Successful chip experiments sum up																							
						%viability (viable chambers/overall chambers)																	
	date	sporulation sample used	total spotted chambers	spot-prime Δt	overall % viability	R1	R10	R1-tr	R10-tr	chambers ID: FOV based (that grew)	confluency (%) of chambers presenting growth	sporulation medium suspension Δt (if any)	culture media used	Delta height-pressure between inlet-outlet (Δh between inlet and outlet syringes)	Refilling instances	Thermal control	Temperature plots-logs	imaging configuration used (inverted/non)	Chip in FOV by chamber ID	Bonding type	videos	Chip spot pattern	comments
1	20240110 3	20241015 (to be verified) since it could be this	82	30mins (+-10mins)	57.14	40% (14/35)	55.3% (26/47)	N/A	N/A	R1: 1.1 | 2.1 | 4.1 | 5.2 | 2.2 | 3.2 | 5.2 | 4.4 | 5.1 | 5.2 | 5.4 | 5.5| 6.1 | 7.1 ||| R10: 1.5 | 1.6 | 1.7 | 1.3 | 2.1 | 2.2 | 3.0 | 2.8 | 2.2 | 3.0 | 2.3 | 2.8 | 4.8 | 4.9 | 4.11 | 4.5 | 6.8 | 5.3 | 5.12 |6.8 | 6.9 | 6.11 | 6.12 | 7.1 | 7.6 | 7.9 | 7.11 | 7.12 || 3.15 | 3.18 | 4.18	-	N/A	YPD	5cm	refill-flushin after 25h_45 and 40h_45 with syringe	incubator	N/A	inverted chip using this slide holder. Amazon microscope used	Rows 1-7 Columns 1-18+	plasma pen	https://gitlab.com/arcbeast/su/microfluidics/-/issues/42#note_2191269102	https://gitlab.com/arcbeast/su/microfluidics/-/issues/42#note_2191269105	high viability can be disputed since the imaging doesn't allow for detection of cross contamination (it is however noteworthy that all viable cross contaminations were not measured as viable chambers)
2	20241230-20250101	20241015	30	15-30mins	26.6 %	N/A	N/A	26.6% (8/30)	N/A	1.1 1.2 3.1 5.1 5.8 6.1 6.2 6.5	87.21329227 82.60456288 75.69255852 80.44540996 80.30829016 68.57686099 72.55567655 52.5258008	12h	YPD+G418	3cm, inlet and outlet syringe horizontal (syringe retention used)	no refilling instances: the syringe retention mechanism was used to sustain flow (approximately 360deg of rotation after engagement)	amscope illumination stage (incandescent lamp), 22-25deg C ambient temp. Verified 30daqC of incubation with the thermal camera	N/A	Amscope illumination stage and Andonstar microscope	Rows 1-8 Columns 1-11	plasma pen	https://gitlab.com/arcbeast/su/microfluidics/-/issues/42#note_2370847060	https://gitlab.com/arcbeast/su/microfluidics/-/blob/master/Microfluidic%20culture%20experiments/NM_20241230-20250101_lab2/NM_20241230-20250101_lab2_spotting_logs___results_table_-_Sheet1.pdf	-
3	20250715-0724-0728	20241015 (allocates of each strain were converted to 10% trehalose specimens on 20250A)	88 (but 10 in the initial FOV)	30mins	unknown due to unfortunate FOV (and cross contamination that followed)	-	-	-	-	?	?	N/A	YPD+G418	microscope setup: 40cm, horizontal orientation of syringes. ||. stereoscope setup: 14cm, inlet syringe in vertical orientation, outlet in horizontal (syringe retention used: each refilling means 360deg of rotation after engagement)	20250717 refilling at about 10:15 ||| 20250718: refilling at about 11:15 ||| 20250722 refilling at 15:18-20 ||| detarn on misspotted chamber 20250724 refilling at about 1.20 ||| vid in obs 20250726 refilling at 12:28 vid in phone ||| at about 13:33 change outlet-inlet side due to reservoir. ||| 20250731 15:05 refilling	Geomatec heater connected to 5V in arduino Uno R3. Verified incubation temp at 30deg with ahf20 sensor. Tested uniformity and temp to be 33deg C with the thermal camera (while connected to the 5v arduino line). The ahf20 sensor was mounted to the heater using scotch tape until 0724 11:27. It was later secured with excess kapton on the heater until the end of the test (inside the stereoscope). Note: The stereoscope and the microscope used were constantly covered with their plastic covers	