

## Supplementary Figures and Tables for

### Digital Microfluidic Platform for the Detection of Rubella Infection and Immunity: A Proof of Concept

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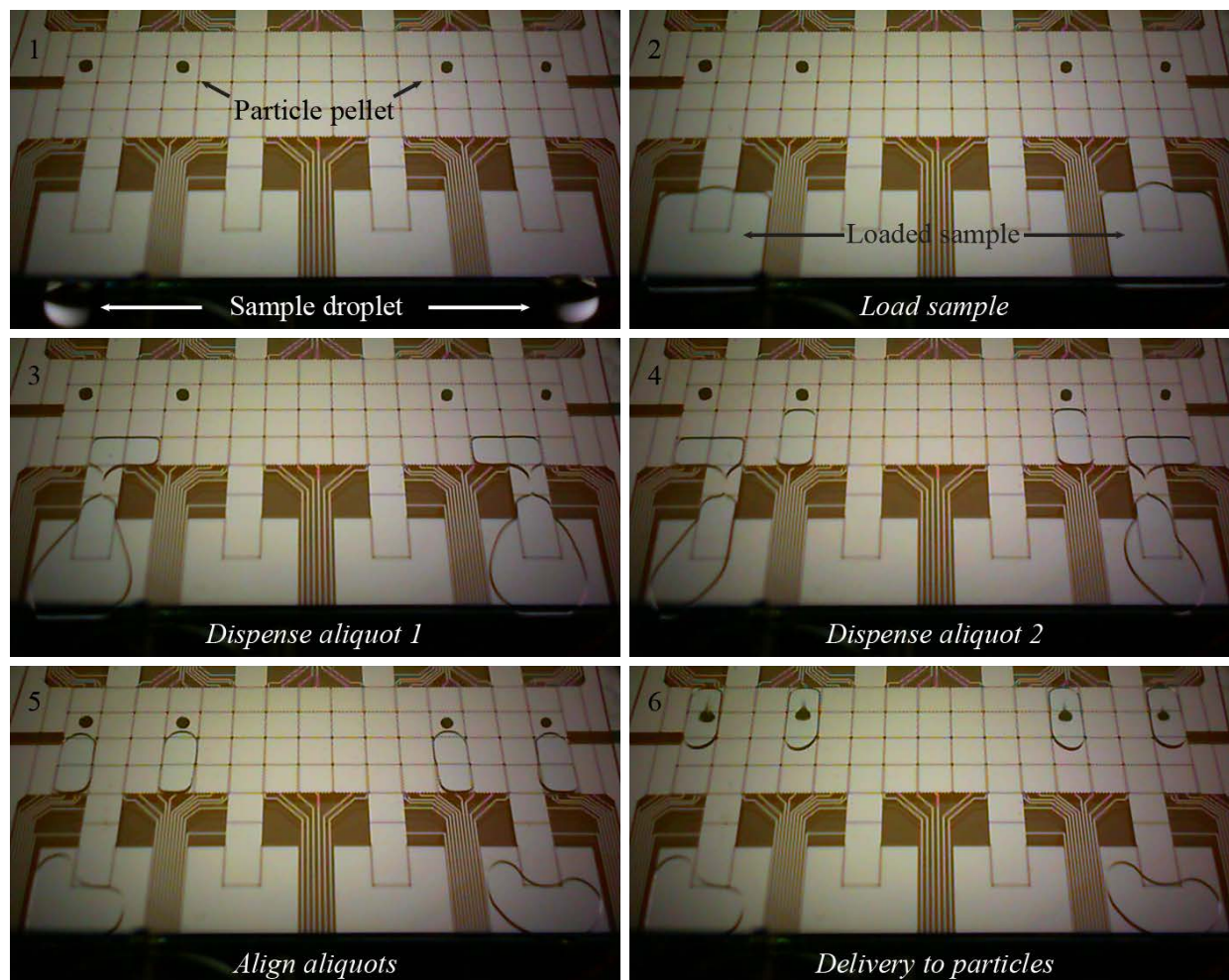
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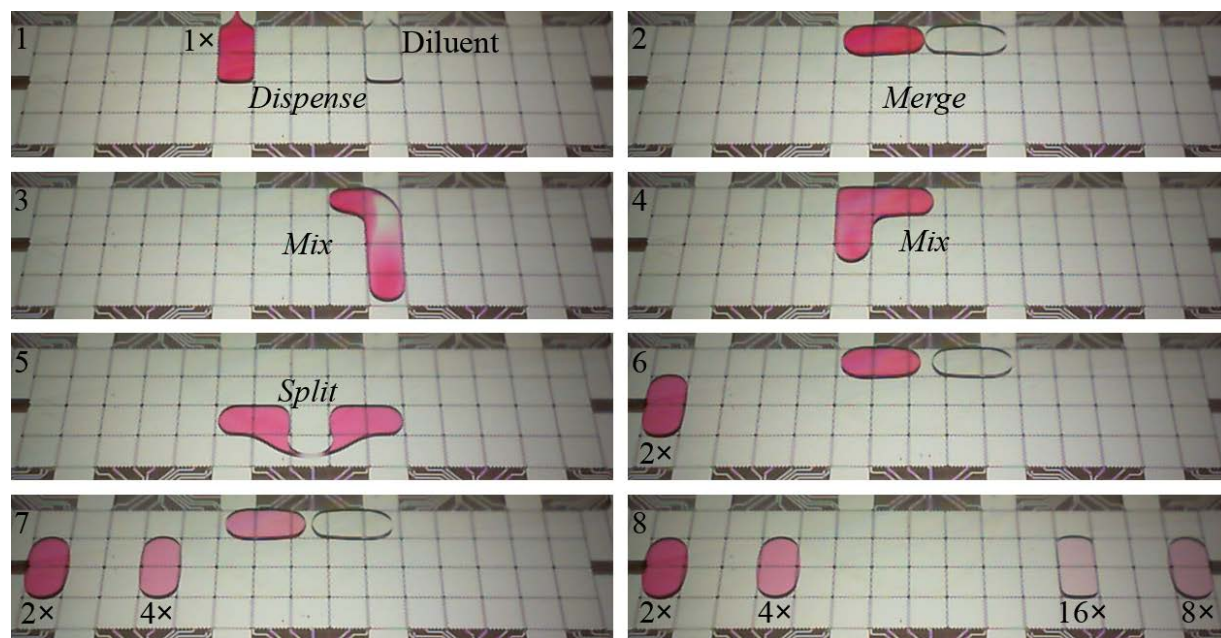
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**Supplemental Figure 1.** Video sequence (frames 1-6) illustrating an on-chip process of loading and aliquoting four samples to the magnetic particles in RV IgG immunoassays.



