Enabling the Nervous System to Repair Itself

CORPORATE PRESENTATION

August 26, 2022
Financial Disclosure Statement

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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, Prospectus Supplement, 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

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), fingolomod (Gilenya), cladribine (Mavenclad), interferon-β-1a and erenumab (Aimovig)

Aspreva | AnorMED | Tekmira | AstraZeneca | AMGEN | Novartis | Biogen | EMD Serono
### NVG-291: A Pipeline in a Product

<table>
<thead>
<tr>
<th>INDICATION</th>
<th>Phase 1</th>
<th>Phase 1b/2 Initiation</th>
<th>Phase 1b/2 Readout</th>
<th>ESTIMATED COST</th>
<th>MARKET OPPORTUNITY</th>
</tr>
</thead>
</table>
| Alzheimer’s Disease      |         |                       |                    |                | • ~6,000,000 patients in the US  
|                          | September 2023 | 2023 | 2024 | $20 M | • US Market potential of over $300 billion  
|                          |          |                       |                    |                | • Substantial pharma deal dynamics                                                |
| Spinal Cord Injury       | September 2023 | 2023 | 2024 | $10 M | • ~18,000 new patients per year in the US  
|                          |          |                       |                    |                | • ~300,000 chronic patients  
|                          |          |                       |                    |                | • Lifetime costs range from $1 to >$5 million                                      |
| Multiple Sclerosis       | September 2023 | 2023 | 2024 | $20 M | • ~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
The nervous system is a complex system that controls thought, movement, senses, etc.

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”

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

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

Dr. Silver's team then identified NVG-291, a drug that targets the interaction between CSPGs and PTPσ and allows the nervous system to repair damage.
NVG-291 Allows Neurons to Grow in the Scar

NVG-291, a 35 amino acid peptide, produced dramatic recovery in a spinal cord injury animal study: the results published in Nature\(^1\) are now cited in over 327 publications.

Administered systemically by a daily subcutaneous injection

Includes a transporter that facilitates crossing the blood brain barrier

Neuron bound to CSPGs and unable to grow

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

**CSPGs disrupt the repair process**

**Brain**

**Spinal Cord**
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 Enables the nervous system to repair itself
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**
- Motor
- Sensory
- Bladder

**CHRONIC SPINAL CORD INJURY**
- Motor

**PERIPHERAL NERVE INJURY**
- Motor
- Sensory

**MULTIPLE SCLEROSIS**
- Motor

**OPTIC NEURITIS**
- Visual

**STROKE**
- Motor
- Sensory
- Cognition (object recognition)


1. Unpublished data provided by Dr. Jerry Silver, Case Western Reserve University
1. Luo et al., Cell Reports Volume 40, Issue 4, 111137, 2022
2. 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

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 – Improves Memory and Spatial Learning

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

Barnes Maze Test treatment beginning 7 days post stroke

Luo et al., Cell Reports Volume 40, Issue 4, 111137, July 26, 2022 (https://doi.org/10.1016/j.celrep.2022.111137)
NVG-291 Pathway to Treat Alzheimer’s Disease

Preclinical studies have demonstrated that breaking down CSPGs improves Alzheimer’s symptoms\(^2,3\)

Removing PTP\(\sigma\) improves cognitive function in Alzheimer’s models\(^4\)

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

CSPG ACCUMULATION IN AD PATIENT BRAINS\(^1\)
(CSPGs) Brevican/GAPDH

\(^2\) Yang et al., Experimental Neurology (2015).
\(^3\) Vegh et al., Acta Neuropathologica Communications (2014).
\(^4\) Gu et al., BioRxiv (2016)
## NVG-291 Safety/Efficacy Studies in Alzheimer's Disease Patients

<table>
<thead>
<tr>
<th>2022</th>
<th>2023</th>
<th>2024</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Alzheimer’s Phase 1b/2a</strong></td>
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<td>~80 patients, ~$20 million estimated cost</td>
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<tr>
<td></td>
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<td>• Multicenter, placebo controlled</td>
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<tr>
<td></td>
<td></td>
<td>• 3 months treatment duration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Efficacy analysis includes functional and structural imaging, cognitive assessments and fluid biomarkers</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution/Institute</th>
<th>Contributions / Accomplishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeffrey Cummings, MD, ScD</td>
<td>University of Nevada</td>
<td>Originator, Neuropsychiatric Inventory (NPI)</td>
</tr>
<tr>
<td>Martin Farlow, MD</td>
<td>Indiana University School of Medicine</td>
<td>Led/contributed to &gt;230 clinical trials; authored 493 peer reviewed research papers and 509 abstracts</td>
</tr>
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<td>Bruce Lamb, PhD</td>
<td>Indiana University School of Medicine</td>
<td>World-expert on biological underpinnings of Alzheimer’s disease and related dementia</td>
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<td>University of Texas, San Antonio</td>
<td>Current and founding Editor-in-Chief of the Journal of Alzheimer’s Disease</td>
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<tr>
<td>Reisa Sperling, MD</td>
<td>Harvard Medical School; Massachusetts General Hospital</td>
<td>Led NIA-Alzheimer’s Assoc. guideline development group; Serves on National Institute on Aging Advisory Council</td>
</tr>
<tr>
<td>Michael Weiner, MD</td>
<td>University of California, San Francisco</td>
<td>Leader in development of MRI and PET for investigating and diagnosing neurodegenerative diseases</td>
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<td>Henrik Zetterberg, MD, PhD</td>
<td>University of Gothenburg, University College London</td>
<td>World expert in blood-based biomarkers in neurological disorder</td>
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- World expert in blood-based biomarkers in neurological disorder
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

