

An abstract graphic of a human brain in profile, facing right. The brain is composed of various shades of green and white. It features a low-poly, wireframe-like structure overlaid on a more solid, textured green base. Numerous small white gears of different sizes are scattered across the brain's surface, particularly concentrated in the frontal and parietal regions. The background is a light cream color with a dense field of small green dots and larger, faint green circular shapes, creating a sense of depth and complexity.

Enabling the Nervous System to Repair Itself

CORPORATE PRESENTATION

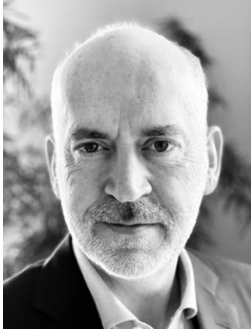
September 20, 2022

Financial Disclosure Statement

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NervGen's Clinical Trials are Led by Experienced Drug Developers



Paul Brennan
President & CEO

- 30+ years of biotech and pharma commercial and development experience
- Participated in the commercial or regulatory development of >10 products now EMA or FDA approved including budesonide (Pulmicort), esomeprazole (Nexium), budesonide/formoterol (Symbicort) and plerixafor (Mozobil)
- \$3+ billion in M&A, licensing and corporate restructuring transactions



Dr. 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), fingolimod (Gilenya), cladribine (Mavenclad), interferon- β -1a and erenumab (Aimovig)

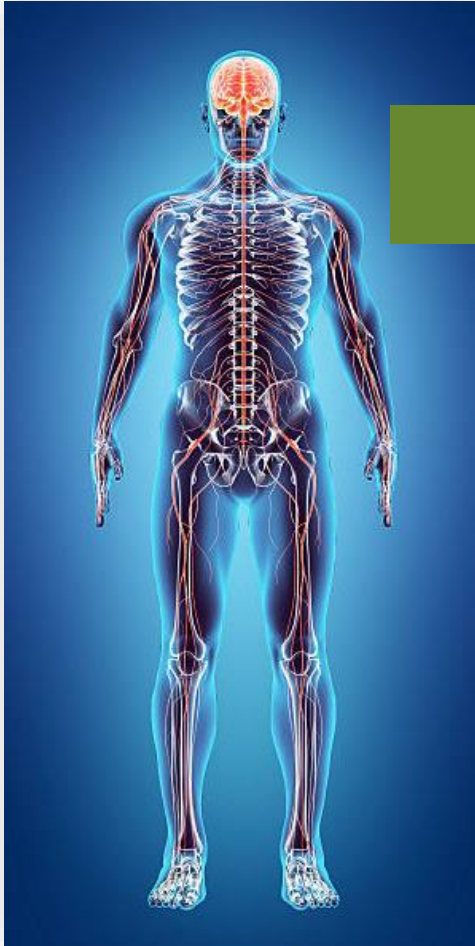


NVG-291: A Pipeline in a Product

INDICATION	STAGE OF DEVELOPMENT			ESTIMATED COST	MARKET OPPORTUNITY
	Phase 1	Phase 1b/2 Initiation	Phase 1b/2 Readout		
Alzheimer's Disease		2023	2024	\$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
Spinal Cord Injury		2023	2024	\$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
Multiple Sclerosis		2023	2024	\$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

Revolutionizing the Treatment of Nervous System Damage

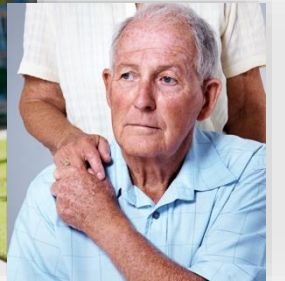
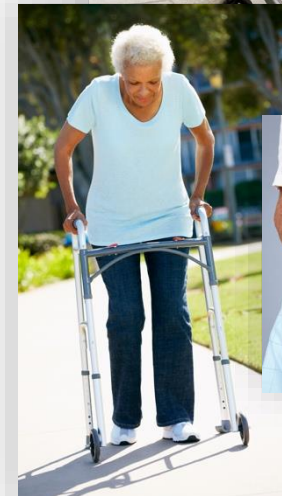


Everyone **KNOWS...**

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

Everyone **BELIEVES...**

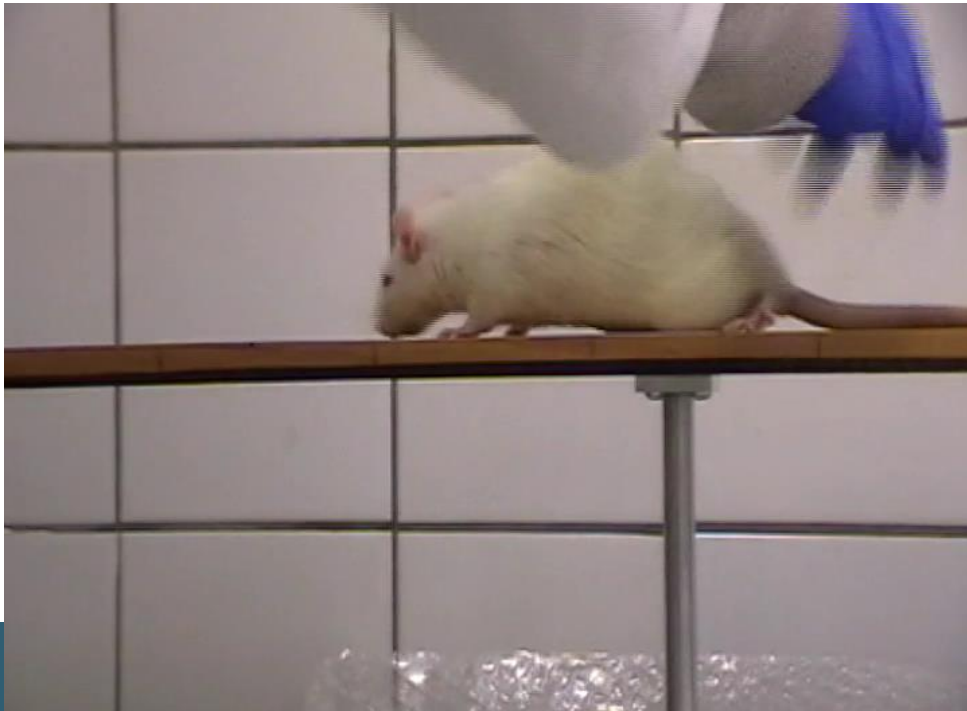
The nervous system **cannot** repair itself



