

MY LAB

THE LABORATORY THAT ADAPTED

Biomedical scientist **Caroline Fillmore** gives a guided tour of her laboratory at the Royal Victoria Hospital, Belfast.

The last year has been unique at the Regional Virus Laboratory in the Royal Victoria Hospital in Belfast – and in the 15 years I have been a biomedical scientist. We are a small laboratory that serves the whole region of Northern Ireland providing molecular, serology, typing and sequencing services. The variety of tests provides a challenge and staff rotate between all sections, but the past year provided an extra challenge with the focus on COVID-19 testing.

At the laboratory we were working towards moving to a new contract and had just completed a successful UKAS inspection when there was discussion among our clinical staff of a novel coronavirus in China. I had memories of avian flu in 2009 and how busy the laboratory was, but I had no idea that it would pale in comparison to the current pandemic. We got our first PCR-positive COVID sample last February and had capacity for 16 samples a day. By November, we were testing 1976 COVID samples through numerous platforms, taking on large numbers of new staff and moving to a 24/7 service in a very short period of time.

At the beginning of the pandemic, COVID testing was rolled out rapidly on flow instrumentation by our dedicated team of clinical scientists who gave up a lot of time to get the test verified and our




excellent hard working mastermix section. To increase capacity we received our Cobas 8800 analyser sooner than planned. The histocompatibility and immunogenetics laboratory on the Belfast City Hospital site had helped make the change to a new instrument smoother by taking on testing on the Northern Ireland Blood Transfusion Service's instrument and continuing to test samples until we felt confident to go it alone. This in itself involved great teamwork between the two sites.

The 8800 was required to run out of hours, with a 24-hour turnaround time on samples, so a large number of staff were trained over a short period of time to meet this demand. We were also in a new world of wearing masks and self-isolation and staff absences put a strain on the service and the team, but all challenges were met by the dedicated team of staff from the clinicians and management, the biomedical scientists and the very hardworking and dedicated medical laboratory assistants in our specimen reception.

Our specimen reception is the heart of our laboratory. The small busy team that processes so many different types of samples, from blood to post-mortem tissues, found themselves drowning in orange bags of COVID swabs. Specimen reception staff increased and were divided into teams to protect the service. The dedication of the core staff to train all the new staff while working flat out in a demanding job was amazing. Staff worked long hours

without complaining and the quality and dedication of the staff meant that patients got the best service and timely results.

Staff in serology and typing, who were still busy with normal tests, supported the COVID testing by sacrificing staff, time and space without complaining and were a great support to the service while maintaining the high standards in their areas. Serology introduced SARS-CoV-2 antibody testing and is currently introducing another test to measure response to the vaccine.

I feel our laboratory will never be the same again after this pandemic, but I'm proud to have been part of a great team that has maintained high standards of patient care in unique challenging circumstances. I'm amazed at the teamwork and how quickly we've successfully adapted to meet the demands this year has thrown at us. 

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