Workshop on Surveillance and Control of Rabies
Pasteur Institute – Cambodia
27 October – 7 November 2015

15 December 2015

Aim and objectives

In low and middle-income countries, delivering adequate training for people working in disease control may be a challenge. Many e-training programs are based on participatory learning models in which participants share their understanding and monitor their theoretical knowledge through discussion, questioning and interaction with mentors via the internet. The current most popular e-learning systems for resource-poor settings are massive online open courses (MOOCs) which have been used by tens of thousands of students around the globe. However, this format is not well suited to specific practical training needs. This is the case for the management of neglected zoonotic disease and rabies in particular.

According to estimations, around 60 000 deaths from rabies occur each year due to the inaccessibility of post-exposure prophylaxis, inadequate or absent dog rabies control programs, and lack of governmental financial support but also lack of awareness about rabies or how to control it. There is clearly a need for innovative methods to deliver appropriate education to these areas.

To improve the knowledge of health professionals in rabies enzootic countries, we used an approach called customized online training, (COLT) which focuses on small sets of trainees and is designed for situations where acquisition of skills and direct training by experts are needed. With this approach, it is feasible to tailor training to each individual trainee in a way that would be impractical in a system designed for mass audiences (http://octave.bio-med.ch).

In Collaboration with WHO, the University of Lausanne, Switzerland, The HSET foundation, the EU funded FP7 PREDEMICS program and the International network of Institut Pasteur, and with the active participation of FAO and Global Alliance for Rabies Control (GARC, we first organized a COLT course on the control and surveillance of rabies in Dakar, Senegal, in December 2013 (http://predemics.biomedtrain.eu/cms/Default.aspx?Page=19812%20&menu=494) (http://www.who.int/bulletin/volumes/93/7/14-149849/en/) . The same COLT approach was recently used with success for a second session of this training program on the control and surveillance of rabies organized partly online and for the practical training part in Phnom Penh, Cambodia, in November 2015.

The purpose of this course was to provide a practical training on rabies with a special focus on Asia for students and professionals of animal and human public health sectors. The course emphasized the need of multidisciplinary approach and intersectorial cooperation. Several major objectives addressing critical issues of the present rabies situation in developing countries and in particular in Asia were targeted during this training session:

- To fill the knowledge and information gaps on emerging and re-emerging zoonoses such as rabies.
- To improve the knowledge on rabies epidemiological data in particular rabies incidence.
- To improve the prophylaxis against rabies in Asia and to emphasize on practical solutions
- To increase populations' access to post-exposure prophylaxis in Asia.
- To disseminate validated protocols for dog population control.
- To discuss implementation of rabies control strategies in Asia.
- To increase awareness about rabies in Asia.

Successful trainees benefited from 8 ECTS (European Credits Transfer System) of the University of Lausanne, Switzerland.

Interest of the course for the region

Rabies is a lethal encephalitis due to a lyssavirus mainly transmitted by the bite or scratches of infected animals (principally dogs in developing countries). An estimated 36,000 human rabies deaths occur in Asia each year due to a lack of awareness, inaccessibility of exposed people to rabies post exposure prophylaxis, inadequate or absence of dog rabies control programs and a lack of governmental financial support.
All rabies experts and relevant international organizations have recognized the urgent need to provide training on rabies control and diagnosis methods to medical and veterinary staff. This training also benefited from the lessons of the past showing retrospectively that conventional training sessions had little impact on the rabies epidemiological situation and that the approach of Customized On-Line Training Course (COLT) is best suited to develop knowledge and practical use of this knowledge in field conditions (http://www.who.int/bulletin/volumes/93/7/14-149849/en/).

Organizers

This 11-day residential course was organised by the Pasteur Institute in Cambodia with the support of the Pasteur Institute in Paris, the Biochemistry department of University of Lausanne, The Health Sciences eTraining Foundation (HSeT), the World Health Organization and the PREDEMICS consortium (a FP7 grant number 278433).

