Ampicillin-resistant P. shigelloides are a water-borne bacterial pathogen, known to cause gastrointestinal infections in humans. Though most infections are mild, in severe cases antimicrobial resistance can be a barrier to effective treatment. Antimicrobial susceptibility tests of P. shigelloides have shown widespread resistance to ampicillin and other penicillins.

The authors also wish to acknowledge Dr. Dwayne Edwards for his support. Acknowledgments.


Figure 1: Ampicillin Resistance Mechanisms. A. Normal functioning ampicillin binding to PBPs and cell wall synthesis. B. Altered PBP inhibiting ampicillin binding, therefore rendering the drug nonfunctional. C. Binding of ampicillin and inactivating the β-lactam ring extracellularly, therefore preventing the drug from binding to PBPs and rendering the drug nonfunctional.