# Data files relating to the research published in the paper:

**“Acoustically modulated biomechanical stimulation for human cartilage tissue engineering”**

## 1. “Biological Data”:

“40x support images” directory contains the histology panel figure used for Supplementary Figure 8.

The “image analysis images” directory consists of three sub-directories containing low magnification collagen and A/S staining images for each patient sample in .tiff format. These images were processed by k-means cluster analysis (histochemAnalysis.m) to determine the staining fraction of collagen I, II, X, and proteoglycans in the matrix of the histology sections.

“imageAnalysisSummary.xlsx” compiles and organizes this staining fraction information and the .pzfx file (requires GraphPad Prism 7 to open) formats the data into Supplementary Figure 7.

## 2. “Mechanical Testing”:

This directory contains 3 sub-directories consisting of loading/unloading data generated by the proprietary nano-indentation software for each of the *ex vivo* tissue constructs at least three indentation points. “rawEData.xlsx” summaries the reduced elastic modulus and penetration depth data recorded for each of the indentation points.

## 3. “Modelling”:

The “invertedTransducerModel.mph” file was used to model the acoustic energy density distribution within the resonator at the cavity resonance.