

TB research crucibles looking for new drug

23 March 2012 | News | By BioSpectrum Bureau



Low monetary return on TB drug R&D has prevented even the biggest of pharmaceutical and biotech companies from venturing in to the search for new TB drugs. However, several organizations have been brave enough to trod the less chosen path.

These organizations comprise of research institutes, which are either funded by the government of a particular country or are financially supported by multinational drug companies, and private firms. These organizations, as described below, act as crucible of innovation, thus adding momentum to the global anti-TB battle.

Research Institutes

National Tuberculosis Institute, Bangalore, India, established in 1959, has been instrumental in formulating India's TB Control Program and training key personnel to run the program through District TB Centers. This program has also been adopted by several other countries.

Institut Pasteur Korea (IPK), South Korea, a nonprofit organization, accelerates drug discovery and enables the quantification of disease in real time by using information technology for the benefit of medical research. IPK's proprietary PhenomicScreen technological platform, its expertise in high throughput and high content visual screening accelerate the drug discovery process.

Infectious Disease Research Institute (IDRI), US, a not-for-profit organization, applies innovation to the R&D of products to prevent, detect and treat infectious diseases. IDRI's research efforts include vaccine discovery, drug discovery and diagnostics.

Novartis Institute for Tropical Diseases, Singapore, established in 2003, is a public-private partnership between Novartis and the Singapore Economic Development Board (EDB), which is developing novel therapies for MDR TB through genomics, bioinformatics and drug discovery technologies.

Private companies

GlaxoSmithKline's Tres Cantos Medicines Development Campus, Spain, works with several organisations, including Global Alliance for TB Drug Development (TB Alliance), to develop effective TB drugs.

AstraZeneca, India, which established its R&D in Bangalore more than 20 years ago, opened a dedicated tuberculosis research centre in 2003. The centre receives funding worth \$5 million each year and employs over 80 scientists, who have access to all AstraZeneca's technologies including high throughput screening and compound libraries.

Sandoz, Germany, is a 120-year-old company and is the generic pharmaceuticals division of Novartis. The company is the main provider of TB drugs to the World Health Organization. Sandoz is also part of Novartis' Global TB Alliance for TB Drug Development.

Reliance Life Sciences, India, opened the Reliance TB and HIV Control Center in Gujarat, India, in May 2004. The center has provided counseling to 4,615 patients and provided Directly Observed Treatment Short-course therapy to 97 patients from Asian countries.

Takeda, Japan, the largest pharmaceutical company in Japan, launched the Takeda Initiative on March 18, 2010. The program is designed to support the Global Fund to fight AIDS, tuberculosis and malaria.

Eisai, Japan, is working with other European and American drugmakers and research institutions to develop vaccines for diseases such as tuberculosis and hepatitis.

Sanofi-Aventis, launched a transformation program in 2009 to make R&D an innovation driver operating in a new environment. The firm has implemented the TB Free Program among others. The group aims to help raise awareness about the disease, the importance of diagnosis as soon as the first symptoms appear, and support for TB patients.

Tibotec is a pharmaceutical company that was established in 1994 by Rudi Pauwels as a drug discovery laboratory and was acquired by Johnson & Johnson in 2002, has been involved in the development of TMC207. This is the first TB compound with a new mechanism of action in 40 years.

Otsuka, Japan, was established in 1964, has been screening TB compounds for about 25 years. The company's OPC-67683 has been in clinical development for about three years.