Ultrastructural Imaging of *Salmonella*–Host Interactions Using Super-resolution Correlative Light-Electron Microscopy of Bioorthogonal Pathogens

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The imaging of intracellular pathogens inside host cells is complicated by the low resolution and sensitivity of fluorescence microscopy and by the lack of ultrastructural information to visualize the pathogens. Herein, we present a new method to visualize these pathogens during infection that circumvents these problems: by using a metabolic hijacking approach to bioorthogonally label the intracellular pathogen *Salmonella typhimurium* and by using these bioorthogonal groups to introduce fluorophores compatible with stochastic optical reconstruction microscopy (STORM) and placing this in a correlative light electron microscopy (CLEM) workflow, the pathogen can be imaged within its host cell context with a resolution of 20 nm. This STORM-CLEM approach thus presents a new approach to understand these pathogens during infection[1].

**References**