



Private Company

Breakthrough approaches in neuropathic pain relief

Background

As a global leader in consumer health, we focus on everyday wellness through a broad range of over-the-counter solutions for nutritional support and pain relief. Neuropathic pain arises from damage or dysfunction within the peripheral nervous system and is distinct from other forms of pain, such as pain caused by injury or inflammation. It often manifests as burning, tingling, shooting, or stabbing sensations, severely impacting quality of life. Its complexity stems from the diverse mechanisms involved, including nerve fiber damage, altered signal processing, and hypersensitivity, making it challenging to diagnose, manage, and treat effectively. Currently, the management of neuropathic pain primarily relies on prescription medications, such as anticonvulsants, antidepressants, and topical therapies like lidocaine patches. These treatments often provide only partial relief and may be associated with significant side effects, limiting long-term use. In the over-the-counter (OTC) space, options are limited: some topical analgesics, like capsaicin creams or menthol-based products, are marketed for pain relief, but their efficacy in true neuropathic pain is modest at best. Developing innovative OTC treatments for neuropathic pain could significantly expand access to effective symptom management, empower individuals to manage their symptoms earlier and more proactively, and create more holistic, consumer-centered solutions that better address the complexity of neuropathic pain.

What we're looking for

We are looking for innovative topical and systemic solutions for neuropathic pain that can be developed into effective, consumer-friendly over-the-counter (OTC) treatments, leveraging emerging science and holistic approaches. We are also open to novel delivery methods that enhance the efficacy or tolerability of existing active compounds, such as improving the performance of ingredients like capsaicin.

Solutions of interest include:

- Topical nanoemulsion systems delivering bioactives to nerves
- Wearable patches using microcurrent or transcutaneous electrical nerve stimulation
- Targeted cooling therapy devices
- Nutraceuticals supporting nerve repair
- Topical cannabinoids (e.g., CBD) formulated for neuropathic pain
- Smart wearables that monitor pain flare-ups and deliver interventions
- Vibration therapy tools designed for home-based nerve stimulation
- Microneedle patches delivering nerve-calming agents

- Multi-sensory kits combining olfactory, thermal, and tactile stimuli for nerve distraction
- Photobiomodulation (low-level light therapy) OTC devices for nerve pain relief

Our must-have requirements are:

- Preliminary evidence or scientific rationale indicating potential efficacy
- Designed or adaptable for consumer-friendly, over-the-counter (OTC) use

Our nice-to-have's are:

- Demonstrated mechanism of action targeting neuropathic pain symptoms
- Offers flexibility for personalized or adjustable dosing/use
- Supported by early user or patient feedback indicating acceptability
- Avoids reliance on controlled substances or heavily regulated ingredients

What's out of scope:

- Prescription-only drugs (Rx), unless supported by a clear path to OTC conversion
- Cosmetic products lacking scientific evidence or therapeutic intent

Acceptable technology readiness levels (TRL): Levels 4-9

1. Basic principles observed
2. Concept development
3. Experimental proof of concept
4. Validated in lab conditions
5. Validated in relevant environment
6. Demonstrated in relevant environment
7. Regulatory approval
8. Product in production
9. Product in market

What we can offer you

Eligible partnership models:

- Sponsored research
- Co-development
- Supply/purchase
- Licensing
- Material transfer

Benefits:

Sponsored Research

Funding is proposal-dependent, starting with a proof-of-concept project (typically ranging from \$25k – \$100k over six months), with potential for expansion based on results. Proposals will be assessed individually, and offers may vary depending on scope and potential.

Expertise

We offer the expertise of our team of scientists for collaboration and guidance during the project's development.

Please contact the University of South Florida Technology Transfer office representative for submission – Karla Schramm at kschramm@usf.edu