

# TWO-DOSE 4CMENB VACCINATION IN ADOLESCENTS ELICITS BACTERICIDAL ACTIVITY AGAINST 15 OUTBREAK-REPRESENTATIVE MENINGOCOCCAL STRAINS

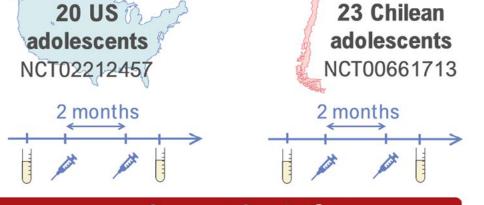
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## BACKGROUND

*Neisseria meningitidis* serogroup B (MenB) is the most common cause of bacterial meningitis outbreaks in many industrialized countries.<sup>1-3</sup>

This study describes the bactericidal activity of antibodies induced in adolescents in the US<sup>4</sup> and Chile<sup>5</sup> by 4CMenB<sup>6</sup> against a meningococcal outbreak strain panel



#### Current Study 🕾

14 MenB strains, 1 MenW strain from 2001-2017 outbreaks (US, UK, France)

15 strains tested

4 strains tested

Bactericidal activity

hSBA

Legend
Serum sample

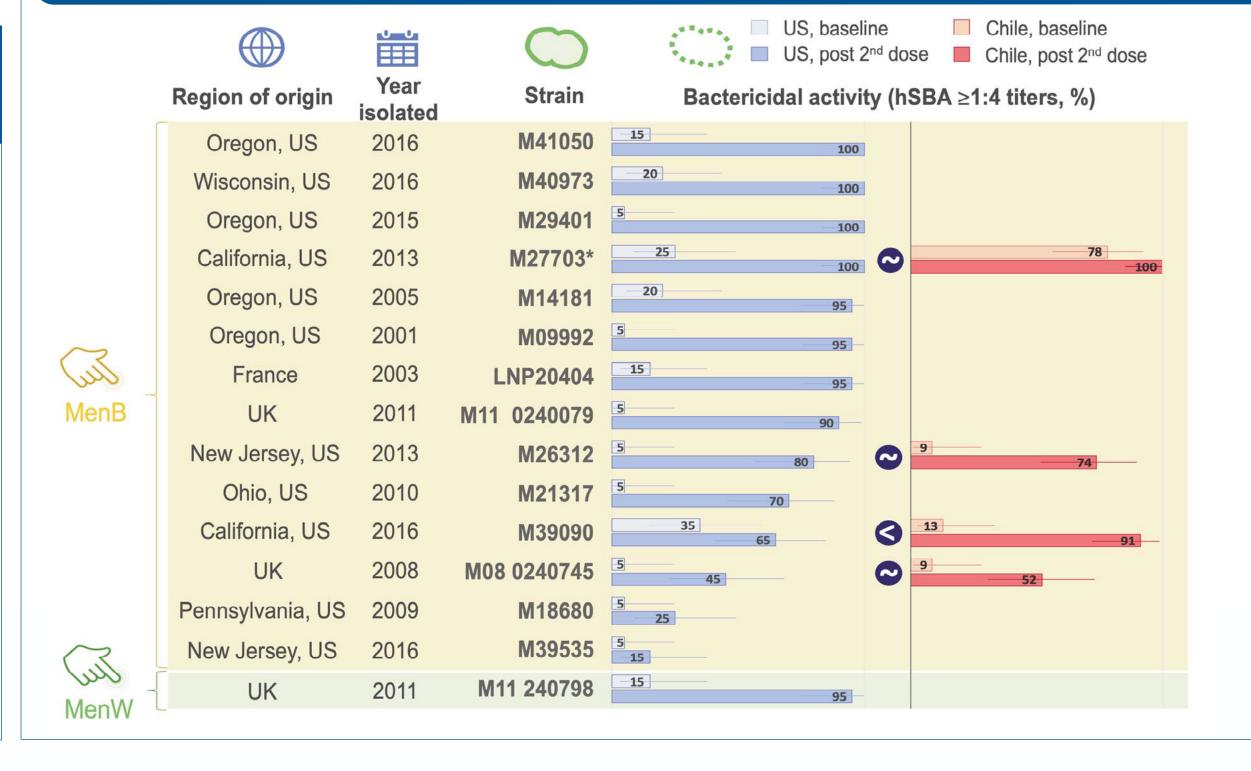
C Human complement

Vaccination (4CMenB)

N. meningitidis strain

### RESULTS

4CMenB vaccination elicits bactericidal antibodies against a representative panel of diverse outbreak strains from the US, UK, and France



## CONCLUSIONS

- 4CMenB induces a functional immune response against 15 N. meningitidis outbreak strains collected from the US, UK, and France.
- → The immune response to 4CMenB is comparable between adolescents from different geographical areas.
- Most strains in this panel are predicted to contain at least one 4CMenB-covered antigen, further highlighting the potential of this multi-component vaccine.
- Vaccination with 4CMenB has the capacity to confer protection against outbreaks of invasive meningococcal disease.

\*US: 100% of subjects achieved 4-fold rise in hSBA titer at post-vaccination versus baseline; GMTs were 3 at baseline and >119.4 post-vaccination. CHILE: 96% of subjects achieved 4-fold rise in hSBA titer at post-vaccination versus baseline; GMTs were 6.5 at baseline and >178.3 post-vaccination.

**4CMenB**, 4-component MenB vaccine; **hSBA**, human complement serum bactericidal antibody assay; **GMT**, geometric mean titer; **MenB**, meningococcal serogroup B; **MenW**, meningococcal serogroup W; **UK**, United Kingdom; **US**, United States. Error bars represent 95% confidence intervals.

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