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ENGLISH

International Collaboration Center for
Capacity Building in Infectious Disease R&D

C³BIRD FOCUS

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C³BIRD
International Collaboration Center for
Capacity Building in Infectious Disease R&D

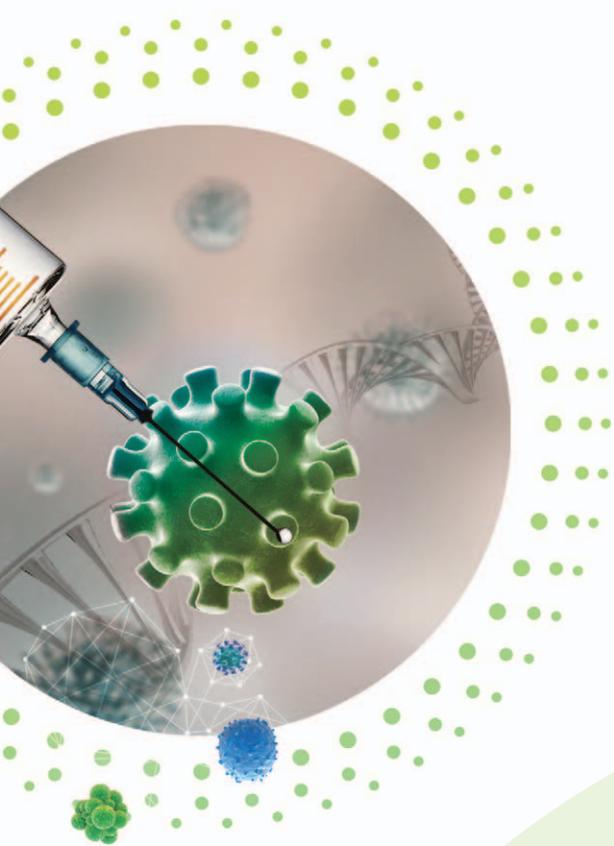
 서울대학교
SEOUL NATIONAL UNIVERSITY

SNUH 서울대학교병원
감염병 관련 기초연구 및 임상시험 전문기관

International Collaboration Center for
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01

Stage 2 (1st Year) Training

Online Training for Foreign Researchers

During the second phase of the first-year study, it was difficult for foreign researchers to visit Korea because of COVID-19 Pandemics. It was also hard for domestic researchers to visit international networks. Therefore, training plan for this stage was changed into online training after consulting with four foreign cooperative networks: Thailand (CMU), Vietnam (NIHE), Laos (UHS), and Malaysia (UM). This online training for this year was about Biosafety. Various lectures related to biological safety were held including waste management, laboratory safety training, animal testing, and etc.

— Biosafety Course for Thai Researchers (10/16-17)



Biosafety course for Thai researchers was held from October 16 to 17, 2020 at Seoul National University Biomedical Research Institute and Med CMU Information Center. A total of 25 Thai researchers attended this online course. Nineteen researchers were from the Faculty of Medicine, Chiang Mai University, 2 participants were from Prince of Songkla University. Two researchers from Thailand's Omics Center and 2 from the Sripat Medical Center attended, too. In particular, Professor Prapan, the director of the C³BIRD Center in Thailand, participated in the training to support and to prepare the course.

