Supplementary Information

## Monitoring the Mechanical Responses of Tumor Metastasis Based on a Microfluidic Chip Integrated with an Electrochemical Detection System

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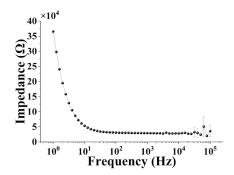


Fig. S1 Impedance spectrum of MDA-MB-231 cells within microchannels.

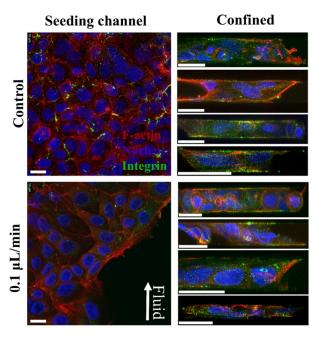


Fig. S2 Immunofluorescence images of nucleus, F-actin and integrin of MCF-7 in different region at static condition (top) and a flow rate of 0.1  $\mu$ L/min (bottom), scale bar, 20  $\mu$ m.

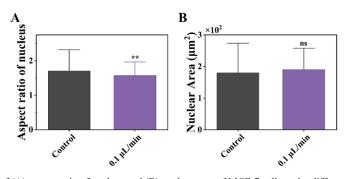


Fig. S3 Analysis of (A) aspect ratio of nucleus and (B) nuclear area of MCF-7 cells under different fluidic conditions.