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

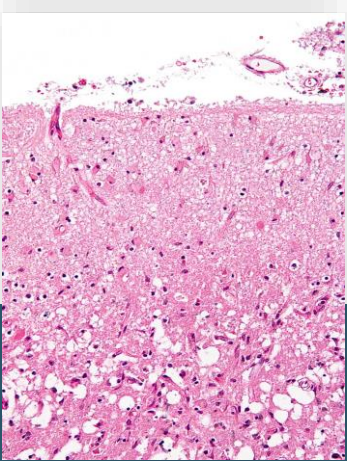
NervGen licensed
the technology from
Case Western and
**owns global rights for
all indications**

Intellectual property
protection on NVG-291
until 2037

The Evolution of Our Proprietary Science

Pre 1990

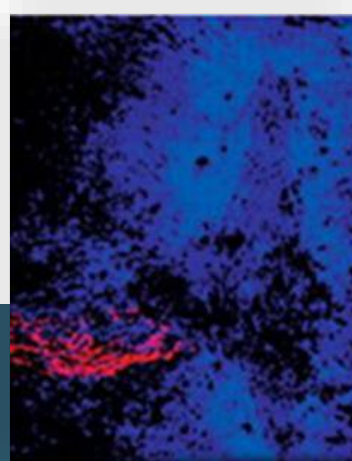
It was demonstrated that **glial scars** form at the site of injury to the nervous system and that scars in the brain cause neurons to be dysfunctional. Scars were later identified as the primary impediment of recovery



