

Supplementary Information

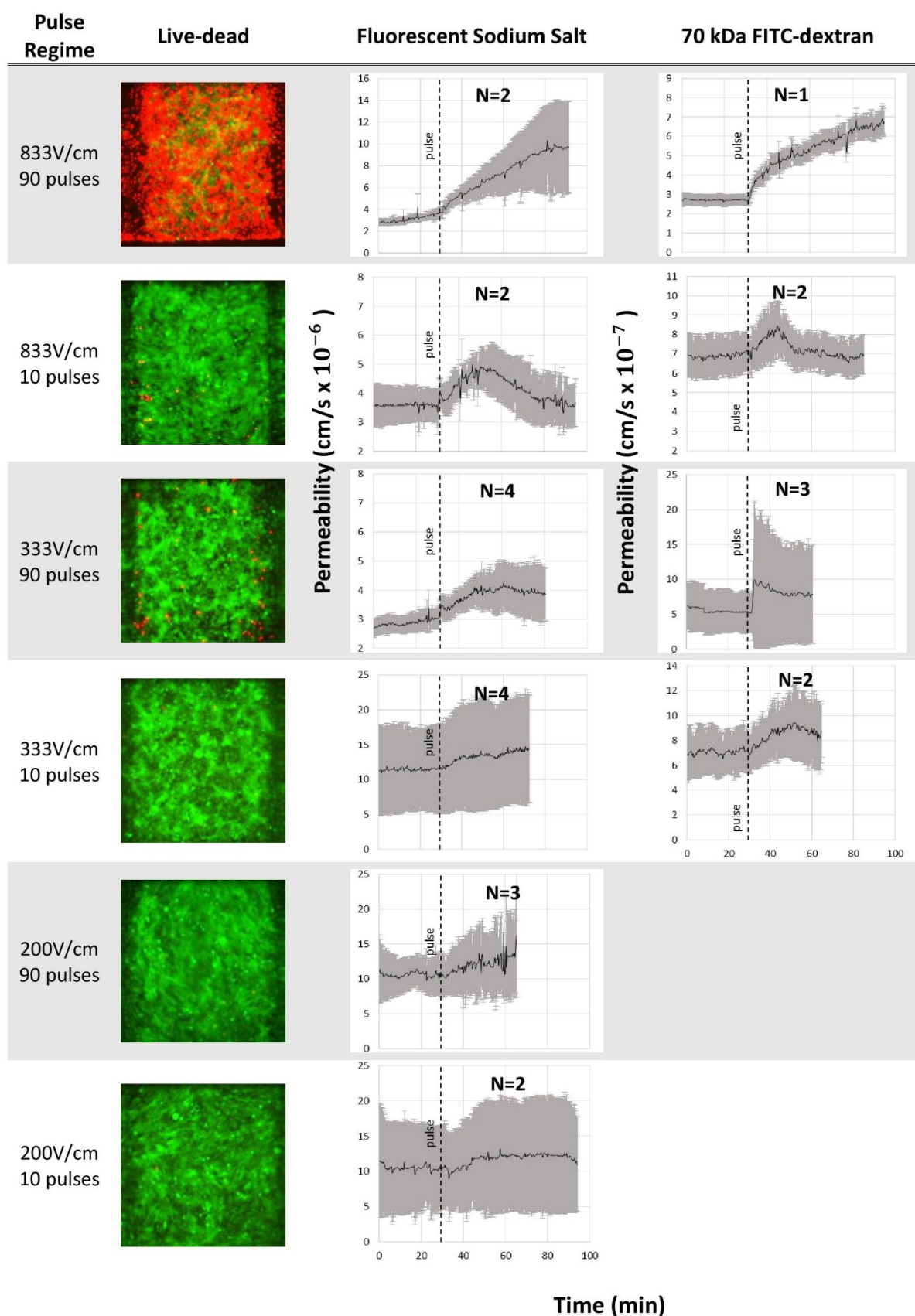


Figure S1. Average permeabilization of the BBB to fluorescent sodium salt and 70 FITC-dextran after application of pulsed electric fields. Live-dead stain shows live cells in green and dead cells in red.

