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Supplementary Material

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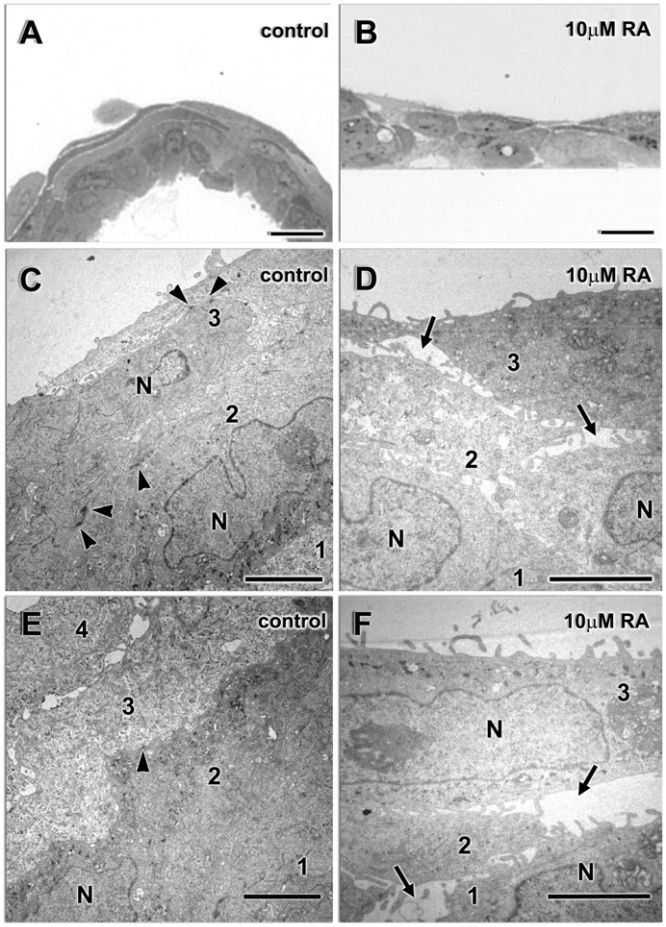

Fig. S1. Treatment with 10 μM RA for 48 hours, promoted an increase in the size of intercellular spaces and a decrease in the number of desmosomes in cultured corneal epithelia. RCE1(5T5) corneal epithelial cells were grown as described (see Materials and Methods). One day after confluence, 3–5 layered epithelia were incubated with medium containing 10 μM RA for 48 hours. After processing, semi-thin sections (1 μM) were stained with toluidine blue for light microscopy examination (**A**,**B**), and thin sections (60 nm) were stained as described (see Materials and Methods) for TEM ultrastructural studies (**C–F**). As shown, treatment with RA (B) did not change the number of cell layers, which varied between 3–5 layers as compared with control cultures (A). However, epithelia incubated with RA had a lax organization, with wide intercellular spaces (arrows) and a low number of desmosomes (arrowheads) (D,F); morphology which partially explains the disruption of the epithelial barrier. In contrast, epithelia maintained with medium without RA (control) were tightly packed and had very small intercellular spaces and numerous desmosomes (arrowheads) (C,E). In C–F, numbers indicate the number of cell layer; scale bar=4 μm; in A,B, scale bar=25 μm. N, nuclei.