



THE FUN OF NOT KNOWING: A RESEARCHER'S JOURNEY

Orla Byrne, PhD student at the UCD School of Veterinary Medicine: Molecular Parasitology and Immunology, reflects on a rich and varied career that grew out of not knowing what she really wanted to do

Orla prefers to see her career path as a mosaic of colourful tiles rather than a smooth brick road: "I hope that this analogy will inspire someone reading this who is unsure on the direction of their career. I didn't have a defined role that I wanted to pursue, and grew this as a strength. It allowed me to explore different careers and skills while untangling my 'Ikigai', a Japanese concept that proposes you find true happiness in your work when you align yourself with what you are good at, what you are passionate about, what you can get paid for, and what the world needs."

A grá for horses

Orla grew up on a sheep and beef farm in the Wicklow hills and looks forward to having a flock of sheep again in the future. "I've always had a grá for horses, which has really led me to where I am today. I began my career at fifteen, working in racing yards and riding out racehorses. I spent eight years riding out in Ireland - I couldn't believe I was able to get paid to have fun galloping horses! I was fortunate enough to work for amazing trainers and ride world-class horses - both national hunt and flat superstars of the track.

"I love exploring things that interest me, and to that end, I also ran a dog grooming business and became qualified as an event manager. I worked several part-time jobs during my undergraduate degree in Agricultural Science-Equine here at UCD. My jobs complemented my degree: I was riding out, and working in the parade ring of several Irish racecourses, all while learning about the science behind horsemanship and travelling stateside for my college placement."

Orla went on to be a Horse Racing Ireland marketing intern and subsequently to work in sponsorship and marketing for one of Ireland's top racecourses. "This career chapter allowed me to design marketing visuals, meet people, dress up to go racing and chat to people about their horses and businesses... as a job? It was mind-blowing to me that work could be such fun. I enjoyed that chapter in my career immensely. My favourite days working at the races were when I was popping champagne and celebrating with owners whose winning horse I had ridden that morning!"

From the yard to the lab

During the COVID-19 pandemic, Orla returned to her love of science and undertook a masters in agricultural biotechnology. "For my thesis, I used bioinformatics and proteomics to model the mechanism of resistance in silico (on a computer) of benzimidazole, a horse wormer, against a specific species of equine parasite: *Cylicocyclus nassatus*. This work earned me the President's Prize for academic achievement in Dundalk Institute of Technology and ultimately renewed my career in research. I joined a genetics



Orla Byrne believes her love of horses has led her to the research work she's focused on today.

company while reaching out to a research group I particularly admired to take me onto a PHD programme that combined my interests and passions. This fortunately led me to where I am today, studying the host-parasite relationship in horses here in the School of Veterinary Medicine- my own Ikigai!" Orla's research work involves exploration of the immune mechanisms involved in parasitic infections in horses in vitro and investigation of the genetics of the parasites themselves using genetic sequencing tools. "I particularly love being able to help with clinical cases of equine parasitism and using my previous marketing experience to communicate our scientific findings to wider audiences. I have had amazing opportunities to share my work, the highlight of which involved travelling to India to speak about our results to date."

Orla often works with summer students who say they don't know exactly what they want to specialise in after obtaining their degree. Her advice to them: "Don't ever worry, there is such an element of freedom and fun to be gained from not knowing what you want to do - embrace the fun of exploring what you enjoy!"