**Tissue-engineered cartilage with inducible and tunable immunomodulatory properties**

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**Supplementary Information:**

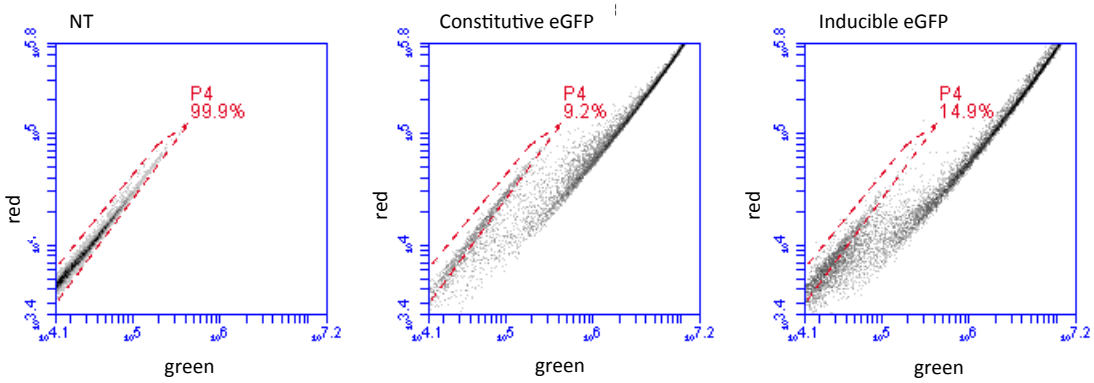


**Figure S1**. Gating was performed on MSCs isolated from non-transduced (NT) constructs. Representative images of MSCs isolated from constitutive or inducible eGFP-expressing constructs are also shown. All cells outside the NT gate are counted as eGFP+.

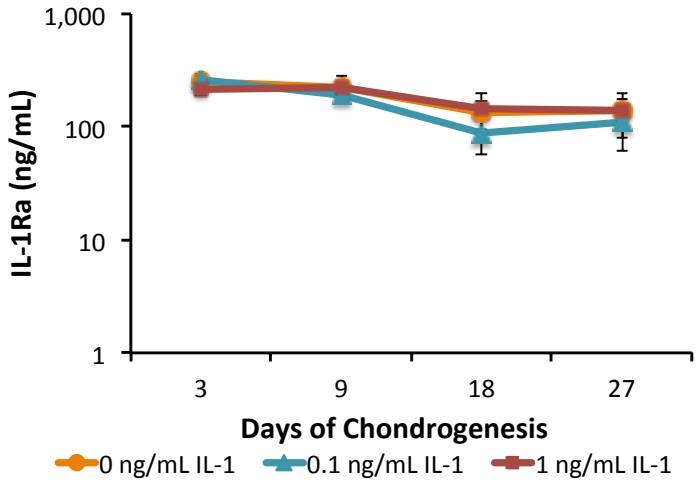


**Figure S2.** IL-1Ra secretion from IL-1Ra-expressing constructs into culture media over 72 hours during chondrogenesis with either 0, 0.1, or 1 ng/mL IL-1 treatment (mean ± SEM, n=3), measured on days 3, 9, 18, and 27.

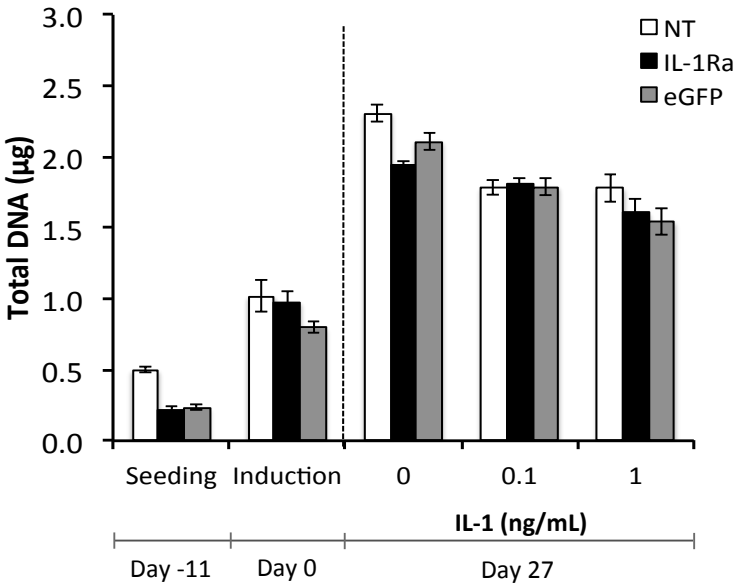


**Figure S3.** DNA content in engineered cartilage constructs at seeding, chondrogenic induction, and after 27 days of culture in chondrogenic media with either 0, 0.1, or 1 ng/mL IL-1 (mean ± SEM, n=5). NT indicates non-transduced constructs. IL-1Ra indicates constructs transduced with IL-1Ra LV. eGFP indicates constructs transduced with eGFP LV. There was a significant main effect of vector and media condition but no significant interaction term by ANOVA.

