

Duncan Mackintosh: Vet degree a great foundation

by Jane Matthews, *Vetscript* writer

Duncan Mackintosh chose a veterinary career because he didn't want to work with people, but he now embraces collaboration and considers it vital to his roles as manager, co-founder and director of several technology businesses.

"WHEN I WAS about 12, I wanted to be a vet," Duncan says, "vaguely because I thought I didn't want to work with people that much. I didn't want to be a doctor, so I thought being a vet would be pretty cool."

He was always interested in the outdoors and farming and used to go home with boarder friends from St Andrew's College and work on their farms in the holidays.

In 1991, Duncan went to Massey University, and before he had even graduated from his Bachelor of Veterinary Science, he tried to buy his first vet practice near his home in Christchurch. Fortunately, the vet who owned the practice advised him not to buy it because he was too young. "That was my first foray into business."

Duncan's father is a lawyer and his mother has a science background, but he describes them both as entrepreneurial. "We talked a lot about business. My parents are very much mentors and coaches for me as well as being Mum and Dad – even now," he says.

After university, Duncan worked as an emergency after-hours veterinarian at Straven Road Vet Centre in Christchurch, where he started his shift at 5pm and worked until 10pm, then stayed on call overnight. To get surgical experience, he often returned to the clinic in the morning and scrubbed in with specialist veterinary surgeon Dr Larry Anderson. During this time, he also taught veterinary nursing at Christchurch Polytechnic.

To be nearer his partner (now wife) who was a year behind him at vet school, Duncan returned to the North Island and took a job at the Rotorua Vet Centre, before moving to the Pet Practice in Hamilton.

It wasn't long before the lure of overseas adventure took him via the United States to the United Kingdom, where he worked as a locum for nearly two years at the Alder Veterinary Hospital in Liverpool.

When foot and mouth disease ravaged England in 2001, Duncan became a temporary veterinary inspector, then project manager and team leader

responsible for managing veterinary surveillance teams based in Carlisle. After the outbreak, he managed the restocking programme in the Cumbrian region.

Duncan says a lot of lessons were learnt about how to manage an outbreak, but he is "pretty keen to see that New Zealand never has to deal with that. The whole biosecurity thing is a worry. Foot and mouth would decimate our economy and would shut our doors for any agricultural export."

The foot and mouth outbreak was the last time Duncan practised as a vet. During a phone conversation while still in the United Kingdom, Duncan's father told him about "something called biotechnology which seems to be getting a profile. It sounds like science and business pushed together."

Duncan had taken an interest in practice management, learning a lot about small business from generous employers, and began thinking about his veterinary degree as a science degree, and roles that could bridge science and business in a useful way. "That was probably the turning point in my career," he says.

On his return to New Zealand in 2002, Duncan cold-called CEOs of companies in the biotech industry. "I told them I was a veterinarian looking to get into the business side of things and asked from their experience, where they saw my skills would fit. It was hugely valuable, and was the foundation for me building my networks back in New Zealand."

From that networking, Duncan was contracted as CEO of AoteaBio, a biosensor start-up company using technology provided by Lincoln Ventures (now Lincoln Agritech Ltd). Funding for the project didn't reach the \$3 million required, and Duncan became a consultant to Bio-Strategy Ltd in Auckland with roles in sales and marketing.

Six months later, he returned to Hamilton to join Innovation Waikato Limited as founding



Duncan Mackintosh:
Vital for New Zealanders to work together.

Commercialisation/Technology Incubator Manager. There, he got to know the CEO of WaikatoLink Limited and learnt about its function. His interest piqued, Duncan joined the small team of WaikatoLink as Commercial Manager in 2005. He became General Manager, and then CEO in 2011.

WaikatoLink Limited is a University of Waikato subsidiary company that identifies innovations with commercial potential and develops them for the global marketplace. It reports to a board comprising independent business people and university representatives. The company seeks partnerships between innovators, businesses and industry to progress new ideas and technologies to market. It now employs around 20 people and has established several business units and partnerships, as well as 12 spin-out companies of which Duncan is variously co-founder, director, CEO or president, including Aldera, OBodies, Ligar Polymers and Aduro Biopolymers.

