



The UCT Neurology Research Group (NRG) is looking to recruit full-time Masters students interested in pursuing translational genomics research projects at the UCT Neuroscience Institute in collaboration with the Clinical Research in ALS and related disorders for Therapeutic Development (CReATe) Consortium and the International Centre of Genomic Medicine in Neuromuscular Disease: <https://www.ucl.ac.uk/genomic-medicine-neuromuscular-diseases/international-centre-genomic-medicine-neuromuscular-diseases>.

The focus of these projects will be the genetic characterization of amyotrophic lateral sclerosis (ALS) and inherited neuromuscular disorders (NMDs) in South African patients using whole exome sequencing (WES) and whole genome sequencing (WGS) data. This is currently a knowledge gap as individuals from Africa are presently not represented in the world-wide cohort of ALS/NMD patients which is driving the discovery of new disease genes and mechanisms for this group of disorders. The projects will describe the mutational profile of these disorders in South African patients and in doing so, advance our understanding of the comparative genetic architecture of these disorders in diverse populations. Successful applicants will benefit from the NRG's experience in implementing cutting-edge genomic analysis pipelines and the opportunity to participate in the next frontier of disease gene discovery using the latest long-read sequencing technology and reference genomes.

These projects will be jointly supervised by Dr M Nel (genomics) and Prof J Heckmann (clinical neurology) and offer a unique opportunity to experience the integration of genomic medicine into clinical care through a multidisciplinary approach. Clinical exposure will enrich the research experience by providing the applicant an opportunity to link genotypes to phenotypes. For committed students there will be opportunities to attend courses and engage with international groups.

**Eligibility:** An undergraduate degree in a relevant discipline (genetics, bioinformatics, medicine, etc.) with a 65% aggregate minimum. Age 30 years or younger in the year of application.

**Research funding:** Bridging funding is available and successful applicants will be assisted to identify and apply to relevant funding opportunities.

**Application process:** Interested candidates are invited to submit a cover letter, full CV, academic transcripts and names and contact details of two referees to Dr Melissa Nel ([melissa.nel@uct.ac.za](mailto:melissa.nel@uct.ac.za)).

**Deadline:** The NRG seeks to appoint MSc students as soon as possible although reserves the right to disqualify ineligible, incomplete or inappropriate applications or make no awards.

**Enquiries:** Please contact Dr Melissa Nel ([melissa.nel@uct.ac.za](mailto:melissa.nel@uct.ac.za)) or Prof Jeannine Heckmann ([jeanine.heckmann@uct.ac.za](mailto:jeanine.heckmann@uct.ac.za)) for further information.