



# University of Tsukuba Biotechnology Center of Ho Chi Minh City



## Experimental Course in Biotechnology in Medicine

February 15 - 22, 2017

### Part I : Bioinformatics Workshop

Practical training course for biomedical research scientists.

### Part II: Workshop on Infection Diagnosis

Laboratory training course for diagnosing bacterial pathogenic species.

For information regarding the course, please contact the University of Tsukuba, Ho Chi Minh City office at : [http://www.kokuren.tsukuba.ac.jp/overseas\\_offices/hcmc\\_office/](http://www.kokuren.tsukuba.ac.jp/overseas_offices/hcmc_office/)



# Bioinformatics Course

## Practical training course for biomedical research scientists

15~ 17 Feb 2017, Biotechnology Center, Ho Chi Minh City

This workshop is a part of "Biotechnology in Medicine" course (15 ~23 Feb 2017)

Students will learn how to use genomics databases and bioinformatics tools through hands-on experiences of 2<sup>nd</sup>-generation sequencing data analysis. This course also provides introduction to Linux shell scripting for constructing semi-automated data processing workflow.

### Course Schedule:

#### Day 1 (Feb 15)

- Standard data format, UCSC Genome browser, Galaxy and web tools
- Analysis of published datasets (for project assignment)

#### Day 2 (Feb 16)

- Linux shell scripting for batch data processing and analysis workflow
- Project work

#### Day 3 (Feb 17)

- Genomics data privacy and clinical research ethics
- Project presentation and review



# Workshop on Infection Diagnosis

20~ 22 Feb 2017, Biotechnology Center, Ho Chi Minh City

This workshop is a part of "Biotechnology in Medicine" course (15 ~22 Feb 2017)

Students will learn principles and techniques to identify and characterize pathogenic bacteria from patient samples. They also learn and discuss the current situation in infectious disease diagnosis and epidemiology in Vietnam.

## Course Schedule (tentative):

20<sup>th</sup> ~22<sup>nd</sup> Feb.: **Practice**

Identification of bacterial pathogen species

- culture method
- biochemical characteristics
- antibiotics susceptibility
- gene analysis

supervisors: Kazuya Morikawa, Kiong Ho, Nguyen Thi Le Thuy  
Veronica Medrano et al.

22<sup>nd</sup> Feb. : **Lectures/ oral presentations/ discussion**

Towards appropriate diagnosis in bacterial infection in Vietnam.

- mechanisms of antibiotics resistance

Kazuya Morikawa

- epidemiology of bacterial pathogens in Vietnam

Nguyen Thi Le Thuy

- techniques in diagnosis

Participants from University of Tsukuba, School of  
Medical Sciences

- Current diagnostic system in UMP hospital  
TBA