



Neglected tropical diseases (NTDs) are a set of 17 diseases that disproportionately affect more than 1 billion people living primarily in the developing world.

As a leading cause of disability, NTDs carry with them significant social and economic burdens. However, as [the World Health Organization \(WHO\) reports](#), many of these diseases can be effectively controlled, and in many cases, eliminated. Our company has a long-standing commitment to research into NTDs. We initiated research on MECTIZAN® (ivermectin) for use in humans for the NTD onchocerciasis (river blindness) in 1978, leading to the creation of the groundbreaking [MEC-TIZAN Donation Program](#). Through a range of in-house programs and external partnerships, we continue to conduct research to address the burden of neglected tropical diseases today.

THE LONDON DECLARATION

We are an original signatory to the [London Declaration](#), a collaborative effort launched in 2012 to accelerate progress toward eliminating or controlling 10 NTDs by the end of the decade. Our company joined 12 other global pharmaceutical companies and many other stakeholders, including endemic country governments, the WHO, the Bill & Melinda Gates Foundation, USAID, the UK Department for International Development (DFID), nongovernmental organizations (NGOs), and other organizations in this effort.

Together with the other pharmaceutical companies, we committed to continuing or increasing donations of medicines to treat or prevent these diseases. Donors committed financial resources, and NGOs agreed to support implementation needs. The partners came together under the banner of "Uniting to Combat NTDs" to track progress and identify gaps that need to be addressed in order to reach the goals of the London Declaration. Through the MECTIZAN Donation Program, we are helping to achieve the disease control and elimination goals for two diseases, onchocerciasis (river blindness) and lymphatic filariasis (LF).

Although existing tools are having a major impact, several NTDs require new or improved drugs and diagnostics to achieve the goals of the London Declaration. We are engaged in various efforts to advance progress toward developing new drugs and diagnostics. For example, together with several other companies, we are providing access to compound libraries with external researchers through the [World Intellectual Property Organization's Re:Search \(WIPO Re:Search\) Consortium and Drugs for Neglected Disease Initiative \(DNDi\)](#). [Learn more](#) about our social licensing approach to combatting NTDs.

Taken together, through our drug donations for onchocerciasis and lymphatic filariasis and our research and development activities for schistosomiasis, visceral leishmaniasis and Chagas disease, we are supporting the London Declaration goals for five NTDs.

For more information on progress toward the London Declaration goals, [click here](#).

For more information on our company's drug donations for onchocerciasis and lymphatic filariasis, please refer to the [MEC-TIZAN Donation Program](#).

RESEARCH & DEVELOPMENT

WIPO Re:Search

Our company is one of the founding members of [WIPO Re:Search](#), a consortium of public and private organizations that facilitates research on neglected tropical diseases, malaria and tuberculosis. Through this consortium, we entered into an agreement with researchers at the University of California, San Francisco (UCSF), later transferred to the University of California, San Diego (UCSD), providing scientists with a series of compounds for screening that have the potential to lead to better and safer treatments for patients suffering from schistosomiasis. This disease is caused by a blood-borne parasite, and affects millions of people living in the developing world.

Also through WIPO Re:Search, in late 2014 [we entered into an agreement](#) with researchers at the Walter and Eliza Hall Institute of Medical Research (WEHI) in Australia that supports collaboration focused on the research and development of antimalarial drugs that could potentially impact the replication of malaria. In 2015, our joint team was successful in applying for and receiving a Wellcome Trust Pathfinder Award.

In furtherance of our commitment to the WIPO Re:Search mission and community, we continue to provide relevant expertise to other WIPO Re:Search members as requested and appropriate.

G-FINDER Survey

To contribute to global awareness and advocacy on research and development (R&D) for NTDs, we participate in the annual [G-FINDER survey](#). Since 2008, G-FINDER has reported on global investments in neglected disease R&D from a range of public and private institutions, and is considered a unique source of current information and insights into ongoing trends for stakeholders engaged in NTDs.

DNDi Collaboration

In May 2009, our company and the nonprofit organization DNDi entered into a collaboration to support the discovery and development of improved treatments for a range of NTDs. The initial partnership focused on trypanosome, derived NTDs, including visceral leishmaniasis (VL) and Chagas disease, both of which infect millions of people. We have recently expanded this partnership for 2016 to include investigation of macrofilaricidal agents (compounds that would kill adult worms that cause onchocerciasis and lymphatic filariasis) that would feed into further development activities conducted under the umbrella of the Bill & Melinda Gates Foundation–driven Macrofilaricide Drug Accelerator consortium described below.

Through a nonexclusive, royalty-free license to DNDi, we are contributing small-molecule assets and related intellectual property for DNDi to conduct early-development programs for drug candidates for treatment of NTDs, with the primary goal of manufacturing and distributing drugs at low cost to the public sector in resource-poor countries. In the anti-trypanosome effort, we have identified several series relevant for several NTD indications, each of which displays early promise and for which in vivo validation studies are being planned.

For the macrofilaricide effort, we have identified promising lead series with activity in a whole- worm assay. These leads were included in a compound collection that also included advanced compounds designed to allow rapid progression to in vivo efficacy studies, currently in progress. We will share joint intellectual property rights on drug candidates generated through early development, and our company will retain the option to undertake late clinical development and registration of these drugs.

Macrofilaricide Drug Accelerator

In 2015, our company became a founding member of the Macrofilaricide Drug Accelerator Program (MacDA), an effort driven by the Bill & Melinda Gates Foundation to support the members' collective work toward identifying and generating lead drug compounds to augment the global onchocerciasis and lymphatic filariasis drug pipelines. We have established collaborations within the MacDA membership in support of the program's goals to accelerate the discovery of such lead drug compounds, including the Liverpool School of Tropical Medicine. DNDi also is a key player in this effort, assisting our

company in the evaluation of lead molecules for in vivo efficacy.

Emerging Pathogens With Potential To Generate Severe Epidemics

Our company is currently collaborating with the United States Army Medical Research Institute of Infectious Diseases (USAMRIID) and other organizations on research to determine the ability of our company's compounds, and biologics, to inhibit infectious disease organisms, including Ebola, Zika and related viruses that have the potential to generate severe epidemics and pose a threat to civilian and military populations.

CLINICAL RESEARCH

A Phase II investigational proof-of-concept clinical study to evaluate the oral antifungal agent posaconazole (marketed as NOXAFIL® oral suspension in the U.S., the EU and several other countries) for the treatment of chronic Chagas disease has been completed. In planning the study, we consulted with international agencies and research organizations to identify current medical needs and reach consensus on a study design using posaconazole in asymptomatic chronic Chagas disease. Unfortunately, this study did not show any benefit of Noxafil in the treatment of chronic Chagas disease, and no further evaluation is planned. The results of this study have been publicly presented and accepted for publication.