



DOGWOOD
THERAPEUTICS

Halneuron® for the Treatment of Chemotherapeutic Induced Neuropathic Pain (CINP) Virtual KoL Event

September 1, 2026

Forward-Looking Statements

Statements in this presentation contain “forward-looking statements,” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, that are subject to substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this presentation are forward-looking statements. Forward-looking statements contained in this presentation may be identified by the use of words such as “anticipate,” “believe,” “contemplate,” “could,” “estimate,” “expect,” “intend,” “seek,” “may,” “might,” “plan,” “potential,” “predict,” “project,” “suggest,” “target,” “aim,” “should,” “will,” “would,” or the negative of these words or other similar expressions, although not all forward-looking statements contain these words. Forward-looking statements are based on the current expectations of Dogwood Therapeutics, Inc. (“Dogwood”) and are subject to inherent uncertainties, risks and assumptions that are difficult to predict, including risks related to the completion, timing and results of current and future clinical studies relating to Dogwood’s product candidates. Further, certain forward-looking statements are based on assumptions as to future events that may not prove to be accurate. These and other risks and uncertainties are described more fully in the section titled “Risk Factors” in the Annual Report on Form 10-K for the year ended December 31, 2025, filed with the Securities and Exchange Commission. Forward-looking statements contained in this presentation are made as of this date, and Dogwood undertakes no duty to update such information except as required under applicable law.

Today's Agenda

- Introduction/CINP Patient Journey: **Greg Duncan**, Chairman and CEO of DWTX
- Role of Nav ion channels in pain signaling/differentiated MOA in Nav1.7 v 1.8: **Iain D. Dukes, D.Phil.**, Venture Partner at OrbiMed Advisors LLC
- Halneuron® (tetrodotoxin) clinical research summary/Phase 2b study update: **R. Michael Gendreau, M.D., Ph.D.**, Chief Medical Officer, DWTX
- Unmet CINP need and blinded observations from the Phase 2b study: **J. Mark Joyce, M.D.**, investigator for CNS Healthcare of Jacksonville
- Advancement of the first ever synthetic formulation of Tetrodotoxin to support Halneuron® Phase 3 development and commercialization: **Jerry Evarts, Ph.D.**, expert CMC consultant working with DWTX
- Summary/Q&A: Moderated by **Greg Duncan**, Chairman and CEO of DWTX

The Problem: CIPN Patient Journey



Chemotherapy Induced Neuropathy Symptom Onset

Patients Experience

- Pain
- Numbness
- Tingling
- Sensitivity to cold
- Muscle weakness
- Balance disturbance, and others

Oncologist Cancer Treatment Considerations



- **Mild** – continue chemo + monitor
- **Moderate** – dose reduction/delay
- **Severe** – discontinue chemo



Pain Specialists Initial Commercial CIPN Call Point

- Post chemo chronic pain patients referred to pain centers
- Pain specialist (i.e. Neurologist, anesthesiologists, etc.) treat “off-label” chronic pain meds (e.g. duloxetine, pregabalin, opioids)

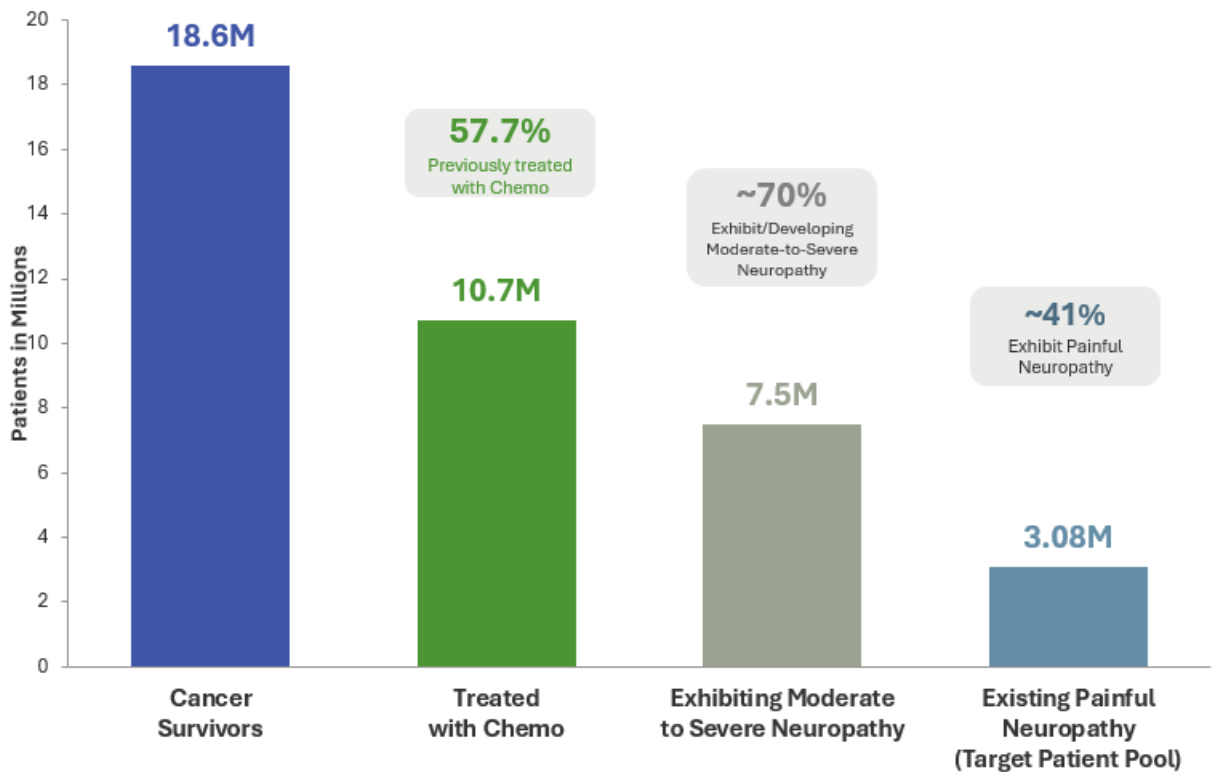


Oncologists Represent Market Development Opportunity

- Oncologist treatment of pain represents a growth option
- Buy and bill model aligns well for injectable treatments
- LCM expansion to general cancer related pain

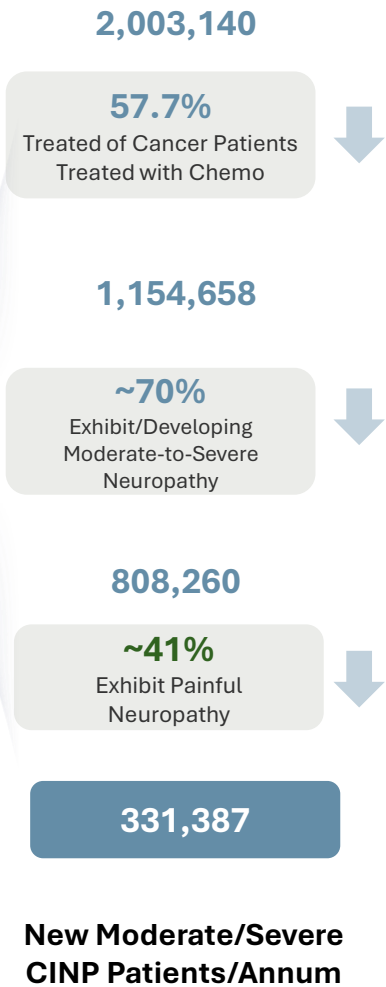
Moderate-to-Severe CINP Represents a Major Unmet Medical Need

