

The Novartis Institute for Tropical Diseases: Drug Discovery for Neglected Diseases

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The fundamental role of the pharmaceutical industry is to discover, develop, produce, and deliver innovative products to prevent and cure diseases, to ease suffering, and to enhance the quality of life for patients worldwide. According to the World Health Organization, infectious diseases carry 10 percent of the global disease burden and cannot afford to be neglected any longer.

One of Novartis' contributions to help reduce the global disease burden, and contribute to the solution of the problem of access to medicines to poor patients, is The Novartis Institute for Tropical Diseases (NITD). NITD is a drug discovery research institute dedicated to discovering novel therapies and preventive treatments for tropical diseases. In developing countries where those diseases are endemic, the Novartis Group intends to make treatments readily available without profit to poor patients. The investment in the field of tropical disease research is an exception in an industry that has traditionally neglected illnesses seen as endemic within the developing world, and NITD as a research center is the first of its kind to focus solely on drug discovery for infectious disease, using modern pharmaceutical research tools including high-throughput screens, and crystallography/NMR studies. It also houses a state-of-the-art biosafety level 3 lab.

The NITD is set up as a public-private partnership between Novartis and the Singapore Economic Development Board. Its current research projects are mainly focused on dengue fever and tuberculosis. However, starting from summer 2007, the institute extended its research efforts on malaria too. The NITD performs basic and conceptual research for identification of targets, develops high throughput screening assays, and works on synthesis and optimization of compounds up to readiness for clinical testing.

The NITD intends to become a leading centre for knowledge and education by offering exceptional teaching and training opportunities for biomedical scientists in the world and by transferring Novartis' drug discovery know-how to the developing world. We also hope that NITD will set an example for the other companies to help the people in developing world learn how to continue to address problems in their own countries.

Furthermore, starting from the early research activities, through later stages of the drug-development process and successful outreach to patients, the NITD promotes strong partnerships with other institutions and universities on a global scale to leverage its research efforts to bring novel therapies to patients by 2012. Some of the relationships built include leading members of the local, regional, and global scientific and clinical communities, international organizations such as the World Health Organization, and Health ministries of the region, as well as non-governmental organizations including: the Stop TB Partnership, the Drugs for Neglected Disease Initiative, the Global Alliance for TB Drug Development,

Médecins Sans Frontières, the Grand Challenges for Global Health Foundation of the National Institute of Health, and the Pediatric Dengue Vaccines Initiative.

The newest among those partnership initiatives is NITD – Eijkman Institute – Hasanuddin University Clinical research Initiative (NEHCRI) that aims to be effective in driving clinical research in dengue fever and tuberculosis, and possibly other tropical diseases, including malaria. The NITD will contribute its broad expertise in all aspects of drug discovery and development, as well as innovative technologies, financial support and training for the scientists and healthcare staff. Together with two other institutions, one of them being well known for excellent biomedical research in areas of strategic importance for Indonesia, and the other one being able to provide a clinical research unit, the NEHCRI alliance will give researchers at NITD direct access to hospitals and patients in a real-life context on a daily basis. It will also provide a platform to lay the groundwork for the clinical development of new medicines against tropical diseases.