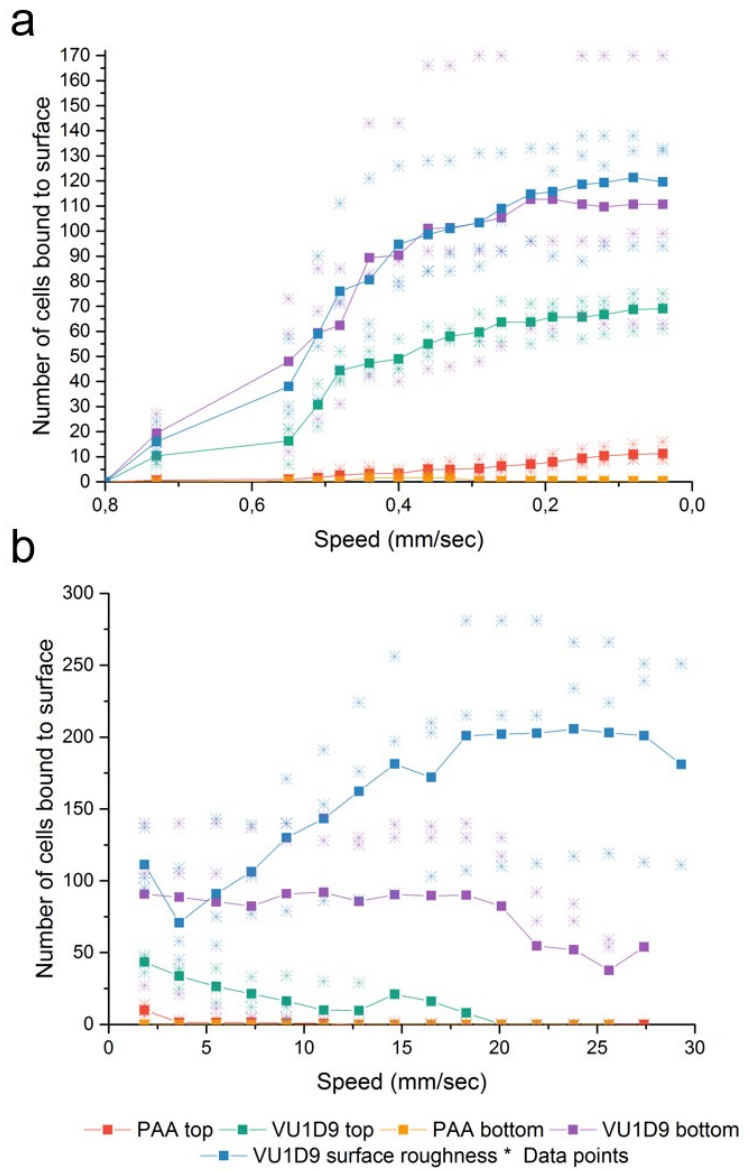


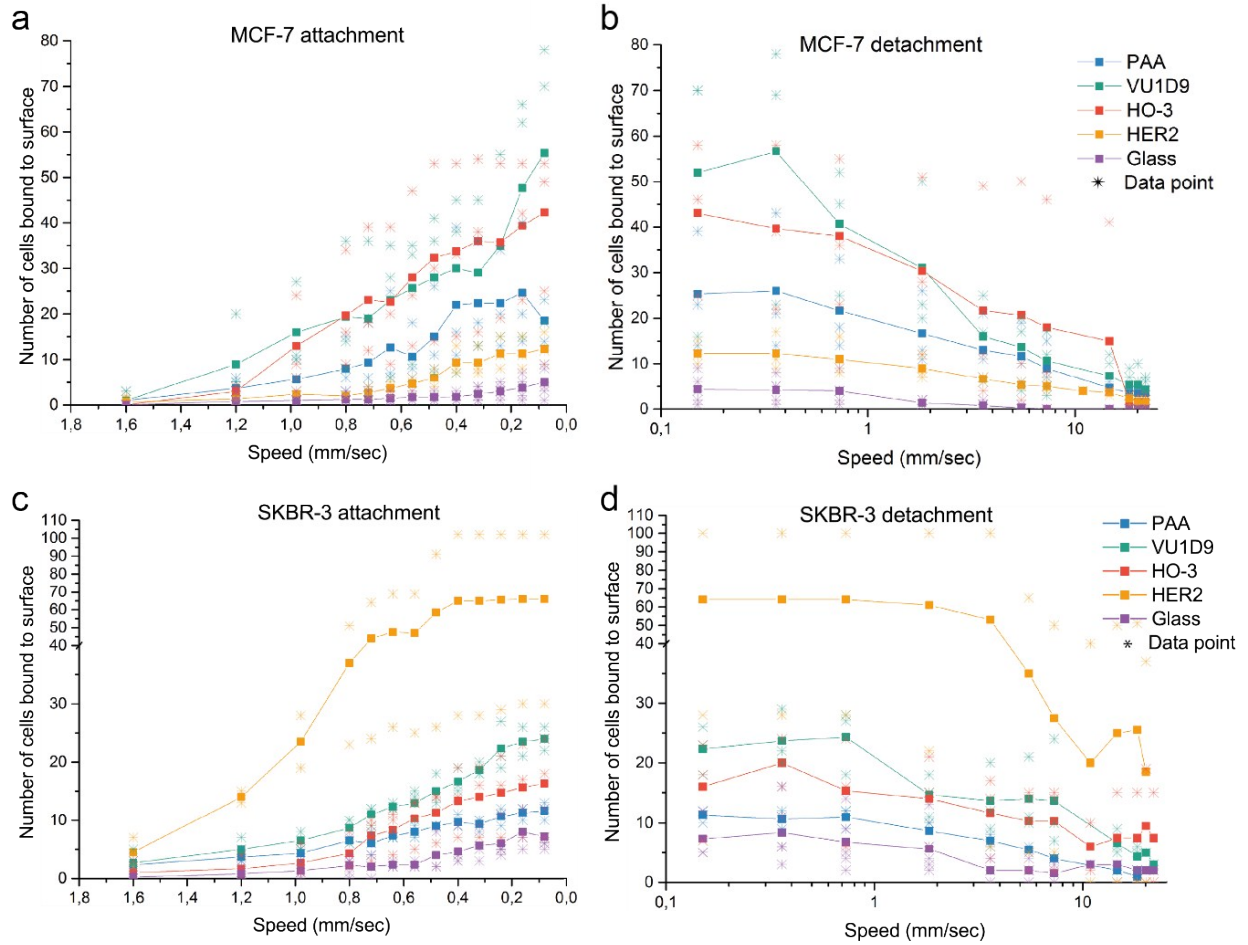
Electronic Supplementary Information (ESI)

