

# 2021 Annual Report



재단법인 국제보건기술연구기금

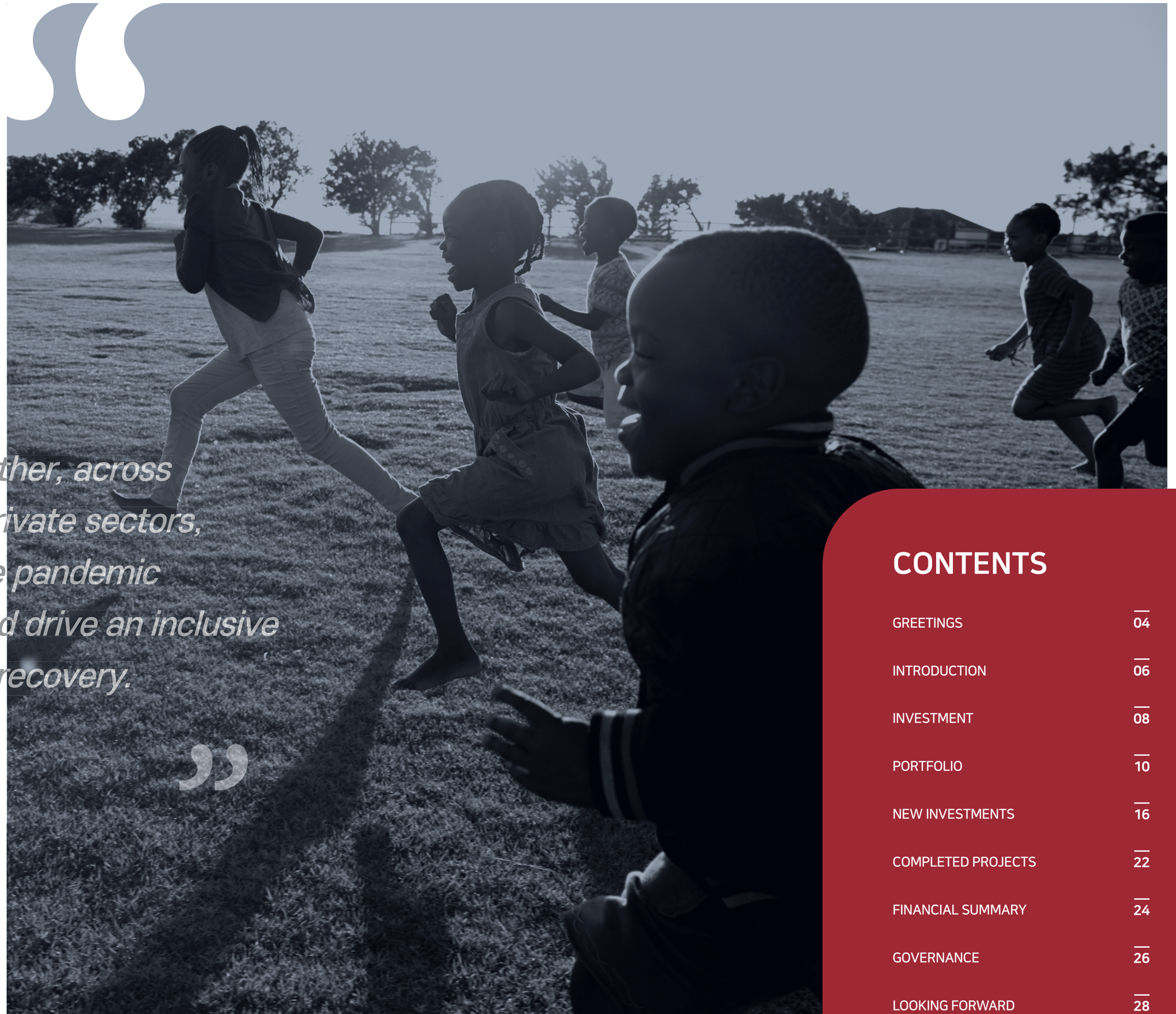
**RIGHT FOUNDATION**





*By working together, across the public and private sectors, we can bring the pandemic under control and drive an inclusive and sustainable recovery.*

WHO Director General  
**Tedros Adhanom  
Ghebreyesus**



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## Chairman's Message

The innovative funding model of the RIGHT Foundation in partnerships between Korean Government, Korean Life Science industry partners, and the Bill & Melinda Gates Foundation shares the goal of supporting the R&D efforts of some of the most devastating, yet often neglected diseases.

RIGHT's mission provides a powerful reminder for our collective determination on the possible contribution for alleviating the burden of infectious diseases with delivery of global health solutions – through vaccines, therapeutics, and diagnostic technologies.

Korean R&D institutions and life science companies with excellent public health technology development capacities collaborating with infectious diseases researchers in Low- and Middle-Income Countries (LMICs) to alleviate global health inequity and exchange technologies and insights sets an exemplary model for our societies' mutual growth. To synergize the global efforts, the RIGHT Foundation will strive to support and guide its completed projects and their outcomes to successful WHO PQ and public procurements to international organizations such as CEPI.

The RIGHT Foundation looks forward for active engagements from various industry partners and researchers to join us on our mission. Thank you.

Research Investment for Global Health  
Technology Foundation Chairman

**Myongsei Sohn, Ph.D M.D.**

*Dr. Sohn joined the Board of the RIGHT Foundation in 2019 as the 2nd Chairman. He leads the Board of Directors with several decades of experience in academic research and educating the next generation of health policy experts. He still serves as a Professor Emeritus at Yonsei University. Early in his career in 1980s, he worked on the historic Founding Commission for Universal Health Coverage in Korea. Converging with his long-term contributions for Korea's health care legislations, he later steered the Health Insurance Review and Assessment Service (HIRA) of Korea as Executive Director. His broad range of services includes the Dean of Graduate School of Public Health at Yonsei University, Executive Board Member of WHO, Special Advisor to the Executive Director of UNAIDS, Bioethics Committee member of UNESCO, President for Korean Academy of Health Policy and Management, and Asian-Pacific Consortium for Public Health (APACPH).*

*Most recently, before joining the RIGHT Foundation, he headed the Institute of Global Engagement and Empowerment as the founding chairman at Yonsei University. In continuation of his interest for global sustainable development, he also serves on the Steering Committee for Global Health Affairs for Ban Ki-moon Foundation for a Better Future as well as on Revision Committee for International Health Regulations (IHR) of WHO. Throughout his career, he has held keen interest and focus on the efforts for accelerating and achieving global universal health coverages-with empowerment for localized and sustainable healthcare initiatives. Such long-held interest and focus provide a natural match with the vision and mission of the RIGHT Foundation.*

## Executive Director's Message

Much of the RIGHT Foundation's existence since its establishment in 2018 has coincided with the first pandemic in modern times. The Foundation was established with an intent to propel Korea as a growing ally in global health R&D collaboration with the mission of contributing to improving health and health equity globally. The COVID-19 pandemic has brought a fresh sense of urgency and necessity to this mission.

