



Heron Post-Operative Pain Program: HTX-011 Phase 1 Single-Ascending-Dose Study

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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. 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.



Heron Post-Operative Pain Program



Objective:

Develop a best-in-class therapeutic for post-operative pain



Heron Post-Operative Pain Program



Target Product Profile:

- Maximal pain relief that lasts for 2-3 days
- Maximal reduction of opioid use
- Maximal reduction of length of hospital stay
- Elimination of dose-limiting peak of bupivacaine



Heron Post-Operative Pain Program



Introducing HTX-011:

- An injectable pain therapeutic that utilizes proprietary Biochronomer[®] polymer-based drug delivery platform technology
- Contains both bupivacaine (anesthetic) and meloxicam (antiinflammatory)
- Designed to deliver both drugs evenly over 2-3 days without a large initial peak

HTX-011 builds on other innovations in the category and has best-in-class potential



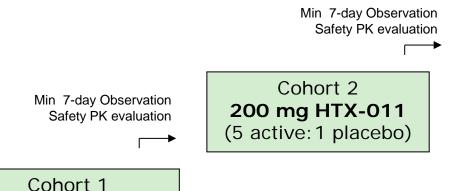
HTX-011 Phase 1 Single-Ascending-Dose Study

Design

- Randomized, Single-Blind, Placebo-Controlled
- 3 Single Rising Dose Cohorts

100 mg HTX-011 (5 active: 1 placebo)

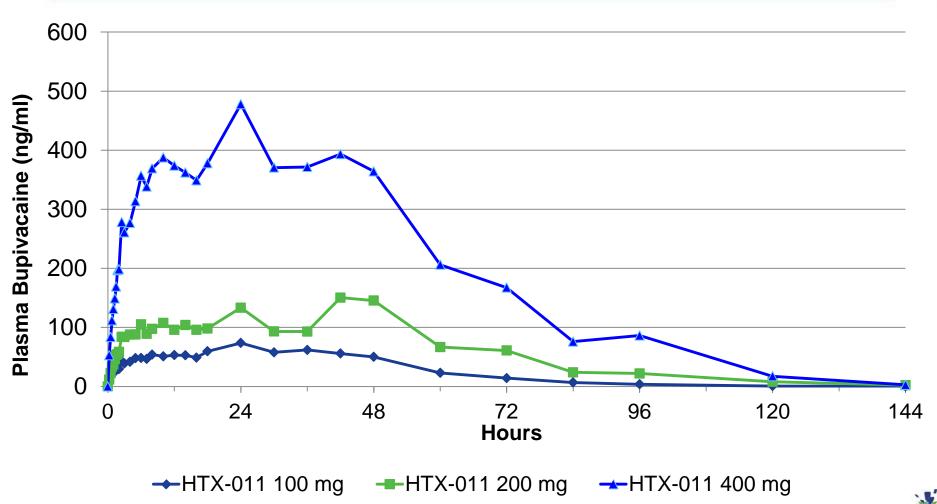
144 hr pharmacokinetic & pharmacodynamic assessments



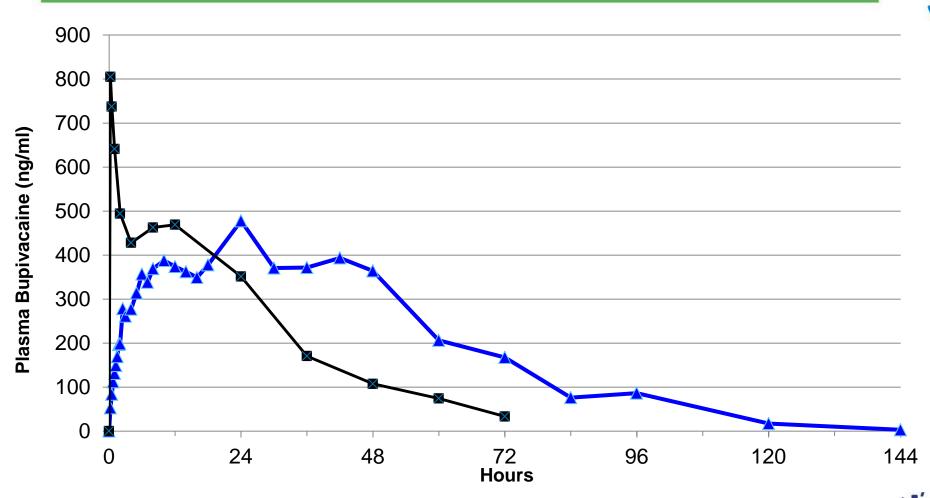
Cohort 3
400 mg HTX-011
(5 active: 1 placebo)



