## **Supplemental Materials**

Dynamics of thrombin generation and flux from clots during whole human blood flow over collagen/tissue factor surfaces.

Shu Zhu, Yichen Lu, Talid Sinno, and Scott L. Diamond<sup>1</sup>

From Institute for Medicine and Engineering
Department of Chemical and Biomolecular Engineering
University of Pennsylvania
Philadelphia, Pennsylvania 19104

<sup>1</sup>To whom correspondence should be addressed: Dr. Scott L. Diamond, Institute for Medicine and Engineering, 1024 Vagelos Research Laboratories, 3340 Smith Walk, University of Pennsylvania, Philadelphia, PA 19104, Telephone: (215) 573-5702; FAX: (215) 273-6815; Email: sld@seas.upenn.edu

Running title: Thrombin flux from clots formed under flow

Key words: platelet, hemostasis, thrombosis, diffusion, convection, thrombin

## Figure S1

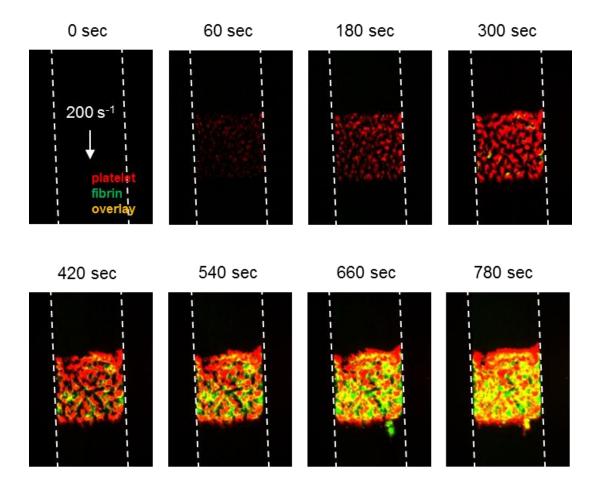


Fig. S1. Platelet aggregation and fibrin formation on collagen/TF. Platelet deposition (red) and fibrin formation (green) at indicated time points during blood perfusion (40  $\mu$ g/mL CTI) over collagen/TF (1 molec/ $\mu$ m<sup>2</sup>). Initial wall shear rate = 200 s<sup>-1</sup>. Flow direction: top to bottom. Dashed lines outline flow channels.

## Figure S2

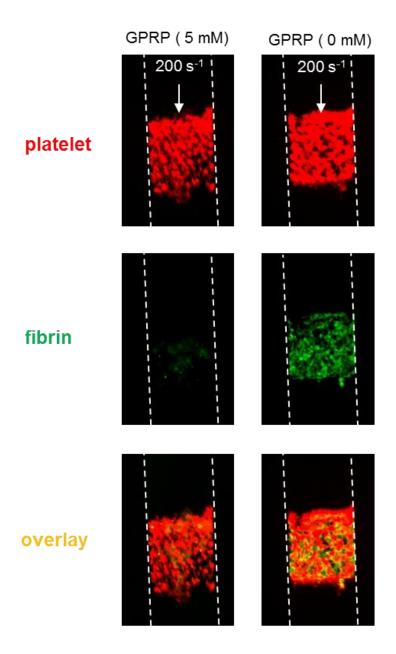


Fig. S2. Substantial inhibition of fibrin polymerization by GPRP under flow. GPRP (5 mM) blocked most, but not all, fibrin polymerization during blood perfusion (40  $\mu$ g/mL CTI) over collagen/TF (1 molec/ $\mu$ m<sup>2</sup>) at an initial wall shear rate of 200 s<sup>-1</sup>. Fluorescent images were taken at the end of experiments (t = 800 sec). Flow direction: top to bottom. Dashed lines outline flow channels.