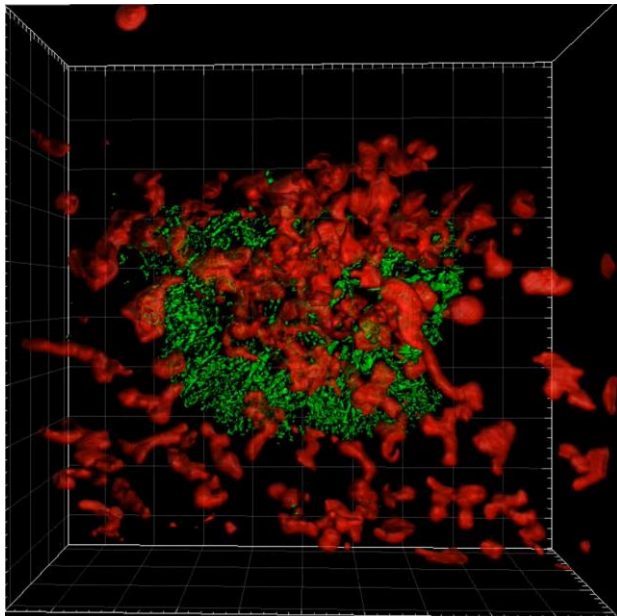


The zebrafish as a model to study *Legionella pneumophila* pathogenesis and the host immune response *in vivo*

Collaboration with Carmen Buchrieser, Institut Pasteur, Biologie des Bactéries Intracellulaires and CNRS UMR 3525.

Legionella pneumophila is a gram-negative bacterium commonly found in freshwater ecosystems, usually associated with protozoa. When aerosols containing *Legionella* are inhaled by susceptible individuals, the bacteria reach the lungs where they proliferate within alveolar macrophages, causing a severe type of pneumonia called legionellosis. We are exploiting the zebrafish larva to address *in vivo* the involvement of *Legionella* virulence factors in the establishment of infection, the impact of the host immune response, and the mechanisms employed by the bacterium to evade the host immune response and causing disease.



Phagocytes (red) interacting with *Legionella pneumophila* (green) upon infection in zebrafish larvae. High resolution confocal imaging (Emma Colucci-Guyon and Valerio Laghi).