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Supplementary Information

Development of Substrate-Independent Heparin Coating to Mitigate Surface-Induced Thrombogenesis: Efficacy and Mechanism

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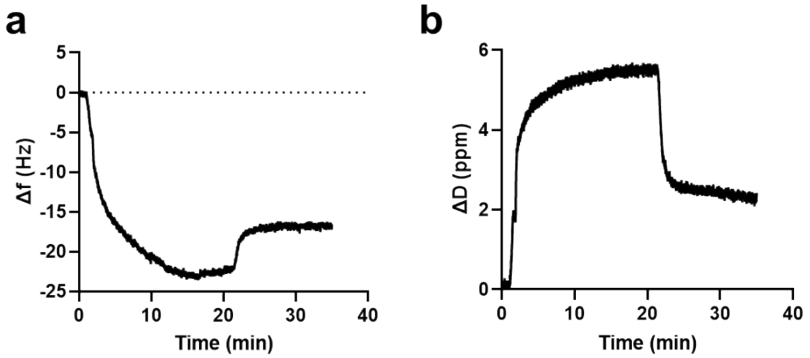

Fig. S1. QCM-D measurements. Changes in frequency (a) and dissipation (b) during the preparation of PCS coating.

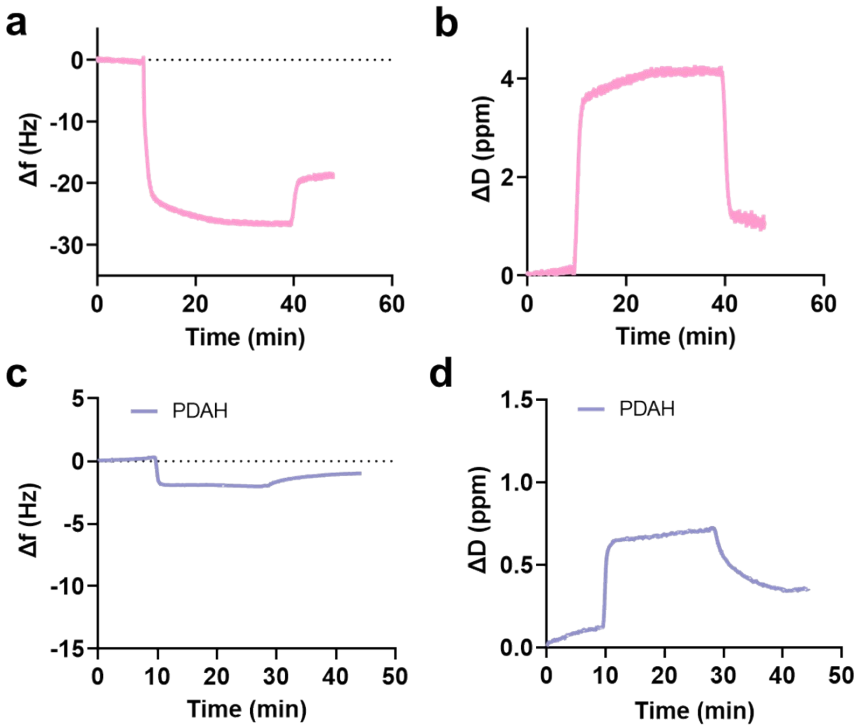

Fig. S2. QCM-D measurements. Changes in frequency and dissipation during the bonding process of heparin with the PCS coating (a-b) and the PDA coating (c-d).