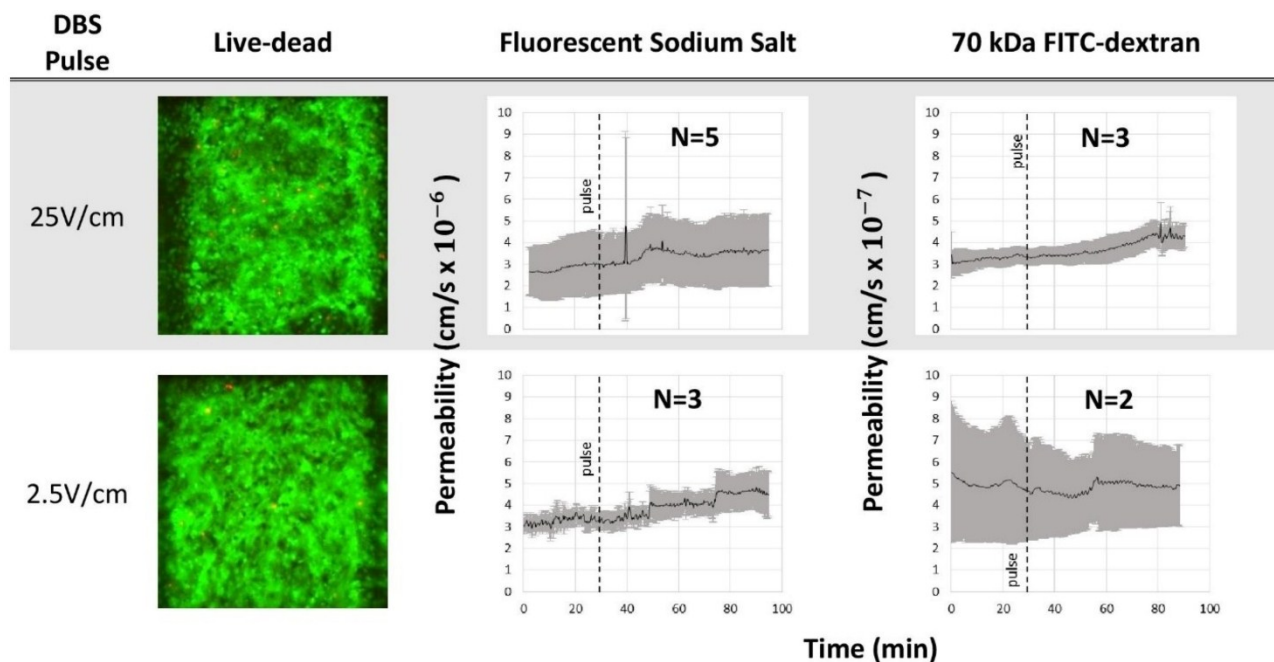


Figure S2. Average permeabilization of the BBB to deep brain stimulation pulses for sodium salt and 70 kDa FITC-Dextran 25V/cm and 2.5 V/cm. Live-dead stain shows live cells in green and dead cells in red.

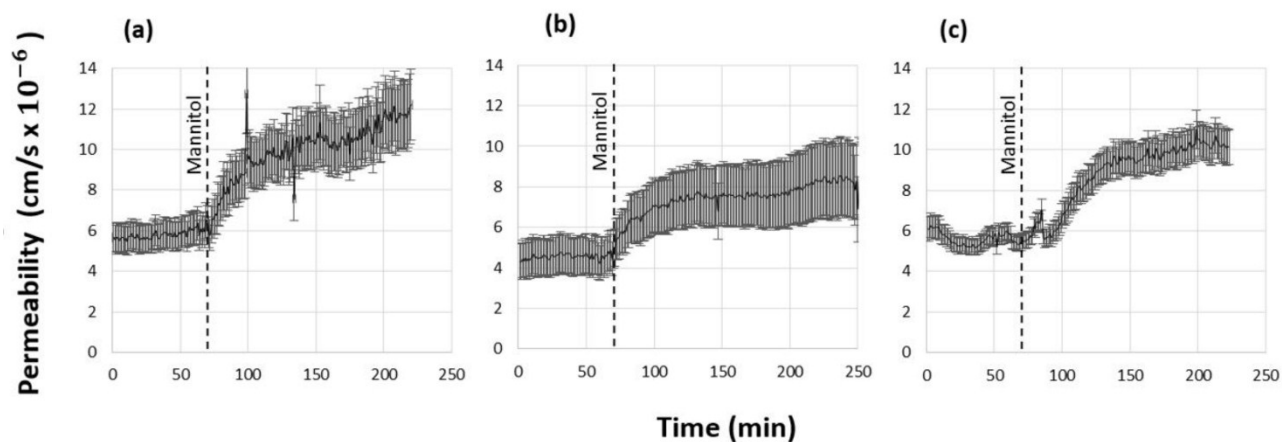


Figure S3. Permeabilization of the BBB to fluorescent sodium salt due to mannitol of (a) 0.3M, (b) 0.7M, (c) 1.0M. (N=1) Dashed lines indicate the introduction of mannitol.

