The Centre for Blood Research
VIRTUAL SEMINAR SERIES

Wednesday, May 26, 2021
11:00am - 12:00pm PT

Dr. Jordan Shavit

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"Utilization of genome editing in zebrafish to model blood disorders and develop therapeutics."

Pathologic dysregulation of the coagulation cascade results in hemorrhage or thrombosis, but many unknown modifier genes contribute to variable disease severity among affected patients and families. Understanding such modifiers could help classify patients at higher risk for pathology as well as identify novel therapeutic targets, and the zebrafish model is particularly well suited for these studies. Utilizing CRISPR/Cas9 and other genome editing nucleases, the Shavit laboratory has developed a panel of clotting factor mutant zebrafish lines. These are being characterized using next generation sequencing and small molecule libraries to identify novel modifier genes and lead molecules that suppress hemorrhage or thrombosis, with potential to enhance diagnosis and treatment of affected patients.