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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 SEDARplus.ca. 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 Highlights

NVG-291, a novel first-in-class drug candidate with potential to repair nervous system damage and restore motor, sensory and cognitive function

Demonstrated functional improvement in six different preclinical models in several independent labs

NVG-291 – Phase 1b/2a proof-of-concept trial in people living with SCI underway

NVG-300 – preclinical evaluation advancing in ischemic stroke, ALS and SCI
## Multiple Preclinical Studies Using NVG-291-R* Report Improved CNS/PNS Repair

**Enhanced Plasticity, Repair (Axonal, Myelination), and Recovery of Function**

### Conditions Modeled

<table>
<thead>
<tr>
<th>Conditions Modeled</th>
<th>Functional Endpoints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACUTE SPINAL CORD INJURY</strong></td>
<td>Motor&lt;br&gt;Sensory&lt;br&gt;Bladder</td>
</tr>
<tr>
<td><strong>CHRONIC SPINAL CORD INJURY</strong></td>
<td>Motor</td>
</tr>
<tr>
<td><strong>STROKE (Ischemic, Hemorrhagic)</strong></td>
<td>Motor&lt;br&gt;Sensory&lt;br&gt;Object recognition</td>
</tr>
<tr>
<td><strong>MULTIPLE SCLEROSIS (EAE)</strong></td>
<td>Motor</td>
</tr>
<tr>
<td><strong>PERIPHERAL NERVE INJURY</strong></td>
<td>Motor&lt;br&gt;Sensory</td>
</tr>
<tr>
<td><strong>OPTIC NERVE DEMYELINATION</strong></td>
<td>Visual&lt;br&gt;Behavioral</td>
</tr>
</tbody>
</table>

### References

7. Yao et al., *Journal of Neuroinflammation* 19:207, 2022

*NVG-291-R is a rodent analog of NVG-291 (a single amino acid residue difference)*
# Product Pipeline

## Multiple development opportunities

<table>
<thead>
<tr>
<th>CANDIDATE</th>
<th>PROGRAM</th>
<th>DISCOVERY</th>
<th>PRECLINICAL</th>
<th>PHASE 1</th>
<th>PHASE 1b/2a</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVG-291</td>
<td>Spinal Cord Injury</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG-291</td>
<td>Stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG-300*</td>
<td>Stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG-300*</td>
<td>Amyotrophic Lateral Sclerosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG-300*</td>
<td>Alzheimer's Disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG-300*</td>
<td>Multiple Sclerosis</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Internally developed*
# Nervous System Damage Markets and Opportunity

## Significant medical costs and morbidity

<table>
<thead>
<tr>
<th></th>
<th>SCI</th>
<th>Ischemic Stroke</th>
<th>ALS</th>
<th>MS</th>
<th>AD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidence</strong>*</td>
<td>18,000</td>
<td>~690,000</td>
<td>~7,000</td>
<td>10,000</td>
<td>500,000</td>
</tr>
<tr>
<td><strong>Prevalence</strong>*</td>
<td>291,000</td>
<td>9.4M</td>
<td>~25K-30K</td>
<td>~1M</td>
<td>6.7M</td>
</tr>
<tr>
<td><strong>Lifetime Cost</strong>*</td>
<td>$1M-$4M+</td>
<td>$140,000+</td>
<td>$1.4M</td>
<td>$4M+</td>
<td>$400,000</td>
</tr>
<tr>
<td><strong>System Cost</strong>*</td>
<td>$50B+</td>
<td>$57B</td>
<td>$250M-$1.0B</td>
<td>$85B</td>
<td>$320B-$345B</td>
</tr>
</tbody>
</table>

| Current Treatment* | Decompressive surgery and rehabilitation | TPA must be given within hours of stroke; rehabilitation | Disease modifying agents (e.g. riluzole, edaravone) to slow progression – none stop progression | Immunomodulatory/immunosuppressive therapies to reduce relapses and/or slow progression | Symptomatic therapies (e.g. cholinesterase inhibitors) to temporarily improve cognition; anti-beta mAbs to slow progression |

| Unmet Needs* | Effective treatments to enhance recovery | Effective treatments to enhance recovery | Treatment that improve function | Treatments to remyelinate axons and improve function | Treatments to effect enduring improvements |

*US only

Depicts current market opportunity of lead indication
SCI Demographics

- Average age: ~43
- Male (78%), female (22%)
- Cause: vehicle (38%); fall (33%); violence (15%); sports (8%)
- Annual hospitalization (30%): UTI, pneumonia, decubitus ulcer
- Duration of hospitalization and rehabilitation: 2 to 3 months
- Chance of depression: 25%
- Significant urinary and sexual dysfunction

