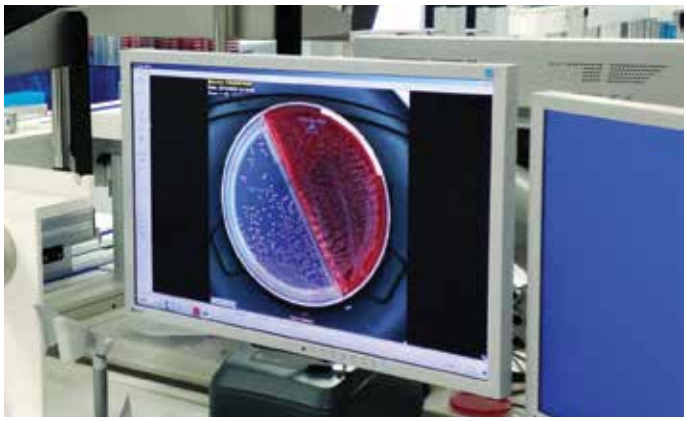
thermoscientific

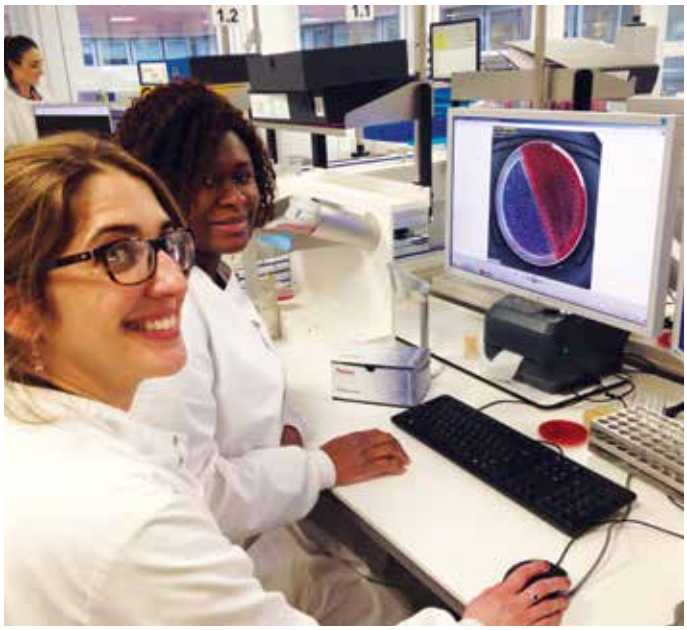
Case study: South West London Pathology increases laboratory efficiency with Thermo Scientific biplate for Group B Streptococcus and Gram positive screening

As part of the South West London Pathology (SWLP) partnership, including Croydon Health Services and Kingston Hospital, the hub at St. George's Hospital in Tooting is one of the United Kingdom's largest teaching hospitals, specializing in trauma and neurology. They provide integrated pathology services throughout southwestern London, and have a large, state-of-the-art microbiology laboratory.

In order to standardize processes, improve efficiencies and better utilize their skilled technicians, they've recently implemented a total laboratory automation (TLA) platform with the help of senior scientist, Shelley Bray. "I'm the automation lead, so I validate all of the new machines coming in. My last project was TLA by [BD] Kiestra™," says Shelley. As part of a culture of improvement and enhancing efficiencies as well as being patient-focused they have moved to the Thermo Scientific™ Oxoid™ Columbia CNA Agar/*Brilliance*™ GBS Agar Biplate, which they are using to screen Group B Streptococci (GBS) and Gram positive organisms on a single plate.

Optimized to support the growth of GBS, *Brilliance* GBS Agar is a highly selective medium for GBS screening with superior and reliable performance. By combining this with a traditional medium, such as Columbia CNA Agar, detection is not limited to GBS, and Gram positive organisms can also be identified, giving laboratories a more complete clinical picture from a single sample. And, it can be used on automated specimen processing, plating and streaking instruments, supporting the shift toward total laboratory automation and driving efficiency.





Shelley Bray and Gloria Anagbado of St. George's Hospital screening patient samples with the Oxoid Columbia CNA/*Brilliance* GBS Agar Biplate.

Find out more at **thermofisher.com/brilliance-gbs-cna**

ThermoFisher SCIENTIFIC

"Automation is the way forward," commented Shelley. However automation must be complemented with effective use of processes which improve efficiencies and quality further.

"We went with the biplate because it's a more selective media for Group Bs and other Gram positive organisms. It allows us to identify Group Bs rapidly," said Shelley. "It's definitely sensitive and it beneficial to the scientists reading the digital images." And, "instead of having two plates, a CNA plate and a Group B strep plate, we have half, so we are producing half of the waste, half the storage," resulting in significant savings in storage, wastage and cost. "The CNA side also allows us to pick up *Staph aureus* in toxic shock patients, so that's quite good and it cuts out all the Gram negative flora, which is massive on a genital swab, so it's speed and cost really, and staff time."

Prior to using the Oxoid Columbia CNA Agar/*Brilliance* GBS Agar Biplate, the laboratory was using CNA monoplates, which required additional confirmatory testing via MALDI-TOF, since "it's a lot more difficult without the selective side to tell the difference between a Group B and a Group D," according to Shelley. The new biplate enables them to limit their use of MALDI-TOF to just high risk patient populations, such as pregnant women, saving time and costs.

According to Shelley, the best thing about using the biplate is, "We can ID a Group B strep very quickly, so we can get the results out a lot quicker." Ultimately though, it's about better patient care, and GBS infections in pregnant women and newborns remain a critical problem. In fact, the November 2016 Public Health England report stated that GBS infections in newborns actually rose in 2015 at a rate that was 19% higher than it was when prevention strategies were first introduced in the UK.[1] It's really significant if a baby is born with a mother who's got Group B strep, to make sure they are not getting meningitis or septicemia. As a biomedical scientist we feel that we are having a real impact on patient care."

1 Group B Strep Support. http://gbss.org.uk/latest-news/rates-group-b-strep-infection-babies-rise/

The Oxoid Columbia CNA Agar/*Brilliance* GBS Agar Biplate is available from Thermo Fisher Scientific. For more information, visit **thermofisher.com/brilliance-gbs-cna**.

Find out more at **thermofisher.com/brilliance-gbs-cna**

ThermoFisher SCIENTIFIC