This workshop received financial support from several international organizations and consortia. In 2010, the European Commission framework program 7 included a call for research programs with a strong training component on emerging and re-emerging zoonosis. Sylvie van deer Werf led, with Hervé Bourhy as a co-leader, the successful PREDEMICS application. The training therefore benefited from the financial contribution and from the expertise of PREDEMICS in the domain of emerging and re-emerging zoonoses and rabies in particular. The huge experience of Jean-Pierre Kraehenbuhl from HSeT Foundation, a PREDEMICS partner, also largely contributed to the organization of this workshop and in particular to the building of all the e-learning support and web site management. Jean-Pierre Kraehenbuhl, the HSeT Team (http://hset.bio-med.ch) and contributors all around the world have developed over the last 10 years, eLearning and eTraining content related to many topics in Immunology & Vaccinology, Microbiology, Hematology, Pharmacology, Nephrology, Bioinformatics, Statistics, Laboratory methodology and Clinical trial design and management. Presently HSeT collaborates with more than 40 Swiss, European, US and African organizations and institutions.

This workshop was co-organized with WHO and in particular by Dr Bernadette Abela-Ridder, Team leader NZDs in WHO headquarters and Dr Anna Fahrion member of NZD team in WHO headquarters. The International network of Pasteur Institutes also supported this workshop through the selection of the corresponding grant submitted by Hervé Bourhy. The Institut Pasteur of Cambodia and in particular Dr Arnaud Tarantola participated to the general organization and was in charge of the local organization.

Details of the organizing committee:

Dr Hervé Bourhy
Unit Lyssavirus dynamics and host adpatation,
WHO Collaborating Centre for Research on Rabies,
National Reference Centre for Rabies,
Institut Pasteur, 28 rue du docteur Roux, 75724, Paris cedex 15, France.
Tel: +33.1.45.68.87.50.

Web site: https://research.pasteur.fr/en/team/lyssavirus-dynamics-and-host-adaptation/
E-mail: herve.bourhy@pasteur.fr

Dr Arnaud Tarantola
Head, Epidemiology and Public Health Unit
Institut Pasteur du Cambodge
5, Bvd. Monivong
BP 983 - Phnom Penh
Royaume du Cambodge
Mobile: +855 (0) 12 333 650
Tel: +855 (0) 23 426 009 ext. 206
Fax: +855 (0) 23 725 606
Web site : http://www.pasteur-kh.org/research/epidemiology/
Email: atarantola@pasteur-kh.org

Dr Jean-Pierre Kraehenbuhl
HSeT Foundation
Ch. Boveresses 155, CH 1066 Epalinges, Switzerland
Tel: +4121 692 5856
Mobile: +4179 441 5393
Web site: http://hset.bio-med.ch
E-Mail: jean.pierre.kraehenbuhl@hset.org

Dr Bernadette Abela-Ridder
Team Leader, Neglected Zoonotic Diseases (NZDs),
Department of Control of Tropical Neglected Diseases
World Health Organization
Avenue Appia 20, 1211 Geneva 27, Switzerland,
Tel: 41.22.791.25.75.
E-mail: abelab@who.int@who.int

Dr Anna Fahrion
Neglected Zoonotic Diseases (NZDs),
Department of Control of Tropical Neglected Diseases
World Health Organization
Avenue Appia 20, 1211 Geneva 27, Switzerland,
Tel: 41.22.791.25.75.
E-mail: abelab@who.int@who.int

Dr Cecile Troupin
Unit Lyssavirus dynamics and host adpatation,
WHO Collaborating Centre for Research on Rabies,
National Reference Centre for Rabies,
Institut Pasteur, 28 rue du docteur Roux, 75724, Paris cedex 15, France.
Tel: +33.1.45.68.87.50.
E-mail: cecile.troupin@pasteur.fr

Dr Perrine Parize
Unit Lyssavirus dynamics and host adpatation,
WHO Collaborating Centre for Research on Rabies,
National Reference Centre for Rabies,
Institut Pasteur, 28 rue du docteur Roux, 75724, Paris cedex 15, France.
Tel: +33.1.45.68.87.50.
E-mail: perrine.parize@pasteur.fr

Overall strategy

This course took advantage of the new possibilities offered by e-Learning and already existing documents from WHO and other international organizations.
A pre-training assessment tool was provided to selected motivated applicants in order to prepare them to participate actively in discussions and practical activities during the workshop. To complete this pre-training session, applicants required approximately 70 hours of individual work. The trainees had access to these functionalities through a dedicated web-page (http://predemics.biomedtrain.eu).

The on site course (12 days) focused on practical sessions, as bench work, demonstrations and hands-on sessions, which complemented the theoretical part (pre-training session and lectures).

