

**Supplementary Figure 6: Chondrocytes in** *col11a2* **mutants protrude from some lower jaw cartilage elements in areas of high strain.** A) 3D volume renders of wt and *col11a2-/-* zebrafish at 7dpf. Dashed inset shows Meckel's symphasis at higher magnification, red arrowheads = protruding cells. B) Quantification of protruding cells in wt and *col11a2-/-* zebrafish at 3-7 dpf (n=3,3,4,4,13,6,8,18). C) Quantification of protrusions in the Meckel's carilage (M), palatoquadrate (PQ) and ceratohyal (C) in 5dpf wt and *col11a2-/-* fish (n=13 for wt and 6 for *col11a2-/-*). Student's unpaired t-tests performed in B and C, data is mean with SEM.

The mechanical impact of *col11a2* loss on joints.

Elizabeth A Lawrence, Erika Kague, Jessye A Aggleton, Robert L Harniman, Karen A Roddy and Chrissy L Hammond.