Research in our lab centres around the *Escherichia coli* bacteriocin colicin N, the smallest of the pore-forming colicins at 42 kDa, it utilises outer membrane protein F (OmpF) as a receptor. A group-A colicin; its n-terminal translocation domain (ColN-T) is known to interact with the c-terminal domain of TolA (TolA III) within the periplasm. TolA is an important component in outer membrane integrity and, as well as colicin uptake, it has a role in the import of filamentous bacteriophage DNA. Binding of the n-terminal domain of the phage minor coat gene 3 protein (g3pN1) to TolA III is well studied by both x-ray crystallography (PDB: 1Tol) and NMR spectroscopy and we recently showed that g3pN1 and ColN-T have similar interaction surfaces on TolA III. We are using the 1Tol structure to map the binding of ColN-T to TolA III; studying proposed binding motifs and interaction areas by site directed mutagenesis. Mutations were made within the TolA III region of a plasmid encoding TolR and TolA I-III and transformed into a ΔTol strain of *E. coli* and killing assays performed on agar plates and in liquid culture using varying concentrations of Colicin N. Those mutations displaying colicin N resistance or reduced activity were then reproduced in the TolA III protein_{296-421} for structural analysis using far-UV circular dichroism spectroscopy and binding to colN-T by surface plasmon resonance spectroscopy. The results give an insight into the structural stability of TolA III and probe for the ColN TolA III binding region(s).