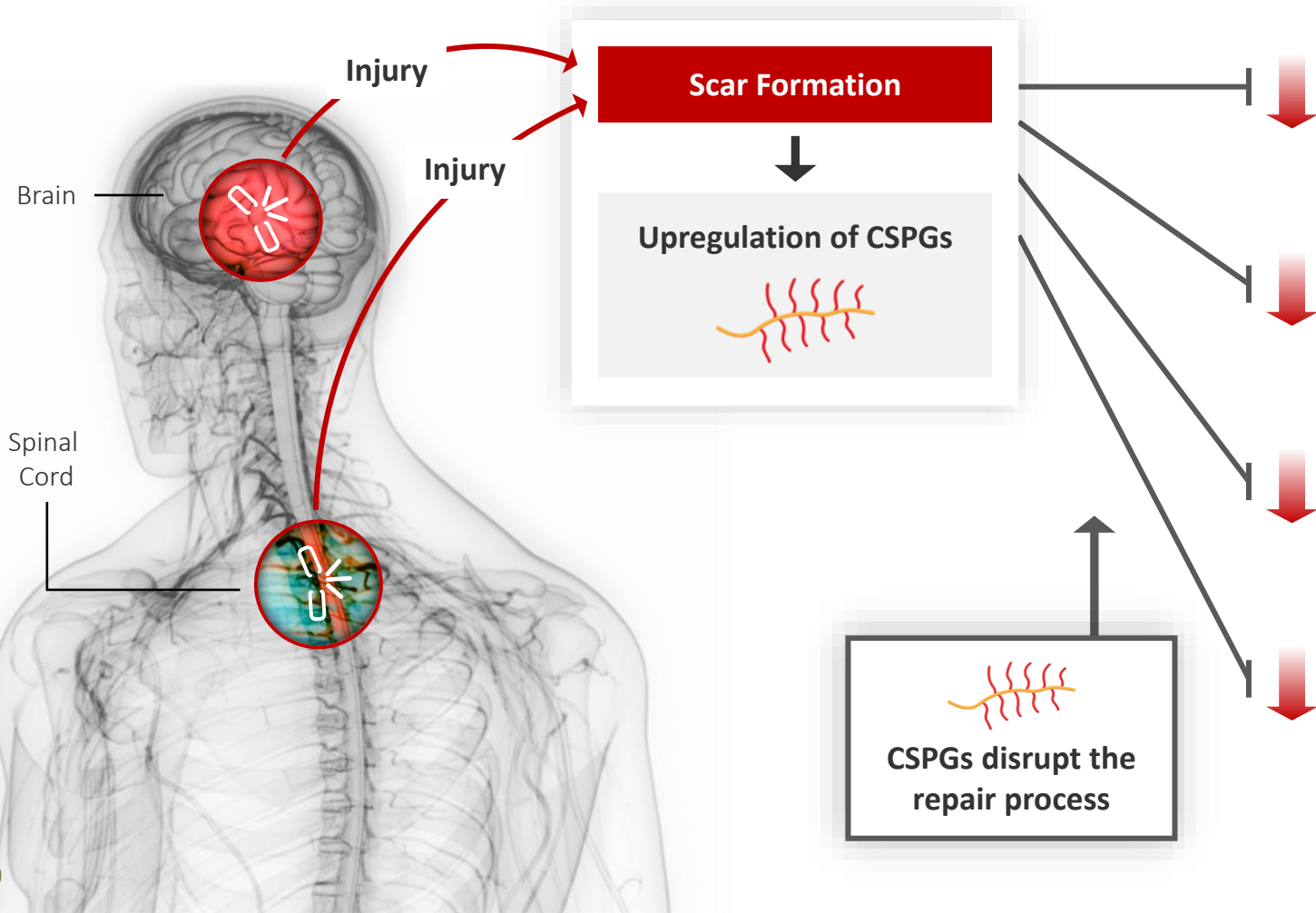


NVG-291, a 35 amino acid peptide, produced dramatic recovery in a spinal cord injury animal study:
the results published in Nature¹ are now cited in over 327 publications

Administered systemically by a
daily subcutaneous injection

Includes a transporter that
facilitates crossing the blood brain barrier

The Body's Powerful Innate Repair Mechanisms *Disrupted by CSPGs*



Repair Mechanisms:



Plasticity

The creation of new neuronal connections and rewiring of existing ones



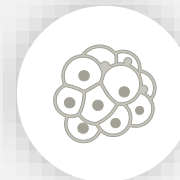
Axonal Regeneration

The ability of a severed axon to reestablish connectivity with other neurons



Remyelination

The process of repairing damaged myelin – the fatty substance that protects axons and enables fast electrochemical transmission

