



Corporate Presentation

Improving the Lives of Patients by Developing Best-in-Class Medicines that Address Unmet Medical Needs

NASDAQ: HRTX

August 2015



Forward-Looking Statements

This presentation contains "forward-looking statements" as defined by the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve risks and uncertainties, including uncertainties associated with the development, regulatory approval, manufacture, launch and acceptance of new products, completion of clinical studies and the results thereof, the ability to establish strategic alliances and/or acquire desirable assets, progress in research and development programs and other risks and uncertainties identified in the Company's filings with the Securities and Exchange Commission. None of the Company's product candidates discussed in this presentation have been approved by the FDA or any other regulatory agency. Actual results may differ materially from the results anticipated in our forward-looking statements. We caution investors that forward-looking statements reflect our analysis only on their stated date. We do not intend to update them except as required by law.







Overview of Heron

CINV Programs

SUSTOL (granisetron) Injection, extended release

HTX-019 (aprepitant injection, polysorbate 80 free)

Pain Management Programs

HTX-011 (bupivacaine and meloxicam, extended release)

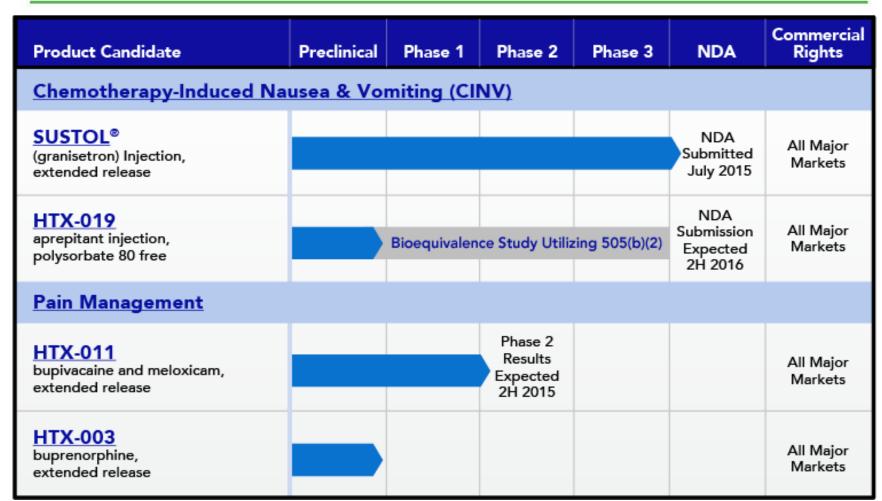
HTX-003 (buprenorphine, extended release)

Financial Position

Heron Corporate Highlights

- Four product candidates for patients suffering from cancer or pain
- SUSTOL® (granisetron) Injection, extended release for the prevention of chemotherapy-induced nausea and vomiting (CINV)
 - Positive, topline results from Phase 3 MAGIC study
 - First 5-HT₃ receptor antagonist (RA) to show efficacy in delayed CINV associated with highly emetogenic chemotherapy (HEC)
- HTX-019 for CINV
 - Potentially first polysorbate 80-free, intravenous formulation of aprepitant
- HTX-011 for post-operative pain
 - Locally delivered, long-acting formulation of bupivacaine with meloxicam designed to deliver superior pain relief while significantly reducing the need for opioids
- HTX-003 for chronic pain and opioid addiction
 - Long-acting injectable opioid with lower potential risk of harmful side effects, abuse and addiction

Product Pipeline - Status





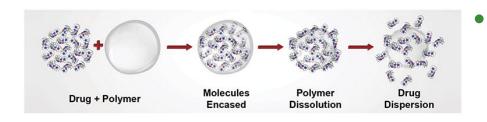
Heron's Focus – Making Good Drugs Better

- Applying innovative technology to drugs with well-known pharmacology to develop patient-focused solutions that potentially:
 - Are more effective than agents in same class
 - Are safer or better-tolerated than agents in same class
 - Broaden clinical use & reduce dependence on classes with harmful side effects
 - Enable multimodal treatments that fully address mechanisms of condition
- Developing de-risked product opportunities with accelerated development timelines
 - Already-approved agents
 - 505(b)(2) regulatory pathway

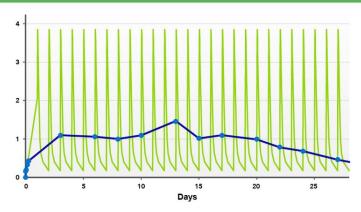


Biochronomer® Technology

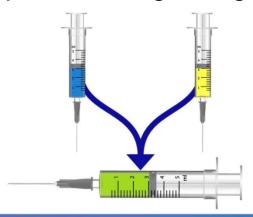
 Therapeutic levels of otherwise short-acting pharmaceuticals over a period of days to weeks with a single subcutaneous injection



