

Vaccine Activities Update

National Institute of Allergy and Infectious Diseases,
National Institutes of Health

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National Institute of
Allergy and
Infectious Diseases

Tdap Vaccination During Pregnancy Likely to Protect Newborns from Pertussis

- Vaccinating pregnant women with Tdap vaccine is safe, induces an immune response in women and is likely to protect their newborn infants against pertussis
- During the third trimester of pregnancy:
 - 33 women: Single dose of Tdap
 - 15 women: Placebo
- Results of NIH-funded clinical trial support maternal vaccination

FM Munoz *et al.* Safety and immunogenicity of tetanus, diphtheria and acellular pertussis (Tdap) immunization during pregnancy in mothers and infants: A randomized clinical trial. *Journal of the American Medical Association* (2014).

NIH Scientists Model Immune Variation and Responses to Flu Vaccination

- Approach to model and predict human immune responses to flu vaccination based on state of the immune system
- Frequency of a few immune cell types present before vaccination was sufficient to predict level of the flu-specific antibodies made after vaccination
- Study offers potential framework for predicting a person's responsiveness to vaccination

Tsang JS *et al.* Global analyses of human immune variation reveal baseline predictors of the post-vaccination response. *Cell* (2014)

www.niaid.nih.gov/topics/immuneSystem/Pages/immuneVariation.aspx

NIAID Centers of Excellence for Influenza Research and Surveillance (CEIRS)



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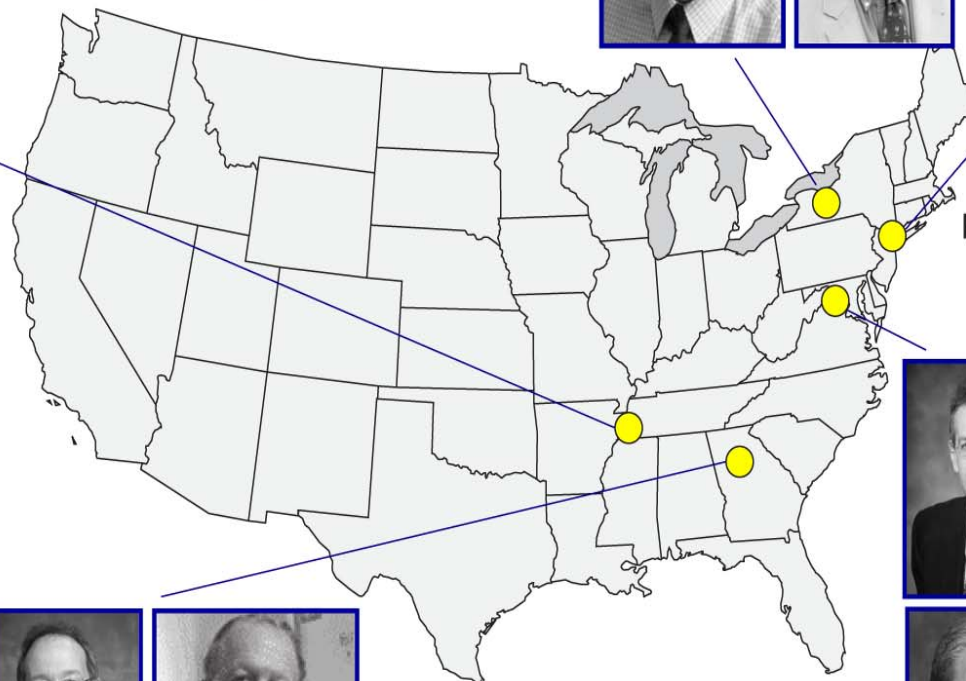
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NIAID CEIRS Surveillance Sites (2014-2015)



Meetings

- Common Barriers in Vaccine Research and Development: June 19 – 20, 2014
 - Workshop sponsored by NIAID and FDA

- NIAID Meeting Report
 - Cassetti MC, Halstead SB. Consultation on dengue vaccines: Progress in understanding protection, 26-28 June 2013, Rockville, Maryland. *Vaccine* (2014).