Supplemental Document

Biomedical Optics EXPRESS

Longitudinal tracking of perfluorooctanoic acid exposure on mammary epithelial cell spheroids by dynamic optical coherence tomography: supplement

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Supplement DOI: https://doi.org/10.6084/m9.figshare.26413939

Parent Article DOI: https://doi.org/10.1364/BOE.530775

Longitudinal Tracking of Perfluorooctanoic Acid Exposure on Mammary Epithelial Cell Spheroids by Dynamic Optical Coherence Tomography

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Supplemental Figures

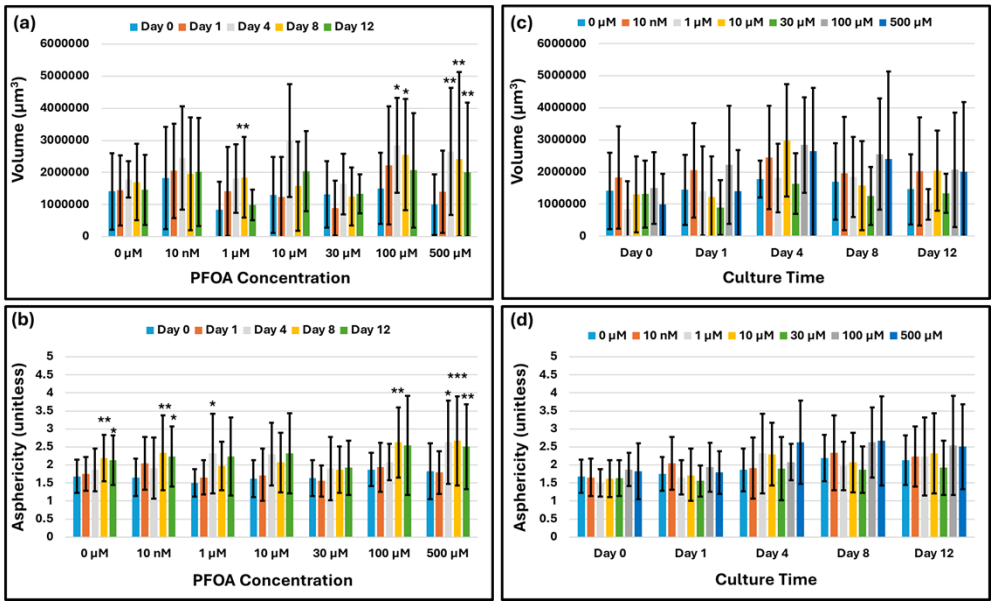

Fig. S1. Time- and PFOA concentration-dependent volume and asphericity of MCF10DCIS.com spheroids. Critical *p*-values for (a) and (b): $*p < 0.007$, $**p < 0.0007$, $***p < 0.00007$ relative to the 0 μM control within each culture time group. Critical p-values for (c) and (d): $*p < 0.01$, $**p < 0.001$, $***p < 0.0001$ relative to the Day 0 control within each concentration group (left panels) or the 0 μM control within each time group (right panels). Error bars represent mean ± STD.

