

MY LAB

RED CELL IMMUNOHAEMATOLOGY

Kate Griffiths gives a guided tour of her lab at the headquarters of the Welsh Blood Service.

Nestled in the hilly Welsh countryside, 10 miles north of Cardiff, lies the headquarters of the Welsh Blood Service (WBS). Within the WBS sits the ISO accredited red cell immunohaematology (RCI) laboratory the specialist reference centre for transfusion laboratories in Wales. The RCI team tests approximately 3,500 complex referrals of hospital patient, antenatal and donor samples annually.

The head of RCI laboratory works closely with section leaders in patient and donor referrals, immunohaematology and reagent production to ensure smooth running and high-quality service is provided 24/7.

The department consists of an additional eight qualified biomedical scientists, who are required to participate in an out-of-hours rota, alongside two medical laboratory assistants offering vital daily support. As a very small team, there is great camaraderie and excellent personal relationships.

The team is responsible for complex antibody testing of hospital patient, donor and antenatal referrals, often including compatibility testing. The laboratory has seen gradual increase in referrals, including the impact of patients on monoclonal antibody drug therapy – antibody identification and



compatibility testing is impossible with current automated technology. In these situations, manual serological testing is the only solution to finding safe blood for transfusion.

Samples are received throughout the day and are prioritised accordingly.

The immunohaematology section consists of two members of staff responsible for anti-D and anti-c quantitation referrals, fetomaternal haemorrhage estimation by flow cytometry and chemiluminescence test assays.

The department has a reagent production section, responsible for preparing antisera and red cells used in-house. The Welsh Assessment of Serological Proficiency Scheme (WASPS), a UK-wide ISO accredited EQA scheme, is prepared and dispatched by staff in the department. The WASPS scheme was first developed at WBS in 1989 – next year we will celebrate our 30th birthday. Originally aimed at hospitals within

Wales, the exercise has expanded, with 75 transfusion laboratories in UK participating in the last exercise.

As a qualified IBMS training laboratory, the staff are involved in a huge array of training, not just for WBS staff, but for staff from hospital transfusion laboratories across Wales. Staff enjoy sharing their expertise in specialist serological techniques and the scientific knowledge behind them.

The laboratory is a placement centre for students completing their Practitioner Training Portfolio and we work very closely with Cardiff Metropolitan University to facilitate this training.

All staff are passionate about biomedical sciences and we were thrilled to win “Video of the Year 2018” in the recent IBMS Biomedical Science Day 2018 Awards. The WBS gives us the opportunity to develop ourselves and others while maintaining an excellent standard of care for our patients and customers. 