Selection of the trainees

This workshop was developed for physicians, veterinarians, and specialists in infectious diseases, virology and/or epidemiology with at least a bachelor degree and preferably a master degree. Public health officers involved in the control of zoonotic diseases were welcome. Applications from Asia were encouraged, however applications from other regions of the world were also considered. Pre-selection of the students was performed on the basis of the quality of their applications including CV, letter of motivation and 3 letters of recommendations (**Annex 1**). A basic knowledge of English was a prerequisite. A total of 61 applications were analysed and 32 pre-selected.
A pre-training assessment tool was then provided to pre-selected trainees to prepare them and help them achieve a sufficient and homogeneous level of knowledge, thereby stimulating more fruitful discussions. The trainees had access to these tools through the dedicated web-page. This pre-training session required approximately 30 hours of lecture and 70 hours of individual work. It was followed by a final evaluation performed online by each applicant.
Thanks to this pre-workshop distance learning all the pre-selected trainees had the opportunity to improve and test their knowledge. This also allowed the board of organizers to select among pre-selected trainees those that showed appropriate knowledge and motivation levels to follow the onsite course in order not to slow down the progress of the rest of the group.

Registration was free of charge and local expenses (accommodation, food) were covered by the organizers. The organizing committee was able to provide travel grants for 15 trainees.

Pre-workshop activities

- Reading seminal rabies-related annotated articles
- Writing a national plan for the control and surveillance of rabies as a team work using a forum
- Writing a manuscript following online guidance with an application “How to write a manuscript”

Workshop achievements

The duration for lectures and benchwork, demonstrations and hands-on sessions are given in **Annex 2**. The organization of the workshop activities favoured debates, discussions and analysis of local contingencies to find practical, economical, sustainable and reliable solutions to the present challenges posed by rabies.

Twenty students, from 12 different countries in Asia, attended the workshop activities (**Annexes 3, 4 and 5**), including veterinarians, physicians, and microbiologists working in ministries, regional veterinary stations, International health Organization (WHO regional and country offices), hospitals, research institutions and NGOs involved in public health.

The workshop was held in the Phnom Penh Hotel, Phnom Penh, Cambodia during 8 days. Some practical training activities were subsequently conducted at the Institut Pasteur in Cambodia, Phnom Penh, and the Calmette Hospital, Phnom Penh. Field epidemiology training activities related to knowledge attitude and practice surveys, dog population surveys and dog vaccination campaigns were performed in Trapeang Roka, a village of approximately 600 inhabitants located in Kompong Speu province, 80 km South from Phnom Penh.

The Ministry of Agriculture and fisheries, the Ministry of Health were represented at the opening ceremony, where the WHO Country Representative and the Director of Institut Pasteur in Cambodia also delivered speeches.

To assess the effectiveness of the workshop process, one intermediate quiz and a final evaluation examination including another written quiz were conducted. All the students succeeded with the final examination.

Twenty five teachers participated to the 12-day residency course in Phnom Penh, Cambodia. They originated and from 7 countries (United Kingdom, South Africa, Cambodia, Switzerland, Italy, Bengladesh, Thailand, Philippines and France) on 3 continents (**Annex 6**).

Evaluation of the course by the trainees

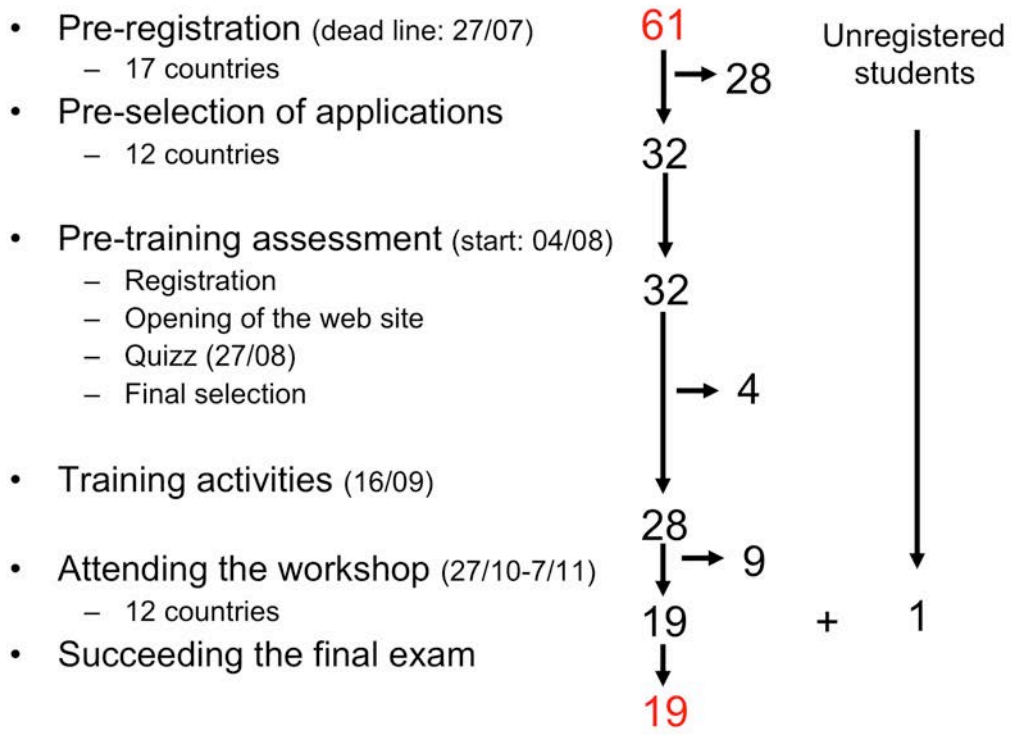
At the end of the course, the students were asked to evaluate the training course. More than 80% of them gave the best score or a very good evaluation to the course.