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



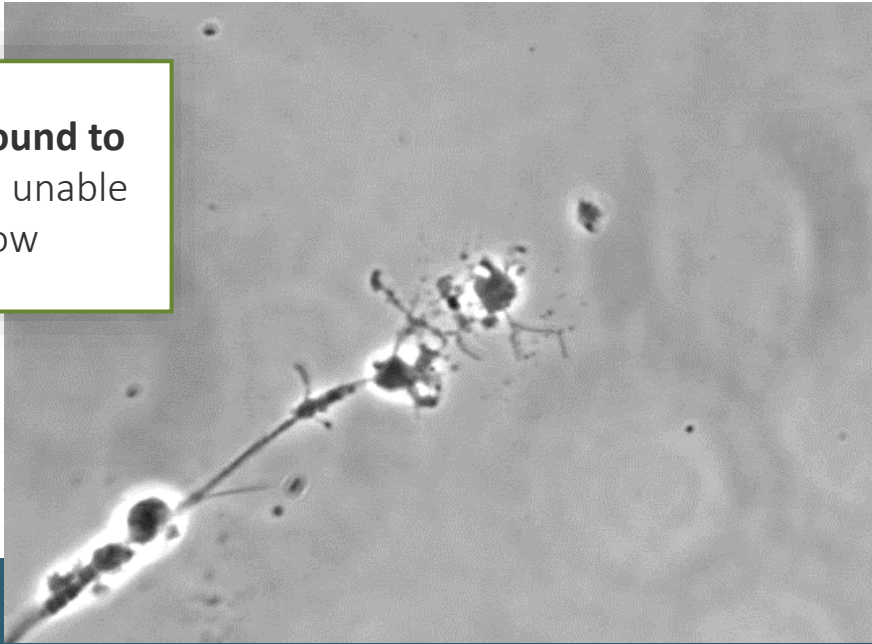
2015

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

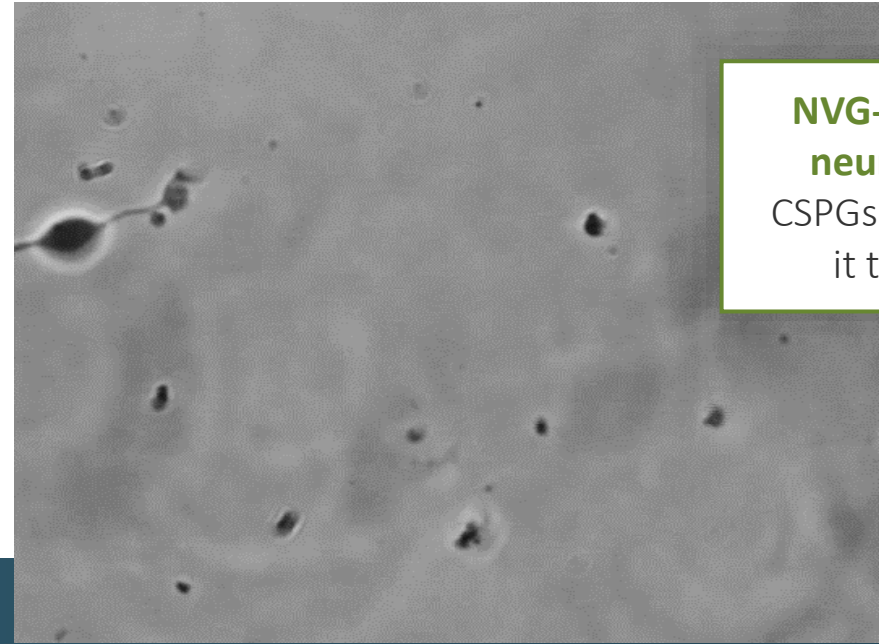


NVG-291 Allows Neurons to Grow in the Scar

Neuron bound to CSPGs and unable to grow



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

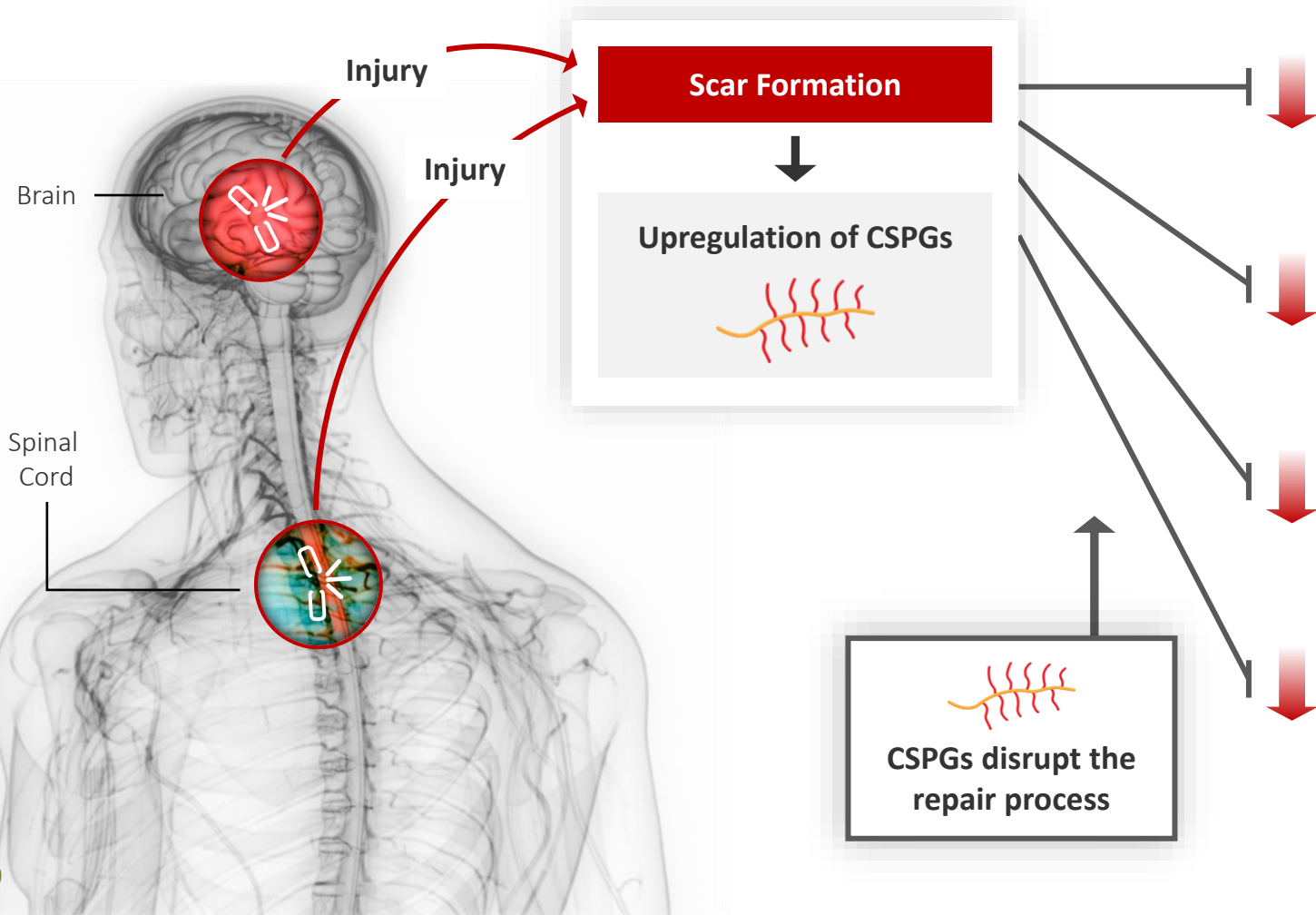


NVG-291, a 35 amino acid peptide, produced dramatic recovery in a spinal cord injury animal study:
the results published in Nature¹ are now cited in over 327 publications

