

7 modern day heroes advance virology research in the Philippines

Pitong mga Makabagong Bayaning nagsusulong ng Virology Research sa Pilipinas

The ongoing pandemic highlighted the need to have our own virology experts and an institution that will provide a venue for scientific collaboration in human, animal, and plant virology. Thus, the Department of Science and Technology (DOST) spearheaded the establishment of the Virology and Vaccine Institute of the Philippines or the VIP. Recognizing that the journey towards its establishment is long and arduous, seven (7) virology experts were engaged through the Balik Scientist Program (BSP) to assist the VIP's flagship projects implemented through the Industrial Technology Development Institute (DOST-ITDI). The recently concluded virtual Exit Report Presentation held on May 3, 2022 highlighted the accomplishments and contributions of these Balik Scientists in "Building a Safer Future" as advisers to the VIP.

Higit na nakita ang kahalagahan ng pagkakaroon ng sariling virology experts sa Pilipinas ng dahil sa kasalukuyang pandemya. Dahil dito, nanguna ang DOST sa pagpapatatag ng Virology and Vaccine Institute of the Philippines o VIP. Bagamat matagal tagal pa bago tuluyang matapos ang pisikal na imprastruktura ng VIP, naumpisahan na ng programa na makakalap ng pitong eksperto na tumulong na maisagawa ang walong proyektong ng VIP sa pamamagitan ng Balik Scientist Program. Lahat ng ito ay ibinahagi ng atin mga Balik Scientists sa kagaganap lamang na BSP Exit Report Presentation na pinamagatang "Building a Safer Future" nitong Mayo 3, 2022.

Secretary Fortunato T. de la Peña emphasized that "not only will we be able to conduct innovative and pioneering research that will advance the frontiers of virology in the country, but we will also be prepared for future pandemics, bioterrorism, and the prevention of reemergence of endemic diseases."

Saad ni Secretary Fortunato T. de la Peña na hindi lamang ito makakatulong sa advancement ng virology research sa bansa, kundi maihahanda din nito ang Pilipinas sa mga parating pang pandemya, bioterrorism, at mga endemic diseases.

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Undersecretary Rowena Cristina L. Guevara stated in her opening message that these research projects “will address our country’s need for diagnostics, vaccines, and therapeutics and will lead us to succeed in research strategies toward our next COVID-19 pandemic response.”

Dagdag ni Undersecretary Rowena Cristina L. Guevara sa kanyang panimulang mensahe na ang mga proyektong ito na inumpisahan ng ating mga Balik Scientist ay sagot sa mga pangagailangan ng bansa pagdating sa diagnostics, vaccines, and therapeutics na siyang gabay sa paghahanda sa mga susunod pang pandemya.

As a VIP Adviser, US-based infectious disease drug discovery expert Dr. Homer D. Pantua trained VIP researchers on developing diagnostic tools for African Swine Fever Virus (ASFV) and mentored graduate students on ASF-related and AI-based swine health monitoring system. Dr. Pantua was also able to establish a linkage with Kansas State University and build an inter-agency partnership between the Department of Agriculture through the Bureau of Animal Industry, ITDI, and the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD).

Bilang isang VIP adviser, si Dr. Homer D. Pantua na isang batikang eksperto sa infectious disease drug discovery ay nagsagawa ng training kasama ang mga lokal na VIP researchers sa pagawa ng diagnostic tool para sa African Swine Fever Virus (ASFV). Siya rin ay naging gabay sa mga estudyante na nais matuto ng ASF-related and AI-based swine health monitoring system. Naitatag din ni Dr. Pantua ang magandang pakikipagunayan ng Department of Agriculture-Bureau of Animal Industry, DOST-ITDI, at PCAARRD sa Kansas State University.

Another VIP Adviser, Dr. Elpidio Cesar B. Nadala, Jr., introduced resources to local researchers to do bioinformatics analysis of genomes of target viruses during diagnostic and development and conduct several webinars on biosafety and biosecurity which are two very important issues in the establishment of the VIP. As an expert on microbiology, virology, and medical biotechnology, Dr. Nadala emphasized the need for “rapid, sensitive, and specific tests” to effectively control the spread of the virus.

