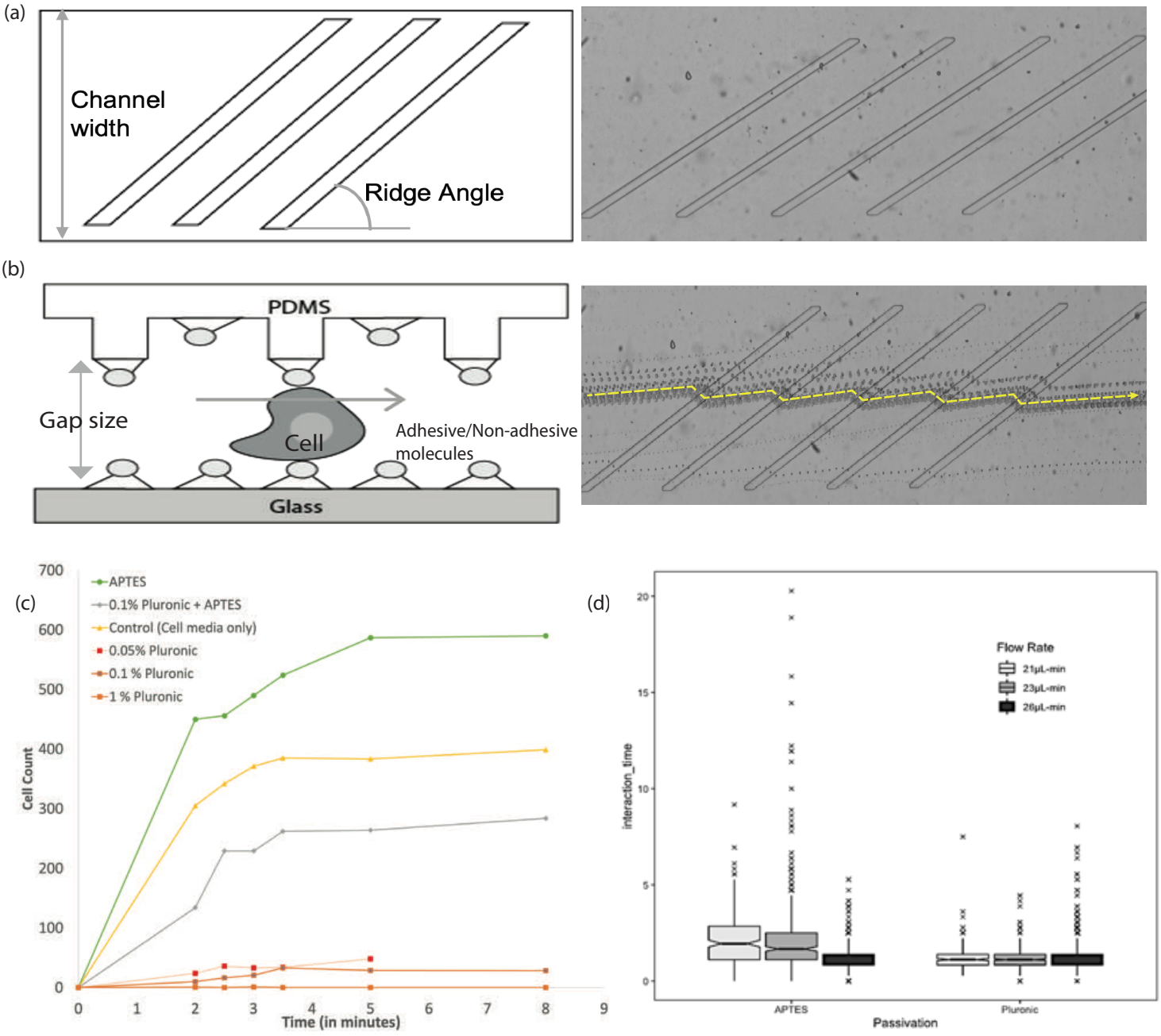

Supplemental Figures

(a) Top view of the device used for studying the effect of surface chemistries on cell trajectories (left) and a microscopic image of the fabricated device (right)
(b) Illustration of the setup with cells flowing under the ridge (left) and overlay of multiple frames denoting cell trajectories in a device coated with 3-aminopropyl triethoxysilane (right)
(c) Distribution of cells stuck under the ridge with time for various surface chemistries. The total cells were counted by taking a snapshot of the device at the denoted time point. APTES had the highest number of cells stuck under the ridge while Pluronic had the lowest.
(d) Interaction time of cells (in milliseconds) in devices coated with APTES and pluronic calculated with the help of trajectories observed using a high-speed camera. Variation of interaction time with different flow rates can also be observed with APTES having the highest interaction time at the lowest flow rate.