



Postdoctoral positions, University of Michigan, Ann Arbor, MI

NIH R01-funded postdoctoral positions are available in “clinically directed basic research” in the field of blood clotting disorders. Disorders of coagulation underlie major medical problems, including pathologic clotting (thrombosis), hemorrhage, heart attack, and stroke. Although we have an in depth understanding of the coagulation cascade, we are often unable to predict an individual patient’s risk with any useful degree of accuracy due to modifier genes. Knowledge of such modifier genes will improve diagnosis and classification of blood coagulation disorders, identify potential targets for therapy, and further our understanding of the underlying biology of hemostasis and thrombosis.

We have developed multiple zebrafish models of human blood clotting disorders (hemophilia, von Willebrand disease, platelet defects, thrombosis) through genome editing with zinc finger nucleases, TALENs, and CRISPR. Projects include dissection of extended coagulation factor pathways and thrombocyte (platelet) function *in vivo*, mechanistic studies of oral contraceptive-induced thrombosis, sensitized ethylnitrosourea (ENU) mutagenesis followed by next generation sequencing for modifier gene identification, and high throughput small molecule screens to discover novel pro- and anticoagulant therapeutics.

Required qualifications:

1. PhD, MD, or equivalent with research experience in molecular biology, genetics, developmental biology, biochemistry, chemistry or related health field.
2. Working knowledge of the principles of molecular biology.

Desired qualifications:

1. Research experience in hemostasis/thrombosis, zebrafish, mouse, or other animal models.
2. Experience in bioinformatics, computer programming, familiarity with Linux, and analysis of next generation sequencing data.

Please send a CV/resume and any additional information to Jordan Shavit (shavitweb@umich.edu). For more information see <http://www.shavitlab.org/>