

Publication

Bartonella and Brucella - weapons and strategies for stealth attack

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 2172189**Author(s)** Ben-Tekaya, H.; Gorvel, J. P.; Dehio, C.**Author(s) at UniBasel** [Dehio, Christoph](#) ; [Ben Tekaya, Houchaima](#) ;**Year** 2013**Title** Bartonella and Brucella - weapons and strategies for stealth attack**Journal** Cold Spring Harbor Perspectives in Medicine**Volume** 3**Number** 8**Pages / Article-Number** a010231

Bartonella spp. and Brucella spp. are closely related α -proteobacterial pathogens that by distinct stealth-attack strategies cause chronic infections in mammals including humans. Human infections manifest by a broad spectrum of clinical symptoms, ranging from mild to fatal disease. Both pathogens establish intracellular replication niches and subvert diverse pathways of the host's immune system. Several virulence factors allow them to adhere to, invade, proliferate, and persist within various host-cell types. In particular, type IV secretion systems (T4SS) represent essential virulence factors that transfer effector proteins tailored to recruit host components and modulate cellular processes to the benefit of the bacterial intruders. This article puts the remarkable features of these two pathogens into perspective, highlighting the mechanisms they use to hijack signaling and trafficking pathways of the host as the basis for their stealthy infection strategies.

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