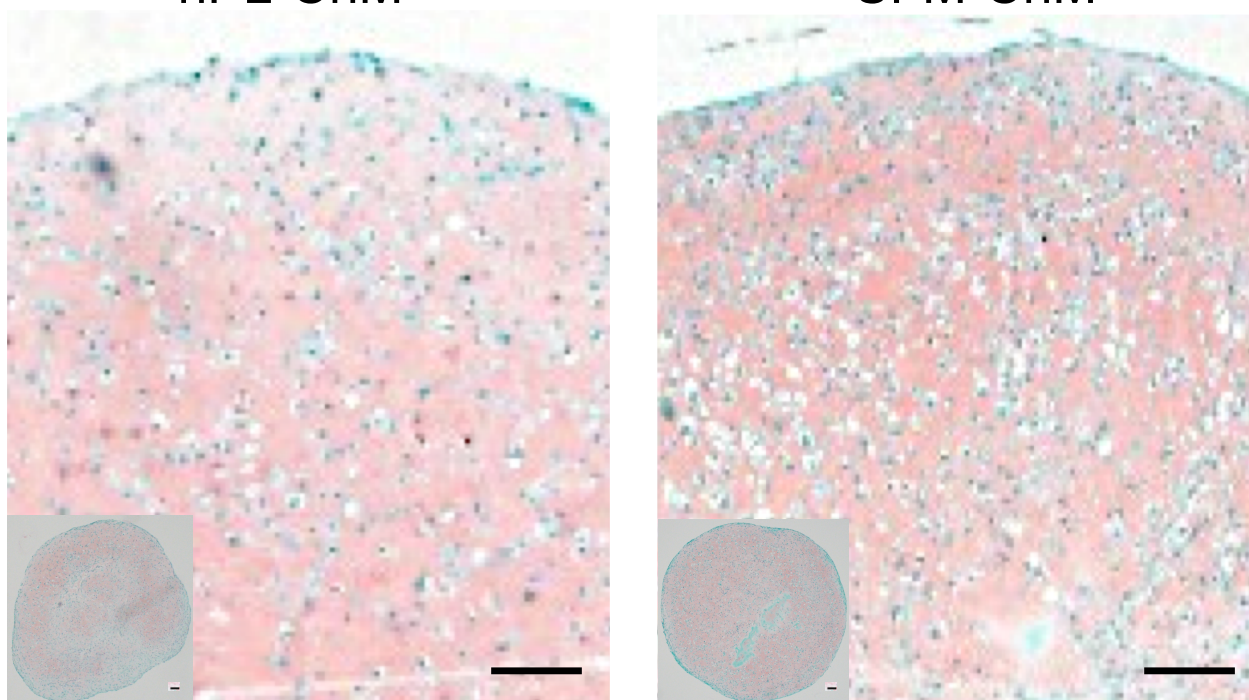
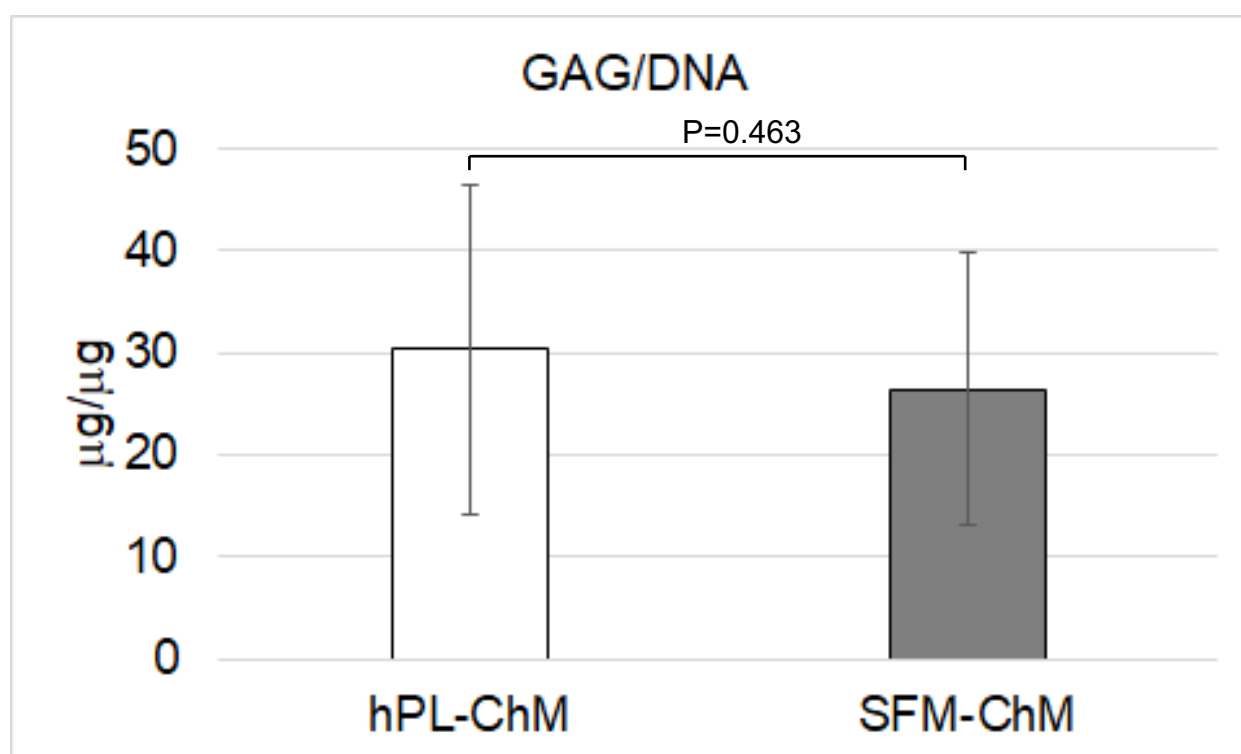


