

Combining Electrostimulation with Impedance Sensing to Promote and Track Osteogenesis within a Titanium Implant

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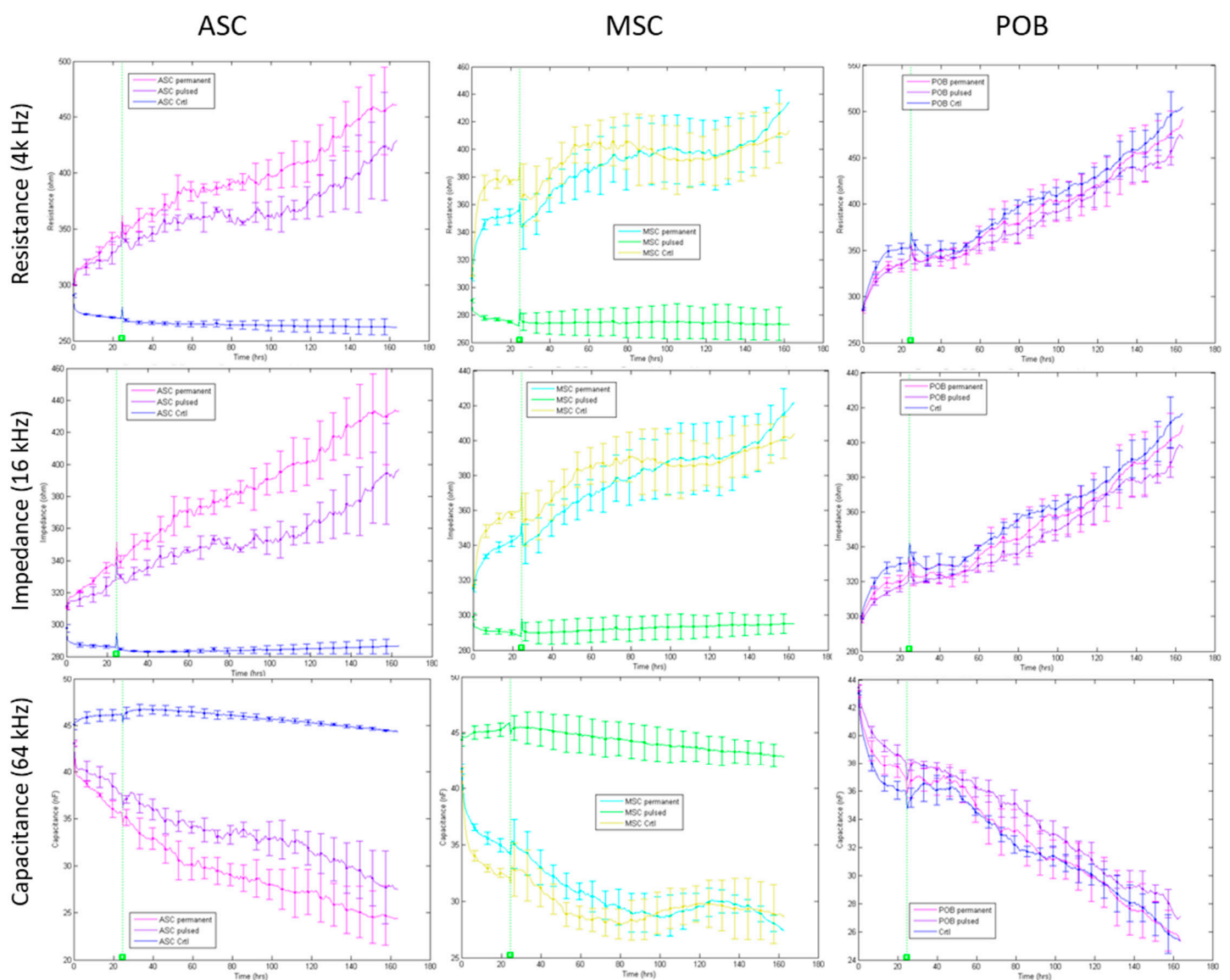


Figure S1. Impedance measurements after 3 days of electrical stimulation. Resistance at 4 kHz, impedance at 16 kHz, capacitance 64 kHz was measured for 7 days in non-stimulated, pulsatile and continuous electrical stimulated ASCs, MSCs and POBs. At $t = 0$ h cells were seeded on the chips. Medium changes occurred every 2 days. mean \pm SD, $n = 3$.

