

- This study supports the premise that mucus penetrating particle (MPP) technology can be used to enhance ocular exposure for topically applied therapeutics.
- Conventional attempts to improve retention at the ocular surface have focused on increased viscosity of formulations; the MPP technology is used to create novel formulations that circumvent the tear mucin clearance mechanism.
- In rabbit pharmacokinetic studies, the novel loteprednol etabonate (LE-MPP) 0.4% formulation resulted in approximately 3-fold higher peak concentrations in aqueous humor and ocular tissues compared to the commercial formulation of Lotemax® 0.5% suspension (Bausch & Lomb Incorporated, Inc., Rochester, NY, USA).
- Further studies to assess the efficacy and safety of the LE-MPP formulation for clinical applications are warranted.

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