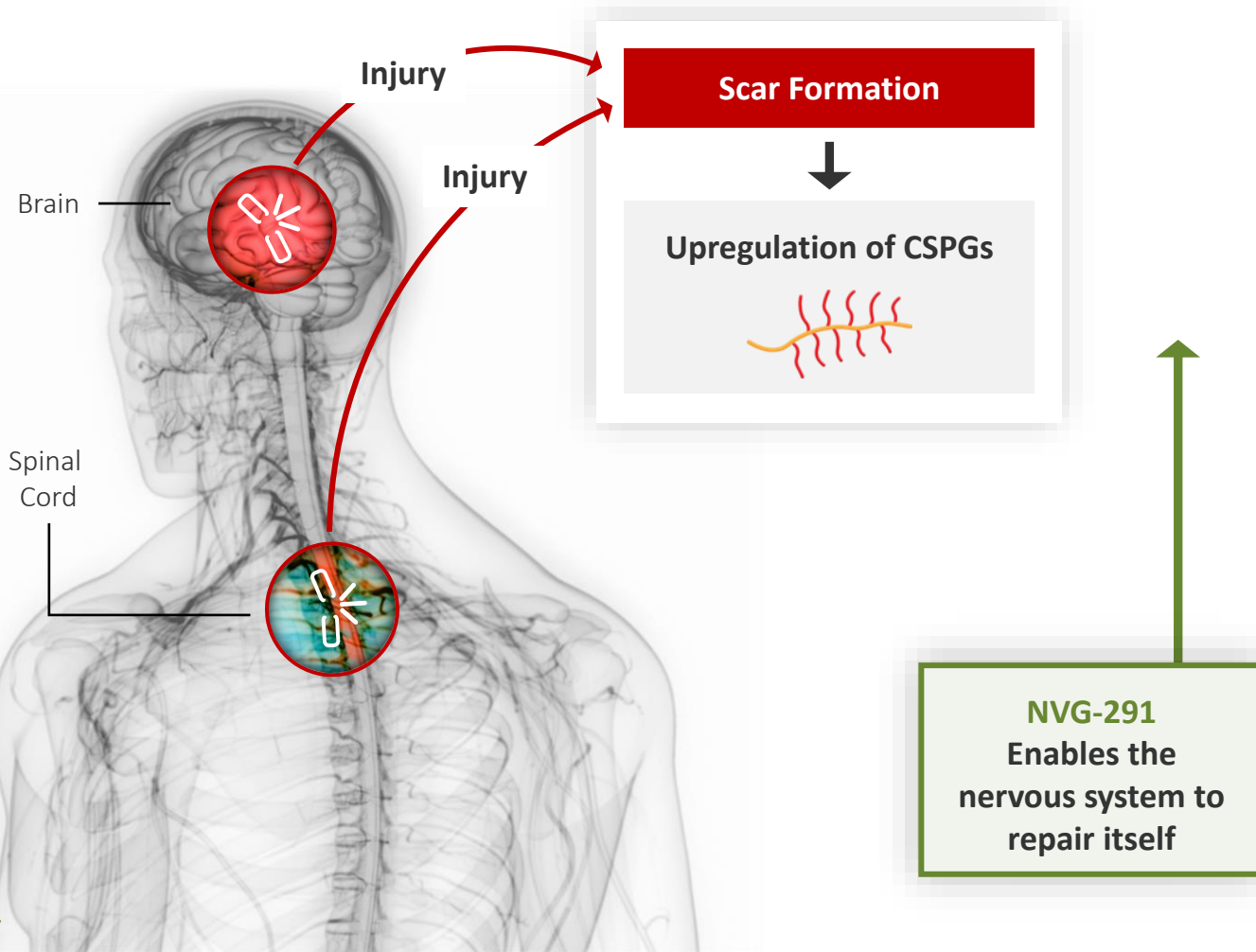


Others

Stem cell preservation/migration
Autophagy
Microglial shifting

NVG-291

Takes the Brakes off Natural Repair Mechanisms



Repair Mechanisms:



Plasticity

The creation of new neuronal connections and rewiring of existing ones



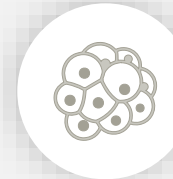
Axonal Regeneration

The ability of a severed axon to reestablish connectivity with other neurons



Remyelination

The process of repairing damaged myelin – the fatty substance that protects axons and enables fast electrochemical transmission









Others

Stem cell preservation/migration
Autophagy
Microglial shifting

NVG-291 Broadly Restores Function

NVG-291 Has Demonstrated Dramatic Repair

in multiple animal models of neurological injury/disease, as documented in 15+ peer-reviewed papers

ACUTE SPINAL CORD INJURY	CHRONIC SPINAL CORD INJURY	PERIPHERAL NERVE INJURY	MULTIPLE SCLEROSIS	OPTIC NEURITIS	STROKE
					
<ul style="list-style-type: none">• Motor• Sensory• Bladder	<ul style="list-style-type: none">• Motor	<ul style="list-style-type: none">• Motor• Sensory	<ul style="list-style-type: none">• Motor	<ul style="list-style-type: none">• Visual	<ul style="list-style-type: none">• Motor• Sensory• Cognition (object recognition)
<ol style="list-style-type: none">1. Lang, B.T. et al., Nature, 518, 404–408. (2015).2. Rink, S. et al., Experimental Neurology, 309, 148–159. (2018).3. Ham, T.R. et al., Ann Biomed Eng, 47, 744–753. (2019).4. Ham, T.R. et al., Materials Science and Engineering: C, 110, 110656. (2020).	<ol style="list-style-type: none">1. Milton et al., bioRxiv, doi:10.1101/2022.08.01.502398	<ol style="list-style-type: none">1. Li, H. et al., Scientific Reports, 5, 1–14. (2015).2. Yao, M. et al., Neuropharmacology, 144, 208–218. (2019).	<ol style="list-style-type: none">1. Luo, F. et al., Nature Communications, 9, 1–16. (2018).	<ol style="list-style-type: none">1. Niknam, P. et al., Molecular and Cellular Neuroscience, 99, 103391. (2019).	<ol style="list-style-type: none">1. Luo et al., Cell Reports Volume 40, Issue 4, 111137, 20222. Yao et al., Journal of Neuroinflammation 19:207, 2022

