ENHANZE® drug delivery technology is based on rHuPH20, Halozyme’s proprietary recombinant human hyaluronidase PH20. Each day, naturally occurring hyaluronidase enzymes break down some of the body’s hyaluronan (HA), which is then regenerated as a normal bodily function within 24 to 48 hours. Injected medicines are broken down within hours, which limits large volume subcutaneous drug delivery, dispersion, and absorption. rHuPH20 works locally and transiently to degrade HA in the extracellular matrix within the subcutaneous space by cleaving the linkage between the two sugars that comprise HA (N-acetylglucosamine and glucuronic acid).

By degrading HA in the extracellular matrix at the local injection area, rHuPH20 enables increased subcutaneous bulk fluid flow and the dispersion and absorption of co-administered therapeutics.

rHuPH20 is approved, sold, and/or reimbursed in 50+ countries through ENHANZE partner products receive broad support from multiple healthcare system stakeholders:

Current Partners

- Roche
- Shire
- Pfizer
- AbbVie
- Lilly
- Janssen

References


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Discover the Opportunities With ENHANZE® Drug Delivery Technology

Optimization in Your Hands

Increasing Healthcare System Efficiencies
By enabling IV to subcutaneous delivery conversion, ENHANZE® drug delivery technology may increase health system efficiencies by potentially:

• Reducing administration and nursing time associated with IV delivery¹⁻³
• Increasing available chair time and patient throughput²,³
• Decreasing healthcare costs and reducing patient management needs

Optimizing Product Revenue
ENHANZE may enable revenue optimization for co-formulated therapeutics through:

• Lower cost of goods
• Decreased amount of drug product needed
• Rapid post-launch adoption⁴
• Extended IP protection

Improving Patient Experiences
ENHANZE drug delivery technology may enable an improved patient experience by potentially:

• Reducing administration time and frequency¹,⁵
• Reducing injection pain¹
• Reducing infusion site reactions and blebbing⁴,⁷⁻⁹

Guidance at Your Fingertips
Streamlining the Drug Development Process
With a proven track record and subcutaneous expertise, ENHANZE Alliance Management may enable potential partners to:

• Gain rapid entry to Phase 1 trials in less than 1 year after deal signing, on average⁴
• Collect meaningful patient clinical trial data within 1 year⁴
• Achieve regulatory approval in less than five years from first trial (Herceptin® SC)

ENHANZE Alliance Management support and services span the pre-clinical development stage through commercialization and include:

• Formulation development assistance
• Clinical development strategy
• Comprehensive data packages
• Preclinical experiments and predictive modeling
• Regulatory expertise

Possibilities Within Your Grasp
Overcoming Drug Delivery Barriers
Helping co-administered therapeutics overcome administration, time, and volume barriers, ENHANZE® drug delivery technology may enable:

• IV to subcutaneous delivery conversion and optimization
• Shortened dose administration times from hours to minutes
  - Herceptin® SC reduced from 4 hrs to 5 min
  - MabThera® SC reduced from 5 hrs to 2-8 min
• Reduced administration frequency from once weekly to monthly and from multi-site to single-site programs
• Delivery of higher volumes for rapid subcutaneous injections (2-20 mL) and subcutaneous infusions (>600 mL)

Improving PK/PD Profiles
ENHANZE enables potential improvements to the PK/PD profiles of co-administered drugs, including:

• Improved absorption
• Increased bioavailability
• Accelerated TMAX
• Increased CMAX

And by enabling decreased PK variability, ENHANZE may also improve the efficacy and safety of co-administered drugs."