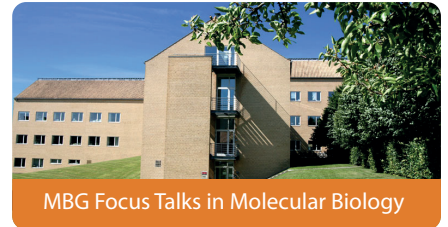


# MBG FOCUS TALK

hosted by Section for Structural Biology



**Friday 16. september 2016 10.15-11.00**

Meeting room 5, Building 3140

**Prof Suzan H.M. Rooijackers**

University Medical Center Utrecht

## **Molecular interplay between complement and bacteria**

The complement system is crucial for our first line of defense against invading bacterial infections. Upon contact with bacteria, complement rapidly labels bacteria for phagocytosis by immune cells and directly kills Gram-negative bacteria via pore formation (Membrane Attack Complex (MAC)). The goal of our research is to unravel the molecular functioning of the complement system in the immune response against all invading bacteria. Using recently established methods to study complement activation in highly purified model systems we provide insight into assembly of C5 convertase enzymes and MAC-dependent killing of bacteria. Furthermore we aim to find ways to improve complement activation on pathogenic bacteria. A better understanding of complement activation on bacteria will improve desired complement activation by therapeutic antibodies and vaccination strategies in infectious diseases. Furthermore, our studies will create new avenues for blocking the undesired complement activation during systemic bacterial infections and sepsis.

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