**Description of Additional Supplementary Files**

Supplementary Movie 1: A continuous sequence of *en face* and cross-sectional projections of $A_{mech}$ ($x_b$, $y_b$, $z_b$) and $A_{PT}$ ($x, y, z$) in 2D and 3D space, shown with their corresponding OCT images. Scale bars: 20 µm.