Representative of NVG-291 Group

Hind legs are immobile

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

- 21 = Normal function
- ≥14 = fine motor movements
- ≤13 = Occasional coordination
- ≤8 = limited movement

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

EXTREMELY HIGH RESPONSE RATE

50%

Almost complete recovery in responding animals

UNPRECEDENTED RESULTS
NVG-291 Improves Bladder Function

**BLADDER DOSE RESPONSE**

<table>
<thead>
<tr>
<th>Void Frequency</th>
<th>Responders (2x SD of vehicle mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle</td>
<td>0.0</td>
</tr>
<tr>
<td>3.7µg</td>
<td>0.5</td>
</tr>
<tr>
<td>5.5µg</td>
<td>0.5</td>
</tr>
<tr>
<td>11µg</td>
<td>1.0</td>
</tr>
<tr>
<td>22µg</td>
<td>1.5</td>
</tr>
<tr>
<td>33µg</td>
<td>*</td>
</tr>
<tr>
<td>44µg</td>
<td>**</td>
</tr>
</tbody>
</table>

*100% of animals in the two highest dose groups had improved bladder control function*

NVG-291 treatment resulted in a dose dependent improvement in bladder function

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

*p <0.05, ** p <0.01
Chronic Spinal Cord Injury – NVG-291-R Promotes Functional Recovery

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

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.

Unpublished data from Dr. Silver, 2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td><strong>Spinal Cord Injury Phase 1b/2a</strong></td>
</tr>
<tr>
<td></td>
<td>~16 patients per arm, minimum 32 patients</td>
</tr>
<tr>
<td></td>
<td>~$10 million estimated cost</td>
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<tr>
<td>2023</td>
<td>• Single center, placebo controlled</td>
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<tr>
<td></td>
<td>• 3 months treatment duration</td>
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<tr>
<td></td>
<td>• Efficacy analysis includes electrophysiology, clinical assessments of upper and lower extremity function</td>
</tr>
<tr>
<td>2024</td>
<td></td>
</tr>
</tbody>
</table>

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

- **Linda Jones, PT, PhD**  
  Thomas Jefferson University  
  Expert consultant to pharma, universities, and non-profit organizations

- **Steven Kirshblum**  
  MD  
  Rutgers New Jersey Medical  
  Nationally recognized expert; Spinal Cord Medicine textbook editor

- **Brian Kwon**  
  MD, PhD, FRCSC  
  University of British Columbia  
  World renowned surgeon/scientist; authored >240 scientific publications, >35 textbook chapters

- **Daniel Lammertse, MD**  
  University of Colorado School of Medicine  
  Former Director and President of the American Spinal Injury Association
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 model\(^1\), even when administered after symptoms were fully developed

\(^1\)Luo, F. et al., Nature Communications 9, 1–16 (2018)
NVG-291 Remyelinates in Multiple Sclerosis

Lesion size in LPC demyelination model

3 days post-lesion

PLACEBO

NVG-291

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

21 days post-lesion


POSITIVE PRECLINICAL RESULTS¹
NVG-291 Safety/Efficacy Studies in Multiple Sclerosis Patients

2022

Multiple Sclerosis Phase 2

~80 patients, ~$20 million estimated costs

2023

2024

• 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

<table>
<thead>
<tr>
<th>Exchange/Market: Ticker</th>
<th>TSX: NGEN.V</th>
<th>OTCQX: NGENF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recent Share Price</strong></td>
<td></td>
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</tr>
<tr>
<td>(August 10, 2022)</td>
<td>CA $2.08</td>
<td>US $1.65</td>
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<tr>
<td><strong>Shares Outstanding</strong></td>
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<td>58.7 million</td>
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<tr>
<td><strong>Fully Diluted</strong></td>
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<td>75.8 million</td>
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<tr>
<td></td>
<td>(~7.2 million options, ~9.9 million warrants)</td>
<td></td>
</tr>
<tr>
<td><strong>Insider Ownership</strong></td>
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<td>25.6%</td>
</tr>
<tr>
<td><strong>~Cash &amp; Cash Equivalents</strong></td>
<td>CA $31.3 million</td>
<td>US $24.3 million</td>
</tr>
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</table>

(As of June 30, 2022 + July 2022 PP)
Upcoming Value Drivers

- Phase 1 study topline MAD data (2022)
- Preclinical study results in stroke, 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)
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