TB Vaccine Phase III
trial site networking

Hassan Mahomed
TB VACSIN
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- *Tuberculosis Vaccine Site Network*
- Comprises the following sites:
  - Siaya District/Kisumu, Kenya
  - Worcester/ Cape Town, South Africa
  - Iganga/Mayuge/ Kampala Uganda
  - Manhiça / Mozambique (new)
TBVACSIN meeting: Cape Town April 07

Hussey, Gelderbloem, Hawkridge, Verver, Mahomed, Workman, Nduba, Wabwire-Mangen, Mayanja, Moyo, Laserson, Musoke, Hanekom, Hausto, Petersen, van t’Hoog
Objectives

- To share experiences with respect to TB vaccine trial site development.
- To assist each other with respect with building capacity to conduct TB vaccine clinical trials.
- To work towards developing feasible diagnostic and quality standards for TB vaccine trials in developing countries.
- To strengthen African TB vaccine trial capacity.
### WHO Global TB report 2007 – 22 high burden countries

#### Case notifications, 2005

<table>
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<th>NEW AND RELAPSE CASES</th>
<th>NEWCASES</th>
<th>RE-TREATMENT CASES EXCLUDING RELAPSE</th>
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Kisumu, Kenya

- Kenya Medical Research Institute (Kemri) Supported by CDC, Atlanta and AMC, Netherlands. Principal Investigator – Videlis Nduba
- Funded by EDCTP from phase III capacity development for TB vaccine trials call of 2005 with significant additional support from Aeras.
- High rates of TB 400/100 000/ HIV (15% prevalence in 15-49 year olds) and Malaria.
- Centred around town of Kisumu near DSS area. Karemo division of Siaya district will be the study area.
- Study area population - 84000
Worcester/ Cape Town

- South African TB Vaccine Initiative (SATVI), Institute of Infectious Disease and Molecular Medicine, University of Cape Town (UCT) – Principal Investigator – Greg Hussey.
- Funded mainly by Aeras Global TB Vaccine Foundation.
- Operating since 2000.
- A mainly rural research site with a high rate of TB (1400/100 000) centred around the town of Worcester.
- Study area population 350 000.
- Has conducted a large phase 4 study of BCG in which 12000 infants were enrolled.
- Currently busy with phase I/II clinical trials of new TB vaccines and large adolescent and neonatal cohort studies.
Uganda

• Makerere University – Principal investigators Phillipa Musoke/ Harriet Mayanja
• Funded by EDCTP from phase III capacity development for TB vaccine trials call of 2005 with significant additional support from Aeras.
• High rates of TB/ HIV and Malaria (TB incidence estimated 368/100,000)
• Centred around Iganga/Mayuge which is part of a DSS area.
• Study area population – 65000 to be expanded to 130000.
Location of Iganga/Mayuge DSS
New partner- Manhica, Mozambique

- Manhica Health Research Centre (CISM) near Maputo in Mozambique with Spanish partner CRESIB (University of Barcelona) operating since 1996.
- Established malaria vaccine trial site.
- Want to develop TB vaccine trial capabilities.
- Study area with a population of 82 000 under DSS. District population >140 000.
- High rates of TB, HIV and malaria
Where is Manhiça?

LOCATION OF MANHICA DSS SITE, MOZAMBIQUE: Monitored Population 36,000
Key partners and funders

- Aeras Global TB Vaccine Foundation, USA
- KNCV TB Foundation, Netherlands
- Karolinska Institute, Sweden
- Institute of Tropical Medicine, Antwerp, Belgium
- Substantial co-funding from NACCAP – Netherlands
- Vienna School of Clinical Research, Austria
- San Rafaelle Scientific Institute, Milan, Italy.
- Swedish Institute for Infectious Diseases Control
- Institute of Medical Immunology, Brussels, Belgium
History

- Response to EDCTP 2005 call for proposals for capacity development of phase III TB vaccine trial sites.
- Initially, development of Kenyan and Ugandan proposals occurred separately.
- SATVI, Aeras and KNCV had links with both groups.
- This led to joint discussions between the two groups.
- SATVI site used as a model to develop both proposals – neonatal and adolescent cohort studies as preparation for TB vaccine trials.
## Cohort studies – disease incidence

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<th>SATVI</th>
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<td><strong>Start date</strong></td>
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<td>Will start 2008</td>
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<td><strong>Sample Sizes – neonates</strong></td>
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<td>2900</td>
<td>2500</td>
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<td><strong>Sample Size – adolescents</strong></td>
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<td>5000</td>
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<td><strong>Methods – neonates</strong></td>
<td>Recruitment from health facilities with active and passive FU for 2 years</td>
<td>Recruitment at homes with active FU linked to DSS for 1 year.</td>
<td>Recruitment through health facilities and homes with active FU linked to DSS for 1 year.</td>
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<tr>
<td><strong>Methods – Adolescents</strong></td>
<td>Recruitment through schools with active and passive FU for 2 years</td>
<td>Recruitment through schools and homes with active FU linked to DSS for 1 year.</td>
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Network activities

- Joint telephone conferences and email communications during proposal development process.
- First joint meeting held in Cape Town in April 2007 including visit to SATVI research site.
- Second meeting held in September in Kisumu, Kenya hosted by KEMRI/ CDC.
- Experiences shared on ethics, quality management and GCP. SOP documents shared as well.
- Collaboration on harmonisation of protocols e.g. diagnostic methods and main outcomes but we agree to differ on logistics e.g. site of enrolment.
- Strengthening of microbiological and immunology lab support.
Future plans

- Meeting at 2007 IUATLD conference in Cape Town
- Training for trainers at SATVI site in October/November 2007 using the Professional Development Programme (PDP) developed at the SATVI site. (Aeras Indian site also involved in this)
- VSCR training in February 2008
- Implementation of studies planned for next year.
- Joint proposals for further funding to build capacity for conducting vaccine trials.
- Basic website developed on UCT server but this is to be developed further.
Insights

- South – South - North collaboration – workable.
- Sharing of experiences vital as common epidemiology and infrastructure issues.
- However, diversity in Africa also important to recognise – room for trying out different methods.
- Multicentre trials of TB vaccines will be needed – this network is one way in which we can be prepared for this.
Thank you for your attention