

# OCULAR DRUG DELIVERY

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## 1 INTRODUCTION

Due to the accessibility of the eye surface, topical administration of ophthalmic medications is the most common method for treating conditions affecting the exterior eye surface. However, the unique anatomy and physiology of the eye renders it difficult to achieve an effective drug concentration at the target site. Therefore, efficient delivery of a drug past the protective ocular barriers accompanied with minimization of its systemic side effects remains a major challenge.

Conventional eye drops currently account for more than 90% of the marketed ophthalmic formulations [1]. However, after instillation of an eye drop, typically less than 5% of the applied drug penetrates the cornea and reaches the intraocular