

Special project: Flow-dependent thrombin & fibrin generation

Subcommittee: Biorheology

Chairmen: Johan Heemskerk, Michael King

Aim:

To determine how to measure these important processes in the context of flow-based assays. Also, to determine the relevance of these processes in venous and arterial thrombosis.

Methodology:

New experiments and discussions will be carried out by participating laboratories: Heemskerk lab, King lab, new subcommittee members Keith Neeves and Owen McCarty. Comparison of different flow chamber systems as well as biochemical methodologies, measurement/quantification techniques, and reproducibility.

Year of starting: 2010

Annual Report:

Over the past year, the subcommittee decided to focus on completing our other ongoing project, "Measurement of thrombus formation ex vivo and in vivo." Now that the other project is completed, with two JTH publications, we would like to focus on this issue of thrombin and fibrin generation under flow for the next 2011-2012 time frame. New participation by King and junior faculty members Keith Neeves (Colorado School of Mines) and Owen McCarty (Oregon Health Science Univ.) who are active in this area will contribute to the project's success. One of the emerging areas that we hope to touch on is circulating tumor cell interactions with fibrin and thrombin, in addition to the core interests of thrombosis and hemostasis.

Year of completion (expected): 2012