

From the Desk of Organizing Chairman

TB – A Disease of Global Importance and a Challenge to Scientists & Health Administrators



Prof. B.C. Harinath

Tuberculosis is as old as humanity itself. A detailed genetic analysis of more than 250 contemporary strains of TB bacteria from around the world has revealed that the infectious agent originated with the emergence of Homo sapiens in Africa more than 70,000 years ago and spread to other regions by migrating population. Diversity of TB bacteria has increased markedly when human population expanded. Maha Farhat of Harvard University reports association of 39 genes and genetic regions with drug resistance in the TB bacterium (Biotech Bulletin, Sept-Oct, 2013). WHO (2012) reports 8.7 million new cases in 2011 with 1.4 million deaths making TB one of the world's biggest infectious disease killers. Diabetes has been shown to be an independent risk factor for TB (RNTCP, 2013). Multidrug (6.3 L cases) and extensively drug resistant TB, a problem of our own making due to inadequate attention for successful control. As per WHO TB report (2013), globally there are 2.9 million missed cases (either not diagnosed or diagnosed but not reported to the National TB Programmes). These are distinct from cases not found or cases found and lost. This explains the complexity of TB control. RNTCP mainly concentrates on field studies related to detection and treatment. Time bound Task force approach in research to develop biomedical tools namely diagnostics, drugs and vaccines to detect, treat and prevent TB is crucial for successful control of TB epidemic in community as well as management of individual cases of PTB & EPTB in hospital setting.

Considering Global and Industry's interest in TB research, this Symposium is planned to review the advances in Biomarkers, molecular and immunodiagnosics and drugs and drug targets, the thrust areas of research for TB control. With development of drug resistance, the tiny bug is posing a challenge to global scientists and health administrators. We earnestly hope and wish that the Symposium proceedings will help in developing time bound Task Force approach in prioritizing research activities for successful TB control.



We are very grateful to KHS, ICMR, DST, DBT and MCI for providing financial assistance for this Symposium as had been always supporting in the past for the National / International conferences. (1). Indian Immunology Society (1989); (2) Association of Clinical Biochemists of India (1994); (3) Tropical Disease Research (1997); (4) Ayurveda, Yoga & Naturopathy (2002); (5) Holistic Living (2006) and (6) YOGism (2010). Our special thanks to Dr. Shridhar Narayanan, Vice President and Head Innovative Science for the Infection Innovative Medicines group at Astra Zeneca Research Foundation, Bangalore for the generous support to the Symposium and agree to participate in the Symposium. Our thanks and appreciation are also due to Dr. Taslimarif Saiyed, Director and COO, C-CAMP, Bangalore for guidance and release of **Biotechnology Ignition Grant** to our collaborator and entrepreneur Ms. Supriya Kashikar for validation of proof of concept of our published finding that *M.tb* ES-31 serine protease is a good drug target for TB reported for the first time from JBTDRC and thus giving a boost to our TB research programme. We are also thankful to Dr. P. K. Ghosh, Director, CSIR- Central Salt & Marine Chemicals Research Institute, Bhavnagar for collaborative project with Dr. Pranita Waghmare for screening of marine algal samples for potential anti TB drugs at JBTDRC and Biochemistry and Dr. Shama Bhat, Founder, Chairman and Managing Director, Bhat Bio-Tech India Pvt. Ltd., Bangalore for collaboration in development of TB diagnostics.

We are overwhelmed with acceptance of our invitation by distinguished scientists and experts in TB research from India and abroad to participate in the National Symposium. We are also pleased that number of delegates are attending from all over India with keen interest in focused areas of TB research. We are grateful to all of them for taking time and trouble to participate in this Symposium. There are considerable limitations to organize such an event at Sevagram, a rural area. The Organizing Committee is making all the efforts to make your stay comfortable, interaction enjoyable and memorable. I request for your pardon for any short comings you come across.

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