**Supplemental Figure 2.** Video sequence (frames 1-8) illustrating an on-chip process to form a series of four droplets with 2 $\times$ , 4 $\times$ , 8 $\times$ , and 16 $\times$  dilution of original sample Red dye added for visualization.

Supplemental Table 1. Measured rheumatoid factor IgM in RV IgG and IgM calibrators.

Calibrator	Rheumatoid Factor IgM (IU/mL)
A - 0 IU/mL RV IgG	1.4 ± 0.4
B - 5 IU/mL RV IgG	1.4 ± 0.1
C - 15 IU/mL RV IgG	1.6 ± 0.1
D - 75 IU/mL RV IgG	1.4 ± 0.2
E - 250 IU/mL RV IgG	1.3 ± 0
F - 500 IU/mL RV IgG	1.9 ± 0.3
1 - cutoff RV IgM	27.0 ± 2.0

Supplemental Table 2. Cross tabulation of RV IgG immunoassay results.

RV IgG	Abbott EIA			
DMF	Positive	Equivocal	Negative	TP+FP
Positive	23	0	0	23
Equivocal	0	0	0	FN+TN
Negative	0	0	2	2
TP+FN	23	FP+TN	2	

Supplemental Table 3. Cross tabulation of RV IgM immunoassay results.

RV IgM	Abbott EIA			
DMF	Positive	Equivocal	Negative	TP+FP
Positive	4	1	0	4
Equivocal	1	0	0	FN+TN
Negative	0	0	19	19
TP+FN	4	FP+TN	19	