NVG-291: Potential to Treat All Types of Nervous System Damage

TRAUMA

Acute Spinal Cord Injury

Chronic Spinal Cord Injury

Traumatic Brain Injury

NVG-291

DISEASE

Multiple Sclerosis

Alzheimer's Disease

Stroke

ALS

Frontotemporal Dementia

Parkinson's Disease

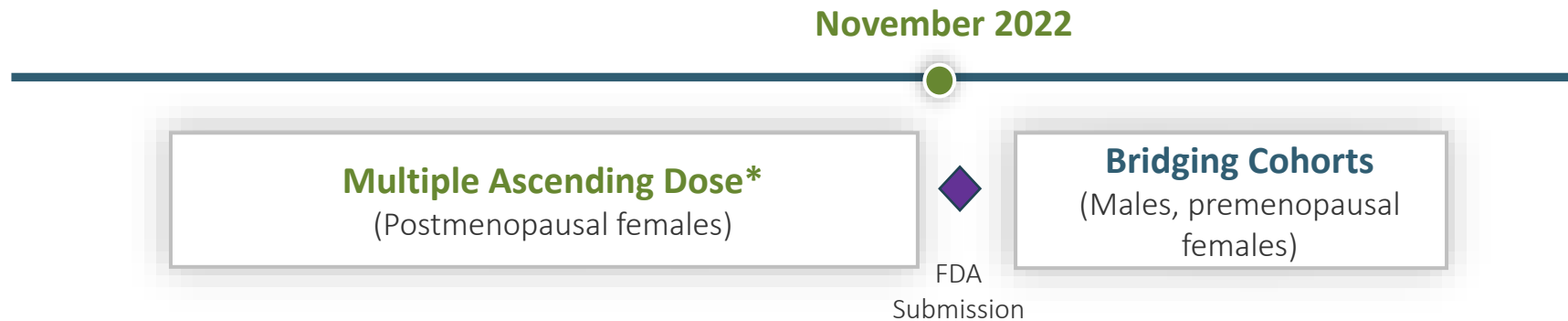


NervGen
Priorities

NVG-291 - Phase 1 Clinical Trial in Progress

Postmenopausal females - *COMPLETED*

- NVG-291 was well tolerated at a high dose
 - 170% higher than the equivalent highest dose in preclinical efficacy studies
 - >100x higher than the lowest efficacious dose in studies
- NVG-291 was rapidly distributed in the blood
- The calculated half-life was longer in humans than animals



*Subjects were dosed once a day for 14 days

Our Phase 1 trial establishes the dose and safety profile necessary for starting our Phase 1b/2 trials

A man with a beard and a bun, wearing a white t-shirt and grey pants, is sitting in a wheelchair. He is looking out a large window with a diagonal metal beam. The room has a light-colored floor and walls.

Spinal Cord Injury

No FDA Approved Drug that Improves Function

- NervGen's goal is to improve motor, bladder/bowel/sexual and/or sensory function

