

## International Centre for Neurotherapeutics (ICNT)

### Pharmaceutical Posts in Electrophysiology and Neurobiology

ICNT is a well-funded and internationally-competitive Centre, fully-equipped with state of-the-art facilities for multi-disciplinary research on fundamental/topical aspects of Molecular Neurobiology and Neurotherapeutics. It houses several scientists with complementary skills for investigating synaptic transmission in both health and disease. Efforts are being focused on reducing regulated neuro-exocytosis with SNARE-cleaving proteases to normalise excessive release of excitatory transmitters/peptides, in prevalent disorders of muscles or secretory glands and chronic painful conditions. Towards this clinically-important goal, new recombinant generations of botulinum neurotoxins are being engineered so that their therapeutic characteristics can be tailored to act as anti-nociceptives. This innovative strategy has already yielded two candidates with proven ability to give prolonged amelioration of chronic pain in animal models. The basis of their beneficial effects is to be investigated *in vivo* and *in vitro*, especially attenuation of neuronal hyper-sensitivity by blocking the exocytotic surface delivery of transducing cation channels and release of pain mediators. A range of experimental approaches is to be employed ranging from electrophysiological recordings of synaptic transmission and biophysical/pharmacological characterisation of the currents responsible for transducing pain signals, to multi-photon microscopy and  $Ca^{2+}$  imaging in sensory neurons of transgenic Pirt-GCaMP3 mice.

#### Academic qualifications and research expertise:

**Neurophysiologist, Job Ref # 558:** Ph.D. or equivalent degree that involved in-depth training in electrophysiology recordings at the neuromuscular junction and/or acquired competency in voltage- and current-clamping of cultured neurons, acutely-isolated sensory ganglia or slice preparations. Expertise in multi-photon live imaging while using an integral rig for simultaneous recording from the neurons of interest would be advantageous.

**Cellular Neurobiologist, Job Ref # 559:** Research Assistant should hold B.Sc. (hons) and/or M.Sc. degree in Biochemistry or Cell Biology and experience of research on biotherapeutics. Expertise in culturing neurons, producing viruses for expression of proteins and laboratory management.

**Duration:** Appointment for 3 years, after successful completion of 12 months' probation.

**Remuneration:** Commensurate with qualifications, relevant experience and proven expertise.

Post-doctoral (Level 2) €35,488 – €46,255 p.a.

Research Assistant (Level 1) €26,351 – €32,930 p.a.

Employee benefits include entry into the Single Public Sector Pension scheme and the University's Income Continuance (salary protection) Scheme.

**Informal initial enquiries:** C.V. and 3 confidential recommendations from Ph.D. or postgraduate supervisor and employers should be emailed as soon as possible to:

J. Oliver Dolly, SFI Professor of Neurotherapeutics and Director, ICNT

Email: [oliver.dolly@dcu.ie](mailto:oliver.dolly@dcu.ie); phone: (01) 700-7757; fax: (01) 700-7758

**Closing date:** 29<sup>th</sup> June 2017

## **Application Procedure**

**ALL APPLICATIONS MUST BE ACCOMPANIED BY A DCU APPLICATION FORM.**

Application forms are available from the DCU Current Vacancies (open Competitions) website at <https://www.dcu.ie/hr/vacancies/current.shtml> and also from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0) 1 7005149. Applications should be submitted by email to [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie) or by Fax: +353 (0)1 7005500 or by post to the Human Resources Department, Dublin City University, Dublin 9. Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353 1 700 5500 Email: [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie)

**Please clearly state the role that you are applying for in your application.**

***Dublin City University is an equal opportunities employer***