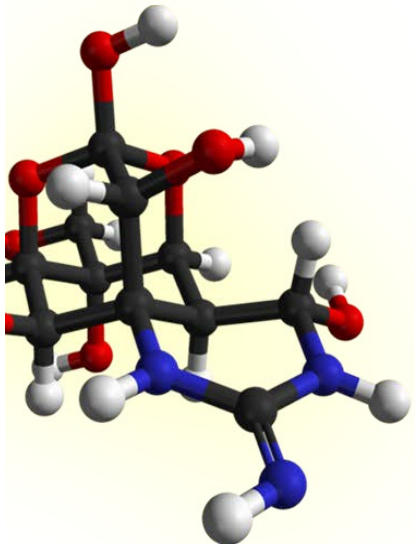
Halneuron™ – *Revolutionary Relief For Pain*



Corporate Presentation

WEX Pharmaceuticals Inc.

2018

Forward Looking Statements

Certain statements contained in this presentation, other than statements of fact that are independently verifiable at the date hereof, may constitute forward-looking statements. Such statements, based as they are on the current expectations of management of WEX Pharmaceuticals Inc. (WEX), inherently involve numerous risks and uncertainties, known and unknown, many of which are beyond WEX's control.

Such risks include, but are not limited to, the impact of general economic conditions, economic conditions in the pharmaceutical industry, changes in the regulatory environment in the jurisdictions in which WEX does business, stock market volatility, fluctuations in costs, and changes to the competitive environment due to consolidation, as well as other industry associated risks.

Consequently, actual future results may differ materially from the anticipated results expressed in the forward-looking statements. The reader should not place undue reliance on the forward-looking statements included in this presentation. These statements speak only as update of the date they are made and WEX is under no obligation to revise such statements as a result of any event, circumstance or otherwise except in accordance with law.

WEX Pharmaceuticals

Attractive Opportunity in a Revolutionary Product

LEAD ASSET	• HALNEURON™ (injectable Tetrodotoxin) – **Phase 3** proprietary **non-opioid** pain therapeutic, with **greater safety**, equal or superior efficacy to opioids poised to be best-in-class for moderate to severe pain

FOCUS	• Lead indication:
	  ➢ Chemotherapy-Induced Neuropathic Pain (**CINP**)
	  ➢ Cancer-Related Pain (CRP) – secondary priority
	• Downstream applicability to other chronic neuropathic pain indications

HIGH PROBABILITY OF SUCCESS	• **Well-validated** - mechanism (blocks peripheral Nav 1.7) • **Robust efficacy -** signal will be magnified with healthier CINP patients • **Differentiated** - Unique long-lasting pain relief • **Superior safety –** Compared to other analgesics and opioids • **Well-developed manufacturing** process at scale • **Clear pathway to registration** and commercialization in ~$3B CINP/CRP markets & applicable to a wide range of other pain markets
INTELLECTUAL PROPERTY	• **Extensive patent portfolio** and further applications in process • Significant **trade secrets** and proprietary manufacturing processes
LEADERSHIP	• Team and advisors with **proven track record** in drug development • **Proven success** developing compounds from the clinic to the market

WEX Pharmaceuticals
Leadership

Christopher Gallen, MD, PhD
Chief Executive Officer

Walter Korz, MBA
COO

Andrew Buckland
Chief Financial Officer

The Scripps Research Institute
QuintilesIMS
premier research
chemokine therapeutics

Pharmacia
Wyeth Pharmaceuticals
neuromed
SK biopharmaceuticals Thinking well ahead
Angiotech Redefining Success
Polynoma
pure BIOSCIENCE
CARDIONET Get to the Heart of the Problem.
Bristol-Myers Squibb
UPS

- **Experience in multiple drug registrations**, especially in the Nervous System
- **Specific experience in treatment of chronic severe pain** (registering EXALGO™)
- Experience in moving multiple companies from private to public
- Experience with US, EU, Asia drug development and registrations
- Focused on Halneuron™'s extraordinary clinical and financial potential

Pain Therapy Challenges

Treatment is Largely Guided By Side Effects & Tolerability

Large unmet need for novel non-opioid neuropathic and nociceptive agents due to side effects and abuse of current therapies

- Constipation
- Sedation
- Confusion
- Respiratory depression
- Mental clouding
- Renal colic
- Tolerance
- Abuse, misuse, addiction

WHO Analgesic Ladder

Step 3: Severe Pain (7-10/10)
- Morphine
- Hydromorphone
- Methadone
- Levorphanol
- Fentanyl
- Oxycodone
- +-Nonopiod analgesics
- ❖+/- Adjuvants

Step 2: Moderate Pain (4-6/10)
- Acetaminophen or ASA +
- ❖ Codeine
- ❖ Hydrocodone
- ❖ Oxycodone
- ❖ Dihydrocodeine
- ❖ Tramadol
- ❖+/- Adjuvants

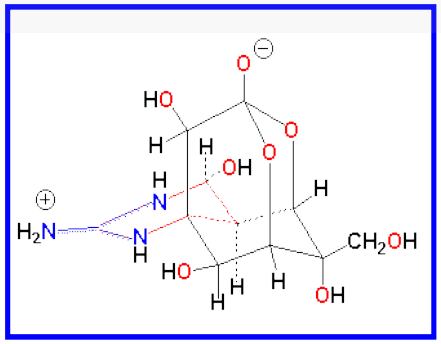
Step 1: Mild Pain (1-3/10)
- Aspirin (ASA)
- Acetaminophen
- Nonsteroidal Anti-inflammatory drugs (NSAIDs)
- +/- Adjuvants

Increasingly severe side effects

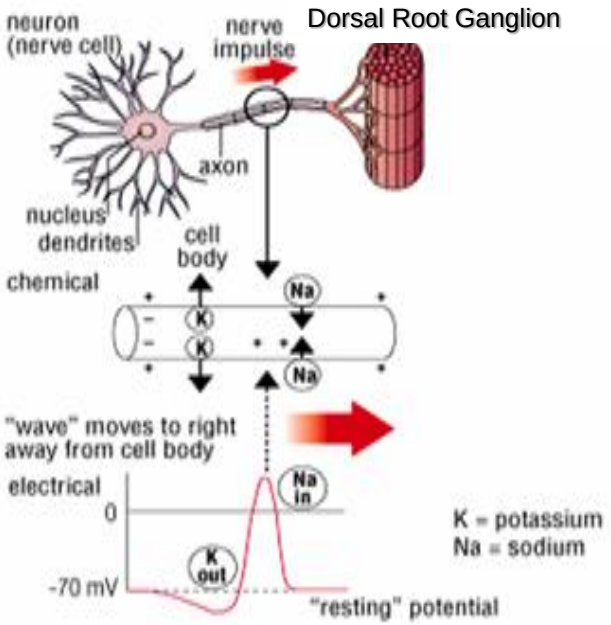
- Gastrointestinal ulcers
- Stomach bleeding
- Liver toxicity
- Gastric erosion, peptic ulcer
- Duodenal inflammation
- Renal toxicity with prolonged use
- Cardiovascular issues with COX II's

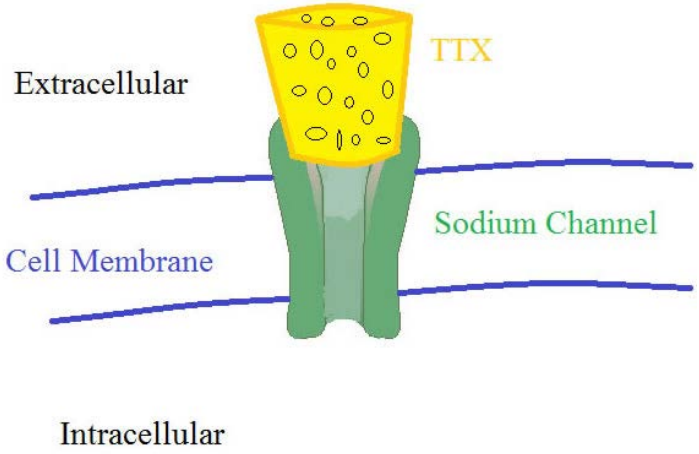
Halneuron™

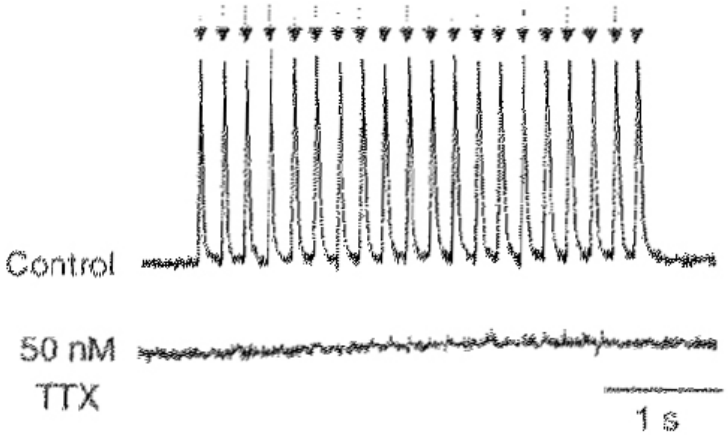
- Potent small molecule found in puffer fish and several other animals (Not a peptide or protein)
- Sodium (Na^+) channel blocker agent
- Binds to voltage-gated sodium channels (VGSCs) on the surface of nerve cell membranes
- Prevents or relieves pain by interrupting nerve conduction
- Action on peripheral VGSC, no CNS effect



Halneuron™ - Nav 1.7 Sodium Channel Blocker







Congenital Insensitivity to Pain

Halneuron™ is Safe and Well Tolerated

Name	Source	Minimum Lethal Dose (µg/kg)
Botulinum toxin	Microorganism	0.00003*
Cobra toxin	Cobra snake	0.3
Tetrodotoxin	Animal	7.1*
Cyanide	Synthesized toxin	10,000

- Botulinum toxin is far more potent then Tetrodotoxin
- Botox is marketed in the USA, Canada and other countries
- $1.6 billion USD (2011)
- TTX Safe and well tolerated.

Most common TTX AEs are mild and of short duration

AEs at 30µg BID	Cancer Patients	Healthy Volunteers
Hypoesthesia	48%	0%
Paraesthesia	32%	100%
Paraesthesia oral	44%	100%
Vomiting	34%	17% (1 subject)

Tetrodotoxin (TTX) Used to Define Sodium Channels

Channel	Predominant distribution	TTX sensitivity
$Na_v1.7$	PNS (DRG)	EC_{50} = 24.5 nM
$Na_v1.8$	PNS (DRG)	EC_{50} = 60 µM
$Na_v1.9$	PNS (DRG)	EC_{50} = 40 µM
$Na_v1.4$	Skeletal muscle	EC_{50} = 25 nM
$Na_v1.5$	Heart	EC_{50} = 5.7 µM
$Na_v1.1$	CNS	EC_{50} = 6 nM
$Na_v1.2$	CNS	EC_{50} = 18 nM
$Na_v1.3$	CNS	EC_{50} = 4 nM
$Na_v1.6$	CNS/PNS??	EC_{50} = 6 nM

Only the peripheral Nav 1.7, 1.4 and possibly 1.6 meet the criteria for blockade by Halneuron. Halneuron does NOT cross into CNS.

Late Stage Drug Development for CINP and CRP

Phase I safety

Efficacy
Multicenter
Phase II

Efficacy
Multicenter Phase II/III
For Inadequately controlled moderate to severe pain due to CINP and Cancer

Phase III Clinical Trial in CRP Provided Multiple Positive Robust Efficacy Endpoints in Patients Taking Normal Opioid Doses

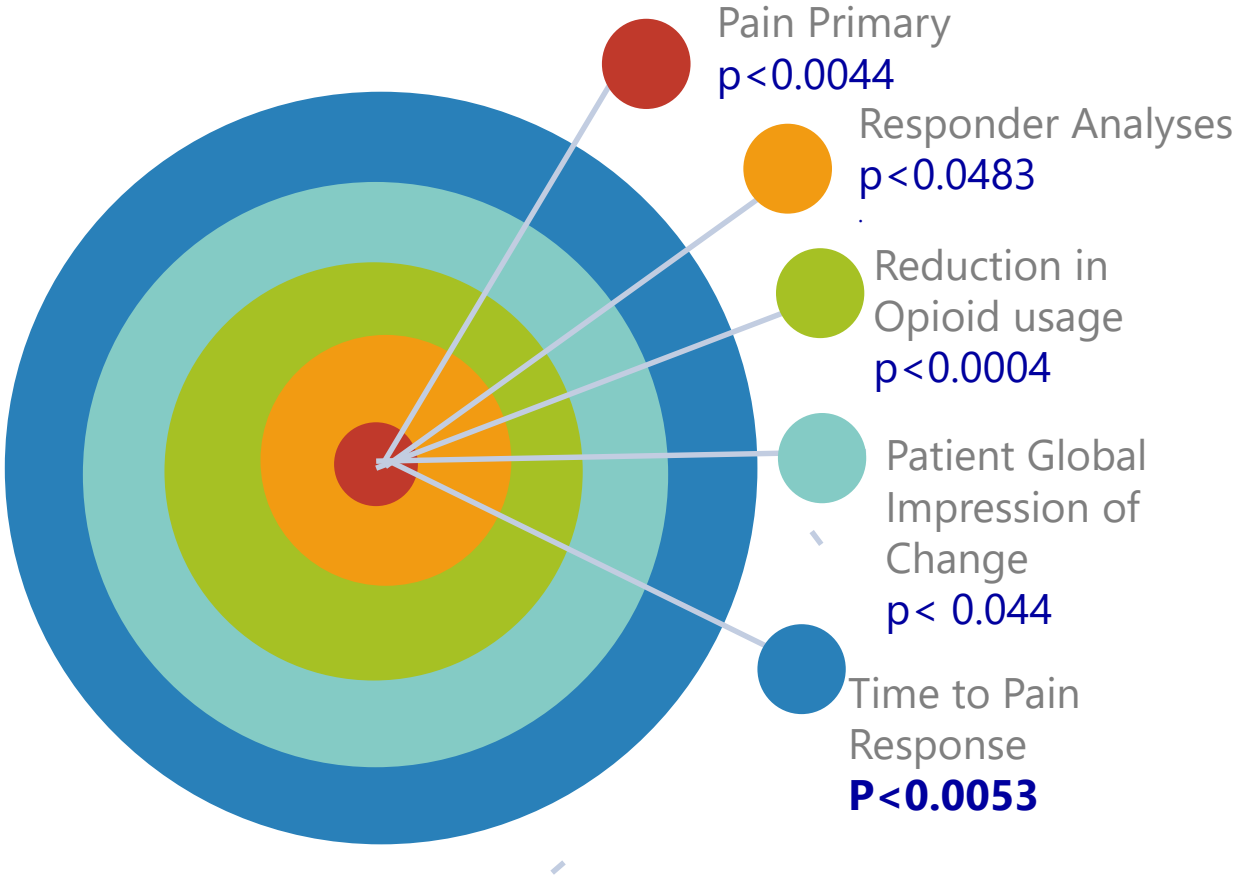
Trial shortcomings:

- Allowed high doses of opioids – (>500mg ME/Day)
- Co-primary endpoints – (Divided p-values between two endpoints)
- Underpowered – (Truncated for $$ reasons)

Composite endpoints

Pain/Opioid discontinuation

- 16.2% improve, P<0.O460
- Pain/Opioid discontinuation/ Health Economics 8.7%, p<0.2183

