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# PhD Studentship

Australian Regenerative Medicine Institute – Monash University

Melbourne, Australia

**Outstanding, highly motivated graduates possessing an H1 Honors degree or equivalent with a keen interest in protein conformational diseases are invited to apply for PhD studentships in the Group of Dr. Nadinath B. Nillegoda at the Australian Regenerative Medicine Institute (ARMI) at Monash University.**

During aging, gradual accumulation of disease-linked proteins into amyloid aggregates is a shared characteristic of many debilitating neurodegenerative diseases such as Alzheimer's disease. The overarching research theme of the Nillegoda Group is to investigate attractive new proteostasis-based directions for future therapeutic interventions that effectively slow neurodegeneration and disease progression by reversing protein aggregation and/or the associated cytotoxicities using a combination of advanced cell biological and biochemical methods.

The proposed project investigates the Hsp70 chaperone system mediated interplay between neurodegeneration and immunity. Hsp70, which regulates the folding state of critical cell signaling proteins acts as a primary guardian of our proteome. Our group is one of the pioneering laboratories that investigates the mechanism and regulation of Hsp70-based disaggregases (aggregate solubilizing machines) that have the potential to prevent the formation and aid in the clearance of cytotoxic protein aggregate deposits in the early stages of neurodegeneration.

The candidates must be highly motivated/passionate individuals with the ability to conduct high quality research under supervision, possess well-developed organizational skills, excellent written and verbal communication skills (English), and is able to work in a collegial manner with other staff in the laboratory. Candidates with exposure in the relevant discipline or a closely related field (e.g. Immunology, Neuroscience, Biomedical Sciences, Cell & Molecular biology or Biochemistry) are preferred, but not a must. Applicants with previous experience in mammalian cell/tissue culture and/or immunological techniques and/or biochemical & biophysical techniques are given preference.

Relevant publications: Nillegoda et al., 2015, *Nature*; Nillegoda et al., 2016 *eLife*; Gao et al., 2015 *Mol. Cell*; Kirstien et al., 2017 *Aging Cell*

Applicants should submit a package that includes a cover letter stating your background and/or interest in proteostasis, CV, relevant prior publications and contact information for three references to Nadinath Nillegoda, Ph.D., Australian Regenerative Medicine Institute, Monash University, 15 Innovation Walk, Clayton VIC 3800, Australia. Email:



ARMI is supported by grants from the State Government of Victoria and the Australian Government



ARMI is proud to host EMBL Australia Partner Laboratory research groups



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nadinath.nillegoda@monash.edu. Application review will begin immediately and continue until the position is filled.

Website: <http://www.armi.org.au/research-leadership/nillegoda-group>

## Australian Regenerative Medicine Institute

ARMI, established through a joint venture between Monash University and the Victorian Government, is located at one of the world's largest regenerative medicine and stem cell research centers, at the Clayton Campus. Its scientists are focused on unraveling the basic mechanisms of the regenerative process, enabling doctors to prevent, halt and reverse damage to vital organs due to disease, injury or genetic conditions.

ARMI's Mission is to address the unanswered questions with a multi-center, cross disciplinary and highly focused approach, for the development of innovative clinical protocols as well as the pursuit of rapid commercial transfer of its technologies related to regenerative medicine. A core element of the ARMI is the creating and supporting the scientific leaders of tomorrow through the Future Scientific Leaders Program based on the model at the world-renowned European Molecular Biology Laboratories (EMBL) established throughout Europe. The program facilitates collaboration between the scientific leaders of today and providing young scientists with the freedom to pursue discovery-based research and position them to become the scientific leaders of tomorrow. ARMI's location on the Monash University campus offers a highly stimulating biomedical research environment allowing Institute researchers to work closely with other university research organisations including the Monash Institute for Medical Engineering (MIME) and Biomedical Discovery Institute (BDI) and CSIRO, one of Australia's leading multi-disciplinary research institutions. The vision promoted at ARMI is to exploit and connect the multi-disciplinary of its groups, aligning their complementary capacities around key research pipelines; Heart and muscle development and regeneration, Immunity and Regeneration, Stem cells, Cancer and Regeneration and Neural regeneration.



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