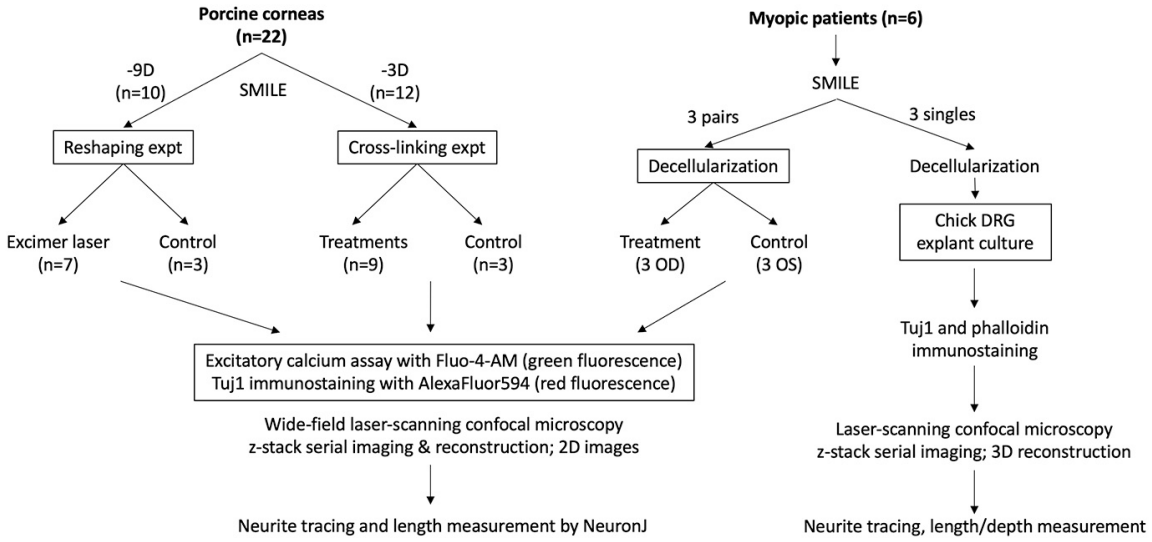
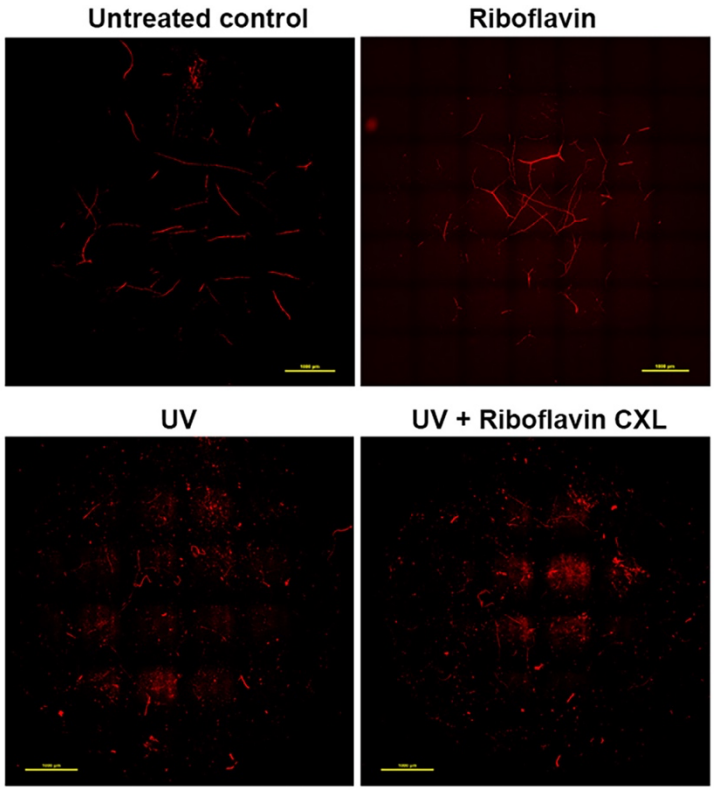
Effect of corneal stromal lenticule customization on neurite distribution and excitatory property

Supplementary Materials



Supplementary Fig 1. A schematic showing the work flow from lenticule collection, customization, TuJ1 immunostaining and calcium assay, to the pan-lenticule imaging of neurites and quantification. Additional lenticules after decellularization were used for DRG innervation study. The numbers of lenticules used in each assay were indicated.



Supplementary Fig 2. Stromal neurite distribution of porcine lenticules after treatment with riboflavin only, UV-irradiation only, or UA-riboflavin crosslinking (CXL), compared to untreated control. The neurites were stained for TuJ1 (red fluorescence). Scale bars: 1 mm.

Neurites	Length of penetration	Neurites	Depth of penetration
1	152	1	10
2	205	2	39
3	137	3	16
4	210	4	53
5	201	5	50
6	168	6	14
7	199	7	18
8	267	8	34
9	143	9	42
10	203		
11	222	Mean depth	30.67
12	208	SD	16.44
13	187		
Mean length	192.46		
SD	35.53		

Supplementary Table 1. Parameters of chick DRG neurite penetration (length and depth) in the decellularized human lenticules after 5-day culture.