Targeted modulation of phosphate and lipid metabolism reduces ligament mineralization in *col9a1b* knockout models

Authors: Erika Kague^{1, 2*}, Beatriz Larraz-Prieto², Renata A. Raele¹, Joanna Moss¹, and Chrissy L Hammond^{1*}

Supplementary Material

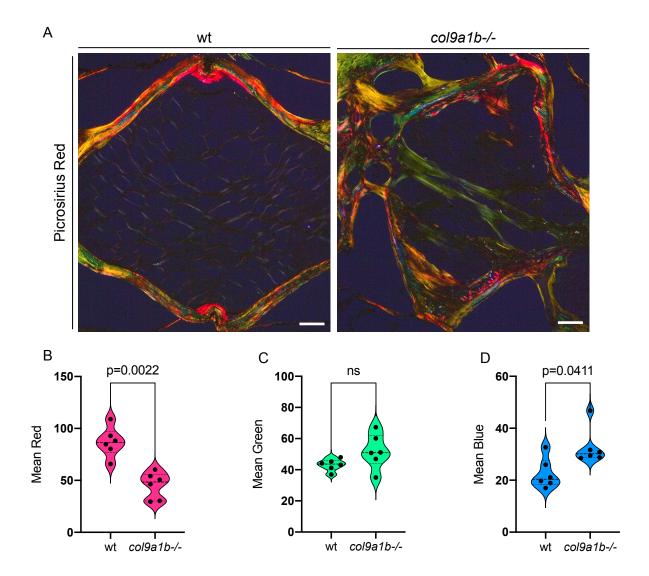
Figures:

Supplementary Figure 1. Bone quality impairment in *col9a1b* **mutants.** A) PicroSirius Red staining in wt and *col9a1b* mutants. B, C and D) Quantification of mean values for red pixels (B), green pixels (C) and blue pixles (D). Dots in the graphs represent two measurements in n=3 samples. Nonparametric T-tests and Mann-Whitney test. All significant p values are as indicated. Scale Bars= 50um.

Supplementary Figure 2. Increased glycosaminoglycans in *col9a1b* forming vertebral **column.** Whole-mount Alcian blue staining of wt and *col9a1b-/-*. Dashed lines show there the chordacentra is formed. Note the increased alcian blue signal in mutants. Scale Bars = $100\mu m$.

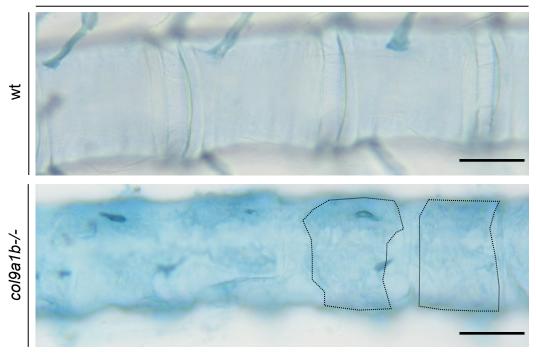
Tables:

Supplementary Table 1. DEGs of 15dpf and 1year old wt and col9a1b mutants.



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Alcian Blue



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