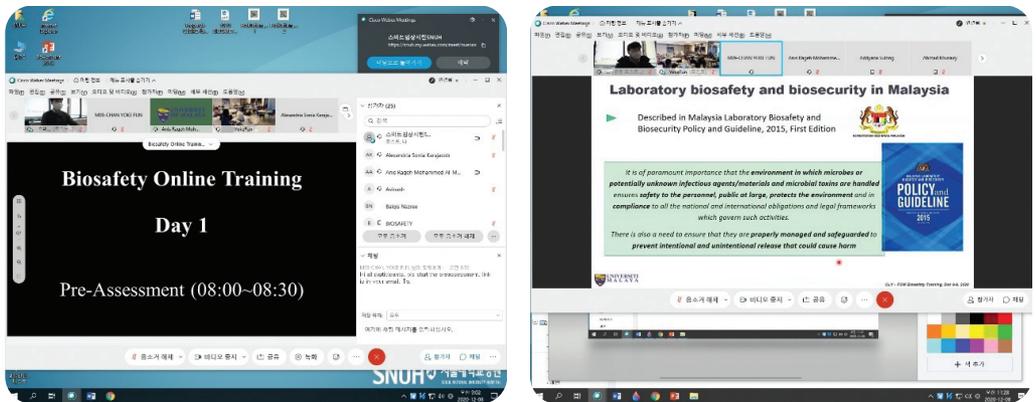
On the first day, theoretical lectures about biosafety were conducted including international trend and related laws, management animal testing facilities, institutional biosafety committee operation and program, and risk assessment. On the next day, practical lectures about biosafety were conducted including management and transportation of Infectious materials,

sterilization of biosafety facility, biosafety-related accident preparation & management, and equipment for biosafety.



Biosafety Online Course (Thailand, CMU)

— Biosafety Course for Malaysian Researchers (12/8~9)



Biosafety Online Course (Malaysia, UM)

In the case of Malaysia, 77 Malaysian researchers participated the online training in total including 70 researchers from the Faculty of Medicine, University of Malaya and 7 from TIDREC which is an institution under UM. It was conducted from December 8(Tue) to 9(Wed). In particular, with the request of the University of Malaysia, all trainees took a total of 11 courses by adding a special lecture by Dr. Li Yen Chang of the University of Malaya. At the same time, researchers had high desire to learn, so they had an assessment time before and after the lecture which contains pass or fail format. With the introduction of this system, all researchers took all lectures with high concentration and all of them achieved excellent outcomes.

KOREA : KOSBA & C³BIRD | MALAYSIA : FOM UM & MMB UM

BIO SAFETY TRAINING

FOR KOREAN & MALYSIAN RESEARCHERS



SCAN FOR FREE REGISTRATION

Topics & Presenter:

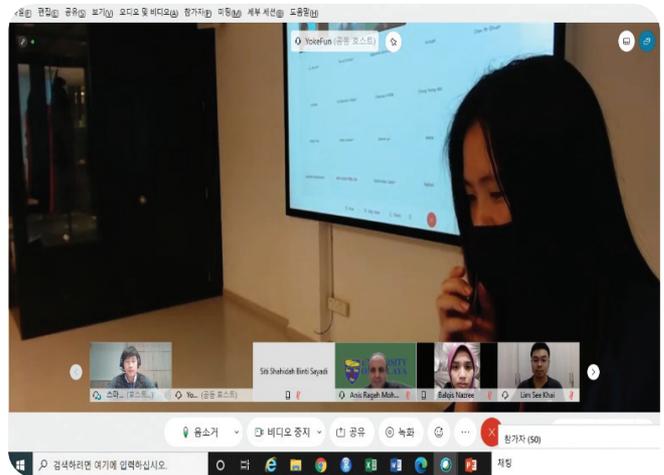
- Interactive Q&A & Revised Cases about Biosafety (Bui Chae-Lac)
- Malaysia Biosafety Policy and University of Malaya Biosafety Policy (Chang Li-Yen)
- Biosafety Management for Animal Laboratory (Tangwan Chong)
- Operation of International Biosafety Committee (Wongwan Sungsri)
- Biosafety Program (Prayoon Kim)
- Risk Assessment (Wongwan Sungsri)
- Management of Infectious Materials & Waste Disposal (Jeyaraj Kang)
- Detection & Sterilization of Biosafety Facility (Mina Yu)
- Transportation of Infectious Materials (Prayoon Kim)
- Biosafety-related Incident Preparation & Management (Jeyaraj Kang)
- Equipment for Biological Safety (Chayee Yig)

