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Prashanth G N, Dec 2, 2013, Bangalore:

St John's Research Institute working with Max Planck Institute



Even as tuberculosis (TB) cuts a swathe through the country, efforts are being made to curtail the spread of the disease and offer succour to sufferers.

As part of the overall campaign, the St John's Research Institute in the City has announced its decision to work with world-renowned scientist-immunologist, Prof Stefan H E Kaufmann, Director of the Department of Immunology at the Max Planck Institute for Infection Biology in Berlin, in fine-tuning a BCG vaccine that Kaufmann has developed against the disease. Dr John Kenneth will head the clinical research work from Bangalore.

Speaking to Deccan Herald, Kaufmann said St John's Institute will be active in the clinical part of vaccine development, while the Max Planck Institute will concentrate on basic research. "The institute in Bangalore will screen patients and obtain data of their health status and interact with us on the basis of that data. Together, we will combine their practice with our theoretical research to strengthen the vaccine that has been developed." Kenneth told this newspaper that St John's would be doing translational research — where doctors contribute to basic research by working with patients. "We are the only translational research institute in the country and we would be proud to contribute to the vaccine against TB."

The St John's Institute will also assist the Max Planck Institute by identifying biomarkers in the blood of patients to discover whether a patient is diseased or not. Identifying bio-markers is part of clinical activity. Once the markers are identified, the data is passed on to basic researchers who may re-examine their theories.

Kaufmann said he had developed what is known as improved/recombinant BCG vaccine through genetic engineering. "We have completed phase one trials," he said. "We are conducting clinical trials in Germany and Africa. We have however soft-licensed production of the vaccine to a Pune-based company. Typically most vaccines against TB work for children, not for adults and adolescents. We are developing the vaccine to fight TB in adults and adolescents too."

The development of vaccine takes enormous time. "We started research work on the vaccine almost two decades ago and by the beginning of the last decade we licensed a version to a German company. It takes time to develop drugs from this research. To begin with, the vaccines have to work," Kaufmann said. "Our main endeavour is to address people with TB as against those affected with TB but are leading healthy lives. We make the distinction between TB sufferers and TB carriers. The vaccine is meant to prevent the infection from turning into disease. It's a long, hard battle and requires years of research. But there is some hope as we get down to trials."

Kaufmann, however, expressed worry about the increased resistance of TB to drugs and vaccines. "Multi-resistant strains of tuberculosis are proving high," he said. "We have to break this resistance to medicines and vaccines." Kaufmann added that TB is a grave problem in overcrowded countries.

Kaufmann, who has more than 600 publications in the field of immunology, initiated the Day of Immunology, to raise public awareness in immunology. He is the coordinator of Grand Challenges in Global Health project "Biomarkers of protective immunity and surrogate markers of TB disease in Africa" funded by the Bill and Melinda Gates Foundation. Immunology Day falls on April 29.

Lecture

At the First Science Circle, Prof Kaufmann will deliver a lecture on "Man and Microbe: Foe & Friend" at St John's Research Institute, Madiwala, on December 3 at 6 pm in the Pope Paul VI Auditorium of the Institute.