There are > 3 Million Existing US CINP Patients



Annual Estimated Burden of New Cancer Type

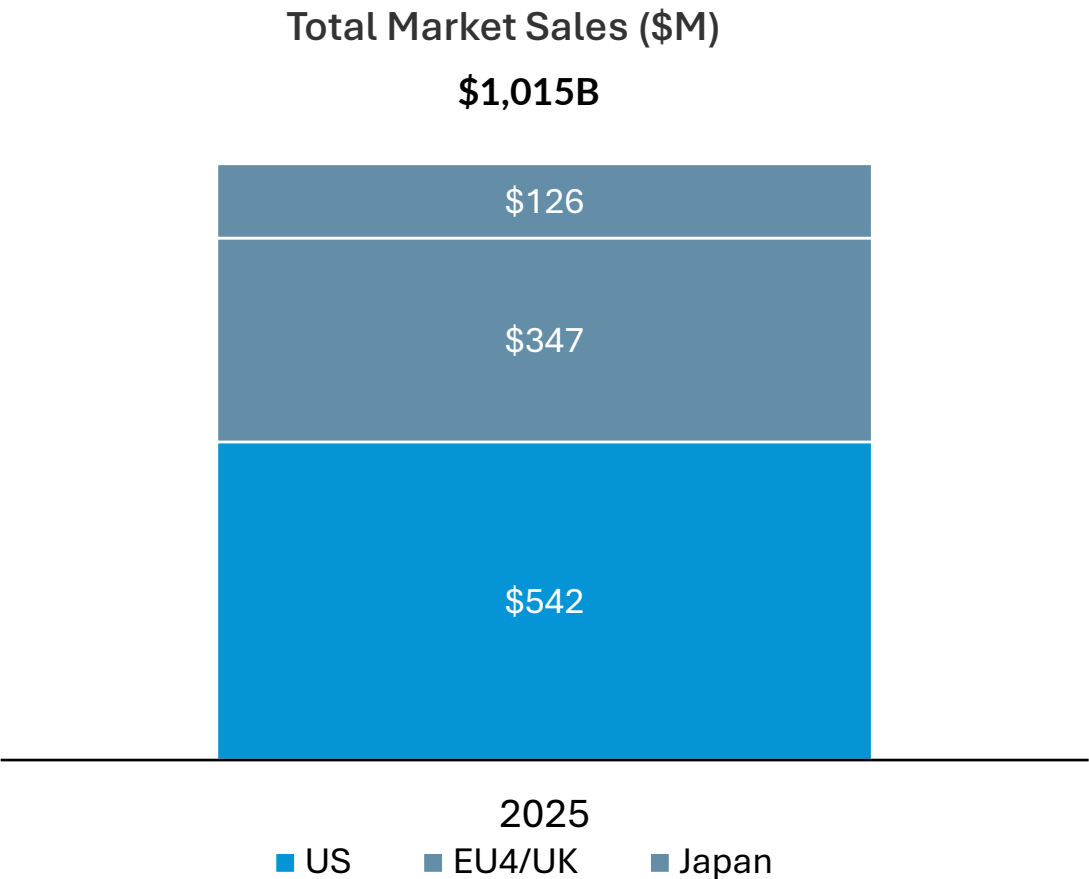
Cancer Type	New Cases
Breast	313,310
Prostate	299,010
Lung	234,580
Colorectal	152,810
Skin	100,640
Bladder	83,190
Kidney	81,610
Non-Hod Lymphoma	80,620
Uterine	67,880
Pancreatic	66,440
Thyroid	44,020
Liver	41,630
Myeloma	35,780
Total New	2,003,140



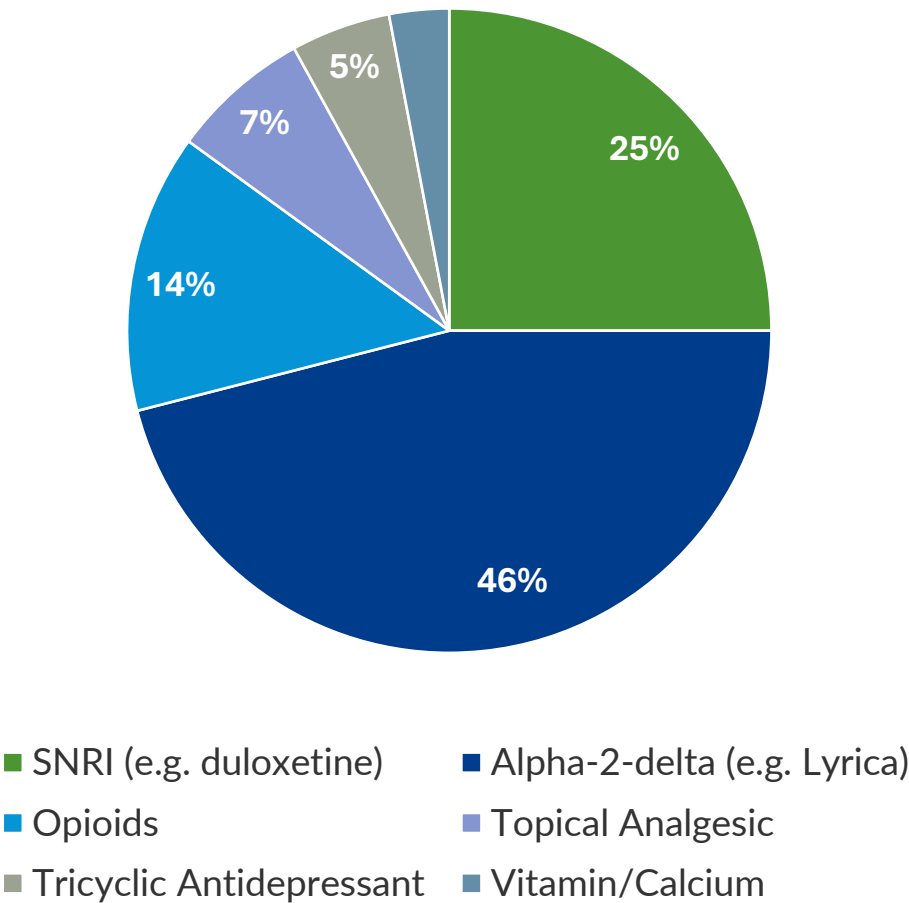
Global incidence of CINP is ~ 10X of the US patient pool and growing

Worldwide incidence of cancer is projected to grow by 53% by 2040

Significant CINP Treatment Market Across 7 Major Markets (7MM), Despite No FDA Approved Treatments



Market Share (%) by Therapy in the 7MM, 2026



Our Solution - Halneuron®

Halneuron® is Tetrodotoxin (TTX), a voltage-gated sodium channel blocker and potent small molecule found in puffer fish and several other marine animals (not a peptide or protein)



- The actual source of tetrodotoxin is not the fish, but bacteria that thrive in environmental contaminated waters
- Halneuron® works as an analgesic by binding to the Na_v1.7, channel, a sodium channel responsible for pain signal transmission
- Modulates pain transmission in the peripheral nerves, no CNS effects
- Halneuron® treatment administered as a sub-Q injection has demonstrated statistically significant, durable pain reduction, with acceptable safety profile, in cancer and chemotherapy related clinical pain studies to date
- Loss of NA_v 1.7 function leads to the genetic disorder Congenital Insensitivity to Pain Syndrome





