

**ADVANCED
HEALTHCARE
MATERIALS**

Supporting Information

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Surface-Micromachined Microfiltration Membranes for
Efficient Isolation and Functional Immunophenotyping of
Subpopulations of Immune Cells

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Supporting Materials

Supporting Figures

Supporting Figure S1

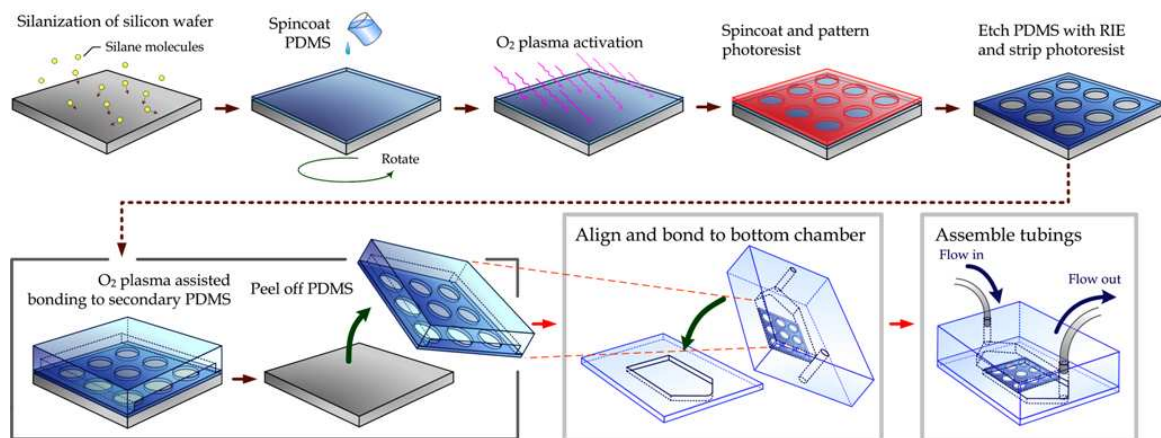


Figure S1. Schematic of fabrication process of the PMM-integrated microfiltration device.

Supporting Figure S2

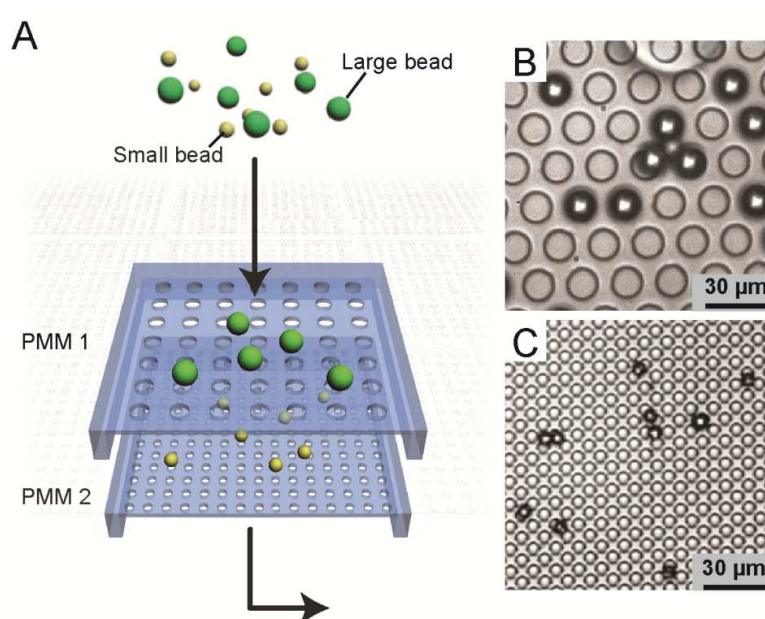


Figure S2. Multi-layered PMM-integrated microfiltration device for simultaneous isolations of different sized microbeads. (A) Schematic of the multi-layered PMM-integrated microfiltration device. (B&C) Brightfield images showing 15 μm microbeads captured on the top PMM layer (B) and 6 μm microbeads captured on the bottom PMM layer (C). The top PMM layer had through holes with a diameter of 13 μm, while the bottom PMM layer had through holes with a diameter of 5 μm.

Supporting Figure S3

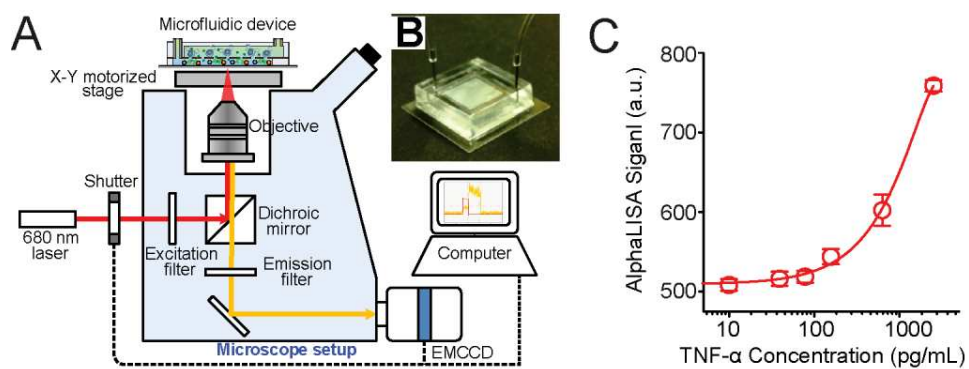


Figure S3. (A) Schematic of a custom optical setup for the on-chip AlphaLISA signal detection using the PMM-integrated microfiltration device. (B) Standard curve for TNF- α detection using AlphaLISA. To generate the standard curve, cell growth media spiked with known concentrations of TNF- α (0-5,000 pg/mL) was assayed using AlphaLISA.