
MYCOBACTERIUM TUBERCULOSIS RESISTANCE TO PZA

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The aim of this project is to understand the mechanism of horizontal gene transfer and, more specifically, how resistance arises via mutations in *Mycobacterium tuberculosis* (TB). In particular, its resistance to the drug Pyrazinamide (PZA) will be examined. I will conduct two phases of this research. The first will be to observe horizontal gene transfer in everyday bacteria. The second phase will be to insert the mutant *pncA* gene that confers PZA resistance to a competent, non-virulent bacteria, *E. coli*, and study the rate of transfer in PZA-resistant TB. By doing this, it will be possible to better understand the mechanisms by which PZA-resistant bacteria transfer resistance and learn more about the mutations of this disease.