

Supplemental material

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Label-free isolation and deposition of single bacterial cells from heterogeneous samples for clonal culturing

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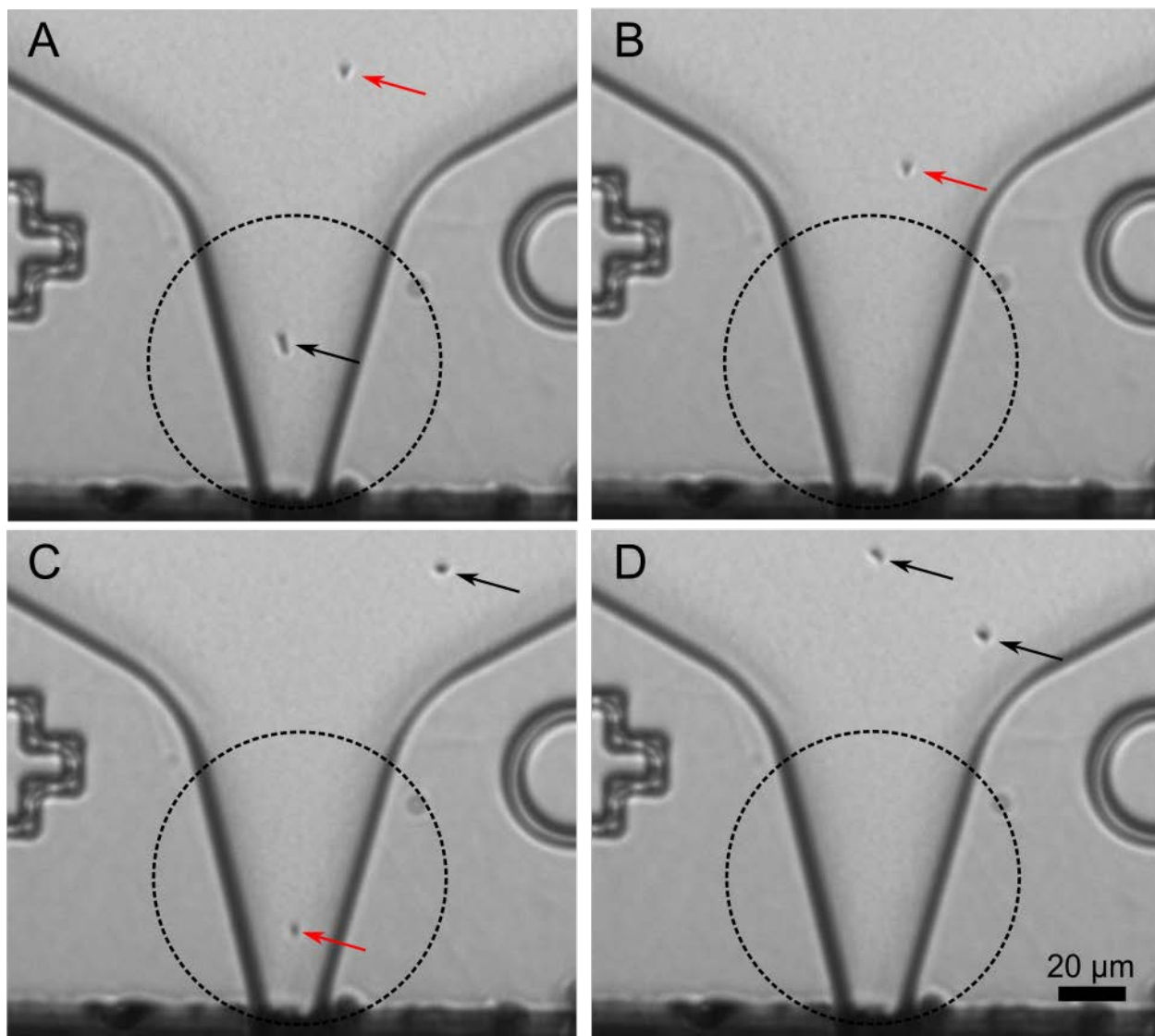
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18 Supplemental Figure S1. The camera of the SCP is synchronized with the piezo actuator that
19 generates the droplets. For each dispensed cell four images showing the nozzle of the dispenser
20 chip are stored automatically by the instrument. The SCP images can be examined manually to
21 assess whether truly a single cell was ejected from the nozzle. Here, a single *B. subtilis* cell (red
22 arrow) is detected and printed. (A): image of the nozzle region two piezo actuations before
23 detection, (B): one piezo actuation before detection, (C): at the time of detection, and (D):
24 after the single cell has been ejected with the droplet. Only the droplet produced in (C) passes the
25 vacuum shutter and is deposited on the substrate.

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28 Supplemental Table S1. Cells of various species were deposited into 96-well plates for
 29 subsequent cultivation. The SCP images were assessed to determine whether a single cell, no
 30 cell, or multiple cells were ejected from the nozzle. The data is summarized in the manuscript in
 31 Figure 3.

Organism	MTP	No cell printed		Multiple cells printed		Wells occupied		Single cells grown to culture	
<i>E.coli</i>	MTP1	0	0.0%	1	1.0%	81	84%	80	84%
	MTP2	0	0.0%	1	1.0%	83	86%	82	86%
	MTP3	0	0.0%	1	1.0%	80	83%	79	83%
	MTP4	0	0.0%	7	7.3%	92	96%	85	96%
	MTP5	0	0.0%	3	3.1%	76	79%	73	78%
<i>E.coli</i>	MTP6	5	5.2%	5	5.2%	76	79%	72	84%
	MTP7	0	0.0%	6	6.3%	75	89%	69	88%
	MTP8	2	2.1%	9	9.4%	73	76%	64	75%
	MTP9	0	0.0%	6	6.3%	82	85%	76	84%
	MTP10	0	0.0%	5	5.2%	81	84%	76	84%
<i>E.faecalis</i>	MTP1	0	0.0%	5	5.2%	89	93%	84	92%
	MTP2	0	0.0%	12	12.5%	87	91%	78	93%
	MTP3	1	1.0%	8	8.3%	83	86%	75	86%
	MTP4	0	0.0%	7	7.3%	91	95%	84	94%
	MTP5	0	0.0%	6	6.3%	89	93%	83	92%
<i>E.faecalis</i>	MTP6	1	1.0%	4	4.2%	82	85%	77	85%
	MTP7	5	5.2%	7	7.3%	87	91%	80	95%
	MTP8	3	3.1%	9	9.4%	81	90%	73	94%
	MTP9	6	6.3%	6	6.3%	55	86%	50	96%
	MTP10	3	3.1%	5	5.2%	57	89%	51	91%
<i>B. subtilis</i>	MTP1	4	4.2%	1	1.0%	70	73%	68	75%
	MTP2	5	5.2%	4	4.2%	64	67%	59	68%
	MTP3	4	4.2%	4	4.2%	67	74%	64	78%
	MTP4	0	0.0%	0	0.0%	43	67%	43	67%
	MTP5	0	0.0%	7	7.3%	75	78%	69	78%
<i>B. subtilis</i>	MTP6	2	2.3%	0	0.0%	81	92%	80	93%
	MTP7	6	7.5%	0	0.0%	64	80%	64	86%
	MTP8	3	3.4%	1	1.1%	79	90%	78	93%
	MTP9	3	3.4%	1	1.1%	76	86%	75	89%
	MTP10	13	13.5%	0	0.0%	75	78%	72	87%