Thomas King

I thomas97king@gmail.com I Sydney, NSW I

# Skills and Personal Information

In 2019 I completed my Honours degree in Advanced Science - Pathology under the supervision of Professor Kerry-Anne Rye and Dr Blake Cochran at UNSW where I graduated with First Class Honours. My research involved characterizing a novel peptide and its ability to regenerate pancreatic β-cells in an animal model of Type 1 Diabetes. Throughout the year I was able to refine my verbal and written communication skills while learning the importance of collaboration in scientific research. All this transpired while maintaining full-time employment as a customer service attendant, highlighting my ability to effectively manage my time to meet strict deadlines despite overwhelming commitments.

# Education

Xavier College Llandilo (HSC) - 2015

UNSW - Bachelor of Advanced Science (Honours) Class 1 Division 1) 2016-2020

UNSW School of Medical Sciences (Pathology) PhD Candidate: 2020 - 2024

**Higher School Certificate**

I completed my Higher School Certificate in 2015 achieving recognition as a distinguished achiever. Additionally, I was awarded the Victor Chang School Science Award for outstanding achievement in the field of science. This allowed me to pursue Advanced Science at the University of New South Wales with aspirations towards Medicine.

**Bachelor of Advanced Science (Honours) Class I Division I**

My bachelor’s degree was completed in 2019 concluding with my honours project where I characterized a novel mimetic peptide as a potential treatment for Type 1 Diabetes Mellitus in the Cardiometabolic Research Group headed by Professor Kerry-Anne Rye and Professor Shane Thomas.

# Experience

***Casual Academic PATH2201/2202 (Processes in Disease)***

My tenure as a casual academic in the School of Medical Sciences commenced in 2021 where I was appointed to teach PATH2201/2202 – Processes of Disease. My role involves supporting student learning by creating learning resources, evaluating assignments, and providing constructive and actionable feedback. Overall, my teaching has received substantial postive feedback and I have reprised this role in 2022 and 2023. During this time, I have also expanded my depth of knowledge and responsibility by instructing the Exercise Physiology version of this course which has its own challenges and nuances.

**Reference:** A/Professor Cristan Herbert [c.herbert@unsw.edu.au]

***Casual Academic PATH3206 (Cancer Pathology)***

Due to my initial success as a casual academic in the PATH2201/2202 my responsibility was expanded in the third-year pathology course PATH3206 (Cancer Pathology) in 2022. In this course, the expectation is that students will develop their critical thinking skills by evaluating the validity of media representations of scientific research and learn the foundations of cancer development in a range of specific contexts. This role was retained in 2023 where my teaching received a 100% satisfaction rate across the criteria of quality teaching, helpful feedback, and student participation.

**Reference:** A/Professor Cristan Herbert [c.herbert@unsw.edu.au]

***Casual Academic PATH3205 (Molecular Basis of Disease)***

In the same year my role was expanded into PATH3205 (Molecular Basis of Disease). As a casual academic in this course, I was given the responsibility of generating quality assessment materials. My previous experience in this field has allowed me to generate quality materials and adapt my teaching approach in a manner that facilitates student learning.

**References:** A/Professor Cristan Herbert [c.herbert@unsw.edu.au]

Professor Patsie Polly [patsie.polly@unsw.edu.au]

***Smart Sparrow Migration Team***

Smart Sparrow was an interactive learning platform used by UNSW Sydney’s Faculty of Medicine of Health. These resources were instrumental for Medical Sciences and Phase I Medicine providing students a dynamic learning platform to enhance their education. However, due to the acquisition of this software by a third-party developer we were reluctantly compelled to migrate all these learning materials to Moodle and H5P. It was a significant challenge to reimagine these materials within the constraints of these new platforms while maintaining the rich and adaptive learning experience that had proven so beneficial. Our team successfully accomplished this goal, and these resources were available for use in 2021, an important accomplishment as we entered a second COVID lockdown.

**Awards and Acknowledgements**

* Higher School Certificate – 2015
* Distinguished Achievers Register 2015
* Victor Chang Cardiac Research Institute School Science Award
* Bachelor of Advanced Science (Honours, Class I / Division I) -2019
* Research Training Program Scholarship – 2020
* Juvenile Diabetes Research Foundation PhD Top Up Scholarship ($18,000) – 2021
* Development Research and Training Grant ($3000) – 2021, 2022 and 2023
* JDRF Internal Travel Grant Recipient ($4000) – 2023
* Provisional Patent: PRBI-001-01US for the use of D6PV as a therapeutic intervention for Type 1 Diabetes Mellitus
* JDRF Type 1 Diabetes Index Team – 2023

**Publications**

Tucker, B., Ephraums, J., **King, T.W.,** Abburi, K., Rye, K.A. and Cochran, B.J. 2023. The impact of impaired cholesterol homeostasis on neutrophils in atherosclerosis. Arteriosclerosis, Thrombosis, and Vascular Biology, https://doi.org/10.1161/ATVBAHA.123.316246

Kopecky, C., Haug, M., Reischl, B., Deshpande, N., Manandhar, B., **King, T.W.,** Lee, V., Wilkins, M.R., Morris, M., Polly, P., Friedrich, O., Rye, K.A. and Cochran, B.J. 2023. Effect of insulin insufficiency in ultrastructure and function in skeletal muscle. Journal of Cachexia, Sarcopenia and Muscle, resubmitted. Preprint: https://www.biorxiv.org/content/10.1101/2022.12.18.520900v1

**King, T. W.**, Cochran, B. J., & Rye, K. A. (2023, Jun 29). ApoA-I and Diabetes. Arterioscler Thromb Vasc Biol. https://doi.org/10.1161/ATVBAHA.123.318267