



## Biotechnology Center of Ho Chi Minh City University of Tsukuba, Faculty of Medicine



# Experimental Course in Biotechnology in Medicine

### Bioinformatics Workshop

*January 15 - 17, 2018*

Practical training course for biomedical research scientists.

### Workshop on Infection Diagnosis

*January 15 - 19, 2018*

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 Workshop

Biotechnology Center, Ho Chi Minh City &  
University of Tsukuba, Faculty of Medicine.

Jan 15-17, 2018

This workshop is a part of "Biotechnology in Medicine" course

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

## Course Program:

### Day 1 (Jan 15):

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

### Day 2 (Jan 16):

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

### Day 3 (Jan 17):

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



筑波大学  
University of Tsukuba

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# Workshop on Infection Diagnosis

Biotechnology Center of Ho Chi Minh City &  
University of Tsukuba, Faculty of Medicine

January 15 – 19, 2018

This Workshop is a part of “Biotechnology in Medicine”

In this workshop, students will approach the emerging topic of infection “**Current trends in antimicrobial resistance**” and will learn the **methods to detect multidrug-resistant bacteria** (MDRB). Throughout the workshop participants will have the opportunities to share and discuss the experiences in the field and solutions to treat MDRB.

## Course Program (tentative):

- ❖ Lectures: Current trends in antimicrobial resistance (AMR), antimicrobial susceptibility testing methods, mechanisms of drug resistance.
- ❖ Practice:
  - Bacterial identification: culture method, biochemical characterization.
  - Antibiotics susceptibility testing
  - Gene analysis: PCR, multiplex PCR, sequencing.
- ❖ Discussion & Presentation

Supervisors: Prof. Kazuya Morikawa, Prof. Kiong Ho; Dr. Nguyen Thi Le Thuy



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