

**Figure S9.** The PEGASOS passive immersion procedure can be scaled up for clearing large tissue samples including human brain and dog bone. (a). Fixed human brain sample was cleared following the passive immersion procedure and achieved transparency (b). (c). A slice of human brain sample (1mm thickness) was stained with anti-laminin antibody and imaged after clearing. Boxed region is enlarged in c' to show the vascular organization. (d). A bone piece (7mm X 3mm X 3mm) harvested from dog tibia was cleared to achieve transparency (e). Cleared dog bone was imaged with a two-photon microscope and an image stack is displayed. Optical sections acquired at different depth are shown in panels (g), (h) and (i). (j). The anti-laminin antibody staining followed by clearing reveals the Haversian Canals (arrows) located in the center of the osteon. SHG, Second harmonic generation signal.