 Wide range of applications, including multimodal therapy that can be delivered with a single injection



Bioerodible polymers that undergo controlled hydrolysis, resulting in controlled, sustained release of pharmacological agent









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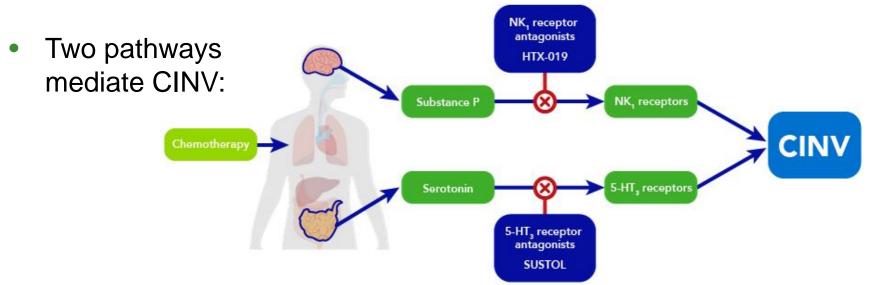
Financial Position

Chemotherapy-Induced Nausea and Vomiting (CINV)



- CINV affects the majority of patients undergoing chemotherapy
 - Regimens that cause the worst degree of CINV:
 - Moderately emetogenic chemotherapy (MEC): 30-90% of patients suffer emesis without prophylaxis
 - Highly emetogenic chemotherapy (HEC): >90% of patients suffer emesis without prophylaxis

Adjunctive Therapeutic Class (Only administered with 5-HT₃ RAs)



Backbone Therapeutic Class







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SUSTOL Overview

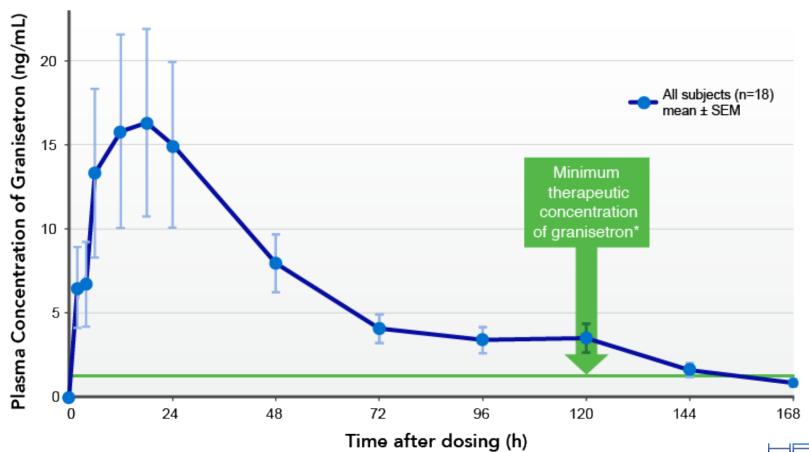
- Potentially <u>first</u> agent in class for prevention of <u>both</u> acute and delayed CINV associated with <u>both</u> MEC and HEC
 - Utilizes Biochronomer technology to deliver granisetron over 5 days
 - Granisetron, a well-known, short-acting 5-HT₃ receptor antagonist (RA) approved for CINV
- First Phase 3 study successful
- Issues from 2013 Complete Response Letter (CRL) addressed
- Recently reported Phase 3 MAGIC study successful
 - SUSTOL, as part of a three-drug regimen, is the <u>first</u> 5-HT₃ RA to demonstrate <u>superiority</u> to a standard-of-care, three-drug regimen in delayed nausea and vomiting in patients receiving HEC
- NDA resubmitted in July 2015; 6-month review expected



SUSTOL 5-Day Profile: Granisetron Pharmacokinetics



SUSTOL has been shown to maintain therapeutic drug levels of granisetron for <u>at least 5 days</u> with a <u>single</u> subcutaneous injection



How We Are Addressing the CRL





March 2013 CRL raised three main issues:

- 1. Chemistry, Manufacturing, and Controls: correction of preapproval inspection (PAI) issues and revision of one *in-vitro* release method
 - Sites with PAI issues have been eliminated, with work transferred to a well-established site with no PAI issues
 - Transition complete, with secondary benefit of improvement in COGS
 - New in-vitro release method developed and validated
 - Multiple validation batches of finished product now completed



- 2. Requirement for Human Factors Validation Study with commercial product
 - Successfully completed