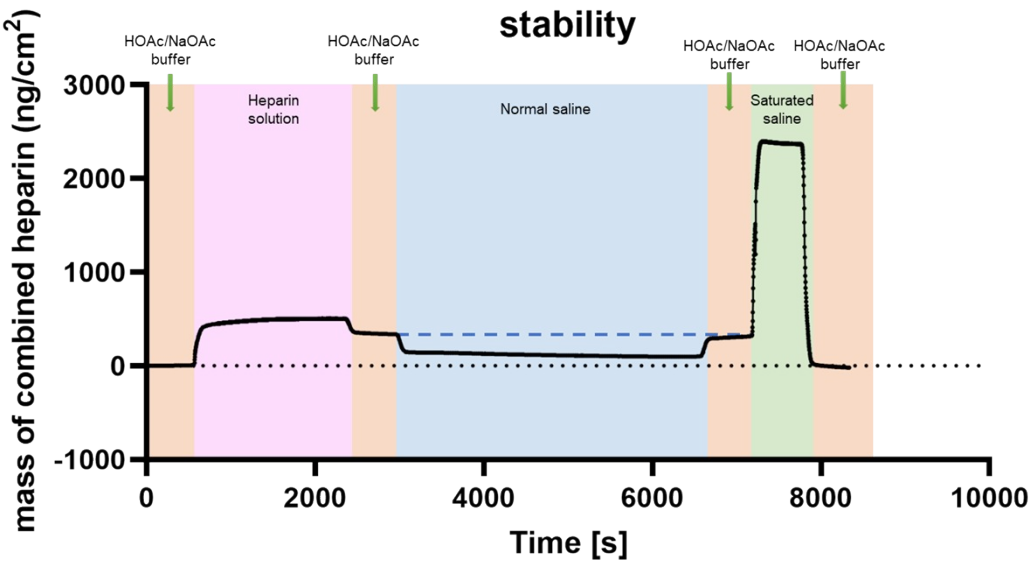

Fig. S3. QCM-D testing for coating preparation and stability. As the solution changes, the frequency of QCM-D testing will undergo a bulk shift, so only the mass of combined heparin after HOAc/NaOAc buffer equilibrium represents the true result.

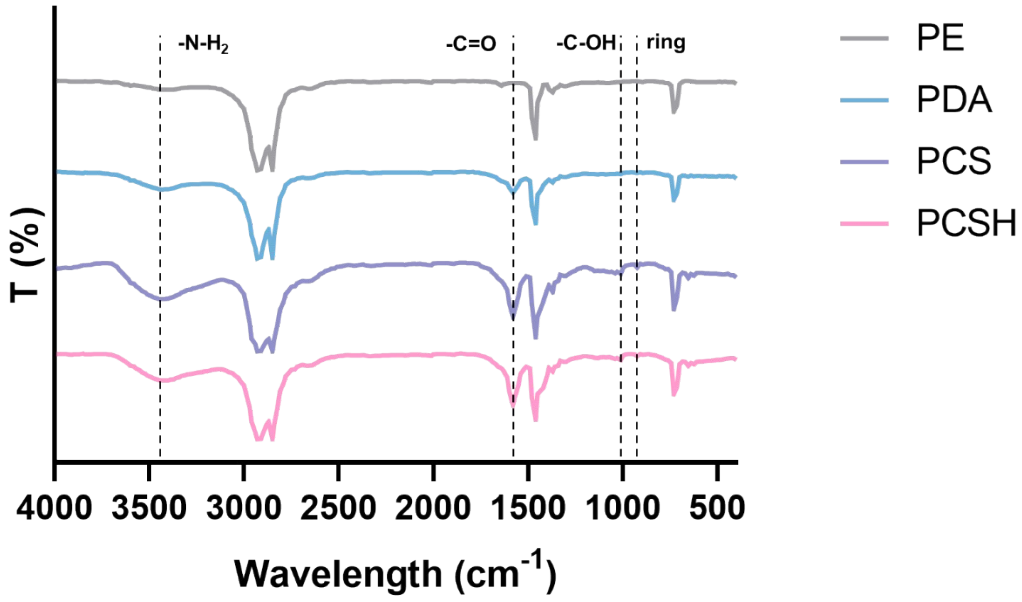

Fig. S4. FTIR spectrum of substrate PE, the PDA coating, the PCS coating, and the PCSH coating.