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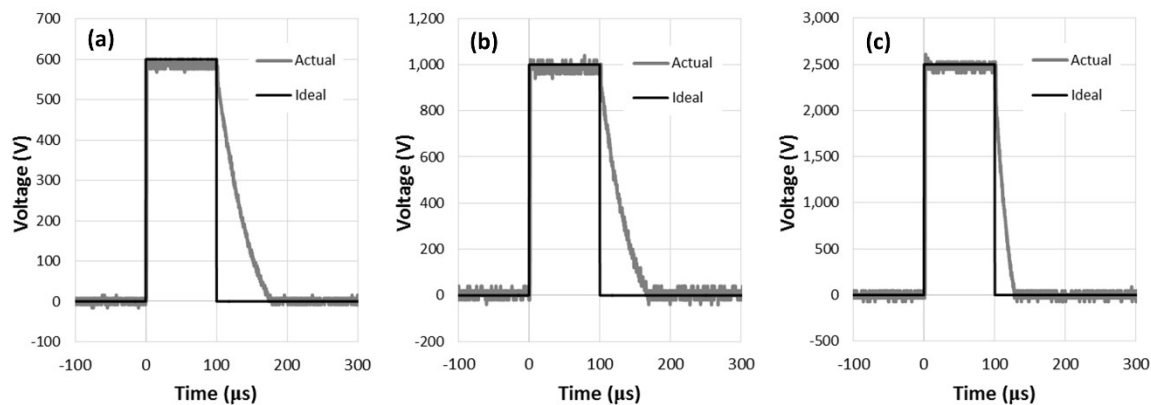


Figure S4. Electroporation pulse waveform. Comparison between the designed pulse waveform (ideal) and the actual waveform generated for (a) 600V, (b) 1000V, and (c) 2500V.

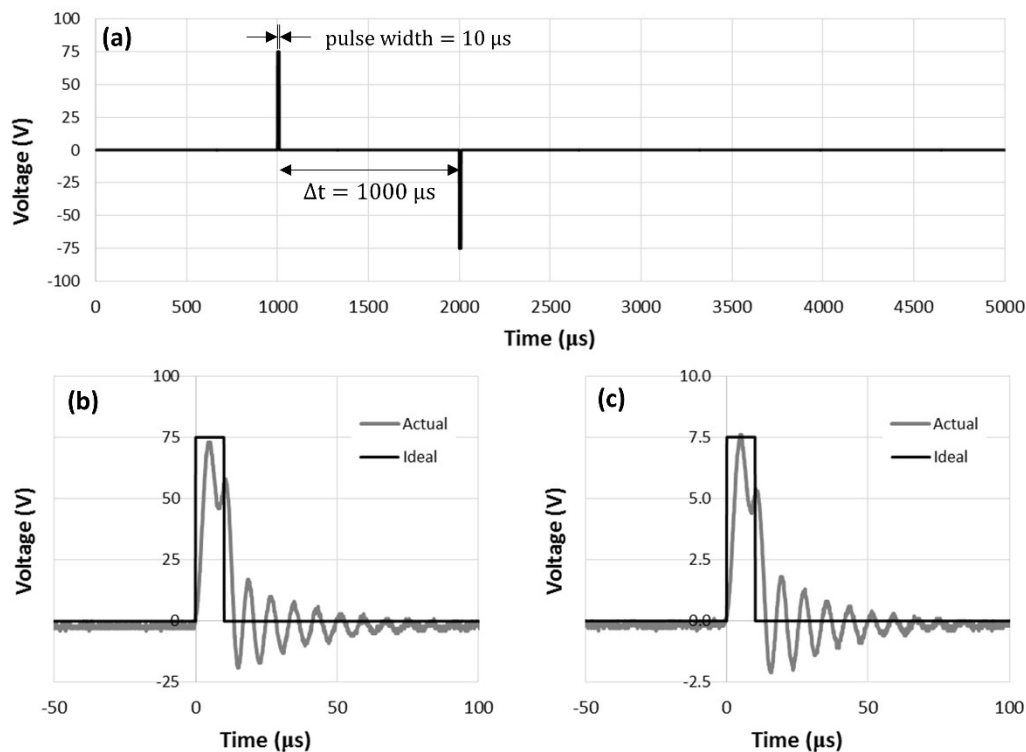


Figure S5. DSB pulse waveform. (a) Design of the DBS waveform, comprised of two 10 μs bipolar pulses offset from each other by 1000 μs . (b) Comparison between the designed waveform (ideal) and actual waveform generated after amplification for 75V and (c) 7.5V.