**Technology Opportunity**  
**Improved Collagen Binding Assay for von Willebrand Disease (VWD)**

**Description**
The invention is a more sensitive and improved method for detection of VWD. VWD is the most common bleeding disorder affecting approximately 1% of the population. One biologic function of von Willebrand factor (VWF) is to tether platelets to sites of vessel injury and initiate clot formation. VWF has a collagen binding region key to this part of its function. Inventors discovered that single nucleotide point (SNP) mutations in the collagen binding region of VWF lead in many cases to clinically relevant bleeding complications. Current laboratory practice is use of collagen type I or collagen type III to perform binding studies as a part of a von Willebrand disease (VWD) laboratory panel. Later discoveries show that use of type I or type III collagen for the in vitro studies does not discriminate those patients with impaired collagen binding properties from normal patients leading to a lack of diagnosis when VWD is present. The present invention therefore, is a more sensitive and improved method of investigating deficits in collagen binding that lead to VWD.

**Potential uses**
- Diagnostic Elisa or bead based assay to determine deficits in collagen type IV and type VI binding leading to VWD
- SNP analysis to pinpoint genetic cause of VWD

**Technology benefits**
- More accurate and sensitive diagnostic tool

**Patent Status**
- Patent pending, provisional filed December 2011

**Publications**

**ASH Abstract #379** “Von Willebrand Factor Collagen Binding Provides a Sensitive Screen for Identification of Type 2A and 2B Von Willebrand Disease” Oral presentation December 12, 2011 Veronica H Flood, MD¹, Joan Cox Gill, MD¹, Kenneth D Friedman, MD², Pamela A Christopherson², Paula M. Jacobi, BS², Robert R. Montgomery, MD² and Sandra L Haberichter, PhD²

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