Supplementary information

SUPPLEMENTARY MATERIAL

Nano-sensitive optical coherence tomography

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Supplementary theory.

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Supplementary theory: nsOCT

Supplementary Figure 1. Profiles of the axial spatial periods for two selected points within the sample for second and fifties frames and averaged over all frames before (0nm) and after (30nm) nanoscale structural changes.

Supplementary Videos 1-10.

Supplementary Video 1. Profile of the axial spatial periods for selected point within first tube with Intralipid versus time.

Supplementary Video 2. Profile of the axial spatial periods for selected point within second tube with Intralipid versus time.

Supplementary Video 3. Profile of the axial spatial periods for selected point outside the tube with Intralipid versus time.

Supplementary Video 4. Profile of the axial spatial periods for second selected point outside the tube with Intralipid versus time.

Supplementary Video 5. Vizualization of the structural changes within tubes with Intralipid, placed under scattering medium, using nsOCT.

Supplementary Videos 6 and 7. Profiles of the axial spatial periods for selected points within human fingertip versus time where fast structural changes can be seen.

Supplementary Videos 8 and 9. Profiles of the axial spatial periods for selected points within human fingertip versus time where slow structural changes can be seen.

Supplementary Video 10. Vizualization of the structural changes within human fingertip *in vivo* using nsOCT.