Pandemic Influenza Vaccine Clinical Trial Abstract

Minimum information:

**Title of Trial:** An Open-Label, Randomized Phase I Study in Healthy Adults of Four Prime-Boost Schedules with Monovalent Influenza Subunit Virion (H5N1) Vaccine, A/Indonesia/05/2005 (Sanofi Pasteur, Inc), Administered Alone or Following Recombinant DNA Plasmid (H5) Vaccine, VRC-AVIDNA036-00-VP (VRC, NIAID)

**Clinical Trial registration site if applicable (e.g. ClinicalTrials.gov):** NCT00776711

**Authors/sponsors:** Dr. Julie Ledgerwood, Dr. Barney Graham, Dr. Gary Nabel, VRC/NIAID/NIH, USA

**Study Design (including the phase of clinical trial):** VRC 306 is a Phase I, randomized, open-label study to evaluate the safety, tolerability, and immunogenicity of four vaccination regimens against the influenza virus hemagglutinin H5. One group will receive A/Indonesia/05/2005 (inactivated H5N1) vaccine as both prime and boost, two groups will receive the VRC-AVIDNA036-00-VP (DNA) vaccine as prime with inactivated H5N1 boost but with different boost intervals, and one group will receive the DNA vaccine twice as prime followed by H5N1 boost. The hypothesis is that these regimens will be safe for human administration and will elicit antibody and T cell responses against the H5 protein. The primary objectives are to evaluate the safety and tolerability of the investigational vaccine regimens. Secondary and exploratory objectives are related to the immunogenicity of the study vaccine regimens.

**Vaccine subtype:** Prime/boost DNA vaccine and inactivated virus vaccine

**Virus:** DNA plasmid encoding H5 and H5N1 inactivated vaccine (both Indonesian strain)

**Manufacturer:** DNA vaccine - NIH, USA; inactivated vaccine - Sanofi Pasteur, Inc. (Swiftwater, PA)

**Type (whole virus/subvirion/subunit/live/recombinant/DNA/vector):** DNA vaccine and inactivated virus

**Adjuvant:** None

**Delivery system/site:** IM by Biojector for DNA vaccine and IM by needle/syringe for inactivated H5N1 vaccine

**Doses (antigen and adjuvant, number of doses, intervals between administrations):** DNA vaccine – 4000 µg, H5N1 inactivated vaccine - 90 µg. Four different prime-boost combinations at day 0, 28 and 168

**Study population:** Adults

**Number of subjects involved:** 60

**Age range:** 18-60 years old

**Health status:** Healthy volunteers

**Special inclusion/exclusion criteria:** None

**Clinical Endpoints Assessed:**

The primary objectives are to evaluate the safety and tolerability of the investigational vaccine regimens, at a dose of 4 mg for the DNA vaccine and 90 µg for the inactivated H5N1, in healthy adults. Secondary and exploratory objectives are related to the immunogenicity of the study vaccine regimens.

**Safety assessments:**
- Local reactogenicity signs and symptoms
- Systemic reactogenicity signs and symptoms
- Laboratory measures of safety
- Adverse and serious adverse experiences

**Immunogenicity assessments (immunoassay type):**
- HI (type of RBC used): HAI assay using horse erythrocytes
- NT (type of neutralization assay): Pseudotyped lentivirus reporter assay
- SRH: Not done
- ELISpot: to determine frequency of T cells producing IFN-γ in response to pools of overlapping peptides representing H5 antigens
- ICS: to determine frequency of CD4+ and CD8+ cells that produce IL-2 or IFN-γ in response to pools of overlapping peptides representing H5 antigens
Results: Not yet available

Safety:
  Reactogenicity:
  AEs:
  SAEs:

Immunogenicity:

HI or NT:
  GMTs:
  GMT Ratios (post:pre):
  Per cent responding (4 fold increase):
  Per cent responders at specified titer:

SRH:
  Per cent with titre (in mm²)

Current status of the clinical trial (completed, ongoing, in preparation): Ongoing

Date envisaged for availability of results, if not yet available:

Planned time schedule for next phase of development: