

Development of single-cell array for large-scale DNA fluorescence *in situ* hybridization

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Electronic Supplementary Information

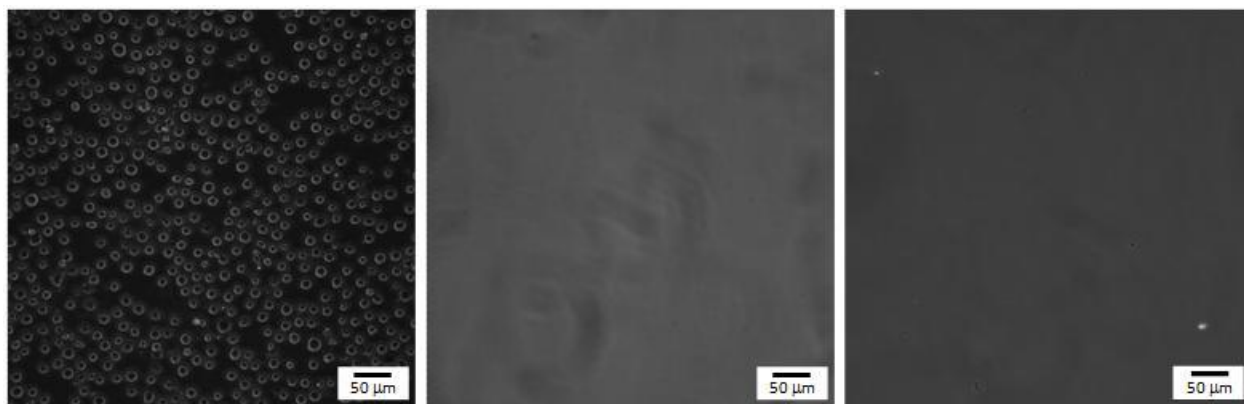


Fig. S1. Phase-contrast micrographs of (a) a monolayer of K562 cells immobilized on an APTES-coated slide, (b) a slide coated with PEG silane, and (c) a slide coated with OTS after being incubated with K562 cells. No cells were immobilized on the latter two slides.

Table S1. Evaluation of the quality of single-cell arrays produced at different seeding times and seeding cell densities (numbers of cells per adhesive APTES islands). Each experimental condition was repeated three times, and four micrographs were evaluated for each repetition. As a result, 12 micrographs were analyzed for each condition. Each micrograph contained 754 APTES islands, and the total number of islands in 12 micrographs was therefore 9048. Islands occupied by one, two, and three cells and the number of cells on background were counted in all micrographs at each condition. Numbers of empty islands were calculated by subtraction of the numbers of occupied islands from the total number of the islands. Average single-cell occupancies (SCOs) and standard deviations were calculated from the 12 micrographs.

Seeding time (min)	Seeding cell density	Number of islands occupied by			Number of cells on background	Number of empty islands	Average SCO (%)	Standard deviation (%)
		1 cell	2 cells	3 cells				
15	0.5	1647	86	5	7	7310	18	4
	1	5161	636	47	68	3204	57	4
	2	5682	310	13	26	3043	63	5
30	0.5	3496	256	18	96	5278	39	14
	1	7127	506	21	52	1394	79	6
	2	7177	851	41	47	979	79	4
45	0.5	4203	135	8	37	4702	46	11
	1	7281	1212	104	63	451	80	5
	2	7500	750	50	54	748	83	6
60	0.5	4227	616	36	144	4169	47	12
	1	7766	661	30	27	591	86	3
	2	7442	799	34	49	773	82	6
90	0.5	4222	499	45	123	4282	47	12
	1	6619	1313	106	122	1010	73	5
	2	7486	1042	67	66	453	83	5
120	0.5	3924	436	28	64	4660	43	6
	1	6208	1994	282	121	564	69	6
	2	7338	830	88	33	792	81	8