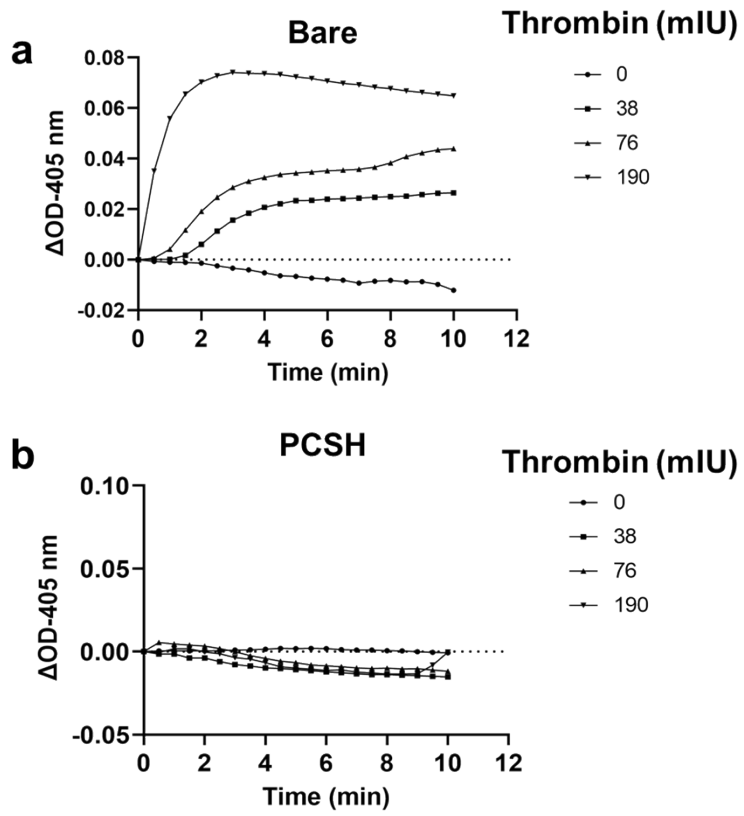

Fig. S5. Thrombin titration experiment. Changes in absorbance of thrombin-titrated plasma incubated with the bare group (a) and the PCSH coating group (b).

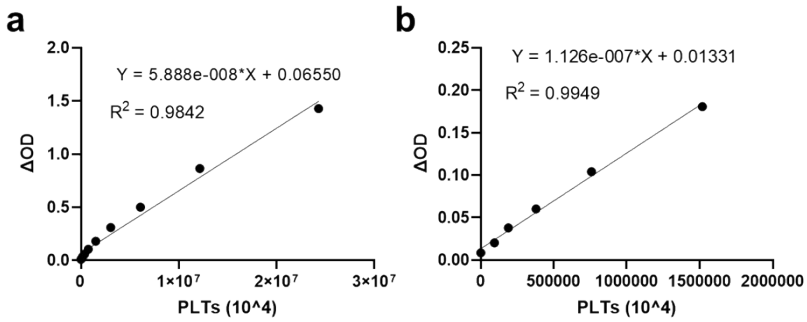

Fig. S6. The standard curves of platelet concentration (a) and LDH release detection (b) absorbance.