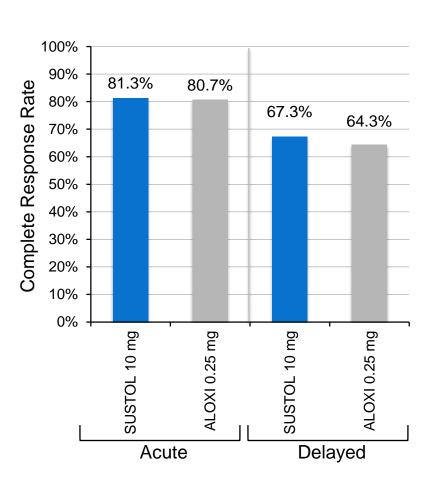
- 3. Re-analysis of first Phase 3 study using ASCO 2011 guidelines for categorization of MEC and HEC
 - Complete dataset and programs supplied to FDA and found acceptable

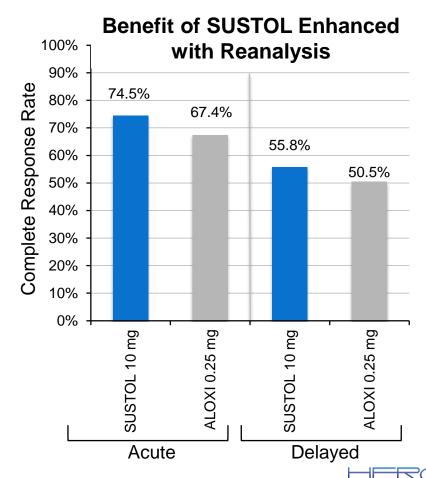


Reanalysis of First Phase 3 Study Using ASCO 2011 Guidelines



Protocol-Specified HEC Population ASCO 2011 Guidelines HEC Population





Delayed CINV Associated with HEC A Significant Unmet Medical Need



Approved Injectable 5-HT₃ RAs in U.S.

	Moderately Emetogenic Chemotherapy	Highly Emetogenic Chemotherapy
Acute CINV (Day 1)	Kytril® (Granisetron) Zofran® (Ondansetron) Aloxi® (Palonosetron)	Kytril® (Granisetron) Zofran® (Ondansetron) Aloxi® (Palonosetron)
Delayed CINV (Days 2-5)	Aloxi® (Palonosetron)	NONE

None of currently available 5-HT₃ RAs have demonstrated sufficient efficacy to gain approval for prevention of delayed CINV associated with

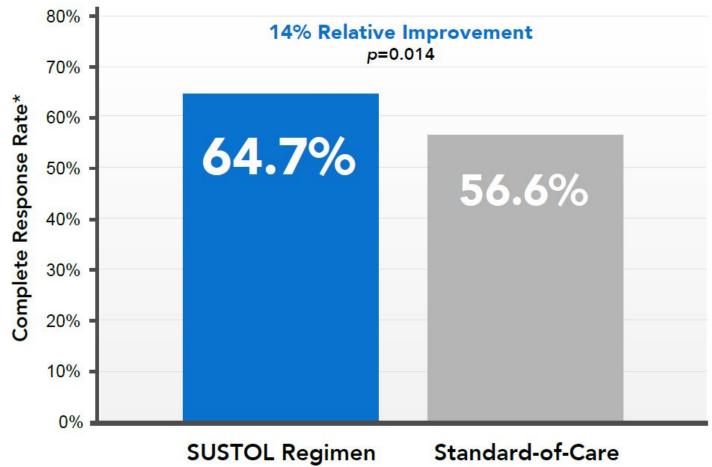
MAGIC (Modified Absorption Granisetron In the Prevention of Chemotherapy Induced Nausea and Vomiting) Trial

- The <u>only</u> Phase 3 study where comparator arm contains currently recommended, standard-of-care, three-drug regimen for prophylaxis in a HEC population (5-HT₃ RA + NK₁ RA + dexamethasone)
 - 942 patients randomized 1:1 to receive either:
 - Ondansetron + fosaprepitant + dexamethesone + placebo
 - SUSTOL + fosaprepitant + dexamethasone + placebo
- Ondansetron selected as comparator because:
 - It has been the most commonly used comparator in CINV trials and viewed as an appropriate comparator by the FDA
 - The three-drug combination of ondansetron, fosaprepitant and dexamethasone was the first combination approved for delayed nausea and vomiting after HEC
 - Before the MAGIC trial, no 5HT₃ RA, including palonosetron, had shown a significant benefit versus ondansetron in delayed CINV after HEC



MAGIC Primary Analysis: SUSTOL Regimen Statistically Superior to Standard-of-Care

