Aim and Objectives
3. Aim

➢ To evaluate *in vitro* and *in vivo* bactericidal activity of lysostaphin on methicillin resistant *Staphylococcus aureus*. 
4. Objectives

- To characterize MRSA isolates from clinical specimens
- To determine *in vitro* bactericidal activity of lysostaphin on MRSA isolates by disc diffusion assay, minimum inhibitory concentration, minimum bactericidal concentration and time kill assay
- To investigate *in vitro* synergistic activity of lysostaphin with vancomycin, linezolid and oxacillin
- To determine minimum biofilm inhibitory concentration of lysostaphin against strong biofilm producing MRSA isolates
- To evaluate the efficacy of topical lysostaphin against MRSA isolates in mouse burn wound infection model
- To determine the efficacy of topical lysostaphin on MRSA in rat nasal colonization model