

**Supplementary material for:**

**Integrated and high-throughput method to collect, store, recover, and manage microbial isolates in mini-arrays**

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**Supplementary Table S1:** List of microbe strains used in the study

<b>Species</b>	<b>Strain name</b>	<b>Reference or source or description</b>
<i>S. pyogenes</i>	GAS1	from Dr. Susan Hollingshead at UAB
<i>S. pyogenes</i>	GAS3	from Dr. Bill Benjamin at UAB.
<i>S. agalactiae</i>	COH1	from Dr. Carol Baker in Houston Texas
<i>S. agalactiae</i>	M781	from Dr. Carol Baker in Houston Texas
<i>S. aureus</i>	ATCC49525	from ATCC
<i>S. aureus</i>	ATCC 6538	from ATCC
<i>E. coli</i>	ATCC12014	from ATCC
<i>E. coli</i>	ER2357	from New England Biolabs (Ipswich, Mass).
<i>S. cerevisiae</i>	MNY133	Nahm Laboratory strain
<i>S. sonnei</i>	ATCC 9290 (MNY45)	from ATCC
<i>S. dysenteriae</i>	ATCC 9750 (MNY46)	from ATCC
<i>S. pneumoniae</i>	MNZ755	Nahm Laboratory strain
<i>S. pneumoniae</i>	MNZ773	Nahm Laboratory strain
<i>S. pneumoniae</i>	MNZ870	Nahm Laboratory strain
<i>S. pneumoniae</i>	MNZ825	Nahm Laboratory strain
<i>S. pneumoniae</i>	CDC3609-06	from US CDC
<i>S. pneumoniae</i>	CDC3032-06	from US CDC
<i>S. pneumoniae</i>	SSISP1	from Statens Serum Institut, Denmark
<i>S. pneumoniae</i>	SSISP2	from Statens Serum Institut, Denmark
<i>S. pneumoniae</i>	SSISP3	from Statens Serum Institut, Denmark
<i>S. pneumoniae</i>	SSISP4	from Statens Serum Institut, Denmark
<i>S. pneumoniae</i>	SSISP5	from Statens Serum Institut, Denmark

**Supplementary Table S2:** Study of bacteria recovery with 50% glycerol.

<b>Recovery of SSISP1</b>					
<b>Dilution</b>	<b>Pre-freeze concentration (cfu/ml)</b>	<b>cfu per microwell (200 µl)</b>	<b>Expected* Recovery (cfu/50µl)</b>	<b>Observed recovery (cfu/50µl)</b>	<b>Recovery (%)</b>
None	2.31E+08	4.62E+07	1.16E+07	1.50E+06	13.00%
10 fold	2.31E+07	4.62E+06	1.16E+06	2.16+05	18.70%
100 fold	2.31E+06	4.62E+05	1.16E+05	1.85+04	16.10%
1000 fold	2.31E+05	4.62E+04	1.16E+04	1.93+03	16.70%

  

<b>Recovery of SSISP3</b>					
<b>Dilution</b>	<b>Pre-freeze concentration (cfu/ml)</b>	<b>cfu per microwell (200 µl)</b>	<b>Expected* Recovery (cfu/50µl)</b>	<b>Observed recovery (cfu/50µl)</b>	<b>Recovery (%)</b>
None	1.59E+07	3.17E+06	7.93E+05	6.56E+04	8.30%
10 fold	1.59E+06	3.17E+05	7.93E+04	5.15E+03	6.50%
100 fold	1.59E+05	3.17E+04	7.93E+03	5.13E+02	6.50%
1000 fold	1.59E+04	3.17E+03	7.93E+02	8.30E+02	10.50%

\* For the recovery calculation, it was assumed that 50 µl of glycerol would melt 50 µl of the frozen culture medium containing bacteria.

\*\* The experiment was performed using 50 µl of 50% glycerol per well and a microtiter plate filled with 200 µl of frozen bacteria per well. The calculation of the expected recovery rate was performed with the assumption that 50 µl was molten and recovered with 50 µl of glycerol. With this assumption, we obtained about 6-18% of the expected number of bacteria. Our assumption is obviously a high estimate as we noted that the volume of the frozen well did not visibly change after multiple sampling.