Conclusions

This course was a unique opportunity for mixing experience and knowledge between international, experts on rabies and a very motivated group of students involved locally, nationally or regionally in the control of rabies in Asia. The organization of the workshop (pre-training activities performed by e-learning and corresponding to approximately 70 hours of personal work) and the duration of workshop activities in Phom Penh (11 days) allowed the presentation of data and knowledge necessary for a better understanding of the guidelines and technical protocols approved by international organizations (WHO, OIE and FAO). The associated lectures, technical bench work and field demonstrations allowed the participants to practice the knowledge dispensed during the lectures and discuss more practical points. The motivation all along the training (pre-workshop and workshop activities), the satisfactory scores obtained by the students, as well as the evaluation of the course by the trainees clearly indicated that the workshop met its objectives. It is expected that the course will boost the training outcome with the transfer of the techniques and knowledge acquired by the participants to other members of the staff of their national and regional institutions. Contacts are continuing with those graduates to help write scientific articles or reports on rabies, and to organize training in their countries. This course also lead to intense exchange of experiences between participants and largely contribute to the building of a strong regional network between participants.
The outcomes of course were very rapidly advertised in the newsletter (21/12/15) of the Global Alliance for Rabies Control (http://rabiesalliance.org/media/news/customized-online-and-onsite-training-colt-for-rabies-control-officers) and in the newsletter (Dec 2015) of Institut Pasteur (https://www.pasteur.fr/sites/www.pasteur.fr/files/ip-education-newsletter-vol-04.pdf). Considering the epidemiological situation of rabies in Africa and in Asia, the organization of similar courses in the next future in these two continents is advisable.

List of annexes:

Annex 1: Process of selection of the trainees



Annex 2: Program of the workshop activities

Time		Activities	Contributors
Tuesday 27 October Phnom Penh			
8h30 9h30	-	**Informal part** General introduction, presentation of the workshop, organizing team & trainees. Discussion about trainbees' expectations	Arnaud Tarantola Hervé Bourhy All
9h30 10:00	-	**Official opening ceremony** WHO, OIE, FAO SEARO, WPRO, Cambodia WHO country office, Ministry of Health, Ministry of Agriculture	
10h00 10h30	-	Coffee break	
10:30- 11h30		**Blood sample (and titration)**	All
12:00- 12h30		**Keynote speech: Freedom from dog mediated rabies is a global public good** (20 min)	Anna Fahrion
12h30 13h00	-	**Stepwise approach for rabies control** **Contact between media and organizers**	Katinka de Balogh by Skype
13h00 13h30	-	**Examination** (Quiz): 30 min	Trainees
13h00 14:00	-	Lunch Blood sample (and titration)	IPC
14:00 15h45	-	**Surveillance of rabies** 1. Presentation, generalities (30 min) 2. Surveillance Blueprint (30 min)	**Moderator**: A. Tarantola Anna Fahrion Hervé Bourhy
15h45 16h00	-	Coffee break	
16:00 18:00	-	**Surveillance of rabies** 4. Type and quality of data (30 min) 5. Presentation of Cambodian situation (30 min) General discussion (1h)	Arnaud Tarantola Arnaud Tarantola Ly Sowath + panel of experts
20h30		Social Dinner	

