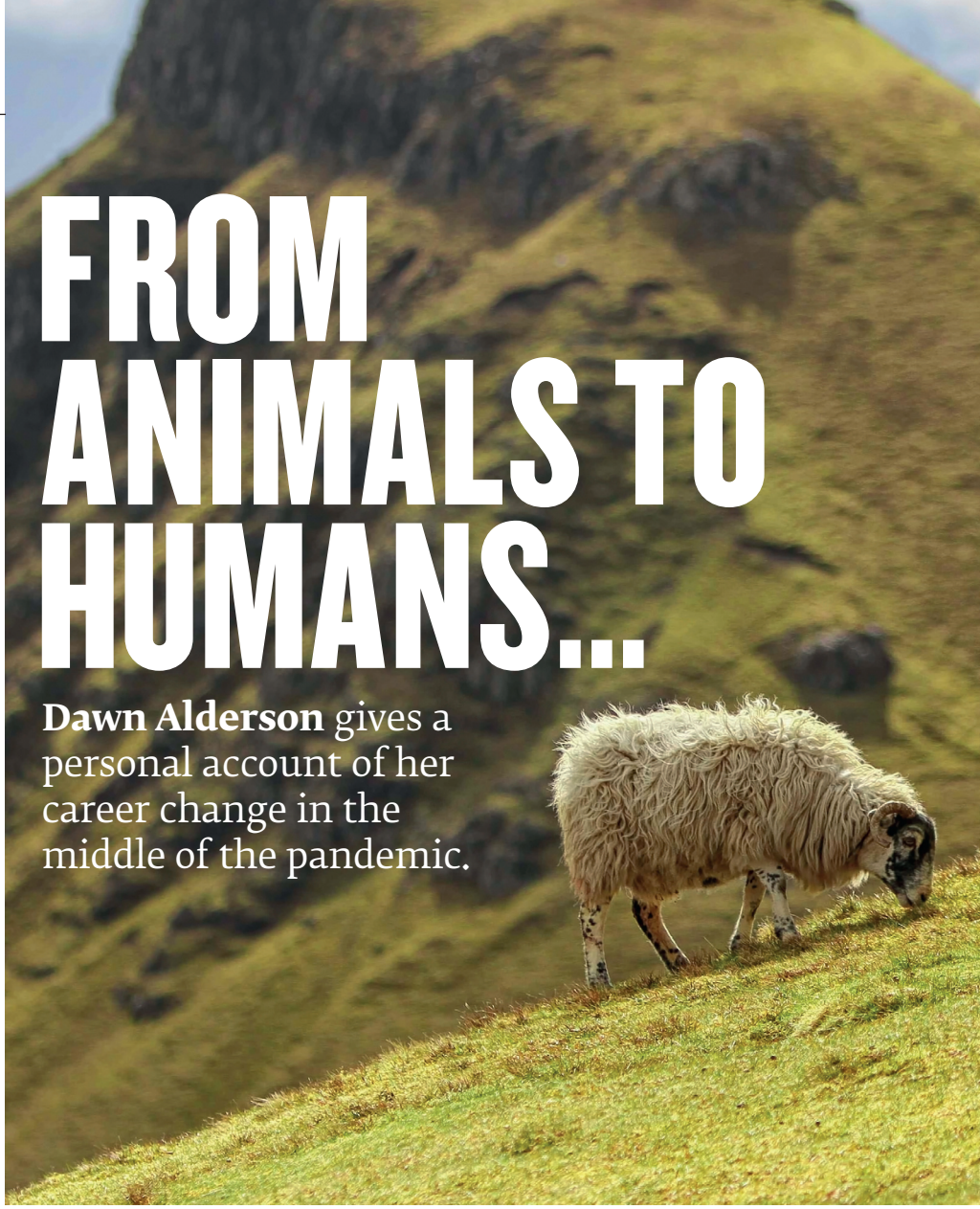
FROM ANIMALS TO HUMANS...

Dawn Alderson gives a personal account of her career change in the middle of the pandemic.



To say that the last 18 months have been challenging is an understatement. There are a number of reasons for me to say this; one of them is obviously the emergence of the SARS-CoV-2 virus, another was being made redundant a fortnight before the first lockdown. The latter blindsided me, after working in a veterinary microbiology laboratory in a remote part of Scotland for 18 years.

It had been a really interesting and challenging field of work – we didn't know what would appear from one day to the next, both in terms of the sample types and the species of animals from which they came. We had to have a good knowledge of the pathogens we'd expect to isolate from the tissues of different animals, gained on a steep learning curve at the bench. Our raison d'être was disease surveillance, so we were always on the lookout for new and emerging diseases. The irony is not lost on me.

As well as considering the impact of isolating pathogens from animals, we also had to consider the impact of this finding on human health and give advice about the zoonotic nature of some of them. Hence, my views were of "one health" and that humans were one of the species we were also looking out for.

