

## **Open Source Drug Discovery: A Global Collaborative Drug Discovery Model for Infectious Diseases**

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The Human Genome Sequencing project opened up the path of open innovation in the field of life sciences. This initiative has been a major player in bringing down the cost of genome sequencing. On the contrary, despite technological advancements and availability of high-throughput data, the cost of drug discovery has been tremendously high. Also, the number of pharmaceutical entities working for diseases like TB has remained stale. In the absence of a market which is deemed 'profitable to invest' by the pharmaceutical enterprises, pharmaceutical enterprises are shying away from research on 'neglected diseases'. Diseases like TB continue to affect large number of people in the developing world. In India alone, 2 persons die of TB every 3 minutes. This clearly indicates the need of open innovation in drug discovery too. To this end, the Council of Scientific and Industrial Research (CSIR) launched the Open Source Drug Discovery Program (OSDD) as a CSIR-led Team India Consortium with global partnership to provide affordable healthcare to the developing world. OSDD is an open collaborative model of drug discovery and is focusing on tuberculosis as the first disease target. Most of the drug discoveries are made in a closed door environment, where confidentiality results in lack of open participation of the entire academic world. OSDD program aims to address the issue by attempting to capture the young and experienced minds around the globe to be a part of discovery of therapeutics for infectious diseases. Launched in September 2008, it is now a global community of more than 4500 members from over 100 countries. OSDD facilitates collaboration among biologists, chemists, bio- and chemoinformaticians, mathematicians, software professionals, management professionals and others. [www.osdd.net](http://www.osdd.net) is a web 2.0 portal which facilitates that collaboration. OSDD has several ongoing projects on TB research. All these projects are collaborative in nature for identifying new drug targets and new inhibitors. Learning from the open collaborative approach of Human Genome Sequencing, it is believed, what open source Linux, WWW did for IT, the OSDD approach as a global initiative led by India will do for healthcare.