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Bachelor of Science (Biotechnology), Manipal University

Thesis title:

Immunogenicity and protective efficacy of an anti-*Streptococcus pyogenes* vaccine candidate in multiple animal species

Supervisors

Dr Michael R Batzloff (Principal)

Associate Prof John Aaskov (Associate)

Prof Michael F Good (Associate)

Citation

This project established the ground work which will ultimately lead to the clinical evaluation of a vaccine against Streptococcus pyogenes. Streptococcus pyogenes is responsible for a high disease burden in the Aboriginal population of Australia and is a common cause of pharyngitis and rheumatic fever.

Dr Sheel investigated an anti-*Streptococcus pyogenes* vaccine candidate and established the role of the vaccine candidate in protecting animals against multiple strains of the bacteria. The project involved using modern techniques such as real time bioluminescent imaging for the immunological testing of the vaccine candidate in several animal models including rodents and non-human primates. In doing so, the project has contributed to current knowledge about streptococcal vaccines and highlights the potential use of this vaccine candidate in the clinic.