



Heptanol-induced corneal erosion in rabbits

Comparative Biosciences, Inc.
786 Lucerne Drive
Sunnyvale, CA 94085
Telephone: 408.738.9260
www.compbio.com



COMPARATIVE BIOSCIENCES, INC.
A TRANSLATIONAL APPROACH TO PRECLINICAL RESEARCH

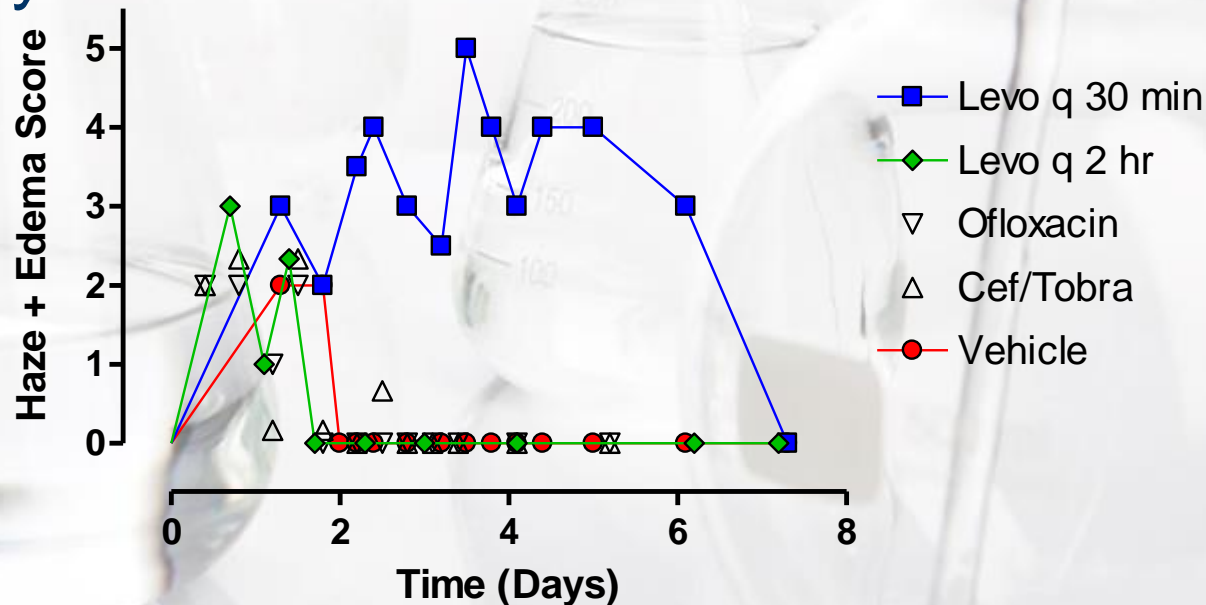
Heptanol-induced corneal erosion in rabbits

- A uniform lesion is induced unilaterally in NZW rabbits by application of heptanol which erodes the corneal epithelium
- Lesion heals over a 3-4 day period
- Test articles may either enhance or retard re-epithelization of the lesion
- Parameters
 - Pachymetry
 - Fluorescein staining with photography of the cornea
 - Measurement of lesion area



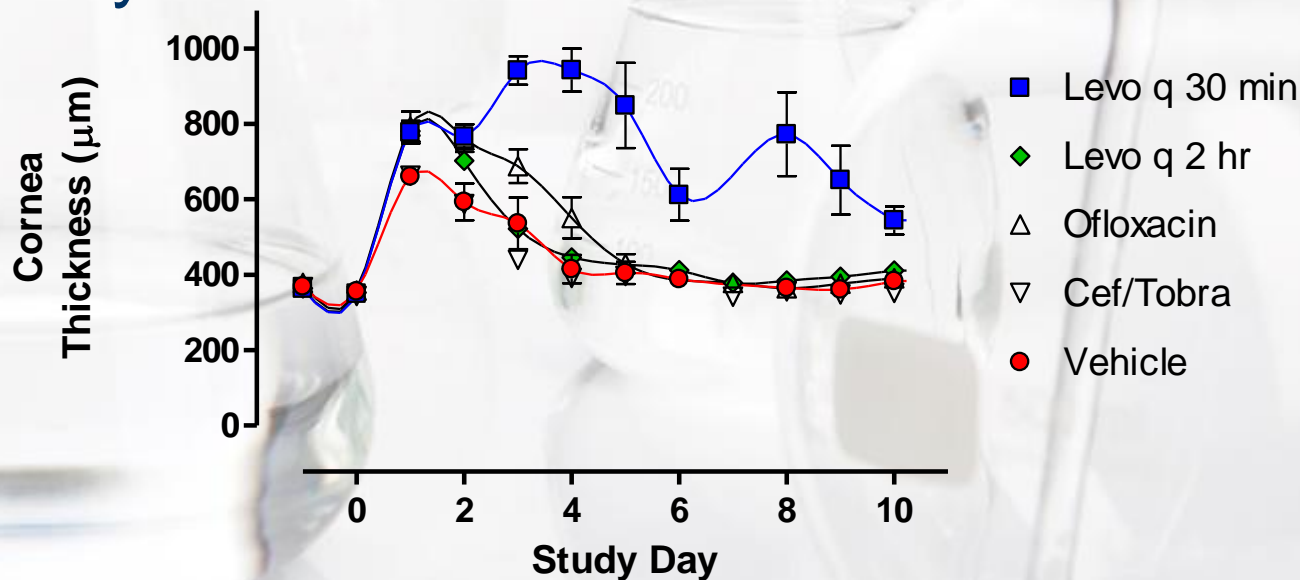
Heptanol-induced corneal erosion in rabbits