Delayed (24 to 120 hours) nausea and vomiting after HEC





^{*}Complete Response defined as no emesis episodes and no rescue medications

SUSTOL Provides an Important Benefit in Nausea Reduction and Patient QoL

Results for Delayed Phase (24 to 120 Hours)	p-value ¹
Complete Response	0.014
Complete Control (CR plus no more than mild nausea)	0.022
No or Infrequent Nausea ²	0.032
Global Satisfaction with Therapy ³	0.040

- P-values are based on the Cochran-Mantel-Haenszel chi-square test controlled by use of cisplatin, not adjusted for multiplicity
- 2. Patients with zero, one or two episodes of nausea
- 3. Patient quality of life (QoL) question: How satisfied are you with the study medication's ability to control your nausea and vomiting?



MAGIC Safety Summary

- No clinically significant differences between arms on safety
 - No significant differences in SAEs
 - No significant differences in discontinuations, or discontinuations due to adverse events
- Consistent with previous trials, injection site reactions were relatively common, but generally mild and usually resolved prior to the next cycle of chemotherapy
 - Not an impediment to treatment as evidenced by the significant improvement in patient satisfaction with SUSTOL therapy, with more than 80% of patients either very satisfied or satisfied with SUSTOL treatment



SUSTOL - Conclusion



SUSTOL, as part of a three-drug regimen, is the <u>first</u> 5-HT₃ RA to demonstrate <u>superiority</u> to a standard-of-care, three-drug regimen in delayed nausea and vomiting in patients receiving HEC

> NDA resubmitted in July 2015 6-month review expected







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HTX-019 (aprepitant injection, polysorbate 80 free)

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HTX-011 (bupivacaine and meloxicam, extended release)

HTX-003 (buprenorphine, extended release)

Financial Position

HTX-019 Overview

- HTX-019 is a proprietary formulation of aprepitant that has the potential to be the <u>first</u> polysorbate 80-free, intravenous formulation of this widely used pharmaceutical agent
- Aprepitant (and its prodrug, fosaprepitant) is the most widely used NK₁ receptor antagonist (RA) for the prevention of CINV
- Primary composition of matter patent of aprepitant expired April 2015
- NK₁ RAs are used in combination with 5-HT₃ RAs for prevention of CINV (not sufficiently active on their own)
- In preclinical studies, HTX-019 resulted in blood levels of aprepitant that were bioequivalent to those delivered with fosaprepitant
- FDA accepted proposal to use 505(b)(2) regulatory pathway for HTX-019
- NDA filing under 505(b)(2) expected in 2H 2016

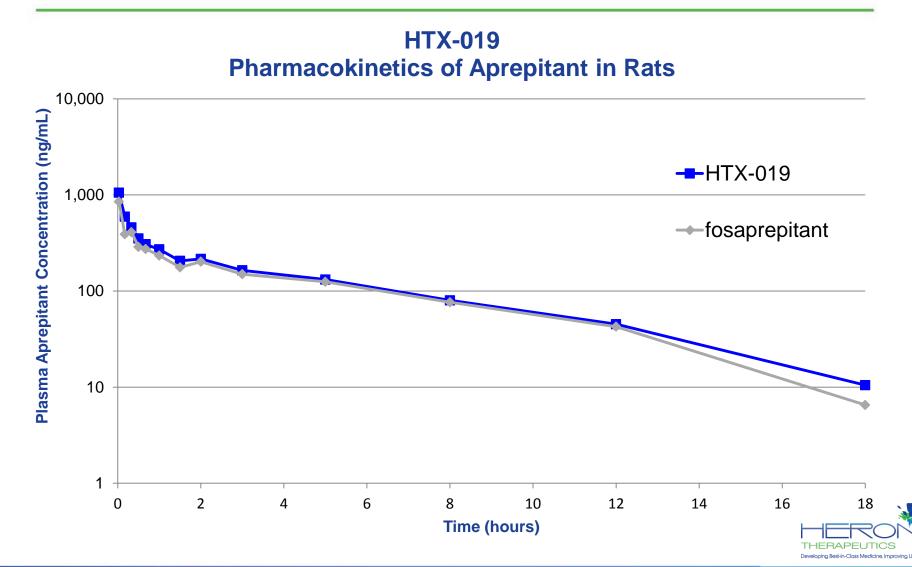


HTX-019 Potential Tolerability Benefit

- Fosaprepitant is currently the only injectable NK₁ RA approved in the U.S.
- Fosaprepitant contains polysorbate 80, which may cause:
 - Hypersensitivity reactions, including flushing, itching or shortness of breath, and has the potential to cause severe anaphylaxis reactions
 - Infusion site reactions, including infusion site pain, erythema, swelling, superficial thrombosis, infusion site hives, and phlebitis/thrombophlebitis
- In review of cancer drugs containing polysorbate 80, hypersensitivity reactions linked to at least 23 deaths in spite of premedication
- HTX-019 does not contain polysorbate 80 and may have a lower incidence of certain adverse reactions than reported with fosaprepitant