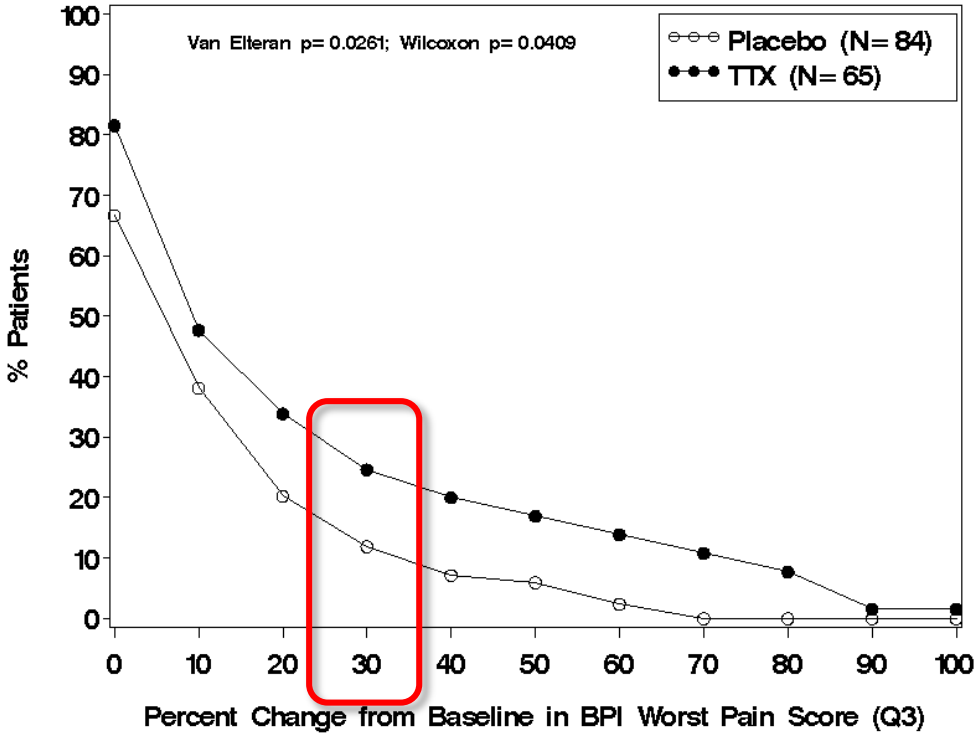


Halneuron™'s efficacy evident in pain measurements, responder analyses, the behavioral measure of discontinuing opioids, and in subjective measures

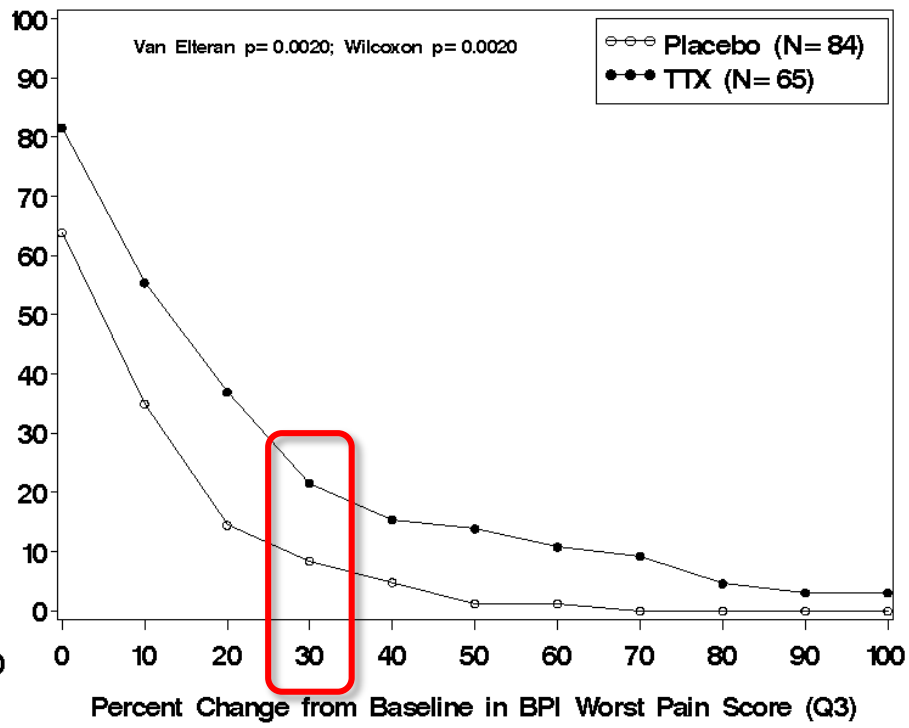
% Change from Baseline, Worst Pain

Cumulative Proportion of Responders Analyses

Early Post Injection Period (EPIP)
(Days 5-8)



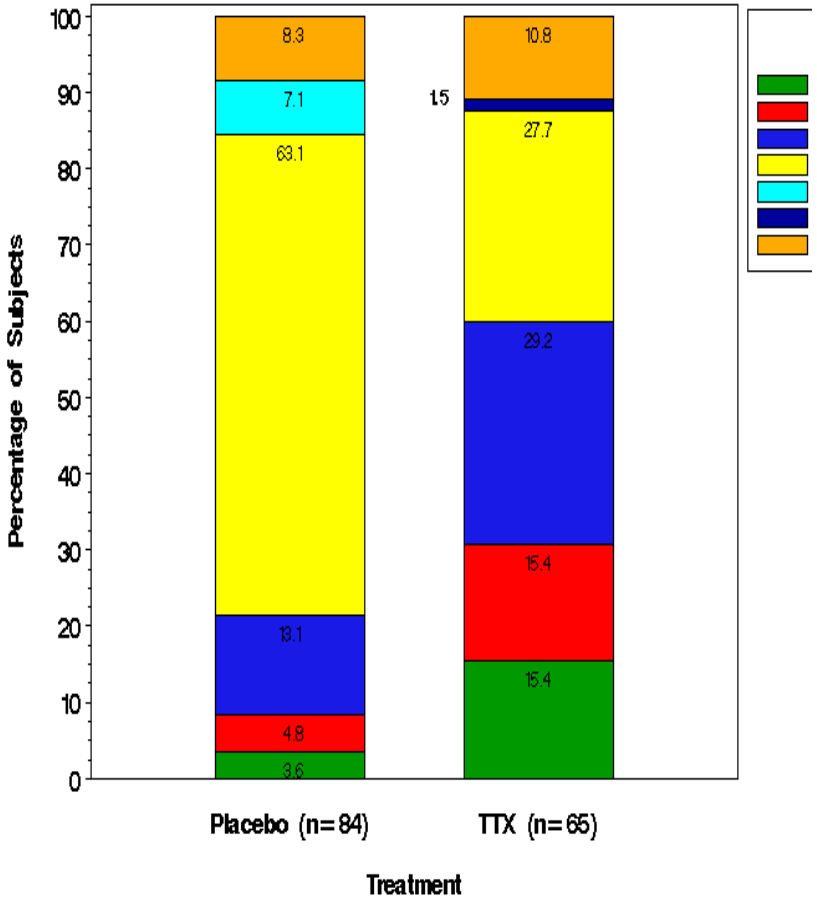
Late Post Injection Period (LPIP)
(Days 9-15)



