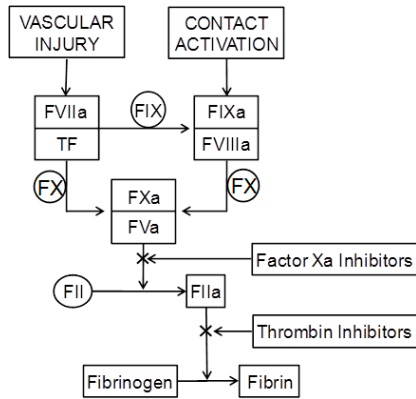


# Method for Determining Coagulation Activation in Whole Blood



Schematic of Coagulation Activation

## Abstract

Measuring coagulation activation, including thrombin generation, is useful in a number of clinical conditions. McMaster researchers have developed a novel method and class of substrates to do this using whole blood, for instance from a finger prick, using conventional fluorescence equipment.

## Applications

- Generate a point-of-care thrombin generation curve in the absence of anticoagulants in whole blood. Thrombin generation curves are known to be altered in different disease states.
- This novel method can be used as a point-of-care test for the presence of novel oral anticoagulants (NOACs), namely rivaroxaban, apixaban, and dabigatran in blood.
- Detect disorders of coagulation at point-of-care
- Screen for inhibitors of coagulation in whole blood

## Advantages

- Ability to monitor thrombin generation in whole blood.
- Detect thrombin generation without a correction of alpha-2-macroglobulin bound thrombin.
- This invention allows one to detect for the presence of new oral anticoagulants in whole blood within 15 minutes of a finger-prick, which is a novel, unique and valuable feature. There is a great need to detect NOACs at the point-of-care in endoscopy suites, emergency rooms, dentist's offices, pre-op settings, cardiologist's offices and internal medicine or family medicine offices.
- Ability to detect presence of direct factor Xa and direct thrombin inhibitors.
- Point-of-care test.

## Tech ID

14-019

## Inventors

S. Qiao; P. Gross

## Patent Status

National Phase filed

## Stage of Research

Proof of Principle available

## Contact

Sunita Asrani

Senior Business Development

Manager

905-525-9140 ext. 28641

asranis@mcmaster.ca

<http://milo.mcmaster.ca>