https://gitlab.com/arcbeast/su/microfluidics/-/blob/master/Microfluidic%20culture%20experiments/20250715-0724-0728/Temperature_logs.dat_20250715-0741.html	Zeis Axioscop 40 until 0721 14:00 ||| Laica stereoscope with nimea camera inside an eyepiece until 0724 12:30. ||| after 0724 12:38 Laicas native camera was used (required w7 computer)	Rows 1-2 Columns 22-26	plasma pen	The timelapse video is linked here. it includes all frames in a 15fps video with displayed timestamp and time elapsed from priming. In this displayed elapsed time 21 minutes should be added since priming occured at 0715 14:16	https://gitlab.com/arcbeast/su/microfluidics/-/blob/master/Microfluidic%20culture%20experiments/20250715-0724-0728/NM_20250715_CERTH_spotting__logs_-_Sheet1.pdf	-
4	20250723-0801	20241015 (allocates of each strain were converted to 10% trehalose specimens on 20250H)	130 (but 59 in FOV)	30mins	10.16%	N/A	N/A	11.36% (5/44)	6.66% (1/15)	2.6 (R1-tr) 2.7 (R1-tr) 2.15 (R1-tr) 1.6 (R1-tr) 1.15 (R1-tr) 3.22 (R10-tr)	8.62700393 100.7921616 29.61937955 8.483221005 50.97121498 35.9865942	N/A	YPD+G418	7cm, inlet syringe in vertical orientation, outlet in horizontal	pump: 0723 4:05, settings: p50-k3-ab3mins_p3-k3. ||| 0729 00:00 ||| 0730 7:30 syringe refill ||| 0730 11:50 syringe refill	Incubator, worked until 0728 approximately 20:00. Sensor readings available are ambient temperature. Due to a logging issue in a script most temps were not logged (an arduino nano-esp32 was used instead of the previously tested UNO. After necessary compatibility changes on the .ino script and the python logger-script the sensor appeared to be saving the values but the output csv files were in fact empty, smth which I later realised). Scrolling through the data on the terminal no ambient temp of more than 34deg C was observed. 0728 18:53 incubator temp was observed to be 17.1deg C and the ahf20 sensor listed an ambient temp of 33.8deg C	ambient: https://gitlab.com/arcbeast/su/microfluidics/-/blob/master/Microfluidic%20culture%20experiments/NM_20250723-0801_lab2/Temp%20&%20RH%20plots-data/ahf20_timeline_20250723_to_20250730.html	The andonstar microscope was used with the chip inverted. inside the sticky holder. A custom illumination setup was used including a LED strip attached into the internal walls of the holder. (the andonstar rack and lighting wouldn't fit inside the incubator). To fit the andonstar inside the incubator the andonstar camera-lense was mounted onto the rack of the capsla-amazon microscope in an intricate and "fragile" setup (not easy to setup and change FOV)	Rows 1-5 Columns 1-22	microwave plasma treatement: Initial plasma treatment was unsuccessful (no plasma sparked near the chip) during which the chip was exposed to microwaves for 7seconds (video log available). The vacuum jar was reevacuated and placed again inside the microwave oven for 6 seconds. This time plasma sparked on the chip and slide. Bonding was subsequently immediate and strong	The timelapse video is linked here. it includes all frames in a 15fps video with displayed timestamp and time elapsed from priming. Priming of the chip occured at 07:23 1:48 so real elapsed time should be calculated based on this (there seems to be a problem in the initially shown elapsed time). Regarding the elapsed time shown after 0723 20:00 19h 28minutes and 50seconds need to be added to reflect the correct elapsed time	https://gitlab.com/arcbeast/su/microfluidics/-/blob/master/Microfluidic%20culture%20experiments/NM_20250723-0801_lab2/NM_20250723_lab2_spotting_layout___logs___results_-_Sheet1.pdf	This is the first successful microfluidic culture with microwave plasma bonded chip! This validates the method for future lasting. The spores endured 13x exposure to microwaves which is impressive (it is quite likely the reason for the significant decrease in viability)