



Isabell Kopka

Complement regulation in kidney cells

The complement system forms the first defence line of the innate immunity and also affects the adaptive immune response. However, the complement system is involved in several aspects of renal disease, including primary renal diseases, dialysis and renal transplant rejection. The involvement of complement in renal disease was derived either from changes in complement levels in the circulation during disease or from the presence of complement components in tissues. My project focuses on the role of complement components and complement regulators expressed by kidney cells, their modification during necrosis, apoptosis of renal cells and regeneration and their influence of renal diseases like the hemolytic-uremic syndrome.

Publications

Irmscher S, Döring N, Halder LD, Jo EAH, Kopka I, Dunker C, Jacobsen ID, Luo S, Slevogt H, Lorkowski S, Beyersdorf N, Zipfel PF, Skerka C (2017) Kallikrein Cleaves C3 and Activates Complement. *J Innate Immun* , [Details PubMed](#)

Barthel A, Kopka I, Vogel H, Zipfel P, Heckel DG, Groot AT (2014) Immune defence strategies of generalist and specialist insect herbivores. *Proc Biol Sci* 281(1788), 20140897. [Details PubMed](#)

Gropp K, Weber N, Reuter M, Micklisch S, Kopka I, Hallström T, Skerka C (2011) β_2 -glycoprotein I, the major target in antiphospholipid syndrome, is a special human complement regulator. *Blood* 118(10), 2774-2783. [Details PubMed](#)

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Start of PhD

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Doctoral Disputation

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