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



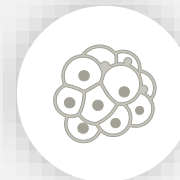
Axonal Regeneration

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

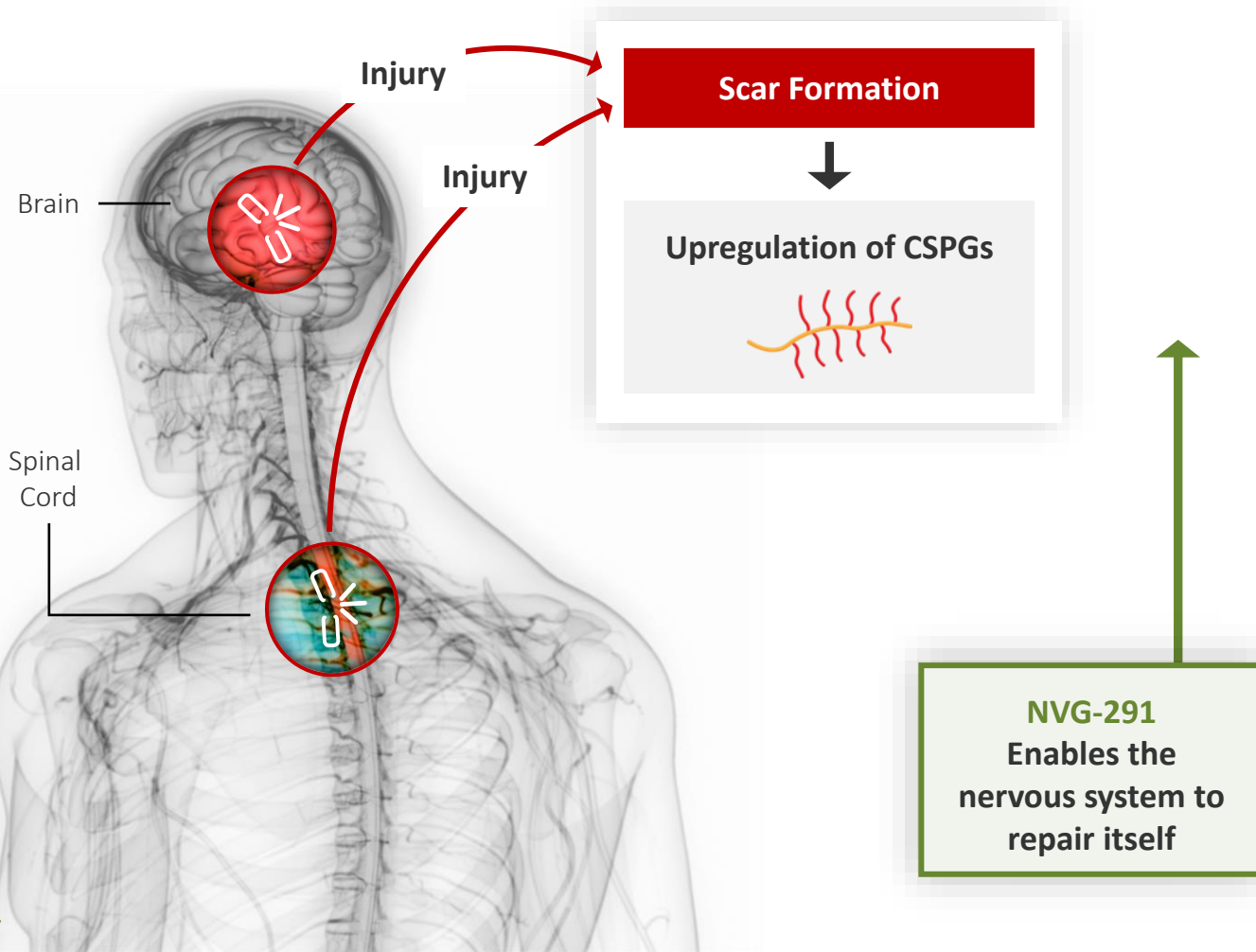


Others

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



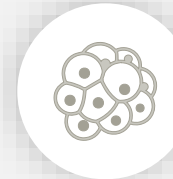
Axonal Regeneration

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Remyelination

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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

DISEASE

Multiple Sclerosis

Alzheimer's Disease

Stroke

ALS

Frontotemporal Dementia

Parkinson's Disease

NVG-291



NervGen
Priorities

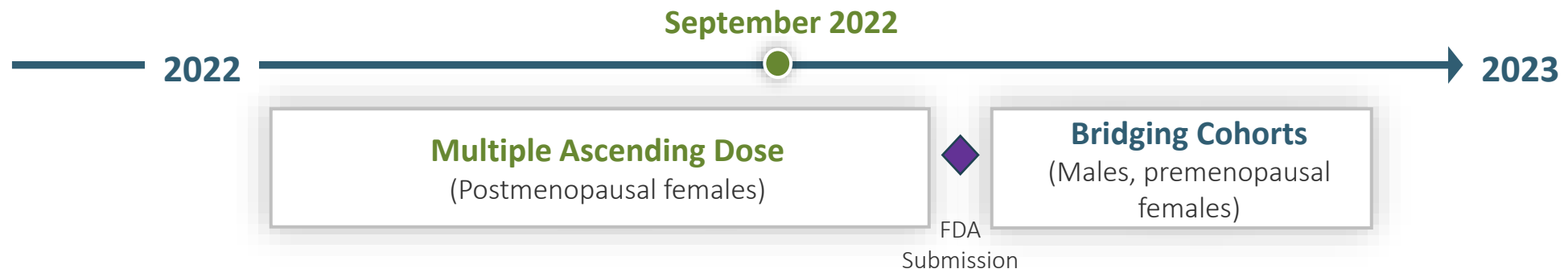
NVG-291 - Phase 1 Clinical Trial in Progress

Single Ascending Dose (SAD) – *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

Multiple Ascending Dose (MAD) – *IN PROGRESS*

- Subjects are dosed once a day for 14 days
- Currently conducting the final cohort
- Dose in second dose cohort was well tolerated and 80% higher than the equivalent highest dose seen in preclinical efficacy studies