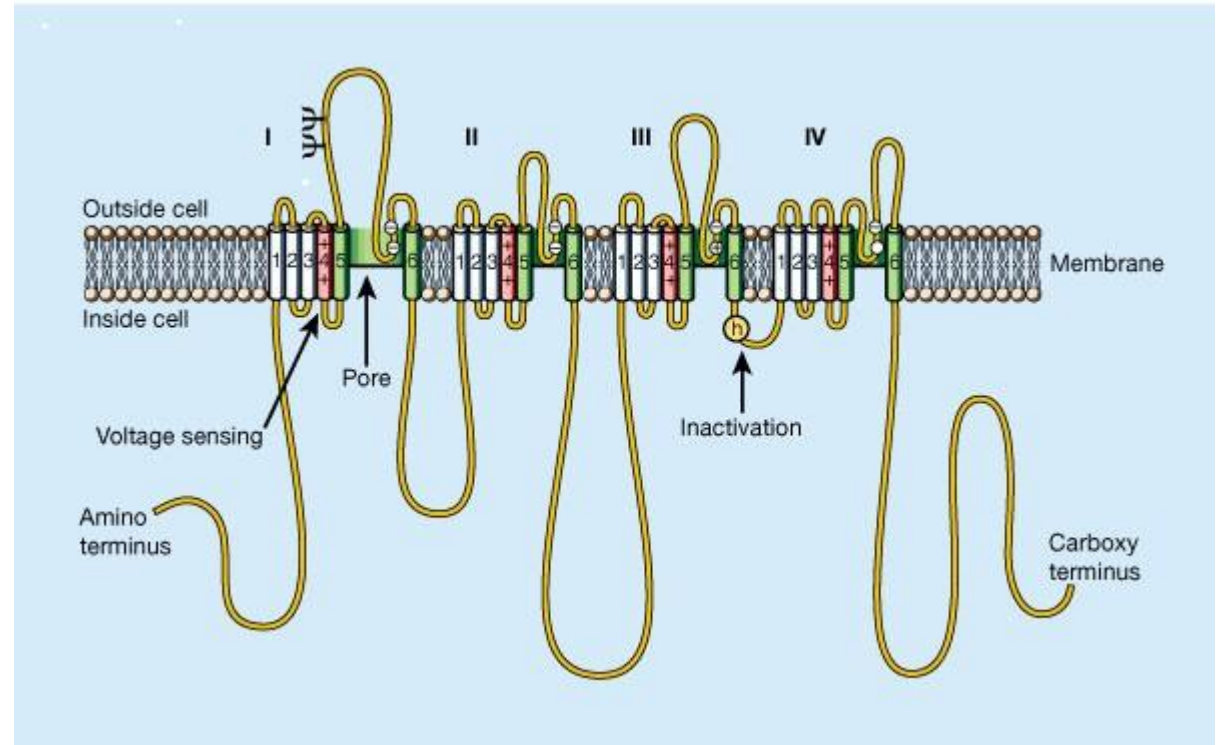
Role of Nav ion channels in pain signaling Differentiated MOA in Nav1.7 v 1.8



Iain D. Dukes, D.Phil., Venture Partner at OrbiMed Advisors LLC

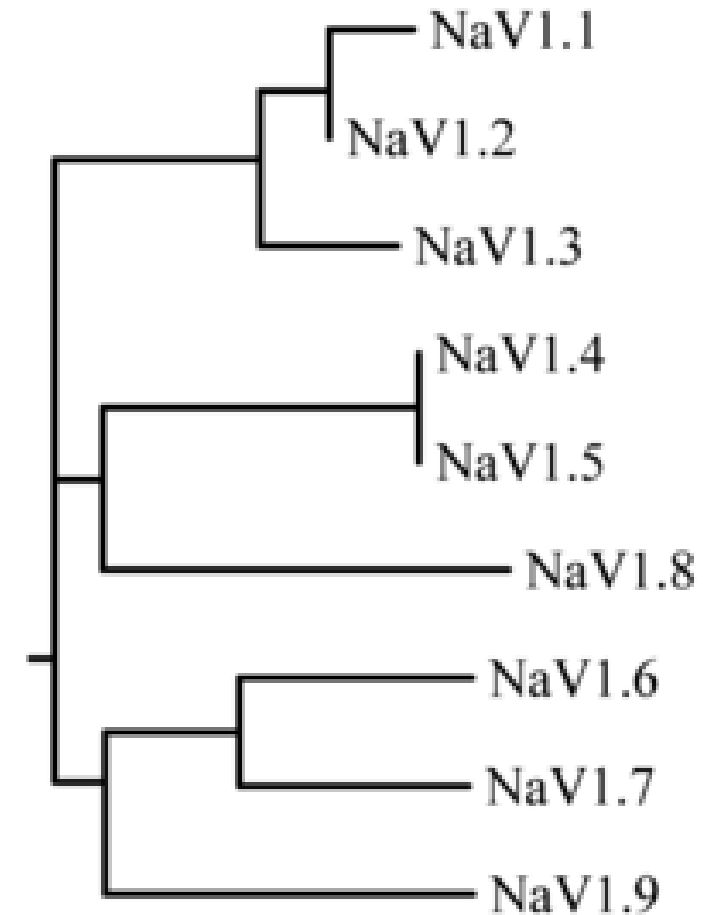
What are NaV channels

- Voltage gated sodium channels (NaV) comprises a family of integrated membrane proteins that conduct sodium ions from the extracellular space through a cell's membrane
- Structurally, they consist of alpha subunits that form a pore in the plasma membrane through which Na ions flow and beta subunits that exert a modulatory function on their activity
- The alpha subunit consist of 4 repeated domains (I-IV) each of which contains six (S1-S6) membrane-spanning segments; S4 serves as the voltage sensor and controls the opening of the channel in response to a change in the transmembrane voltage potential
- In excitable cells the opening of NaVs enable the rising phase of action potentials and their propagation



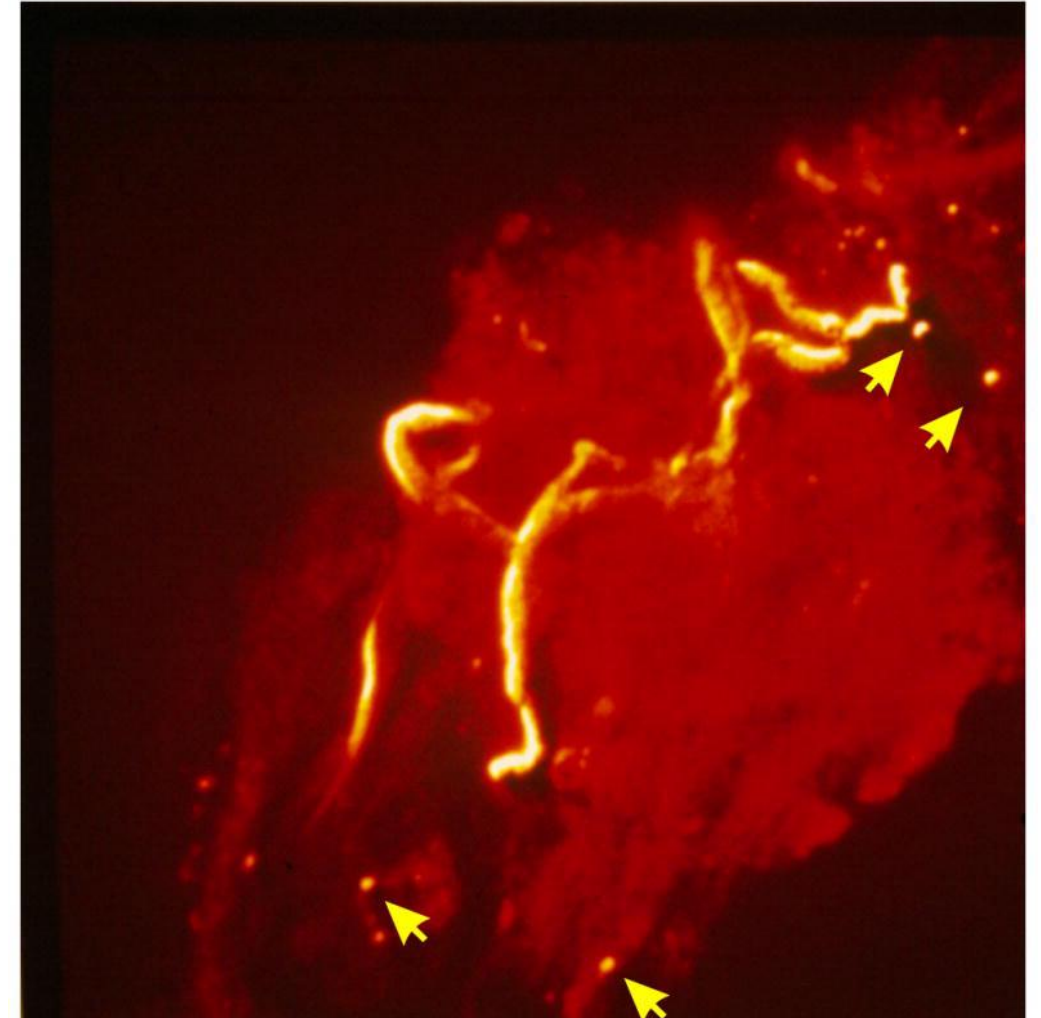
NaV isoforms are Differentially Expressed

