Fig 6. Surface marker expression of BMDCs seeded atop control or immunomodulatory (+TGF-β1 and IL-10) hydrogels, with (black bars) or without (white bars) immune stimulation. Hydrogels were seeded on control hydrogels (first column), or gels co-functionalized with either poly(L-lysine) (PLL, middle column) or hydrogels containing laminin and fibronectin (ECM, right column). The percentage shown represents the fraction of CD11c+ dendritic cells which stained positive for surface markers (MHCII, CD80, or CD86), as compared to isotype controls. Data is shown from 1 experiment but is representative of 3 replicate experiments.

Fig 7. Interferon γ (IFN-γ) production by T cells following culture with BMDCs. BMDCs were cultured on (A) TCPS or (B) PEG hydrogels functionalized with PLL. BMDCs were treated with or without (A) soluble TGF-β1 and IL-10 or (B) covalently immobilized TGF-β1 and IL-10 for two days. Then, + stim samples were treated with LPS overnight to induce DC maturation. Of note, T cells produced undetectable levels of IFN-γ when cultured with unstimulated BMDCs. Data is shown from 1 experiment but is representative of 3 replicate experiments.

Fig S1. Metabolic activity of JAWSII dendritic cells after 48 hrs atop PEG hydrogels containing 0 to 100 nM PLL. Macromer concentrations of PLL >10 nM had a cytotoxic effect on cells, while concentrations ≤10 nM did not affect cellular metabolic activity, as compared to control JAWSII cells seeded on blank PEG hydrogels. Metabolic activity was quantified via AlamarBlue Assay.

Fig S2. BMDCs on immunomodulatory hydrogels. Brightfield microscopy of BMDCs seeded atop PEG hydrogels that contain (top) no functionalization (middle) poly-L-lysine, and (bottom) the ECM proteins laminin and fibronectin. Scale = 60 μm.