On one hand, the pandemic confirmed that health technologies including vaccines and diagnostics are valuable in protecting the public in times of acute health emergencies. On the other hand, the pandemic reminds us that production of health technologies is not sufficient to ensure that these technologies benefit all. Health inequity is rooted in the inequalities in the ownership of material resources and knowledge. For technologies to serve our collective wellbeing, we must share resources, knowledge, and decision-making power over key parameters of health R&D, including what technologies would be useful in which contexts and how.

In pursuit of our mission of health equity, we reimagine what health R&D collaboration should look like. At a minimum, it is one that enables an exchange of knowledge about what would or would not be considered valuable technologies in particular health system contexts across countries, with a sense of humility and mutual respect. It is distinct from leadership from an assumed sense of cultural or technological superiority. We believe such a model of collaboration is necessary to ensure that any technologies purported to serve global public health will have a sustainable and equitable impact, and that is the model of collaboration that the RIGHT Foundation aspires to catalyze.

Our vision is to become a platform for international collaboration to develop essential health technologies as global public good that can benefit all. We are young and have a long way ahead towards our mission. We are grateful for all those of you who are on this journey with us.

Thank you.

Research Investment for  
Global Health Technology Foundation  
Executive Director  
**Hani Kim, Ph.D**



# About the RIGHT Foundation

The RIGHT Foundation is a research funding agency dedicated to supporting global health Research and Development (R&D) through a three-way partnership between the Government of Korea, Korean life science companies, and Bill & Melinda Gates Foundation. The RIGHT Foundation provides a platform to catalyze collaborations between Korean and international researchers and partners to develop essential health technologies as global public good.

## Mission & Approach

- **Mission** : Contribute to improve health and health equity globally
- **Approach**
  - Leverage Korea’s strengths in health technology R&D
  - Foster collaboration between Korean and international researchers
  - Develop essential health technologies as global public good

## Collaborating Partners

- The Korean Government’s Ministry of Health and Welfare has lead the establishment of the RIGHT Foundation, consolidating partnerships with Korean life science industry partners and Bill & Melinda Gates Foundation.
- In 2021, the Ministry of Health and Welfare became the RIGHT Foundation's biggest supporter by doubling its annual commitment from 5 billion KRW to 10 billion KRW.
- Two new Korean life science industry partners also joined to contribute to the RIGHT Foundation's mission. KT and Quratis committed to support the RIGHT Foundation as a full partner and an associate partner respectively, and SD Biosensor expanded its commitment by becoming a Full Partner.

## Collaborating Partners

● Government of Korea



Ministry of Health and Welfare

● International Funder



BILL & MELINDA GATES foundation

● Korean Life Science Companies



Chong Kun Dang Pharm.



GCPharma



Genexine



kt



LG Chem



SK bioscience



SD BIOSENSOR



BiONEER  
Innovation · Value · Discovery



eubiotics



Quratis



Partner Category	Percentage
Government of Korea	54%
International Funder	25%
Korean Life Science Companies	21%

# The RIGHT Foundation Partner Remark



## Keum Yeoul Park

Director General for Health Industry, Korean Ministry of Health and Welfare

With the global impact of the COVID-19 pandemic, global society has realized that global cooperation is crucial to overcome infectious diseases and enhance global health equity. To overcome the ongoing COVID-19 pandemic and prepare for any pandemic situations in the future, continuous public-private partnership investment in R&D for new treatments on infectious diseases and new vaccines is essential. Such global health cooperation should be premised on close partnership among various entities including governments of each country and private institutions. A representative example of such partnership is the cooperative system between the Ministry of Health and Welfare(South Korea) and the RIGHT Foundation. In order to further strengthen the partnership, the Ministry of Health and Welfare doubled its annual commitment from KRW 5 billion to KRW 10 billion from 2021 and extended the period of the project by three years. As the scale and sustainability of the RIGHT Foundation have enhanced, the Ministry hopes the RIGHT Foundation to perform a significant role in solving public health problems as an innovative public health collaboration platform.

## Hun Kim

Chief Technology Officer, SK Bioscience



With the COVID-19 pandemic, we have experienced that infectious diseases significantly affect not only a specific region or country but also the global economy and society, and the importance of the development of essential medical products has increased enormously. Furthermore, as in the case of the development of COVID-19 vaccines, the synergetic effects created through cooperation between public and private sectors became more important to overcome the dangers of infectious diseases. Upon reflecting our recent experiences, efforts in research and technological development to treat infectious diseases remain imperative. Since 2018, the RIGHT Foundation has continuously provided opportunities for life science companies with advanced technology in Korea to further contribute to global public health through its research funding awards. In alignment with the RIGHT Foundation's vision to become a transnational public health technology collaboration platform beyond conventional financial support, SK Bioscience has high hopes for the RIGHT Foundation to sustainably contribute to improve the health of those in Low- and Middle-Income Countries. SK Bioscience looks forward to collaborate closely with the RIGHT Foundation to improve global public health.



## Ann Mills-Duggan

Director, AMD Biomedical

As a long-standing and independent member of the RIGHT Foundation Selection Committee, I have always been impressed by the depth and breadth of biomedical innovation in Korea that is being directed towards tackling unmet medical needs. However, equally important has been the rapid evolution of the RIGHT Foundation itself and its ability to attract and foster unique and productive partnerships. Most recently the increased involvement of Product Development Partners (PDP) and partners from Low-and Middle-Income Countries in RIGHT Foundation projects has meant that there is a clear route to impact for the products arising from this incredibly important work.

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# The RIGHT Foundation Investment

The RIGHT Foundation prioritizes supporting projects responding to alleviating the disproportionate burden of infectious diseases upon Low and Middle Income Countries(LMICs) and projects that develop interventions that can be used effectively and appropriately in LMIC settings despite the low commercial incentives.



## Types of Awards

- **Technical Accelerator Award(TAA):**  
Technical Accelerator Award supports early stage projects developing proof-of-concept or additional scientific results that can be used to support later stage product development projects.
- **Product Development Award(PDA):**  
Product Development Award supports late stage product development projects from Phase I to product registration or WHO Pre-Qualification.

	Technical Accelerator Award(TAA)	Product Development Award(PDA)
Development Stage	Proof-of-concept / Preclinical	Phase I and onward
Project Duration	Up to 12 months	Up to 36 months
Maximum Budget	Up to 500 million KRW	Up to 50% of total project cost (4 billion KRW max.)