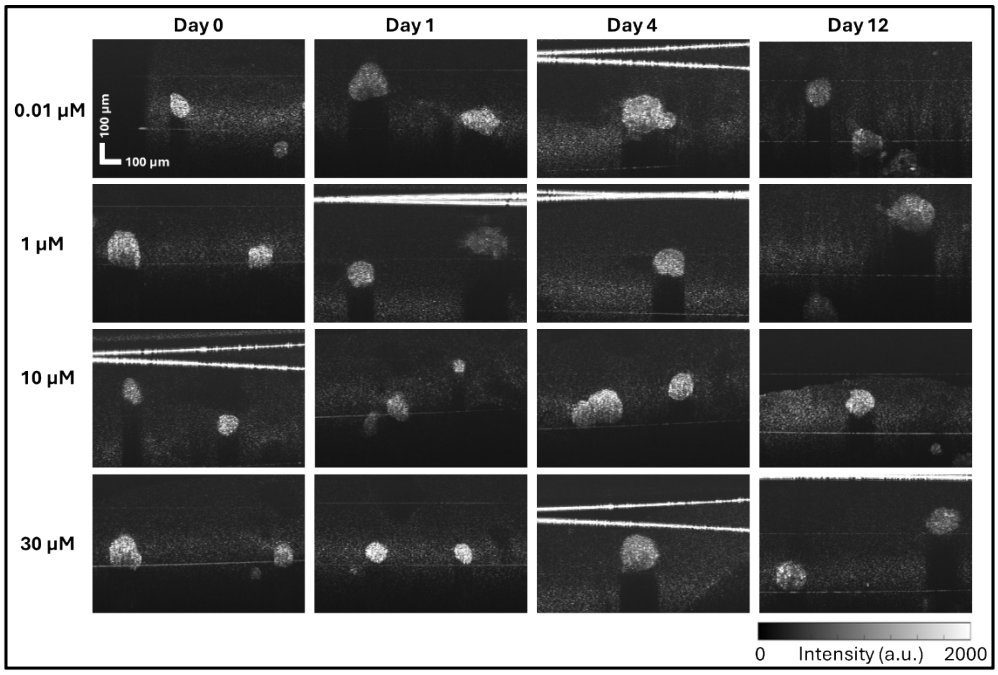

Fig. S2. Representative time-averaged OCT images of MCF10DCIS.com spheroids treated with 0.01 µM to 30 µM concentrations of PFOA over a course of 12 days. Unlike 100 µM and 500 µM exposure, no hole formation was observed inside the spheroids at these conditions.

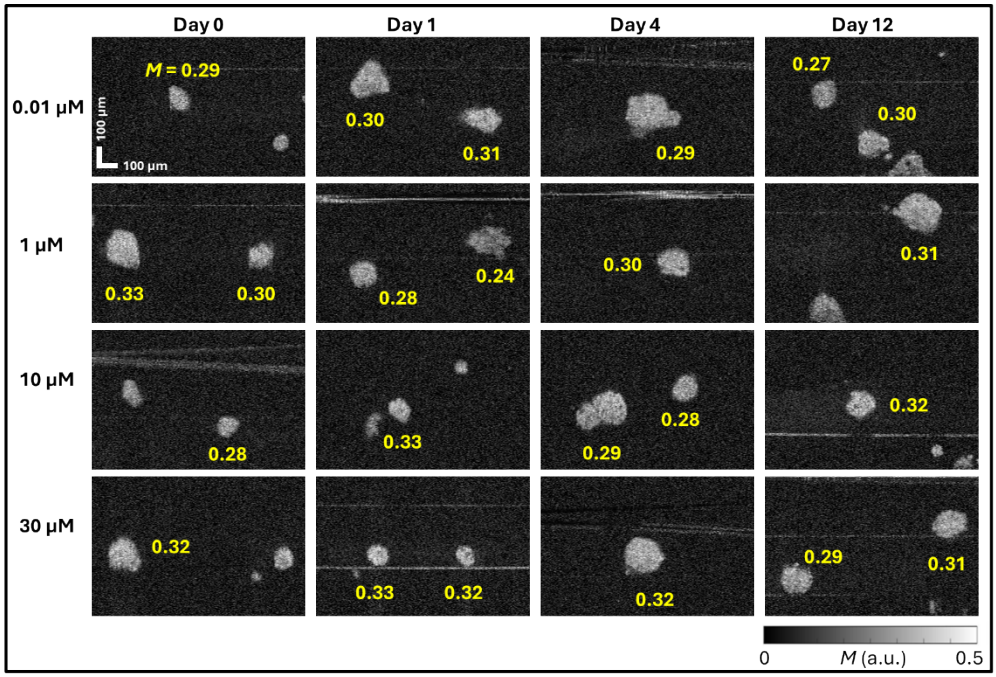

Fig. S3. Representative motility images of MCF10DCIS.com spheroids treated with 0.01 µM to 30 µM concentrations of PFOA over a course of 12 days. No significant changes were observed in *M* at the days and concentrations displayed above.