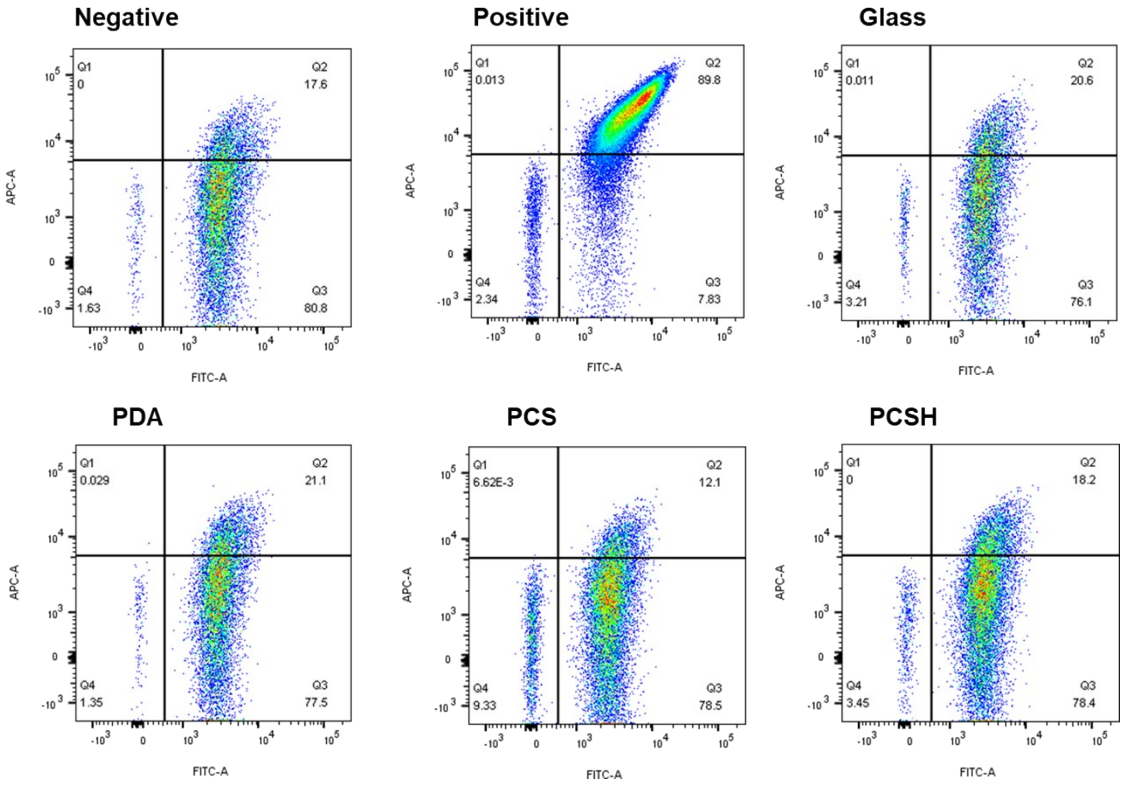

Fig. S7. Scatter plots of platelet flow cytometry under different treatments**.**

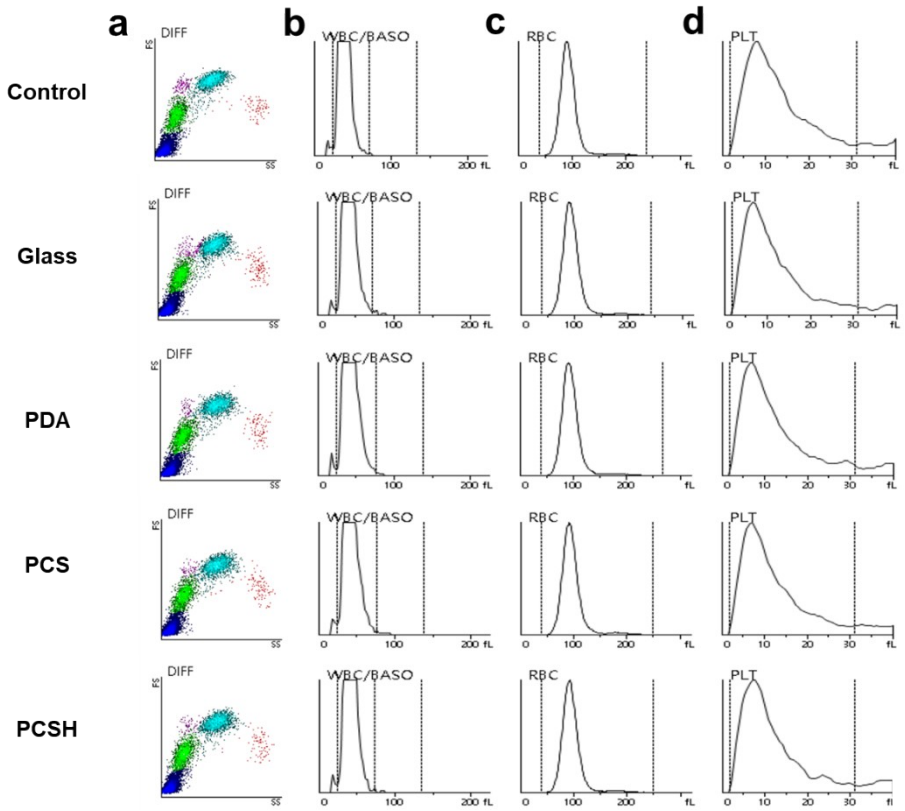

Fig. S8. Five types of cell count scatter plots and blood cell distribution.