**TREATMENT**

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Rehabilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(decompression)</td>
<td>(regain function)</td>
</tr>
</tbody>
</table>

No FDA approved drugs to enable sustained functional recovery
SCI Facts and Figures

Incidence and Prevalence

~18,000
Spinal cord injuries every year in the US

~300,000
People living in the US who have suffered a spinal cord injury in 2019

up to 500,000
Worldwide, the estimated annual incidence of spinal cord injury

Economic Impact

Individuals with SCI face a difficult and expensive journey through the healthcare system; that journey begins with 2-3 months in rehabilitation and costs $200,000 or more per patient

Each individual with SCI faces an expected lifetime cost of care between $1M and $4M, depending on severity and age at injury

In addition to the enormous economic costs, individuals with SCI face a shorter expected lifespan, higher unemployment, higher chance of bankruptcy

NVG-291-R Promotes Recovery in Acute SCI

Overview

- T8 compression injury
- 500 µg/day x 7 weeks
- Treatment began 1 day post-injury

Results

- Significant recovery of locomotor and bladder function
- Functional improvements persist after treatment
- Enhanced neuroplasticity (i.e. axonal sprouting) near and far from injury

Hindlimb function (BBB Score)

- Treatment Period
- Weeks Post-SCI

**"Placebo"**
- (N=20)

**"NVG-291-R (N=10)"

- *** P<0.001
- **** P<0.0001

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

NVG-291-R Promotes Recovery in Chronic SCI

Overview

- C2 lateral hemisection
- 500 µg/day x 8.5 weeks
- Treatment began 12 weeks post-injury

Results

- Significant recovery of forelimb locomotor function
- Functional improvements persist after treatment

Spinal Cord Injury

Bladder function improved following NVG-291-R treatment in preclinical animal studies

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

1Animals tested at week 12 post-SCI; graphs show group averages

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

NVG-291 Phase 1 Clinical Trial Results

Study Design

**Single Dose**
- 37 subjects
- 6 dose levels
- Assessed through Day 8

**Multiple Dose**
- 33 subjects
- 4 dose levels
- Subjects dosed subcutaneously once/day for 14 days
- Assessed through Day 21

Safety Results

- Well tolerated across all doses
  - Maximum tolerated dose (MTD) not reached
- No treatment discontinuations
- No serious/severe adverse events (AE) in NVG-291 group
- Most common AE was injection site related (ISR)
- No clinically significant effects related to NVG-291 treatment across all study parameters
Phase 1b/2a Trial: Study NVG-291-201

- **Single-center** study – Shirley Ryan AbilityLab (Chicago, IL, USA)
  - Uniform assessments and training regimen – reduces variability of results
  - Electrophysiological measurements easily standardized
    - Same assessors, equipment (coils, electrodes etc.), technique, analysis

- **Two cohorts** planned (~N=20 each)
  - Randomized 1:1 to NVG-291 (fixed dose) or placebo
  - Weeks 1-12: blinded treatment

Over 16 weeks:
- Daily sub-cue injections (12 weeks)
- Electrophysiological assessments
- Clinical assessments
- Exercise/training: ~5 days per week

clinicaltrials.gov NCT05965700
Study Population

Cohorts of motor incomplete cervical SCI:
1. **Chronic**: 1-10 years post-injury
2. **Subacute**: 20-90\(^1\) days post-injury

<table>
<thead>
<tr>
<th>Key Inclusion Criteria</th>
<th>Key Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Age 18-75</td>
<td>• Non-traumatic SCI</td>
</tr>
<tr>
<td>• Traumatic SCI</td>
<td>• SCI from gunshot or penetrating/stab injury</td>
</tr>
<tr>
<td>• Neurological level of injury C7 or higher</td>
<td>• Two or more (non-contiguous) spinal cord lesions</td>
</tr>
<tr>
<td>• <strong>Motor incomplete</strong> with minimal/maximal level of motor function in upper and lower extremities</td>
<td>• Ventilator dependence</td>
</tr>
<tr>
<td>• <strong>Intact motor evoked potential (MEP)</strong>(^2) in two qualifying muscle groups:</td>
<td></td>
</tr>
<tr>
<td>• At least 1 tibialis anterior (TA)</td>
<td></td>
</tr>
<tr>
<td>• At least 1 first dorsal interosseus (FDI)</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)Pending protocol amendment
\(^2\)Intact MEP = amplitude of at least 50 \(\mu V\) is observed in at least 5 out of 10 trials
Primary Objective and Endpoint

• **Primary Objective**
  - To evaluate the effect of NVG-291 compared to placebo on relative percentage change in corticospinal connectivity to *qualifying* muscle groups

