“The Quest for Selective Antibiotics: Phage-Related Ribosomal Proteases”

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Abstract:

There exists a need to discover and develop new antimicrobial agents. Many drug companies have stopped research into new antimicrobials due to a variety of problems, including side effects and antimicrobial resistance. A major problem with many antibiotics currently on the market is that they do not discriminate between pathogenic and non-pathogenic bacteria. In this presentation I will describe an enzyme named Phage-Related Ribosomal Protease (Prp) and its potential as a new antimicrobial target.

Most Relevant References:

1. Hotinger, J. A.; Pendergrass, H. A.; Peterson, D. L.; Wright. H. T.; May, A. E.* The Phage-Related Ribosomal Protease (Prp) of *Staphylococcus aureus*: In Vitro Michaelis-Menten Kinetics, Screening for Inhibitors, and Crystal Structure of a Covalent Inhibition Product Complex. *ACS Biochemistry*, **2022**, *61*, 1323-1336.

2. Hotinger, J. A.; Gallagher, A. H.; May, A. E.* Phage-Related Ribosomal Proteases (Prps): Discovery, Bioinformatics, and Structural Analysis. *Antibiotics*, **2022**, *11*, 1109.