

# Special Sessions

SS3.1

Antimicrobial Resistance

14:30 Theatre 2

## Innovations in Diagnostics for the Control of Antimicrobial Resistance

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Diagnostics play a critical role in the global antimicrobial resistance (AMR) response. For many clinical syndromes, a simple rapid test that can be used at the point-of-care (POC) to distinguish between bacterial and viral infections will reduce inappropriate use of antibiotics. Research on syndrome-based host biomarkers is ongoing with some promising results. A more critical innovation is to develop a test that would allow providers to discriminate between sensitive and resistant pathogens at POC as this may facilitate the re-introduction of abandoned first-line therapies and is of considerable economic benefit. Reducing the use of antibiotics, especially preserving last-line therapies for future generations, should be the key aim of national AMR strategies. World Health Organization has published a list of priority pathogens for which new antibiotics are needed and the US Centers for Disease Control and Prevention has published a list of resistant pathogens which pose a serious threat to public health. Affordable and accessible diagnostics are urgently needed for the surveillance of pathogens on these lists so that countries can determine the extent of resistance for each priority pathogen, develop antibiotic stewardship strategies and monitor the impact of their interventions. While technological innovations are being stimulated by challenge prizes, such as the UK Longitude Prize, global efforts to set international standards for diagnostic evaluations and develop innovative mechanisms to accelerate regulatory approval are urgently needed to reduce delay in adoption of diagnostics to combat AMR and lower costs of market entry, making the final products more affordable.