

***In vivo* volumetric depth-resolved imaging of cilia metachronal waves using dynamic optical coherence tomography: supplement**

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***IN VIVO* VOLUMETRIC DEPTH-RESOLVED IMAGING OF CILIA METACHRONAL WAVE WITH DYNAMIC OPTICAL COHERENCE TOMOGRAPHY**

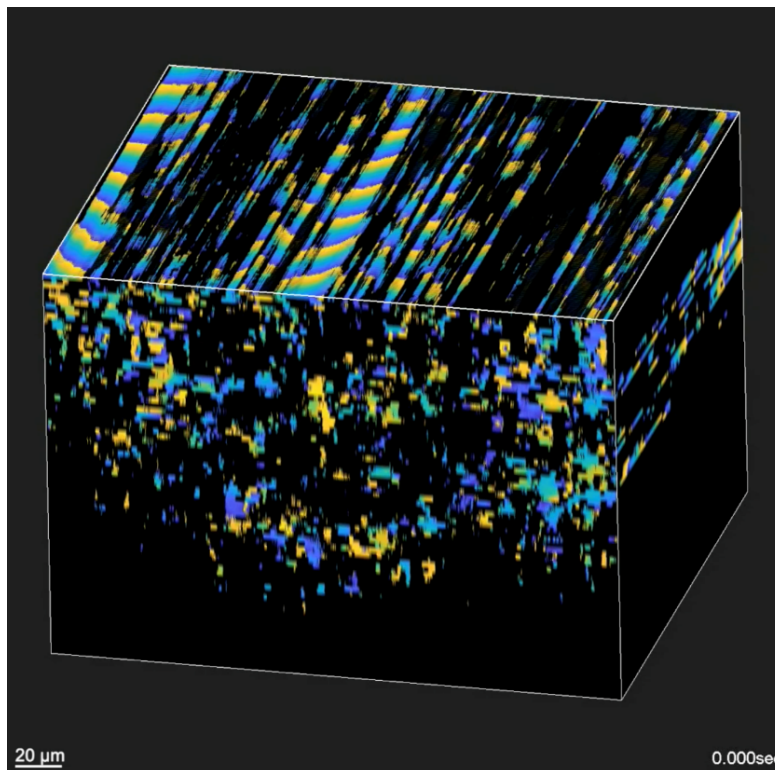
SUPPLEMENTARY INFORMATION

Table S1- Paired measurements of cilia metachronal wave at the same spatial locations with bright-field video microscopy (BF) and OCT.

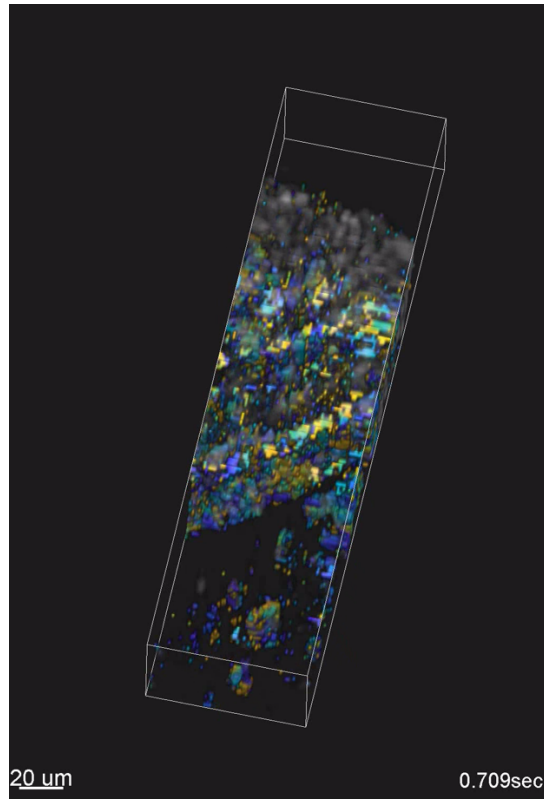
| | | | | | | | | | | | |
|----------------------------|-------|------|------|------|-------|-------|------|------|-------|------|------|
| OCT ($\mu\text{m/s}$) | 107.9 | 81.5 | 71.7 | 86.7 | 125.6 | 108.2 | 46.0 | 64.2 | 127.4 | 78.1 | 93.8 |
| BF ($\mu\text{m/s}$) | 94.3 | 58.0 | 60.0 | 55.5 | 107.8 | 95.9 | 34.0 | 92.9 | 70.3 | 73.2 | 65.0 |

Table S2 – Measurements of cilia metachronal wave velocity at different temperatures.

| | | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ROI # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 20°C ($\mu\text{m/s}$) | 115.9 | 127.5 | 144.5 | 91.7 | 59.5 | 69.1 | 135.3 | 88.5 | 200.1 | 116.5 |
| 30°C ($\mu\text{m/s}$) | 264.2 | 334.6 | 236.9 | 256.6 | 362.0 | 131.6 | 219.2 | 314.8 | 380.0 | 299.6 |
| 37°C ($\mu\text{m/s}$) | 517.8 | 397.7 | 310.8 | 408.7 | 345.2 | 171.7 | 195.9 | 281.5 | 519.2 | 600.5 |



Video S1- Dynamic cilia metachronal wave visualization within the lumen of intact mouse fallopian tube using OCT as 2D over time.



Video S2- Dynamic volumetric visualization of the cilia metachronal wave propagation in the mouse fallopian tube *ex vivo*.