Electronic Supplementary Material (ESI) for Lab on a Chip. This journal is © The Royal Society of Chemistry 2015

Supplementary data S3

	DIRECT SPIKE EXPERIMENT								
	# cells spiked		# Cells captured in cups		% cells captured in cups				
	LNCaP	PC3	LNCaP	PC3	LNCaP	PC3			
1	217	214	137	176	63,1%	82,2%			
2	143	195	60	155	42,0%	79,5%			
3	102	148	70	143	68,6%	96,6%			
4	106	199	68	147	64,2%	73,9%			
5	84	110	76	110	90,5%	100,0%			
6	120	107	116	105	96,7%	98,1%			
total	772	973	527	836	68,3%	85,9%			
	Total Cells spiked		Total Cells captured		Percentage				
	1745		1363		78,1%				

Table 1a

	SPIKE IN CELLSAVE BLOOD								
	# cells CellSearch		# Cells captured in cups		% cells captured in cups				
	LNCaP	PC3	LNCaP	PC3	LNCaP	PC3			
1	141	16	87	5	61,7%	31,3%			
2	135	14	97	11	71,9%	78,6%			
3	221	118	213	120	96,4%	101,7%			
4	270	123	225	118	83,3%	95,9%			
5	112	188	114	180	101,8%	95,7%			
6	205	175	144	127	70,2%	72,6%			
total	1084	634	880	561	81,2%	88,5%			
	Total Cells spiked		Total Cells captured		Percentage				
	1718		1441		83,9%				

Table 1b

Efficiency of the filtration in microwells was determined by two separate experiments. Table 1a presents the data of direct spiking of cells onto the cups. LNCaP and PC3 cells were prestained with Celltracker green or Celltracker Orange (Invitrogen), counted on a slide and directly flushed into the fluid above a cups filter. After filtration the cups filters were scanned and the number of cells from both cellines were counted. Table 1b presents the data from an experiment where prestained cells were spiked in 7.5 ml of blood. The Cells are enriched by the CellSearch test and counted. All Cells from the CellSearch cartridge were transferred to a cups filter and counted again.