NVG-291 – Dramatically Repairs Spinal Cord Injury

SEVERE SPINAL CORD INJURY MODEL

Representative of Placebo Group



Hind legs are immobile

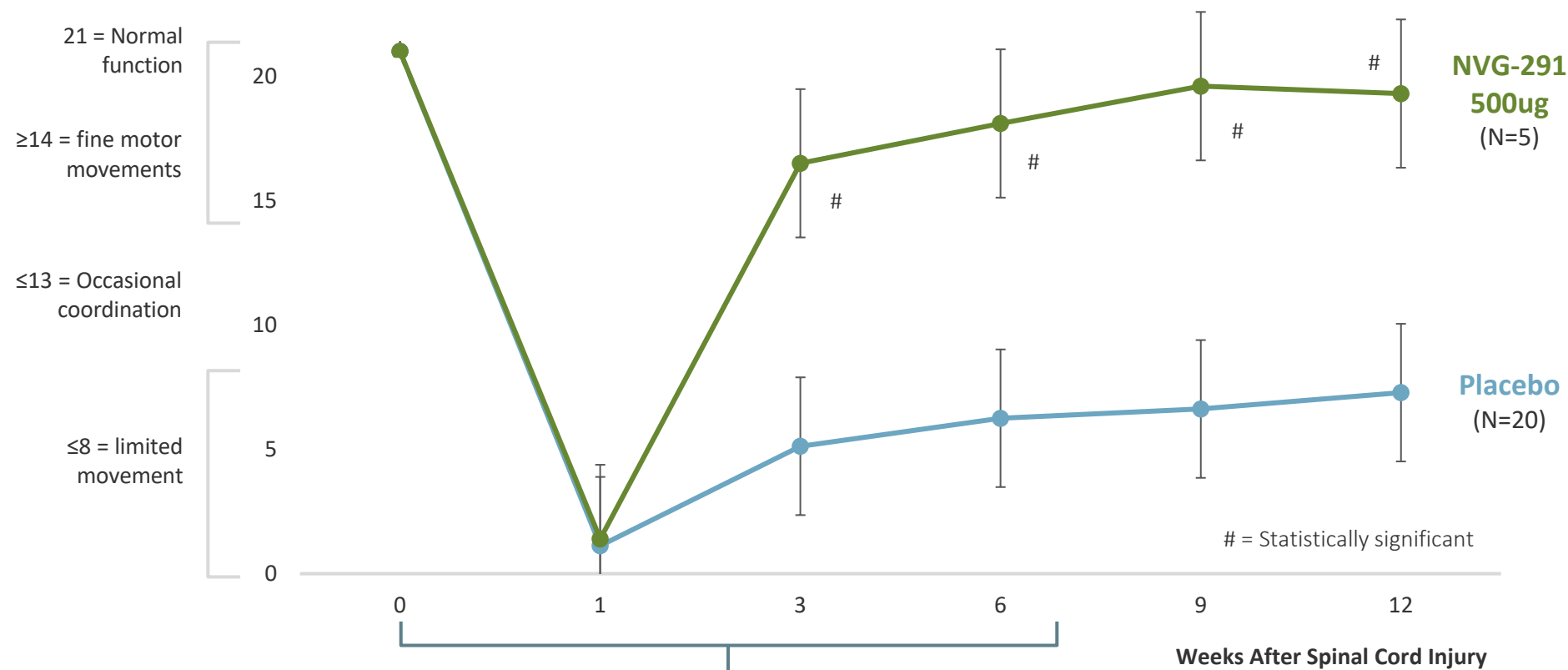
Representative of NVG-291 Group



Significant motor recovery: consistent coordination, toe clearance, tail held high consistently

Spinal Cord Injury – NVG-291 Promotes Functional Recovery

BBB Scale = Standard measure of mobility



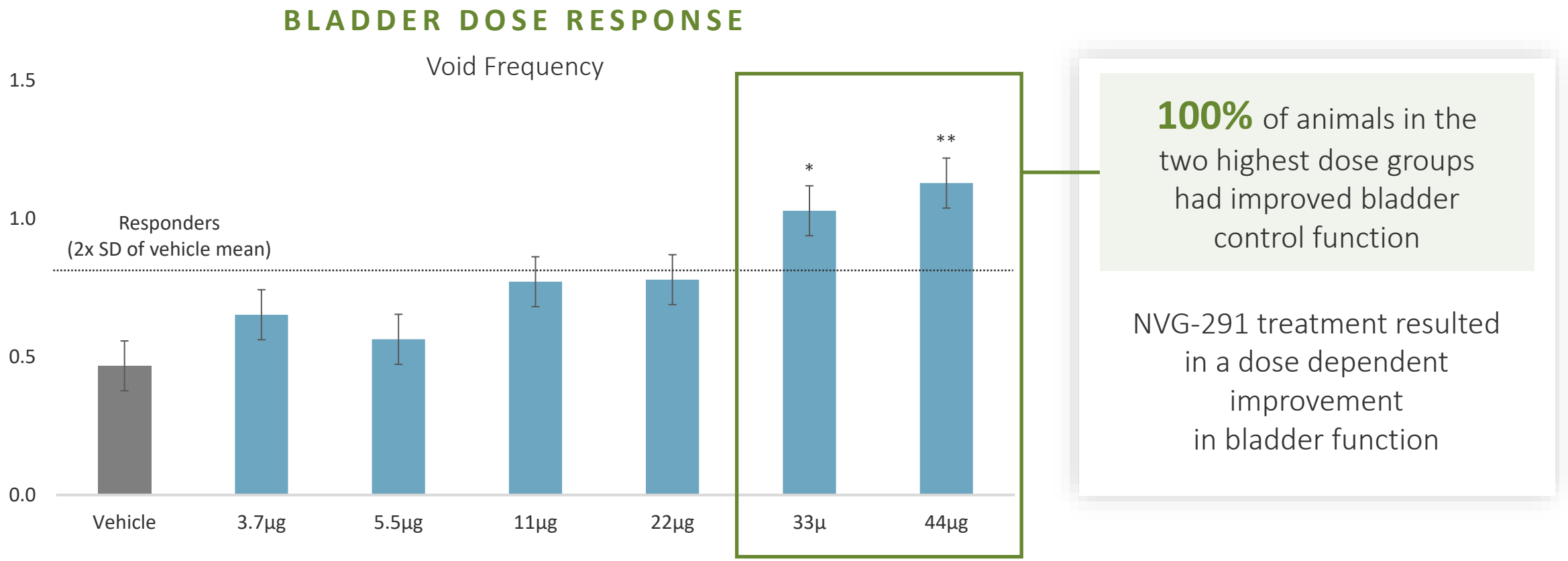
Animals treated with once daily systemic subcutaneous injection from 24hrs to 7 weeks post injury