## Investment Areas


	Target Diseases	Infectious diseases endemic and emerging in LMICs			
		VACCINES	Therapeutics	Diagnostics	Digital Health
New Approaches or Constructs		<ul style="list-style-type: none"><li>• New vaccines for target diseases</li><li>• New pediatric combination vaccines</li></ul>	<ul style="list-style-type: none"><li>• New chemical or biological approaches to currently unmet needs</li></ul>	<ul style="list-style-type: none"><li>• New diagnostics and/or those that can improve efficiency of treatments</li><li>• New low-cost Point of Care tests</li></ul>	<ul style="list-style-type: none"><li>• ICT (Information &amp; Communications Technology) applications for equitable access tools or surveillance</li></ul>
Improvement of Products or Data Systems		<ul style="list-style-type: none"><li>• Improvements in immunization schedule, product method, thermostability, route of administration, and/or reduced number of doses</li></ul>	<ul style="list-style-type: none"><li>• Incrementally modified drugs</li><li>• New treatment regimens and modifications that improve drug uptake and outcomes</li></ul>	<ul style="list-style-type: none"><li>• Improvements in existing diagnostics for use in low resourced countries</li></ul>	<ul style="list-style-type: none"><li>• Improvements in existing digital health platforms for use in low-resource settings</li></ul>
Equitable Access		<ul style="list-style-type: none"><li>• Interventions seeking or nearing WHO Pre-qualification</li><li>• Lower cost manufacturing platforms</li></ul>	<ul style="list-style-type: none"><li>• Interventions seeking or nearing WHO Pre-qualification</li><li>• Lower cost manufacturing platforms</li></ul>	<ul style="list-style-type: none"><li>• Lower cost diagnostic tools for use in low-resource settings</li></ul>	<ul style="list-style-type: none"><li>• Innovative platforms to support data systems to share and transmit data to guide public health response and/or to improve access to health services</li></ul>








# 2021 Investment Portfolio - Vaccines and Therapeutics


Discovery      Preclinical      Phase I      Phase II      Phase III      Registration/  
WHO PQ\*


DTwP-HepB-Hib Pentavalent MAP Vaccine  
QuadMedicine LG Chem


Low-cost HepA Vaccine Manufacturing Platform  
SK bioscience Univercells


Novel Cholera Conjugate Vaccine  
eubionlogics MGH IIVI


Prime-Boost BCG Vaccine  
INSTITUT PASTEUR Ouratis


COVID-19 Vaccine Using Viral Vector System  
SK bioscience


Development of a Therapeutic Anti-dengue Polymeric IgG Antibody  
St George's University of London Genecell Biotech


DNA Vaccine Using Electro-Portable Microneedle Patch  
abion RAPHAS


Intranasal Universal Respiratory Virus Vaccine  
Genexine


Microneedle-mediated SARS-CoV-2 DNA Vaccine  
QuadMedicine


Mpg Loaded TB MAP Vaccine  
RAPHAS

Niclosamide Intramuscular Depot Injection for Dengue Virus Disease  
DAEWOONG THERAPEUTICS INC.


Non-replicating Protein Nanoparticles-based Rotavirus Vaccine  
InThera


Safety Assessment of TTCA Antitubercular Agents  
Institut Pasteur Korea


SARS-CoV-2 Nanogel Sublingual Vaccine  
KCQV


Virus-free Recombinant Polio Vaccine  
LG Chem


\*PQ: Prequalification


Continuous Manufacturing Process for New Antimalarial  
MMV Medicines for Malaria Venture SK bioscience

DTwP-HepB-IPV-Hib Hexavalent Vaccine  
LG Chem

Quadrivalent Meningitis Conjugate Vaccine  
eubionlogics

Schistosomiasis Vaccine  
BHARAT BIOTECH IIVI PAI Life Sciences Ouratis

Typhoid Conjugate Vaccine  
eubionlogics PATH

-  Vaccine
-  Therapeutics
-  Terminated



# 2021 Investment Portfolio - Diagnostics and Digital Health







Discovery




Early Validation



Late Validation

Clinical Validation / Utility



Registration/  
WHO PQ\*




 Leishmaniasis RDT Cartridge and Mobile Pocket Analyzer     




 AI-Driven Platform for Anti-Tubercular Drug Discovery  



 Data Platform to Improve Diagnosis of Infectious Diseases 



 ICT Based Self-risk Assessment Platform for COVID-19  




 In vitro Diagnostics Test for Severe Fever and thrombocytopenia Syndrome 




 Instrument-free Molecular Diagnostic Platform for COVID-19  




 Mobile Diagnostic Platform for Influenza and SARS-CoV-2  




 POCT for Pyrazinamide (PZA) Susceptibility Testing  

 Quantitative POC Test Using mBFP for G6PD Deficiency 




 Rapid Diagnostic Test for Both S.Typhi and S.Paratyphi A  



 Rapid Diagnostic Test for Chikungunya Antigen  

 Rapid Diagnostic Test for Visceral Leishmaniasis Antigen  



 SurearlySmart Pro COVID-19  

 2<sup>nd</sup> Generation G6PD Test  

 2<sup>nd</sup> Generation TB LAM Assay  

 POCT for Multidrug-Resistant TB   

 Chest X-ray AI for COVID-19 

 Validation of All-in-One Device for Malaria Diagnosis 

 Diagnostics Digital Health Terminated

\*PQ: Prequalification



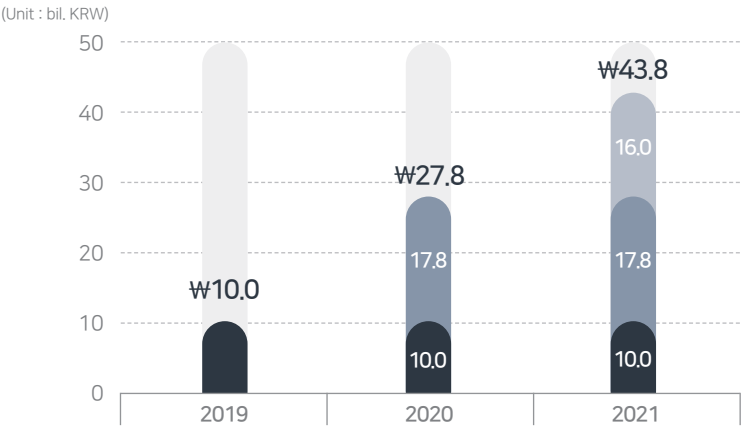
# The RIGHT Foundation Portfolio & Partnership

The RIGHT Foundation collaborates with more than 50 international institutions. In 2021, the RIGHT Foundation generated 16 new research partnerships with organizations across 3 continents.

