

Expert Group Meeting on Strengthening Regional Cooperation in Healthcare Biotechnology and Biomedical Sector

Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) - 22 March 2022

Strengthening healthcare biotechnology R&D facilities, enabling resources and good practices, and regional cooperation

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Program Director, New Initiatives*



**International
Vaccine
Institute**



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IVI is an UN-chartered international organization dedicated to accelerating vaccine R&D for global health

Our mission ... is to discover, develop and deliver safe, effective and affordable vaccines to enable the world's most vulnerable people to have full, productive lives

Next step ... is to expand our global presence and expand our collaborative partnerships and innovative capabilities

Together ... we can achieve our *VISION* of developing countries free of suffering from infectious disease



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IVI is a truly international organization that has work across multiple regions

Global Vaccine Research Institute

HQ and labs at Seoul National University

Field programs in **28** countries: Asia, Africa, Latin America

23 nationalities in workforce of **184**

OECD-recognized International Organization (not for profit)

UNDP Initiative

First international organization in Korea (1997)

36 countries and WHO as state parties (Spain, Colombia, Madagascar and Argentina pending final submission to UN)

IVI's status as a UN –chartered international organization gives it unique status in the vaccine community



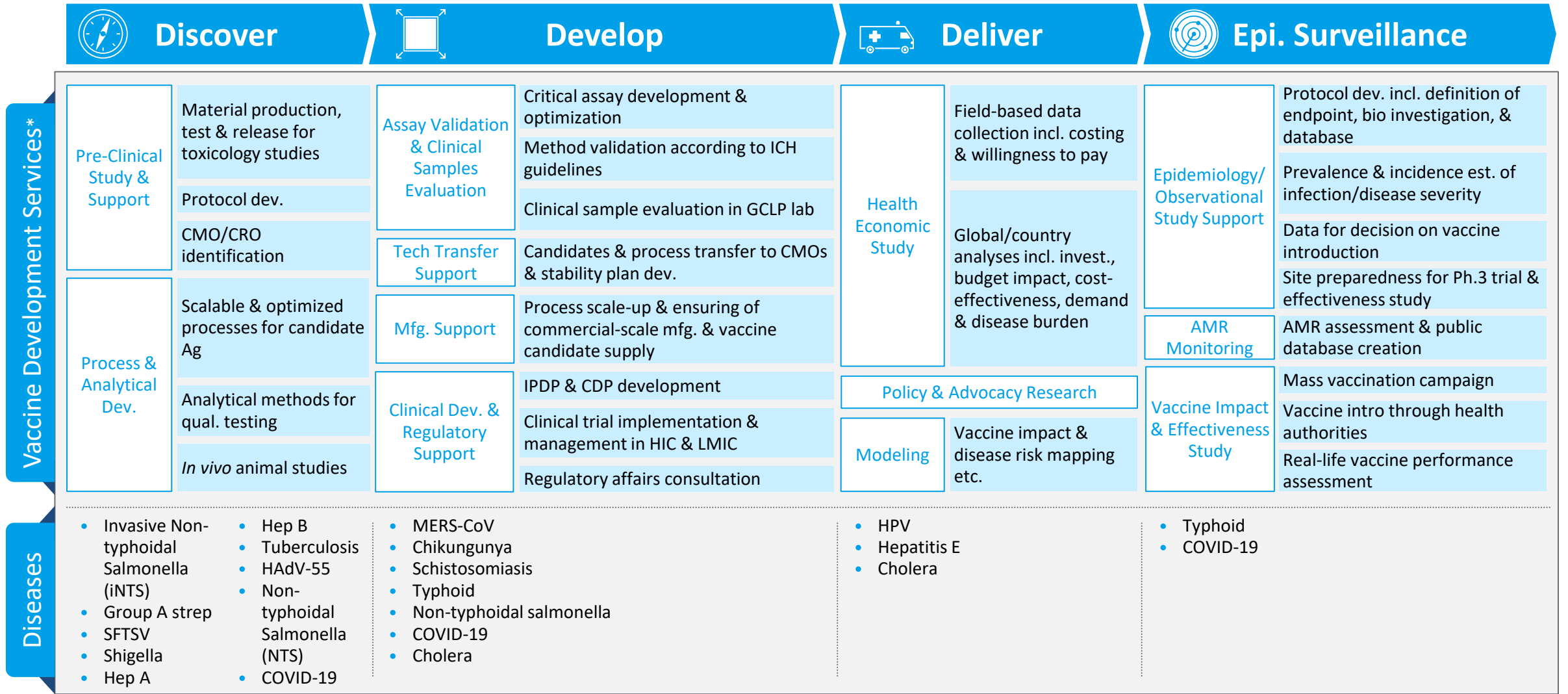
Finland	Netherlands	Sweden	Spain*
Argentina*	Bangladesh	Bhutan	Brazil
China	Cote d'Ivoire	Ecuador	Egypt
India	Indonesia	Israel	Jamaica
Kazakhstan	Kuwait	Kyrgyzstan	Lebanon
Liberia	Madagascar*	Malta	Mongolia
Myanmar	Nepal	Oman	Pakistan
Panama	Papua New Guinea	Peru	Philippines
ROK	Romania	Senegal	Sri Lanka
Sudan	Tajikistan	Thailand	Turkey
UAE	Uzbekistan	Vietnam	WHO

