



POSITION DESCRIPTION
Bionic Vision Psychophysics
Research Engineer/Fellow

POSITION TITLE: Bionic Vision
Psychophysics Research Engineer/Fellow

TIME SCALE: 1.0FTE

DURATION: 24 months (with potential to extend)

SALARY RANGE: LA.4 – LB.3
\$76, 728 - \$100,587 p.a negotiable depending on qualifications and experience. Salary packaging is available, including for Meal Entertainment benefits that may substantially reduce your income tax.

SUPERANNUATION: 9.5% employer contribution

Project Summary

The Bionics Institute is seeking a Research Engineer/Fellow who is passionate about translating medical device research into clinical trial success. The Bionics Institute (with partners) is developing and evaluating an electronic implant capable of restoring basic vision to people suffering from degenerative retinal conditions. This visual prosthesis includes 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. Recent media coverage has publicised the initial clinical trial success – 4 participants in Melbourne have received this implant and are using the system in a research setting.

Position Summary

As the successful applicant, you will work within a team of scientists, clinicians, and engineers to conduct a clinical trial of a bionic eye, providing technical and administrative support to the patients and clinical team.

You will be expected to facilitate data collection and ongoing training of patients using the bionic eye device. Experience with psychophysical evaluation, as in visual responses to pre-defined stimulations, is an important part of the work.

The clinical trial environment is fast paced but rewarding. You will need to be a team player, willing to go “above and beyond” to support the continued success of the trial. You will demonstrate diligence and enthusiasm. Evidence of strong time management and planning skills is essential.

Key Responsibilities

- You will be required to collect, store, process, and analyse technical and perceptual data from experiments with patients who receive the devices being developed.
- You will collaborate with our clinical and research partners to train and support the patients in using the device in their home environment
- You will make original contributions to the preparation of development and progress reports, scientific manuscripts for publication, IP disclosures, and scientific seminars
- You will be responsible for analysing data produced by our clinical software, advising on modifications to clinical parameters and future device development.
- Additional responsibilities may include modification and maintenance of clinical software and custom research hardware.

Personal skills and interests

You must have excellent interpersonal and written communication skills to interact directly with clinicians and patients, as well as with the rest of the research team. Documentation for risk management procedures and following Good Clinical Practice (GCP) is an important aspect of the work.

Experience with or an interest in analysis and processing of bioelectric signals, objective measures of human performance, and/or perception would be an advantage.

Some aspects of the project require a technical understanding of electrical stimulation of neural tissue, such as in evoked potentials or implantable medical devices. Specific information on the workings of the bionic eye device will be provided as required.

Minimum training level or qualifications

Essential

- Postgraduate or equivalent qualifications and experience in a relevant area (e.g. biomedical engineering, computer science, clinical neuroscience)
- Highly developed interpersonal skills with demonstrated ability to achieve project goals in a collaborative way
- Excellent written and verbal communication skills

Desirable

- An understanding of, and practical experience with, vision, vision impairment, or electronic visual aids
- Experience working with human participants and real-time data acquisition in a clinical or research setting
- Experience with Matlab for analysis and processing of bioelectric signals
- Familiarity with software development, unit testing, documentation

Requirements

A police check is required

Applications can be submitted via SEEK (preferable) or emailed to HR-Applications@bionicsinstitute.org

December 2018

Applications should include:

- A resume including official university transcripts
- Cover letter that addresses each of the key responsibilities and essential criteria as noted above
- Contact details of three referees

Please note that as this role is currently vacant, we will commence the selection process upon receipt of suitable applications. Therefore, if you are interested, please submit your application as soon as possible.

“The Bionics Institute is an equal opportunity employer and female applicants are encouraged to apply. The Institute maintains a smoke free workplace and a workplace free from sexual harassment. The Bionics Institute’s workplace is subject to SAFETY Map and embraces the Occupational Health and Safety Standards”