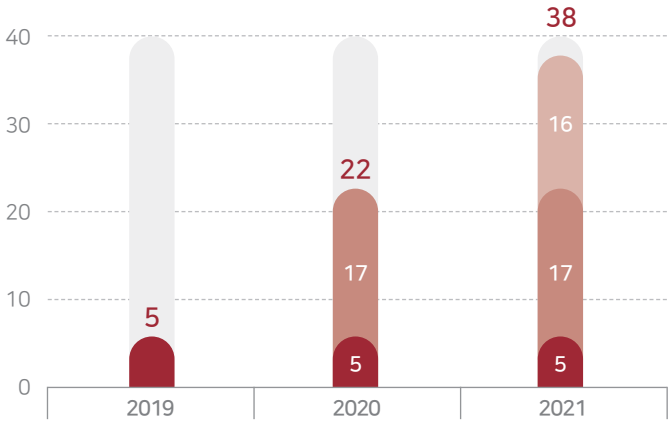
## New Research Partners of 2021



## Committed Funds Each Year



## Number of Selected Projects

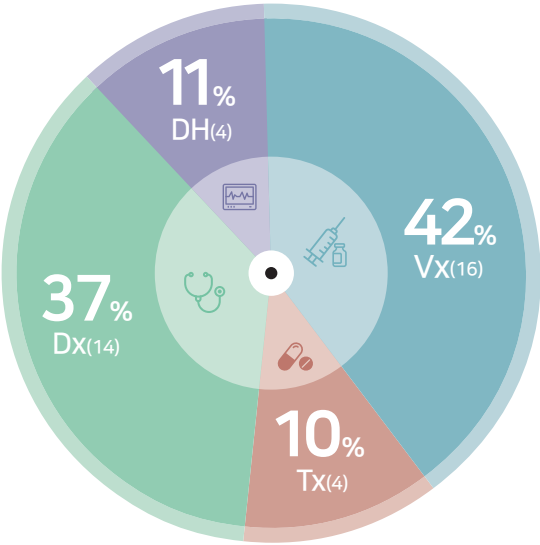


# The RIGHT Foundation Portfolio Overview

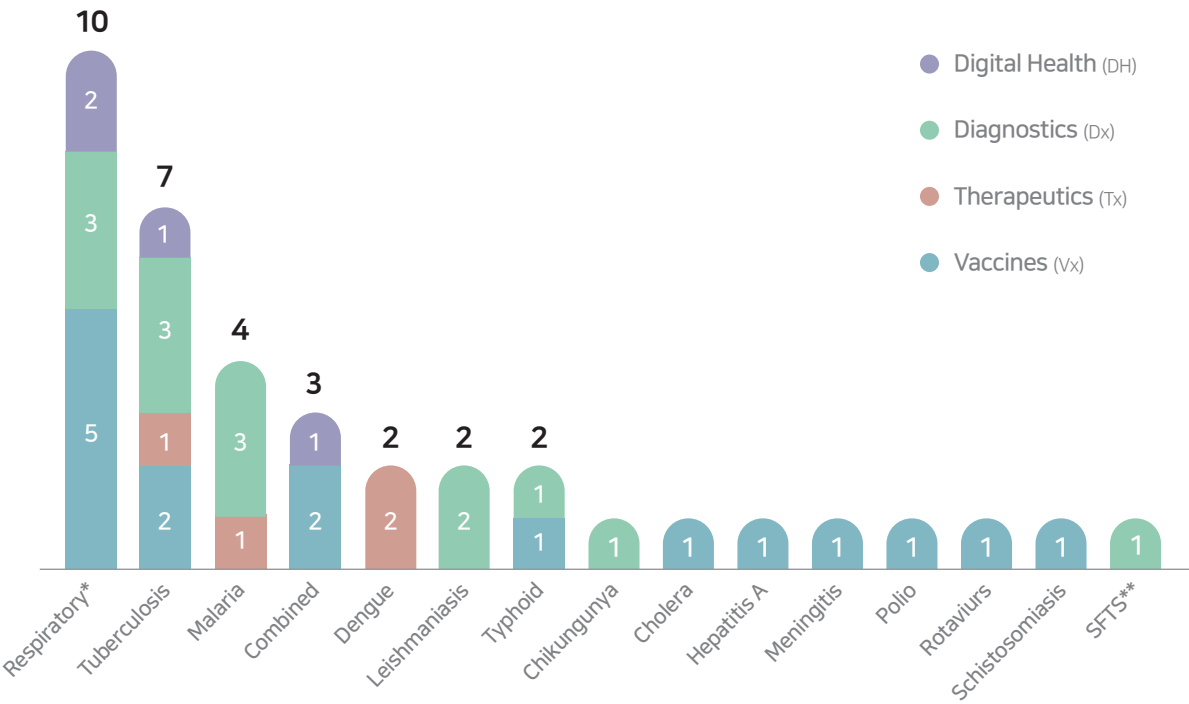
The RIGHT Foundation supports projects across 4 interventions of Vaccine, Therapeutics, Diagnostics, and Digital Health of 15 different types of diseases.

## Distribution by Product Type (total of 38 grants)

- Digital Health (DH)
- Diagnostics (Dx)
- Therapeutics (Tx)
- Vaccines (Vx)



## Distribution by Diseases



\*Respiratory diseases include COVID19 and influenza  
\*\*SFTS : Severe Fever Thrombocytopenia Syndrome



New Investments of 2021 - **Vaccine**

New Investments of 2021 - **Vaccine**



**Typhoid Conjugate Vaccine**

- **Target Disease** : Typhoid
- **Development Stage** : Clinical Trials Phase II ~ Phase III
- **Grantee (PI)** : EuBiologics
- **Collaborator(s)** : PATH(Program for Appropriate Technology in Health)
- In collaboration with PATH, EuBiologics targets to develop a typhoid conjugate vaccine (TCV) that can be co-administered with pediatric vaccines both in single- and multi-dose vial. The scope of work for this project includes Phase II and III clinical studies in African countries, and submission of WHO Pre-Qualification dossier. Development of TCVs can overcome growing antibiotic resistance on treatment of typhoid and have the potential to provide longer-lasting protection with fewer doses for children under two years of age. Although there are numerous TCV candidates currently in development, many are limited to single-dose vials and co-administered only with measles vaccine. EuTCV can be co-administered with both measles-rubella and yellow fever vaccines for incorporation into routine EPI programs.



**Schistosomiasis Vaccine**

- **Target Disease** : Schistosomiasis
- **Development Stage** : Clinical Trials Phase I ~ Phase II
- **Grantee (PI)** : Texas Tech University Health Sciences Center
- **Collaborator(s)** : Quratis, PAI Life Sciences, Bharat Biotech International Limited, International Vaccine Institute
- This project aims to develop a single vial formulation for schistosomiasis vaccine combining the SM-p80 antigen and adjuvant. Such advanced vaccine candidate for schistosomiasis with prophylactic, therapeutic, transmission blocking properties could impact high-endemic areas. Through this project, Texas Tech University Health Sciences Center focuses on the delivery of final dosage form with lyophilized powder in a single-dose vial for use in Phase II ~ Phase III clinical trials.



**DNA Vaccine Using Electro-Portable Microneedle**

- **Target Disease** : COVID-19
- **Development Stage** : Preclinical
- **Grantee (PI)** : Abion
- **Collaborator(s)** : Raphas
- Abion is collaborating with Raphas to develop a DNA vaccine for COVID-19 on a microarray patch combined with a portable electroporation device (eMAP) powered by an integrated battery. This unique combination of various technologies of DNA vaccine, microarray patch and electroporation could bring strong advancement in delivery method for DNA vaccines. If validated, platform technology could be applied to rapid production of DNA vaccines for future COVID-19 variants and other diseases.



**Non-replicating Protein Nanoparticles-based Rotavirus Vaccine**

- **Target Disease** : Rotavirus
- **Development Stage** : Preclinical
- **Grantee (PI)** : InThera
- **Collaborator(s)** : Sungshin Women’s University
- A non-replicating nonparticle-based rotavirus vaccine is being developed by InThera in collaboration with Sungshin Women’s University to prevent severe gastroenteritis in infants and toddlers. The new vaccine approach of this project utilizes an encapsulating VLP (virus-like particle) and a trivalent subunit protein of the human rotavirus. The scope of work includes physiochemical characterization, trivalent formulation, pre-clinical pharmacology, and toxicology studies. This project responds to the need for non-replicating parenteral rotavirus vaccine candidates to overcome the lower efficacy and effectiveness of conventional oral rotavirus vaccines in LMICs.



