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

Jean-Louis Excler, MD
Program Director, New Initiatives
IVI is an UN-chartered international organization dedicated to accelerating vaccine R&D for global health

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

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

... we can achieve our vision of developing countries free of suffering from infectious diseases.

IVI’s status as a UN-chartered international organization gives it unique status in the vaccine community.

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

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

Korea
Engage with all sectors, in addition to government ministries and agencies, in host country
Ministry of Foreign Affairs
Ministry of Health and Welfare
KOICA - Korea International Cooperation Agency
KCDC - Korea Centers for Disease Control and Prevention

Government
Partnerships to develop vaccines and build capacity in developing countries

Academia
Universities, academic societies, research institutes, medical associations

Global Health
Conduct public health research and immunization campaigns in collaboration with WHO, GAVI, UNICEF, CEPI, and health ministries
World Health Organization
UNICEF
Gavi
CEPI

Phananthropy
- 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

RightFund

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

2020

VITAL-Korea

- 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

- Euvichol® & Euvichol-Plus® OCV
- Hep B microneedle patch
- MERS

1. Additional partners include Hanmi Pharmaceuticals, NeimmuneTech, Bioapp, GI Cell, GI Innovation, POSVAX, GeneMatrix and Korea Mouse Phenotyping Center (KMPC)
IVI works throughout the value chain to enable our global partners in COVID-19 vaccine development.
<table>
<thead>
<tr>
<th>VACCINE</th>
<th>COST</th>
<th>MANUFACTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td>VACCINE #1 ORAL CHOLERA VACCINE</td>
<td>Cost thru PQ: $28M</td>
<td>SHANCHOL PQ 2011</td>
</tr>
<tr>
<td>VACCINE #2 Vi-DT TCV (Typhoid)</td>
<td>Estimated Cost thru PQ: $33M</td>
<td>EUVICHOL, EUVICHOL PLUS PQ 2016, 2018</td>
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</tbody>
</table>
| VACCINE #3 • Non-typhoidal Salmonella • Shigella | IVI internal investment preclinical POC; Wellcome Trust $3.2M | SK bioscience

Phase III to begin 2020 in Nepal & Philippines

Phase III to begin 2020 in Indonesia
helped to build the Korean vaccine manufacturing capacity

2016

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- Vi-DT TCV
- INTS
- Hep A

eubiologics
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COVID-19 Vaccine

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### K-Vaccine Training Program – IVI Lead

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Intensive Training Course Operator for Global bio manufacturing workforce training</th>
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<tbody>
<tr>
<td>Donor</td>
<td>Ministry of Health and Welfare, Republic of Korea</td>
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<tr>
<td>Activities</td>
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<tr>
<td></td>
<td><strong>Activity 1: Introductory course for biologics development and manufacturing</strong></td>
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<tr>
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<td>80 hrs. offline course for 150 trainees in Seoul (free of charge, except air fair)</td>
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<td></td>
<td>Free 30 hrs. online course</td>
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<td><strong>Activity 2: Introductory course for standard practice (GxP Course)</strong></td>
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<tr>
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<td>120 hrs. offline course for 300 trainees in Seoul (free of charge, except air fair) / twice a year (150 each)</td>
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<td>Free 30 hrs. online course</td>
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<td><strong>Activity 3: Onsite training and consultation</strong></td>
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<tr>
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<td>LMIC manufacturers, whose employees participated in the course, can apply</td>
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<td>The first mock training for needs analysis, and without selection process</td>
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<td><strong>Activity 4: Coordination between WHO and MoHW /Coordination with sub-hubs</strong></td>
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<td>Upon nomination of RoK as training hub by WHO (expected to be announced in Feb.)</td>
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Thank you for your support and contribution!!