

# Supplementary Materials: Micelles of Progesterone for Topical Eye Administration: Interspecies and Intertissues Differences in Ex Vivo Ocular Permeability

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**Table S1.** Particle size of micelles of Soluplus and Pluronic micelles in phosphate saline buffer (PBS) pH 7.4 at 25 °C before and after being loaded with progesterone (PG). Mean values  $\pm$  standard deviations;  $n = 3$ .

Copolymer (% w/w)	SP	SP + PG	PL	PL + PG
4	51.23 $\pm$ 0.62	53.45 $\pm$ 2.68	5.49 $\pm$ 0.88	4.35 $\pm$ 0.17
8	53.33 $\pm$ 1.07	48.72 $\pm$ 0.48	2.94 $\pm$ 1.07	4.36 $\pm$ 0.56
12	52.32 $\pm$ 10.13	59.19 $\pm$ 0.41	3.70 $\pm$ 1.01	3.52 $\pm$ 0.15
16	60.89 $\pm$ 12.94	72.09 $\pm$ 3.67	3.22 $\pm$ 0.49	3.36 $\pm$ 0.02
20	53.58 $\pm$ 5.05	66.18 $\pm$ 21.32	3.32 $\pm$ 0.13	2.20 $\pm$ 0.15

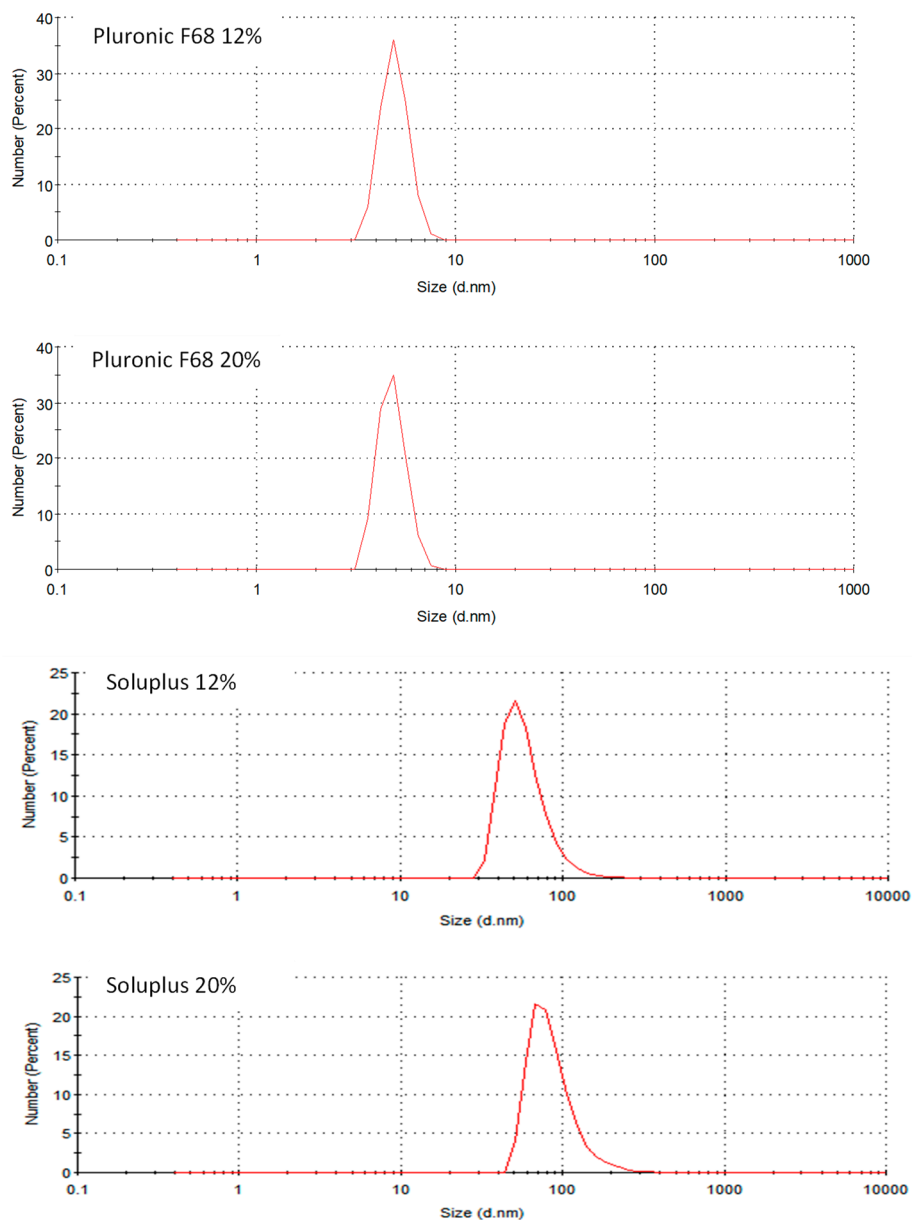
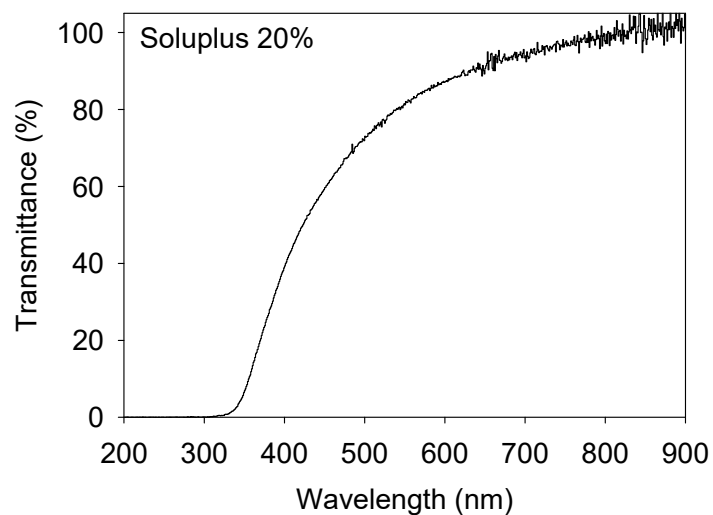