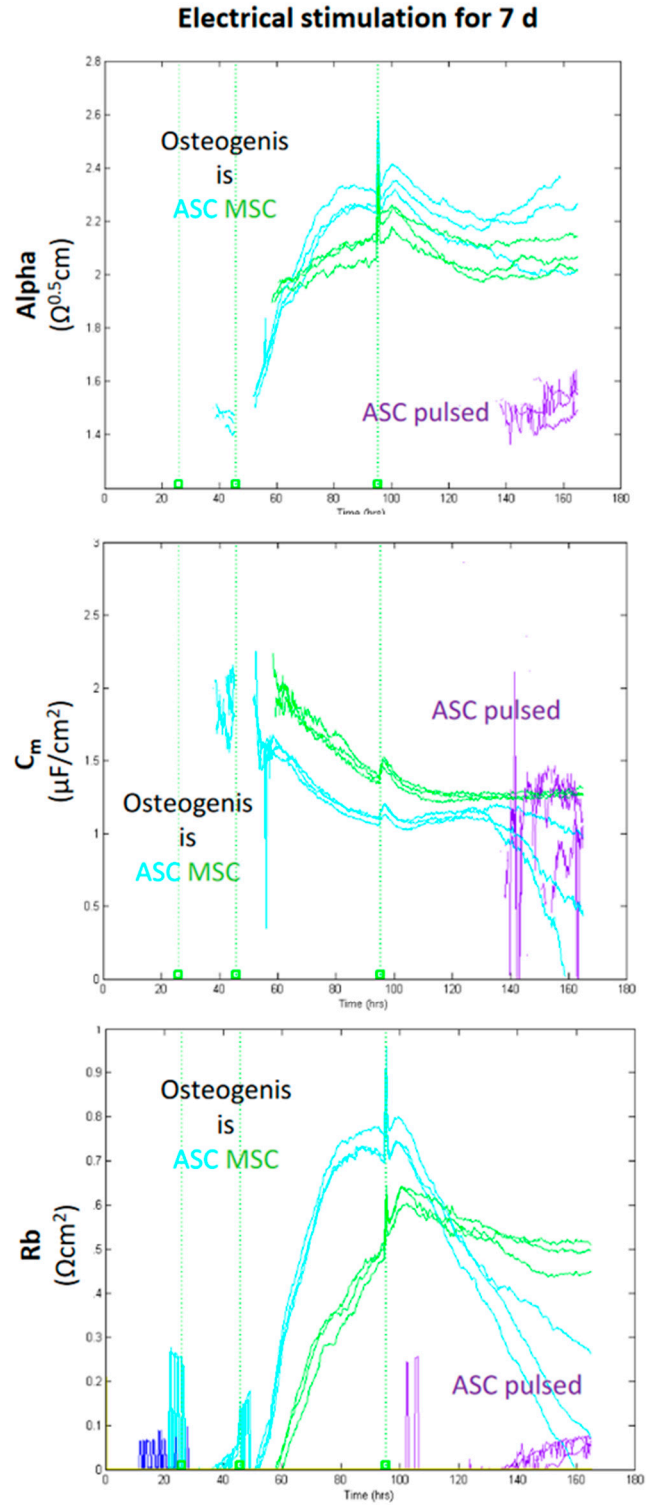


Figure S2. Calculation of resistance (R_b) and cell membrane capacitance (C_m) in osteogen and electrical stimulated stem cells. For the chemical osteogenic stimulated ASCs and MSCs as well as for the pulsatile stimulated ASCs an decrease of C_m was detected.