UNPRECEDENTED RESULTS

Extremely high response rate
50%

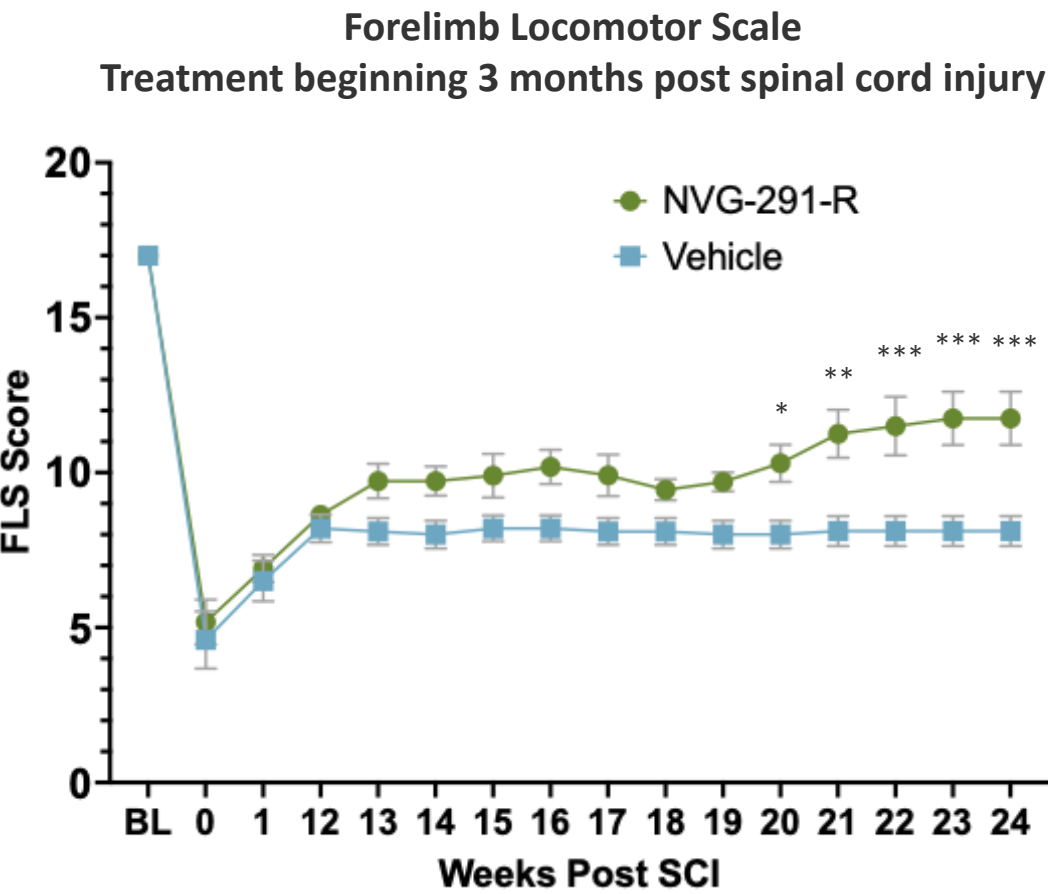
Almost complete recovery in responding animals

NVG-291 Improves Bladder Function



Bladder function is a key quality of life measure in the paralyzed population

Chronic Spinal Cord Injury – NVG-291-R Promotes Functional Recovery



Animals treated with once daily systemic injection
starting 3 months post injury for 60 days

Animals treated with NVG-291-R show **significant improvements** in forelimb recovery at 24 weeks post injury

Significant functional improvements observed when NVG-291-R was administered 3 months after a spinal cord injury

NVG-291 Safety/Efficacy Studies in Spinal Cord Injury Patients

Spinal Cord Injury Phase 1b/2a

~20 patients per arm, minimum 40 patients
~\$10 million estimated cost

- Single center, placebo controlled
- 3 months treatment duration
- Efficacy analysis includes electrophysiology, clinical assessments of upper and lower extremity function

World-class Advisory Board with experts in research, clinical design, functional assessments and biomarkers

James Guest MD, PhD, FACS University of Miami	World renowned surgeon/scientist; global expertise in clinical trial methodology	Brian Kwon MD, PhD, FRCSC University of British Columbia	World renowned surgeon/scientist; authored >240 scientific publications, >35 textbook chapters
Linda Jones, PT, PhD Thomas Jefferson University	Expert consultant to pharma, universities, and non-profit organizations	Daniel Lammertse, MD University of Colorado School of Medicine	Former Director and President of the American Spinal Injury Association
Steven Kirshblum MD Rutgers New Jersey Medical	Nationally recognized expert; Spinal Cord Medicine textbook editor		