Nagbigay kaalaman naman si Dr. Elpidio Cesar B. Nadala, Jr. sa bioinformatics analysis ng mga genomes ng target viruses. Siya rin ay nagsagawa ng ilang webinars sa biosafety at biosecurity na dalawa sa mga importanteng talakayin sa pagpapatatag ng VIP. Bilang isang dalubhasa sa larangan ng microbiology, virology, at medical biotechnology, binigyang diin ni Dr. Nadala ang importansiya ng “rapid, sensitive, and specific tests” upang mapigilan ang pagkalat ng virus.

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Meanwhile, microbiologist-virologist Dr. Lourdes M. Nadala called for the full enactment of the Senate Bill 2241 into law and hoped for a more efficient procurement system to sustain the momentum for the establishment of the VIP. Another VIP Adviser, Dr. Teodoro M. Fajardo,

Jr., a molecular virology and molecular biology expert, appealed for an increase in budget in S&T-based R&D.

Samantala, nagsumamo naman ang microbiologist-virologist na si Dr. Lourdes M. Nadala na maisabatas na ang Senate Bill 2241 na siyang magiging daan upang magkaroon ng masmabisang procurement system para mapanatili ang operation ng VIP. Pinarating din ni Dr. Teodoro M. Fajardo, Jr., na isang eksperto sa molecular virology at molecular biology, ang importansiya ng pagkakaroon ng malaking pondo para sa S&T researches.

In addition to their technical involvement with the VIP, Dr. Myra DT. Hosmillo of the University of Cambridge in the UK also highlighted her involvement in numerous activities emphasizing and promoting the role of women in science, while Dr. Christina Lora M. Leyson expressed her satisfaction in engaging young students through her online lectures.

Ipinahiwatig din nina Dr. Myra DT. Hosmillo ng University of Cambridge, UK at Dr. Christina Lora M. Leyson mula sa Univeristy of Georgia ang kahalagahan ng kababaihan at kabataan na mamulat at maging parte ng iba't-ibang S&T researches.

In his report, Australia-based VIP Adviser Dr. Leodevico L Ilag was able to identify and recruit leading experts as active collaborators and train future personnel of the Institute. Dr. Ilag also collaborated with Dr. Pantua on developing a potential vaccine for ASF.

Si Dr. Leodevico L Ilag naman ang siyang naging katukatulong ni Dr. Pantua sa pagsasaliksik sa potensiyal na bakuna laban sa ASF. Siya rin ay nagtrain ng mga researchers na magiging parte ng VIP.

Expressing PCAARRD's support and commitment to the initiatives of the VIP in livestock and plant health, Executive Director Dr. Reynaldo V. Eborá recognized the VIP Advisers and their contributions, "May this be just a beginning of a long-term partnership of the VIP and our fellow Filipino experts!"

Sa kagalakan, ipinarating ni Executive Director Dr. Reynaldo V. Eborá ng PCAARRD ang mga katagang, "Nawa ito ay umpisa lamang ng pangmatagalanang relasyon ng VIP at mga kapwa Pilipino nating mga eksperto!"

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“By working together and gaining as much support as we can for the VIP, we bring the country closer to our goal of generating scientific solutions that address pressing health and agricultural concerns of Filipinos. We look forward to working with you in building a promising future for Philippine virology research and, ultimately, for our communities.” Dr. Jaime C. Montoya concluded.

“Sa pakikipagtulungan ng mga Balik Scientist na tuluyang mailunsad at maitatag ang VIP, hindi malayong makamit ng Pilipinas ang solusyon sa kalusugan at agrikultura. Dahil dito, maipaparating natin ang isang magandang kinabukasan ng virology research sa bansa at higit lalo sa ating mga kababayang Pilipino,” saad ni Dr. Jaime C. Montoya.

The BSP was established in 1975 to counteract the nationwide concern on “brain drain” or the emigration of highly trained professionals from our country, in search of a better standard of living and quality of life, higher salaries, access to advanced technology and more stable political conditions in different places worldwide.

Itinatag ang BSP noong 1975 bilang tugon sa “brain drain” o ang pangingibang-bayan ng mga Pinoy scientist.

Through the program, foreign-based Filipinos are encouraged to return to the country and impart their knowledge and expertise for the advancement of research and development in the country, as well as address development gaps.

Sa pamamagitan ng programa, hinihikayat na mapabalik ng Pilipinas ang mga Filipino scientist upang makapagbahagi ng kanilang mga karanasan at makabagong kaalaman sa ikauunlad ng bansa. (DOST OUSECRD\ ITDI S&T Media Service)

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