

PneumoCarr Microbiology Project

Information sheet

About PneumoCarr:

- *The PneumoCarr consortium investigates the epidemiology of colonisation by Streptococcus pneumoniae*
- *The consortium comprises partners from Finland, Australia, Israel, Kenya, the Philippines, South Africa, The Gambia, UK and US*
- *The project is funded by the Grand Challenges in Global Health Initiative*
- *For further information see www.pneumocarr.org*

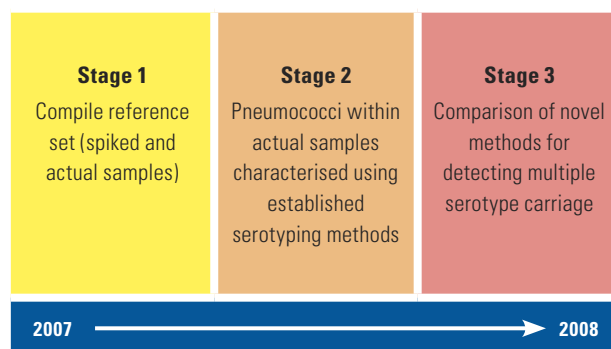
What is the PneumoCarr Microbiology Project?

The PneumoCarr consortium is investigating nasopharyngeal carriage of multiple serotypes of *Streptococcus pneumoniae* as a means of enhancing our understanding of the underlying ecology of pneumococcal colonisation, transmission and disease prevention. Information about multiple serotype carriage is particularly important when considering the link between immunisation and carriage.

A major barrier to this study is that there is no standard method to detect nasopharyngeal carriage of pneumococcal strains of different serotypes. We are looking for researchers to participate in a study that will tackle the issue of multiple serotype carriage in a coordinated, global fashion.

Project summary

A set of reference samples is being established to allow direct comparison of the methods used to detect multiple pneumococcal serotypes. The reference set will consist of spiked and actual nasopharyngeal samples for which the pneumococcal content has been well characterised.



Stage 1 The reference set will contain approximately 250 samples:

- 50 of these will be spiked samples containing no pneumococci, or one, two or three different serotypes. These will be constructed to include a range of colony-forming units of pneumococci, a range of ratios of serotypes (for example where the minority serotype is <1% of the total), and a mix of common and rare serotypes.
- 200 of the reference set will be actual samples. These will be obtained from four geographic areas. Approximately half of these samples will be collected prospectively, whilst the remainder will be samples known to contain two or more serotypes. This strategy will enrich the reference set for samples that contain multiple serotypes.

Stage 2 At least one hundred colonies from each clinical sample will be serotyped individually by PneumoCarr using established antibody-based methods including quellung and latex agglutination.

What is required?

We are seeking expressions of interest from researchers with established or evolving methods that may be suitable to detect multiple pneumococcal serotypes in nasopharyngeal samples.

Participants will be sent samples from the reference set to which they will apply their preferred method. The sensitivity and specificity of each method will then be determined and compared. Results will be shared amongst participating laboratories, although the identity of individual laboratories will be concealed.

Why should I participate?

This study will provide an avenue for global consensus on suitable methods to detect multiple serotypes of pneumococci in nasopharyngeal samples. The results of this study will inform future studies of the PneumoCarr consortium and the wider scientific community.

This study will also provide the tools needed to address the key microbiological questions around multiple serotype carriage, and will be critical in investigating the impact of immunisation on carriage.

Coordination of the project and the labour-intensive aspects of serotyping will be financed and conducted by PneumoCarr.

For more information or to register your interest

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