

**Supplementary Figure 1:** Correlations of corneal histopathological parameters with conjunctival goblet cells, MG, HG, ELG and ILG.

		Conjunctival goblet cell	Lipid		Water	
			MG	HG	ELG	ILG
<b>All</b>	$\rho$	-0.685**	0.331	-0.04	0.327	-0.242
	P	< 0.01	0.115	0.853	0.119	0.255
<b>BXSB-</b>	$\rho$	-0.748**	-0.102	-0.189	-0.154	-0.329
<b>Yaa</b>	P	< 0.01	0.751	0.557	0.633	0.297

Spearman's rank correlation coefficients \*:  $P < 0.05$ , \*\*:  $P < 0.01$ .

All mice (n = 24), BXSB-Yaa: BXSB/MpJ-Yaa (n = 12)

Conjunctiva: The goblet cell density in the conjunctiva epithelium, MG: MG acinus density,

HG: The size of one acinus in the Harderian gland, ELG: The size of one acinus in the

extraorbital lacrimal gland and ILG: The size of one acinus in the intraorbital lacrimal gland.