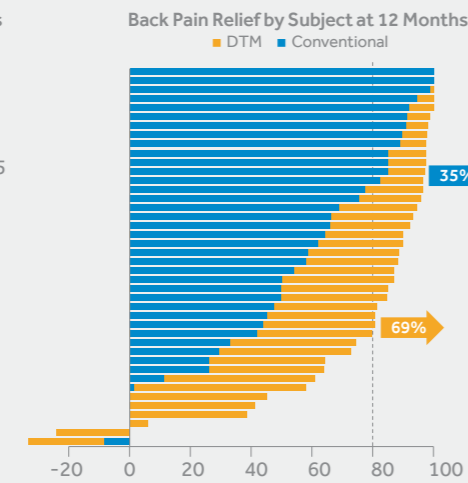
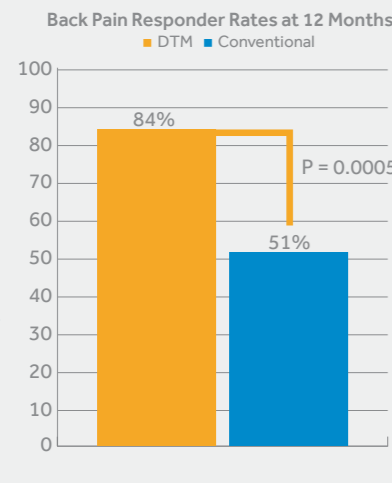


DTM™ SCS PROVED SUSTAINED SUPERIORITY COMPARED TO CONVENTIONAL STIMULATION AT 3 AND 12 MONTHS¹². PROVEN ONLY ON THE INTELLIS™ PLATFORM.

Post-market, multi-center, randomized control trial (RCT) comparing the efficacy of DTM™ SCS for back pain compared to conventional SCS using the Medtronic Intellis™ spinal cord stimulator.¹²

84%

Highest back pain responder rate reported at 12 months in similar RCTs* (> 50% improvement).

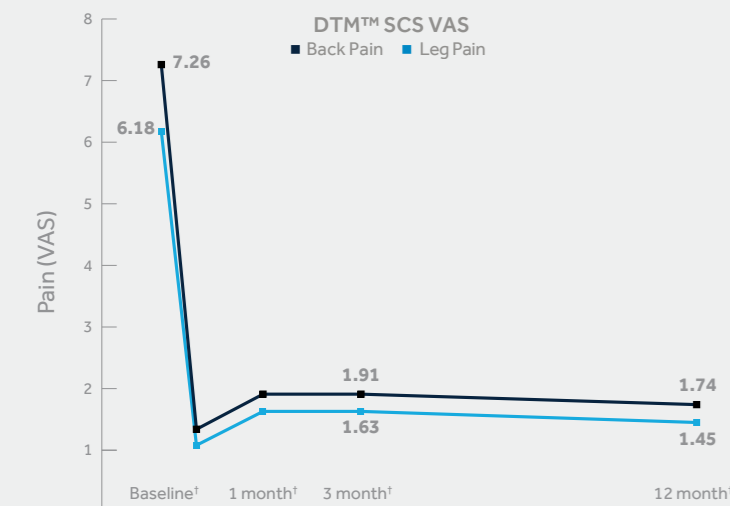


69%

7 out of 10 patients were profound back pain responders (≥ 80% pain relief).

* Descriptive comparison, including studies with similar design (RCT; randomization >100 subjects; comparing 2 SCS therapies; with at least 12-months follow up) and patient populations (inclusion/exclusion criteria; baseline demographics) with back pain responder rates reported. This is not based on a statistical analysis of outcomes between studies.

Sustained back and leg pain relief with DTM™ SCS. Mean VAS scores less than 2 at 12 months.¹²



7.26



with DTM™ SCS at 12 months

1.74

6.18



with DTM™ SCS at 12 months

1.45

† Back Pain (n): Baseline (58), 1 Month (46), 3 Month (47), 12 Month (43)
Leg Pain (n): Baseline (58), 1 Month (45), 3 Month (46), 12 Month (42)



Intellis™ with Overdrive™ battery technology, guarantees **95% capacity after 9 years***, with **3x faster recharge** than traditional lithium ion batteries**, so **patients can have more free time to focus on their lives.**



* R131649 RS2 Lithium-Ion Overdrive™ Rechargeable Battery DVT Report
** Quallion battery specification. http://www.arpa-e-summit.com/paperclip/exhibitor_docs/13AE/Quallion_LLC_36.pdf

Medtronic is invested in building long-term evidence for DTM™ SCS powered by Intellis™ with AdaptiveStim™ technology.



