GHIT Fund

Global Health Innovative Technology Fund

Appendix.1 New Investments

ID/Status	Project Title	Collaboration Partners	Disease/Intervention	Stage	Awarded Amount
T2020-253 New project	Identification of novel dual-acting bactericidal drug targets against *Mycobacterium tuberculosis*	Fujita Health University, Hokkaido University, Nagoya University, Research Institute of Tuberculosis, Harvard University, University of Minnesota	Tuberculosis Drug	Target Identification	¥97,461,961 (US$881,132)

*All amounts are listed at the exchange rate of USD1 = JPY110.61, the approximate exchange rate on June 30, 2021.

GHIT Fund
Global Health Innovative Technology Fund

Appendix.2 Project Details

T2020-253

Project Title	Identification of novel dual-acting bactericidal drug targets against *Mycobacterium tuberculosis*
Collaboration Partners	Fujita Health University, Hokkaido University, Nagoya University, Research Institute of Tuberculosis, Harvard University, University of Minnesota
Disease	Tuberculosis
Intervention	Drug
Stage	Target Identification
Awarded Amount	¥97,461,961 (US$881,132)
Status	New project
Summary	[Project objective] This project aims to identify novel targets for TB drugs that can rapidly and strongly kill *Mtb* through two independent antimicrobial mechanisms (dual-acting). We have already identified such dual-acting candidate genes. In this project, we will characterize our candidate genes *in vitro* and *in vivo* to prioritize them within our discovery pipeline. [Project design] We will utilize a newly developed gene silencing technology for *Mtb*, the mycobacterial CRISPR interference (CRISPRi) system, to characterize our candidate genes *in vitro* and *in vivo*. Once we genetically validate our candidate genes, we will perform small-scale screenings using our in-house unique small molecule library (the ITbM chemical library). We will employ our unique whole cell target assays to identify small molecules that kill *Mtb* due to inhibition of one of our genetically validated targets. The identified hit compounds will be clustered by structural similarity and representative molecules of each cluster will be derivatized. These compounds will be used as probe compounds to perform chemical validation of the genetically validated targets.
Project Detail	https://www.ghitfund.org/investment/portfoliodetail/detail/188/en

*All amounts are listed at the exchange rate of USD1 = JPY110.61, the approximate exchange rate on June 30, 2021.

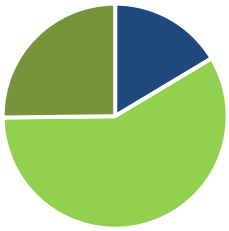
Appendix.3 Investment Overview (As of July 15, 2021)

1. Investment to date

Total investments 26.1 billion yen (US$236 million*)
Total invested Projects 106 (active projects 57, completed projects 49)

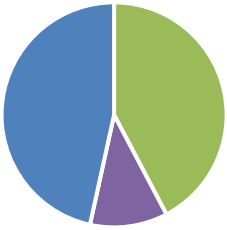
2. Portfolio analysis (active projects + completed projects)

Stage



- Discovery ¥4,289,442,407 (US$38,779,879) 16.4% (58 projects)
- Preclinical ¥15,264,047,208 (US$137,998,799) 58.4% (33 projects)
- Clinical ¥6,583,713,558 (US$59,521,866) 25.2% (15 projects)

Disease



- Malaria ¥11,052,661,516 (US$99,924,614) 42.3% (46 projects)
- Tuberculosis ¥2,916,863,580 (US$26,370,704) 11.2% (20 projects)
- NTDs ¥12,167,678,077 (US$110,005,226) 46.6% (40 projects)

Intervention

- Drugs ¥17,444,235,947 (US$157,709,393) 66.7% (69 projects)
- Vaccines ¥6,019,329,759 (US$54,419,399) 23.0% (23 projects)
- Diagnostics ¥2,673,637,467 (US$24,171,752) 10.2% (14 projects)

*All amounts are listed at the exchange rate of USD1 = JPY110.61, the approximate exchange rate on June 30, 2021.

To know more about GHIT investments, please visit
Investment Overview: https://www.ghitfund.org/investment/overview/en
Portfolio: https://www.ghitfund.org/investment/portfolio/en
Advancing Portfolio: https://www.ghitfund.org/investment/advancingportfolio/en
Clinical Candidates: https://www.ghitfund.org/investment/clinicalcandidates/en