**Virus-free Recombinant Polio Vaccine**

- **Target Disease** : Polio
- **Development Stage** : Preclinical
- **Grantee (PI)** : Yonsei University
- **Collaborator(s)** : LG Chem
- Yonsei University is collaborating with LG Chem for validation of a low-cost, virus-free vaccine platform with a development of a cell-culture independent, genome-free polio vaccine produced in a bacterial host utilizing RNA as chaperone. The development of such injectable polio vaccine prepared without the recourse of growing wild polio virus is not only safer but also can be easily manufactured in case of urgent need of vaccination in the context of possible post-eradication outbreaks. Such virus-free platform using bacterial host production can also be applied to other diseases.

## New Investments of 2021 - Therapeutics



### Nicosamide Intramuscular Depot Injection for Dengue Virus Disease

- **Target Disease** : Dengue
- **Development Stage** : Preclinical
- **Grantee (PI)** : Daewoong Therapeutics
- Daewoong Therapeutics aims to repurpose nicosamide as an intramuscular depot injection effective against all four serotypes of dengue virus. This project assesses activity of the compounds on dengue serotypes and in vivo efficacy studies in a dengue mouse model. The development of such dengue therapeutics is in response to the lack of available dengue treatments and would provide an essential and complementary option to vaccines.



### Development of Therapeutics Anti-Dengue Polymeric IgG Antibody

- **Target Disease** : Dengue
- **Development Stage** : Preclinical
- **Grantee (PI)** : St. George's University of London
- **Collaborator(s)** : Jeonbuk National University, Genecell Biotech
- In order to eliminate the risk of antibody dependent enhancement (ADE), St. George's University of London is developing a polymeric anti-dengue IgG construct with LALA mutation with Jeonbuk National University and Genecell Biotech. The project aims to develop an innovative polymeric antibody construct that is superior to conventional neutralizing monoclonal IgG antibodies. Such new plant-based protein expression system offers broader applications for reducing manufacturing price, making antibody therapies accessible to patients in LMICs.



### Safety Assessment of TTCA Antitubercular Agents

- **Target Disease** : Tuberculosis
- **Development Stage** : Preclinical
- **Grantee (PI)** : Institut Pasteur Korea
- Institut Pasteur Korea is executing a repeated-dose toxicity evaluation study of a thienothiazolocarboxamide(TTCA) anti-tubercular drug candidate, which is a new class of compounds that demonstrate inhibitory activity on both tuberculosis cultures and in macrophages. The compounds display synergistic as well as additive efficacy effects in vitro when dosed with bedaquiline in combination. The scope of work includes a pre-clinical toxicity profile for TTCAs, establishment of a NOAEL, and human dose predictions essential to the further development of the compound class. In response to the continued need to develop new antitubercular agents and to adopt new treatment regimens for drug-resistant tuberculosis, Institut Pasteur Korea's project aims to identify a new class of compounds that could advance as clinical candidate upon successful outcome of toxicity studies.



### Data Platform to Improve Diagnosis of Infectious Diseases

- **Target Disease** : Various infectious diseases
- **Development Stage** : Early Validation
- **Grantee (PI)** : Finehealthcare
- Finehealthcare is developing a data platform to improve accuracy of infectious diseases diagnosis in LMICs for hospital setting use. Through transferring Electronic Medical Records from Vietnam's local hospital, this project aims to develop diagnosis guidelines for frequently encountered infectious diseases to support medical and assistant doctors in areas with insufficient medical infrastructure.



### AI-Driven Platform for Anti-Tubercular Drug Discovery

- **Target Disease** : Tuberculosis
- **Development Stage** : Early Validation
- **Grantee (PI)** : Standigm
- **Collaborator(s)** : Institut Pasteur Korea
- In collaboration with Institut Pasteur Korea, Standigm aims to assess implementation and validation of an AI-based drug discovery platform for the discovering new tuberculosis treatment drug leads with automated early discovery. Through hit clustering, compound selection, in vitro assay testing, and prioritization of the final candidates, Standigm focuses to validate such automated approach and refine the algorithm. In response to the great need for new anti-tubercular drugs, particularly in facing multidrug-resistant tuberculosis, the assessment of such AI-driven drug discovery platform has the potential to accelerate the overall drug discovery process and to be applied widely to drug discovery of various disease areas.



# New Investments of 2021 - Diagnostics



## POCT for Pyrazinamide (PZA) Susceptibility Testing

- **Target Disease** : Tuberculosis
- **Development Stage** : Early Validation
- **Grantee (PI)** : BIONEER
- **Collaborator(s)** : International Tuberculosis Research Center (ITRC)
- The PZA drug susceptibility testing is rarely performed in LMICs due to the requirement of stringent laboratory controls and limited of resources for whole genome sequencing. In collaboration with ITRC, BIONEER targets to develop a rapid, affordable, and automated platform for PZA drug susceptibility testing at the point-of-care. BIONEER's automated testing can reduce the time to result from 3 weeks to 9 hours, measuring pyrazinamidase' enzymatic activity from sputum or cell culture.



## In vitro Diagnostics Test for Severe Fever and Thrombocytopenia Syndrome

- **Target Disease** : Severe Fever with Thrombocytopenia Syndrome (SFTS)
- **Development Stage** : Early Validation
- **Grantee (PI)** : Boreda Biotech
- SFTS is an emerging tick-borne viral disease with approximately 14,000 cases reported across Asia as of 2018. Despite its emerging status, its treatment, vaccines, or testing for acute infection are not yet available. The development of SFTS antigen detection rapid diagnostic test (RDT) with higher sensitivity and specificity can allow wider usability, overcoming the current laboratory based PCR testing. The availability of such antigen detecting point-of-care test can be significant in managing the spread of an emerging infectious disease.



## Rapid Diagnostic Test for Chikungunya Antigen

- **Target Disease** : Chikungunya
- **Development Stage** : Early Validation
- **Grantee (PI)** : Genbody
- **Collaborator(s)** : Konkuk University
- Due to the unavailability of chikungunya point-of-care testing (POCT) in endemic areas, the development of an antigen-based rapid diagnostic test (RDT) can address the unmet need of the disease identification and management. Genbody is collaborating with Konkuk University to develop such antigen-based RDT for detecting chikungunya virus an existing RDT platform. The project's further assessment and validation of the candidate monoclonal antibodies (mAbs), and development of such test kit to evaluate the performance of POCT can impact the implementation of effective testing and treatment strategies, potentially impacting future related vaccine trials and disease surveillance.



## Rapid Diagnostic Test for Visceral Leishmaniasis Antigen

- **Target Disease** : Visceral Leishmaniasis
- **Development Stage** : Early Validation
- **Grantee (PI)** : Genbody
- **Collaborator(s)** : FIND (Foundation for Innovative New Diagnostics)
- Despite nearing elimination, visceral leishmaniasis (VL) continues to remain fatal in low resource settings due to the currently available VL antibody tests' limitations of low specificity. This project combines new reagents identified by FIND with Genbody's RDT platform with preliminary data for the new reagents showed the monoclonal antibodies' (mAbs) detectability of six Leishmania biomarkers in urine with high accuracy. Through feasibility study of the antigen detection RDT as well as the prototyping and performance evaluation of the test kit, this project potentially provides insights into the development for new reagents for the next generation VL diagnostics.