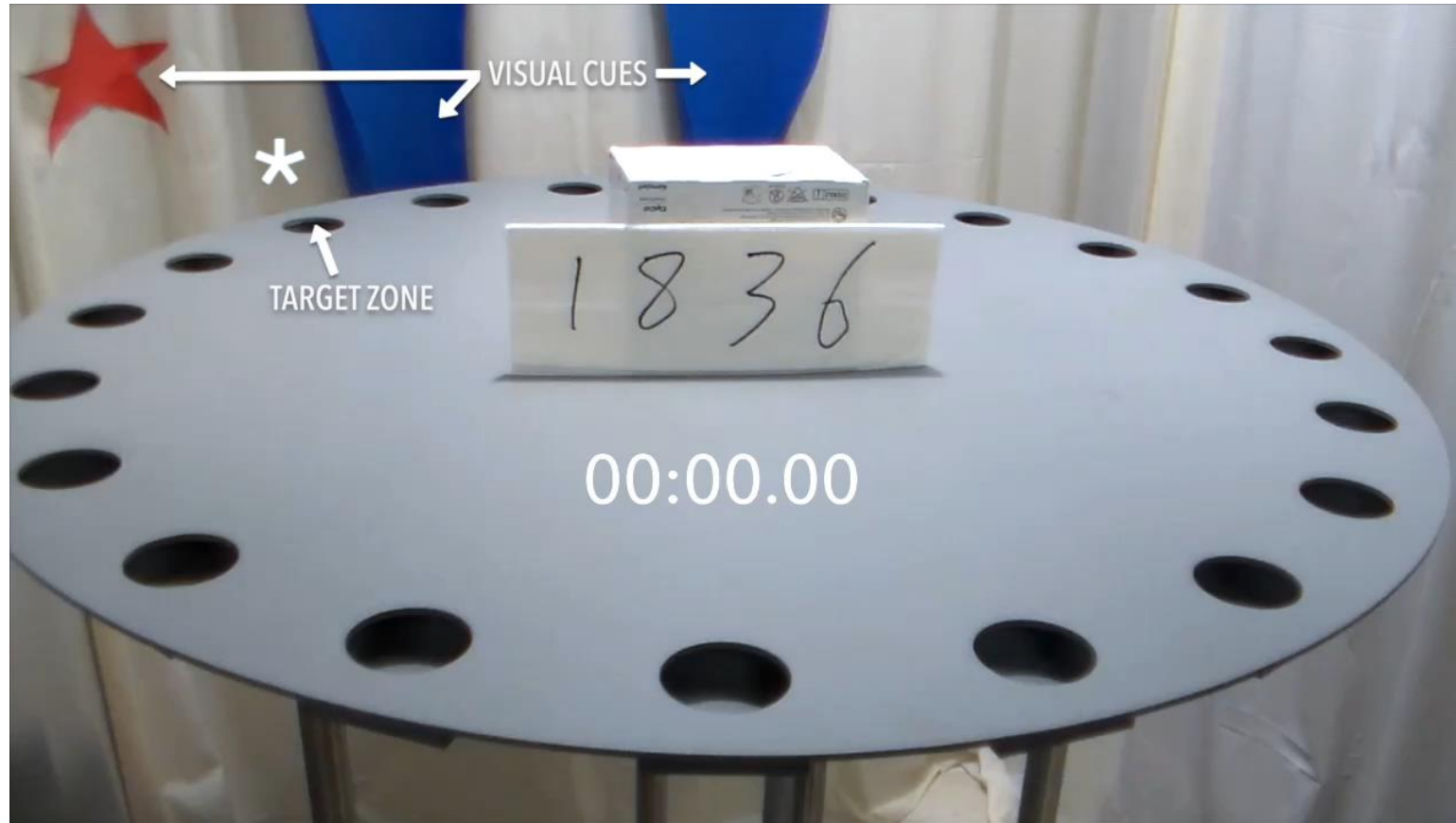
Alzheimer's Disease

No FDA Approved Drug that Results in Sustained Improvement in Cognitive Function

- Symptomatic treatments to improve cognition in Alzheimer's disease are unsatisfactory
- A disease-modifying therapy approved in 2021 has questionable benefit in slowing cognitive decline
- NervGen's goal is to repair damage and improve cognitive function

NVG-291-R – Improved Spatial Learning and Memory

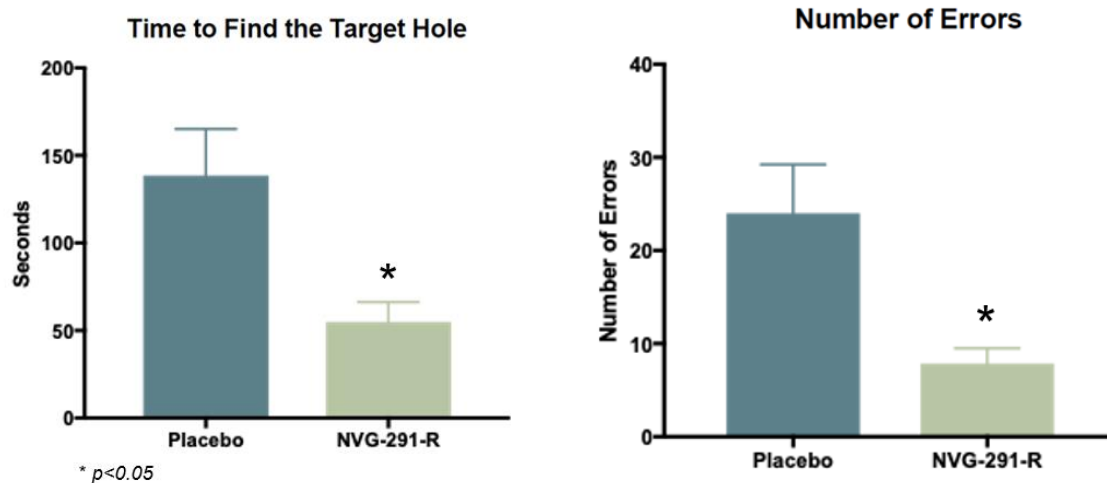
STROKE MODEL



Significant improvement in cognitive function when
treated 24 hours - and even *7 days*

Improved Spatial Learning and Memory

Barnes Maze Test Treatment beginning 7 days post stroke



Animals treated with NVG-291-R made **fewer errors** and identified the target hole in a **faster time** compared to placebo treated animals

