

## A simple packed bed device for antibody labelled rare cell capture from whole blood

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### Supplemental Information

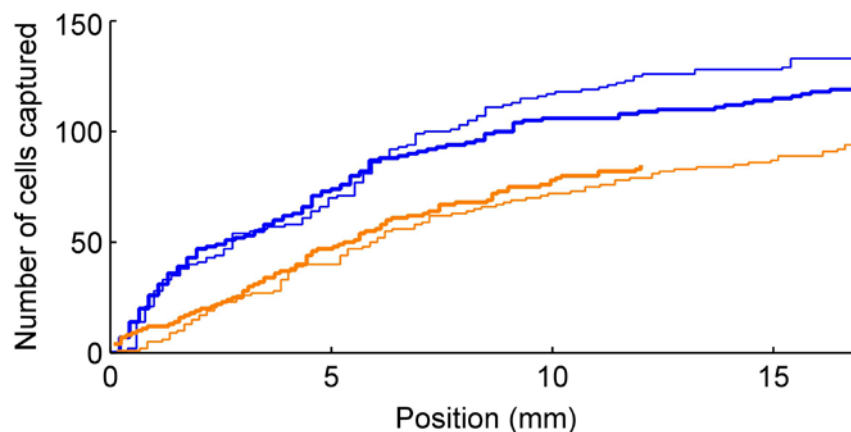


Figure S1 Repeat cell capture experiments from the same blood donor and cell passage show good agreement of their binding profiles. (a) The aggregate number of cells captured is plotted along the length of the device. In this case, one replicate is blue, the other is orange. Each set is clearly distinct from the other. However, the shape and values at each point along a replicate agree well. This suggests that column packing is not a critical factor in capture efficiency in our design.

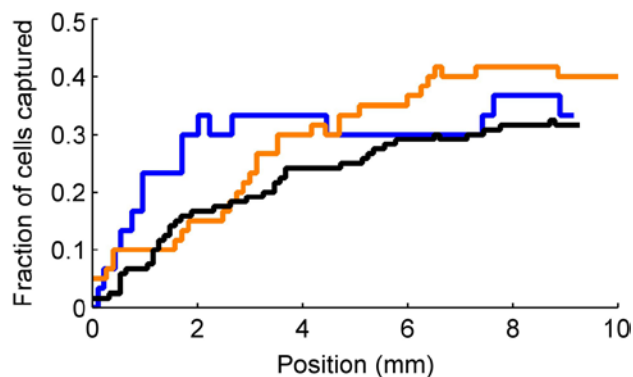


Figure S2 Scaled cell capture along a column from dilution experiments show good agreement. Similar to Figure S1, capture along a column using the same donor blood but varying the number of MCF-7 cells from the same passage produced similar binding profiles. Here, the absolute number of cells captured was scaled by the number of cells input (black = 120 cells, orange = 60 cells, blue = 30 cells) after a background subtraction of 1 cell every 2.2 cm (the control in this experiment).

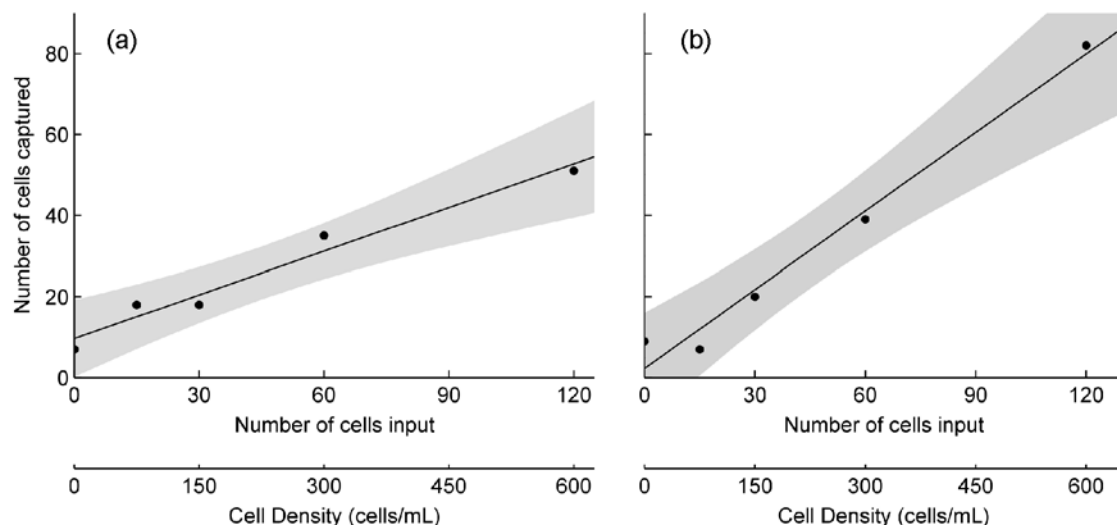


Figure S3 Comparison of cell capture efficiencies. The same experimental procedures were followed for both (a) and (b), using a different donor blood in each set of dilutions and different cell passages from the same MCF-7 cell line. This discrepancy led us to investigate the effect of different donor blood on the same passage of cells.

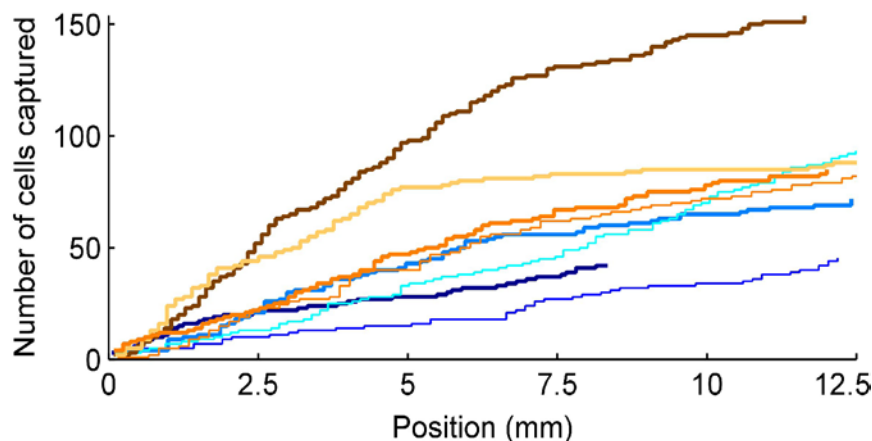


Figure S4 Comparison of capture affected by blood donors and cell passage. The orange, yellow, and brown lines are from Figure 3. The family of 4 blue lines were a replicate experiment on a different day performed using 4 different donors' blood and the same cell passage. Overall cell capture appeared to be different from one cell passage to the next, and each blood donor contributes additional capture variability.