

Microbial molecular profiling and identification series

Clinical application of advanced molecular methods workshop

Thursday 4 June 2015

LGC, Queens Road, Teddington
Middlesex, TW11 0LY

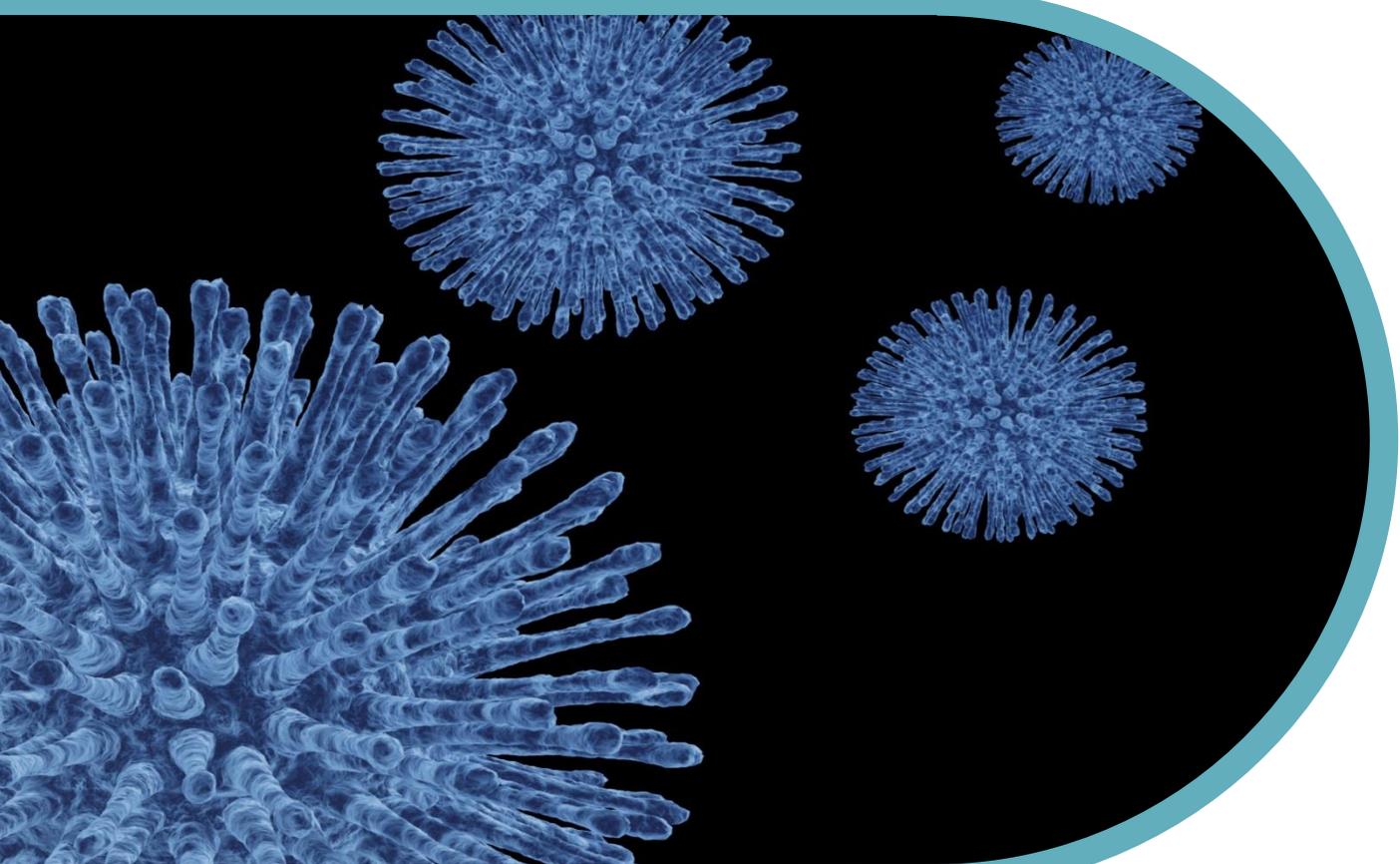
Workshop focusing on the clinical application of advanced molecular methods for microbial profiling

Molecular approaches such as next generation sequencing (NGS) and PCR are increasingly being used to detect, quantify and characterise microbial organisms in human disease.

Advanced molecular methods enable research into pathogen identification, characterisation and population diversity while also offering newer strategies for rapid identification of emerging infectious diseases and tracking of outbreaks.

NGS methods have allowed the identification of pathogenic causes of disease without prior knowledge of the likely aetiological agent as well as advancing the investigation of the role of the microbiome in human health.

Digital PCR methods offer the potential for highly accurate measurements and cost effective screening of multiple targets when using high throughput approaches. Additionally, the development of qPCR for the routine quantification of certain viral loads has led to unprecedented reproducibility between laboratories.



While such approaches have considerable potential, many users are unsure how to best apply them in a manner that will ensure best practice. Additionally, the rapid development of NGS in particular, but also PCR, means that users may be unsure of what is available when assessing equipment, chemistry, calibration strategy and other considerations.

This workshop, which is being co organised by Great Ormond Street Hospital and LGC, will focus on the best practice application of advanced molecular methods on human infectious disease. Delegates will be provided with an overview of current methods and potential applications, as well as some of the current challenges faced by those who are applying these technologies to the study of infectious diseases. In addition methods for improving standardisation will be discussed.

Who should attend?

The workshop is aimed at post-doctoral scientists in either the academic or commercial sectors or third year PhD students undertaking their own research. This workshop is also suitable for facility managers and principal investigators who are considering introducing these technologies into their laboratory.

Speakers

The workshop will co-chaired by Dr Jim Huggett, LGC, and Dr Kathryn Harris, Great Ormond Street Hospital.

Professor Judith Breuer, from the Division of Infection and Immunity at UCL, will be giving the keynote speech and there will be presentations from specialists who use advanced molecular methods for the identification of pathogens for their work.

This workshop will:

- Provide an overview of advances in molecular methods including NGS, qPCR, high throughput PCR and digital PCR
- Give guidance on experimental design
- Introduce current approaches for data analysis
- Discuss the need for standardisation and reference materials
- Provide advice on commonly encountered problems

Fees

1 day workshop

- £50 + VAT (academic delegates)
- £100+VAT (commercial delegates)

Workshop fee includes refreshments and lunch

Workshop venue

The workshop will be held at LGC's headquarters in Teddington, South West London. The venue is conveniently located for travel by car (easily accessible from the M3, M4 and M25), rail (30 minutes direct from London Waterloo) or air (30 minutes by taxi from Heathrow airport).

About LGC

LGC is an international science-based company and market leader in analytical, forensic and diagnostic services, and reference standards. As the UK's designated National Measurement Institute for chemical and bio-measurement, we deliver world-class science and have extensive knowledge of the development and validation of analytical measurements, and the production and certification of reference materials. Since 1997 we have delivered a programme of training courses on analytical quality which support organisations in making valid and reliable chemical and bioanalytical measurements. For more information about our training courses visit www.lgcgroup.com/training

Contact

To register your interest in this workshop, or for further information, please contact training@lgcgroup.com

This workshop has been jointly organised by LGC and Great Ormond Street Hospital, with support from the UK National Measurement System.

