

MY LAB

AN INCREASINGLY BUSY LAB

Histology Quality Lead **Rosebud Rusike** gives a guided tour of her lab in the cellular pathology department of the Maidstone Hospital in Kent.

work in the histology laboratory at the Maidstone Hospital in Kent. Our hospital forms part of the Maidstone and Tunbridge Wells NHS Trust and provides care for over 560,000 people living in South West Kent and East Sussex.

Histology alone receives a large number of samples from theatres, clinics and GPs in our community. In 2022 the department processed over 76,000 patient cases. This was an increase of nearly 12% in comparison to the figures recorded in 2021.

In addition to this, we have a molecular pathology laboratory and a cytology laboratory that are pillars within our cellular pathology department. Together, alongside a dedicated clerical team, we form part of the West Kent and Medway Pathology Service, which works across three separate hospital trusts.

Histology currently has 39 members of staff who work together to ensure that a reliable, efficient and high-quality service is provided to all of our patients.

A key aspect of histology is sample integrity. We must ensure that patient samples are handled with a great deal of care and respect while undergoing routine lab processes. Our laboratory provides a very technical and specialist service, which involves:

- the dissection of patient tissue to allow



- us to sample areas of concern
- the processing of these samples to ensure they are fixed and viable for testing
- the embedding of tissue in paraffin wax to create secure tissue blocks
- the microtomy of the tissue blocks to provide thin sections for tinctorial staining
- the staining of slides to allow us to visualise cellular components at a microscopic level.

Some examples of the range of samples received within histology include gastric biopsies from suspected adenocarcinomas, skin biopsies from excised melanomas and wide local excisions from breast cancer patients. These are dissected by pathologists and highly skilled scientists who have completed the IBMS Diploma of Expert Practice in Histological Dissection.

The histology department at the

Maidstone Hospital is one of few in the country that has trained biomedical scientists practising as consultant biomedical scientists. Alongside our pathologists, these highly trained scientists dissect and diagnose patient cases.

Histology is a largely qualitative practice that involves the use of dyes and tinctorial stains to aid diagnosis. Haematoxylin and eosin (H&E) staining is the gold standard but this is often supplemented by the use of immunohistochemistry (IHC).

While stains such as the H&E allow us to visualise morphological features, ICC utilises the antibody-antigen specificity to ascertain the molecular status of a patient sample.

Our trust's values are "patient first, respect, innovation, delivery and excellence". This is embodied in our laboratory staff and reflected in their work ethic and the service they provide to the community.

As the Quality Lead, my role within the department is to help support, maintain and encourage the high standards of quality that the lab is already dedicated to achieving. This is a role made easy by the commitment of all members of our pathology team. Despite an ever-increasing workload, our staff are known for consistently providing a safe and reliable service to members of the public. 