



Master- oder Bachelorarbeit zum Thema:

Studying Platelet Activation at a Single Platelet Level.

Tätigkeitsbeschreibung:

A Master/Diploma project is available to study platelet activation at the single platelet level.

Platelets are key regulators of hemostasis (blood clotting). They are also involved in wound healing and inflammation, maintenance of vascular integrity, angiogenesis, response to pathogens, and the development of cancer metastases. This range of functions indicates that these cell fragments are the first line of defense against injury. As such, they are also the first cells to react to foreign materials introduced into the body as a part of medical implants.

In our group, we are examining regulation of platelet activity in the context blood-biomaterial interactions with the goal of understanding how platelets react to foreign materials and in this way developing better implants and treatment strategies. Master projects are available on several topics related to platelet activation and regulation, and their interactions with biomaterials.

Strong preference is given to candidates whose goal it is to pursue Doctoral studies upon completion of the Masters.

Suggested reading:

M. Leslie, Beyond Clotting: The Powers of Platelets, *Science* **328**, 562-564, 2010.

B.S. Coller, Historical perspective and future directions in platelet research, *Journal of Thrombosis and Haemostasis*, **9** 374-395, 2011.

Persönliche Qualifikation: (Chemistry/Physical Chemistry, Physics/Biophysics, Biochemistry, Engineering/Biongingineering, Biotechnology)

Institut/Abteilung: Institut für Funktionelle Grenzflächen (IFG)

Vertragsdauer: 3-Monate nach Studienordnung

Eintrittstermin: Immediately

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