DATE
8 - 9 / 12 / 2020

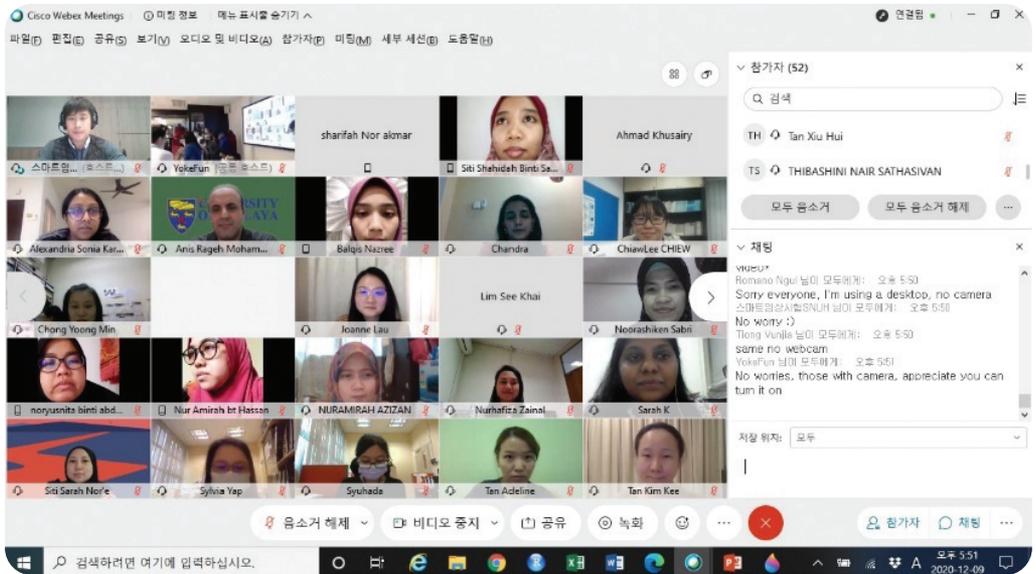
TIME
KST : 9:30 am - 7:00 pm
GMT : 8:30 am - 6:00 pm

VENUE
ONLINE

LUNCH & REFRESHMENTS PROVIDED

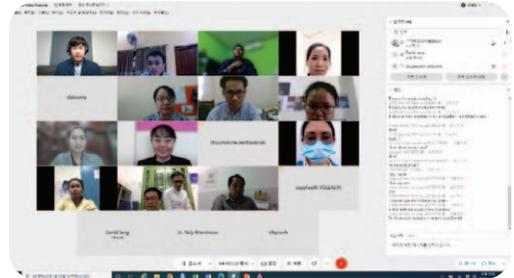
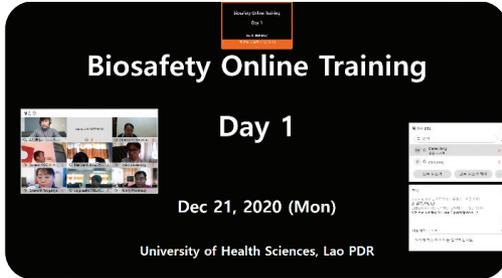
Biosafety Online Course Brochure and Local Training Center



Biosafety Online Training (Malaysia, UM)

— Biosafety Course for Laotian Researchers (12/21~22)

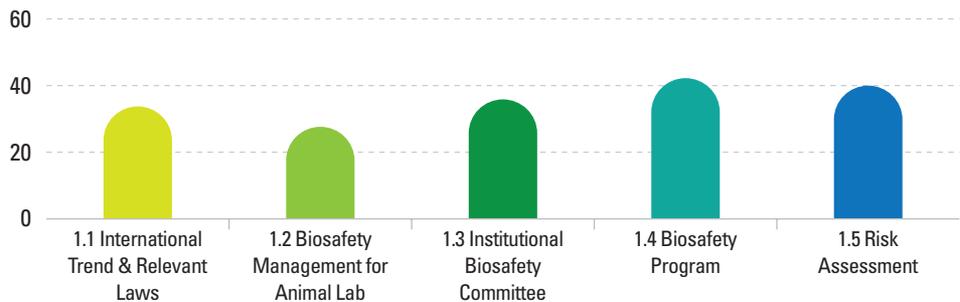
In the case of Laos, 18 researchers from the University of Health and Sciences which is under the Department of Health in Laos took part in the online training from December 21(Mon) to 22(Tue).



