

POSITION DESCRIPTION

Research Fellow

Glaucoma / Visual Neuroscience

| POSITION NUMBER | New |
|----------------------------|---|
| RESEARCH UNIT | Glaucoma; optic nerve regeneration |
| CLASSIFICATION | Research |
| EMPLOYMENT TYPE | Full time |
| | 3 year contract (renewal dependent on external funding) |
| REPORTS TO | Keith Martin, Managing Director |
| BASE SALARY | Research Level B-C: dependent on previous experience |
| SUPERANNUATION | Employer contribution of 9.5% |
| OTHER BENEFITS | Salary packaging available (making part of your salary tax-free and increasing take-home pay) |
| | For more information visit <u>www.smartsalary.com.au</u> |
| HOW TO APPLY | Visit <u>www.cera.org.au</u> and apply via our <i>Study and Careers</i> page |
| CONTACT FOR ENQUIRIES ONLY | CERA Human Resources |
| | t: (03) 9929 8201 e: <u>cera-hr@unimelb.edu.au</u> |
| | Please DO NOT send your application to this email address |

The Centre for Eye Research Australia is an equal opportunity employer and is committed to promoting a diverse and inclusive workforce. We encourage people from diverse backgrounds to apply for position within our organisation.

For further information about us visit <u>www.cera.org.au</u>

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Affiliated with the University of Melbourne and the Royal Victorian Eye and Ear Hospital ABN 72 076 481 984

Hope in sight[™]

Position Summary

This position is an exciting opportunity for a talented and ambitious scientist to join the research group of Professor Keith Martin at the Centre for Eye research Australia (CERA). The Research Fellow will be an integral part of an international collaborative research team working to develop new treatments for optic nerve disease.

Professor Martin is Managing Director of CERA, and Ringland Anderson Professor and Head of Ophthalmology at the University of Melbourne. Until January 2019, he was Head of Ophthalmology at the University of Cambridge, Deputy Director of the University's John van Geest Centre for Brain Repair and an Affiliate Principal Investigator at the Wellcome Trust - MRC Cambridge Stem Cell Institute. He was also Academic Lead for Ophthalmology and Lead Clinician for Glaucoma at the Cambridge University Hospital.

Professor Martin is working to develop new treatments for eye disease using gene therapy and other techniques. He is co-founder of Quethera, a Cambridge-based gene therapy company which has developed a gene therapy for glaucoma that is currently progressing towards human clinical trials. His other current main research interest is in regeneration and repair of the optic nerve, and he continues to collaborate closely on this work with colleagues at the University of Cambridge as well as collaborators at in Singapore and at the Karolinska Institute in Sweden.

The Research Fellow's role will be to develop, engage in and ultimately lead high quality research projects that are aligned with Professor Martin's focus areas of understanding the mechanisms of optic nerve degeneration in glaucoma and developing new treatment approaches to protect and regenerate the optic nerve.

The Research Fellow will have an important role across the full lifecycle of projects and will be required to develop research networks across CERA, the University of Melbourne and various other local and international partners and stakeholders.

The Research Fellow will be expected to engage in high quality research, to be successful in attracting research funding and to produce high quality outputs. Several projects are available depending on the skills and interests of the successful candidate, with most related to further development of the following recent published work:

Petrova V, Pearson CS, Ching J, Tribble JR, Solano AG, Yang Y, Love FM, Watt RJ, Osborne A, Reid E, Williams PA, <u>Martin KR</u>, Geller HM, Eva R, Fawcett JW. Protrudin functions from the endoplasmic reticulum to support axon regeneration in the adult CNS. *Nature Communications* 2020 Nov 5;11(1):5614. doi: 10.1038/s41467-020-19436-y. PMID: 33154382

Nieuwenhuis B, Barber AC, Evans RS, Pearson CS, Fuchs J, MacQueen AR, van Erp S, Haenzi B, Hulshof LA, Osborne A, Conceicao R, Khatib TZ, Deshpande SS, Cave J, Ffrench-Constant C, Smith PD, Okkenhaug K, Eickholt BJ, <u>Martin KR</u>, Fawcett JW, Eva R. PI 3-kinase delta enhances axonal PIP3 to support axon regeneration in the adult CNS. *EMBO Mol Med*. 2020 Aug 7;12(8):e11674. doi: 10.15252/emmm.201911674. Epub 2020 Jun 17. PMID: 32558386

Osborne A, Khatib TZ, Songra L, Barber AC, Hall K, Kong GYX, Widdowson PS, <u>Martin KR.</u> Neuroprotection of retinal ganglion cells by a novel gene therapy construct that achieves sustained enhancement of brainderived neurotrophic factor/tropomyosin-related kinase receptor-B signaling. *Cell Death Dis.* 2018 Sep 26;9(10):1007. doi: 10.1038/s41419-018-1041-8. PMID: 30258047

Pearson CS, Mencio CP, Barber AC, <u>Martin KR</u>, Geller HM. Identification of a critical sulfation in chondroitin that inhibits axonal regeneration. *Elife*. 2018 May 15;7. pii: e37139. doi: 10.7554/eLife.37139. PMID: 29762123

Osborne A, Wang AXZ, Tassoni A, Widdowson PS, <u>Martin KR</u>. Design of a Novel Gene Therapy Construct to Achieve Sustained Brain-Derived Neurotrophic Factor Signaling in Neurons. *Hum Gene Ther*. 2018 Jul;29(7):828-841. doi: 10.1089/hum.2017.069. PMID: 29466871

The position will involve close collaboration with A/Prof Bang Bui at the University of Melbourne who has extensive expertise in models of optic nerve injury, ocular imaging and electrophysiology.

