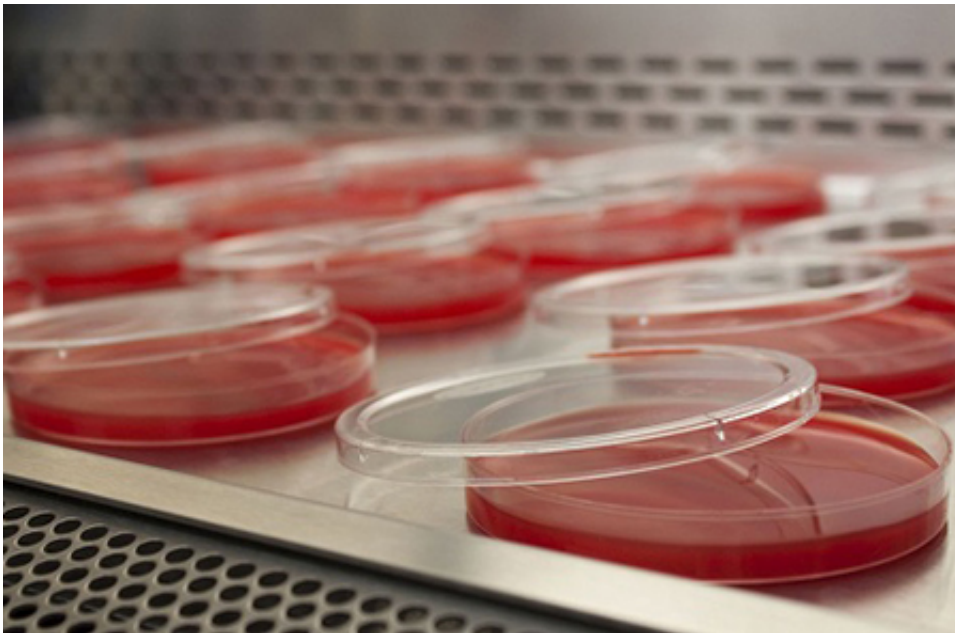


# Analysing meningitis genes to identify new treatments

April 19 2013

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Scientists at the University of Liverpool are working to identify genes involved in the development of bacterial meningitis to support the search for new vaccine candidates.

Meningitis caused by [Streptococcus pneumoniae](#) is the most common [bacterial meningitis](#) in the UK and despite antibiotic treatment, morbidity and mortality still remains high, carrying a 30% chance of death.

## Targeting bacterial genes

Scientists at Liverpool, supported by Meningitis UK, are using advanced bioinformatics and infection biology tools to identify the bacterial meningitis genes and their products associated with disease so that they can be targeted for new treatments and vaccines.

Combining world leading expertise in the field of genomics, proteomics and infection biology, the team will identify the essential genes involved in the development of meningitis and will relate [bacterial gene](#) products to phenotypic function so that they can be targeted for therapeutics or as potential vaccine candidates.

Professor Aras Kadioglu, from the University's Institute of Infection and Global Health, said: "Meningitis is a growing problem in the UK, and although the current protein [conjugate vaccine](#) is very effective, it only protects against 13 out of 90 different pneumococcal types.

## Cross protection

"One issue with this is that we are seeing something called serotype replacement, which means that non-vaccine covered types are causing disease.

"It is unlikely that we will have a conjugate vaccine that will protect against all types, so the way forward is to develop novel therapeutics against pneumococcal [virulence factors](#) that play a major role in the development of meningitis and to identify bacterial proteins as new vaccine candidates that will offer cross protection against all meningitis causing types."

Provided by University of Liverpool

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