Upgrading qualifications

I'd originally studied microbiology, which included medical microbiology, and then went on to gain an IBMS-accredited MSc in biomedical science, with a specialism in medical microbiology. However, my BSc wasn't accredited... ay, there's the rub.

Over the years I had considered upgrading my qualifications, but still needed to have them assessed by the IBMS to confirm which top-up modules I'd need to take. With redundancy looming, and very few employment options in my area, the situation was more urgent. I knew I hadn't thrown out any of my University documentation, but where on earth was it? Over the Christmas and New Year period I did a thorough search at my mum's house and, thankfully, found most of what I needed... in an old sheep feed bag in a corner of the garage.

I was very grateful that mice hadn't turned it into bedding, as they had one of my jumpers from the same era. I nearly wept at the sight of documentation about a physiology course. I may have been similarly moved the last time I saw it, but for entirely different reasons.

A number of universities provide IBMS-accredited top-up modules, and this information can be found on the IBMS website. However, having completed my MSc though Ulster University, I knew that their teaching methods via distance learning worked for me.

I sent away the paperwork so I could have my qualifications assessed. By my reckoning, I needed to cover cellular pathology, clinical biochemistry and haematology and transfusion, and the choices for the next semester included the first two of these. Perfect timing. Over the next four months I was grateful that I had something constructive to do.

It's unfortunate that my plans to go back to Coleraine to carry out the practical parts of the modules had to be cancelled due to the pandemic.

But staff at Ulster University worked really hard to create meaningful alternative assessments, to ensure that we could complete our modules.

The outcome of having my qualifications assessed was that I needed to take three top-up modules, as suspected, and I now had two of them under my belt.

Over the summer I kept in touch with Rebecca Wright, a biomedical science lecturer at Robert Gordon University in Aberdeen who I'd met at IBMS Congress in 2019. She kept me motivated.

Another person who deserves a mention here is Dr Declan McKenna, the module coordinator for haematology and transfusion at Ulster University. Throughout the module, he recorded video clips in which he reminded us when assignments were due in, congratulated us when they'd been handed in, and generally kept us going.

A new job

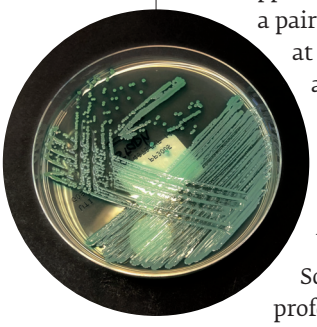
So, having signed up for my final top-up module, I applied for a Trainee Biomedical Scientist post in the microbiology department at Raigmore Hospital in Inverness, and was delighted to get the job. I moved in the middle of writing an assignment. Thankfully, I have now passed all of the top-up modules, and am the proud owner of a qualification equivalent to an IBMS accredited BSc in biomedical science.

Over the years my CPD ensured that I was continuing to learn about veterinary and medical microbiology, and this has been of value in my new job. Most of the organisms I've isolated to date are familiar to me, as are others, such as *Listeria monocytogenes* and *Fusobacterium necrophorum*, which are seen much less frequently in humans than in sheep, for example.

The odour produced by *Streptococcus bovis*, which I used to describe as "rancid toffee apple", has a different source in medical microbiology – the milleri group of streptococci.

Other differences that I've found so far include the range of media used and the methodology for carrying out antimicrobial sensitivity testing.

And then there are the unusual findings, for example seeing that *Staphylococcus sciuri* appears as mint green colonies on UTI chromogenic agar. The manufacturers don't mention that one. When this discovery was made by a colleague at the other end of the bench, it took me back to the days of us gathering round a plate when something novel appeared, and inspecting it like a pair of penguins might look at their egg. I love that about microbiology.



The bigger picture

Another thing that has been useful to me has been being on one of the Science Council's voluntary professional registers as a Chartered Scientist, which has the required competences of: application of knowledge and understanding, personal responsibility, interpersonal skills, professionalism and professional standards. I have seen how parallels can be drawn between these competences and the HCPC standards, as I work through my registration portfolio.

A number of things have struck me about working in an NHS Highland laboratory – every member of the support staff, the biomedical scientists, clinical scientists and medical staff is dedicated to making sure that the output of the laboratory is of high quality, that patient safety is paramount and that turnaround times are met.

I recently spent some time learning about the role of the infection prevention and control team, and the multidisciplinary nature of patient management based upon some lab results that we had just reported. That's when you get an appreciation of the bigger picture. It's a privilege to work here. BMS

IMAGES: GETTY/SHUTTERSTOCK

THE IBMS JOB BOARD

The Biomedical Scientist Jobs is the careers and recruitment website for *The Biomedical Scientist* magazine and is the official job board for IBMS.

Its aim is to help IBMS members and non-members to find jobs and recruit appropriate staff.

Both permanent and interim positions in all areas of biomedical science are featured, from veterinary laboratories and medical research to manufacturing and the NHS.

For more info and to browse the latest jobs, visit biomedicalscientistjobs.co.uk