Pandemic Influenza Vaccine Clinical Trial Abstract Minimum information:

**Title of Trial**: A Double-Blind, Randomized Phase I Study of the Safety and Immunogenicity of a Prime-Boost Schedule of the Investigational DNA Trivalent Influenza Vaccine, VRC-FLUDNA047-00-VP, Followed by the 2008/2009 Seasonal Influenza Trivalent Inactiv...

**Clinical Trial registration site if applicable (e.g. ClinicalTrials.gov)**: NCT00858611

**Objectives:**
- To evaluate the safety and tolerability of a prime-boost study regimen that includes the recombinant DNA vaccine followed by licensed 2008/2009 FluLaval(Registered Trademark) in adults ages 18-50 years and adults ages 51-70 years as compared with control groups that receive the licensed vaccine only.
- To evaluate whether the study participants in each age group receiving a prime-boost schedule have a greater frequency of H1 or H3 neutralizing antibodies compared with those of the same age group who received only the 2008/2009 trivalent influenza vaccine.
- To evaluate differences in antibody or T cell responses (quantity, quality, or durability) between the two groups.

**Authors/sponsors**: National Institute of Health USA

**Study Design:**
- The study lasts for 24 weeks.
- Week 0: The first day of Week 0 (i.e., Day 0) is defined as the day of enrollment and first injection. Specific eligibility is reviewed. Participants will receive an injection of either the DNA vaccine VRC-FLUDNA047-00-VP (at 4 mg dosage) or a placebo.
- Week 4: All study participants will receive an injection of the trivalent seasonal influenza vaccine, according to the manufacturer's package insert directions.
- Participants will be given 7-day diary cards on which to record temperature and symptoms (e.g., muscle aches, headache, chills, nausea) and injection site reactions (e.g., pain, tenderness). Participants may also enter this information via the Internet. Presence of symptoms may require additional visits to the clinic.
- Participants will return to the clinic 2 weeks after each injection for the following procedures:
- Blood draws for further tests to determine the immune system's response to the vaccine(s) Clinical evaluations: vital signs and weight, examinations of the lymph nodes, and targeted physical exam on any visit if indicated by interim complaints or laboratory findings.

**Vaccine:**
- **Manufacturer**: NIH, USA and GSK and CSL
- **Type (whole virus/subvirion/subunit/live/recombinant/DNA/vector)**: DNA vaccine
- **Adjuvant**:
- **Delivery system/site**: IM by Biojector for DNA vaccine and needles/syringe for inactivated vaccine
- **Doses (antigen and adjuvant)**: 4000 - in DNA vaccine; 15- each strain in TIV

**Study population:**
- **Age range**: Health status: 18-70y

**Specific inclusion criteria:**
A subject must meet all of the following criteria:

1. 18 to 70 years old.
3. Able to provide proof of identity to the satisfaction of the study clinician completing the enrollment process.
4. Complete an AoU prior to enrollment and verbalize understanding of all questions answered incorrectly.
5. Able and willing to complete the informed consent process.
6. Willing to donate blood for sample storage to be used for future research.
7. No evidence of previously undiagnosed clinically significant chronic diseases.
8. Physical examination and laboratory results without clinically significant findings and a Body Mass Index (BMI) greater than or equal to 18.5 and less than 40 within the 28 days prior to enrollment.

Laboratory Criteria within 56 days prior to enrollment:

9. Hemoglobin greater than or equal to 11.5 g/dL for women; greater than or equal to 13.5 g/dL for men
10. White blood cells (WBC) = 3,300-12,000 cells/mm(3)
11. Differential either within institutional normal range or accompanied by site physician approval as a differential that is consistent with healthy volunteer status
12. Total lymphocyte count greater than or equal to 800 cells/mm(3)
13. Platelets = 125,000 - 500,000/mm(3)
14. Alanine aminotransferase (ALT) less than or equal to 2.5 times the upper limit of normal (ULN)
15. Serum creatinine less than or equal to 1 x ULN (less than or equal to 1.3 mg/dL for females; less than or equal to 1.4 mg/dL for males) and estimated glomerular filtration rate greater than 60.
16. Negative FDA-approved HIV blood test. [Note: Results of HIV enzyme-linked immunosorbent assay (ELISA) will be documented, but a negative HIV polymerase chain reaction (PCR) test result will be sufficient for eligibility screening of subjects with positive HIV ELISA that is due to prior participation in an HIV vaccine study].

Female-Specific Criteria:

17. Negative human chorion gonadotropin (beta-HCG) pregnancy test (urine or serum) for women presumed to be of reproductive potential.
18. A female subject must meet one of the following criteria:

No reproductive potential because of menopause [one year without menses] or because of a hysterectomy, bilateral oophorectomy, or tubal ligation,

OR

Agrees to be heterosexually inactive at least 21 days prior to enrollment and through Week 24 of the study,

OR

Agrees to consistently practice contraception at least 21 days prior to enrollment and through Week 24 of the study by one of the following methods:
• condoms, male or female, with or without a spermicide;
• diaphragm or cervical cap with spermicide;
• intrauterine device;
• contraceptive pills, patch, implant or any other FDA-approved contraceptive method;
• male partner has previously undergone a vasectomy.

Clinical Endpoints Assessed:

Safety assessments:

Immunogenicity assessments:

Results:

Safety:

Immunogenicity No data

GMTs:

GMT Ratios (post:pre):

Per cent responding (4 fold or greater rise and definition for reporting):

Per cent responders at specified tite:

Others assays:

Status of trial (ongoing/completed): 2009-2010