## 2<sup>nd</sup> Generation TB LAM Assay

- **Target Disease** : Tuberculosis
- **Grantee (PI)** : SD Biosensor
- **Development Stage** : Late Validation ~ Clinical Validation / Utility
- **Collaborator(s)** : FIND (Foundation for Innovative New Diagnostics)
- Responding to the need for TB lipoarbinomannan (LAM) assay tests with higher sensitivity, SD Biosensor collaborates with FIND in developing TB LAM antigen-based test incorporating the 2<sup>nd</sup> generation monoclonal antibodies (mAbs). Through technology transfer of the 2<sup>nd</sup> generation mAbs from FIND, SD Biosensor aims to incorporate its existing Standard F platform, which is well suited for use in remote and low resource settings, along with scaling up and performance assessment. The development of such diagnostics for low resource settings can reduce the time to result with improved accuracy.



## SurearlySmart Pro COVID-19

- **Target Disease** : COVID-19
- **Development Stage** : Early Validation
- **Grantee (PI)** : Sugentech
- **Collaborator(s)** : Modori-C
- Sugentech is collaborating with Modori-C for the development of an integrated digital health application and platform that are applicable to COVID-19 diagnosis, self-assessment, and monitoring. The project aims to develop of SurearlySmart Pro as an infectious disease diagnosis platform to support antigen and antibody testing, analytical and clinical validation. The mobile application incorporates a symptom checker, clinical guidelines for patients with self-assessment, and GPS tracking.

## Completed Projects and its Achievement

### Development of a Cholera Conjugate Vaccine

- **Target Disease** : Cholera
- **Grantee (PI)** : EuBiologics
- **Collaborators** : Massachusetts General Hospital-Harvard (MGH-Harvard), International Vaccine Institute (IVI)
- **Project Duration** : 28 months
- Responding to the inherent limitations of currently available cholera vaccines in effectivity and efficacy among children under 5 especially in low resource settings with immune response limitations, EuBiologics partnered with MGH-Harvard and IVI in developing a cholera conjugate vaccine (CCV) with improved efficacy and extended duration of protection. A conjugate cholera vaccine based on a novel conjugation technology developed at Massachusetts General Hospital and Harvard University has been transferred to EuBiologics and IVI for optimizing production process and producing suitable clinical materials. EuBiologics successfully produced clinical materials suitable for pre-clinical toxicity study and Phase I clinical trial, and completed its toxicology study with no observed toxicity. Moreover, in vivo immunogenicity studies have also been completed, confirming induced immune response in the animal challenge model. The data obtained from this grant enabled EuBiologics to submit an investigational new drug (IND) application to further conduct Phase I clinical trial.

### Validation of All-in-One Device for Malaria Diagnosis

- **Target Disease** : Malaria
- **Grantee (PI)** : Noul
- **Project Duration** : 12 months
- The currently available rapid diagnostic tests (RDTs) for malaria require additional microscopic examination due to the methods' limitation of only being able to identify one or part of the malaria protozoa, hindering wider and more accurate malaria diagnosis in low resource setting areas. Responding to the need for more efficient and accurate malaria diagnosis methods, Noul has developed a fully automated low-cost malaria diagnosis platform for diagnosis of *P. falciparum* and *P. vivax* malaria. Noul's artificial intelligence (AI) diagnostic platform, miLab, can differentiate among all types of malaria species within one testing and provide customized treatment plan for each malaria protozoan. A clinical trial for miLab has been successfully completed, confirming the diagnostic result of Noul's miLab is 'superior' to the result of microscopist, achieving high accuracy, sensitivity, and specificity (97.5%, 96.4%, 98.0%, respectively). The development and wide application of such AI-based low-cost diagnostic platform can potentially enable frontline healthcare workers in low resource settings to detect malaria earlier and provide more appropriate treatments for patients.

### ICT Based Self-Risk Assessment Platform for COVID-19

- **Target Disease** : COVID-19
- **Collaborators** : Mobile Doctor
- **Grantee (PI)** : KT
- **Project Duration** : 8 months
- The significance of crucial resource allocation, testing prioritization, and rigorous disease surveillance have been deeply emphasized through the COVID-19 pandemic. KT collaborated with Mobile Doctor to develop a decision support screening tool based on COVID-19 self-assessment of risk level by patients, combining digital tracing and symptoms in response to the need for efficient and low-resource setting appropriate epidemic investigations and treatment. KT developed two COVID-19 Infection Risk Evaluation Models: a symptom-based model applying self-assessment protocol of the United States Center for Disease Control (CDC) and the Korean Disease Control and Prevention Agency (KDCA) and a movement-based model integrating telecommunication and GPS data. Through embedding the two models, KT successfully launched a mobile application, 'SHINE' which assesses individual's risk level of COVID-19 based on the individual's past route proximity to areas with registered outbreaks and symptoms. Development of data platform such as SHINE enables frontline healthcare workers and physicians to work efficiently within limited resources, determining appropriate testing and treatment options by triaging patients for not only COVID-19 but other infectious diseases that need punctual and decisive disease surveillance. Beyond completion, SHINE will continue to be available and collect COVID-19 data for further refinement of its COVID-19 Infection Risk Evaluation Models and AI algorithms.



Noul : milab™, AI-driven On-site Diagnostics Platform



KT : SHINE, COVID-19 Self-Assessment & Surveillance Mobile App



# 2021 Financial Summary

## Statements of Financial Position

(Unit : million)

	KRW	USD
Current Asset	20,074	16.93
Non-current Asset	41	0.03
<b>Total Assets</b>	<b>20,115</b>	<b>16.96</b>
Current Liabilities	642	0.54
Non-current Liabilities	34	0.03
<b>Total Liabilities</b>	<b>676</b>	<b>0.57</b>
Basic Net Assets	5	0
Common Net Assets	19,434	16.39
<b>Total Equity</b>	<b>19,439</b>	<b>16.39</b>
<b>Total Liabilities and Equity</b>	<b>20,115</b>	<b>16.96</b>

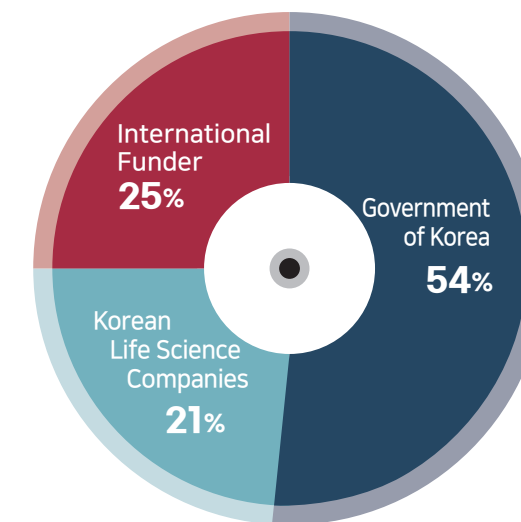
## Statements of Activities

(Unit : million)

