Position Summary

The Research Associate reports to Professor Naresh Kumar and has nil direct reports.

Accountabilities

Specific accountabilities for this role include:

- Optimise the chemistry for attachment and delivery of a range of novel antimicrobial agents to a range of materials for biomedical and industrial applications.
- Characterise coatings and surfaces using XPS and other spectroscopic means.
- Evaluate the performance of these antimicrobial surfaces in vitro for efficacy against a broad range of organisms.
- Antimicrobial efficacy and biocompatibility testing of novel combinations of antimicrobial strategies and materials in vivo.
- Incorporate the strategies developed into biomaterials and to evaluate their in vivo efficacy against bacteria in prototype medical device configurations in large rodents.
- Contribute to the writing of scientific papers and reports for international journals and progress reporting to other researchers and industry partners.
- Assist with the coordination of research activities and actively contribute to research outputs to meet project milestones.
- Contribute to the preparation of research proposal submissions to funding bodies and actively seek collaboration with industry partners as appropriate.
- Participate in and/or present at conferences and/or workshops relevant to the project as required.
- Assist with the supervision of research students in the research area where required.
- Align with and actively demonstrate the UNSW Values in Action: Our Behaviours and the UNSW Code of Conduct.
• Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

Skills and Experience

• A PhD in Biomaterials Chemistry.
• Demonstrated experience in analysis of surfaces using modern surface characterisation techniques.
• Demonstrated experience in in vitro and in vivo animal models (rodents) for infection.
• Demonstrated experience in bio-conjugation and gelation chemistry.
• Demonstrated ability to conduct independent research with limited supervision.
• Demonstrated track record of publications and conference presentations relative to opportunity.
• Demonstrated ability to work in a team, collaborate across disciplines and build effective relationships.
• Strong interpersonal skills with demonstrated ability to communicate and interact with a diverse range of stakeholders and students.
• An understanding of and commitment to UNSW’s aims, objectives and values in action, together with relevant policies and guidelines.
• Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

About this document
This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role.