Supplemental Information

An essential role for cyclic mononucleotides in directional migration of cell fragments

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Fig. S1. cAMP and cGMP agonists abolished directional migration of cell fragments.

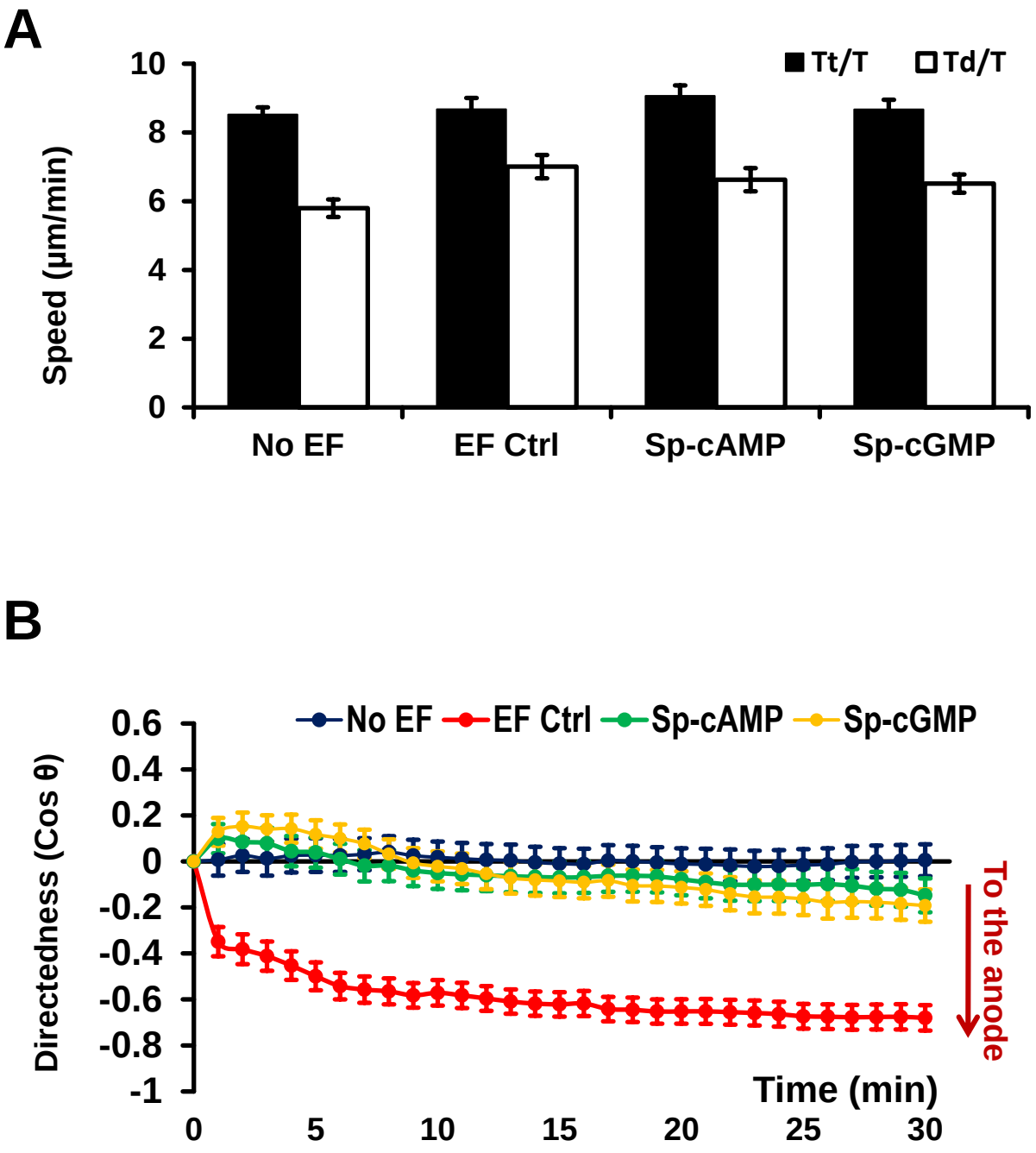
(A) Migration speed. Tt/T: the trajectory speed, Td/T: displacement speed. **(B)** Cell membrane permeable cAMP agonist (Sp-cAMP) and cGMP agonist (Sp-cGMP) abolished the anode directed migration. EF = 400 mV/mm. Incubation time with Sp-cAMP and Sp-cGMP was 30 min. Data are shown as mean ± s.e.m. from 100 fragments, the results were confirmed in 3 independent experiments.

