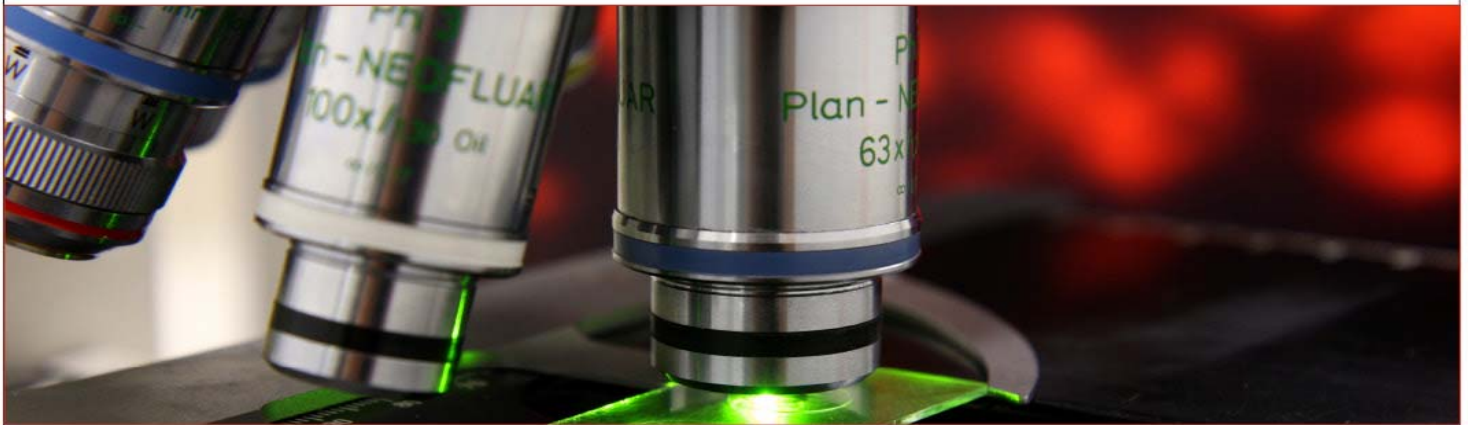


# SÉMINAIRES ET CONFÉRENCES



## Jesse Shapiro

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### « Origins of pandemic cholera strains from the environment, and their fate within patients »

Bacterial pathogens often emerge from nonpathogenic ancestors, and then continue to evolve within patients. Using population genomics and experimental studies of *Vibrio cholerae*, the bacterium responsible for cholera, we have identified Virulence Adaptive Polymorphisms (VAPs) that circulate in the aquatic reservoir of *V. cholerae* and that are required to infect mammalian hosts such as humans. We are also tracking *V. cholerae* evolution within individual patients to identify very recent mutations that might affect colonization and virulence. We propose that evolutionary tradeoffs – mediated by mutations that are beneficial on short time scales (e.g. within a patient) but maladaptive on longer time scales – are important in limiting the emergence and transmission of cholera..



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**Le lundi 3 décembre 2018, 11h30**

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