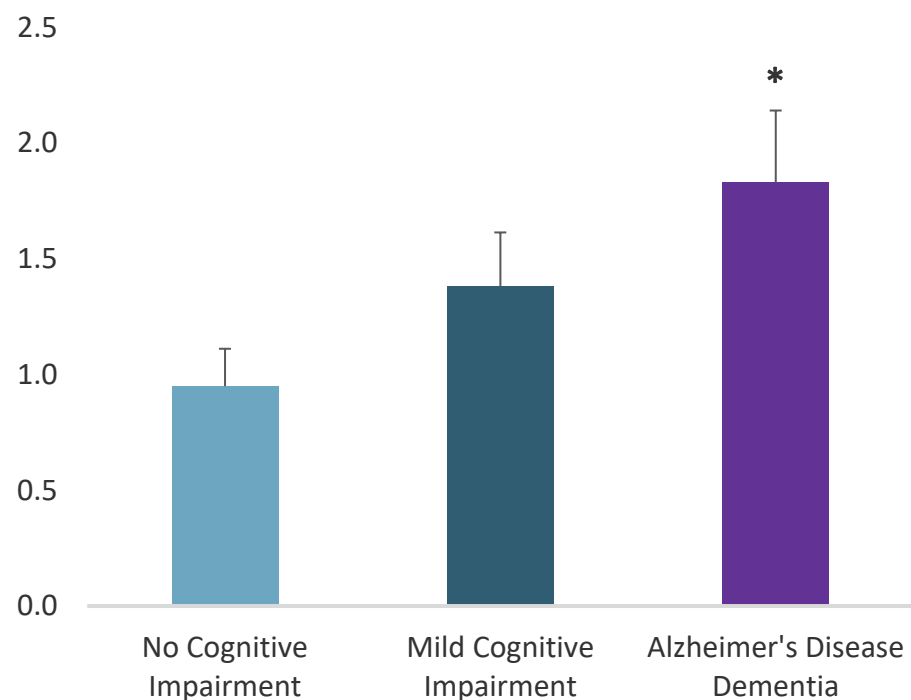
Significant improvements observed when NVG-291-R was administered **up to 7 days after** an ischemic stroke

Improvements in spatial learning and memory may be relevant for other indications affecting cognition, such as Alzheimer's disease

NVG-291 Pathway to Treat Alzheimer's Disease

CSPG ACCUMULATION IN AD PATIENT BRAINS¹

(CSPGs) Brevican/GAPDH



* p<0.05 compared to NCI

¹ Howell, M.D. et al., Acta Neuropathol Commun, 3, 54. (2015). ² Yang et al., Experimental Neurology (2015).

³ Vegh et al., Acta Neuropathologica Communications (2014). ⁴ Gu et al., BioRxiv (2016)

Preclinical studies have demonstrated that breaking down CSPGs **improves Alzheimer's symptoms**^{2,3}

Removing PTP σ **improves cognitive function** in Alzheimer's models⁴

NVG-291's multiple modes of action, **plasticity, axonal regeneration and remyelination** have the potential to benefit patients suffering from Alzheimer's

NVG-291 Safety/Efficacy Studies in Alzheimer's Disease Patients

Alzheimer's Phase 1b/2a

~80 patients, ~\$20 million estimated cost

- Multicenter, placebo controlled
- 3 months treatment duration
- Efficacy analysis includes functional and structural imaging, cognitive assessments and fluid biomarkers

World-class Advisory Board with experts in research, clinical design, cognitive assessments and biomarkers

Jeffrey Cummings, MD, ScD

University of Nevada

Originator, Neuropsychiatric Inventory (NPI)

Martin Farlow, MD

Indiana University School of Medicine

Led/contributed to >230 clinical trials; authored 493 peer reviewed research papers and 509 abstracts

Bruce Lamb, PhD

Indiana University School of Medicine

World-expert on biological underpinnings of Alzheimer's disease and related dementia

George Perry, PhD

University of Texas, San Antonio

Current and founding Editor-in-Chief of the Journal of Alzheimer's Disease

Reisa Sperling, MD

Harvard Medical School;
Massachusetts General Hospital

Led NIA-Alzheimer's Assoc. guideline development group; Serves on National Institute on Aging Advisory Council

Michael Weiner, MD

University of California, San Francisco

Leader in development of MRI and PET for investigating and diagnosing neurodegenerative diseases

Henrik Zetterberg, MD, PhD

University of Gothenburg, University College London

World expert in blood-based biomarkers in neurological disorder



Multiple Sclerosis Repair

No FDA Approved Drug that Improves Function

- MS is an autoimmune disease where the immune system attacks myelin in the central nervous system, and over time this results in increasing disability
- Approved disease-modifying drugs modulate the immune system, which can reduce relapses and slow disability progression, but **none** repair damage
- **NervGen's goal is to repair/remyelinate the damage from MS, thereby improving function**

NVG-291 Restores Motor Function in Multiple Sclerosis

Representative of Placebo Group

Score never improves from 3.5



Representative of NVG-291 Group

Score improves to 0.5 in 20 days



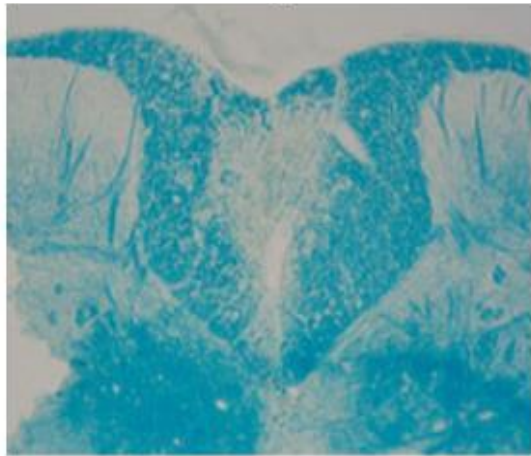
NVG-291 restored motor function in MS model¹,
even when administered after symptoms were fully developed

