Hangxing Yu

Modulation of host cell activation and apoptosis by *Chlamydia trachomatis*

Chlamydiae are obligate intracellular bacteria causing respiratory (*Chlamydophila pneumoniae*) and urogenital infections (*Chlamydia trachomatis*) in man. Chlamydial infection of host cells results in resistance of infected cells to apoptosis, modulation of the expression of antigen presenting molecules (e.g. HLA class I and II), activation of anti-chlamydial factors (type I interferon system, indoleamine 2,3-dioxygenase) and expression of chemokines, cytokines and matrix metalloproteinases (MMP). During the replication cycle *Chlamydiae* secrete proteins into the host cell cytosol. However, there is only little knowledge on the role of these potential virulence factors in the modulation of the host cell response upon infection.

Publications

Rödel J, Grosse C, Yu H, Wolf K, Otto GP, Liebler-Tenorio E, Forsbach-Birk V, Straube E (2012) Persistent *Chlamydia trachomatis* infection of HeLa cells mediates apoptosis resistance through a Chlamydia protease-like activity factor-independent mechanism and induces high mobility group box 1 release. *Infect Immun* 80(1), 195-205. Details PubMed

Yu H, Schwarzer K, Förster M, Kniemeyer O, Forsbach-Birk V, Straube E, Rödel J (2010) Role of high-mobility group box 1 protein and poly(ADP-ribose) polymerase 1 degradation in *Chlamydia trachomatis*-induced cytopathicity. *Infect Immun* 78(7), 3288-3297. Details PubMed

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August 1, 2006

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January 1, 2010