Study Purpose

Evaluate efficacy and safety of pharmaceuticals designed to treat Keratoconjunctivitis Sicca (KCS) or dry eye syndrome in preclinical models.

Deliverables

- Tear production evaluation: Schirmer tear tests, Fluorescein tear breakup tests (TBUT), and Fluorescein staining
- Clinical Ophthalmic Exams (slit lamp biomicroscopy and ophthalmoscopy) using a modified McDonald-Shadduck scoring system
- Comparison of test article to currently approved therapeutics
- Histopathological analysis

Model Description

- Induction using atropine and low humidity conditions
- Clinical ophthalmic exams, TBUT, and Schirmer tear test performed at customized time points to confirm decrease in tear production

Benefits

- Validated efficacy model as presented at ARVO
- Trained scientists for consistent and accurate scoring
- Advanced ocular equipment and expertise in-house

Fluorescein Tear Breakup Time Results

- Successful induction of KCS by a reduction in tear break-up time for both the treated and untreated groups (Day 1 to Day 20).
- Increase in tear film stability observed for treated animals compared to non-treated animals

Figure 1: Average fluorescein tear breakup time in seconds