

Oragene®•DNA enables study aimed at identifying host correlates of protection against TB

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Study overview

The aim of the South African Tuberculosis Vaccine Initiative (SATVI) of the University of Cape Town is to develop novel tuberculosis vaccination strategies. Their focus is on the clinical side of tuberculosis vaccine development. They therefore embark on clinical, epidemiological, immunological and genetic research to answer critical questions in TB vaccinology.

A large focus of SATVI's research is aimed at identifying host correlates of risk of TB disease, following BCG vaccination. These studies include looking at genetic differences between infants who are either protected or not protected against TB, following BCG vaccination. They are also interested in determining if there is a genetic disposition to susceptibility to TB. They are collecting DNA from both infants and their parents, and will conduct target gene and whole genome screening to delineate polymorphisms that associate with protection.

Over the course of the 4 year study, approximately 6,000 samples will be collected.

Main challenges

Maximizing compliance of potential study participants is a major challenge. They identify potential participants either at clinics or through home visits. Subsequently, an appointment is scheduled with the whole family where the DNA samples are collected for isolation.

The study began with blood collection for DNA isolation from the participants. However, they encountered misbleeds and study withdrawals from some participants, mostly because of concerns or fear of blood collection. A large percentage of the potential study participants are children and they felt a non-invasive method of DNA collection would be very beneficial.

“We believe the Oragene•DNA system is the most practical for collecting DNA in this environment. The Oragene•DNA kits are cheaper, less invasive and thus more appropriate in our setting.”

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“Donors who have provided blood samples for other studies and who have now used the Oragene•DNA kits say they much prefer the non-invasive method of collection with Oragene. We would definitely recommend the kit to anyone who wants an easy and reliable method of collecting samples for DNA isolation.”

A group of seven people, four men and three women, are standing in front of a brick building. Above them is a white sign that reads "SATVI PROJECT OFFICE WORCESTER" and "UNIVERSITY OF CAPE TOWN". The group is diverse in age and ethnicity. They are all smiling at the camera. The building has a brick facade and a dark wooden door. There are two circular vents on the wall above the door. The people are dressed in casual business attire. The man on the far left is wearing a light blue button-down shirt and khaki pants. The woman next to him is wearing a white button-down shirt and blue jeans. The man in the center is wearing a pink button-down shirt and khaki pants. The woman next to him is wearing a light green long-sleeved shirt and dark pants. The woman next to her is wearing a pink and white patterned shirt and a headscarf. The man on the far right is wearing a dark green button-down shirt and khaki pants.

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