

Supplementary Information:

Microcapillary-assisted dielectrophoresis ( $\mu\text{C-DEP}$ ) for single-particle positioning

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**Figure S1:** Average number of beads trapped per microcapillary for various conductivity values of the bead medium and the electrode medium (figure legend). The excitation waveform was at 71V-rms, 500kHz. Each column height and the respective error bar indicate the mean and  $\pm$  one standard deviation of seven to ten repeat measurements.

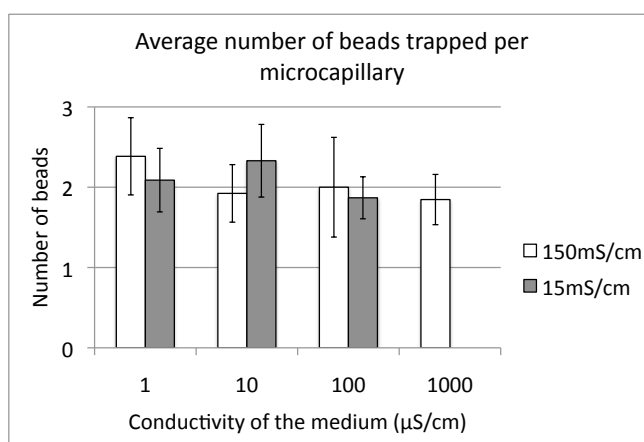


Figure S1

**Video I:** Two beads in a row flowing through the sample microchannel at a speed of 0.5mm/s where the second bead was selectively captured at one of the microcapillaries by

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turning the activation voltage on as soon as the first bead cleared off the trapping region (excitation: 22.4V-rms at 500kHz).

**Video II:** Individual CHO cells flowing through the sample microchannel at a speed of 200 $\mu\text{m/s}$  were captured at the either microcapillary after the activation voltage was turned on (excitation: 71V-rms, 500kHz).

**Video III:** Individual CHO cells already captured at the microcapillaries through pDEP shown forming pearl chains with the passing by cells under dipole interactions (excitation: 71V-rms, 500kHz).