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See the device manual for detailed information regarding the instructions for use, the implant procedure, indications, contraindications, warnings, precautions, and potential adverse events. For further information, contact your local Medtronic representative and/or consult the Medtronic website at www.medtronic.eu. For applicable products, consult instructions for use on www.medtronic.com/manuals. Manuals can be viewed using a current version of any major internet browser. For best results, use Adobe Acrobat® Reader with the browser.

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SUPERIOR PAIN RELIEF. PROVEN¹

DTM™ SCS

A new therapy based on science and proven only on Intellis™ with Overdrive™ battery technology



Medtronic
Further, Together

BEYOND THE NEURON

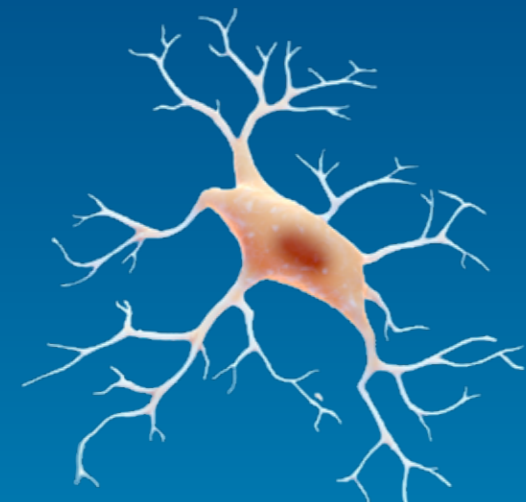
Glial cells are active contributors to neural processing and various disease states, including chronic pain. In a pain state, glial cells are known to release factors that can sensitize neurons and cause pro-inflammatory responses, indicating they play a crucial role in the chronic pain process.²⁻⁴

Furthermore, decades of basic science research have discovered glial cells outnumber neurons 12:1 in the spinal cord.⁶ Pre-clinical evidence suggests glial cells can be modulated with electrical stimuli, resulting in the release of neurotransmitters, impacting cell-to-cell communication.²

BEHIND THE SCIENCE

Glial cells³:

- Are key contributors to chronic pain mechanisms
- Respond to neuronal signaling molecules
- Release signaling molecules (*that can be protective or pathological*)
- Release inflammatory signals in chronic pain states
- Respond to electrical stimuli⁵

