



Postdoctoral positions in hematology/cardiovascular biology University of Michigan, Ann Arbor, MI

NIH R01- and R35-funded postdoctoral positions are available in “clinically directed basic research” in the field of blood and cardiovascular disorders. We study the genetic mechanisms underlying major medical problems, including pathologic clotting (thrombosis), hemorrhage, heart attack, and stroke. Although we have an understanding of the major genes involved, 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 and coagulation disorders, identify potential targets for therapy, and further our understanding of the underlying biology of the blood and cardiovascular systems.

We have developed multiple zebrafish models of human blood 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 and hormone-induced thrombosis, sensitized ethylnitrosourea (ENU) mutagenesis followed by next generation sequencing for modifier gene identification, and high throughput small molecule screens to discover novel therapeutics.

Required qualifications:

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

Desired qualifications:

- Research experience in hematology, cardiovascular biology, or experience with zebrafish, mouse, or other animal models.
- Experience in bioinformatics, computer programming, familiarity with Linux, and analysis of next generation sequencing data.

About Ann Arbor:

- 2020's Most Educated Cities in America, #1 Ann Arbor, WalletHub.com
- 2020's Top 100 Best Places to Live, #2 Ann Arbor, Livability.com
- Located 20 minutes away from Detroit Metro International Airport, a Delta Airlines hub. Connections to most U.S. airports by nonstop flights, and most international airports with direct flights or one stopover.

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