High-contrast X-ray micro-radiography and micro-CT of ex-vivo soft tissue murine organs utilizing ethanol fixation and large area photon-counting detector – Supplementary Information

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Supplementary video 1: Tomographic reconstruction of a mouse heart acquired using the high resolution setup equipped with the large area photon counting detector and presented ethanol-preservation technique. The video shows different axial slices across the reconstructed volume demonstrating the heart vortex – helical structure of the muscle fibres in heart wall. Acquisition parameters: Tube voltage 70 kV, current 100 μA, 720 projections, acquisition time 5 s per projection. Spatial resolution 7.2 μm.

Supplementary video 2: Tomographic reconstruction of a mouse heart acquired using the high resolution setup equipped with the large area photon counting detector and presented ethanol-preservation technique. The video shows different sagittal slices across the reconstructed volume. The data clearly demonstrate the possibility to observe inner structures like heart ventricles, valves or tendinous chords and to perform various distance, surface and volume measurements at the micrometre level. Acquisition parameters are the same as for Supplementary video 1.