In the antibiotic resistance era, infections caused by highly virulent and resistant bacteria pose a significant threat to public health. *Staphylococcus aureus* is a Gram-positive opportunistic pathogen. Methicillin-resistant *S. aureus* strains are highly resistant to antibiotic treatment and remain a frequent cause of invasive infections and mortality. *S. aureus* is known to interact with the host via an array (n=25) of cell wall-anchored (CWA) surface proteins to circumvent immune defenses and efficiently establish infection. Despite their clinical relevance, many *S. aureus* CWA proteins remain largely uncharacterized. This project aims to structurally and biochemically characterise two *S. aureus* surface proteins: SasX and SasF, which have proposed roles in biofilm formation, and resistance to host defenses, respectively. To gain further insight into these proteins, overexpression will be autoinduced in *E. coli*, followed by purification to homogeneity using immobilized metal affinity and gel filtration. Once the proteins are purified, they will be analyzed using size exclusion chromatography coupled with multi-angle light scattering to determine their oligomeric state. Next, crystal growth conditions will be screened to identify initial conditions that permit sufficient crystal growth for x-ray crystallography analysis. Finally, using a lactococcal expression system, the individual roles of SasX and SasF will be analyzed using various functional assays. Overall, the structural determination of the *S. aureus* surface proteins SasX and SasF will provide a better understanding of their proposed functions, providing further insight into *S. aureus* pathogenesis.