Plasma Concentrations of Bupivacaine Observed with HTX-011



HTX-011 Provides Longer Duration of Bupivacaine Release without a Large Initial Peak



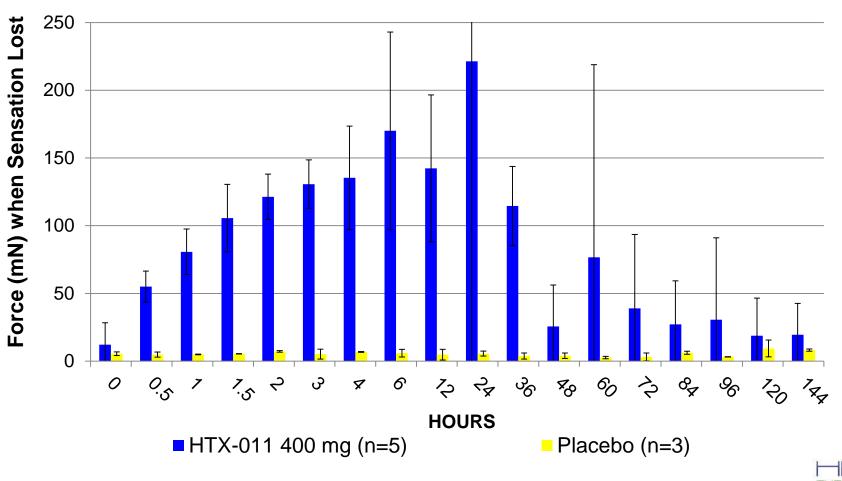
Exparel Hemorrhoidectomy 300 mg*

→HTX-011 400 mg

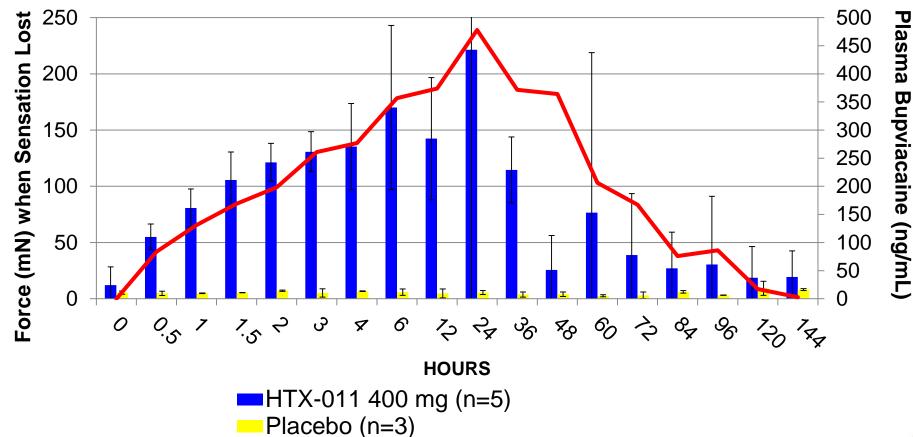
^{*} Exparel data extracted from FDA Clin Pharm review

Mechanical Detection Threshold Using von Frey Fibers

Force where Subject No Longer Feels the Fiber



Pharmacodynamic Effects of HTX-011 Correlate with Pharmacokinetic Profile



Plasma Bupivacaine Observed with HTX-011

Safety

- No serious adverse events or premature discontinuations
- No clinically relevant ECG changes
- No clinically relevant laboratory changes
- Only adverse events considered possibly related to drug were associated with the subcutaneous administration of the product: mild redness and bruising at some injection sites



Summary

- Initial Phase 1 experience validates target product profile for HTX-011
- Desired pharmacokinetic profile for both bupivacaine and meloxicam achieved
- Strong pharmacodynamic activity that correlated with pharmacokinetic profile observed
 - Rapid on-set of action without a large initial peak
 - 2-3 days of stable bupivacaine plasma levels correlated to 2-3 days of anesthetic effects
- All three doses were well-tolerated
- Phase 1 results support immediate advancement into Phase 2

