

Development of a Doppler Ultrasound Simulation Environment Using Field II

- The motivation of this work is to guide detection of potentially catastrophic post-operative blood clots. This project involves simulating clinical flow systems to aid in ultrasound-based methods of detecting thromboses.
- **What Students Will Do:**
 - Learn Field II ultrasound simulation software
 - Develop test environments to represent various anatomies
 - Model appearance of Sonavex's EchoMark fiducial implant
 - Opportunity to validate results with phantom and/or animal data using ultrasound scanner
- **Deliverables:**
 - Measure flow rates in healthy and clotted models
 - Create test environments
- **Size group:** 2-3
- **Skills:** Matlab, fundamental interest in or experience with ultrasound
- **Mentors:** Andrew Lang, PhD – alang@sonavex.com
David Narrow – dnarrow@sonavex.com

