Supplementary Fig. S1 Exposure to cardiopulmonary bypass (CPB) did not affect levels of expression of the integrin αIIbβ3. Whole blood (WB) samples drawn from patients prior to initiation of CPB surgery (Baseline, circles), after completion of surgery but before separation from CPB (On CPB, triangles), after separation from CPB and transfusion of platelets (Post-CPB, diamonds), and immediately after admission to the cardiac intensive care unit (CICU, squares) were used for assessment of levels of platelet αIIbβ3 expression. Flow cytometry was performed following staining of platelets with an Alexa Fluor 488-tagged antibody specific for αIIbβ3. Results are reported as Alexa Fluor 488 median fluorescence intensity (MFI). Each symbol represents the result for a single patient and bars denote means ± standard deviations. Note that platelet αIIbβ3 expression levels did not differ significantly at any time during CPB surgery relative to Baseline (n = 42; patient 26 was excluded because of missing data and patient 38 was excluded because of abnormally low Baseline levels of expression of αIIbβ3).

Supplementary Fig. S2 Characterization of thrombocytopenic whole blood samples prepared from healthy adult subjects. Whole blood (WB) samples from healthy adult subjects were left unmanipulated (closed circles) or were made thrombocytopenic (open circles) to approximate platelet counts that were observed in neonates on cardiopulmonary bypass. Platelet counts (A) and median fluorescence intensity (MFI) of P-selectin exposure on the surfaces of unstimulated platelets (B) were determined. Each symbol represents the result for a single subject and bars denote means ± standard deviations. Statistically significant differences between groups are indicated by p-values. Note that platelet counts were significantly lower, but P-selectin exposure did not differ significantly, in thrombocytopenic relative to unmanipulated WB samples.
Supplementary Fig. S3 Addition of exogenous epinephrine overcomes the reduced responsiveness of platelets in thrombocytopenic whole blood (WB) to U46619 and thrombin receptor activating peptide (TRAP). The platelet count in WB samples obtained from healthy adult subjects was manipulated to achieve a normal platelet count of $140 \times 10^3/\mu$L (black bars) or a thrombocytopenic platelet count of $60 \times 10^3/\mu$L (gray bars) prior to stimulation with (A) the thromboxane A2 analog U46619 (1 M) or (B) thrombin receptor activating peptide (TRAP; 10 M) in the absence (open bars) or presence (hatched bars) of epinephrine (2 M). Activated platelets were identified by flow cytometry following staining with a phycoerythrin (PE)-tagged antibody specific for the platelet α-granule constituent, P-selectin. Results are reported as PE median fluorescence intensity (MFI). The statistical significance of differences between groups are indicated by p-values. Note that reduced responses of platelets in thrombocytopenic WB to stimulation with U46619 and TRAP were restored to normal levels by addition of exogenous epinephrine.