NVG-291 Remyelinates in Multiple Sclerosis

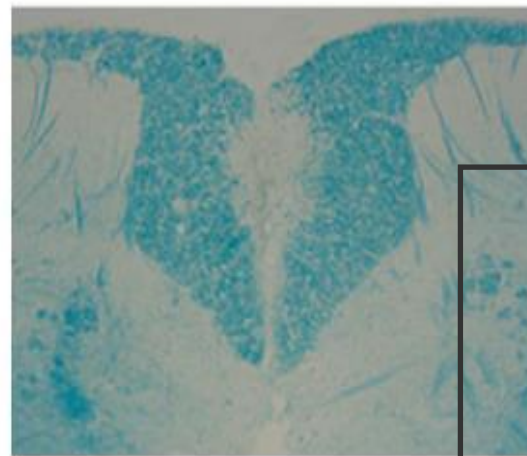
POSITIVE PRECLINICAL RESULTS¹

3 days
post-lesion

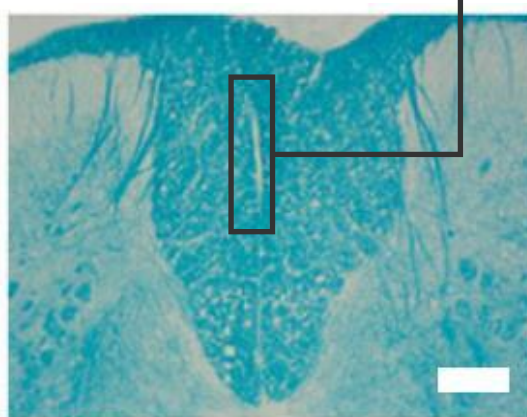
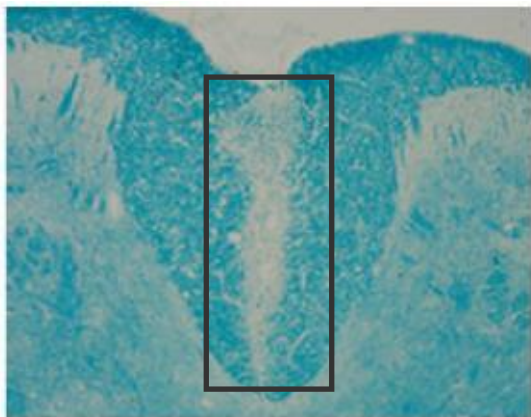
PLACEBO



NVG-291



21 days
post-lesion



Animals treated with NVG-291 had substantially greater remyelination compared to placebo treated animals after 21 days

Histological evidence showed that the desired types of cells were migrating to the lesion, and that these cells were forming myelin

Increased remyelination was accompanied by improvements in nerve conduction

Lesion size in LPC demyelination model

NVG-291 Safety/Efficacy Studies in Multiple Sclerosis Patients

Multiple Sclerosis Phase 2

~80 patients, ~\$20 million estimated costs

- Multicenter, placebo controlled
- 3 months treatment duration
- Efficacy analysis includes clinical assessments, advanced structural imaging and fluid biomarkers

World-class Advisory Board with experts in MS research, clinical design, and functional assessments

Jack Antel, MD
McGill University

Ex-Pres., Americas Committee for Treatment and Research in MS;
Ex- Pres., International Soc. of Neuroimmunology

Jeremy Chataway, MD
University College London

Advanced Clinical trial design expert in MS

Jeffrey Cohen, MD
Cleveland Clinic Lerner College of Medicine

Ex-ACTRIMS President

Robert Naismith, MD
Washington University

Expert in clinical trial design and clinical outcomes measures

Anneke van der Walt, MD, PhD
Monash University

Led several international studies on digital biomarkers in MS

Share and Capital Structure

Exchange/Market: Ticker	TSX: NGEN.V	OTCQX: NGENF
Recent Share Price (November 15, 2022)	CA \$1.72	US \$1.30
Shares Outstanding	58.7 million	
Fully Diluted	76.5 million (~7.9 million options, ~9.9 million warrants)	
Insider Ownership	24.5%	
~Cash & Cash Equivalents (September 30, 2022)	CA \$27.7 million	US \$20.2 million

Upcoming Value Drivers

- Phase 1 study topline MAD data (2023)
- Phase 1b/2a trial planned in spinal cord injury (2023)
- Preclinical study results in chronic spinal cord injury and Alzheimer's disease models which could transform treatment paradigms
- Awarding of privately funded and US Department of Defense sponsored grants (2022/23)
- Uplisting to Nasdaq

Investment Highlights

NVG-291 has the potential to **redefine treatment paradigms** for neurological disorders

Improvement demonstrated across 6 different animal models in fine and gross motor control, sensory function, autonomic functions, visual acuity, memory & learning, in many cases **unprecedented**


Pipeline addresses **significant unmet medical needs** in spinal cord injury, multiple sclerosis and Alzheimer's disease

Pipeline addresses **very attractive commercial opportunities**

Experienced management team, board & scientific advisors



Enabling the Nervous System to Repair Itself

 www.nervgen.com

 [@NervgenP](https://twitter.com/NervgenP)

 [NervGen Pharma Corp.](https://www.linkedin.com/company/NervGen-Pharma-Corp)

 [NervGen](https://www.facebook.com/NervGen)