

Focal Virulence Factor Assembly in *Enterococcus faecalis*: A Bacterial Achilles Heel?

Abstract:

Many of the host-pathogen interactions that are critical in determining infection outcome are mediated by microbial surface adhesive and virulence proteins. Therefore, understanding how these surface components are made and arrayed is important for understanding pathogenesis. We have shown that protein translocation, secretion, and sorting of proteins to the cell wall in *Enterococcus faecalis* are spatially restricted to focal membrane microdomains. Focal localization requires a cationic cytoplasmic domain in the localized proteins and focal localization is intimately linked to protein function. We are examining additional factors that underlie localized virulence factor secretion and assembly, and testing whether this localized assembly site can be specifically targeted and disrupted by cationic antimicrobial peptides.