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Novel Aminoglycosides to Target Resistant Pathogens

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Abstract : Current methods in the study of antibiotic activity of ribosome targeted antibiotics are dependent on cell based bacterial inhibition assays or various forms of ribosomal binding assays. These assays are typically independent of each other and little direct correlation between the ribosomal binding and bacterial inhibition is established with the complementary assay. We have developed novel high-throughput capable assays for ribosome targeted drug discovery. One such assay examines the compounds ability to bind to a model ribosomal RNA A-site. We have also coupled this assay to other functional orthogonal assays. Such analysis can provide valuable understanding of the relationships between two complementary drug screening methods and could be used as standard analysis to correlate the affinity of a compound for its target and the effect the compound has on a cell.

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