• **Co-Primary Endpoints**
  - Relative percentage change from baseline to Week 12 in the normalized MEP amplitudes (corticospinal contribution) in the *qualifying* FDI and TA muscle groups

---

### Ten Muscle Groups Assessed

<table>
<thead>
<tr>
<th>Upper extremity</th>
<th>Lower extremity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biceps brachii</td>
<td>Quadriceps</td>
</tr>
<tr>
<td>Triceps brachii</td>
<td>Hamstrings</td>
</tr>
<tr>
<td>First dorsal interosseous (FDI) (^{\text{q}})</td>
<td>Tibialis anterior (TA) (^{\text{q}})</td>
</tr>
<tr>
<td>Flexor carpi radialis</td>
<td>Soleus</td>
</tr>
<tr>
<td>Extensor carpi radialis</td>
<td>Abductor hallucis</td>
</tr>
</tbody>
</table>

\(^{\text{q}}\) *Qualifying* muscle group

---

Assuming a **treatment effect** on and **variability** of MEPs similar to that observed with electrical stimulation studies\(^{1}\), with **8 subjects per arm** this study will have **≥80% power** to detect a difference (\(\alpha = 0.025\), Student t-test 2-sided)

---

\(^{1}\)Jo and Perez, 2020 (Brain 143:1368–1382), Corticospinal-motor neuronal plasticity promotes exercise-mediated recovery in humans with spinal cord injury.
Secondary Endpoints (Clinical)

1. Change from baseline to Week 12 in **10mWT** time
2. Change from baseline to Week 12 in **9-HPT** time
3. Change from baseline to Week 12 in **pinch** dynamometry force
4. Change from baseline to Week 12 in **GRASSP** version 2 scores
5. Change from baseline to Week 12 in **lower extremity motor scores**
6. Change from baseline to Week 12 in **upper extremity motor scores**

**Other secondary objectives:**
- Changes in other electrophysiological parameters
  - Change in MEP amplitudes (corticospinal) of non-qualifying muscle groups
  - Change in reticulospinal MEP amplitudes
  - Change in MEP latencies
  - Change in maximal voluntary contractions
- Safety/tolerability of NVG-291; pharmacokinetics of NVG-291

**Exploratory objectives:**
- Changes in spasticity (modified Ashworth, pendulum test), SCAR, ISNCSCI sensory scores, autonomic function (ISAFSCI), mobility/ADLs (SCIM III), quality of life (SCI-QOL), advanced MRI imaging, blood biomarkers

10mWT: 10-meter walk test; 9-HPT: nine-hole peg test; GRASSP: Graded and redefined assessment of strength, sensibility, and prehension test
Additional Data: Qualitative Review of Subject Experience

- Incorporating qualitative semi-structured subject interviews
- Exploring subjects’ experiences of potential beneficial treatment
- Aligns with FDA Patient-Focused Drug Development Guidance
## Blinded Baseline Demographic and Clinical Characteristics

<table>
<thead>
<tr>
<th></th>
<th>*Chronic cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td>Mean (SD) 45.2 (17.82)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>N (% male) 11 (91.7%)</td>
</tr>
<tr>
<td><strong>Time since SCI (years)</strong></td>
<td>Mean (SD) 3.76 (2.717)</td>
</tr>
<tr>
<td><strong>Neurological level of injury</strong></td>
<td>N (%) C2 2 (16.7%)</td>
</tr>
<tr>
<td></td>
<td>N (%) C3 4 (33.3%)</td>
</tr>
<tr>
<td></td>
<td>N (%) C4 3 (25%)</td>
</tr>
<tr>
<td></td>
<td>N (%) C5 1 (8.3%)</td>
</tr>
<tr>
<td></td>
<td>N (%) C6 2 (16.7%)</td>
</tr>
<tr>
<td></td>
<td>N (%) C7 0 (0%)</td>
</tr>
<tr>
<td><strong>AIS</strong></td>
<td>N (%) C 3 (25%)</td>
</tr>
<tr>
<td></td>
<td>N (%) D 9 (75%)</td>
</tr>
<tr>
<td><strong>UEMS</strong></td>
<td>Mean (SD) 35.2 (9.21)</td>
</tr>
<tr>
<td><strong>LEMS</strong></td>
<td>Mean (SD) 34.1 (9.08)</td>
</tr>
<tr>
<td><strong>WISCI II score</strong></td>
<td>Mean (SD) 9.3 (3.55)</td>
</tr>
<tr>
<td><strong>110mWT (m/sec)</strong></td>
<td>Mean (SD) 0.43 m/sec (0.478)</td>
</tr>
<tr>
<td><strong>29-HPT (sec)</strong></td>
<td>Mean (SD) 159.89 (105.245)</td>
</tr>
<tr>
<td><strong>Pinch dynamometry force (Newtons)</strong></td>
<td>Mean (SD) 32.92 (32.312)</td>
</tr>
<tr>
<td><strong>GRASSP v2 total score</strong></td>
<td>Mean (SD) 54.8 (14.95)</td>
</tr>
<tr>
<td><strong>FDI-MEP amplitude, % of M-Max</strong></td>
<td>Mean (SD) 5.35 (3.999)</td>
</tr>
<tr>
<td><strong>TA-MEP amplitude, % of M-Max</strong></td>
<td>Mean (SD) 6.63 (4.094)</td>
</tr>
</tbody>
</table>