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



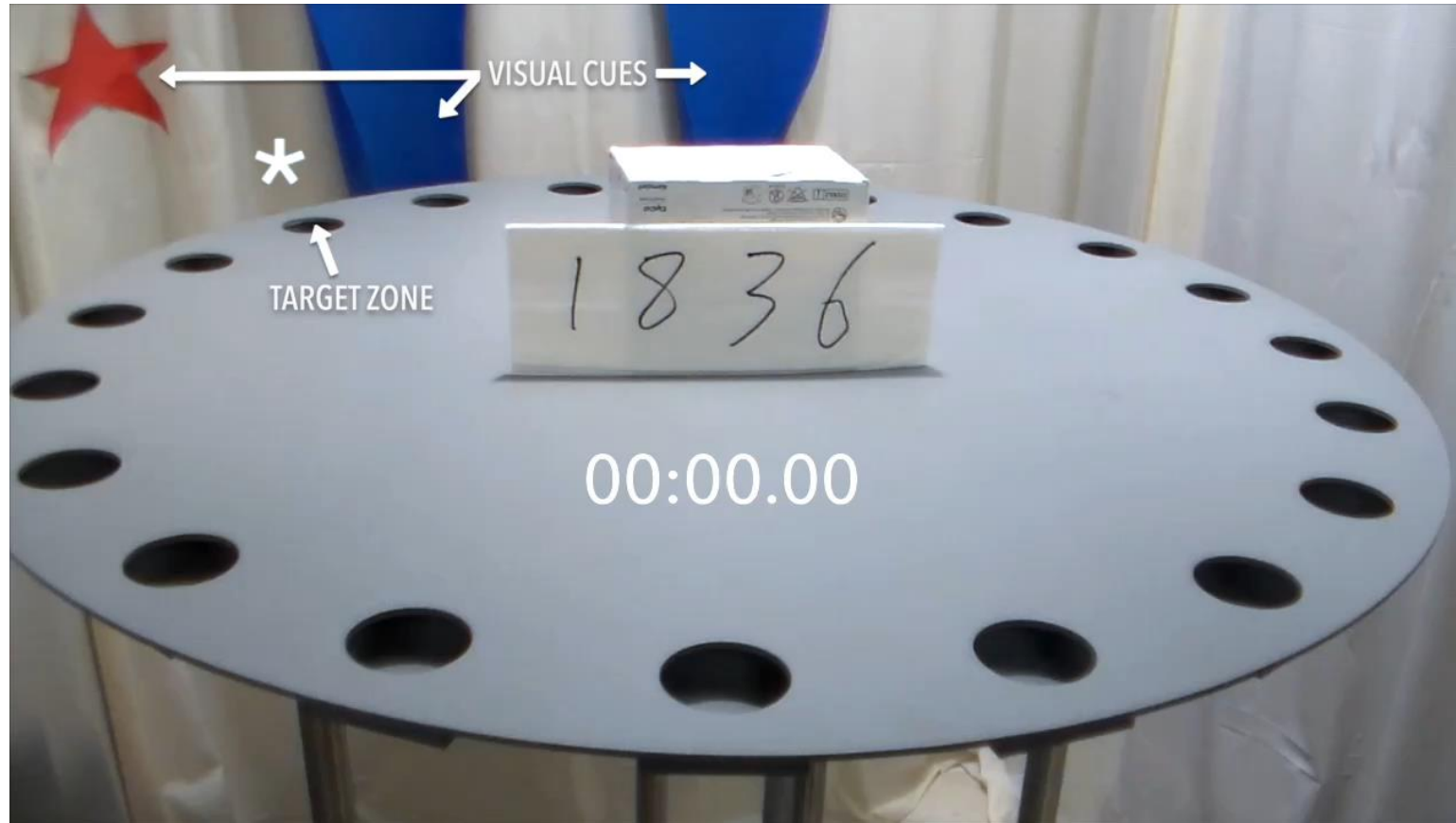
Alzheimer's Disease

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

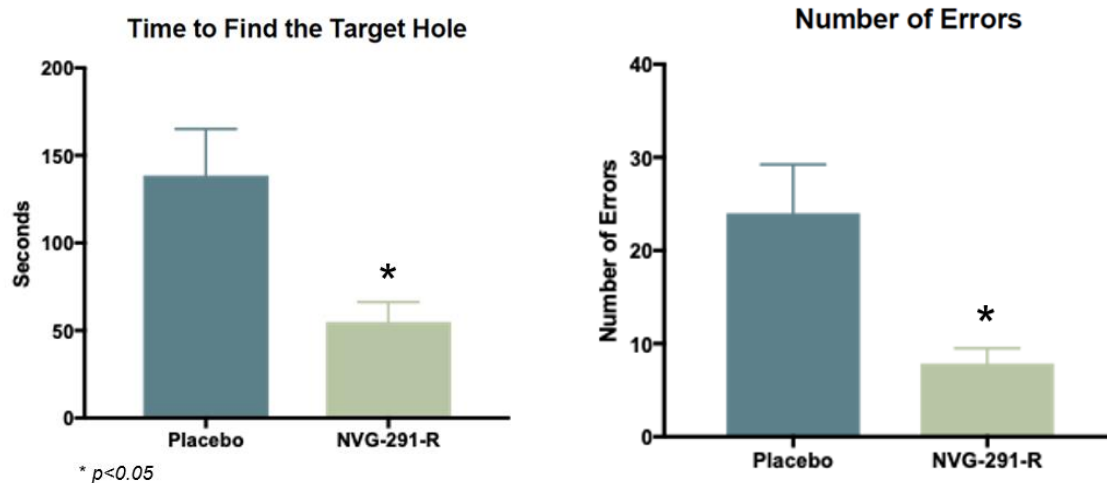
STROKE MODEL



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

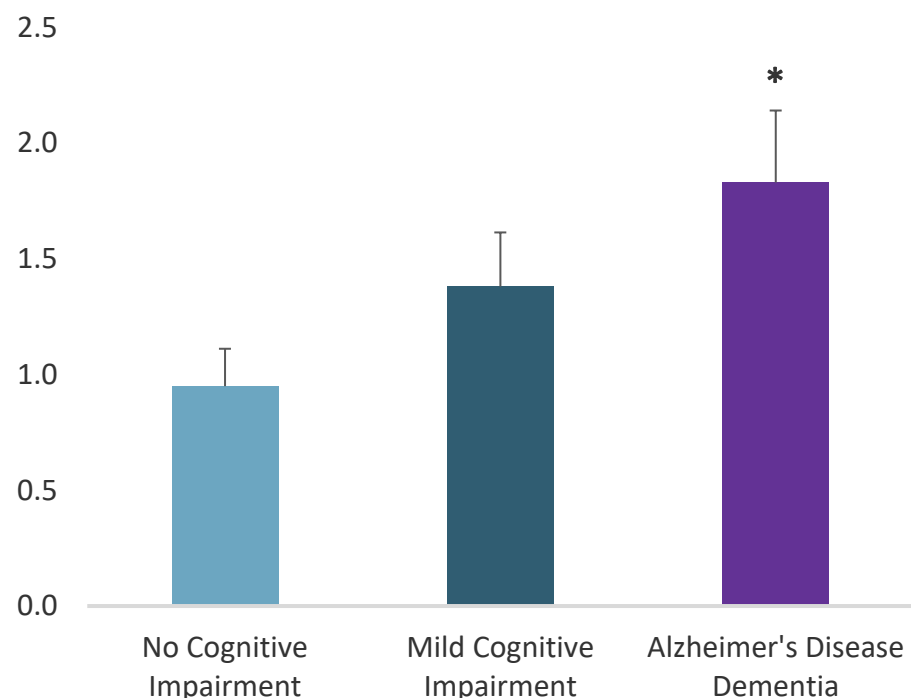
Significant improvements observed when NVG-291-R was administered **up to 7 days after** an ischemic stroke

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).

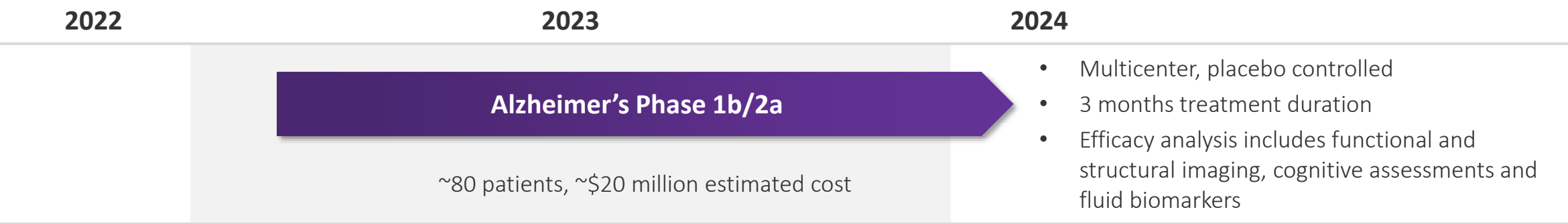
³ Vegh et al., Acta Neuropathologica Communications (2014). ⁴ Gu et al., BioRxiv (2016)

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



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)	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
Martin Farlow, MD Indiana University School of Medicine	Led/contributed to >230 clinical trials; authored 493 peer reviewed research papers and 509 abstracts	Michael Weiner, MD University of California, San Francisco	Leader in development of MRI and PET for investigating and diagnosing neurodegenerative diseases
Bruce Lamb, PhD Indiana University School of Medicine	World-expert on biological underpinnings of Alzheimer's disease and related dementia	Henrik Zetterberg, MD, PhD University of Gothenburg, University College London	World expert in blood-based biomarkers in neurological disorder
George Perry, PhD University of Texas, San Antonio	Current and founding Editor-in-Chief of the Journal of Alzheimer's Disease		

