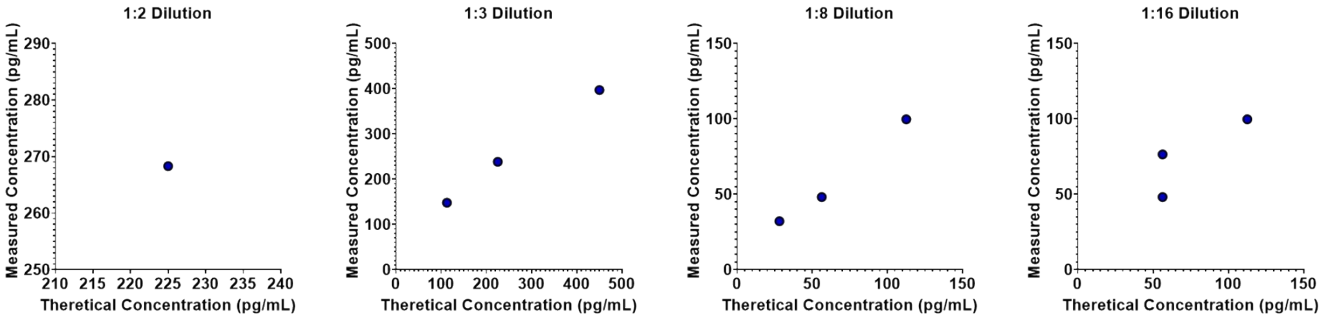
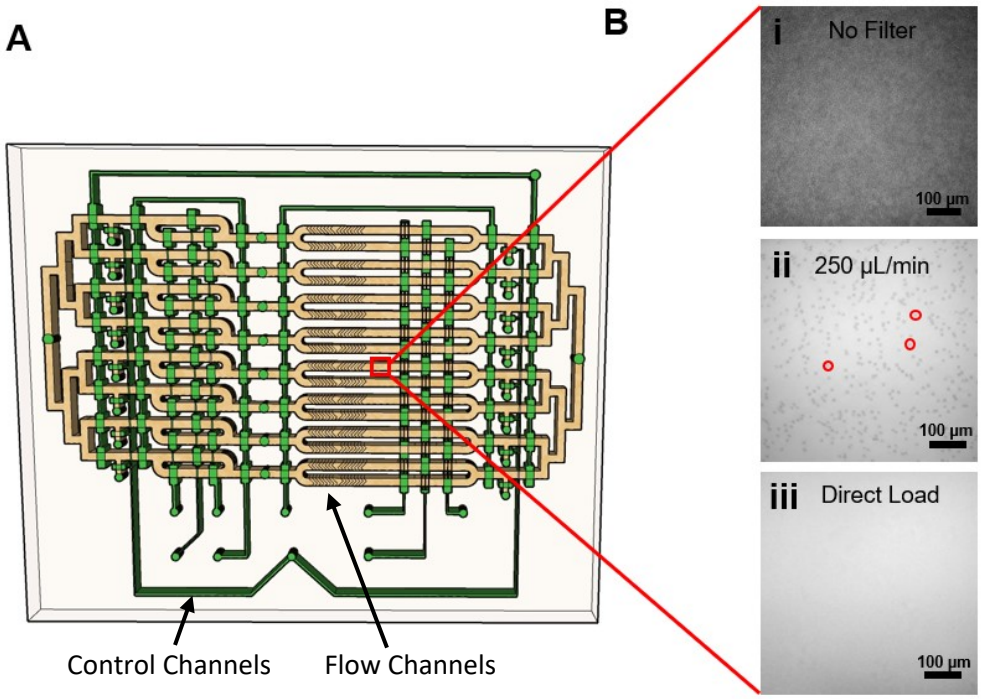
Electronic Supplementary Material (ESI) for Lab on a Chip.

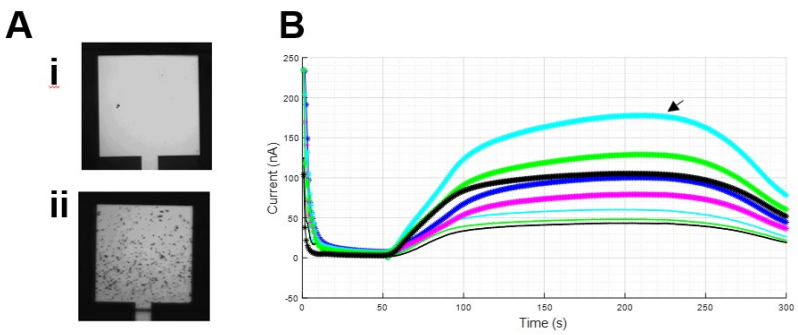
Supplemental Information



Supplemental Figure 1: Dilution factor test preformed using standard ELISA. Based on graphs above, a 1:3 dilution factor was utilized for experiments.



Supplemental Figure 2: (A) depicts device and location where channels were imaged to determine separation efficiency. The green indicates the control channels, while the light yellow indicates the flow channels. (B) show sample image of the channel at varying flow rates. (Bi) was used as the baseline (total number of cells) for 0% separation. The red circles in (Bii) point to representative blood cells used to determine separation efficiency.



Supplemental Figure 3: (A) shows an example of bead binding on electrodes at 0pg/mL (Ai) and 200pg/mL (Aii). (B) depicts a sample amperometry measurement with 8-channel readouts. The arrow indicates peak current on one curve. Peak currents are used to determined measured current for all samples.