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Characterization of novel *Brucella* effector proteins

Brucellosis, caused by bacteria of the genus *Brucella*, is considered by World Health Organization to be the world's most widespread bacterial zoonosis and a neglected zoonotic disease. *Brucella* are intracellular pathogens that replicate in an endoplasmic reticulum-derived compartment in a variety of cell types in both animals and humans. *Brucella* rely on a type IV secretion system VirB, that translocates effector proteins into host cells during infection and are capable of extensive modulation of host cellular responses. To date, only a few effector proteins have been characterized. We have recently identified two effectors, BnpA and BnpB, which target the host nucleus during infection and modulate sub-nuclear spatial dynamics. The characterization of these novel nucleomodulins will be presented, their host cellular targets and the molecular interactions taking place. We will also discuss their role in *Brucella* pathogenesis.

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