Partner with Japan, Accelerate Health Innovation
Correlation between International Travel and Incidence of Dengue Fever

Source:
- International travel: International Civil Aviation Organization
43% of world population are at risk of infection with NTDs
Of the 336 brand-new drugs (new chemical entities, or NCEs) approved for all diseases in 2000-2011, only four, or 1%, were for neglected diseases.
R&D Expenditures and New Molecular Entities

R&D Expenditures (Billion of $US)

Number of NCEs

Source: USFDA & PhRMA
Drug Market Share by Specialty in Japan

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>13.8</td>
<td>Cardiovascular</td>
<td>16.9</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>11.2</td>
<td>Digestive organ</td>
<td>8.2</td>
<td>Miscellaneous metabolism</td>
</tr>
<tr>
<td>CNS</td>
<td>9.2</td>
<td>CNS</td>
<td>8.1</td>
<td>CNS</td>
</tr>
<tr>
<td>Digestive organ</td>
<td>8.9</td>
<td>Miscellaneous metabolism</td>
<td>8.1</td>
<td>Digestive organ</td>
</tr>
<tr>
<td>Miscellaneous metabolism</td>
<td>7.9</td>
<td>Antibiotics</td>
<td>6.2</td>
<td>Epidermides</td>
</tr>
<tr>
<td>Epidermides</td>
<td>5.7</td>
<td>Epidermides</td>
<td>5.9</td>
<td>Antibiotics</td>
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<tr>
<td>Diagnostic</td>
<td>5.6</td>
<td>Blood and body fluid</td>
<td>5</td>
<td>Blood and body fluid</td>
</tr>
<tr>
<td>Vitamins</td>
<td>4.7</td>
<td>Biological</td>
<td>4.2</td>
<td>Cancer</td>
</tr>
<tr>
<td>Respiratory organ</td>
<td>4.5</td>
<td>Sensory organ</td>
<td>3.8</td>
<td>Biological</td>
</tr>
<tr>
<td>Blood and body fluid</td>
<td>3.1</td>
<td>Hormones</td>
<td>3.7</td>
<td>Sensory organ</td>
</tr>
<tr>
<td>Others</td>
<td>25.3</td>
<td>Others</td>
<td>29.9</td>
<td>Others</td>
</tr>
</tbody>
</table>

Source: 医薬品産業ビジョン2013資料編 厚生労働省
Market Failure

GHIT Accelerates Product Development (Health Innovation)
“I see many innovations and technologies and capable people here in Japan. It’s a wonderful idea to utilize these Japanese assets to contribute to and accelerate drug development for global health.”

Joji Nakayama
President and CEO of Daiichi Sankyo Co., Ltd.

“Our contribution to global health is a long-term investment to future market growth. Improving access to medicine, which consists of four elements, is not straightforward. Availability of the drug to the patients; affordability – drug should be affordable by society; adoption – even if the drug is available and affordable, people should be willing to take those medicines; architecture – basic medical infrastructures, hygiene, water supplies – are very important. The industry itself can do a bit within those four pillars, but we need partnership to overcome these issues.”

Haruo Naito
President and CEO of Eisai Co., Ltd.

“The re-emergence of infectious diseases has been a global wake-up call and it’s essential we look in new directions and explore new opportunities for developing solutions. We need better knowledge sharing through partnerships between high and middle-income countries, donors and developing countries. The Gates Foundation wholly support the mission of the GHIT Fund and encourages researchers and academic institutions to look to the organization when seeking collaboration and funding opportunities.”

Dr. Trevor Mundel
President of the Global Health Division
Bill and Melinda Gates Foundation
In April, 2013, the Global Health Innovative Technology Fund, a new model of funding for global health research and development, was established in Tokyo. Technology should benefit the health of all people. My government stands ready to work with the private sector and help other countries to solve these global health challenges to contribute to the sustainable growth of the global economy.
Japan Revitalization Strategy

日本再興戦略

外務省
MOFA Japan

Japan's Strategy for Global Health Diplomacy

國際保健外交戰略

Healthcare and Medical Strategy

健康・医療戦略
New Drug Development World Ranking

Among world’s 100 top-selling drugs in 2010 © 2014 IMS Health World Review Pharmaprojects
Created by the Office of Pharmaceutical Industry Research based on 2014 IMS Health IMS World Review Pharmaprojects (all rights reserved)
R&D Investment by Industry in Japan

<table>
<thead>
<tr>
<th>Industry</th>
<th>R&amp;D Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total manufacturing</td>
<td>4.14%</td>
</tr>
<tr>
<td>Drug &amp; Medicines</td>
<td>11.96%</td>
</tr>
<tr>
<td>Textiles</td>
<td>3.81%</td>
</tr>
<tr>
<td>Chemical industry</td>
<td>3.81%</td>
</tr>
<tr>
<td>Rubber products</td>
<td>3.48%</td>
</tr>
<tr>
<td>Ceramics</td>
<td>3.22%</td>
</tr>
<tr>
<td>Non-ferrous metal</td>
<td>1.93%</td>
</tr>
<tr>
<td>Business oriented machinery</td>
<td>8.76%</td>
</tr>
<tr>
<td>Production machinery</td>
<td>3.55%</td>
</tr>
<tr>
<td>Electrical machinery, equipment and supply</td>
<td>5.98%</td>
</tr>
<tr>
<td>Motor vehicles, parts and accessories</td>
<td>4.78%</td>
</tr>
</tbody>
</table>
Trend in Domestic Tax by Major Industry

Source: Vision for Pharmaceutical industry 2013, materials (MHLW)
GHIT FUND PORTFOLIO

Discovery

Screening Platform

Hit-to-Lead Platform

Preclinical

Product Development

Clinical

Product Development

Malaria

Tuberculosis

NTDs
Funding mechanism

External Review

External Reviewers – experts with >20 years of experience in anti-infectives R&D – independently review each proposal.

Selection Committee

GHT Selection Committee critiques each proposal, ensures quality product development plan, and recommends funding to the Board.

Board Meeting

GHT Board directs portfolio strategy and awards funding using a milestones-based approach to ensure return with minimal risk.

Selection Committee

[Roles and Functions] Review and evaluate grant proposals and progress reports from grantees / Recommend provision of grants to Board of Directors based on results of review and evaluations / Ensure independence, accountability and transparency of grant recommendations

Selection Committee Member

Mahima Datta
Sr. Vice President at Biological E. LTD

Selection Committee Member

Ken Duncan, Ph.D.
Deputy Director, Discovery & Translational Sciences at the Bill & Melinda Gates Foundation

Selection Committee Member

Penny M. Heaton, M.D., M.P.H.
Director, Vaccine Development and Surveillance at the Bill & Melinda Gates Foundation

Selection Committee Member

Kiyoshi Kita, Ph.D.
Professor, Department of Biomedical Chemistry, Graduate School of Medicine, The University of Tokyo

Selection Committee Member

Alex Matter, M.D.
CEO, Experimental Therapeutics Centre and D3, ASTAR, Singapore

Selection Committee Member

Yasuko Mori, M.D., Ph.D.
Professor, Division of Clinical Virology, Center for Infectious Diseases, Kobe University Graduate School of Medicine

Selection Committee Member

Dennis Schmatz, Ph.D.
Former Head of Infectious Diseases Research, Merck Research Labs, USA
Former Head of Research, MSD-Japan
Be part of our vision