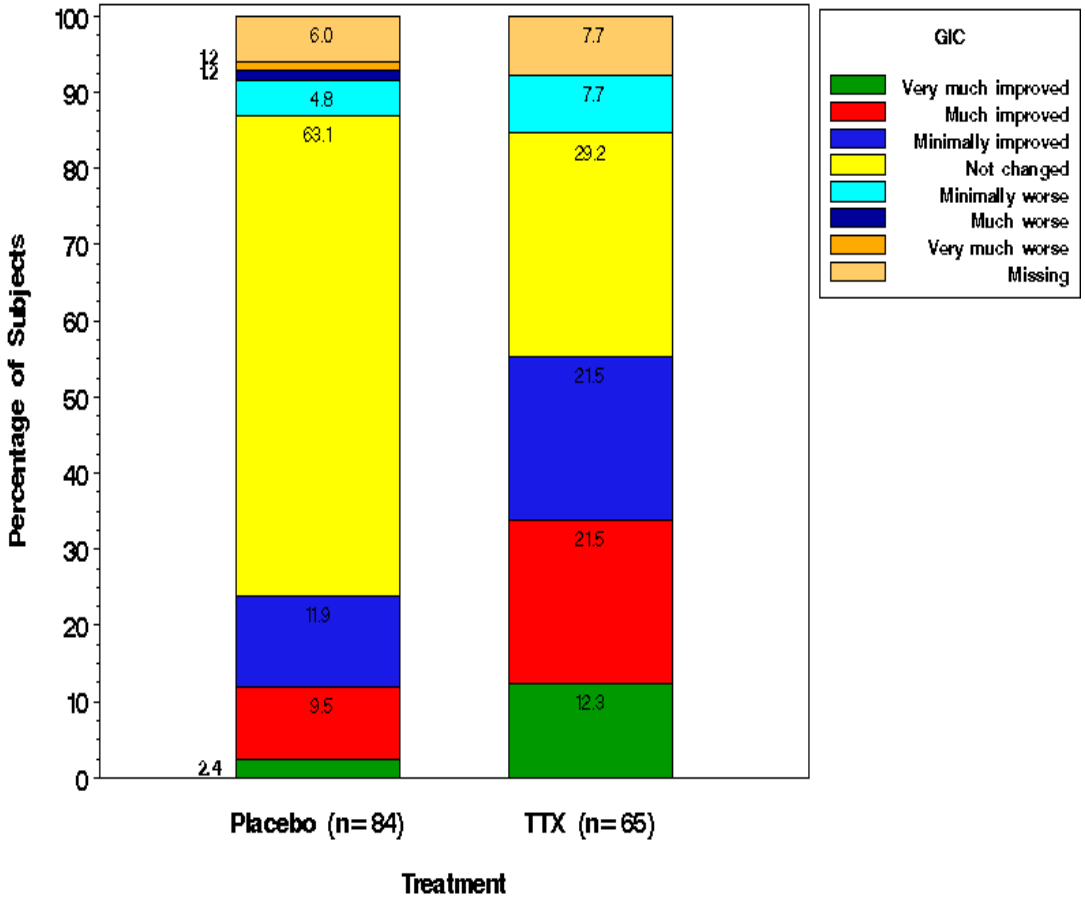
Percent change from baseline for Worst Pain consistently superior to Placebo (Standard of Care) at EPIP or LPIP

Robust highly significant subjective effects were seen in both the early and late periods