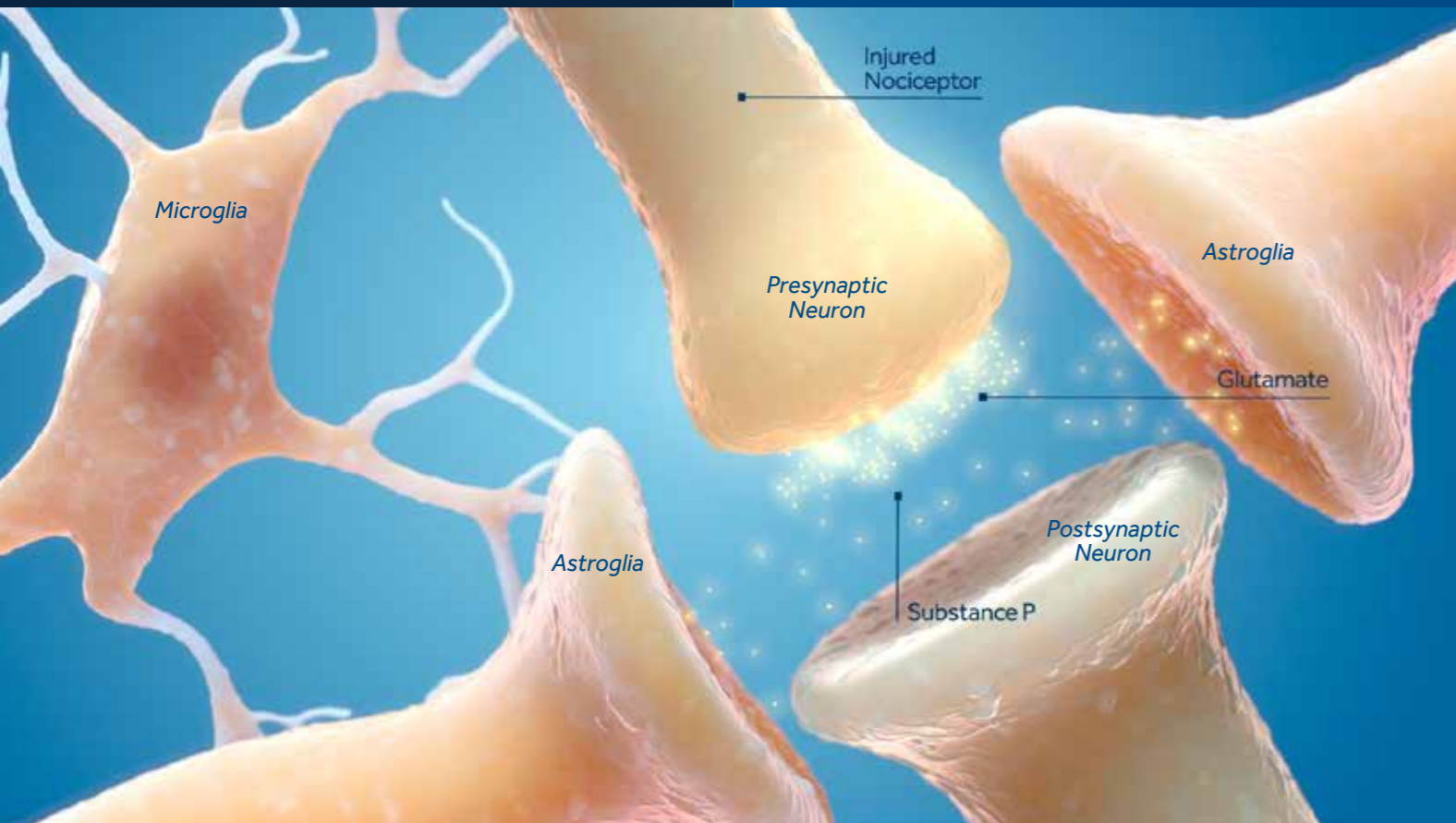


Resting State (Normal)



In Pain State (Activated Glial Cell)

THE SYNAPTIC MICRO-ENVIRONMENT

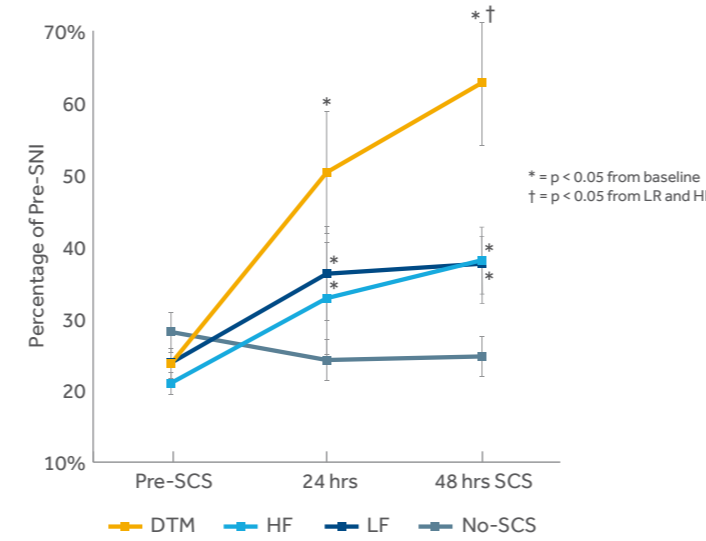


TOWARD A NEW THEORY

Hypothesis: Do glial and neuronal cells have varied responses to different waveforms?