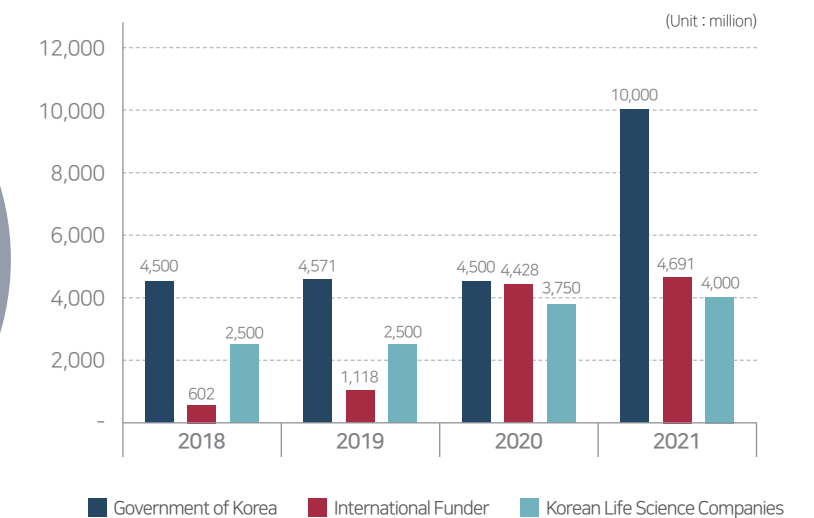
	KRW	USD
<b>Business Revenue</b>	<b>18,691</b>	<b>15.76</b>
Fund	14,691	12.39
Donation	4,000	3.37
<b>Business Expenses</b>	<b>11,774</b>	<b>9.93</b>
Project Expenses	10,751	9.07
Operational Expenses	1,023	0.86
<b>Net Business Income</b>	<b>6,917</b>	<b>5.83</b>
Other Income	319	0.27
Other Expenses	300	0.25
<b>Net Income</b>	<b>6,936</b>	<b>5.85</b>

※ The US dollar amounts in this section represent translation of Korean won, solely for the reader's convenience at KRW 1,185.5=USD1, the exchange rate as at Dec 31, 2021. This financial summary is an excerpt from the RIGHT Fund's annual financial statements, which were audited by PWC.

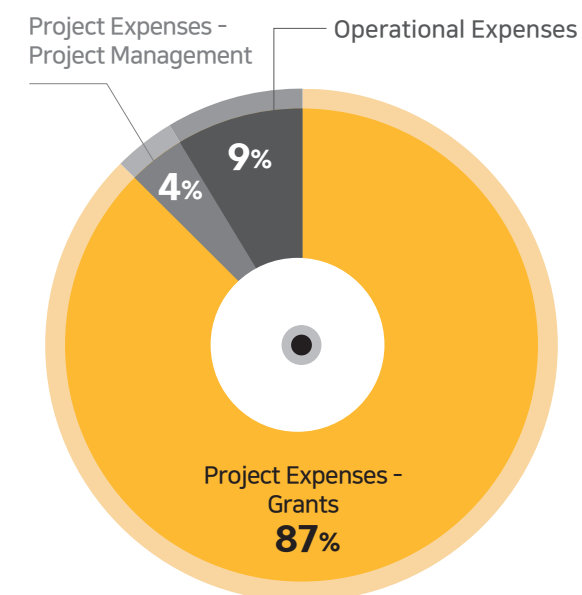
### < 2021 Sources of Business Revenue >



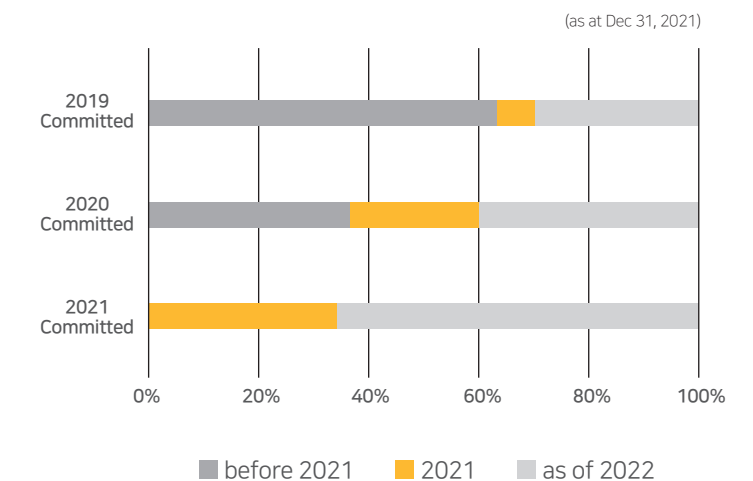
### < Yearly Secured Revenue by the Types of Funders >



### < 2021 Business Expenses >

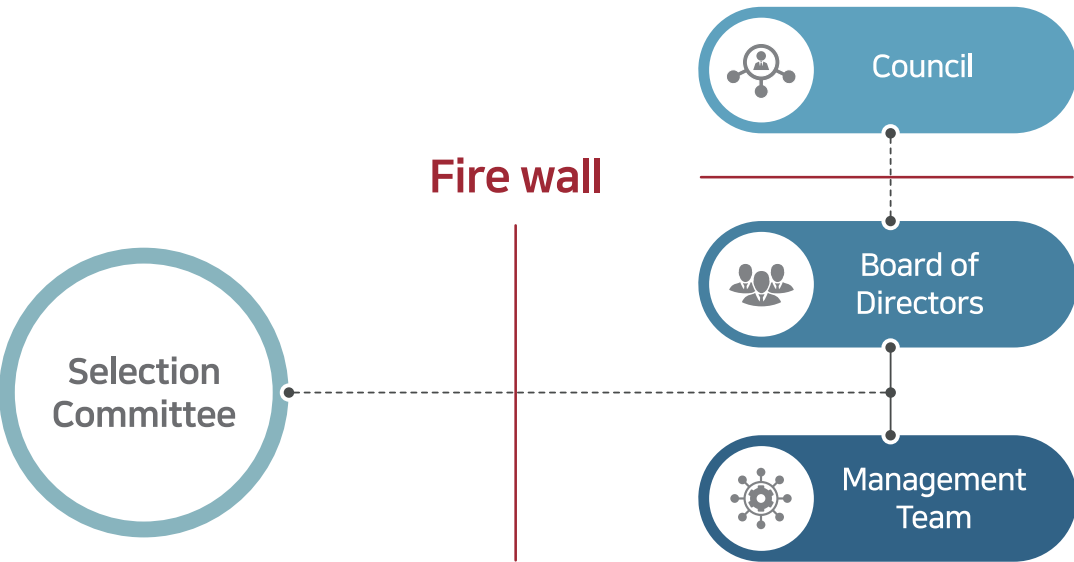


### < Accumulated Milestone Payment Status for Committed Grants >



# The RIGHT Foundation Governance

The RIGHT Foundation has adopted a governance structure that ensures rigorous, independent, and transparent selection and advancement of new healthcare innovations and their access.