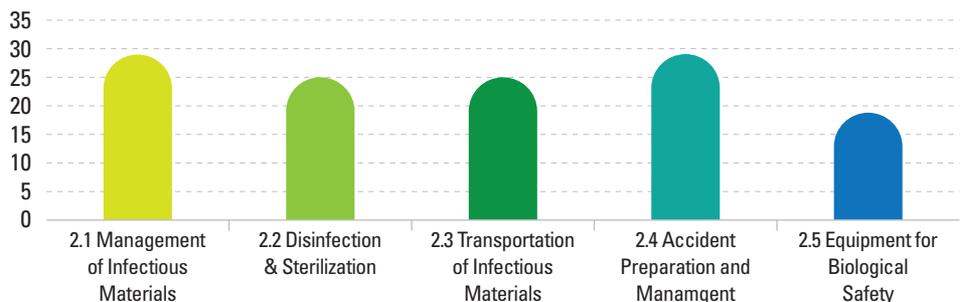
Biosafety Online Course (Laos, UHS)

After the online training, we conducted a survey of all trainees. Even it was the first online training, participants were generally satisfied with the entire courses. For Thai researchers, 'Institutional Biosafety Committee' and 'Management of Infectious Materials' lectures received the highest ratings in the categories of Clarity, Interest, and Duration. For Malaysian and Laotian Researchers, 'Risk Assessment' and 'Transportation of Infectious Materials' lectures took the highest ratings in the categories of Clarity, Interest, and Duration.

Lecture - Most Liked (Day 1)



Lecture - Most Liked (Day 2)



Assessment Result for Training Program (Thailand, Malaysia, Laos)

Lecture & Instructor Info

2020 Biosafety Online Training			
No	Lecture	Instructor	Affiliation
1	International Trend & Relevant Laws about Biosafety	Hei Chan Lee	Sun Moon University
2	Biosafety Management for Animal Laboratory	Kyungsoo Chang	Catholic University of Pusan
3	Operation of Institutional Biosafety Committee	Wonkeun Seong	Korean Biological Safety Association
4	Biosafety Program	Hyeryun Kim	Institut Pasteur Korea
5	Risk Assessment	Wonjong Jang	Konkuk University
6	Management of Infectious Materials & Waste Disposal	Jiyeong Kang	Seoul National University Hospital
7	Disinfection & Sterilization of Biosafety Facility	Minsu Yu	Korea Risk Assessment of Public Consulting & Solution (KoRA)
8	Transportation of Infectious Materials	Hyunrim Oh	BMS Pharmaceutical Korea
9	Biosafety-related Accident Preparation & Management	Jiyeong Kang	Seoul National University Hospital
10	Equipment for Biological Safety	Chayeol Yu	CHC Lab