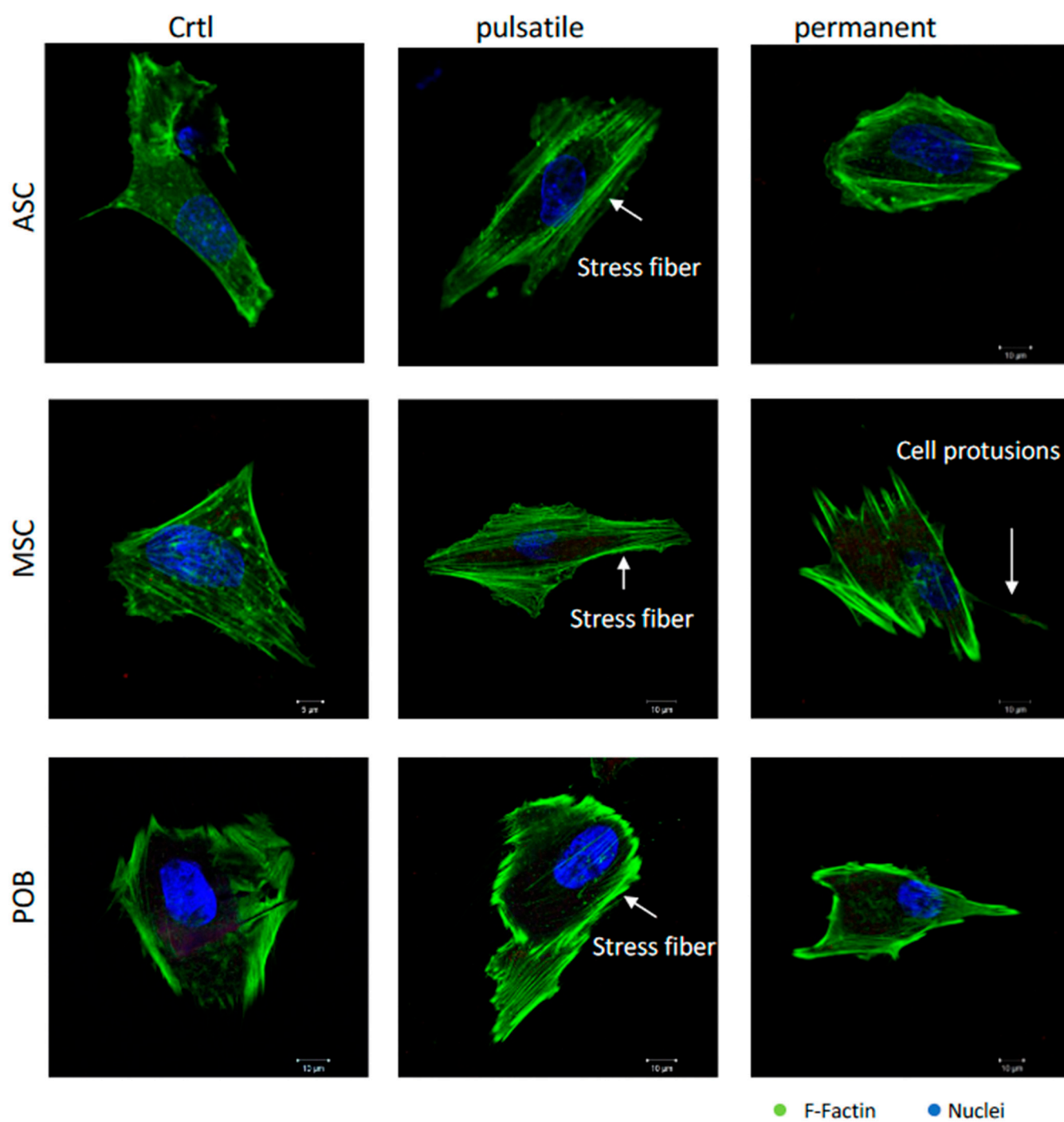


Figure S3. Alterations in F-actin structure.