

Supporting Information should be included here (for submission only; for publication, please provide Supporting Information as a separate PDF file).

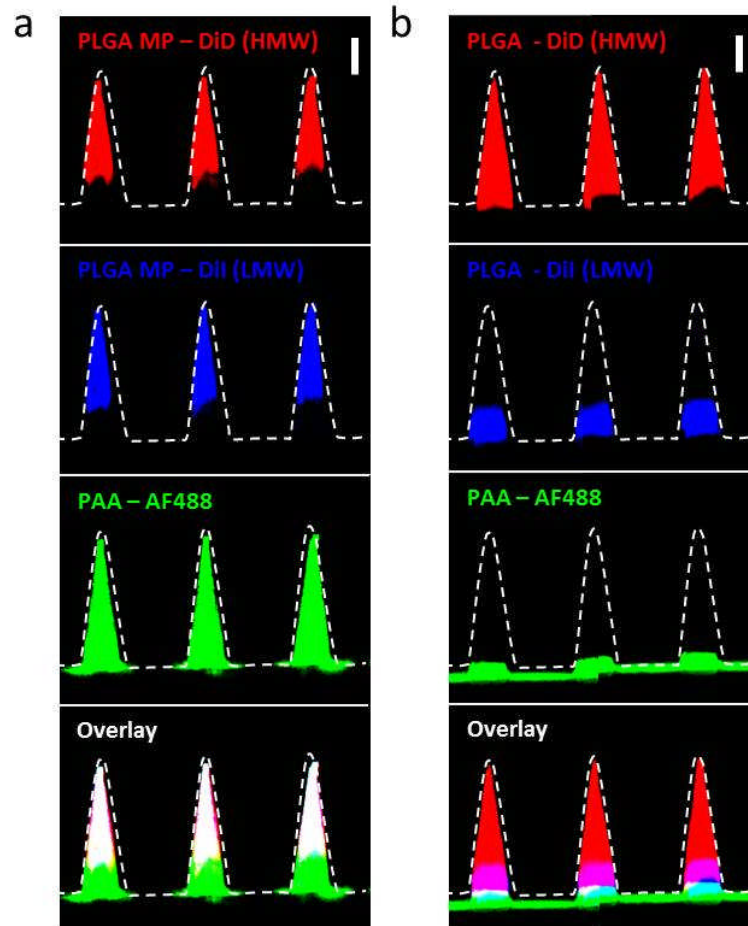


Figure S1. a) Confocal micrographs of PLGA-PAA composite microneedles fabricated to encapsulate both DiD- and DiI-loaded PLGA microparticles of high molecular weight (HWM) or low molecular weight (LMW) respectively (right, scale bar 200 μm) b) Confocal micrographs of resulting PLGA-PAA composite microneedles fabricated to encapsulate a layered DiI/DiD-loaded PLGA tip implant (scale bar 200 μm). DiD and DiI were encapsulated in PLGA microparticles synthesized from PLGA with IV 0.35 (LMW) or 0.70 (HMW).

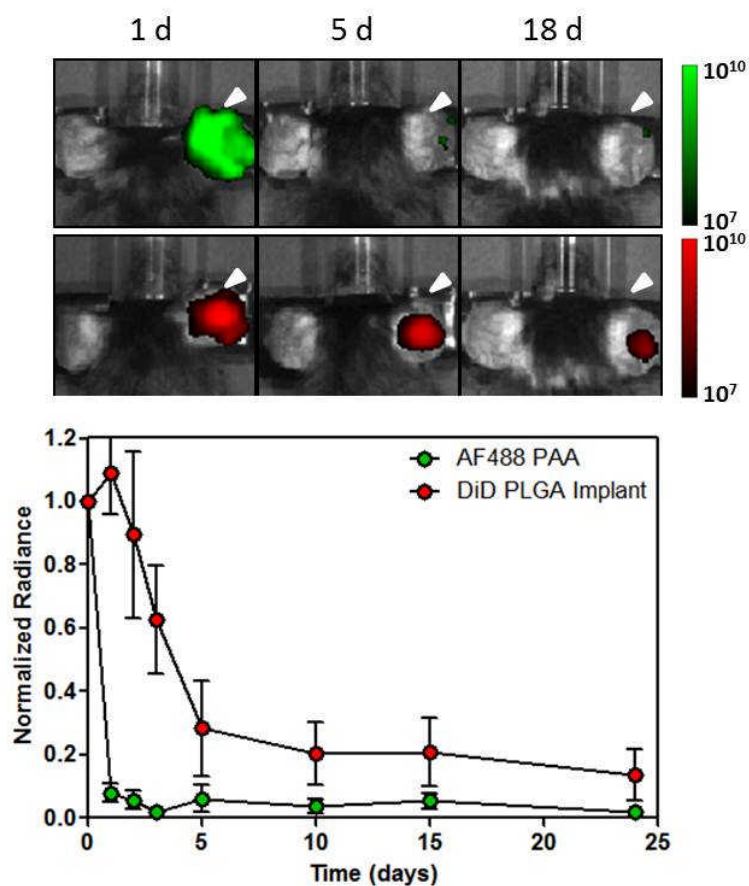


Figure S3. a) Whole animal fluorescence imaging of mice treated with DiD-loaded solid PLGA tip microneedles with AF488-loaded PAA pedestals after 1, 5, and 18 days. Fluorescence signal from AF488-PAA and DiD-PLGA implants is shown. b) Quantification of relative fluorescent signal detected at microneedle application site for bulk implant delivery.