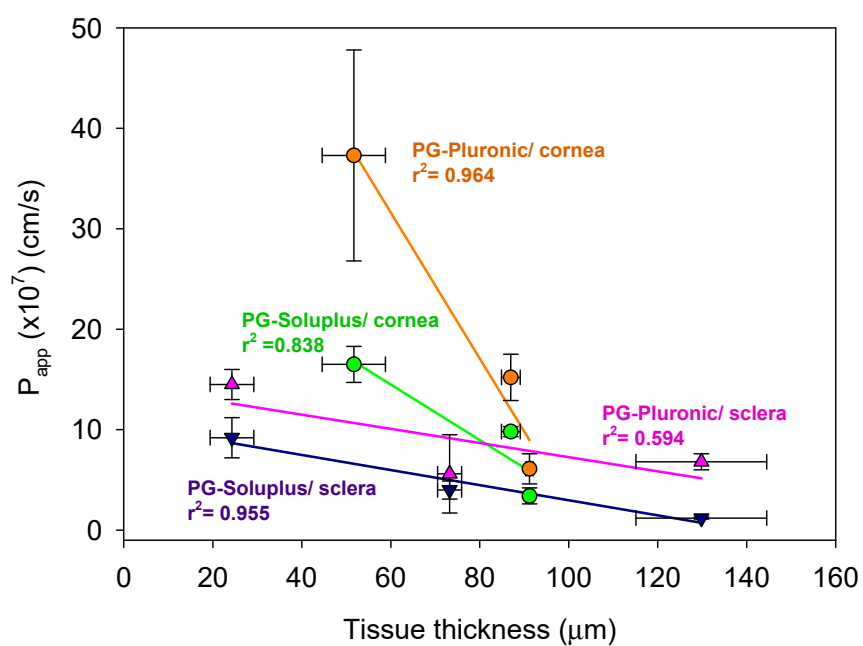
Figure S1. DLS size distributions in number for selected micelle dispersions recorded at 25 °C.



**Figure S2.** Transmittance at room temperature of 20% *w/w* Soluplus dispersion prepared in PBS pH 7.4 and measured using 10-mm light path cuvette.



**Figure S3.** Appearance of the viscous 20% *w/w* Soluplus dispersion in PBS pH 7.4 at 37 °C.



**Figure S4.** Dependence of the apparent permeation coefficient ( $P_{app}$ ) of PG on the thickness of cornea (orange and green lines) and sclera (pink and purple lines) when administered formulated in Pluronic F68 or Soluplus micelles. Thickness increased in the order rabbit < porcine < bovine tissue.