



The Bionic Ear Institute

POSITION DESCRIPTION

Bionic Vision Australia Project

POSITION TITLE:	Research Assistant – Bionic Eye Project
TIME SCALE:	100%
DURATION:	1 year with potential to extend
CLASSIFICATION:	Level A.1-6
SALARY RANGE:	\$52,700 - \$66,500 (depending on qualifications and experience plus access to salary packaging)
SUPERANNUATION:	9% employer contribution

Organisational context

The Bionic Ear Institute is an eminent research organisation involved in cutting edge R&D to implement or improve medical bionics devices for the treatment of otherwise intractable conditions including deafness, blindness and epilepsy.

Project Summary

The aim of the Bionic Eye project is to develop an electronic implant capable of restoring basic vision to people suffering from degenerative retinal conditions. This visual prosthesis (Bionic Eye) will consist of an array of electrodes implanted behind the retina to stimulate the optic nerve cells in the eye, acting as a substitute for the photoreceptors that have degenerated or been badly damaged and no longer function effectively.

Position Summary

A highly motivated Honours/Masters Graduate with experience in animal research, histology and general laboratory support is required to work as a member of this multi-disciplinary research team.

The Research Assistant will be responsible to Assoc Prof Dr Chris Williams.

Key responsibilities

1. Assist during surgery as directed by senior research staff. This includes pre- and post-operative monitoring of animal subjects (e.g. respiration rate, core body temperature); administering and monitoring anaesthesia during surgery, routine surgical support and perfusions. The appointee will be expected to follow animal ethics guidelines and related research protocols as provided by research staff.
2. Assist with the daily monitoring of animals under veterinary supervision.
3. Make contributions to experimental design and assist in developing histology methods.
4. Provide technical assistance in the laboratory, including ordering consumables and equipment, preparation of biochemical solutions, preparation of tissue specimens (sectioning, fixing, and storing) and support of electrophysiological studies.
5. Assist with electrode fabrication as and when required.
6. Make contributions to and assist with preparing ethics amendments and approval forms ensuring all records are kept up to date.
7. Organise and maintain Laboratory Notebooks according to guidelines for acute and chronic studies.
8. Collect and analyse data under supervision. This will include basic electrophysiological assessment of the auditory system and digital image capturing and manipulation.
9. Make original contributions to scientific manuscripts for publication and scientific seminars on the research performed.

Job complexity, skills, knowledge

Level of Supervision

The incumbent must be capable of some independent decision making in all aspects of the research referred to under Key Responsibilities. Depending on the level of appointment, he/she may be required to assist in the supervision of students working as part of the research team. He/she will be required to liaise with his/her supervisor on the basic focus of the research and any changes in direction that may be required arising from research developments.

Problem solving

Problems arising from the research should be solved independently and/or in collaboration with fellow researchers in the team, with reference to the incumbent's supervisor when necessary. The incumbent will be required to solve problems as part of the research team, for example discuss with engineers, clinicians and other professionals the application of research results.

Judgement

The incumbent is required to exercise sound judgement and critical thinking in areas of his/her expertise, such as collating and analysing data.

Minimum training level or qualifications

Essential

- Appropriate qualifications eg BSc Hons, Masters
- Experience in animal husbandry and surgical assistance, although training will be provided
- Ability to develop new methods of histology
- Experience in data collection and PC based data analysis
- Ability to work as part of a multi-disciplinary team
- Attention to detail

Desirable

- Some experience in neurophysiological and immunohistochemistry techniques