

Indo-Africa Health Science Meeting

NCBS campus, Bengaluru

January 30th&31st, 2018

The Indo-Africa Health Science Meeting follows up on the ICMR-initiated Indo-Africa meeting in Delhi in April of 2017. A philanthropic grant from Shri Narayana Murthy (co-founder, Infosys) has facilitated this meeting which looks towards enabling the development of a Dengue vaccine program, and drive a Dengue vaccine effort in India and Africa in the context of nurturing a wider health eco-system across.

Origin of the program: The Dengue program has its origins in an attempt at exploring flavivirus metagenomics for disease surveillance, epidemiology and vaccine development approaches. It is designed to expand the initial sequencing efforts in India and Africa. Both, static and continuing snapshots of viral sequences in affected communities will generate insights into vaccine design and iteration. A core group has been nucleated at NCBS, IISc, St. John's Medical College, and the Manipal Virus Research Centre. An emerging collaboration with other clinical microbiology departments, genomic resources in academia and industry, and centres with computational expertise, will provide the inter-disciplinary resources and training to drive this program and contribute to the slowly emerging "Indo-African Health Ecosystem".

Immediate relevance and focus of the meeting:

The immediate goals of the meeting are to integrate the ongoing Dengue metagenomics effort into a vaccine initiative in both India and Africa.

Recent roll outs of the Dengue vaccine have highlighted the immense challenges that this complex disease generates in terms of designing an efficacious and safe vaccine.

Some of the questions that we hope to address at the Indo-Africa Health Science Meeting are:

- What is the nature of clinical information—both at a population and individual level—that would add value to a Dengue vaccine design?
- What is the nature of Dengue viral genomics information—in the context of co-existing morbidity and infections—that would improve understanding of disease progression and control?
- What are the barriers to rolling out Dengue vaccines?

- Would Dengue vaccine roll outs benefit from improvements in point-of-care creation or adaptation of new technologies in sequencing, immune assays?

The last few decades have generated lessons in the management of HIV, for example, that are likely to prove invaluable in this program. The success of such a program would be dependent on:

- grasping existing resources and evolving opportunities in cohort design
- surveillance systems
- clinical trials
- digital outreach
- novel sequencing technologies
- management of repositories (such as stem cell resources)
- integration of bioinformatics from one end, to patient care at the other

Longer term perspective of the meeting:

This exercise is undertaken within the larger framework of building a new narrative which synthesizes both global and indigenous healing traditions across India and Africa. We would like to emphasize that “ecosystems” are not just about humans, and the meeting is designed to generate unifying cross-talk that is truly interdisciplinary.