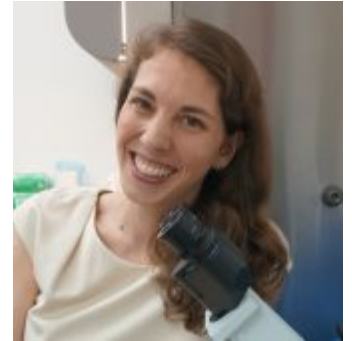


Seminar in Microbiology

Monday, 7th December, 2015

Salle E07.3347.a (ex 7172), CMU

11:30 – 12:30



Jeanne Salje

University of Oxford/Mahidol Oxford Tropical Medicine
Research Unit (MORU), Bangkok, Thailand

Dissecting the cell biology of the neglected human pathogen *Orientia tsutsugamushi*

Orientia tsutsugamushi is the bacterial causative agent of the arthropod-borne human disease, scrub typhus. This life-threatening infection is endemic across large parts of Asia, but has been historically under-reported due to difficulties in diagnosis. In addition to being of significant clinical importance, *O. tsutsugamushi* is a fascinating bacterial species. It is a member of the *Rickettsiaceae* family, but occupies its own genus reflecting unique and unusual properties of its genome, life cycle and cell wall structure. We are working to develop improved experimental tools to study the basic host-pathogen cell biology of this obligate intracellular organism, and are using these tools to dissect the structure of the bacterial cell and the molecular basis of its cellular infection cycle.

Key publications:

Giengkam S, Blakes A, Utsahajit P, Chaemchuen S, Atwal S, Blacksell SD, Paris DH, Day NP, **Salje J**, Improved Quantification, Propagation, Purification and Storage of the Obligate Intracellular Human Pathogen *Orientia tsutsugamushi*. PLoS Negl Trop Dis. 2015 Aug 28;9(8):e0004009.

Salje J., A single-cell imaging screen reveals multiple effects of secreted small molecules on bacteria. Microbiologyopen. 2014 Aug;3(4):426-36.

Salje J, Gayathri P, Löwe J. The ParMRC system: molecular mechanisms of plasmid segregation by actin-like filaments. Nat Rev Microbiol. 2010 Oct;8(10):683-92.

Salje J, van den Ent F, de Boer P, Löwe J. Direct membrane binding by bacterial actin MreB. Mol Cell. 2011 Aug 5;43(3):478-87. doi: 10.1016/j.molcel.2011.07.008.

Salje J, Zuber B, Löwe J. Electron cryomicroscopy of *E. coli* reveals filament bundles involved in plasmid DNA segregation. Science. 2009 Jan 23;323(5913):509-12.

Contact: P.Linder & P. Linder