



# Seminarankündigung

**Dienstag, 30. Mai 2017**

**15:15 Uhr**

**ZNN, Seminarraum EG 0.001**

## **“Blood cells – In vitro diagnostics of the good, the bad, and the ugly ”**



The common elements of a good Spaghetti Western are a hero entering a town that is ruled by outlaws. During the plot the usually sociophobic hero betrays and plays the gang members against one another. Finally, the hero saves the defenseless people using his exceptional skills. Replace the gunfighters with heroic immune cells, bad parasites, or ugly tumor cells in your organs et voilà we end up with the same epic and deadly showdown of a Sergio Leone movie. In fact, even immune cells can turn from heroic defenders into evil betrayers depending on the progression of a disease.

To understand cellular functions and to support therapeutic decisions, we still need sophisticated workflows, which do not match the requirements for routine in-vitro diagnostics in a clinic. And although we understand the importance of our immune system for patient outcome, acute care of patients usually covers no functional cell information.

In this seminar, I will introduce the audience to today's technology available in a clinical environment for hematology analysis (“Blutbild”) and I will review our efforts on magnetic flow cytometry using microfluidics with integrated GMR sensors to address the clinical unmet need for a bedside compatible technology. Furthermore, I will discuss the meaning of “clinically-relevant” blood cell information and I will give an outlook on my research at TranslaTUM.

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