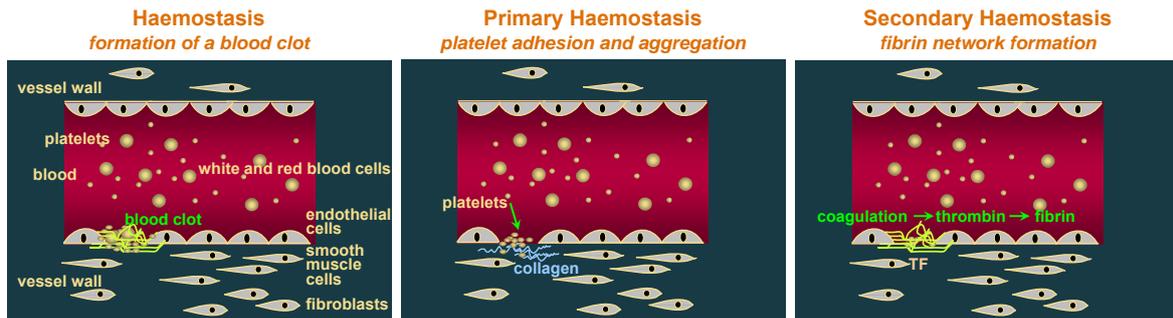


Balancing blood coagulation

Haemostasis or blood coagulation describes processes implicated in the arrest of a bleeding and is the body's normal defense against blood loss. In short, haemostasis can be divided in two major events. The first one which is called primary haemostasis, involves adhesion of platelets to the damaged vessel wall and the subsequent formation of a platelet aggregate. The second event which is called secondary haemostasis, involves the formation of a fibrin clot between platelets that are aggregating on the damaged vessel wall. Both processes occur simultaneously, and both processes are required for optimal bleeding arrest. (<https://www.youtube.com/watch?v=-F73CMjVuqq>)



Fibrin clot formation is strictly regulated and is balanced on the one hand by procoagulant processes that facilitate thrombin generation and the subsequent formation of a stable fibrin clot and on the other hand by anticoagulant processes that inhibit thrombin and fibrin generation and processes that facilitate the breakdown of the fibrin clot (fibrinolysis).

An unbalance between these processes causes either unwanted excessive bleeding (haemorrhage) or unwanted blood clot formation (thrombosis). Knowledge on proteins that modulate secondary hemostasis is a prerequisite in the understanding of coagulation defects and in the design of drugs and protocols for the treatment of patients suffering from coagulation disorders.

When you are a BSc or MSc student biomolecular sciences, medical sciences, pharmacology or following a related study program, looking for an internship at least 6 months and interested in participating in blood coagulation research, please contact Prof Dr JCM Meijers (email: j.meijers@sanquin.nl) or Dr HJM Brinkman (email: h.brinkman@sanquin.nl), department of Plasma Proteins, Sanquin Research, Amsterdam.