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

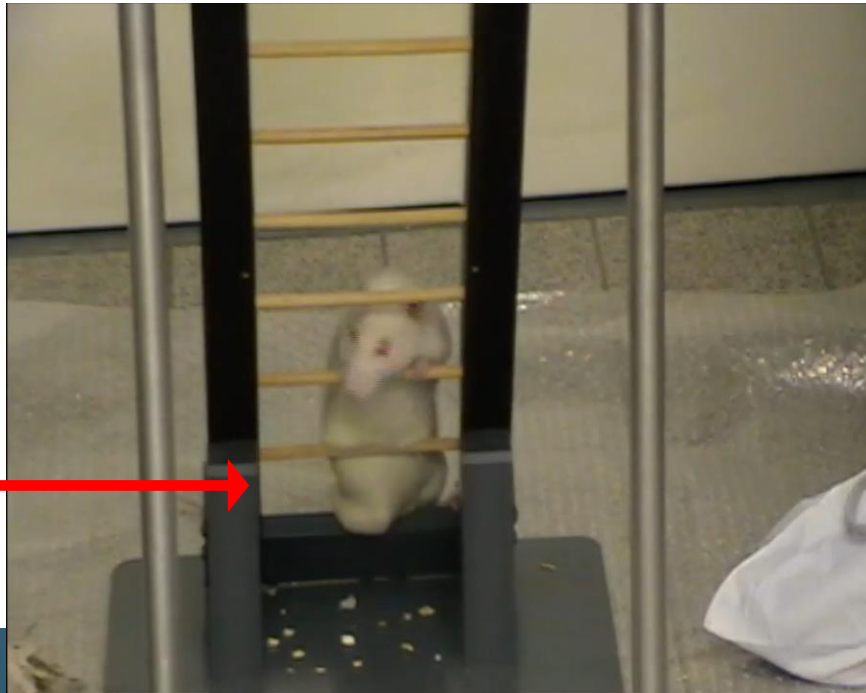
No FDA Approved Drug that Improves Function