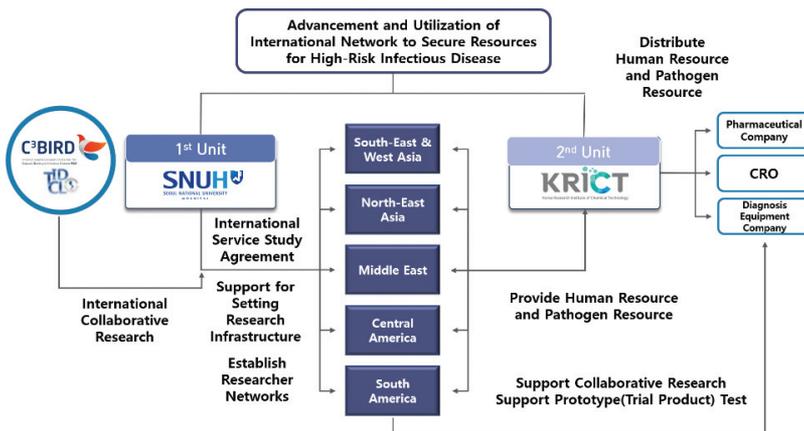
02

Introduce New Research on Infectious Diseases following KOICID

The title of the new international collaborative research on infectious disease is 'Advancement and Utilization of International Network to Secure Resources for High-Risk Infectious Diseases'. This research is a follow-up to the KOICID (Korea International Cooperation for Infectious Diseases), and Professor SeungHwan Lee who is the associate professor at Seoul National University Hospital conducts as the principal Investigator. It aims to establish Biobank for human resources and pathogens through the advancement of the international network on high-risk infectious diseases. In addition, it seeks to support domestic research and to secure the ability to respond on infectious diseases. The research and development of the research can be divided into five main categories:

- Advanced International Cooperative Network for Infectious Diseases and Secure Local Research Infrastructure
- Secure Human and Pathogen Resources
- Operate Biobank for Human and Pathogen Resources
- Distribute Human and Pathogen Resources and Support Domestic Research
- Exchange of Domestic and Foreign Researchers and Establish Collaboration and Information Sharing System

In the present situation, emerging or unusual infectious diseases can be easily spread from one country to others within a short time due to global movement, tourism and ease of transportation.



Previous outbreaks of viral diseases in South Korea (e.g., MERS), Japan (Dengue) and pandemic of COVID-19 have proved that we are equally facing high risk of any unexpected health hazard in the future. Therefore, international network to share information, resources and advanced researches on infectious diseases is very crucial for the success of prevention and control of diseases.

International Collaborative Research (C3BIRD & New Research on Infectious Disease)

Local Base Research Center

(Faculty of Medicine, Chiang Mai University)

Introduce International Collaborative Research on Infectious Diseases

Faculty of Medicine, CMU is the largest university in Northern Thailand and currently active in international cooperation. It has operated collaborative research networks for infectious diseases with institutions in several countries, South Korea, Japan, England, Luxembourg, Laos, Myanmar, Bhutan, Malaysia, the Philippines and Indonesia, focusing on diagnosis, treatment, prevention and control of diseases. Due to well-established epidemiological system and good infrastructure for health care system, Thailand is one of the most suitable country to conduct epidemiological investigation on infectious diseases. Moreover, it is possible to collect and retain various high-qualified clinical samples, and is easy to exchange information related to infectious diseases with other countries in the region due to geographical advantage. The person in charge of C³BIRD project is Professor Prapan who is the head of C³BIRD research center.



Prapan Jutavijittum

Affiliation Faculty of Medicine, Chiang Mai University International Collaborative - C³BIRD Center



Position Associate Professor, Head of C³BIRD Center

Introduce BSL+2 Laboratory and Future Plan

For safety of running infectious disease research at CMU, a Biosafety Level 2 enhanced (BSL-2⁺) Laboratory was constructed and had finished in January 2020. C³BIRD Center - Thailand and CMU are actively funding to install essential laboratory equipment for working with serology, PCR or RT-PCR methods. A RT-PCR machine costed ~300,000 USD is funding by CMU. A refrigerator/freezer (4°C and -25°C) costed ~3,300 USD is donated by ADM Korea Inc to use in the laboratory. We plan to complete the laboratory equipment to operate the “C³BIRD-CMU BSL-2⁺ Laboratory” and opening ceremony within the 2nd trimester of 2021. Korea projects have priority to use the C³BIRD-CMU BSL-2⁺ Laboratory.



