

## MY LAB

# THE FIRST UK LAB TO IDENTIFY COVID-19

Biomedical scientist **Martine Jensen** gives a guided tour of her lab at of the Hull University Teaching Hospitals NHS Trust.

**T**he microbiology laboratory at Hull Royal Infirmary is part of the Hull University Teaching Hospitals NHS

Trust and provides services to a wide geographical area. There is also a satellite laboratory at Castle Hill

Hospital that provides virology services, including chlamydia and other STI NAAT work, HIV testing, viral loads and a whole host of other tests. The team processes approximately 360,000 samples a year. The service is provided by a diverse team of competent and motivated staff, including pathology support workers, associate practitioners, biomedical scientists, clinical scientists and consultants.

COVID-19 testing will soon be added to our testing repertoire – the first two coronavirus cases were submitted from our laboratory and the patients were initially managed at our infectious diseases unit. We are a unique service, with microbiology and virology working jointly with infectious disease physicians as one department of infection.

We host monthly discussion groups where lab staff and infectious disease



doctors work together to present unusual or relevant case studies to all interested staff as part of the training and continuous development programme. Providing people with development opportunities ensures we have knowledgeable staff providing a high-quality and efficient service to the users.

Though this is a very busy laboratory conforming to ISO 15189, it is an IBMS- and NSHCS-accredited training facility and we make training our core business. Staff are encouraged to undertake and complete courses, such as specialist and higher specialist portfolios and certificates of expert practice. Individuals are carrying out Masters qualifications via distance learning and several staff are on degree apprentice schemes to become qualified biomedical scientists. Support workers are completing the IBMS Certificate of Achievement, while two biomedical

scientists have achieved awards for obtaining the highest mark that year for their chosen subject in their respective Higher Specialist Diplomas.

With staff central to our success, the latest technologies are employed. Last year, PCR testing was improved by the addition of the Biofire

FilmArray system. Using syndromic testing has highlighted to the trust the positive impact of rapid microbiology results in patient management and antimicrobial stewardship. We started to use the upper respiratory panel, covering 20 bacterial and viral pathogens, and this proved a success so we have moved to offering the lower respiratory (pneumonia) panel, which can provide quantified bacteria reports with resistance mechanisms alongside viral and atypical bacterial targets in just over an hour. We now use this technology to rapidly diagnose meningitis and encephalitis, and we are hoping to introduce the gastrointestinal panel in the near future.

It is amazing to see how rapidly technology is changing traditional microbiology and what a difference we can quickly make to our patients. 