

Supplementary Materials: Asymmetry in Drug Permeability through the Cornea

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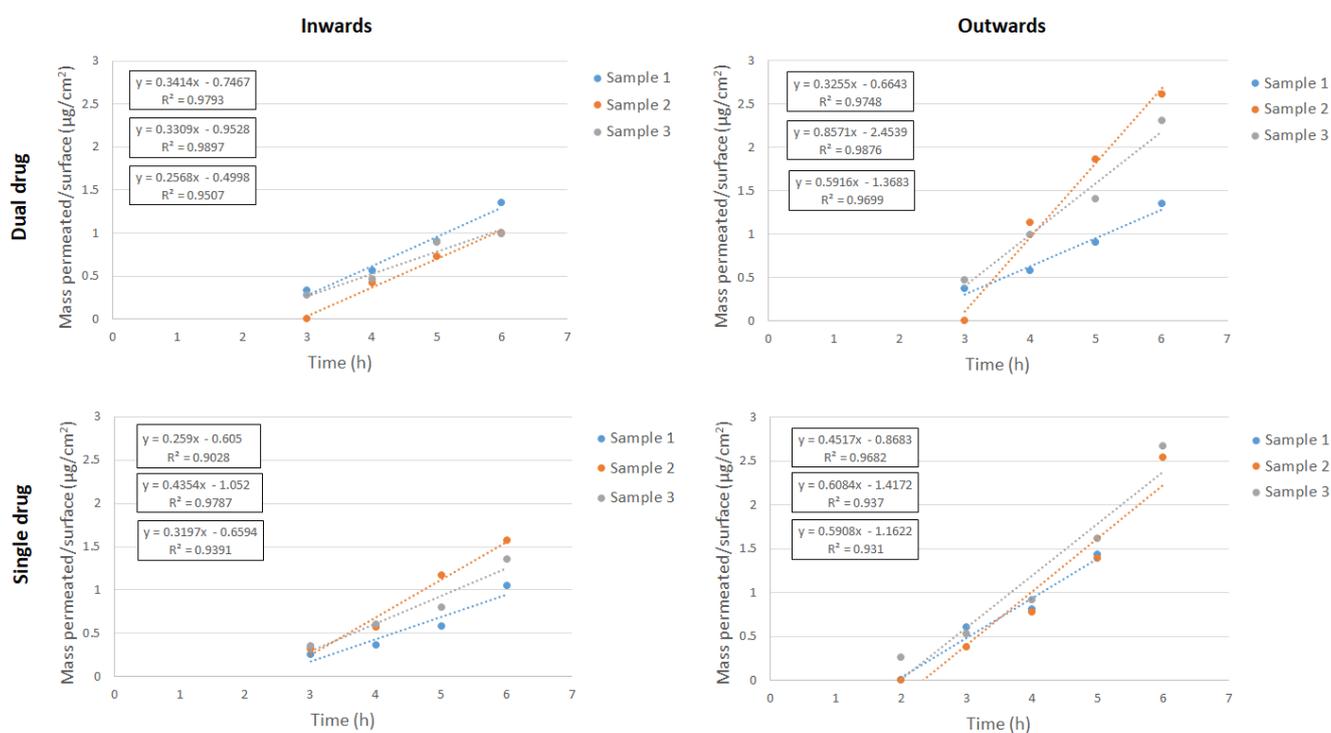


Figure S1. Linear regression of the cumulative mass of bromfenac sodium permeated through the cornea in inward (left) or outward (right) direction. The experiment was conducted in presence of bromfenac sodium and dexamethasone simultaneously (dual drug) or with bromfenac sodium alone (single drug).

