



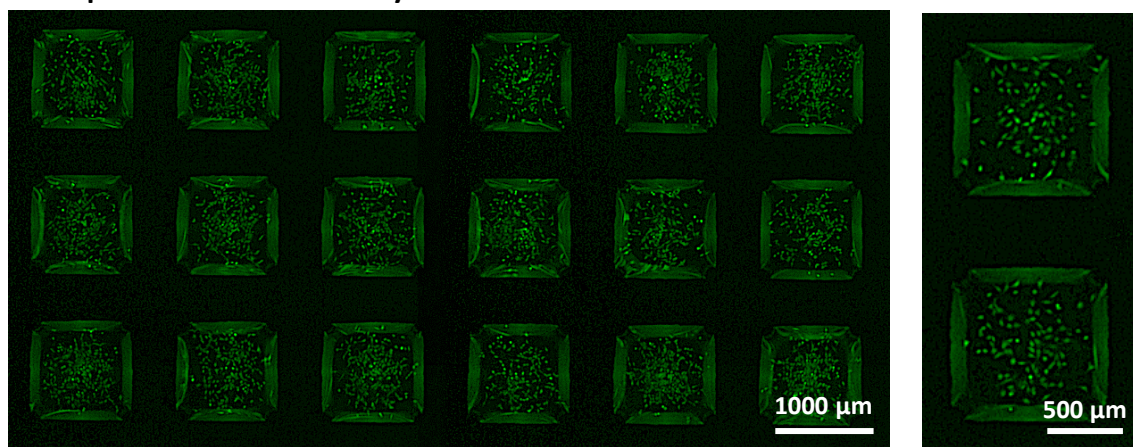
Droplet-Microarray Technology

The Droplet Microarray platform enables highly miniaturized high throughput screenings of live cells in nanoliter droplets. All types of cells (cell lines, stem cells, primary cells of adherent and suspension nature) can be cultured and treated in droplets followed by analysis using conventional microscopy-based read-out assays. In addition to conventional 2D cell culture, the Droplet Microarray platform is compatible with screening of cells in 3D environments by means of spheroids and scaffold-based cell culture models.

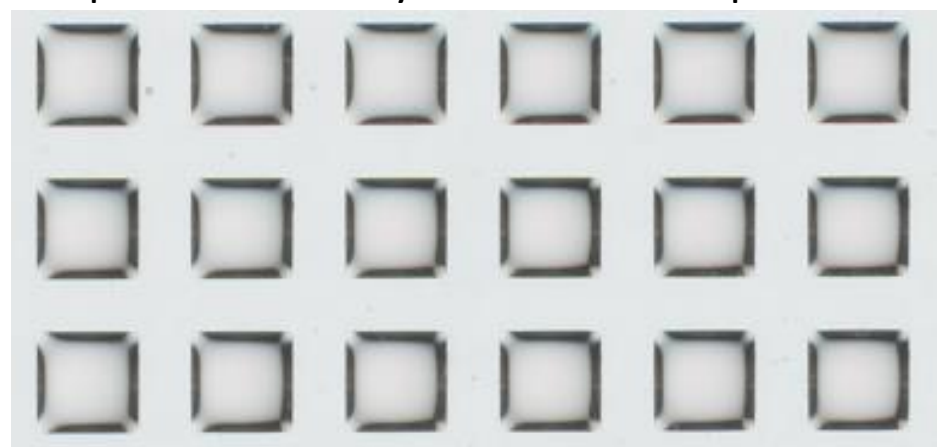
Dispensing cells using Certus FLEX (Fritz Gyger AG)

HeLa-CLL2 cells were dispensed on Droplet Microarray with Certus FLEX (Fritz Gyger AG) using 0,20/0,10 mm 21769, 23686 valve. Dispensing of an array of **672 droplets** of **150 nL** containing **100 cells** with 1 valve took **52 seconds**. Number of cells per droplet was estimated using microscopy and viability of cells was analysed 20 hours after dispensing. Distribution of cells across the slide was homogeneous and viability of cells was 93±4%.

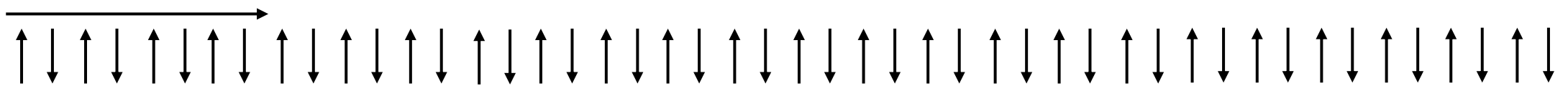
Droplet - Microarray with HeLa cells stained with Calcein



Droplet - Microarray with 150 nL droplets



Direction of printing



Number of cells per droplet

0 200

100	82	160	115	116	143	113	105	114	132	120	120	113	133	119	148	120	116	116	105	110	135	125	95	129	109	119	117	131	132	128	121	92	115	96	113	133	157	154	135	124	127	110	122	137	128	106	109
89	92	164	155	134	129	147	145	143	116	134	118	144	106	141	111	120	141	109	114	137	90	117	103	148	113	124	115	118	86	144	120	137	140	87	124	114	122	117	148	146	142	119	154	148	107	133	126
95	69	133	133	158	122	149	136	103	111	123	152	88	144	113	134	141	124	107	149	108	111	105	107	118	131	127	90	128	105	140	104	112	85	93	105	111	134	126	142	137	147	127	138	123	141	128	93
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