Current BSL-2 enhanced room, for sample preparation and DNA or RNA extraction



Current pre-PCR room with conventional PCR



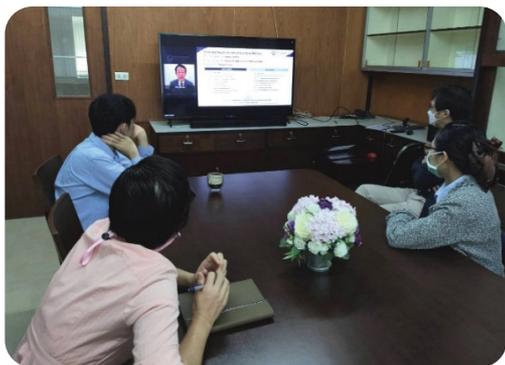
Introduce and Promote Local Base Research Center (C³BIRD Center -Thailand)

C³BIRD Center -Thailand is coworking by researchers in various departments in the Faculty of Medicine and various faculties of health sciences in Chiang Mai University. Our core teams have active collaboration with South Korea, Japan, England and Luxembourg which has facilitated us to setup network for research, academic exchange and aid with institutions in Laos, Myanmar, Bhutan, Malaysia, the Philippines and Indonesia about communicable infectious diseases.

C³BIRD Center -Thailand coordinates with KOICID project to make a serum bank to collect clinical samples of tropical infectious diseases, such as dengue, chikungunya, unexplained fever, diarrhea and respiratory diseases, etc. In addition, C³BIRD Center -Thailand is working with Professor Kamolwish Laoprasopwattana, infectious disease specialist at Prince of

Songkla University, to set up a serum bank for specific infectious diseases and organism strains in the southern part of Thailand. We have agreed to share clinical data and specimens for future Korea projects under ethical approval.

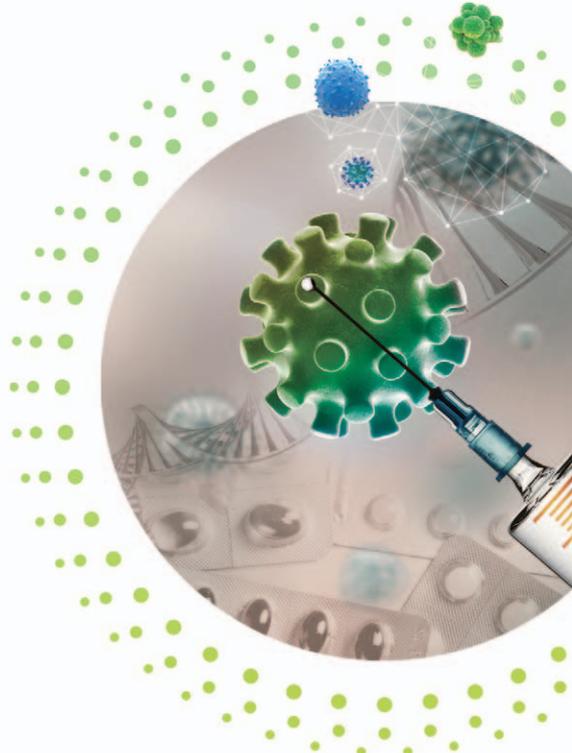
C³BIRD (SNUH and Local Base Research Center) is focus on improving capability of Chiang Mai Clinical Trial Unit (CM-CTU), Sripat Medical Center, Faculty of Medicine, CMU, to work with Korea companies or institutes to validate diagnostic kits and clinical trial of pharmaceutical and vaccine studies.



Current CMU Local C³BIRD Center has facility for online meeting

Stage 2: 2nd Year Online Training Courses

1. Basic Good Laboratory Practice (GLP) for Thai Researchers; 14-16 January 2021, 10-12 trainees, staffs and PhD students of the Faculties of Medicine, Pharmacy, Veterinary Medicine, CMU, and Prince of Songkla University.
2. Basic Good Clinical Practice (GCP) for Thai Researchers: Tentatively 6 days in March 2021, 10-12 trainees; staffs and PhD students of the Faculty of Medicine, Pharmacy, Veterinary Medicine, CMU, and Prince of Songkla University.



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