

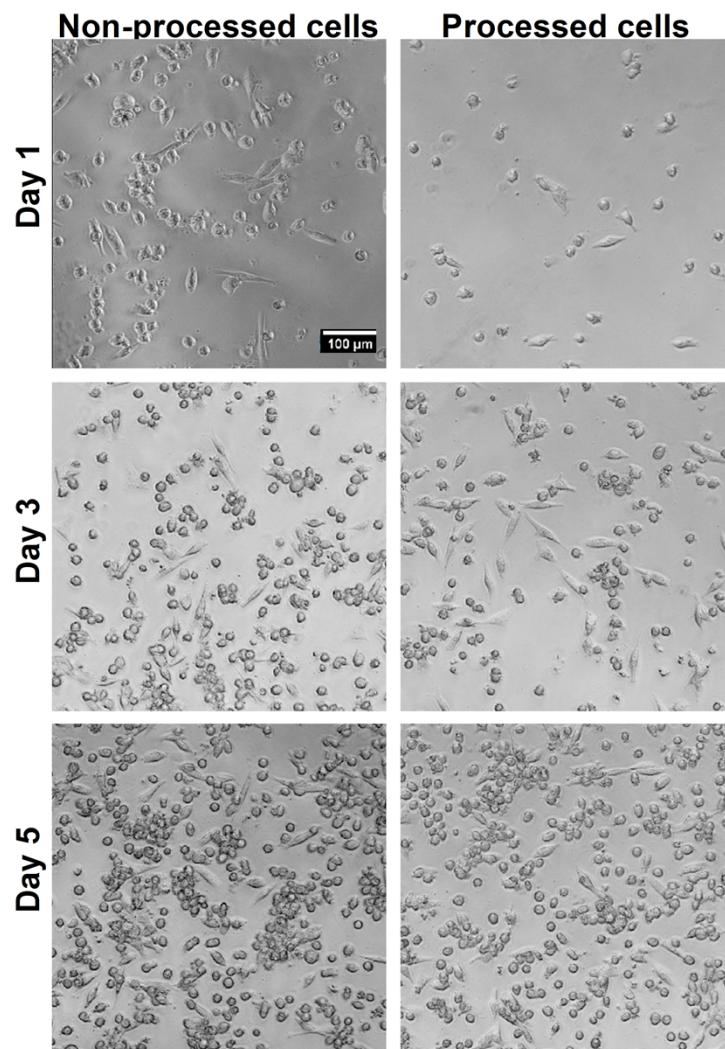
# An ultra-high throughput spiral microfluidic biochip for the enrichment of circulating tumor cells

Majid Ebrahimi Warkiani, Bee Luan Khoo, Daniel Shao-Weng Tan, Ali Asgar S. Bhagat, Wan-Teck Lim, Yoon Sim Yap, Soo Chin Lee, Ross A. Soo, Jongyoon Han, Chwee Teck Lim

## Supplementary information

### Supplementary figure 1

Viability and cell growth of MCF-7 cells after microfluidic device processing. Cells seeded onto 2D culture substrates were able to proliferate over time, with similar proliferative capability and morphology to non-processed MCF-7 cells.



## **SI Movie Legends**

### **Movie S1**

High speed video (6400 fps) illustrating the complete isolation of MCF7 cells from WBCs at the device outlet. Focused MCF7 cells (near the inner wall (lower outlet)) are clearly distinguished from WBCs based on morphology and phase contrast.

### **Movie S2**

High speed video (6400 fps) captured at the outlet of spiral biochip showing isolation of few CTCs from peripheral blood of a patient with advanced metastatic lung cancer. This movie clearly demonstrates the performance of our device for efficient enrichment of CTC from blood samples.