Findings and updates from the Multiplex Immunoassay Consortium

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Background.

The Multiplex Immunoassay (MIA) Consortium is a collective of international scientists with expertise in multiplexing immunoassays, in particular for serotypes of *Streptococcus pneumoniae.* The Sixth Network Meeting of the MIA Consortium was held May 16th- 17th, 2018 in Manchester, UK. The main aim of this meeting was to discuss and pursue harmonisation of immunoassays to quantify serotype-specific IgG against *S. pneumoniae* polysaccharides.

Methods.

Eight presentations were given over the two days covering application of MIA’s on multiple pathogens including Pneumococci, Respiratory Syncytial virus (RSV), Human Papilloma virus (HPV) and Hepatitis C.

Results.

A total of 21 participants from five European countries (Finland, Sweden, UK, Denmark, and The Netherlands) attended the meeting.

Recent assay development includes the automation of the conjugation process leading to increased throughput. The need for development of an assay against non-vaccine serotypes, the effectiveness of serotype 3 in the assay, and polysaccharide batch variation, as well as a further inter-laboratory comparison, were discussed. As the MIA consortium covers other immunoassays, discussions also included the development and validation of new RSV and Hepatitis C multiplex assays, validation of a HPV multiplex assay, and use of a cytokine multiplex immunoassay in a clinical setting.

Conclusions.

Multiplex immunoassays continue to be a valuable tool in the evaluation of vaccines and serosurveillance studies. The MIA consortium meetings like the one in Manchester are important for improving existing and developing new Multiplex immunoassays.