EPIP P<0.0001



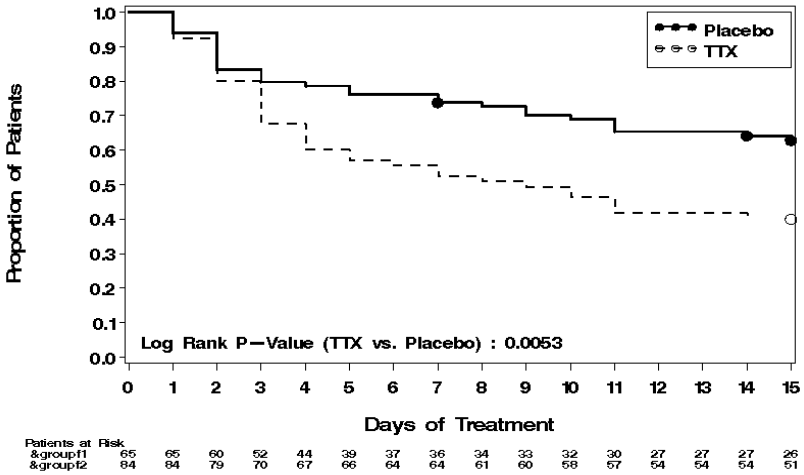
LPIP p<0.0003



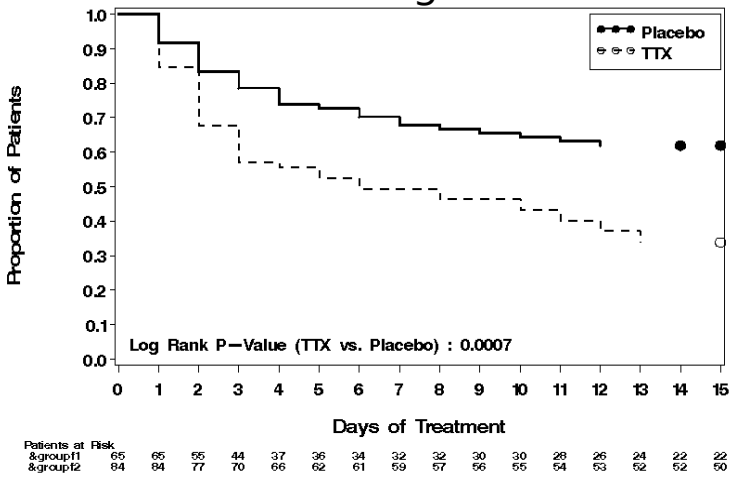
- Subjective responses also strongly support the efficacy of Halneuron™
- Response evident in Early (EPIP) and Late (LPIP) periods of assessment

Pain Response Robustly Separates Rapidly and Significantly Regardless of How the Question is Asked