## Board of Directors

**CHAIRMAN**

			
Myongsei Sohn	Hani Kim	Keum Yeoul Park	Sungsoon Kim

			
Glenn Rockman	Kim Bush	Peter Hotez	Jessica Martinez

## Council

## Selection Committee

**CHAIRMAN**

			
Paul Herrling	Michael Hawkes	Hoon Sang Lee	Christian Lienhardt

			
Melissa Malhame	Ann Mills-Duggan	Gerald Voss	Joon Sup Yeom



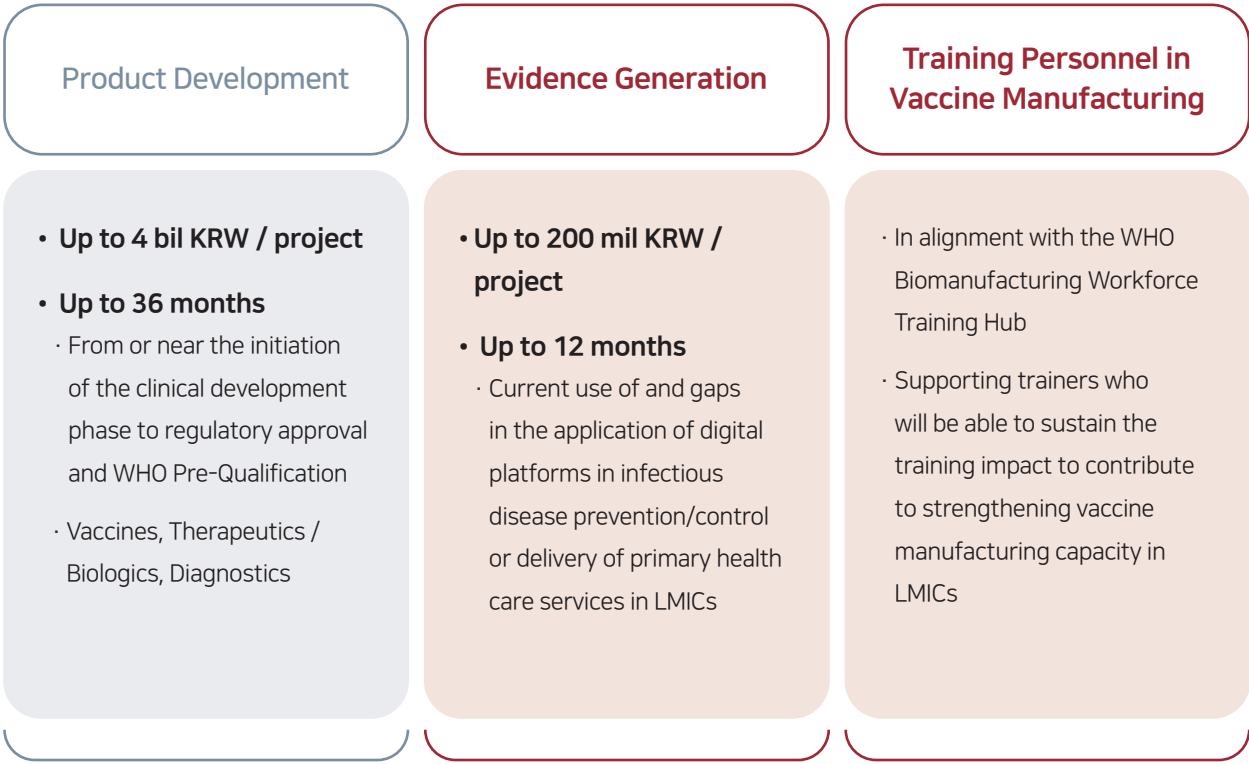
# Looking Forward

## International Collaboration Efforts

In 2021, the RIGHT Foundation has joined the Korean Ministry of Health and Welfare’s consortium for WHO Biomanufacturing Workforce Training Hub initiative. The Hub will provide professional vaccine and biomanufacturing training required for the strengthening of LMIC’s own vaccine manufacturing capacities. The RIGHT Foundation looks forward to cultivating global allyship along with the Ministry of Health and Welfare and Korea’s most renowned vaccine manufacturers and institutes.

## Expansion of Funding Scope

The RIGHT Foundation also looks forward to expanding its funding scope to add awards for Evidence Generation and Training along with Product Development Awards.



## The RIGHT Foundation External Reviewers

The RIGHT Foundation’s panel of External Reviewers is an expert advisory group consisting of domestic and international experts in various fields of life sciences and global public health. External Reviewers provide essential support critical to the work of the RIGHT Foundation.

### External Reviewers of 2021

<i>Abdelatif Elouahabi</i>	<i>Jinho Hyun</i>	<i>Pei Yong Shi</i>
<i>Andreas Diacon</i>	<i>Joel Leong</i>	<i>Philip Hill</i>
<i>Anita Suresh</i>	<i>John Donnelly</i>	<i>Robert Snow</i>
<i>Anna Mandalakas</i>	<i>Jongsei Kim</i>	<i>Senjuti Saha</i>
<i>Christian Happi</i>	<i>Jo Young Heo</i>	<i>Thomas Keller</i>
<i>Claude Oeuvray</i>	<i>Junho Chung</i>	<i>Trevor Perrior</i>
<i>Dave Laffan</i>	<i>Kamala Thriemer</i>	<i>Valarie Bemo</i>
<i>David Bell</i>	<i>Kavi Ramjeet</i>	<i>Won Seok Choi</i>
<i>Delan Devakumar</i>	<i>Kiho Hong</i>	<i>WonHyoung Ryu</i>
<i>Dominick Pucci</i>	<i>Kyungsoo Ha</i>	<i>Woo Joo Kim</i>
<i>George Robertson</i>	<i>Laura Digilio</i>	<i>Wookyeong Seong</i>
<i>Gerard Cunningham</i>	<i>Leonard Sunwoo</i>	<i>Yeuchun Kim</i>
<i>Gerd Michel</i>	<i>Lori Ferrins</i>	<i>Young June Choe</i>
<i>Heejin Kimm</i>	<i>Malcolm Duthie</i>	<i>Yuka Manabe</i>
<i>Ikjun Yeom</i>	<i>Marcel Tanner</i>	<i>Yunseo Ku</i>
<i>Jelle Thole</i>	<i>Marcel van Kasteel</i>	
<i>Jihoon Kim</i>	<i>Michael Pollastri</i>	





Sincere gratitude to  
the **RIGHT Foundation**  
Collaborating Partners

Full  
Partner



Ministry of Health  
and Welfare

BILL & MELINDA  
GATES foundation



Chong Kun Dang  
Pharm.  
Seoul, Korea



GC Pharma

Genexine



LG Chem



SK bioscience



SD BIOSENSOR

Associate  
Partner

eubionics



BIONEER  
Innovation · Value · Discovery

Ouratis

RIGHT Foundation,  
catalyzing international collaboration  
through solidarity,  
allyship, and mutual respect.





재단법인 국제보건기술연구기금  
**RIGHT FOUNDATION**

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<b>Write us</b>	<a href="mailto:rightinfo@rightfund.org">rightinfo@rightfund.org</a>
<b>Website</b>	<a href="http://www.rightfund.org">www.rightfund.org</a>