- 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

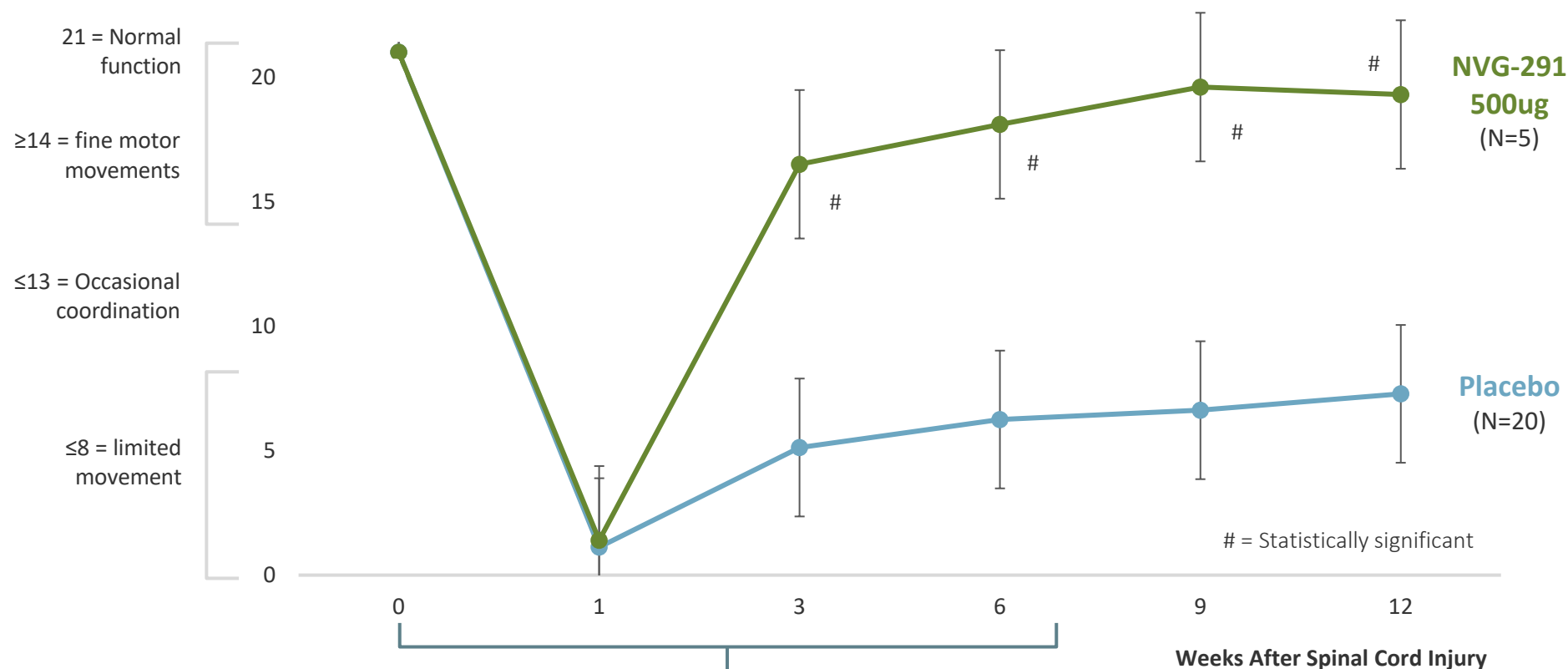
Representative of NVG-291 Group



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



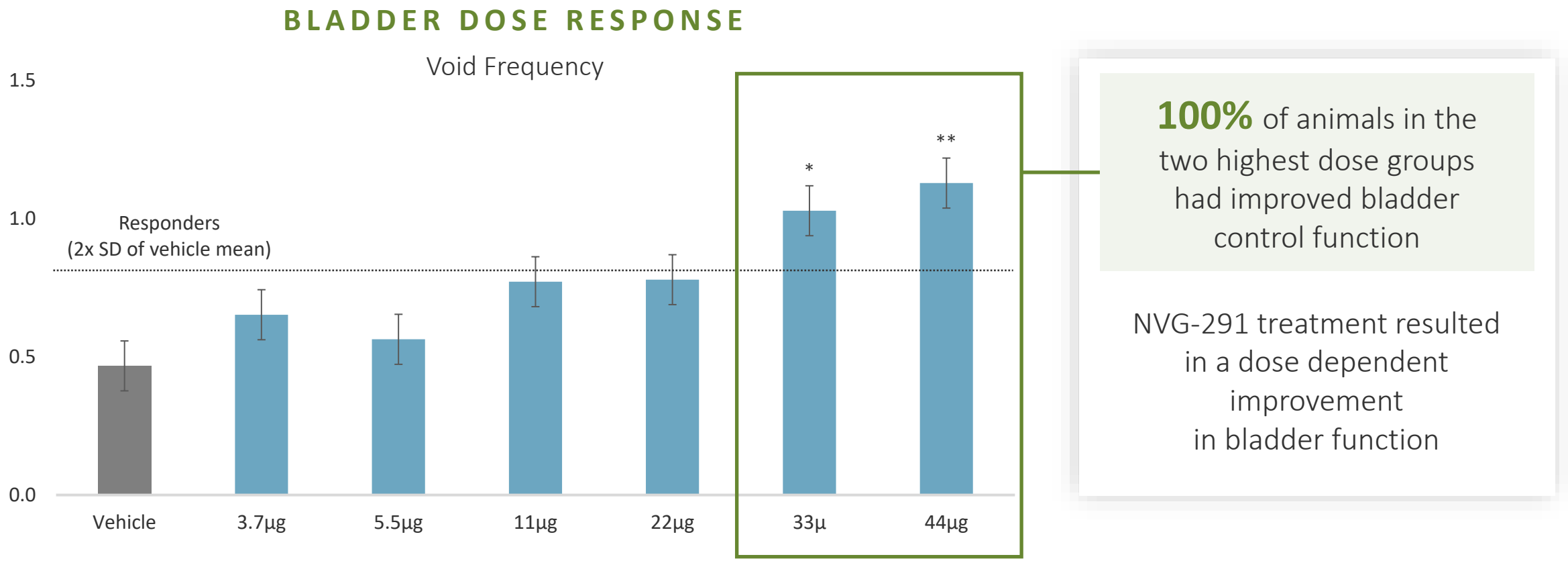
Animals treated with once daily systemic subcutaneous injection from 24hrs to 7 weeks post injury

UNPRECEDENTED RESULTS

Extremely high response rate
50%

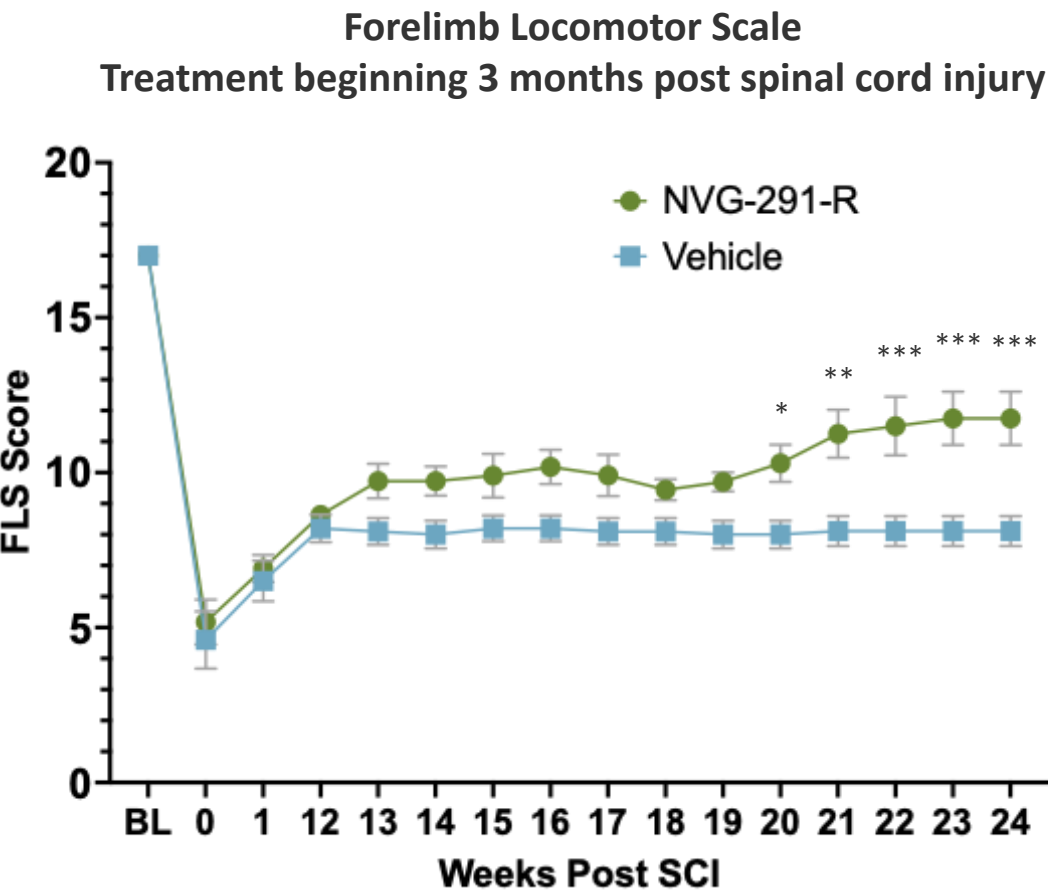
Almost **complete recovery** in responding animals

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

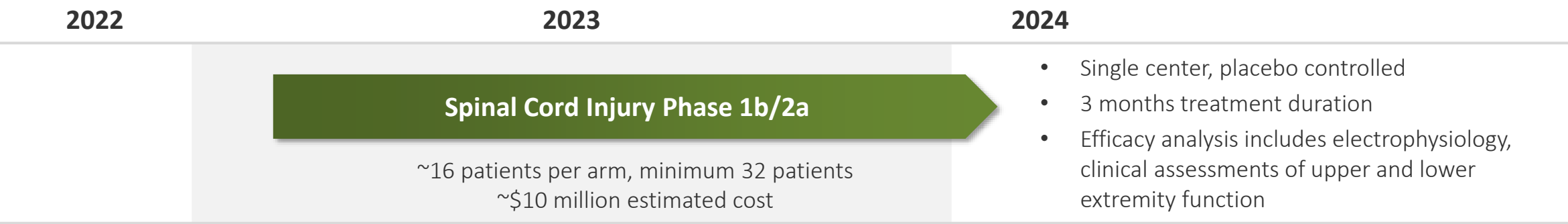


Animals treated with once daily systemic injection
starting 3 months post injury for 60 days