A

Safranin-O

hPL-ChM

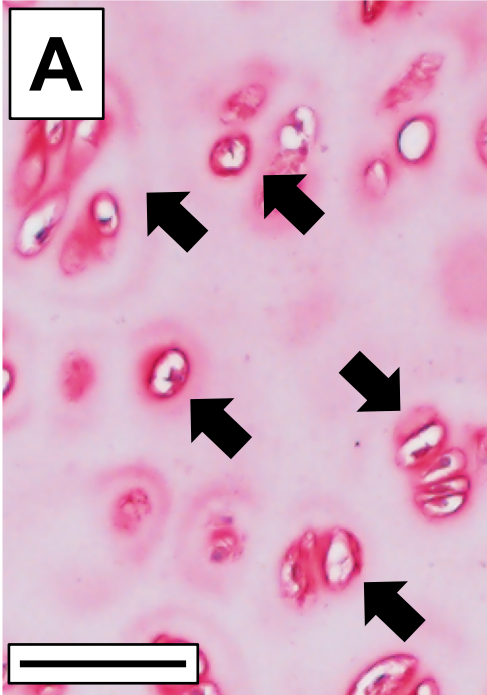
SFM-ChM

**B**

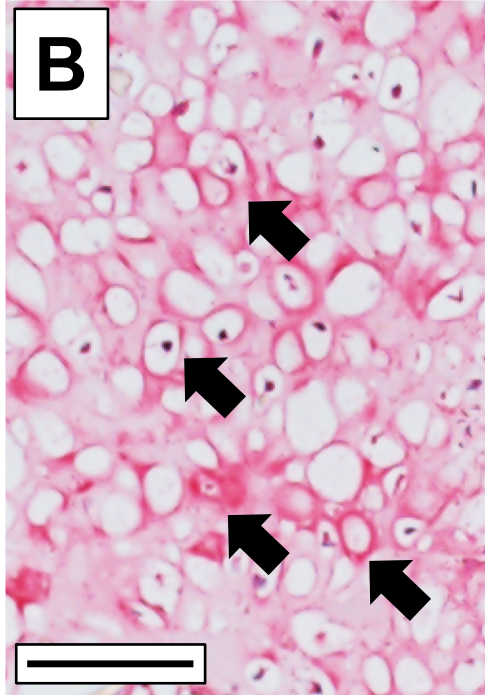
Supplementary Figure S1. Chondrogenic capacity of rapidly isolated, non-expanded nasal chondrocytes in SFM-ChM or hPL-ChM. Rapidly isolated P0 NCs were cultured in pellets in SFM-ChM or hPL-ChM (see “Materials and Methods” for the description of the composition) for 28 days. (A) Representative Safranin-O staining of resulting cartilaginous tissues. Scale bar = 100 μm . (B) Glycosaminoglycans/DNA (GAG/DNA) contents of generated cartilaginous tissues. Values are mean \pm SD of results of samples generated with cells from 4 different donors.

