

Hemostasis and immune system

Date: *Tuesday, February 26, 2019 & Thursday, February 28, 2019*

Topic:

Besides their well-known roles in hemostasis, components of the coagulation and fibrinolytic system are increasingly recognized as integral parts of immune responses. Conversely, there is emerging evidence that immune cells actively participate in thrombus formation. This lecture will cover the principles of interactions among coagulation, fibrinolysis, and the immune system. In addition, novel aspects in this expanding research field will be covered.

In order to investigate the interplay of hemostasis and the immune system, the use of appropriate *in vivo* models is indispensable. This hands-on course will familiarize the participants with different techniques allowing the visualization of interactions among leukocytes, platelets, and corpuscular/humoral components of the coagulation and fibrinolytic system in the vasculature.

Supervisors:

Christoph Reichel, Laura Mittmann, Johanna Schaubächer

Literature:

Reichel CA, Kanse SM, Krombach F. At the interface of fibrinolysis and inflammation: the role of urokinase-type plasminogen activator in the leukocyte extravasation cascade. *Trends Cardiovasc Med.* 2012 Oct;22(7):192-6.

Engelmann B, Massberg S. Thrombosis as an intravascular effector of innate immunity. *Nat Rev Immunol.* 2013 Jan;13(1):34-45.

van der Poll T, Herwald H. The coagulation system and its function in early immune defense. *Thromb Haemost.* 2014 Oct;112(4):640-8.

Zuchtriegel G, Uhl B, Pühr-Westerheide D, Pörnbacher M, Lauber K, Krombach F, Reichel CA. (2016) Platelets Guide Leukocytes to Their Sites of Extravasation. *PLoS Biol.* 14(5):e1002459.

Location:

Walter Brendel Centre of Experimental Medicine, Marchioninstr. 27, 81377 Munich

Note: The number of participants is limited for this course. Registration beforehand is required (irtg914@med.uni-muenchen.de).