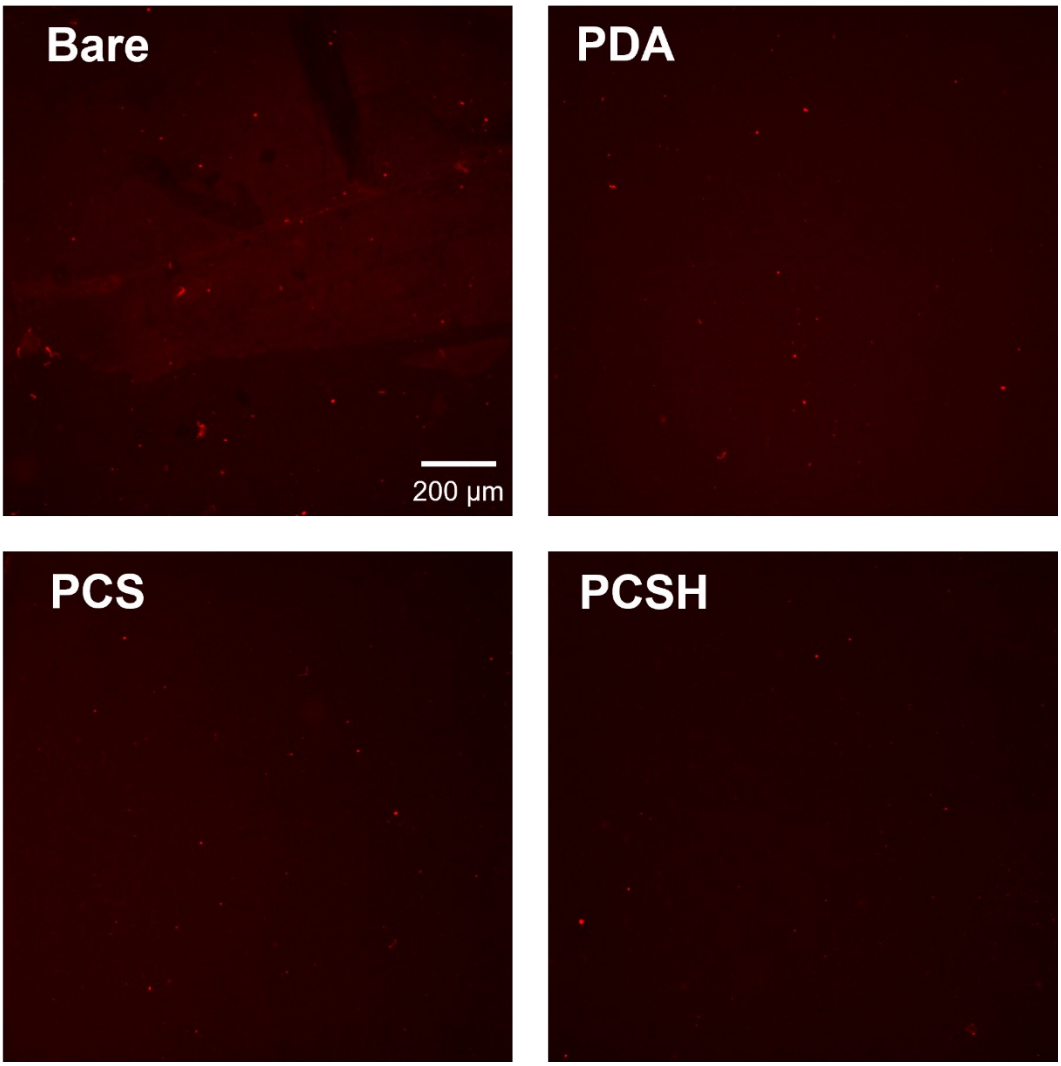

Fig. S9. Fluorescence microscopy images of fibrinogen binding on the coatings.