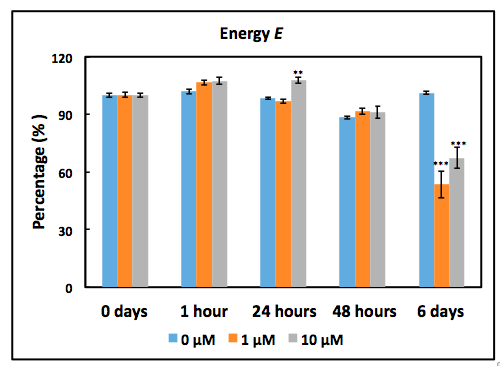
**Quantification of The Effect of Toxicants on the Intracellular Kinetic Energy and Cross-Sectional Area of Mammary Epithelial Organoids by OCT Fluctuation Spectroscopy**

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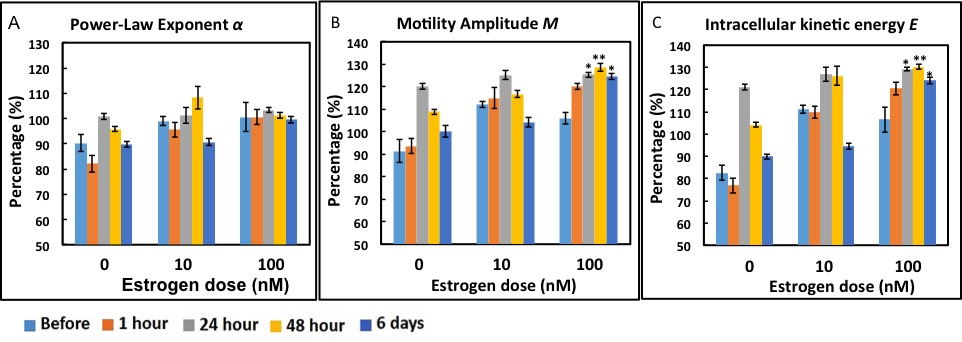
**Supplemental FIgures**

**Supplementary 3**:



Dose-dependent responses of MCF10DCIS.com organoids to Dox as measured by the OCT-based *E* metrics. \*\*p<0.001; \*\*\*p<0.0001 relative to the pre-exposure dose. Error bars represent mean + standard error.

**Supplementary 4**:



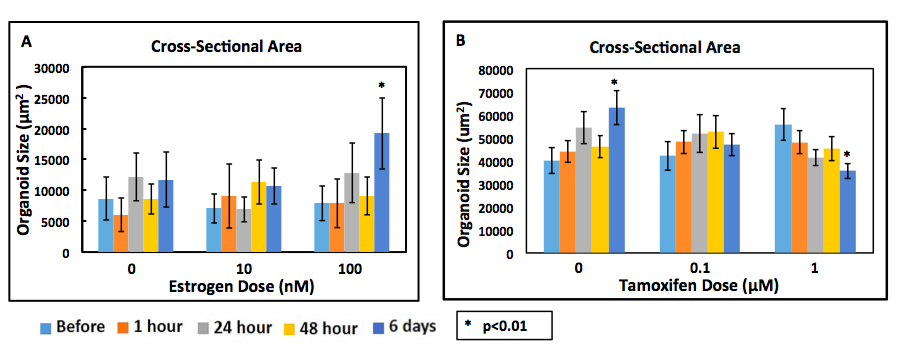
Time- and dose-dependent responses of MCF7 organoids to estrogen as measured by the OCT-based *α* (A), *M* (B) and *E* (C) metrics. \*p<0.01; \*\*p<0.001 relative to the pre-exposure time. Error bars represent mean + standard error.

**Supplementary 5**:

C:\Users\xyu\AppData\Local\Microsoft\Windows\INetCache\Content.Word\MCF7 TAM bar plot1.tif

Time- and dose-dependent responses of MCF7 organoids to Tamoxifen as measured by the OCT-based *α* (A), *M* (B) and *E* (C) metrics. \*\*p<0.001; \*\*\*p<0.0001 relative to the pre-exposure time. Error bars represent mean + standard error.

**Supplementary 6**:



Time-course of measured MCF7 organoid CSA upon exposure to 17β-estradiol (A) and 4-OHT (B). \*p<0.01 6 days relative to 0 days (before exposure). Error bars represent mean + standard error.