We will continue to add to our member states as we expand our presence to Europe

5 *Process is pending

IVI provides translational and support services to accelerate vaccine development

We can cater to potential partners to select the activities that align to our shared goals



Cross-Functional Activities

IVI develops and supports:

- Translational Hubs
- Innovation Vaccine Research Centers
- Globalization Centers

* IVI also provides **Project Management** service tailored to the needs across the value chain.



Major Partners

IVI has 160 partners worldwide ranging from government, industry, academia and civil society to intergovernmental organizations

Major Partners

Industry

Tech transfer and vaccine development partnerships with 8 manufacturers from 6 countries



Global Health

Conduct public health research and immunization campaigns in collaboration with WHO, GAVI, UNICEF, CEPI, and health ministries



Korea

Engage with all sectors, in addition to government ministries and agencies, in host country



Government

Partnerships to develop vaccines and build capacity in developing countries



Academia

Universities, academic societies, research institutes, medical associations



Philanthropy

- Bill & Melinda Gates Foundation, a key supporter since 2000
- Samsung Foundation supports our MERS vaccine development program





helped to build the Korean vaccine manufacturing capacity

2016



“Vaccine 3.0”

Infrastructure building project for vaccine self sufficiency 2016-2020

2018



- Funded by ROK government, BMGF, Korean manufacturers
- Focuses on global health R&D
- E.g. Cholera Conjugate Vaccine (CCV)

2020



- Partner with Vaccine Innovative Technology Alliance (VITAL) Korea to promote R&D for global health
- Promote vaccine sovereignty of Korea and preparedness against EID

2021

“K-Vaccine Hub”

- Center of Excellence, providing essential support required in establishing K-Bio Hub
- **Vaccine research:** platform technology (mRNA, viral vector), adjuvant
 - **Innovation center:** vaccine evaluation system through standard assays and reagents
 - **Translational hub:** clinical development, regulatory affairs, and quality assurance
 - **Globalization:** provide networking to industry to move to the next level

Vaccine product development partnerships with Korean manufacturers & agencies

OCV, TCV, HEP B, HEP A, MERS Vaccine



- Vi-DT TCV
- iINTS



- Hep A



- Euvichol® & Euvichol-Plus® OCV



QuadMedicine

- Hep B microneedle patch



- MERS

COVID-19 Vaccine¹



IVI works throughout the value chain to enable our global partners in COVID-19 vaccine development

