

Biophysical Journal, Volume 117

Supplemental Information

From Perception Threshold to Ion Channels—A Computational Study

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Supporting material

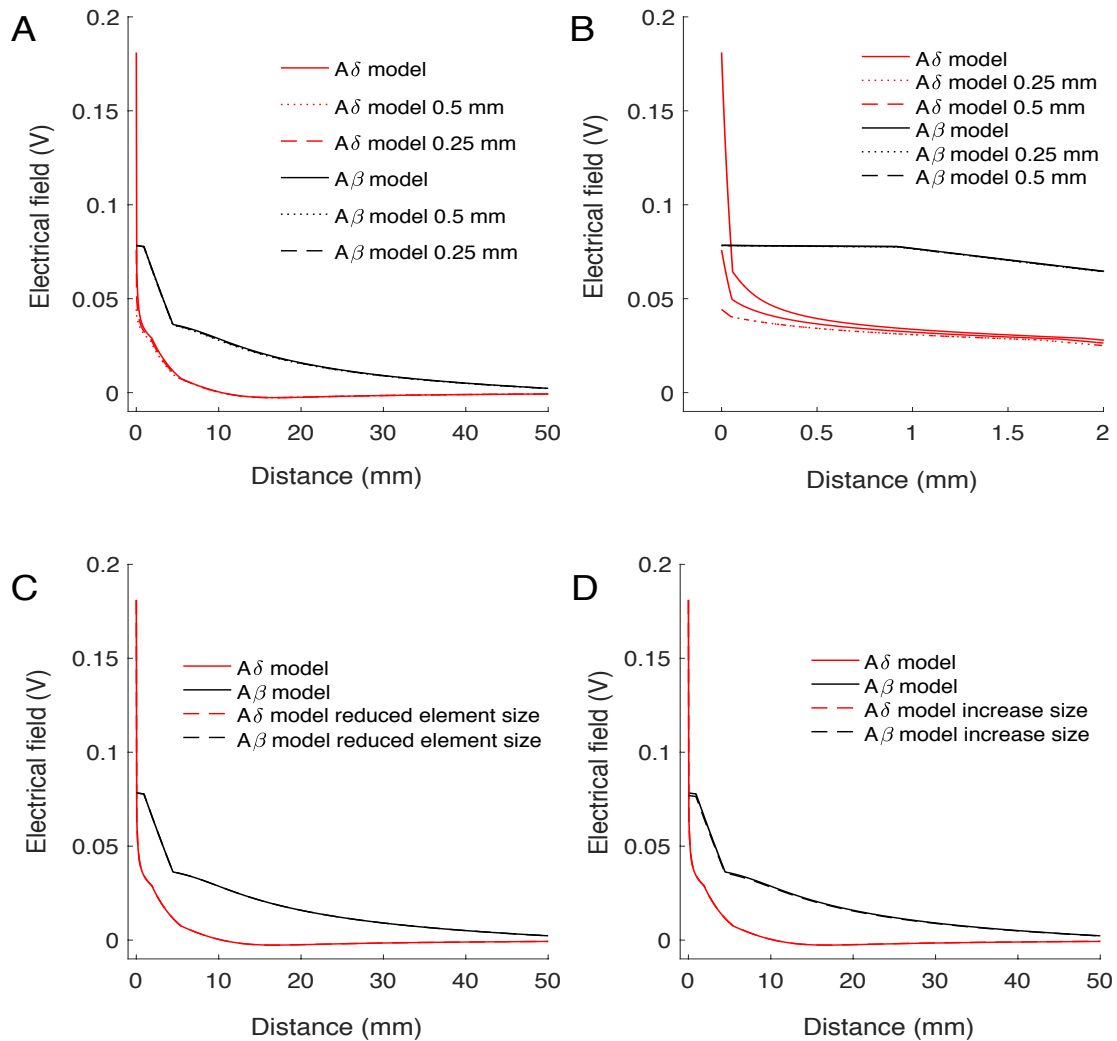


Figure S1. Sensitivity analysis. A. The electrical field generated by the two electrodes when the tip of the axon model where horizontally moved away from underneath the cathode. For the patch, the electrical field along the $A\beta$ fiber is illustrated and for the Pin electrode along the $A\delta$ -fiber. An enlargement of the A is illustrated in B. C. the electrical field generated by the two electrodes when the element size was reduced by a factor 2. D the electrical field generated by the two electrodes when the lengths of the model was increased by 25%.

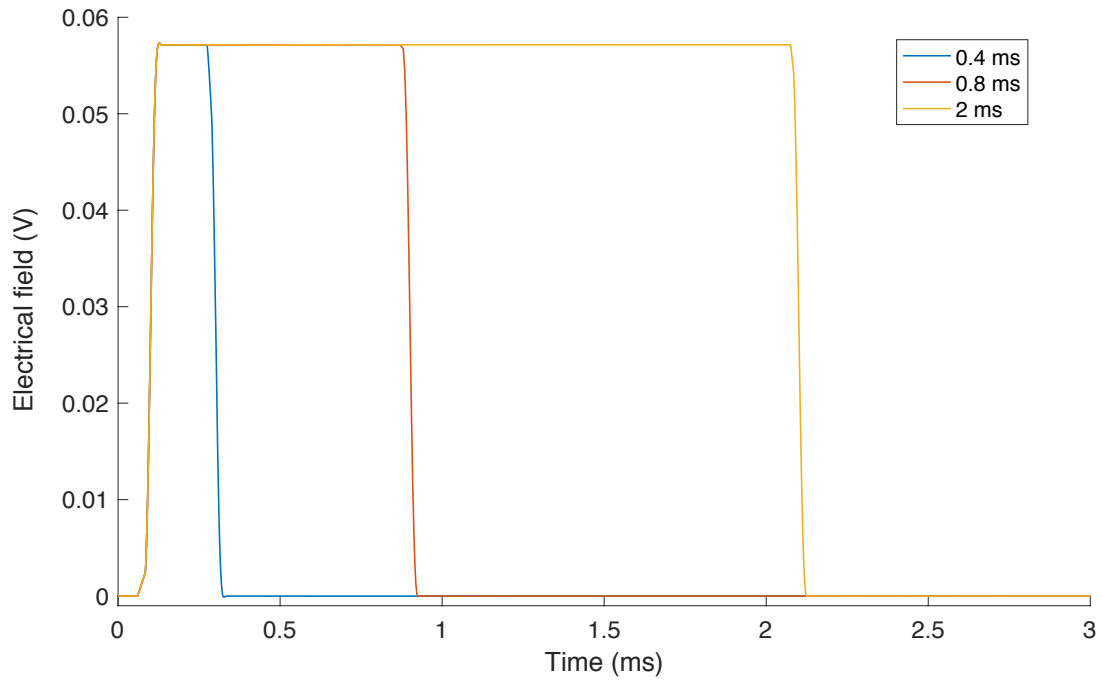


Figure S2. Time dependent solution of the COMSOL model. A single rectangular pulse shaped stimulation current (1 mA) was applied through the Patch electrode. The iterative non-linear solver, Constant newton, was used with the same element size as for the stationary solution. The electrical field was measured in epidermal-dermal junction underneath the cathode.