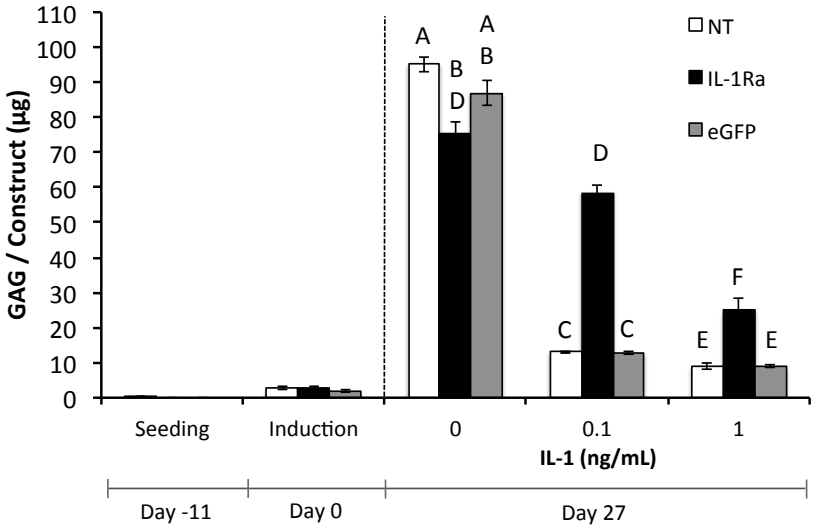


**Figure S4.** GAG content in engineered cartilage constructs at seeding, chondrogenic induction, and after 27 days of culture in chondrogenic media with either 0, 0.1, or 1 ng/mL IL-1 (mean ± SEM, n=5). NT indicates non-transduced constructs. IL-1Ra indicates constructs transduced with IL-1Ra LV. eGFP indicates constructs transduced with eGFP LV. Groups with different letters are significantly different ($P<0.05$) by ANOVA and Fisher's LSD post-hoc.

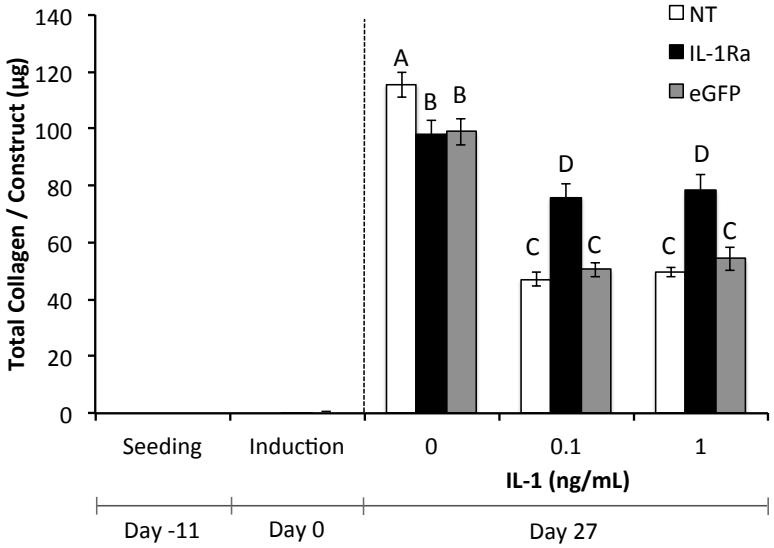


**Figure S5.** Total collagen content in engineered cartilage constructs at seeding, chondrogenic induction, and after 27 days of culture in chondrogenic media with either 0, 0.1, or 1 ng/mL IL-1 (mean ± SEM, n=5). NT indicates non-transduced constructs. IL-1Ra indicates constructs transduced with IL-1Ra LV. eGFP indicates constructs transduced with eGFP LV. Groups with different letters are significantly different ($P<0.05$) by ANOVA and Fisher's LSD post-hoc.