S1: List of flow rates and corresponding velocities used in the flow experiments.

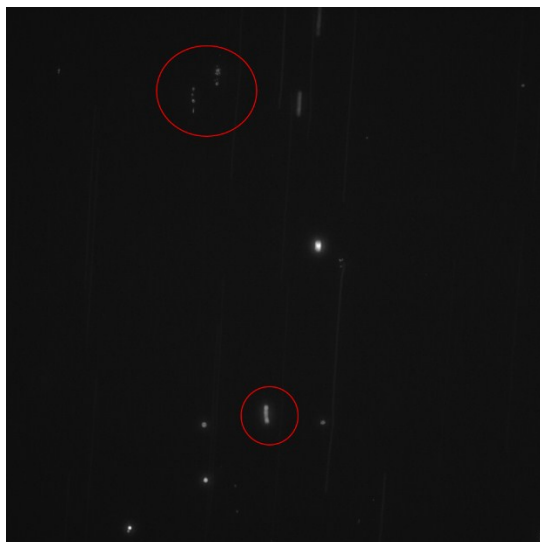
Flow ($\mu\text{L}/\text{min}$)	Velocity (mm/sec)
1	0.08
2	0.16
3	0.24
4	0.32
5	0.4
6	0.48
7	0.56
8	0.64
9	0.72
10	0.8
11	1
50	4
100	8
200	16
250	20
300	24



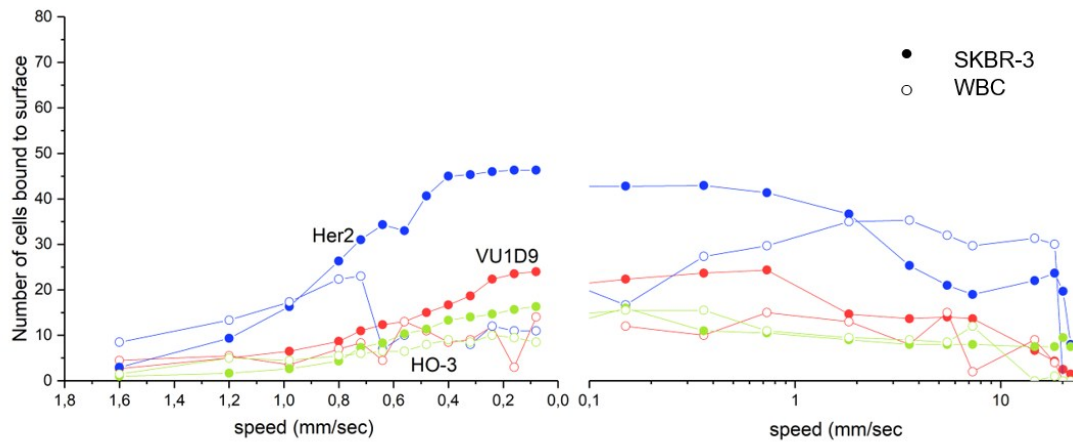
S2: Data of individual attachment and detachment experiments using various functionalized surfaces shown as party transparent data point. Dots connected by continues line represents the mean.



S3: Data points of individual measurements and the mean of each of the different antibodies used for functionalization.



S4: example of cells being sheared apart because of high velocity, red circles indicate cells attached to chip surface being dragged apart because of shear stress of high flow speed.



S5: Number of SKBR-3 cells and white blood cells bound to Her-2, HO-3 and VU1D9 coated surfaces