Bacterial Type IV pili and the Type 2 secretion systems depend on an integral membrane protease for maturation of the pilin and pseudopilin subunits at their cores. In many cases these bifunctional enzymes are also methyl transferases. Our open project will include structural analysis of the prepilin peptidase, identification of inhibitors and their impacts on bacterial virulence, and elucidation of the enzyme properties of the methyl transferase and the cellular function of the methylation of pilins and pseudopilins. This is an excellent opportunity to integrate understanding of a novel membrane enzyme from biochemistry to cellular physiology.

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A Ph.D. in a related field as well as strong writing skills, as evidenced by publication record, are required. The ideal candidate will have demonstrated skills in molecular biology and enzymology, and experience with membrane proteins and/or cell-free protein expression.

*We encourage all qualified applicants.*

The structural biology community at UW-Madison is welcoming and collaborative; we have regular access to data collection at LS-CAT and a lively monthly super-group meeting. The successful candidate will work in state of the art facilities in the magnificent Microbial Sciences Building. Madison itself is a thriving diverse city with ready access to cultural activities, outdoor pursuits, and stimulating neighbors and colleagues.

Please submit CV and names of three references to:
Professor Katrina Forest

*forest@bact.wisc.edu*

*@ktforest*