



Pasteur Institute
Ho Chi Minh City
Training Center



香港大學 - 巴斯德研究中心
HKU-Pasteur Research Pole



SCHOOL OF PUBLIC HEALTH
THE UNIVERSITY OF HONG KONG
香港大學公共衛生學院

INTERNATIONAL WORKSHOP

INTRODUCTION TO MODELING OF INFECTIOUS DISEASES

PASTEUR INSTITUTE OF HO CHI MINH CITY

30 OCTOBER -4 NOVEMBER 2016, HO CHI MINH CITY, VIETNAM

PROGRAM



Faculty

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Program

30 October 2016

14:00 – 14:30 **Welcome, Introduction of the Course**
Course Directors

14:30 – **Trainees' self-presentations**

31 October 2016

8:00 – 9:15 **Official opening ceremony and Group Photo**

9:15 – 11:00 **Infectious disease epidemiology: The basics of Infectious disease modeling**
Joseph Wu (The University of Hong Kong, Hong Kong SAR)

11:00 – 12:00 **Heterogeneity** (via video conference)
Marc Lipsitch (Harvard T.H. Chan School of Public Health, USA)

12:00 – 13:30 **Lunch**

13:30 – 14:30 **Modeling vaccinations and description of modeling projects conducted at OUCRU-HCMC**
Hannah Clapham (Oxford University Clinical Research Unit, Vietnam)

14:30 – 15:00 **Break**

15:00 – 17:30 **Practical session: Transmission potential of smallpox in contemporary populations**
Joseph Wu (The University of Hong Kong, Hong Kong SAR)

18:30 – **Reception - Residence of France**

1 November 2016

8:30 – 9:30 **The basics of statistical inference for infectious diseases Application**
Simon Cauchemez (Institut Pasteur, France)

9:30 – 10:00 **Break**

10:00 – 11:00 **Estimating vaccine efficacy and effectiveness Application: Test-negative design for estimating vaccine effectiveness**
Ben Cowling (The University of Hong Kong, Hong Kong SAR)

11:00 – 12:00 **Using modeling to design and interpret complex intervention trials** (via video conference)
Marc Lipsitch (Harvard T.H. Chan School of Public Health, USA)

- 12:30 – 13:30 **Lunch**
- 14:30 – 18:00 **Practical session: Estimating transmission parameters and the impact of interventions from data**
[Simon Cauchemez](#) (Institut Pasteur, France)

2 November 2016

- 8:30 – 9:30 **Modeling vaccination programmes (health impact and economics)**
[Mark Jit](#) (London School of Hygiene & Tropical Medicine, UK)
- 9:30 – 10:00 **Break**
- 10:00 – 12:30 **Practical Session: Cost-effectiveness evaluation of a new vaccine introduction**
[Mark Jit](#) (London School of Hygiene & Tropical Medicine, UK)
- 12:30 – 13:30 **Lunch**
- 14:00 – 15:00 **Vector-borne diseases**
[Marc Choisy](#) (Oxford University Clinical Research Unit, Vietnam; IRD)
- 15:00 – 16:00 **Practical Session: Modeling vector-borne diseases**
Application: Dengue transmission
[Marc Choisy](#) (Oxford University Clinical Research Unit, Vietnam; IRD),
[Vu Thi Que Huong](#) (Pasteur Institute HCMC, Vietnam)
- 16:00 – 17:00 **Sanofi presentation: Public health impacts of dengue vaccine: insights from transmission dynamic modeling**
[Joshua Nealon](#) (Sanofi Pasteur Epidemiology; Dengue Vaccine Impact and Economics)

3 November 2016

- 8:30 – 10:30 **Molecular epidemiology: modeling disease transmission using the pathogen's genetic data**
Application: Molecular epidemiology of H5N1 avian influenza virus
[Tommy Lam](#) (The University of Hong Kong, Hong Kong SAR)
- 10:30 – 11:00 **Break**
- 11:00 – 12:00 **Application: Molecular clocks of virus emergence**
[Tommy Lam](#) (The University of Hong Kong, Hong Kong SAR)
- 12:30 – 13:30 **Lunch**
- 13:30 – 16:00 **Practical session: Dating the emergence of MERS-Coronavirus**
[Tommy Lam](#) (The University of Hong Kong, Hong Kong SAR)
- 16:00 – 18:00 **Practical session: Risk assessment for MERS-Coronavirus**
[Simon Cauchemez](#) (Institut Pasteur, France)
- 19:00 **Gala dinner**

4 November 2016 (Project day) **To be finalized with trainers**

- 8:30 – 9:00 **Presentation of projects**
- 9:00 – 12:30 **Work session 1**
[Pham Duy Quang](#) (Pasteur Institute HCMC, Vietnam)
- 12:30 – 13:30 **Lunch**
- 13:30 – 14:30 **Work session 2**
[Pham Duy Quang](#) (Pasteur Institute HCMC, Vietnam)
- 14:30 – 15:30 **Presentation to the group**
- 15:30 – 16:00 **Break**
- 16:00 – 17:00 **Course evaluation**
- 17:00 – 17:30 **Closing remark**
[Faculty](#)