- Thickness increases between Day 0 and 3, then decreases and returns to normal in about 7 days



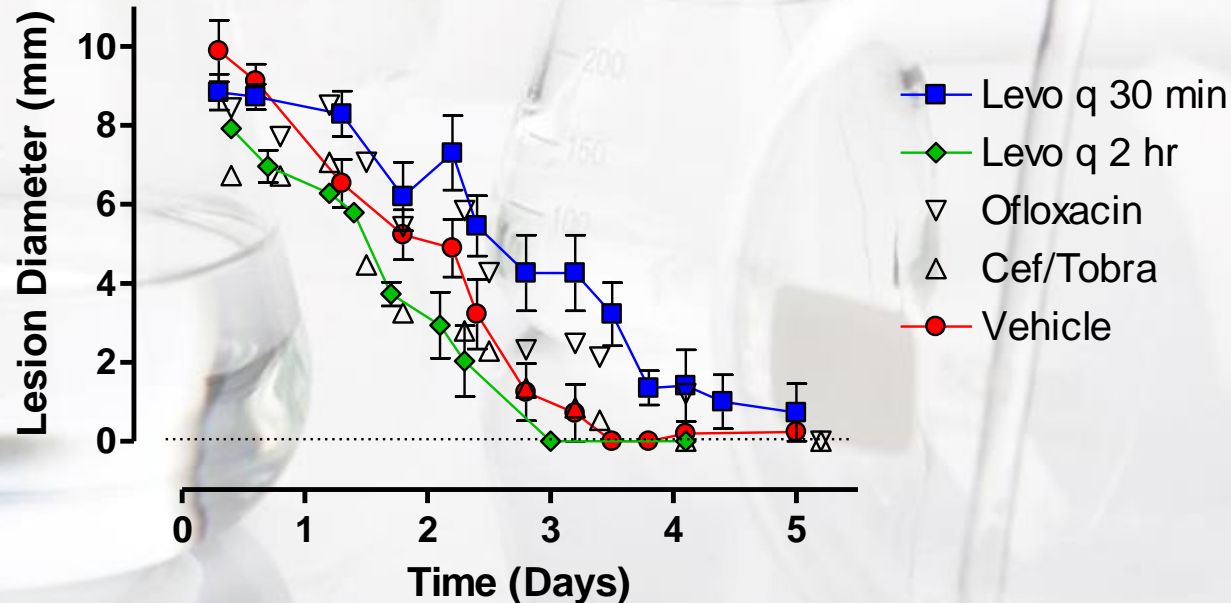
Pachymetry-corneal thickness

- Thickness increases between Day 0 and 3, then decreases and returns to normal in about 7 days