Pre-clinical and International Standard Serum & Assay Development

Clinical Development

- Laboratory: EIA, PRNT, PsVNa
- Phase I-III / effectiveness

Capacity Building

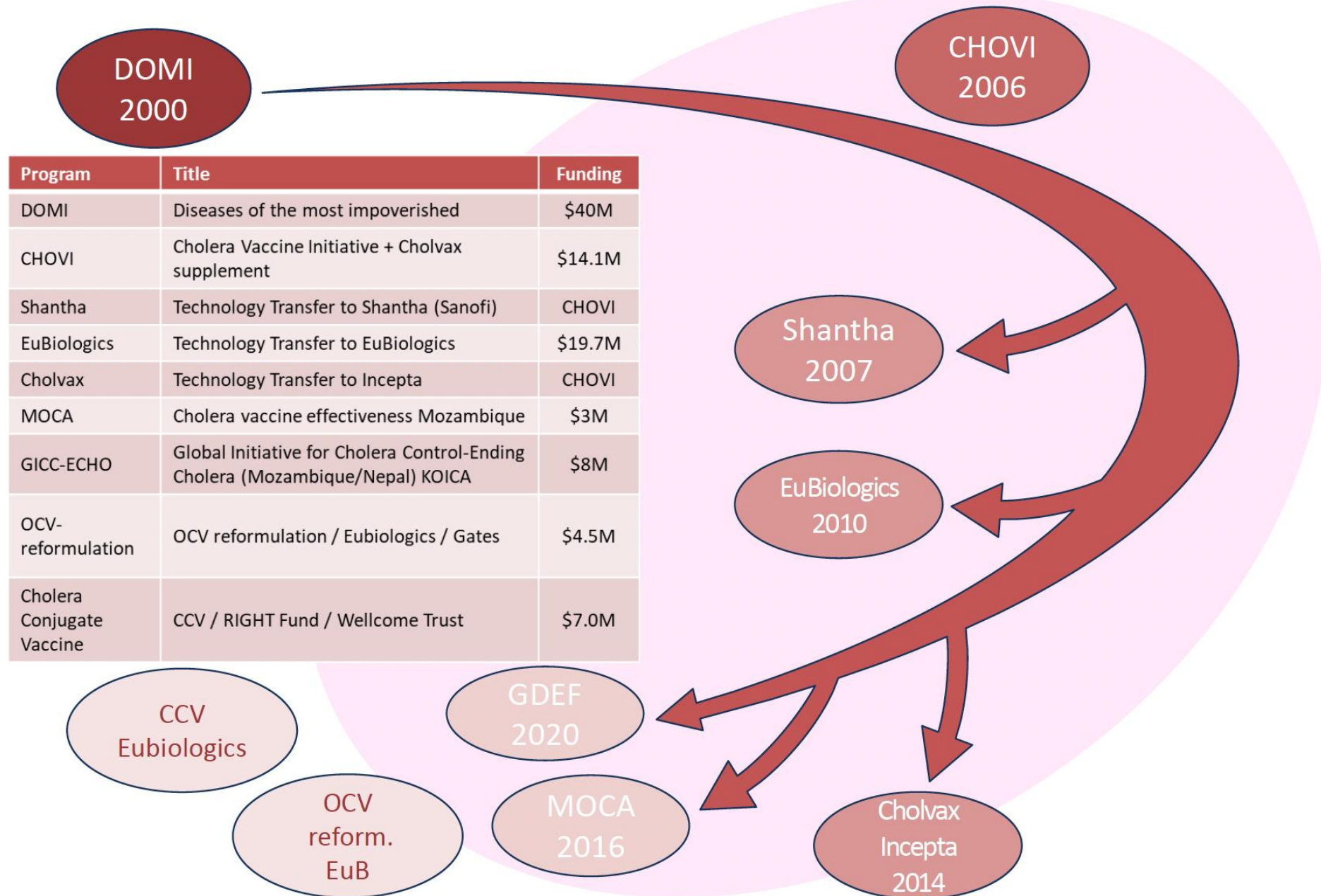
- Support for Epi. and Phase III site development



NEOIMMUNETECH



Example: IVI Cholera Vaccine Programs 2000 - 2020



IVI Vaccines Bring *Affordable* Innovation to Global Health

VACCINE

COST

MANUFACTURER

VACCINE #1
ORAL
CHOLERA
VACCINE

Cost thru
PQ: \$28M

BILL & MELINDA
GATES foundation



SHANCHOL PQ 2011



EUVICHOL, EUVICHOL
PLUS PQ 2016, 2018

VACCINE #2
Vi-DT TCV
(Typhoid)

Estimated
Cost thru
PQ: \$33M

BILL & MELINDA
GATES foundation



Phase III to begin
2020 in Nepal &
Philippines



Phase III to begin
2020 in Indonesia

VACCINE #3
• Non-typhoidal
Salmonella
• Shigella

IVI internal
investment
preclinical POC;
Wellcome Trust
\$3.2M





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K-Vaccine Training Program – IVI Lead

Program Title	Intensive Training Course Operator for Global bio manufacturing workforce training
Donor	Ministry of Health and Welfare, Republic of Korea
Activities	<ul style="list-style-type: none">○ Activity 1: Introductory course for biologics development and manufacturing <i>80 hrs. offline course for 150 trainees in Seoul (free of charge, except air fair)</i> <i>Free 30 hrs. online course</i>○ Activity 2: Introductory course for standard practice (GxP Course) <i>120 hrs. offline course for 300 trainees in Seoul (free of charge, except air fair) / twice a year (150 each)</i> <i>Free 30 hrs. online course</i>○ Activity 3: Onsite training and consultation <i>LMIC manufacturers, whose employees participated in the course, can apply</i> <i>The first mock training for needs analysis, and without selection process</i>○ Activity 4: Coordination between WHO and MoHW /Coordination with sub-hubs <i>Upon nomination of RoK as training hub by WHO (expected to be announced in Feb.)</i>

Thank you for your support and contribution !!



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