Type VI collagen

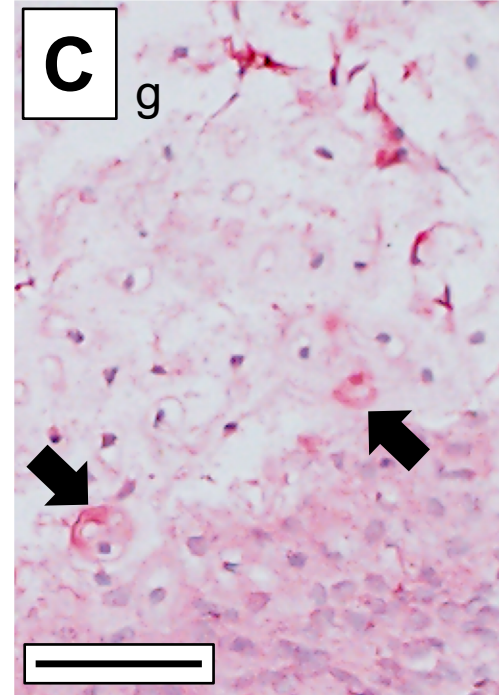
Native nasal
cartilage



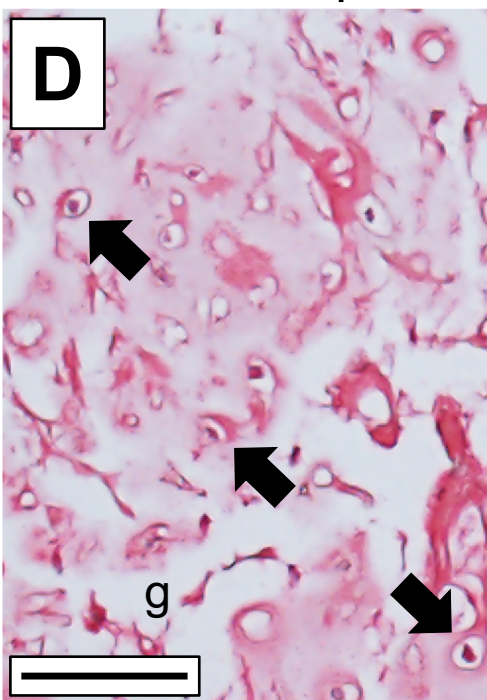
NC-pellet
in vitro



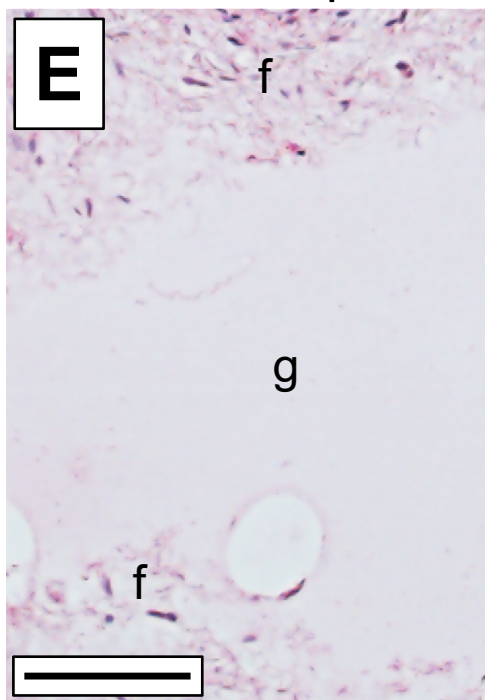
NC-hPL-PEG
in vitro



NC-hPL-PEG
in vivo ectopic



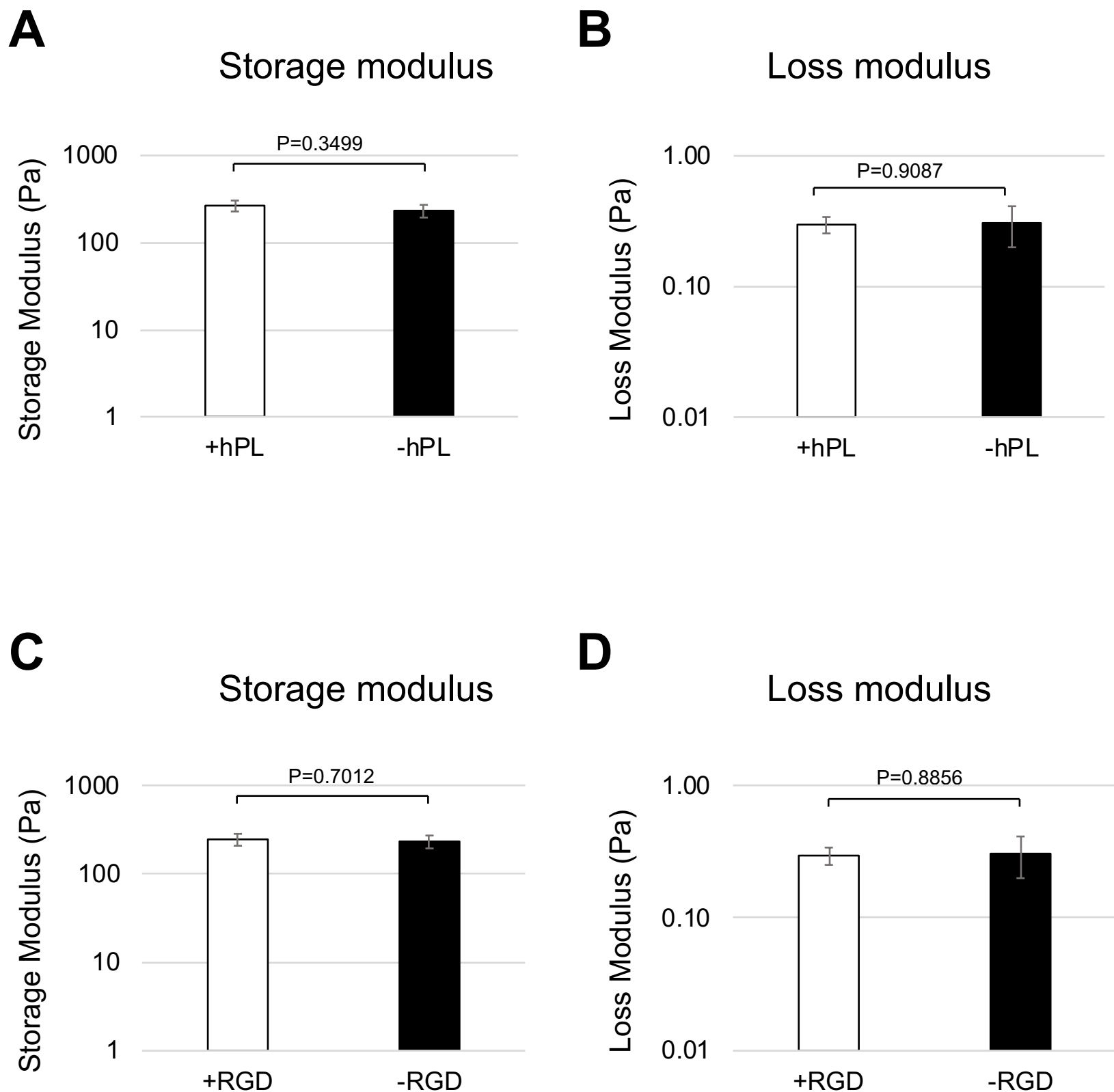
hPL-PEG
in vivo ectopic



↑ Col VI positive
pericellular matrix
f: Murine fibroblastic
cells
g: PEG-gel

Supplementary Figure S2. Collagen type VI (Col VI) immunohistochemistry.

Representative collagen (Col VI) staining of native cartilage sample (positive control, A), NC-pellets, (B) NC-hPL-PEG constructs cultured *in vitro* for 4 weeks (C), NC-hPL-PEG constructs (D) and hPL-PEG constructs (E, negative control) harvested from the mice (ectopic model) 4 weeks post-surgery. Scale bar = 100 μ m.



Supplementary Figure S3. Polyethylene glycol (PEG) gel stiffness in the presence or absence of human platelet lysate (hPL) or the RGD attached site peptides.

Hydrogel stiffness was analyzed at 37 °C in a humidified atmosphere, storage and loss modulus were reported at 30 min when the equilibrium was reached. (A, C) Storage and (B, D) loss modulus did not significantly change by adding 5% v/v hPL to the 1.5 % PEG gel or by the presence or absence of RGD attachment site peptides in the 1.5 % PEG gel (see “Materials and Methods”).