Fig. S2. H89 inhibited the basal motility of cell fragments

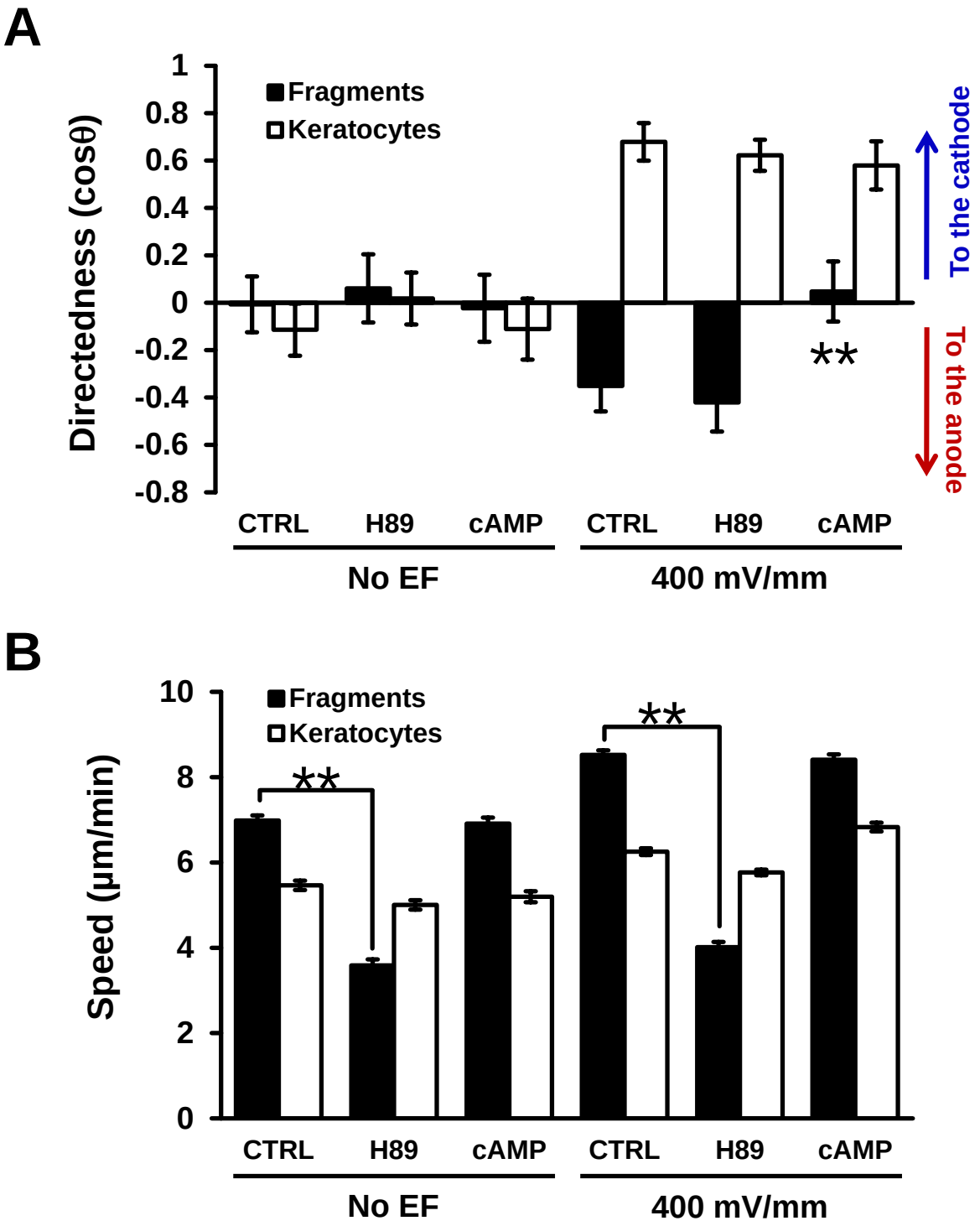
(A) H89, a specific PKA inhibitor, did not affect the opposite directional migration of keratocytes and cell fragments. **(B)** H89 significantly inhibited the basal motility of fragments in the presence or absence of EF. Data are shown as mean ± s.e.m. from 30-50 fragments. EF = 400 mV/mm; duration, 30 min. ** $P < 0.01$.)

Movie S1. cAMP and cGMP agonists abolished directional migration of cell fragments.

Time-lapse video corresponding to Fig. 1 shows that cell fragments migrate directionally towards the anode (to the left) in an EF. cAMP and cGMP agonists abolished directional migration of cell fragments. The recording time is 30 min with frame interval of 1 minute. EF=400 mV/mm.



Zhu et al., Fig. S1.



Zhu et al., Fig. S2.