

TRANSLATIONAL RESEARCH FROM AN AUSTRALASIAN PERSPECTIVE

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Research performed in tertiary educational institutions has historically concentrated on the improvement of knowledge. This has been gradually changing over recent years where there is a movement for “translational research”. Lately the research-funding environment has also been encouraging the enhancement of entrepreneurship with strong connections with the commercial sector. Universities have been setting up mechanisms to enable this change to become enterprising. This has led to the establishment of commercialisation and technology transfer offices that assist in protecting intellectual property arising from research and finding industry partners to commercialise this knowledge. Another function of these offices is to educate the academics as to the needs of the industry, identify and establish relationships with relevant industry partners, assist in securing traditional and non-traditional research funding, and finally support the pathway to commercialisation. In commercialisation, research discoveries are converted into products and services, generally via licensing or start-up ventures.

The Research and Enterprise Office at the University of Otago supports and assists researchers in the identification of funding opportunities, partnering with business, grant applications, and the establishment of research contracts. Otago Innovation established in 2002, is a University of Otago company responsible for developing and commercialising the University’s intellectual property. They offer advice and provide a platform from which researchers can get their research or invention investor ready.

Other Australasian examples include UNSW Innovations at University of New South Wales (Sydney, Australia) which is involved with technology transfer and an innovation office that collaborates with business, research organisations and the community to achieve positive outcomes from research. Innovation ANU at the Australian National University (Canberra, Australia) connects ideas, research, government and business to create value for the community. They support Innovation and entrepreneurship through a range of education, licensing, consultancies, advice and funding opportunities for startups.

The author will speak about his own personal experiences in translational research and commercialisation for a variety of biomaterial types in relation to the above organisations. The following examples will be used as case studies from the author’s own experience in translational research:

1. Keratin-based bone substitutes (International patent: Orthopaedic materials derived from keratin WO 2003103737 A1 [application PCT/NZ2003/000116]; US patent: Orthopaedic materials derived from keratin US7,297,342)
2. Bovine bone Xenograft (International patent: A medical preparation WO 2008069686 A1 [application PCT/NZ2007/000354])
3. Keratin derived protein (US provisional patent Application No. 62/330,376; PCT application number PCT/NZ2017/050052)