

“Our approach to fight TB is different from just antibiotic route?”

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Q: How do you view current resistant tuberculosis situation in India? What is the way forward?

Disease burden is growing significantly in India as well as sub Saharan Africa. India also has one of the world's highest burden of tuberculosis with approximately 66,000 MDR-TB cases among notified pulmonary TB cases in 2011. The incidence of multiple drug resistant (MDR) and extreme resistant (XDR) TB are on the rise and current treatments are not very effective, with long treatment regimens and significant side effects. Hence there is urgent need for the development of new anti-TB

drugs that are cheaper, easily available, more effective and require a shorter treatment period.

Therefore, we didn't focus on anti-biotic approach as it's the most used one for cure. Ours is host based approach where Dr Kanury Rao, senior scientist, International Centre for Genetic Engineering and Biotechnology (ICGEB) has done incredible basic work. We hope to reach the goal sooner and the advanced therapies will be very helpful for patients.

Q: What is the basis of collaboration with the THSTI and Wellcome Trust?

Sphaera Pharma (India), a subsidiary of Sphaera Pharma (Singapore), and the Drug Discovery Research Centre (DDRC) of the Translational Health Science and Technology Institute (THSTI) have received funding from the Wellcome Trust to develop a novel, first-in-class, therapeutic for the treatment of multiple drug resistant (MDR) and extensively drug resistant (XDR) TB.

It is based on a unique approach, first identified at the ICGEB that targets a host protein. Three years of work with Dr Kanury Rao supported by THSTI and Bill & Millinda Gates Foundation, has led to significant progress. Our work is on to identify the candidate towards the clinical development. First half of the next year will be focussed on this. The approach has potential to be more effective, and is less likely to result in development of drug-resistance. It is also expected to work in conjunction with current therapies. While the Phase-I of the trials would be conducted in US, the second part will be done subsequently in India.

Q: What makes it different?

Our approach to fight TB is different from just antibiotic route. The therapy is target based and we have very good data which could bring about paradigm shift. Regular TB as well as the other forms can be treated. It can be used in combination with antibiotics. It has been observed clinically while scientific approach is exciting.

HIV and TB too have been synonymous with each other and we hope this therapy will shorten the treatment period. If it passes the compliance test, hopefully after six months, due to potential of therapy, value of treatment to the patients.

Q: What is the progress on Cancer project with LeadInvent and ICGEB?

This project has been slower despite good outcomes. The funding challenges have been an issue. In India, it continues to be a significant problem.

Q: Do Indian researchers face lot of challenges? What are the hiccups?

Although, the challenges vary with each of them, researchers generally are facing issues in target validation during drug discovery. Often it is hard to translate same in the laboratory and clinically repeatedly.

Q: How has been company doing financially? Q: Where do you see yourself in next 5 years?

Being based in Singapore, we have licensed candidates to US, companies and these are undergoing phase II trials. The TB project is progressed towards clinical development.

We are a young company that is focussed on innovation. We innovate, develop and register novel products to big partners. Besides cancer and TB, we are focusing on mitochondrial diseases and respiratory drugs. We are driven by the needs of the nation. Be it TB or any other area, we will continue to put efforts. The growth and company and team too shall be based on our focussed work which I am sure, will yield good results.