HTX-019 Demonstrated Bioequivalence to Fosaprepitant







CINV COMMERCIAL OPPORTUNITY



CINV: Commercial Opportunity



Market

- Heron has opportunity to establish a long-term, dominant position in CINV market by targeting 3.8 million units of IV 5-HT₃ RAs and NK₁ RAs annually
- Injectable NK₁ RA market grew 14% YOY in 2014 with significant opportunity for increased penetration into MEC regimens

Competitive Landscape

- New branded, injectable agents will be well-positioned to gain significant market share as current market leaders (ALOXI®, EMEND®) lose patent protection
 - SUSTOL positioned to be the <u>only</u> branded, injectable 5-HT₃ RA on the market following ALOXI potential loss of exclusivity in 2015
 - HTX-019 anticipated to be similarly positioned following EMEND patent expiry in 2019

Go-to-Market Strategies

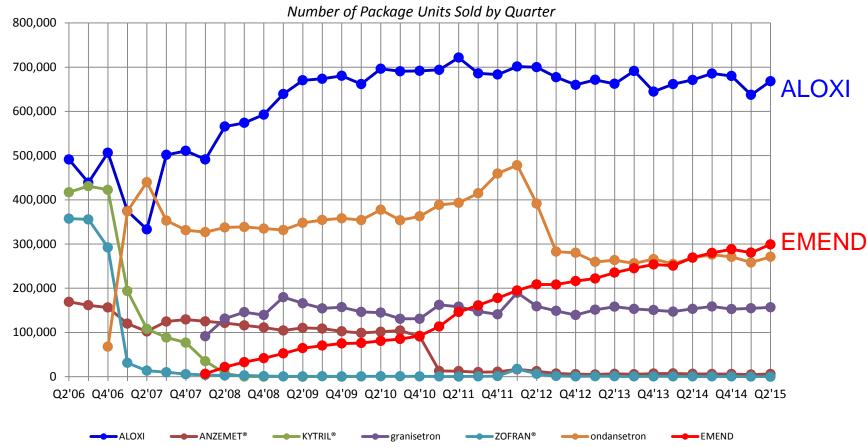
Differentiate SUSTOL and HTX-019 clinically to drive uptake

- SUSTOL targeted to be the first and <u>only</u> injectable 5-HT₃ RA indicated for the prevention of acute and delayed CINV in <u>both</u> MEC and HEC
- HTX-019 has potential to differentiate vs. IV EMEND based on polysorbate 80-free formulation
- Leverage a highly synergistic CINV portfolio to maximize return on investment
 - ~600 practices account for ~90% of both ALOXI and IV EMEND use in clinic segment
 - SUSTOL-targeted practices are the highest users of IV EMEND
 - Highly leveraged, cost-effective commercial footprint



3.8 Million Penetrable Units ALOXI® & EMEND® Current Market Leaders

Injectable Drugs for the Prevention of CINV

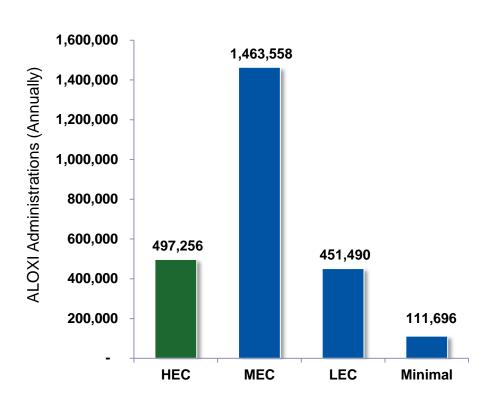


Data is Package Units; ondansetron units reflect only 2 mg/ml and 32mg/50 ml sizes

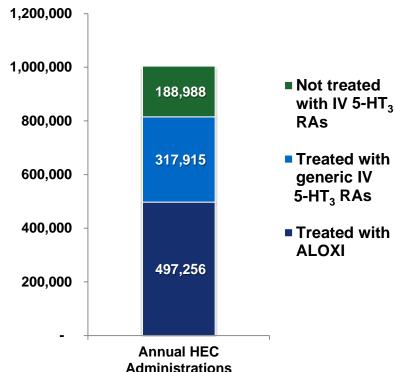


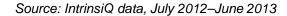
HEC Regimens Represent a Significant Market Opportunity for SUSTOL & HTX-019

