# GHIT 3.0 Strategic Plan

### FY2023-FY2027



Global Health Innovative Technology Fund

# VISION

Our vision is a world free of neglected infectious diseases that affect over a billion people with the aim of achieving health equity.

# MISSION

We leverage Japanese innovation and leadership to fight against neglected infectious diseases through investing in research and development and promoting global partnerships.



Fund

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### Value of the GHIT Fund



Japanese Innovation Improving global health by identifying and investing in Japanese innovation



Global Partnership Facilitating cross-border & cross-sector partnership to accelerate product development



Support Globalization

Advancing the Globalization of Japan's pharmaceutical industry and reinforcing ESG management

### **GHIT Product Development Partners**

Japanese Organizations 63 Non-Japanese 123 Organizations



As of March 31, 2025



### Investment Scope

Infectious diseases like malaria, tuberculosis (TB), and neglected tropical diseases (NTDs) affect over 1.7 billion people globally, but research and development for treatment and prevention remain insufficient due to lack of funding and trained personnel for effective control. There are an estimated 260 million cases of malaria alone each year, and TB causes more than 1.2 million deaths annually. These diseases disproportionately impact the world's poorest populations, resulting in illness, disability, and stigma, which decrease productivity and perpetuate cycles of poverty.



## Cases in 2023 Deaths in 2023 263 million 597,000

Malaria parasites, spread by female Anopheles mosquitoes, destroy red blood cells causing fever, chills, and severe anemia. The disease can rapidly overwhelm vital organs, becoming deadly within days. It claims hundreds of thousands of lives yearly despite being entirely preventable. Of the five parasite species affecting humans, *Plasmodium falciparum* and *Plasmodium vivax* are the most dangerous.

## Cases in 2023Deaths in 202310.8 million1.25 million

TB, the world's deadliest infectious disease (surpassing COVID-19 as of late 2024), spreads through airborne droplets. While infection often remains dormant, it can activate when immunity weakens, particularly in people with HIV/AIDS.

The bacteria typically attack the lungs but can also affect other organs. In some countries, the number of TB cases is increasing due to population aging and migration, and many cases remain undiagnosed or untreated. With rising cases and drug resistance, often caused by inappropriate treatment, TB remains a dangerous and difficult disease to treat.

Cases in 2023

### 1.5 billion

NTDs comprise 21 conditions caused by various pathogens that primarily affect impoverished communities in tropical regions. Their complex transmission through climate, living conditions, cultural practices, vectors, and animal hosts, makes control difficult. Many NTDs cause visible disfigurement and profound stigma, leading to social isolation beyond physical suffering. Despite causing devastating health, social, and economic consequences, NTDs receive little research funding and attention, and many lack effective diagnostics or treatment and remain consistently overlooked.



### 21 neglected tropical diseases (NTDs)



#### Buruli ulcer

Bacteria in soil or water enter the body through cuts or bites, causing chronic skin ulcers. Without early treatment, bones may be destroyed, causing disfigurement.

Chagas disease (American trypanosomiasis)

A parasitic infection spread primarily through

like fever or muscle pain. Years later, it can

bites of kissing bugs. Early symptoms are mild,



#### cause heart or digestive failure and sudden death. Dengue

Dengue fever is spread by Aedes mosquitoes, rather than malaria mosquitoes. It causes sudden high fever, severe headache, joint pain, and sometimes rash. Severe cases can lead to bleeding, shock, and can be fatal if untreated.



#### Echinococcosis

Parasitic infection where tapeworm larvae from contaminated food or canine contact form potentially fatal organ cysts, particularly in liver and lungs.



#### Leishmaniasis

A parasitic infection transmitted by sandfly bites that can affect the skin, mucous membranes, or internal organs. Visceral leishmaniasis, in particular, may be fatal if left untreated.

Lymphatic filariasis (Elephantiasis)

A mosquito-borne parasitic infection where

filarial worms block lymph nodes, causing

severe limb/genital swelling and thickened,



#### Mycetoma

A bacterial or fungal infection entering through foot wounds, causing painless swelling at first, leading to eventual deformity and disability if severe, and possible death.



#### Spread by blackfly bites, this parasitic

Onchocerciasis (River blindness)

infection causes severe itching, skin changes, and can lead to blindness, for which it is the world's second leading cause.

#### Schistosomiasis (Bilharziasis)

Spread by freshwater snails, this parasite causes abdominal pain, blood in urine or stool, and can lead to bladder cancer or liver damage if untreated.

#### Soil-transmitted helminthiasis (Intestinal parasitic worms)

Parasitic worm infections from contaminated soil and food, which can cause intestinal obstruction, cough, skin itching, growth impairment, blood in stool, and anemia.























#### Dracunculiasis (Guinea-worm disease)

Parasitic infection from contaminated water where worms penetrate intestines, migrate under skin, and emerge through painful blisters, typically on legs.

#### Foodborne trematode infections

Infections by parasitic flukes (worms) from eating undercooked or raw fish/shellfish or contaminated vegetables, causing fever, pain, and potential liver or lung damage.

#### Human African trypanosomiasis (African sleeping sickness)

A parasitic disease transmitted by the tsetse flies, which causes fever and swollen lymph nodes, then severe neurological symptoms, and is fatal if untreated.

#### Leprosy (Hansen's disease)

A bacterial infection with low infection that damages skin and nerves. Advanced cases cause stigmatizing external deformities.

#### Rabies

Rabies spreads through bites from infected animals. Early symptoms are pain, fever, and loss of appetite. Once symptoms appear, it is almost always fatal.

#### Scabies

A skin condition caused by tiny mites that burrow under the skin, spreading through close contact with infected people. The mites cause intense itching and rash, especially at night.

#### Snakebite envenoming

Toxins in the bite of a venomous snake that can cause deadly paralysis affecting breathing, dangerous bleeding, kidney damage, and tissue damage.

#### Trachoma

A bacterial eye infection spread by personal contact and by flies and insects in unsanitary conditions. Without treatment, repeated infections inflame the eyelids and eye surface, eventually scaring the cornea and causing blindness.

#### Cysticercosis (Taeniasis)

Tapeworm infection from contaminated food or water is often initially asymptomatic but can later cause vision loss, seizures, paralysis, and death.

#### Yaws

Bacterial infections spread through skin-to-skin contact through scrapes or cuts, which can cause chronic lumps or ulcers in the skin, bone, or cartilage, sometimes resulting in disfigurement or physical disability.

#### Noma

A severe infection that initially manifests through gum ulcers and progresses to destroy facial tissue and bone and can be fatal.



Reference: World Health Organization (WHO) https://www.who.int/ illustration: © Shota Kovano Copyright © Global Health Innovative Technology Fund / 2025.06

### Strategic Plan FY2018-FY2022

#### Advancement of Investments in R&D and Product Development

Objective	R&D milestone		Targeted by March 2023	Achieved by March 2023	
	Diagnostics	Innovative diagnostics technologies identified and funded	5	11	Achieved
Leverage innovations from Japanese biopharma and academia	Lead Identification	Hit-to-lead programs funded	5	17	Achieved
	Preclinical	Preclinical candidates identified	8	14	Achieved
Advance R&D investment pipeline and prioritize late-stage candidates	Phase I	First-in-human clinical trials conducted	5	6	Achieved
	Phase II - Phase III	Proof of concept achieved	3	4	Achieved
	Registration	Approval from a stringent regulatory authority	2	1	

GHIT Fund has played the pivotal role in promoting research and development to fight neglected diseases by making most of Japanese technology and innovation and promoting global partnership between academia, public and private sector.

#### Peter Piot, MD, PhD

Professor of Global Health, London School of Hygiene & Tropical Medicine Special Advisor on COVID-19 to the President of the European Commission



At the end of 2022, the European Medicines Agency validated our application and started the scientific review process for the potential new pediatric treatment option for schistosomiasis. Having reached this milestone after more than 10 years of intense and collaborative work makes me very proud.

Dr. Jutta Reinhard-Rupp Chair of the Pediatric Praziquantel Consortium Board Head of the Global Health Institute at Merck





GHIT's achievements are not limited to promoting research and development, but also include contributing to the globalization and human resource development of researchers in the field of infectious diseases in Japan. I believe that GHIT's unique investment in joint research between Japanese and foreign organizations further strengthens the research capabilities and

partnerships of Japanese research institutions.

#### **Prof. Kiyoshi Kita** Dean, Graduate School of Tropical Medicine and Global Health, Nagasaki University



As of March 31, 2023

\*Affiliation and position are as of the time of the interview. Copyright © Global Health Innovative Technology Fund / 2025.06

### GHIT 3.0 Strategic Plan Galvanize Innovation

#### Accelerate Late-Stage Product Development

#### Strategic Plan FY2023-FY2027

Objective	R&D milestone	Targeted by March 2028	
Leverage innovations from biopharma and academia	Lead Identification	5	Hit-to-lead-programs funded
	Preclinical	12	Preclinical candidates identified
Advance R&D investment pipeline and prioritize late-stage candidates	Phase I 6 First-i		First-in-human clinical trials conducted
	Phase II - Phase III	3	Proof of concept achieved
	Registration	3	Products approved by stringent regulatory authority
		1	Local program implementation of a product
		$\checkmark$	

#### Promote Open, Collaborative R&D



• Co-creation of products through international joint research and transparency in sharing findings between various industries of academia, research institutes, pharmaceutical companies, SMEs and Japanese and international startups.



### GHIT 3.0 Strategic Plan Maximize Impact

#### **Optimize Portfolio**





 Continue to leverage limited resources by exploring various funding mechanisms and prioritizing sustainability.



- Further enhance corporate governance and institutional development.
- Ensure organizational sustainability through deployment of appropriate HR management and financial strategies.



### GHIT 3.0 Strategic Plan Catalyze Partnerships

#### Create an Enabling Environment for Access & Delivery

GHIT works proactively with product development partners to help them develop robust launch strategies and establish strategic, product-focused partnerships for appropriate, timely access and delivery of their innovations. Key considerations are illustrated below.



#### Strengthen Strategic Partnerships, Focusing on LICs & LMICs



• Continue to extend institutional presence in LICs and LMICs and explore innovations from the ground up.

#### Demonstrate End-to-End R&D/A&D Ecosystems



• Leverage UNDP and other global networks to ensure seamless connectivity between innovation (R&D) and access and delivery (A&D).

