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Supporting Information

A Miniaturized Hemoretractometer for Blood Clot Retraction Testing

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Supplementary Information

A miniaturized hemoretractometer (mHRM) for blood clot retraction testing

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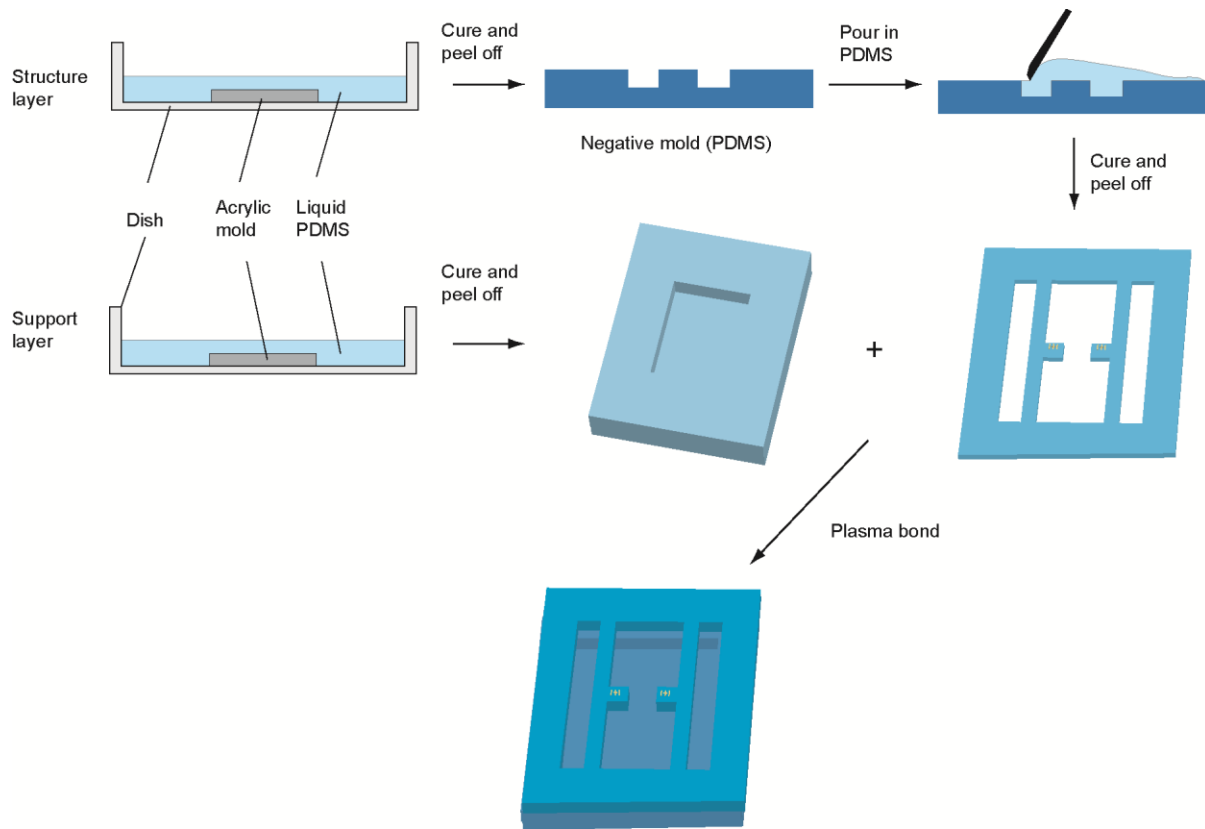**Supplementary Figure 1**

Figure S1. Fabrication of the mHRM device. The structure layer was fabricated by a double molding protocol. Laser-cut acrylic mold was affixed onto a dish before liquid PDMS prepolymer was poured in, which was then cured and peeled off to form the negative mold. Liquid PDMS prepolymer was then poured on the negative mold, with the excess PDMS being removed using a blade. After curing, the final structure layer was peeled off from the negative mold. Support layer was fabricated by single molding in a similar way. The structure and support layer were bonded together after surface activation with oxygen plasma.
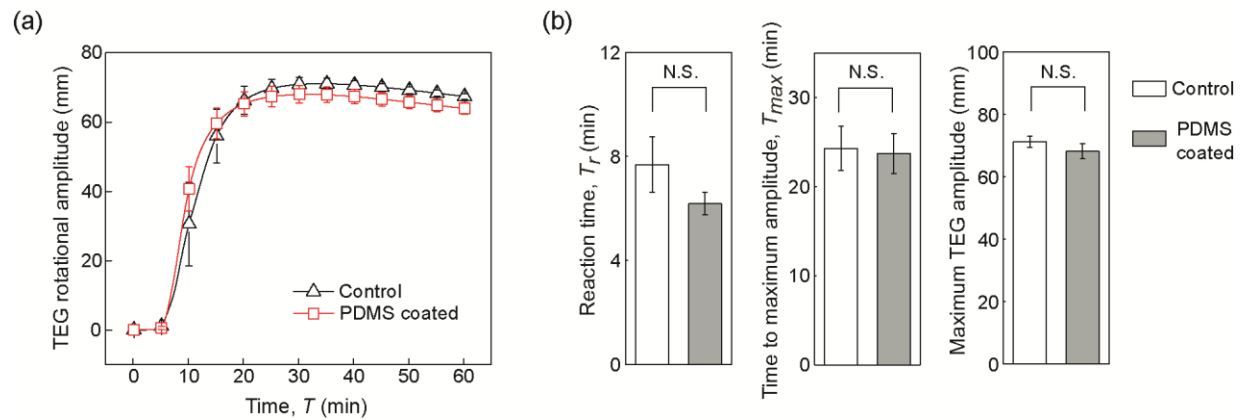
Supplementary Figure 2

Figure S2. Effect of PDMS on blood coagulation. (a) Comparison of TEG tracings using regular TEG cups and cups pre-coated with PDMS. (b) Bar plots of reaction time T_r, time to maximum amplitude T_{max}, and maximum TEG amplitude as a function of PDMS coating. Data represents the mean ± s.e.m with $n = 5$. P-values were calculated using two-sample unpaired student t-test.
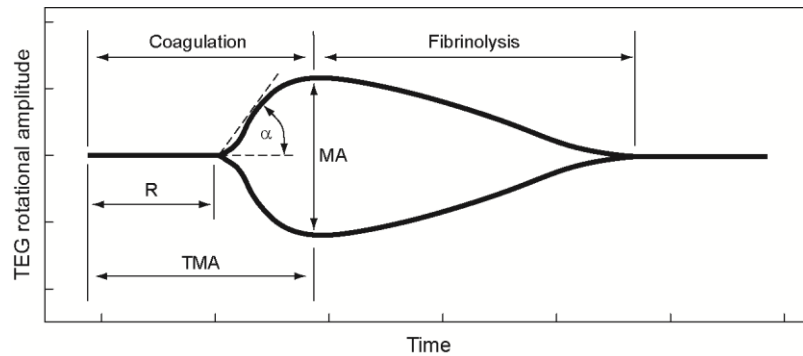
Supplementary Figure 3

Figure S3. Schematic of the TEG tracing plotted with both the dynamic amplitude curve and its mirror as the TEG instrument readout, with key parameters highlighted. TEG tracing showed similar dynamic pattern as that in mHRM, with R correspondent to reaction time T_r, TMA correspondent to time to maximum amplitude T_{max}, α correspondent to CRF growth rate G_{CRF}, and MA correspondent to maximum CRF CRF_{max} in mHRM tracing.