HEC Regimens Account For ~20% of ALOXI Administrations



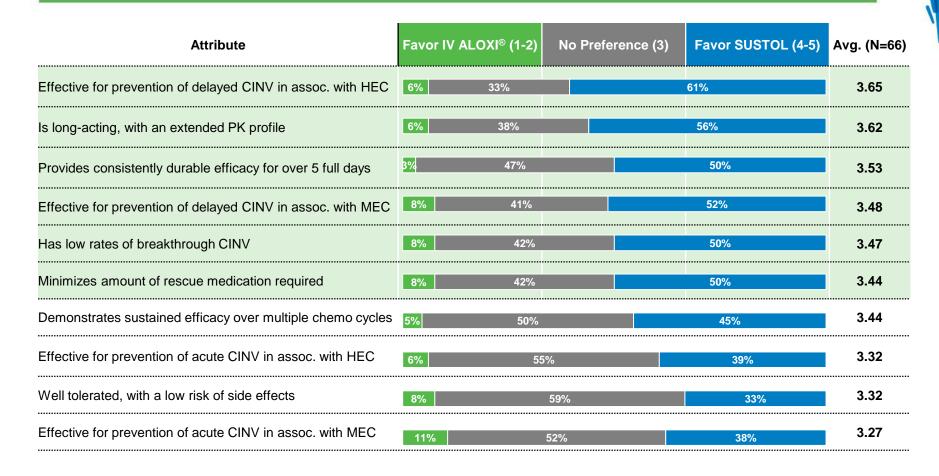
Inconsistent with Clinical Guidelines, ~20% of HEC Administrations Are Given Without Concomitant IV 5-HT₃ RAs







Oncologists Favorably View SUSTOL's Profile of Activity in Acute and Delayed CINV after Both MEC and HEC









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HTX-011 (bupivacaine and meloxicam, extended release)

HTX-003 (buprenorphine, extended release)

Financial Position

Pain Management

Topic

- Opioids are cornerstone of pain management, but high need for non-narcotic pain alternatives exists
 - ~28-38 million people worldwide use as an illicit drug

59 Million in U.S.

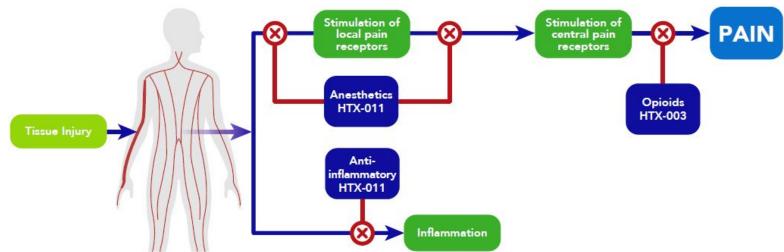
234 Million
Worldwide

65%
Will Experience
Moderate-to-Severe
Post-Operative Pain

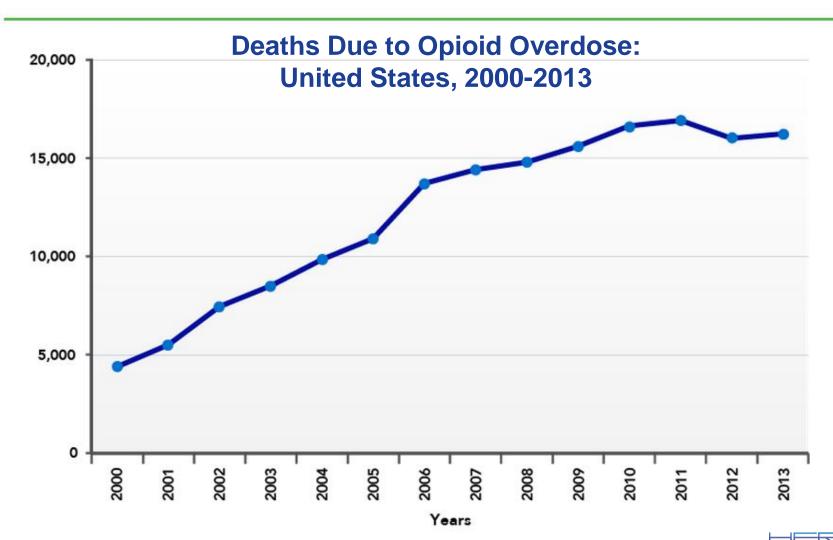
100 Million in U.S.
1.5 Billion Worldwide

