CASE STUDY

# High-Quality IHC Coverslipping with ClearVue

#### Royal United Hospital Bath

The pathology laboratory at Royal United Hospitals Bath provides vital processing of patient specimens, including dedicated Immunohistochemistry (IHC) testing, essential for cancer diagnostics and treatment. An important element of the process is coverslipping of the stained slides, where the IHC slide labels combined with the solvent rich atmosphere can present challenges for coverslipping units. Their choice of coverslipper? Thermo Scientific<sup>™</sup> ClearVue<sup>™</sup> Automated Coverslipper.

#### Profile

Royal United Hospitals Bath became an NHS Trust in 1992 and serves a combined population of around 500,000 people. Covering a catchment area around Bath from Western Wiltshire to North East Somerset as well as GP surgeries and two private hospitals, the pathology department provides vital processing of patient specimens. Their mission is to deliver the highest quality hospital care as assessed by patient safety and clinical outcomes.

A key aspect of that service is their in-house immunohistochemistry (IHC) for detection of specific antigens in tissue cells. It is used for determination of stage/grade of tumours, identification of cell types and metastasis origin to locate primary tumour locations. It is vital that the IHC processes are robust and accurate, and an important aspect of that is coverslipping of the stained slides to be ready for pathologist analysis.



Thermo Scientific ClearVue Automated Coverslipper



#### Lean principles for optomised workflow

Sue Stableford is one of the Senior Biomedical Scientists and Team Manager at RUH Bath, where they process an average of 300 blocks every day. This includes a significant amount of IHC work in addition to primary and special staining. They have a very efficient set-up and adopt Lean principles to optimise workflow and maximise throughput. The laboratory was designed to flow in a logical path, with considerable thought going into every aspect from height adjustment of microtomy benches to linearity of flow and quality of lighting.

Sue was responsible for optimising the IHC processes and protocols in Bath where they have been using the Thermo Scientific ClearVue since 2011 for coverslipping all of these slides. They now use manual coverslipping only for frozen sections. Sue comments, "ClearVue coverslips beautifully with no issues whatsoever."



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## ClearVue – the optimum in high-quality coverslipping

The ClearVue coverslipper is fully automated and designed for ease of use. Up to eleven baskets can be handled at one time, freeing up time of laboratory personnel. Preloaded hoppers eliminate the handling of loose slip glass and colour-coded baskets allow for automated differentiation between slides. The instrument ensures correct slip placement and mountant volume to give the best slide quality for pathologist diagnosis, while downdraft vapour control gives optimum safety for laboratory personnel.

## IHC and coverslipping – a difficult combination overcome by ClearVue

A common issue with IHC is the use of special labels on the slides. This can often be a difficult combination in conjunction with the xylene and alcohol, which can cause the label glue to leak out and lead to jamming of the coverslipper. Due to its unique side on slide handling technology however, the ClearVue is largely unaffected. Additionally, a patented off-set transfer head ensures correct coverslip placement and minimal errors. As Sue comments, "It holds the slides very gently and coverslips the IHC slides just the same as everything else. It's doing a fabulous job."

As in many pathology laboratories, the staff at Bath knows the importance of maintenance in ensuring reliable performance of coverslippers. Sue comments, "Coverslippers often don't get the care that they deserve. The problem is that you're so busy that you don't have time to spend to give the unit a good clean, until it fails. However, we try to follow the maintenance instruction as much as we can. " This methodology is clearly

working as the ClearVue performs well despite the heavy workload, as Sue says, "The Clearvue is probably coverslipping between 350 and 400 slides per day, so it is working hard for its living."

## Service support – vital back up for key instruments

In addition to speaking favourably about the instruments in the lab, Sue also commented on the standard of support offered to Bath by Thermo Scientific Service Personnel. "Our engineer keeps us up and running, even if it is just a small issue. That's what you need – that support. Thermo has always given us that. If we've had processing issues, Thermo have come through which is fantastic!"

## Lean workflow and quality instruments – the net result?

The process at Bath is very impressive. They have a very stable and dedicated team who work together and support each other. That, in addition to optimised workflow and the high quality and reliability of instruments such as the Thermo Scientific ClearVue coverslipper mean than turnaround times are optimised and they can provide patient results quickly. Sue concludes, "We do get on with the ClearVue really, really well. Turnaround times are slick and it means that we have the ER (Estrogen Receptor) and PR (Progesterone Receptor) status ready for the Pathologist to start discussing patient treatment. Surgery is very happy and it ensures the best outcome for the patient."

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