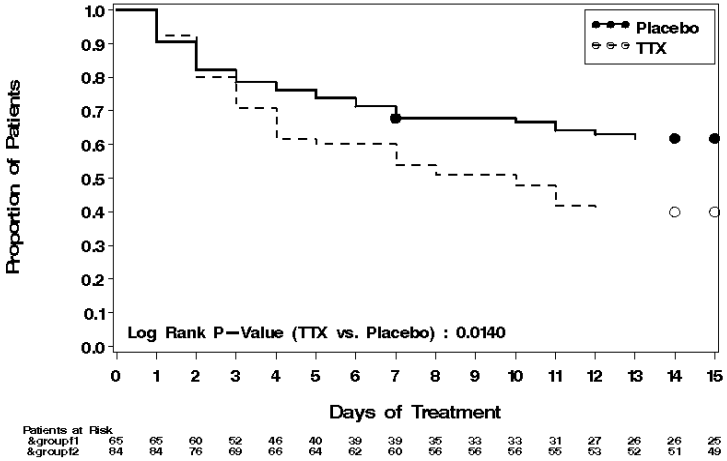
Worst Pain



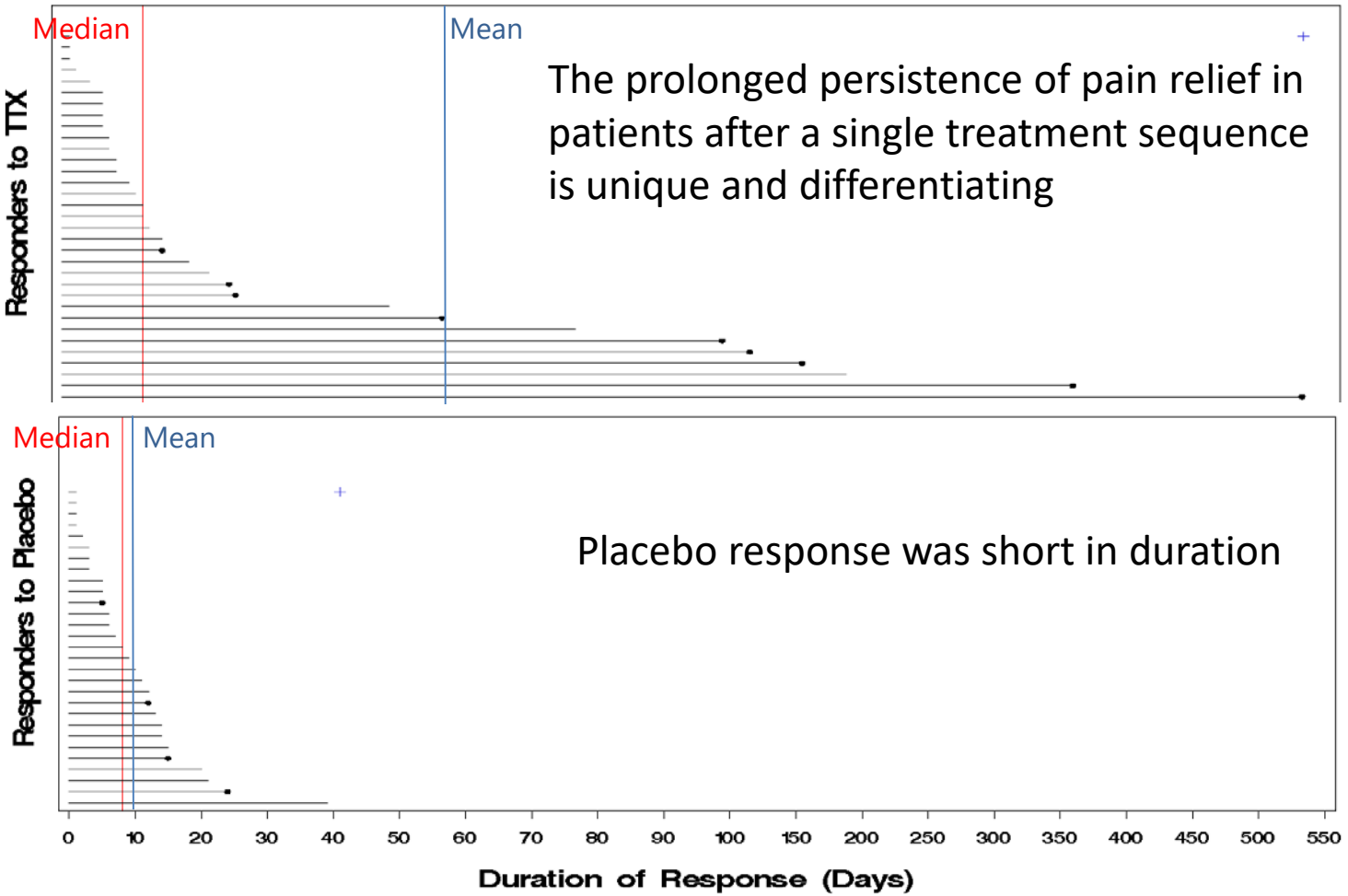
Average Pain



Most Bothersome Pain



Halneuron™ Produced an Revolutionary Duration of Response in a Significant Number of Patients

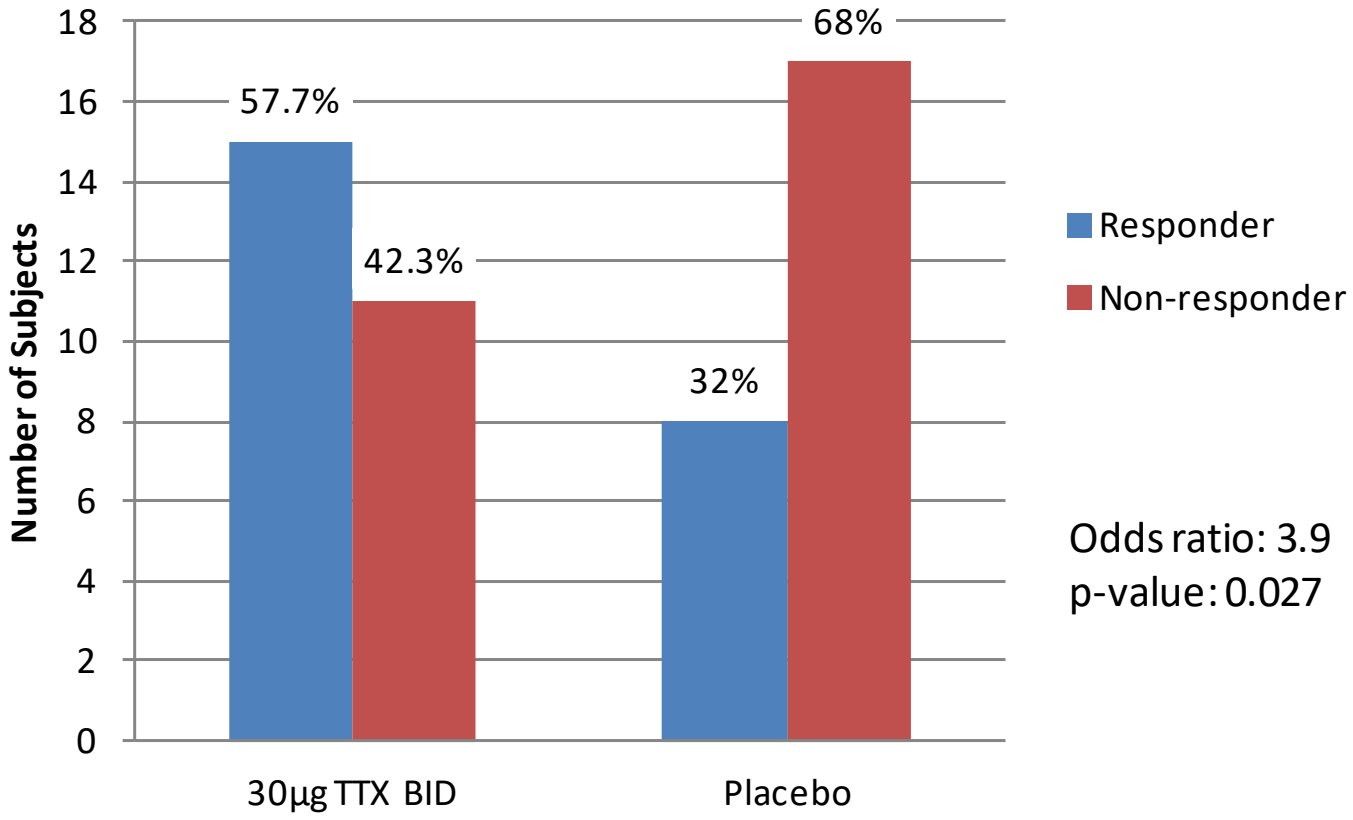


The response duration was followed in a long term study that was eventually truncated. Dots at the end of lines indicated Responses still ongoing at the end of the study, so actual duration was longer.

CINP - Responder Analysis

30% Improvement – **Rolling 10 day averages**

Responder definition: Patients with at least 30% reduction in average NPRS score from baseline to any 10 consecutive days.



