DNDi
Best Science
for the Most Neglected

FACTS

» Over 12 million
people living with river blindness

» Over 58 million
people living with lymphatic filariasis

» Over 30 million
women living with female genital schistosomiasis

DISEASE FACTSHEET

PARASITIC WORMS

Breaking the cycle of infection, disability, and stigma

An estimated 1.5 billion people are living with parasitic worm diseases. Most prevalent in tropical and subtropical areas, schistosomiasis, river blindness, and lymphatic filariasis take their heaviest toll on communities already vulnerable due to poverty and limited access to clean water and sanitation. They can cause significant illness, lifelong harm, permanent disability, and in severe cases, death. **Existing treatments are often insufficient.** They may not provide a complete cure, face risks of emerging resistance, and remain unavailable outside of preventive mass drug administration campaigns.

Current strategies to interrupt transmission rely on large-scale, periodic distribution of anti-helminthic drugs that must be given to nearly all people in endemic areas for up to a decade. While this approach has enabled progress, it is increasingly unsustainable due to global health funding shifts, and people living in remote and insecure settings, pregnant women, and young children often go untreated. **New treatments that can cure parasitic worm diseases before they cause irreparable harm are urgently needed – including for young children and pregnant women.**

» THE PUSH FOR PROGRESS

We are advancing in our efforts to develop safe, effective, field-adapted treatments for river blindness, lymphatic filariasis, and schistosomiasis – including female genital schistosomiasis, a devastating form of the disease that causes severe pain, stigma, and lasting harm to reproductive health for millions of women and girls. Our work with partners also extends to other neglected worm diseases where treatment candidates have shown promise.

OUR GOAL IS NOW to advance the development of at least one new treatment for both river blindness and lymphatic filariasis, while continuing work with partners to improve awareness, diagnosis, and treatment of FGS.

NEW HOPE FOR POTENTIAL CURES

Current treatments for river blindness and lymphatic filariasis are only effective against juvenile worms – not adult worms that can live for up to 10 years inside the human body – and require up to a decade of repeated annual administration. **New treatments effective against both adult (macrofilaricidal) and juvenile (microfilaricidal) worms are critical to end suffering and stop transmission.**

In collaboration with Bayer AG, DNDi began evaluating emodepside as a potential macrofilaricidal drug for river blindness in 2013. Originating at Japanese pharmaceutical company Astellas Pharma Inc., emodepside was initially commercialized as a veterinary anti-helminthic. In 2023, DNDi began part 1 of a Phase II trial evaluating the drug's safety and efficacy against river blindness together with partners Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR), Kwame Nkrumah University of Science and Technology (KNUST) in Ghana, and the national neglected tropical diseases preventive chemotherapy control programme (PNLMTN-CTP) in the Democratic Republic of the Congo (DRC). **In 2025, analysis of trial data confirmed emodepside is safe and effective against both juvenile and adult *O. volvulus* worms – the first drug to show macrofilaricidal efficacy in clinical trials.**

> I wanted to do something on my own, but my legs do not allow me.

KHUSHBOO, a mother of three from Mirzapur village in Bihar, India, has been living with lymphatic filariasis for a decade, leading to severe swelling in both of her legs. She had once hoped to work outside the home, but acute flare-ups of inflammation often leave her unable to stand or move for days.

Photo credit: JDot-DNDi

This significant milestone prompted DNDi's Scientific Advisory Committee to select the project as the 2025 Project of the Year in clinical research. Preparations for part 2 of the Phase II trial investigating the safety, tolerability, and efficacy of selected doses are underway.

DNDi continued work with partners to evaluate a second very promising candidate, oxfendazole, as another potential macrofilaricidal treatment for multiple parasitic worm diseases. Several concurrent Phase II trials conducted by partners in the eWHORM consortium are evaluating the drug's safety and efficacy against river blindness (led by Institut National de Recherche Biomédicale in the DRC); loiasis (led by Lambaréné Medical Research Center in Gabon); and trichuriasis (led by the Ifakara Health Institute in Tanzania). All three trials began recruitment in 2025, with the Tanzanian study also completing recruitment.

In India, DNDi continued to support a separate Phase IIa study led by the Indian Council of Medical Research testing the safety and efficacy of oxfendazole against lymphatic filariasis. **If proven effective, the drug could boost efforts to eliminate the disease in India.** In Africa, we are supporting FAME, a consortium working to develop a shorter and safer treatment for river blindness by repurposing fusidic acid as an anti-Wolbachia therapy.

ADVANCING EARLY-STAGE RESEARCH

Schistosomiasis affects over 250 million people worldwide, but only one drug – praziquantel – is available to treat the disease. It is only partially effective, as it kills adult worms but has limited effect against juvenile worms. For women living with FGS, praziquantel is even less effective.

We are working with partners in Brazil, Ghana, Germany, Japan, Thailand, and the United States to boost schistosomiasis drug discovery through the Schistosomiasis Translation Platform. The project aims to bridge the research gap between *in vitro* activity and *in vivo* efficacy while strengthening early-stage research in endemic countries. Platform partners have begun evaluating a Merck compound library with the goal of establishing a 'compound box' that can be made available to researchers for further studies within an open-science drug discovery model.

RESTORING DIGNITY AND HOPE

An estimated 30-56 million women and girls are living with FGS, yet the deeply stigmatizing disease is seldom correctly diagnosed. The only available treatment – praziquantel – does not reduce painful inflammation or help repair damage already done.

Together with partners in the WINGS-4-FGS consortium, DNDi is working to pioneer a new treatment approach that combines praziquantel with safe, available anti-inflammatory drugs to reduce pain, prevent long-term harm, and improve quality of life. The project officially launched under the auspices of the Institute of Health Research of the University of Health and Allied Sciences in Ho, Ghana in November 2025. Preparations for the Phase III trial continued, and activities to strengthen partnerships and women's healthcare capacity began in Côte d'Ivoire, DRC, Ghana, Madagascar, and Malawi.