Our research program focuses on the mechanisms of pathogenesis of important hospital-acquired pathogens. More specifically, *Acinetobacter baumannii*, an emerging Gram-negative bacterium, *Staphylococcus aureus*, a Gram-positive bacterium, and *Candida albicans*, the most common human fungal pathogen. We combine bacterial and fungal genetic techniques with exciting in vivo infection model systems (mammalian and non-mammalian [*Caenorhabditis elegans* and Zebrafish]) to characterise the role of novel genes in virulence and antimicrobial resistance. Our over-arching goal is to identify new targets that may be amenable for future drug development, with a focus on microbial virulence, persistence and adaptation.

**Research Projects**

1. Impact of antibiotic resistance on immune recognition of *Staphylococcus aureus*

2. Impact of antibiotic resistance upon virulence and persistence in *Staphylococcus aureus*

3. Characterising novel virulence mechanisms and the regulation of virulence in the emerging hospital-acquired pathogen; *Acinetobacter baumannii*

4. Virulence of the most common human fungal pathogen; *Candida albicans*

**Selected significant publications:**


Use of infection models to study pathogenesis.