- There are 9 NaV family members that differ in their structure, regulation and tissue distribution
- The NaV 1.x family are all expressed in the brain, whereas a few isotypes are also expressed in the periphery
 - ❖ NaV 1.5 in cardiac tissue
 - ❖ NaV 1.4 in skeletal muscle
 - ❖ NaV 1.7–1.9 dorsal root ganglia
- Dorsal root ganglia expression is a target tissue for peripheral pain modulation



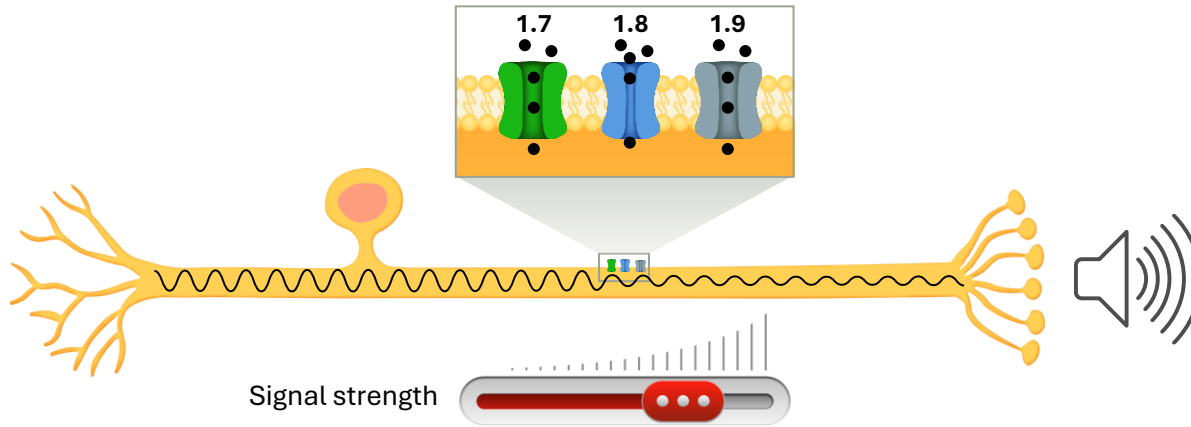
Role of NaV in pain

- Voltage gated sodium channels (NaV1.7-1.9) are important in the peripheral signaling of pain
- NaV1.7 is of particular interest because individuals with NaV1.7 loss of function mutations are congenitally insensitive to the perception of acute and chronic pain
- Non-central components to pain perception that are related to NaV1.7 activation include transduction of pain stimuli at peripheral nerve terminals and axonal transmission of action potentials to the CNS
- Chronic pain conditions- including inflammatory pain- are associated with an increase in expression levels of NaV1.7, pointing to its critical role in hyperalgesia and allodynia



Nav Sodium Channel Signaling

Nerve Damage from Chemotherapy Triggers Pain Signaling



The Role of Nav Sodium Channels

Nav 1.7

Critical to setting the depolarization threshold, and therefore the probability of triggering an electrical signal required to transmit pain signals (“on/off switch”)

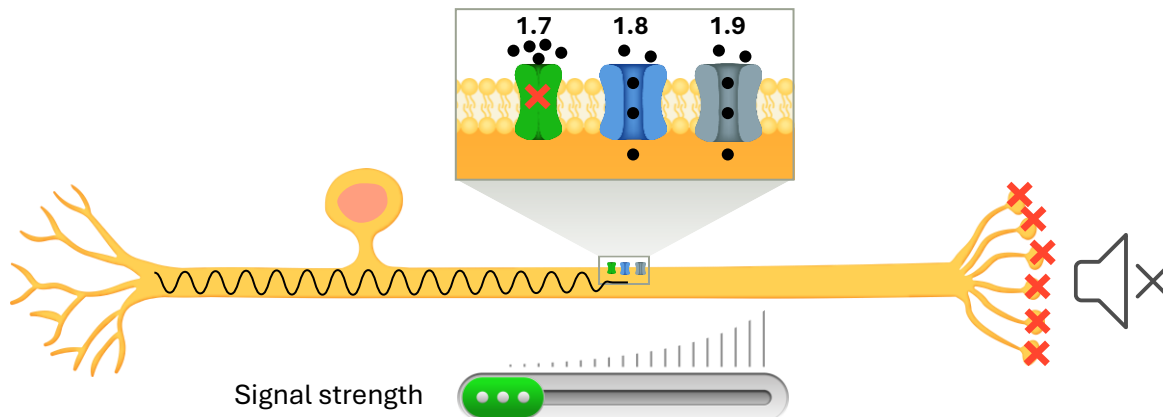
Nav 1.8

Acts as a “dimmer or amplifier” thought to increase pain signaling duration or intensity

Nav 1.9

Thought to be involved in cold pain sensing and small fiber neuropathy.

Halnueron Nav1.7 Inhibition

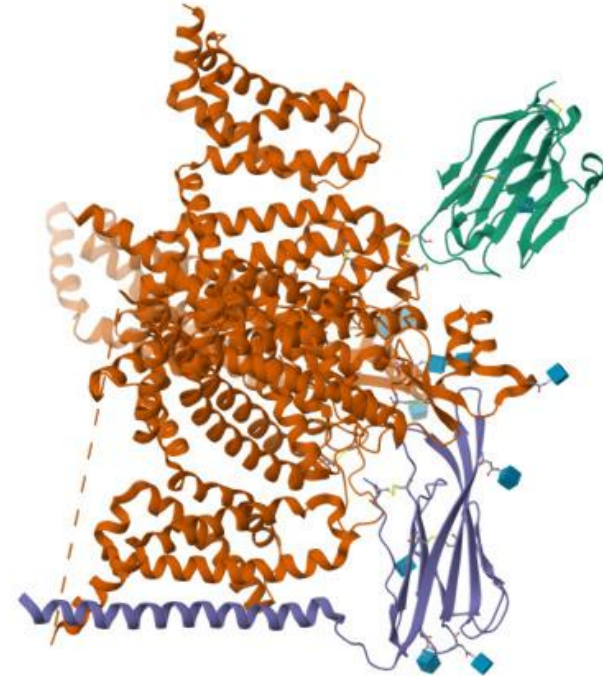


What makes Halnueron different?