He enjoys seeing the research and intellectual property developed by the university put into the hands of companies and the impact that can have. "Starting companies, partnering with investors to raise capital and growing those companies is not only rewarding, but important for New Zealand's economy."

He is also a co-founder and leader of KiwiNet, a collaborative network of 14 New Zealand public research organisations, which helps people gain access to tools, expertise, connections and funding to convert scientific innovations into marketable products and services.

"We started KiwiNet to build scale and expertise and help increase the impact of New Zealand's publicly funded research.

"Collaboration is an important part of what I do." He says it is vital for New Zealanders to work together as "the big game is actually offshore".

He works cooperatively for the benefit of human, animal and environmental health, which are inextricably linked. His onehealthNZ Twitter tag "shows that the One Health concept is really important to me".

"A veterinary degree seems to have benefits that a general science degree doesn't have. You've got the science, theory, clinical problem solving and the people relationships sides, so it's a great mix."

Aldera, a company he co-founded with another animal health sector entrepreneur, is partnered with global animal health companies and is developing new drugs and diagnostics based on technology developed for human health and repurposed for animals.

While Duncan has assessed hundreds of innovations across a broad range of technologies, he is drawn to the primary sector opportunities.

This year, he completed the Kellogg Rural Leadership Programme at Lincoln University, to help become more connected to the primary sector.

"I want to keep my links to the agriculture and primary sectors. It is really important for New

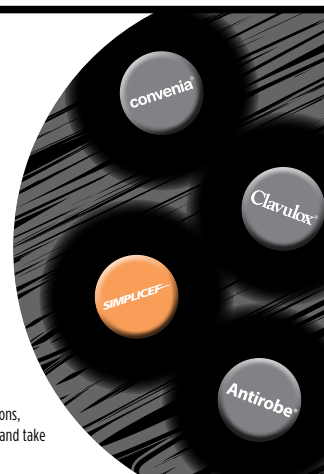
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"HE WORKS COOPERATIVELY FOR THE BENEFIT OF HUMAN, ANIMAL AND ENVIRONMENTAL HEALTH, WHICH ARE INEXTRICABLY LINKED."

Veterinarians play a vital role in New Zealand's meat and dairy industries, and Duncan believes that one of the challenges in retaining vets in the profession is the "pretty low" ceiling on what you can earn as a clinician.

"Lawyers and doctors have the same costs and challenges in getting a degree, but potentially a greater up-side. It will be harder to attract and keep vets in the profession if we can't incentivise them appropriately and provide a career path that is financially rewarding."

He acknowledges that career progression is not an issue for everyone. "You can keep working for someone else, you can buy into a practice or start your own practice, do something more corporate or move into industry. As a clinician, your success depends on the goodwill you generate. You develop a relationship with people who then want to see you, but you are constrained

by the dollars you can charge per hour. It's not scalable, so it becomes all about you. I became interested in businesses that I could have an influence on and scale – businesses that were about the team, not just reliant on me at the centre."

Duncan makes an observation "unfairly perhaps" that vets, particularly in large animal practice, have tended to act as technicians. "It's hard to charge appropriately when you're not demonstrating the value you provide."

Using the public perception and international interest in antimicrobial resistance as an example, Duncan says vet practices won't be able to rely on the sale of drugs in the way they have done. "Vets will need to rely on the skills and value they provide as a veterinarian, not just the product they sell. We should be setting the global standard for antibiotic usage, helping create New Zealand's premium product. Veterinarians have an important leadership role to play."

However, Duncan says being a veterinarian is a fantastic foundation either to remain working as a clinician or to pursue other careers where a science background might be useful. "A veterinary degree seems to have benefits that a general science degree doesn't have. You've got the science, theory, clinical problem solving and the people relationships sides, so it's a great mix. The degree gives you huge options and opportunities to make a difference." ▼