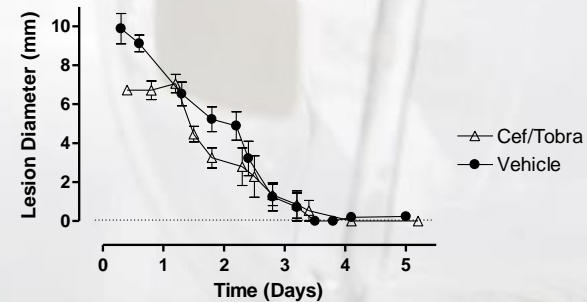
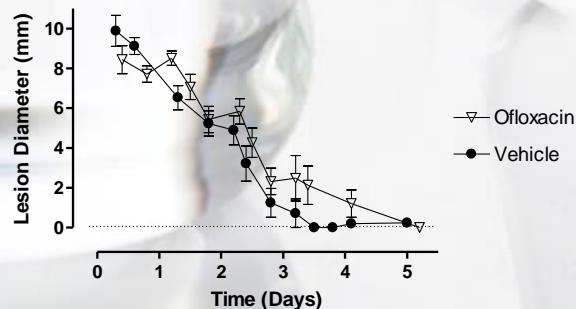
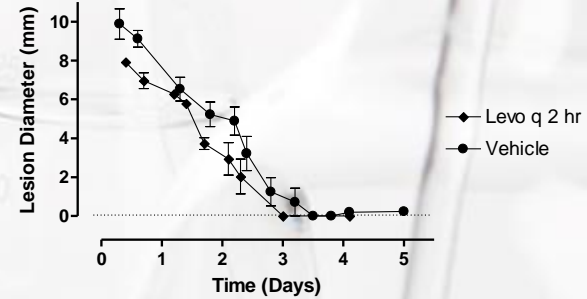
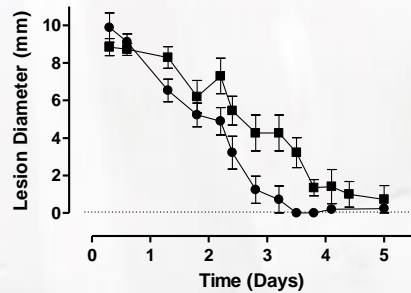
Lesion diameter

- Lesion diameter decreases between Day 0 and 3, returning to normal in about 3-4 days
- Certain agents retard healing, while some may somewhat enhance healing

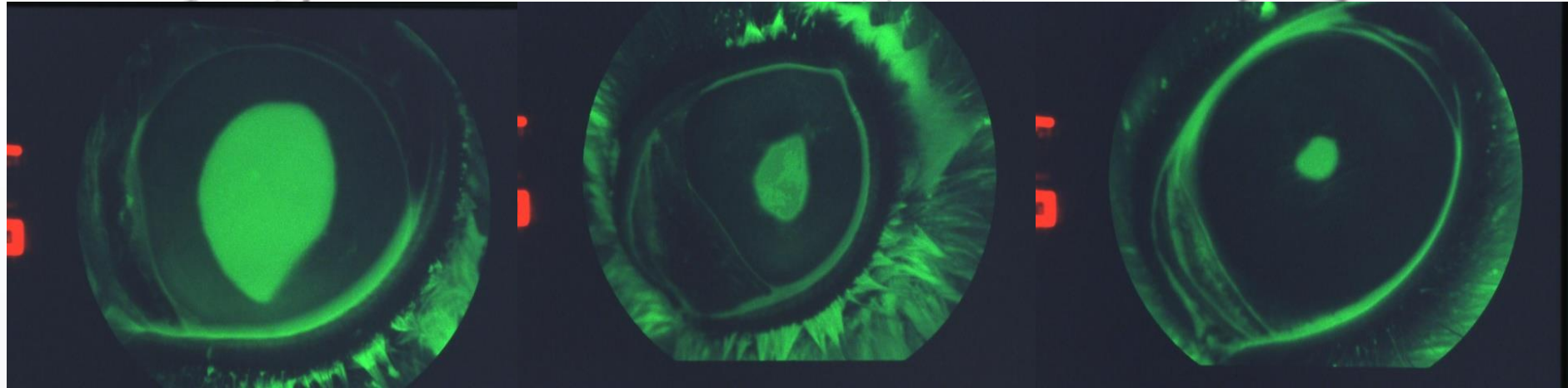


Lesion area

- Lesion area decreases between Day 0 and 3, returning to normal in about 3-4 days
- Certain agents retard healing and some slightly enhance healing



Corneal erosion healing



Day 0

- ▶ Day 0: There is a large focal lesion immediately post surgically
- ▶ Day 1: The erosion is partially healed
- ▶ Day 2: The erosion nearly healed

Day 1

Day 2



Summary

- Heptanol-induced model of corneal erosion
 - Consistently sized corneal lesion
 - Lesion heals within 3-4 days
 - Corneal thickness increases between Day 0 and 3 and returns to normal in about 1 week
 - Agents may enhance or retard healing

