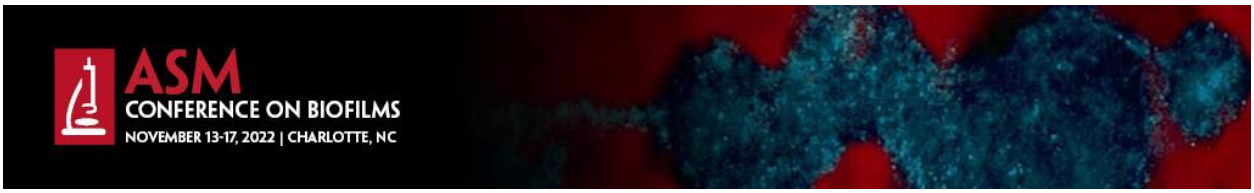

The *Pseudomonas aeruginosa* Biofilm Matrix Adhesin CdrA

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A hallmark feature of chronic infections is the formation of microbial communities called biofilms. Within biofilms, microbes are encased in a mesh-like, biopolymer-rich extracellular matrix. The matrix promotes microbial cell-cell interactions, adherence to host tissues, and protection from antimicrobials. The *Pseudomonas aeruginosa* biofilm matrix can include the exopolysaccharides (EPS) Psl and Pel, extracellular DNA (eDNA), and proteins. CdrA was the first *P. aeruginosa* biofilm matrix protein to be discovered and is required for robust biofilm formation. CdrA promotes aggregation via CdrA-EPS interactions. Homology modeling predicted that CdrA has several binding motifs including sites for binding to exopolysaccharides. However, the high molecular weight and repetitive structure of CdrA has made determining its structure, including its binding motifs, challenging. As such, we still have limited structural information about CdrA despite that it has been known to be an important matrix protein for over a decade. Our early results provide evidence of CdrA structure and interactions, and how these properties relate to its function as a biofilm adhesin. Since CdrA is similar to other structural biofilm matrix proteins including that it has a repetitive primary structure, binds to EPS, and has both cell-associated and secreted forms, we believe that our findings may provide general insight into biofilm assembly, and the approaches that we are using to study CdrA should be translatable to similar adhesins.