Conclusion: In pre-clinical studies, the DTM™ waveform best modulates glial and neuronal gene expression **back toward the non-pain state when compared to low or high frequency SCS.**⁸⁻¹¹

MECHANICAL SENSITIVITY^{8,9}



Evaluated SCS modalities:

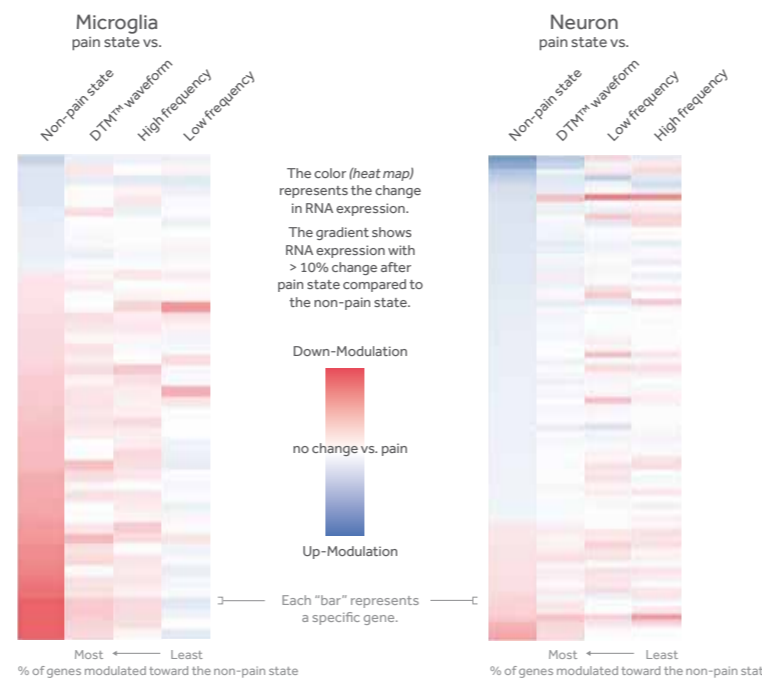
- DTM**
- HF** = 1,200 Hz and PW = 50 μ s
- LF** = 50 Hz and PW = 150 μ s

Study Description:

Behavioral studies were conducted in spared nerve injury (SNI) models of pain in rodents. Testing included paw withdrawal to a mechanical stimulus.

The DTM™ waveform has been studied in animal models, showing statistically significant reversal of pain behaviors compared to either low- or high-rate stimulation.^{7,8,11}

GENE EXPRESSION ANALYSIS



Study Description:

Analysis of RNA expression comparing the pain state with non-pain state and SCS therapies in rodents.⁸⁻¹¹

With the DTM™ waveform:

- Glial cells were modulated, in addition to neurons.
- The neuron and microglia modulation was closest to non-pain state compared to low or high frequency alone.
- Genes related to biological functions, such as neuroinflammation, were modulated towards the non-pain state.¹¹

INSPIRED BY SCIENCE

How is DTM™ SCS is applied to your patient? DTM™ SCS is a proprietary, multiplexed algorithm coordinating multiple signals at multiple anatomical targets. Therapy and settings are customized to your individual patient's needs.

Patient selection in the DTM™ RCT was as follows¹

- Patients diagnosed with back and leg pain, including unilateral pain (back/leg) (≥ 5 cm VAS in low back pain with moderate to severe leg pain)
- Diagnoses consistent with commercial labeling
- SCS naïve

DTM™ SCS proprietary algorithm includes:

$$3 + 4 + 6 + 6 = \text{DTM}^{\text{TM}} \text{ SCS PROGRAMMING ALGORITHM}$$

THERAPY OPTIONS SIGNALS ANATOMICAL TARGETS PATIENT AMPLITUDES

Every DTM™ SCS therapy option coordinates multiple signals into one distinct therapy. The signals vary in frequency, pulse width, amplitude, and anatomical targets.

DTM™ SCS Workflow

Step-by-Step Process of Implementing DTM™ SCS Therapy

- IF** lead spans MID T8–MID T10, **THEN** consider the DTM™ SCS workflow.
- A flouro shot is recommended after lead anchoring to ensure final lead placement.
- Use DTM™ SCS therapy, a programming algorithm based on the coordination of multiple signals at multiple targets.
- Conduct daily patient follow-up to assess for optimal programming.