- Selectively inhibits Nav 1.7 sodium channel signaling rather than Nav 1.8
- Preclinical data demonstrates:
 - Pain reduction > Nav 1.8 inhibitor in preclinical rat model
 - No additional pain reduction effect when combining a Nav 1.8 inhibitor with Halnueron, highlighting importance of the Nav 1.7 target

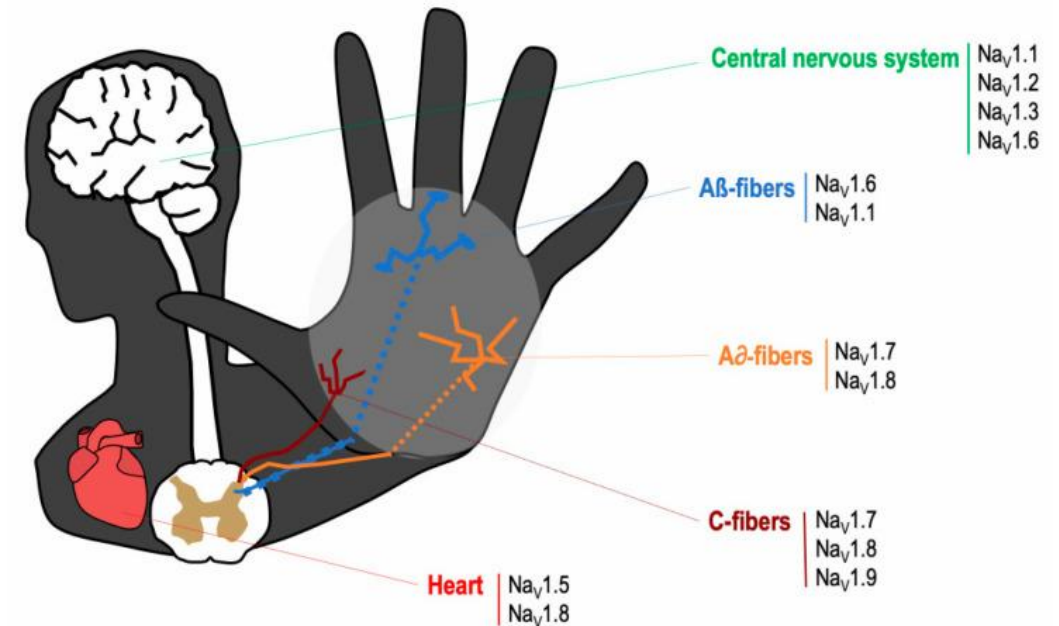
TTX (Halneuron) a Selective NaV Inhibitor for Pain Management

- TTX, a natural chemical originally isolated from the puffer fish is a highly potent inhibitor of NaV function
- Unlike traditional local anesthetic blockers of NaVs (lidocaine), TTX binds to an extracellular site of the S4 voltage sensor and inhibits its activity
- TTXs highest potency is against NaV1.7 – followed by Nav1.4; it does not readily cross the blood brain barrier this provides functional selectivity



Validation of TTX as a potential Best in Class Analgesic

- Preclinical studies involving local as well as sub-chronic administration demonstrated analgesic effects in a variety of animal models
- Multiple clinical studies have been performed with TTX in cancer patients as well as in patients with chemotherapy-induced neuropathic pain
- All studies reported durable efficacy in subjects who demonstrate an initial response
- TTX was generally well tolerated with oral hypoesthesia and paresthesia (numbness or tingling in the oral region) as the principal reported AEs





Halneuron[®] clinical research summary

Phase 2b study update



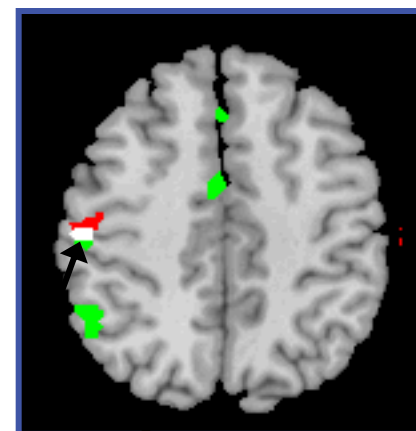
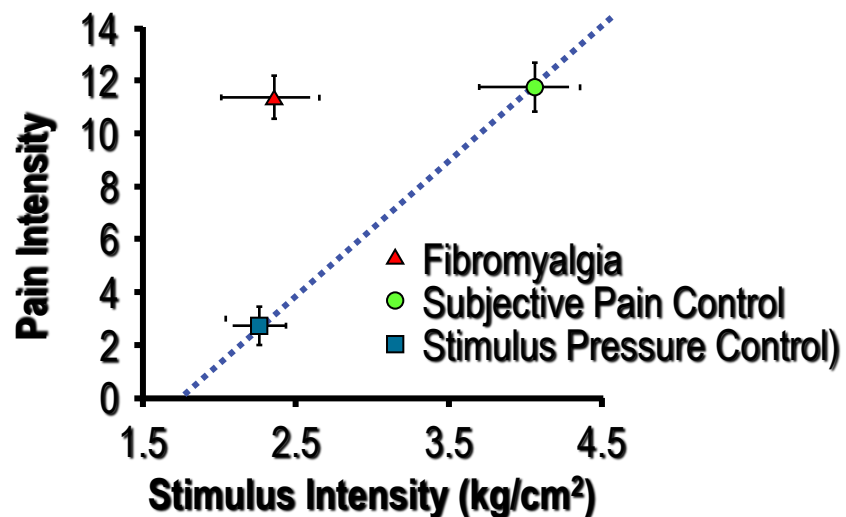
R. Michael Gendreau, M.D., Ph.D.

Isn't chronic pain the same as acute pain?

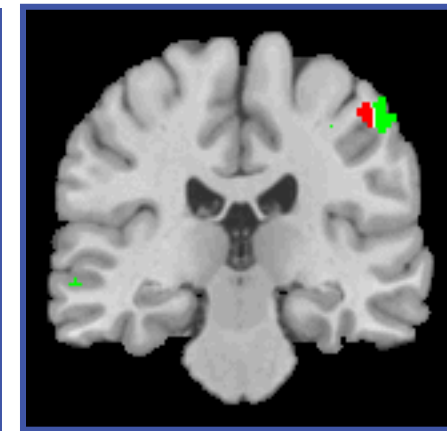
We Have Been Looking for Chronic Pain in All the Wrong Places

- There is no **chronic pain state** where the degree of tissue damage or inflammation in the periphery (nociceptive input or stimulus) correlates well with the reported level of pain
- Yet our approach to treatment (and diagnosis) of chronic pain conditions tends to follow acute pain approaches
- This disparity between peripheral findings and pain underlines the complexity of chronic pain states
 - ❖ Central brain factors (central sensitization)
 - ❖ Spinal cord signaling
 - ❖ Pain networks, both peripheral and central
- We now recognize **three distinct forms** of pain:
 - ❖ **Nociceptive**– traditional acute pain with a pain stimulus
 - ❖ **Nociplastic**– “centralized” pain such as fibromyalgia, features changes in central pain processing
 - ❖ **Neuropathic**– nerve damage leading to changes in peripheral and central pain processing

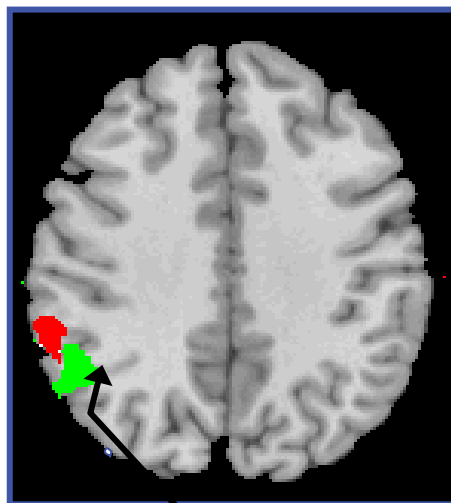
fMRI in Fibromyalgia Demonstrating Brain Changes With Pressure Stimulus