Suffering From Chronic Pain

- Acute pain: Mediated through two basic systems
- Chronic pain: Ultimately mediated by the brain



Opioids: Most Common Drug Class Implicated in Deaths Due to Overdose



Developing Best-in-Class Medicine, Improving Live





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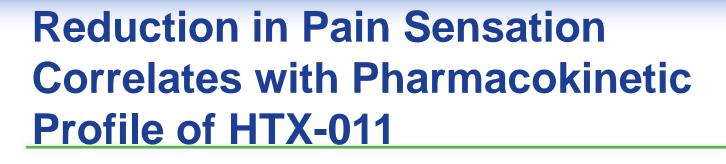
HTX-003 (buprenorphine, extended release)

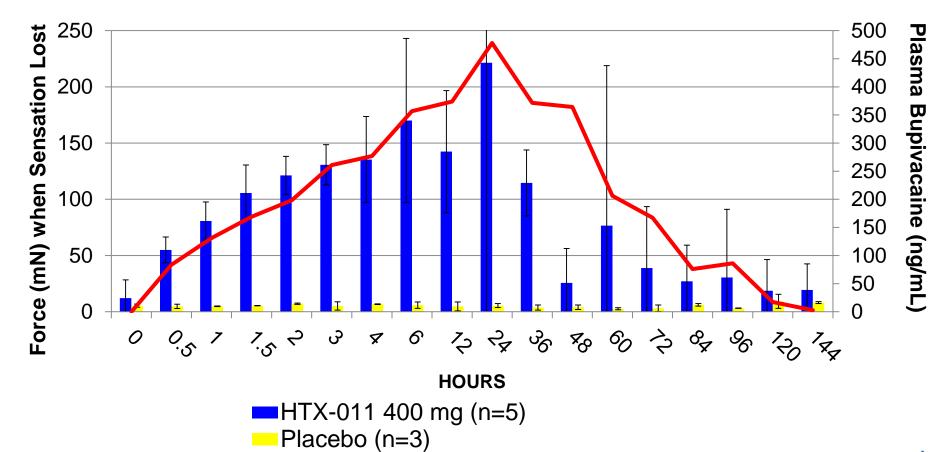
Financial Position

HTX-011 Overview

- HTX-011 is a long-acting, Biochronomer formulation of the local anesthetic bupivacaine in a fixed-dose combination with the anti-inflammatory meloxicam
- Goal is to substantially reduce need for opioids after surgery
- Phase 1 study demonstrated desired pharmacokinetic profile for both bupivacaine and meloxicam
 - Anesthetic effects persisted for approximately 3 days, closely correlating with plasma bupivacaine concentrations
 - A full 2-3 days of anesthetic activity would be a significant advantage relative to competitors and meet patient and physician needs for optimal duration of pain relief
 - Well-tolerated: no SAEs or premature discontinuations, no clinically relevant ECG changes and no clinically relevant laboratory changes
- Currently conducting two Phase 2 trials for treatment of post-operative pain
 - Results expected from both trials in 2H 2015







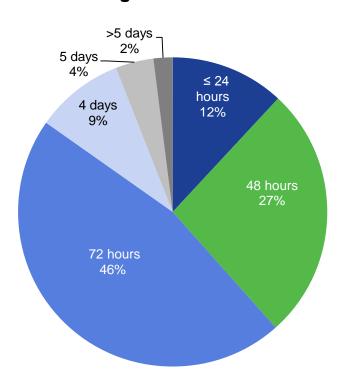
Plasma Bupivacaine Observed with HTX-011



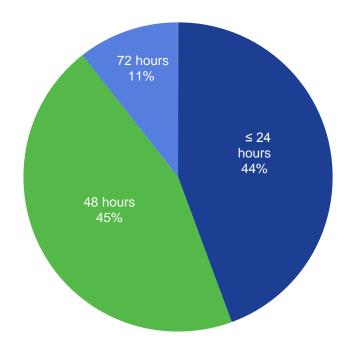
72 Hour Duration of Efficacy Seen as "Ideal" by Physicians; 48 Hours Minimally Acceptable

iff.