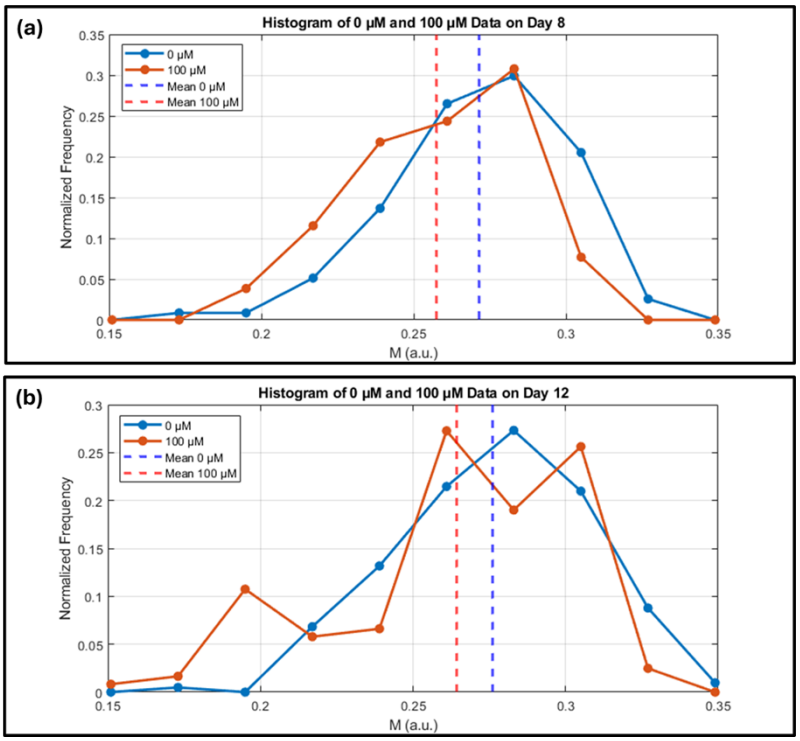

Fig. S4. Representative distributions of *M* of MCF10DCIS.com spheroids treated with 0 μM to 100 μM concentrations of PFOA on Day 8 (a) and Day 12 (b).

Table. S1. One-way ANOVA Analysis Results for M and α Based on Given Culture Time Points and Given PFOA Concentration Level

Outcome	**Concentration/Time**	**ANOVA *p*-value**
M	Time: Day 0	0.32
	Time: Day 1	7.61×10^{-7}
	Time: Day 4	$< 2.2 \times 10^{-16}$
	Time: Day 8	$< 2.2 \times 10^{-16}$
	Time: Day 12	$< 2.2 \times 10^{-16}$
	Concentration: 0 μM	4.88×10^{-7}
	Concentration: 0.01 μM	$< 2.2 \times 10^{-16}$
	Concentration: 1 μM	3.60×10^{-6}
	Concentration: 10 μM	5.16×10^{-4}
	Concentration: 30 μM	4.66×10^{-6}
	Concentration: 100 μM	1.44×10^{-12}
	Concentration: 500 μM	$< 2.2 \times 10^{-16}$
α	Time: Day 0	4.14×10^{-4}
	Time: Day 1	9.84×10^{-14}
	Time: Day 4	$< 2.2 \times 10^{-16}$
	Time: Day 8	$< 2.2 \times 10^{-16}$
	Time: Day 12	$< 2.2 \times 10^{-16}$
	Concentration: 0 μM	$< 2.2 \times 10^{-16}$
	Concentration: 0.01 μM	$< 2.2 \times 10^{-16}$
	Concentration: 1 μM	$< 2.2 \times 10^{-16}$
	Concentration: 10 μM	$< 2.2 \times 10^{-16}$
	Concentration: 30 μM	$< 2.2 \times 10^{-16}$
	Concentration: 100 μM	$< 2.2 \times 10^{-16}$
	Concentration: 500 μM	4.23×10^{-7}