Key Responsibilities

- 1. Conduct research that contributes to the research objectives of Professor Martin's group to develop new treatments to protect and regenerate the optic nerve.
- **2.** To work on collaborative projects with international partners at the University of Cambridge and other institutions.
- **3.** Maintain an excellent track record of publication in high-impact, peer-reviewed journals and develop research funding proposals to support the unit's initiatives and obtain competitive funding.
- **4.** Manage the preparation and formulation of publications, presentations and research reports arising from the research.
- **5.** Supervise more junior research and laboratory staff, including students, and offer mentoring and training as required.
- **6.** Lead and promote adherence to relevant legislation and CERA policies and procedures, including research ethics, laboratory standards and occupational health & safety.

Selection Criteria

ESSENTIAL

- **1.** Laboratory research expertise in neuroscience and/or vision research relevant to research into optic nerve degeneration and regeneration, including a higher research degree (PhD or equivalent).
- 2. Excellent academic track record.
- 3. Excellent track record of publication in high-impact, peer-reviewed journals.
- **4.** Collaborative attitude and ability to develop effective local, national and international collaborations.
- 5. Excellent skills in written and spoken English.

DESIRABLE

- 1. Post-doctoral experience in a laboratory with an excellent track record internationally.
- 2. Expertise in optic nerve injury models and quantifying structural consequences.
- 3. Expertise in rodent surgery.
- 4. Excellent microscopy skills including confocal microscopy.
- 5. Electrophysiology skills relevant to optic nerve disease.
- 6. Strong molecular biology skills.
- 7. Experience supervising research and laboratory staff.

Job complexity, skills and knowledge

Level of supervision/independence

This role operates with a significant degree of autonomy. Several projects are available depending on the skills and interests of the successful candidate. Professor Martin provides broad direction and guidance, but the incumbent will be expected to undertake their day-to-day work largely independently including scheduling and prioritising tasks.

Problem solving and judgement

The incumbent must be able to manage and reconcile competing demands sometimes within tight time frames. They must be able to plan, take initiative, co-ordinate and work with a wide range of people and undertake timely and appropriate consultation with colleagues to ensure tasks are completed on time and to high standard. The role requires level of maturity, sound judgement, high level interpersonal skills and independent decision making on routine matters.

Professional and organisational knowledge

The incumbent will be required to develop a detailed knowledge of CERA and University of Melbourne policy, procedures and guidelines for research and the government guidelines they are based on. The ability to gain relevant knowledge quickly and effectively is expected

Special requirements and other information

- 1. Occasional availability outside normal working hours for events and networking functions will be required.
- 2. To be eligible for this position you must be an Australian or New Zealand citizen, permanent resident or hold a valid work permit or visa.
- 3. You may be required to independently travel to various office locations or other external locations to fulfill requirements of the position.
- 4. You may be required to consent to a police check. Please note that people with criminal records are not automatically prevented from applying for the position and each application will be considered on its merits.

About us

The Centre for Eye Research Australia (CERA) is an international leader among ophthalmology research institutes. We conduct research with real-life impact looking at the causes of eye disease, preventing blindness through earlier diagnosis and better treatments, and restoring sight.

CERA has multidisciplinary research programs that cover the full spectrum from laboratory-based basic science and stem cell research through to genetics, translational and clinical research, as well as health and population-based research.

We are an independent medical research institute closely affiliated with the University of Melbourne and colocated, at the Royal Victorian Eye and Ear Hospital. The strength of this three-way relationship is key to the successful translation of research from the bench to the bedside.

CERA has two main locations in Melbourne, one at the Royal Victorian Eye and Ear Hospital and the other clinical research facilities at the Eye and Ear on the Park hospital in East Melbourne. We have around 130 staff and students working across our two sites.

Our vision and values

We strive to remain a world-leading eye research institute, renowned for the discovery of the causes of eye diseases and our work in improving diagnosis, prevention, treatment and rehabilitation of eye diseases, vision loss and blindness through our research, clinical work and teaching.

This vision is supported by our values of:

- Integrity We are accountable and honest in the work we do. Credible, ethical and responsible research is our priority.
- **Unity** We support and respect each other, celebrate our diversity and we pitch in when it is needed. In our work, keeping each other safe is always top of mind.
- **Agility** We research with ambition, tenacity, innovation and creativity. We are nimble and responsive in our pursuit of excellence.
- Making a difference We value collaborating and sharing our knowledge with each other and our community to make a real difference in the world. We never waiver from our goal of saving sight and changing people's lives for the better.

Occupational Health and Safety (OHS) and Environmental Health and Safety (EHS) responsibilities

CERA is committed to providing a workplace that is healthy and safe for staff, students, patients, visitors, contractors and the community. We aim to develop and maintain a culture that encourages all staff to actively manage health and safety risks and to consider the environment.

Our staff have a duty to take reasonable care for their own health and safety and the health and safety of other people who may be affected by their conduct in the workplace.