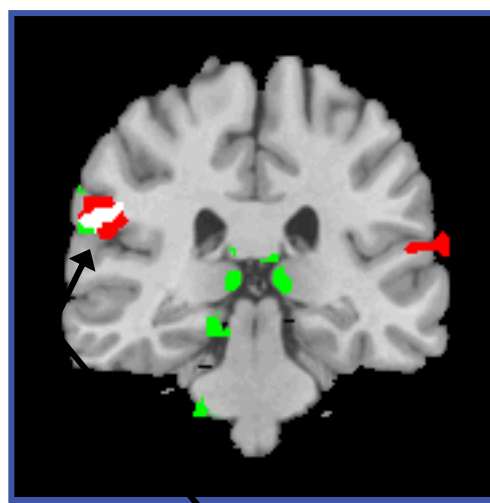
SI



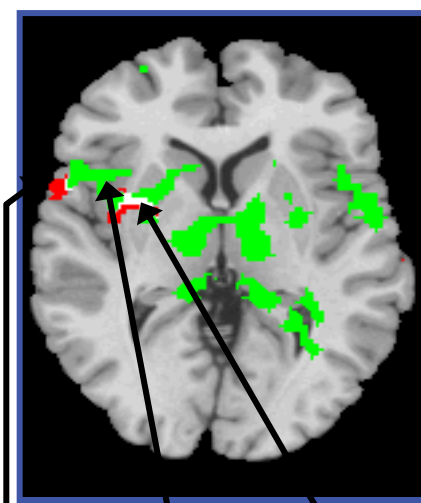
SI (decrease)



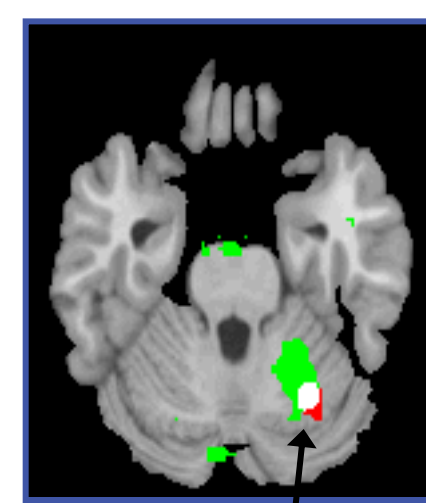
IPL



SII



STG, Insula, Putamen



Cerebellum

Halneuron- 30 ug Lyophilized in Vial/Dosing Characteristics



➤ Pharmacokinetics

- ❖ T-max: Median Tmax from plasma data ranged from 0.667 to 1.50 h in the 15-45 ug dose range
- ❖ Half-life: TTX levels declined following first-order kinetics, with a geometric mean half-life of 4.74 to 8.14 h
- ❖ Clearance: Halneuron is cleared unchanged in the urine. Urine levels declined following first-order kinetics, with geometric mean urine excretion half-life of 4.66 to 7.14 h

➤ Administration

- ❖ Halneuron is delivered as a 1 ml subcutaneous injection
- ❖ Current dosage is 30 ug dissolved in 1 ml of water

Halneuron® Demonstrated Statistically Significant Pain Reduction in Phase 2 Cancer Pain Study



Compared

30 µg BID x 4 days

Placebo BID x 4 days

A “Responder” was defined as a patient who had a mean reduction in pain intensity of ≥ 30%; or ≥ 50% reduction in opioid use

Phase 2 Cancer Related Pain (n=165) – 8 Injections over 4 days – long term follow-up every 15 days after primary endpoint

	TTX		Placebo		Δ
Responder	33	51%	29	35%	16%
Non-Responder	32	49	55	65	
Total	65		84		
95% C.I.	0.4-32.1				
p-value	0.046				

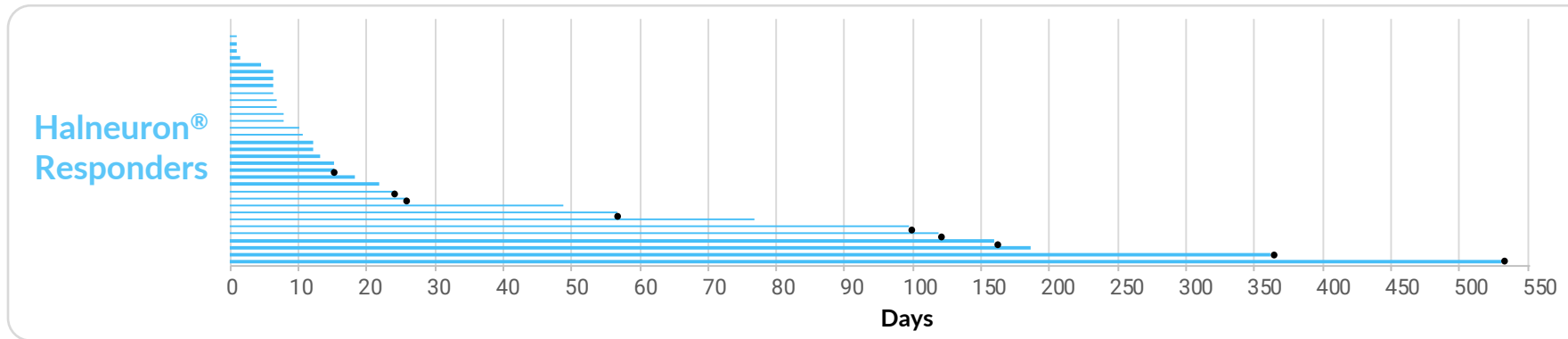
Conclusions

Halneuron® treatment demonstrated statistically significant reduction in cancer related pain

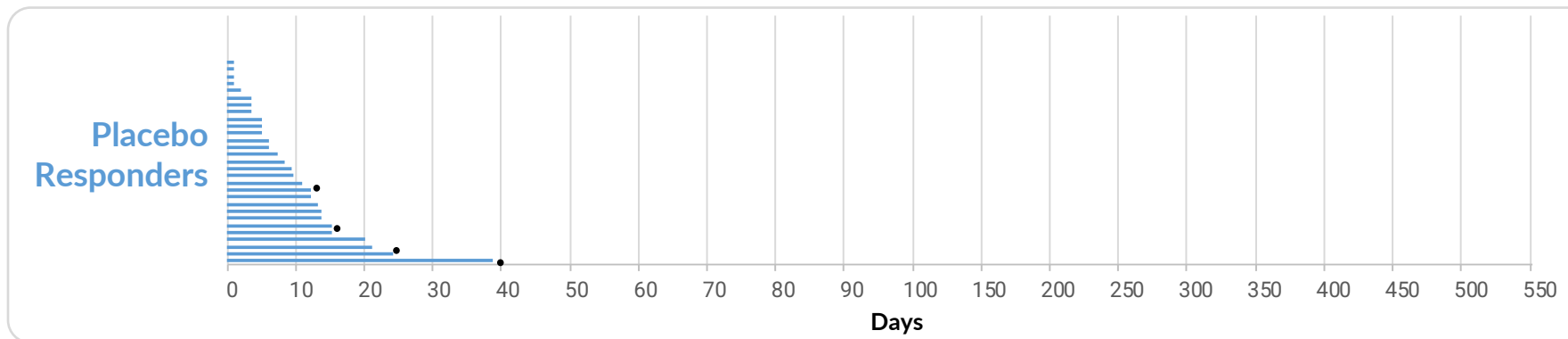
Halneuron® treatment reduced both neuropathic and non-neuropathic pain

Phase 2 CRP Study Demonstrated Durable Pain Relief in Initial Responders

Mean Pain Response For Halneuron® Responders Was
57.7 Days Vs 10.5 Days For Placebo Responders



One-in-four (27%) Halneuron® responders had pain relief for >30 days after 4 days of treatment



Placebo response was temporary

A “Responder” was defined as a patient who had a mean reduction in pain intensity of $\geq 30\%$; or $\geq 50\%$ reduction in opioid use

Phase 2a Achieved Efficacy and Identified Optimal Dose for Phase 2b

Doses Tested

sub-Q injections in patients with neuropathic pain

- 7.5 µg
- 15 µg
- 30 µg



Compared

30 µg BID x 4 days

30 µg QD x 4 days

15 µg BID x 4 days

7.5 µg BID x 4 days



Results

- 30 µg results superior to lower doses and placebo
- 30 µg BID vs QD showed comparable efficacy (with half the total amount of drug delivered)
- 30 µg QD demonstrated a superior adverse event profile to BID dosing
- Halneuron® showed an acceptable safety profile in CINP patients, similar to that seen in CRP



