

**Kasetsart University**

## **Workshop « Reservoir Hosts »**

**21- 23 November 2018**

*Central to the One Health approach and any disease eradication program is the question of whether a pathogen has a non-human reservoir. Despite well-established conceptual frameworks that define a reservoir of infection, empirical characterization of reservoirs often remains controversial, challenging and sometimes misleading. What is essentially missing are applicable requirements that standardize the use of the term 'reservoir of infection' across multiple disciplines.*

**Disease reservoirs: from conceptual frameworks to applicable criteria**

<https://www.nature.com/articles/emi201765>

### **Wednesday 21/11/18 (Kamphaeng Saen Campus): Estimation and monitoring of wildlife**

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*9h-15h30*

- Game count methods (ex: dog population)
- CMR / Line transects / Camera trap and Drone
- Data collection  
(MdGW, AC, JC, MB)

*Break*

- Data analysis
- CMR (Mark software)
- Line Transect (Distance Sampling Software)  
(VG, MB)

### **Thursday 22/11/18 (Bangkhen Campus): Concept of reservoir species**

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*9h-17h*

- Ecological perspectives. Multi-host pathogens systems (AC)
- Public Health perspectives. Epidemiological parameters, R0 and reservoirs (VG).
- Coevolution: theory, tools and applications to reservoir concept (SM)

*Break*

- Role of insect vectors in virus maintenance and transmission (TB)

- Metagenomics for virus ecology and diagnostics in vector-borne diseases (SG)
- Anthropological perspectives about parasites and other pathogens (Stephane Rennesson, Research Institute on Contemporary Southeast Asia, IRASEC)

*Lunch*

- Arboviral diseases (WN, EJ, RVF): modelling for helping to identify reservoirs (VC)
- Antimicrobial resistance (AMR): can we talk on reservoirs? (NG, AR & EL)
- ASF/FMD: are wildlife reservoir and/or vector? (FJ)

*Break*

- Ebola: where the hell are the reservoirs? (MB)
- Nipah Virus, Environments and Societies: lively debate (AB & JC)

**Friday 23/11/18 (Bangkhen Campus)**

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*Morning (9:00 – 13:00).*

- Nipah Virus, Environments and Societies: Continuation and ending of the lively debate (AB & JC)
- Group discussion: How to identify reservoirs: toward a transdisciplinary approach?
- Group discussion: How to manage (surveillance, control) reservoirs from a public health vs. socio-ecological viewpoints?
- Discussion - Wrap up - *Expected output: Policy brief Cirad & partners*

**Speakers:**

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AB: Aurélie Binot	NG: Noellie Gay
AC: Alexandre Caron	SG: Serafin Gutierrez
AR : Adrien Rieux (Cirad PVBMT)	SM: Serge Morand
EL : Etienne Loire	SR: Stephane Rennesson (IRASEC)
FJ: Ferran Jori	TB: Thierry Baldet
JC: Julien Cappelle	VC: Véronique Chevalier
MB: Mathieu Bourgarel	VG: Vladimir Grosbois
MdGW: Michel de Garine-Wichatitsky	

**Participants:**

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GREASE partners: Indonesia, Lao, Philippines, Thailand, Vietnam  
 Kasetsart University (FVM & Vet Tech)  
 Other Thai Universities  
 CNRS, IRASEC, IRD  
 OIE, FAO

**Location:**

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21/11 Kamphaeng Saen Campus  
 22-23/11 Bangkhen Main Campus, Bangkok. 5th floor, Room 506, Honor Building, 6th round, King Rama IX

