

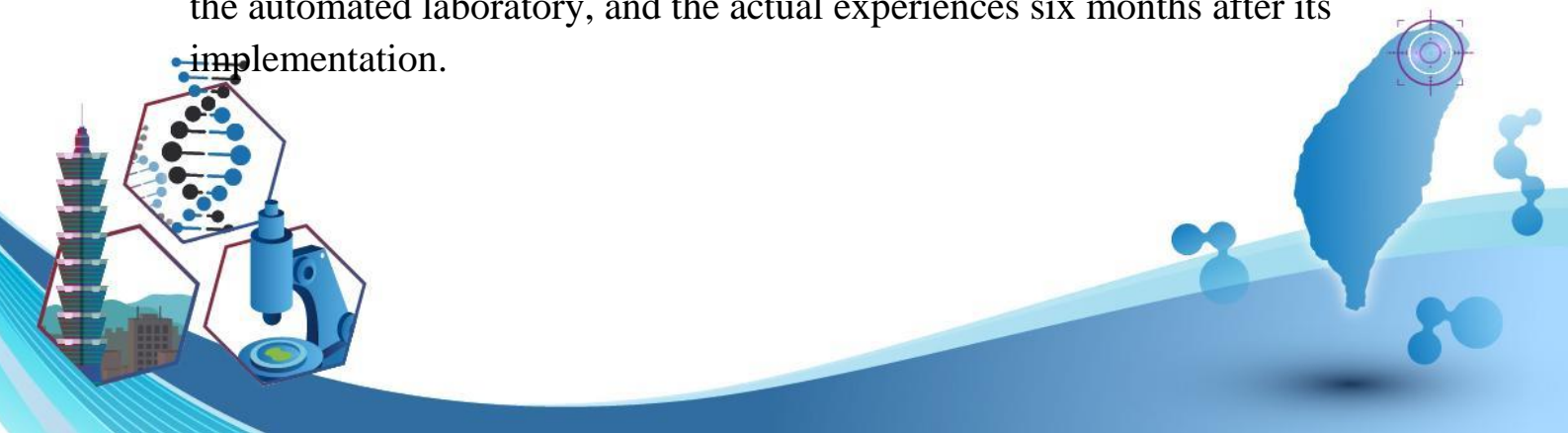
The Power and Benefits of Microbiology Laboratory Automation

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With the rapid advancement of technology, automation technology is being widely applied in clinical medical laboratories. In addition to the increasing volume of specimens and the shortage of medical personnel, microbiological testing techniques are becoming increasingly complex, and the demand for efficient and accurate experiments is growing stronger. Against this backdrop, microbiology laboratory automation has emerged. Traditional microbiological experiments often require manual operation, which not only consumes time but also requires highly experienced judgment, leading to difficulties in staff training and a higher likelihood of errors. The automation of microbiology laboratories is a revolutionary change, and this presentation will share how the Department of Laboratory Medicine at National Taiwan University Hospital (NTUH) has faced these changes in the microbiology testing section.

The presentation is divided into three main parts. The first part introduces the reasons and process behind the establishment of the microbiology automation laboratory at NTUH. The second part discusses the changes in testing processes and workforce allocation after the automation laboratory was implemented. The third part presents the subjective experiences of clinical laboratory staff, sharing the initial expectations and hopes of laboratory technologists regarding laboratory automation, the adaptation to the automated laboratory, and the actual experiences six months after its implementation.



2025

The 8th AAMLS & The 16th APFMLS

2025 8th Congress of Asia Association of Medical Laboratory Scientists
in conjunction with 16th Asia-Pacific Forum of Medical Laboratory Sciences

Precision, Innovation, and Legacy in Laboratory Medicine



As technology continues to advance, automation technology will become even more mature, providing stronger support to clinical laboratory staff. It is hoped that this experience-sharing session will offer valuable insights for peer medical institutions facing laboratory automation challenges.

