**Graphical user interface, application

Description automatically generated**

**Figure 2 Supplement 2.** 3D PTA-XRM imaging and segmentation protocol of contralateral femoral condyles (*n* = 5) that were not subjected to biomechanical testing (B) Cartilage thickness distribution maps as measured by PTA-XRM imaging for three representative samples. AC: articular cartilage, VOIs: volumes of interest.