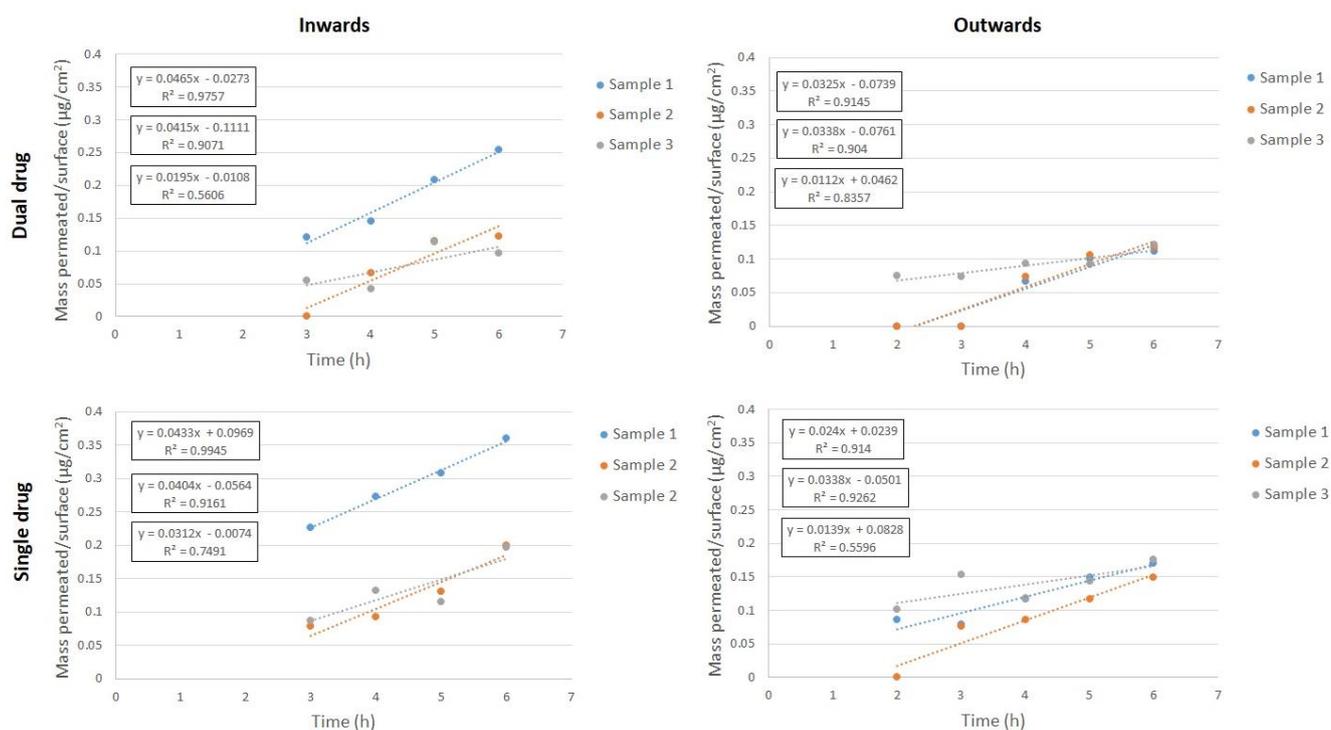


Figure S2. Linear regression of the cumulative mass of dexamethasone sodium permeated through the cornea in inward (left) or outward (right) direction. The experiment was conducted in presence of bromfenac sodium and dexamethasone simultaneously (dual drug) or with dexamethasone sodium alone (single drug).

Table S1. Amount of bromfenac sodium and dexamethasone sodium detected in the donor chamber after the test ($t = 6$ h), accumulated in the cornea and permeated to the receptor chamber. The reported data were summed (Total drug amount) and compared to the initial drug amount placed in the donor chamber (i.e. 125 μg) for mass balance assessment.

		Bromfenac sodium		Dexamethasone sodium	
		Inwards	Outwards	Inwards	Outwards
Single-drug solution	Drug in the donor chamber ($t = 6$ h)	112 \pm 1 μg	78 \pm 6 μg	122 \pm 2 μg	98.68 \pm 0.07 μg
	Drug accumulated in the cornea	8.7 \pm 0.6 μg	37.6 \pm 0.9 μg	0.59 \pm 0.03 μg	1.27 \pm 0.06 μg
	Drug permeated to the receptor chamber	1.0 \pm 0.2 μg	2.05 \pm 0.07 μg	0.20 \pm 0.07 μg	0.13 \pm 0.01 μg
	Total drug amount	\approx 122 μg	\approx 119 μg	\approx 123 μg	\approx 100 μg
Dual-drug solution	Drug in the donor chamber ($t = 6$ h)	114 \pm 3 μg	78 \pm 2 μg	122 \pm 2 μg	93 \pm 3 μg
	Drug accumulated in the cornea	7.0 \pm 0.2 μg	37 \pm 4 μg	0.5 \pm 0.1 μg	1.2 \pm 0.1 μg
	Drug permeated to the receptor chamber	0.9 \pm 0.2 μg	1.6 \pm 0.5 μg	0.12 \pm 0.06 μg	0.091 \pm 0.004 μg
	Total drug amount	\approx 122 μg	\approx 117 μg	\approx 122 μg	\approx 95 μg