

NEXT GEN DIAGNOSTICS ANNOUNCES THAT PROFESSOR SHARON PEACOCK, OF THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, HAS JOINED ITS SCIENTIFIC ADVISORY BOARD

CAMBRIDGE UK and MOUNTAIN VIEW, CALIFORNIA, November 1, 2017 – Next Gen Diagnostics is pleased to announce that Professor Sharon Peacock, one of the world’s foremost experts on the application of pathogen whole genome sequencing to the detection of transmission, has joined its Scientific Advisory Board as Chief Advisor, Clinical Application Development. Dr. Peacock holds a senior faculty position at the London School of Tropical Medicine and Disease, along with honorary positions at the University of Cambridge and the Sanger Institute. Dr. Peacock has pioneered the application of whole genome sequencing for the detection and prevention of the transmission and spread of infection, and was recently senior author on a landmark study establishing that present infection control practices fail to detect most infection transmission (Coll *et al*, Science Translational Medicine, 2017). Awarded the Commander of the British Empire for her work in this field, Dr. Peacock oversees a Wellcome Trust/UK Department of Health consortium that is partnering with Next Gen Diagnostics to conduct the first use of prospective WGS to prevent outbreak, at Addenbrooke’s Hospital in Cambridge, UK.

“Sharon has been perhaps the leading advocate for the use of prospective WGS to enable a new paradigm in infection control, instituting nearly real-time sequencing and analysis to detect transmission and thereby prevent outbreaks. She has maintained for years that with the decline in sequence cost and increase in speed, clinical WGS would become universal and transform hospital infection control. Now, we have the privilege of bringing that prediction to life. Partnering with Sharon and colleagues on the first-ever implementation of prospective sequencing, at Addenbrooke’s Hospital in the Cambridge, as rapidly demonstrated the power of realtime WGS, and we look forward to working with Sharon to publish these important case studies in the months to come,” said Paul A. Rhodes, Ph.D., Next Gen’s CEO.

“I am delighted to partner with NGD to finally bring the power of whole genome sequencing to hospital infection control,” said Professor Peacock. “While we’ve known that the cost of sequencing has come down sufficiently to allow this to be considered, it remained to truly automate all the analysis of the results, performing very high quality and precise comparisons of sequence between the hundreds of samples required, in a hands-free fashion every day. Next Gen’s system achieves this, and as a result in partnership with our Colleagues at Addenbrooke’s we’re now bringing the dream of catching infection transmission as it happens to fruition. It is already clear that the impact on hospital economics, and most importantly patient experience, will be tremendous.”

About the Next Gen Diagnostics WGS System

Next Gen Diagnostics has developed and deployed a fully automated pathogen bioinformatics analysis pipeline, based on the bioinformatics pipeline and expertise of the Sanger Institute. An interactive information system, the NGD Dashboard, is furnished, each morning highlighting the

new transmission chains detected (if any) the night before along with new cases added to already-identified outbreak. Tools enable and support the action of infection control teams and other stakeholders in validating and intervening to stop outbreak. In addition, the NGD Dashboard includes modules that predict antibiogram, compare that prediction with phenotype, and enumerate the sample's full resistome profile including all genes and mutations known to be associated with resistance. Quality control is embedded throughout the system. Information visibility can be tiered by user ID, so infection control teams are presented with interpreted and actionable results (patient status within each transmission chain) while senior leadership can have access to layers of visualization suitable for expert review.

About Next Gen Diagnostics

Headquartered in Mountain View California and with a team based at the world-renowned Sanger Institute outside Cambridge, UK, Next Gen Diagnostics (NGD) has developed the world's most complete automation of pathogen WGS bioinformatics and has combined that with a highly automated robotic sample preparation and sequencing service to offer hospitals a unique turn-key capability: on site, 24 hour WGS results to enable transmission detection and outbreak prevention. Now deployed, validated and in clinical use, this system has already proven to detect transmission, and, in partnership with hospital infection control teams to prevent outbreaks.

Corporate Contact:

Email: press@nextgen-dx.com