*First 12 randomized subjects

1N=2 (16.7%) unable to complete at baseline
2N=3 (25%) unable to complete at baseline
✓ Primary or secondary outcome measure
Advancing NVG-300

• A new proprietary molecule discovered at NervGen in 2022
• Demonstrated promising efficacy during initial preclinical evaluation in SCI
  • Severe injury model characterized by heightened spinal cord damage and impaired spontaneous recovery
• Demonstrated favorable pharmaceutical properties (solubility, metabolic stability)
• Eligible for the BLA development path
• Composition of matter IP protection expected to extend beyond 2040

Next steps
• Formulation development
• Further preclinical evaluation in SCI
• Initiating evaluation in preclinical models of ischemic stroke and ALS

Adds diversity to pipeline and provides strategic optionality for future partnering opportunities
NervGen Summary

• NVG-291 proof-of-concept trial underway in subjects with chronic SCI
  • Evaluating motor connectivity, function and subject-perceived benefit
  • Targeting to complete chronic cohort enrollment in Q3
  • Subacute cohort targeted to initiate enrollment in Q3

• NVG-300 advancing
  • Furthering preclinical evaluation in SCI
  • Initiating evaluation in preclinical models of ischemic stroke and ALS
Upcoming Milestones

- Targeting Q3 to complete Phase 1b/2a enrollment in chronic cohort
- Initiating enrollment in subacute cohort
- NVG-300 preclinical data in stroke, ALS, SCI
- Phase 1b/2a proof-of-concept readout in chronic SCI
Leadership

Mike Kelly, MBA  
Chief Executive Officer  
Mike has over 30 years of pharmaceutical experience. Most recently, as President of US Operations for Adapt Pharma, Inc., which developed and commercialized NARCAN (naloxone HCl) Nasal Spray in the US and Canada and was sold to Emergent BioSolutions for US$735 million.

Bill Adams, CPA, CA  
Chief Financial Officer  
Bill has over 25 years of strategic financial management experience that includes mergers and acquisitions, operations and capital markets in Canada and the US.

Dan Mikol, MD, PhD  
Chief Medical Officer  
Dan has over 25 years of pharmaceutical experience as a practicing physician conducting clinical research in the field of neurology. Most recently, at Amgen he served as the Head of clinical development in neurosciences and nephrology and was instrumental in the approval of Aimovig. Dan was also the development lead at Biogen and supported the Japan approval of Tysabri for relapsing multiple sclerosis.

Chuck Olson, DSc  
Sr. VP, Technical Operations  
Chuck has over 40 years of experience as a biotechnology industry professional with a broad scientific and operational experience in process development, manufacturing and CMC associated quality and regulatory activities for many clinical and commercial products.

Liz Eberhardt, BSc  
Sr. VP, Project Management  
Liz has over 25 years of biotech experience in product leadership and program management. Throughout her career, Liz has taken multiple compounds through all stages of development including preclinical and commercialization.

Matvey Lukashev, PhD  
VP, Research & Preclinical Dev.  
Matvey has over 30 years of experience in academia, industry and biotech settings focused on translational research and drug discovery.
## Share and Capital Structure

<table>
<thead>
<tr>
<th>Exchange/Market: Ticker</th>
<th>TSX: NGEN.V</th>
<th>OTCQB: NGENF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recent Share Price</strong></td>
<td>CA $2.96</td>
<td>US $2.15</td>
</tr>
<tr>
<td>(August 9, 2024)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Shares Outstanding</strong></td>
<td>70.2 million</td>
<td></td>
</tr>
<tr>
<td><strong>Fully Diluted</strong></td>
<td>92.5 million</td>
<td></td>
</tr>
<tr>
<td>(~12.2 million options &amp; retention securities, ~10.1 million warrants*)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Insider Ownership</strong></td>
<td>23.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Cash &amp; Cash Equivalents</strong></td>
<td>CA $30.3 million</td>
<td>US $22.4 million</td>
</tr>
<tr>
<td>(March 31, 2024)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Warrant exercise prices between US$1.75 to CA$3.00*
Enabling the Nervous System to Repair Itself

www.nervgen.com