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



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		



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



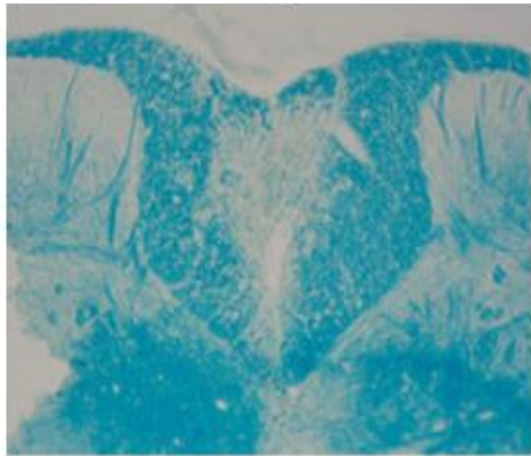
NVG-291 restored motor function in MS model¹,
even when administered after symptoms were fully developed

NVG-291 Remyelinates in Multiple Sclerosis

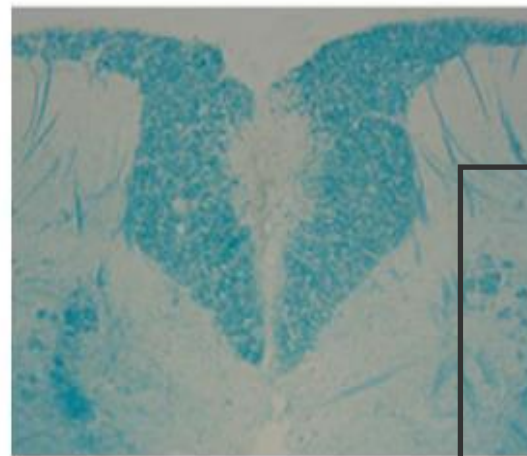
POSITIVE PRECLINICAL RESULTS¹

3 days
post-lesion

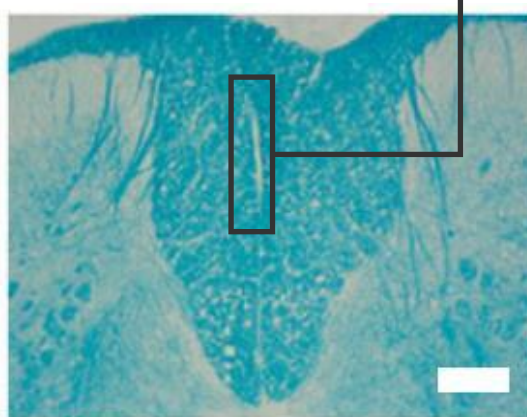
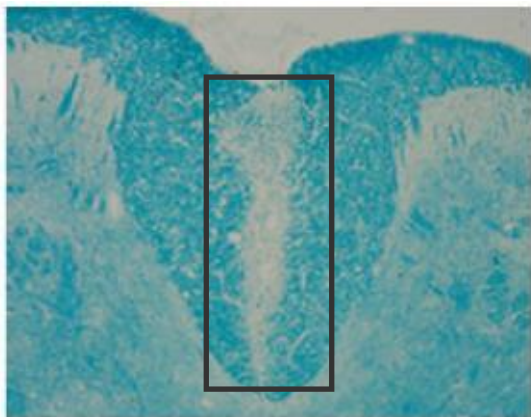
PLACEBO



NVG-291



21 days
post-lesion



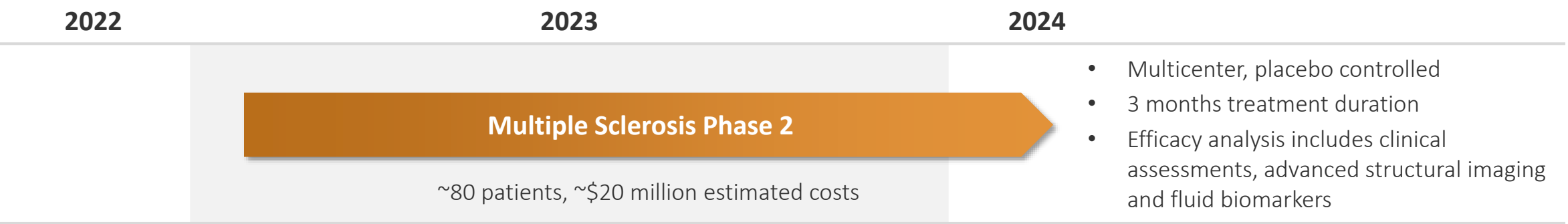
Animals treated with NVG-291 had substantially greater remyelination compared to placebo treated animals after 21 days

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



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	Robert Naismith, MD Washington University	Expert in clinical trial design and clinical outcomes measures
Jeremy Chataway, MD University College London	Advanced Clinical trial design expert in MS	Anneke van der Walt, MD, PhD Monash University	Led several international studies on digital biomarkers in MS
Jeffrey Cohen, MD Cleveland Clinic Lerner College of Medicine	Ex-ACTRIMS President		

Share and Capital Structure

Exchange/Market: Ticker	TSX: NGEN.V	OTCQX: NGENF
Recent Share Price (September 19, 2022)	CA \$1.86	US \$1.41
Shares Outstanding	58.7 million	
Fully Diluted	75.8 million (~7.2 million options, ~9.9 million warrants)	
Insider Ownership	25.6%	
~Cash & Cash Equivalents (June 30, 2022 + July 2022 PP)	CA \$31.3 million	US \$24.3 million

Upcoming Value Drivers

ADVANCED CLINICAL TRIAL PROGRAM

	PHASE		INITIATION		READOUT
Alzheimer's Disease	1b/2a		2023		2024
Spinal Cord Injury	1b/2a		2023		2024
Multiple Sclerosis	2		2023		2024

- Phase 1 study topline MAD data (2022)
- 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)
- Uplisting to Nasdaq (2022)

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

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

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