

## Meningococcal and Pneumococcal Conjugate Vaccine and Method of Using Same

### Technology Summary

Conjugate vaccine is composed of a bacterial polysaccharide covalently linked to a carrier protein. The covalent linkage renders the otherwise T-cell independent polysaccharide antigen to become T-cell dependent thus inducing long term immunity.

In this invention, FDA inventors prepared conjugate vaccine of group C meningococcal capsular polysaccharide (MCPS) to pneumococcal cell surface adhesin A (PssA). The conjugate is immunogenic in mice, inducing antibodies specific to MCPS and PssA. Per in vitro assay, the induced anti-MCPS antibody is bactericidal against homologous bacteria. Further, the carrier protein in this conjugate induces much more antibody than the lone protein. This invention can potentially be used to produce conjugate vaccines protective against Meningococcus (groups A, C, W135 and Y) and Pneumococcus of all serotypes.

### Potential Commercial Applications

- Conjugate vaccine for the prevention and/or therapy of meningococcal and pneumococcal infections.

### Competitive Advantages

- Rapid production time
- Higher-yielding manufacturing method
- Low manufacturing cost

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**Intellectual Property:** United States Patent [No. 8,003,112](#) issued 08.23.2011. Related international patent applications filed, PCT Application [No. PCT/US2010/031083](#)

**Product Area:** Conjugate vaccine, Meningococcal / pneumococcal vaccine, MCPS, PssA

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