Odds ratio: 3.9
p-value: 0.027

The CINP Phase 2 Study Showed that the 30 µg QD and BID Doses Produced a Clear Separation in Response vs. Placebo by Weeks 3 and 4 and a large effect

Week	Cohort 3 30 µg QD	Cohort 4 30 µg BID	Placebo
1	-1.006 (1.6116)	-1.244 (1.5911)	-0.906 (1.1193)
2	-1.508 (1.8307)	-1.433 (1.7853)	-1.423 (1.7218)
3	-1.670 (2.0198)	-1.555 (1.5565)	-1.365 (1.8792)
4	-1.682 (2.3231)	-1.529 (1.8203)	-1.339 (2.0681)

% Difference from Placebo

Week	Cohort 3 30 µg QD	Cohort 4 30 µg BID
1	-10%	-34%
2	-9%	-1%
3	-31%	-19%
4	-34%	-19%

Conclusion - the same dosage that worked in Cancer Pain worked in Chemotherapy-Induced Neuropathic Pain. Ph. III should produce superior results given better health of population

Halneuron™ Presents a Strong Safety Profile

- Halneuron™ safety characteristics established across many studies
  - 13 completed studies
  - 531 unique patients and healthy subjects have been exposed to Halneuron™ to date
  - 348 cancer patients received Halneuron™
  - 157 cancer patients received Placebo

- Most common AEs **confined to Injection Period** (days 1 to 4) (while pain relief extended far beyond injection period
  - Typically peri-oral and fingertip mild numbness

- AEs were overwhelmingly (96%) **mild-moderate**
  - Mild: 1094 (67%) Halneuron™ and 561 (66%) placebo
  - Moderate: 481 (29%) Halneuron™ and 229 (27%) placebo

- AEs were generally **transient** in Halneuron™ and placebo patients
  - 77 (100%) Halneuron™ subjects reported 1633 AEs
    - ✓ Median duration: 12.5 hours
  - 83 (94%) placebo subjects reported 852 AEs
    - ✓ Median duration: 14 hours

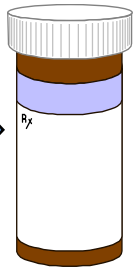
- Laboratory, Vital Sign and ECG findings were excellent

GMP Manufacturing of Halneuron™ at Commercial Scale

Puffer Fish

Starting Material

Ovary material



Crude TTX

pTTX

Pure TTX

Formulated

WuXi AppTec

KABS

- Current source of raw material, processing and manufacturing capabilities used to produce clinical trial supply can be extended to produce sufficient commercial product for projected peak sales
- Work on additional sites and alternative manufacturing technology in progress

WEX Has an Extensive Array of Patents and Trade Secrets

- Natural substance hence no composition of matter permissible
- Protection through 25 patents issued for:
  - Therapeutic use exclusivity
    - ✓ Cancer Pain-2026
    - ✓ CINP-2032
  - Dosages
  - Formulations
  - Derivatives
- Anticipate additional patents related to manufacture, formulation, delivery, use
- Trade secrets protect methods and processes
  - Sourcing of fish
  - Extraction of pertinent tissues
  - Storage and handling
  - Purification
  - GMP manufacture of TTX

Halneuron™ Has a Clear Path to Registration for Treatment of CINP

Phase III CINP Regulatory Status

- Health Canada CINP Clinical Protocol - Approved
- FDA clinical approval - Pending
- EMA scientific review - Completed
- Cardiac safety (TQT study) - Completed
- SPA approval - Pending
- Breakthrough Status application - Pending
- European country applications - Pending

Phase III CRP Regulatory Status

- Cancer Related Pain SPA to be processed later based on learning from CINP trial

Halneuron™ - a Pipeline in a Product

Pre-Clinical	Phase I	Phase II	Phase III

HALNEURON™ Injectable:
Chemotherapy Induced Neuropathic Pain
SPA filed with FDA

HALNEURON™ Injectable:
Cancer Related Pain
SPA in development

HALNEURON™
Osteoarthritis

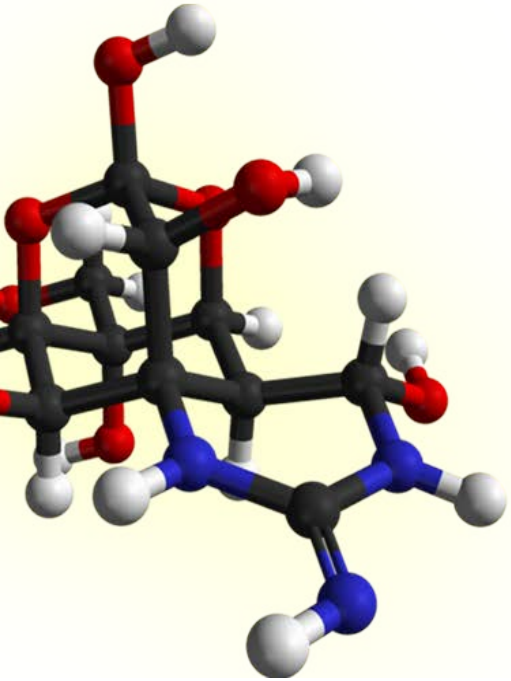
HALNEURON™
Low Back Pain

HALNEURON™
Painful Diabetic
Neuropathy (PDN)

HALNEURON™ - An Attractive Opportunity

Halneuron™ has enormous clinical and commercial potential. It is a low-risk, efficacious, safe, differentiated and potentially transformative product in the largest market in medicine – ***pain***

- Large unmet medical needs in pain management
- Effective product, well-validated MOA
- Phase 3 stage, low risk
- Strong safety profile
- Manufacture at scale
- Strong IP/Trade secrets
- Experienced team



Halneuron™