<u>Ideal</u> Duration of Efficacy for Long-Acting Local Anesthetic



<u>Minimally Acceptable</u> Duration of Efficacy for Long-Acting Local Anesthetic

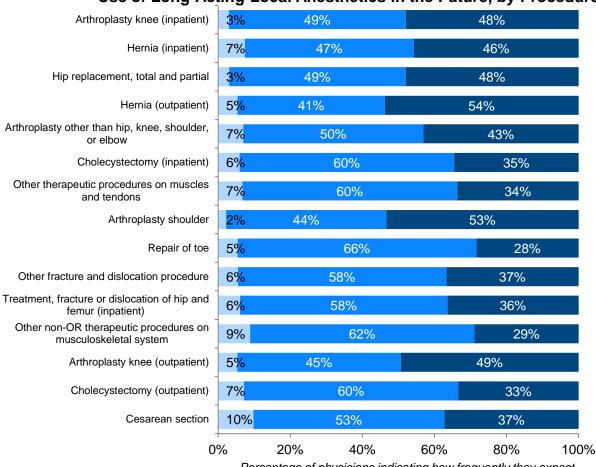




Across Procedures, Many MDs Expect the Use of Long-Acting Local Anesthetics to Increase







"Minimizing opioid use by using long-acting local anesthetics is the trend. I think the longacting local anesthetics have great promise in the future."

- General surgeon

Percentage of physicians indicating how frequently they expect to use long-acting local anesthetics in the future

Source: Decision Resources Group Post-Operative Pain Physician Research Initiative, 2014

Pain Physician Research Initiative, 2014 (N=30 qualitative interviews; N=184 quantitative survey)

Less frequently

Same amount

■ More frequently



HTX-011 Next Steps

- Conducting two placebo-controlled, dose-finding, Phase 2 trials for treatment of post-operative pain
 - Bunionectomy study
 - Inguinal hernia repair study
 - Results expected from both trials in 2H 2015
- Initiating Phase 2 studies for other surgical models in 2H 2015
- Completing toxicology for nerve-block and orthopedic indications







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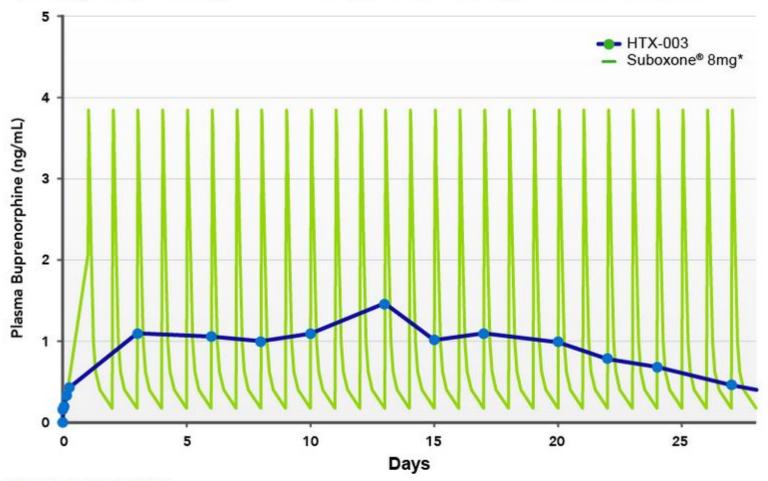
HTX-003 Overview

- HTX-003 is a long-acting, Biochronomer formulation of buprenorphine
 - Designed to maintain therapeutic drug levels of buprenorphine for 30 days following a single subcutaneous injection
 - Potential to deliver long-lasting relief from chronic pain and management of opioid addiction while replacing use of orally administered opioid drugs
- HTX-003's advantages based on both choice of therapeutic agent (buprenorphine) and sustained release, injectable formulation
 - Buprenorphine chemically related to morphine but has lower risk of respiratory side effects, physical dependence and abuse
 - Buprenorphine is a Schedule III drug, compared to Schedule II opioids like morphine and oxycodone, which allows physicians to prescribe with fewer restrictions for pain relief, addiction management
 - Physician-delivered injection further lowers the risk of diversion and abuse



HTX-003 Provides Controlled, Sustained Release of Buprenorphine

30-Day Buprenorphine¹Compared to Daily Oral Suboxone®









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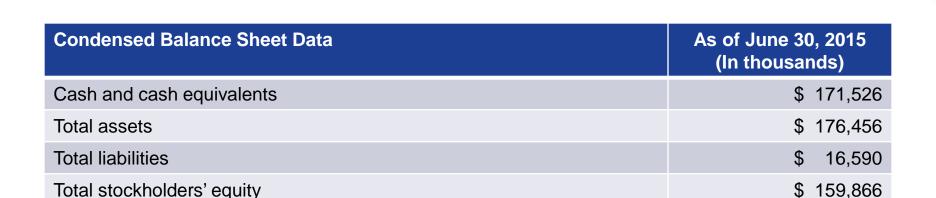
Pain Management Programs

HTX-011 (bupivacaine and meloxicam, extended release)

HTX-003 (buprenorphine, extended release)

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Cash resources expected to fund operations through at least 2016

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