Conclusions

30 µg dosed 1x day selected to advance to Phase 2b studies in CINP

Determined treatment 'effect size' used to power the Phase 2b study (i.e. 0.4) through interim assessment

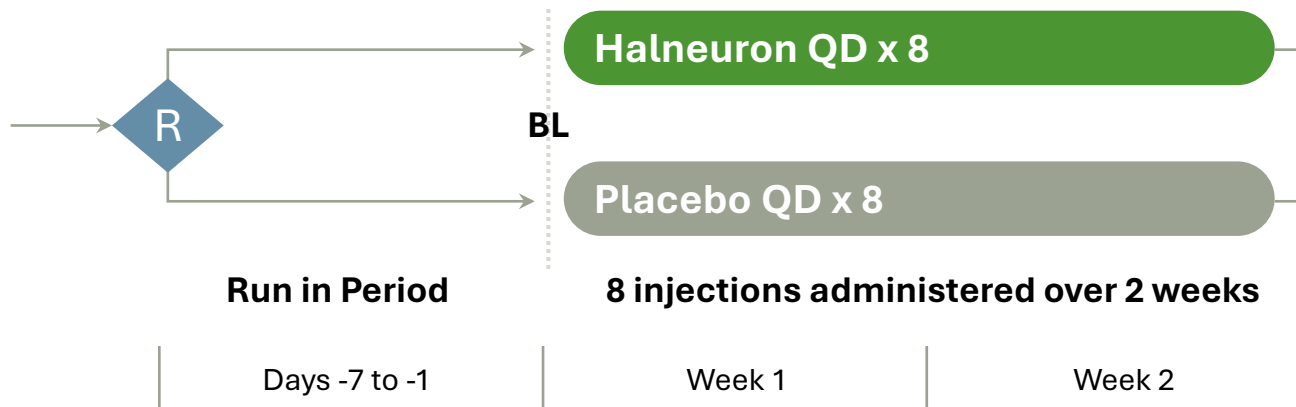
4-Week Phase 2b CINP Study

Primary Objective to explore the safety and efficacy of Halneuron® in the treatment of patients with moderate-to-severe CINP

Screening & Randomization

Treatment Phase

Endpoints (Week 4)



- Change from Baseline in the weekly average of daily 24-hour pain
- Incidence of SAEs, AEs, and AESIs

EOS



Enrollment Goals: 210-240 patients meeting CINP criteria

Phase 2b Interim Analysis Also Demonstrates Efficacy Signal, Durable Response in Refractory CINP

Key Highlights from December 2025 Assessment (n=97)

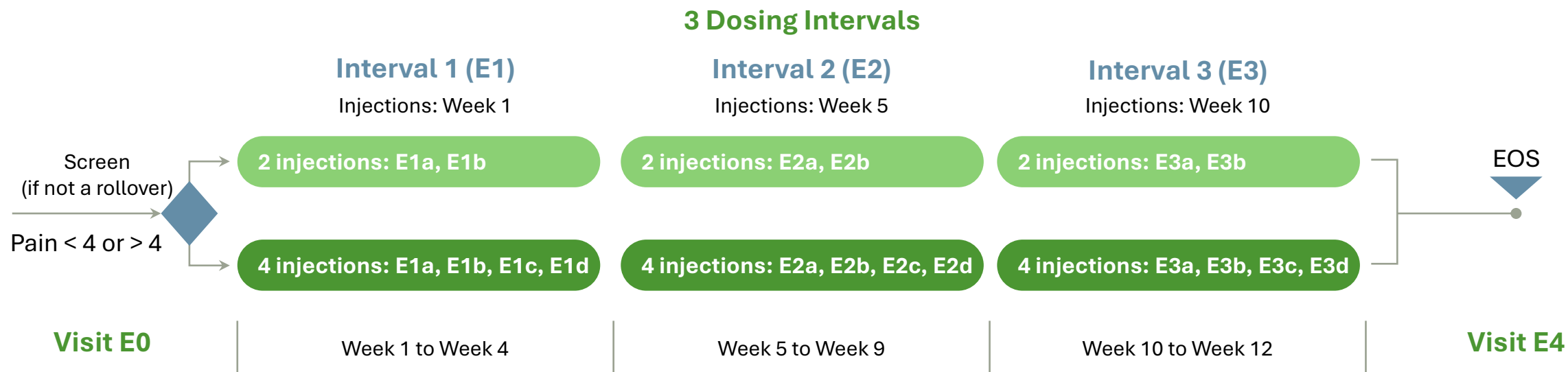
- **Halneuron demonstrating treatment effect versus placebo**
 - Responders exhibit durable treatment pattern
 - Halneuron treatment effect +/- concomitant pain meds also > placebo
 - Halneuron drop out rate (~4.4%) far below other compounds: duloxetine (20+%), pregabalin (30-40%)
- **Halneuron treatment effect noteworthy given:**
 - 5-year (mean) duration of moderate-to-severe neuropathic pain for Ph2b enrollees
 - Includes refractory CINP patients treated with other chronic pain medicines (67%)
- **If successful, Phase 2b trial will represent the first randomized control clinical trial to demonstrate pain reduction effect in CINP patients conducted under FDA chronic pain guidance**
 - Second cancer related pain trial exhibiting pain reduction via responder analysis

Open Label Study Goals

- Provide incentive to patients entering double blinded study
- Look at durability of pain improvement
- Investigate feasibility of maintenance after induction
- Expand safety database
- Feasibility of reduced number of injections for maintenance

Open Label Extension Study Design

12 Week Open Label Extension Study



- Patients will continue daily pain diaries entry scores
- IRT will assign either 2 or 4 injections for that interval, based on 7-day average pain scores

Commenced
Enrollment May
2026

Current Enrollment and Timeline- August 10

➤ CINP-203

- ❖ Screened- 338
- ❖ Randomized- 217
- ❖ Early Termination- 9 (4.3%)
- ❖ Successfully Completed- 189

➤ OLE-CINP-203

- ❖ Randomized- 65
- ❖ Early Termination- 2 (3.0%)
- ❖ Completed- 4

➤ Timeline

- ❖ Last patient enrolled: September 3rd
- ❖ **Top line results: Fall 2026**



Unmet CINP need & blinded observations from Phase 2b study



J. Mark Joyce, M.D., Investigator, CNS Healthcare of Jacksonville

Dr. Joyce: Clinical Trial Observations

- As a principal investigator at CNS Healthcare, I have participated in:
 - ❖ Over 200 clinical investigations including studies involving pain, depression, vaccine development, anxiety, weight loss and so on
 - ❖ Worked with over 100 companies in last 20 years
- Background in psychiatry, but have specialized in clinical trial evaluations during the last 20+ years
- Was asked to evaluate Dogwood's Halneuron product due to Dogwood's familiarity with CNS Healthcare previous work
- In the CINP study being discussed, we were able to screen 7 patients and enroll 6 patients
 - ❖ All 6 patients successfully completed the double-blinded (Part 1 study)
 - ❖ As of today, 4 of those 6 patients also elected to enter the 3 month open-label extension study

- All 6 of our randomized patients successfully completed the doubled-blinded study
- Our patients tolerated the scheduled injections very well
- This population of cancer survivors, who are now dealing with the consequences of their chemotherapy, were generally willing to return to the clinic for multiple injections with very few complaints

- **Obviously we only saw a small number of CINP patients at our site in Jacksonville**
- **The study remains blinded at this point in time, however we were encouraged by what we did see first hand:**
 - ❖ Patients with this condition are looking for answers, and Halneuron may benefit some of these very difficult to treat patients
 - ❖ The treatments themselves were very well tolerated, and nothing “scary” was seen at our location
 - ❖ We saw several patients report meaningful improvements in their neuropathic pain after several weeks of treatment



Halneuron[®] Phase 3 development and commercialization



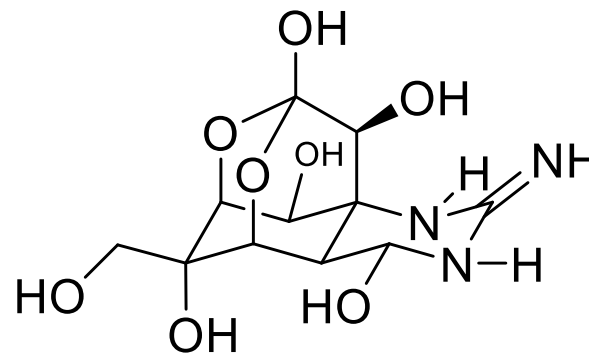
Jerry Evarts, Ph.D., Expert CMC consultant for DWTX

Halneuron® - Challenges of Extraction from Puffer Fish

- Halneuron® active ingredient is Tetrodotoxin (TTX), a well studied natural product found in puffer fish and several other aquatic and terrestrial animals. It's therapeutic use was reported as far back as 5000 years ago in Chinese medicine.
- Structural proof of TTX was reported in 1964 and since then, the race among academicians has been on to synthesize it in the most efficient manner.
- Wex started with harvesting TTX from puffer fish ovaries, 20 kg of ovaries yielded ~1 gr of TTX. True source of TTX is not the fish, but rather a bacteria that, when encountering environmental pressure produces the toxin. How it accumulates in the fish is still largely unknown.
- Change in water temperatures, pollution levels, migration patterns, bacterial presence... all make it impossible to maintain a steady supply of TTX – the largest impurity of the naturally sourced TTX is a glycosylate (galactose)

It's so small!

How hard could
it be to make?



Tetrodotoxin
Molecular Weight: 319.27

It looks like a sugar!

It's a natural product.
Anyone could make it!

Synthetic Manufacture of Halneuron – Tetrodotoxin API

- Last naturally sourced batch made is 2019 in China. After effects of COVID tightened shipping requirements globally and cleaner oceans near China forced a relocation of our fishing hole. Efforts near Turkey afforded fish but with low content of TTX. Economically unworkable and not consistent.
- As of ~2023 the most practical, published, free from patent protection, total synthesis from everyday laboratory chemicals required >30 steps of chemistry. 2022 Nature by Trauner. Also critical is toxicity should arise as late as possible in synthesis.
- Over next 2 years a workable, scalable synthetic process was developed at Indena in Italy, 2024-2025
- Using the first small batches, a chemical equivalence study returned identical characterizations for both identity and purity to natural TTX.
- Demo Batch of API completed in June of 2026
- Full scale GMP batch of Drug Substance completed in July 2026
 - Identified several process improvements time/cost/quality/yields
- Tip to tail process improvements of pre-GMP steps underway
- Optimizing entire process for commercialization



Halneuron® - Advantages of New Synthetic Manufacture

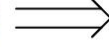
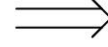
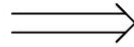
- Scalability - synthetic process not limited by raw material availability. Starting material is a common sugar.
- Faster and greater control over the manufacturing process.
- Absence of bioburden, largest impurity of natural TTX.
- Toxicity enters in last step of >30 chemical transformations. High potency only for last step and purification.
- Purity is unrelated to environment.
- Utilizes robust purification technique (IP) developed for naturally sourced tetrodotoxin.
- New IP developed for purification of crude TTX and concentration of purified fractions filed in 2025.
 - If granted, may give Composition of Matter and Process protection until 2045
 - Process for the Synthesis of Tetrodotoxin and Intermediates Thereof
 - Intermediates and Process for the Synthesis of Tetrodotoxin

Halneuron[®] - Manufacture of Halneuron[®] 30 ug for injection

- Commercial scale is limited by size of lyophilization freeze-dryer, targeting 100-150k vials/batch
- All activities must be performed in high potency, sterile fill, lyophilization facilities



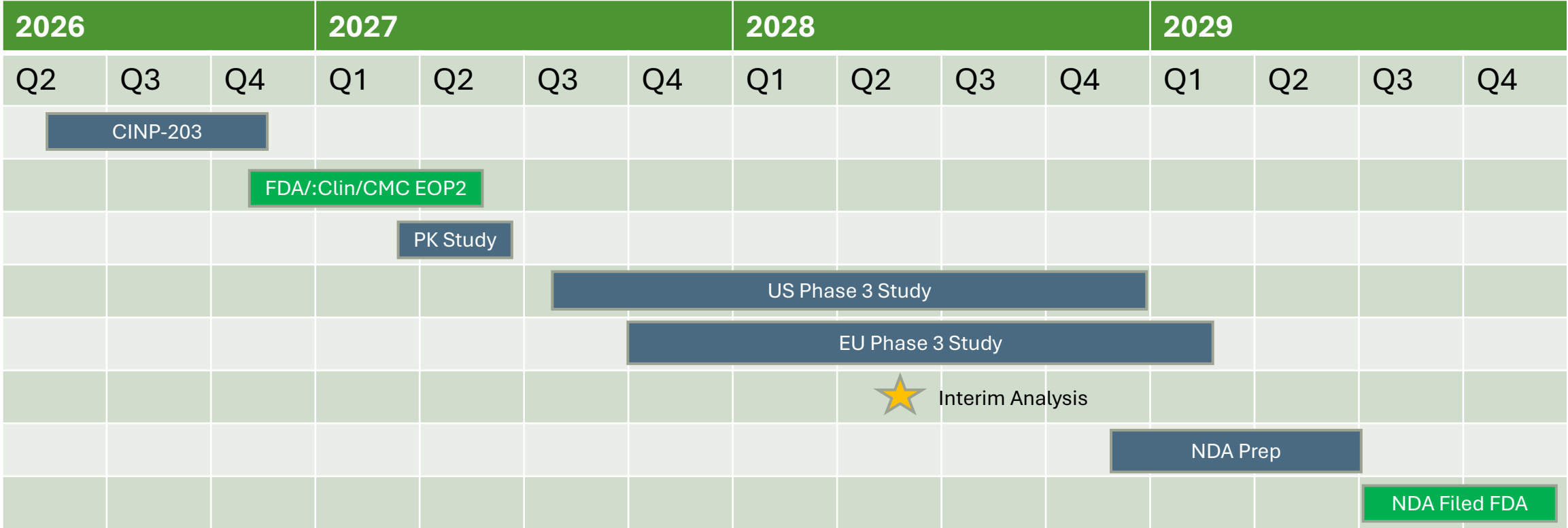
150 mg TTX
500 gr lactose
2 um citric acid
5 L water



4300 vials



Halneuron® C1NP Projected Clinical and Regulatory Timeline, Pending Phase 2b Results



Halneuron Offers Potential Relief for Millions Pain Sufferers in the US Alone



1. Sreeram 2023; 2. CDC 2026, Current Diabetes 2026; 3. JAMA Surgery 2023, Canadian Jrnl Anesthesiology, '04; 4. Cancer Journal Anesthesiology 2024; 5. American Cancer Society 2026

- **Cancer and Chemotherapy Related Pain Represents A Major Unmet Medical Need**
- **Lead Asset Halneuron has Demonstrated Statistical and Clinically Meaningful Reduction in Cancer Pain**
- **Nav 1.7 Target Further Validated Genetic Defect Responsible for Congenital Insensitivity to Pain Syndrome**
- **Dogwood Therapeutics Executive Team has Developed or Commercialized Blockbuster Pain Medicines, Including Celebrex, Lyrica, Savella and Cimzia**
- **Halneuron Phase 2b Data Readout Fall 2026**

Q&A Session

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