Wednesday 28 October, Phnom Penh			
8:30 - 10:30		**Surveillance of rabies** 6. Practical exercices (repartition in working groups and work on scenarios)	Trainees
10h30 - 11h00		Coffee break	
11:00 - 13:00		**Surveillance of rabies** 6. Practical exercices (repartition in working groups and work on scenarios)	Trainees
13h00 - 14h00		Lunch	
14h00-15:45		**Clinical diagnosis of rabies** In humans (40 min) In animals (40 min) Discussion (30 min)	Thiravat Hemachudha Veera Tepsumethanon Chair T. Hemachudha
16h00 - 18h00		**Surveillance of rabies** 7. Presentations of the results of the different working groups 8. Round table on surveillance (with panel of experts)	Arnaud Tarantola Perrine Parize Ly Sowath with panel of experts
15h45 - 16h00		Coffee break	

Thursday 29 October, Phnom Penh		
8h30 - 10h00	Hopital Calmette + management of human rabies at hospital (therapeutic, announcement of prognosis to relatives, risk analysis for the relatives, varying attitudes of relatives concerning hospitalization)	
10h00 - 10h30	Example of a KAP study :the RabMedControl Program	Jacques Barrat
10h30 - 11:00	Coffe break	
11h00 - 12h00	Lunch	
14h00 - 15h45	**Theory - discussion** Preventive vaccination (humans) (30 min) - PEP (30 min) - Role of veterinary sector in therapeutic decision (PEP) (30 min)	Perrine Parize Arnaud Tarantola Hervé Bourhy
15h45 - 16h00	Coffee break	
16h00 - 18h00	**Laboratory diagnosis** - Principle and specimens to be collected - Diagnosis in the context of Asia - FAT and DRIT - Other techniques - Presentation of necropsy	Laurent Dacheux Philippe Dussart Paola de Benedictis

Friday 30 October, Phnom Penh		
8h00-13h00	**Laboratory diagnosis** (hands on activities in working groups) G1: ELISA and real time PCR G2: real time PCR and ELISA G3: DRIT, FAT and RIDT G4: RIDT, FAT and DRIT	Laurent Dacheux Philippe Dussart Paola de Benedictis
14h00-18h00	**Laboratory diagnosis** (hands on activities in working groups) G1: DRIT, FAT and RIDT G2: RIDT, FAT and DRIT G3: ELISA and real time PCR G4: real time PCR and ELISA	Laurent Dacheux Philippe Dussart Paola de Benedictis
18h00-19h00	**Laboratory diagnosis** Debriefing on hands on activities and diagnosis, presentation of the results by the trainees	Laurent Dacheux Philippe Dussart Paola de Benedictis Hervé Bourhy

Saturday 31 October, Phnom Penh			
8h00 10h30	-	**Round table on diagnosis and management of rabies virus infected** patients	+ panel of experts
10h30- 11h00		Coffee break	
11h00- 13h00		**Dog rabies control Theory** (2 h) - Generalities - Vaccination of dogs	Anna Fahrion Daniel Stewart
13h30- 14h00		Lunch	
14h30- 15h45		**Dog rabies control** - Vaccination of dogs (1 h) - Example of mass dog vaccination campaign (1 h)	Florence Cliquet
15h45- 16h00		Coffee Break	
16h00 18:00	-	**Dog rabies control** Discussion (30 min) **Field activities** Distribution of the following subject: How would you organize dog vaccination campaigns (mobile, door to door, and/or fixed). Preparation (in 4 groups) of 15 min of presentation per groups)	Chair: Anna Fahrion + panel of experts Coordinators: Ly Sowath (IPC) Holl Davun (NAVRI)) + panel of experts
Sunday November 1 Trapeang Roka			
8h00 18h00	-	**Field activities** G1: KAP studies + dog population surveys G2: Vaccination (fixed and/or mobile) G3: Capture of free roaming dogs G4: Analysis of data	All
Monday November 2 Trapeang Roka			
8h00 18h00	-	**Field activities** G1: KAP studies + dog population surveys G2: Vaccination (fixed and/or mobile) G3: Capture of free roaming dogs G4: Analysis of data	All
Tuesday November 3 Phnom Penh			
8h00 18h00	-	**Social activities**	All

Wednesday November 4 Phnom Penh			
8h00 09h00	-	**Field activities** SARE approach: practical exercise	Chari Amparo
09h00 10h00	-	**Field activities** Presentation of personal work	Trainees
10h00 10h30	-	Coffee break	
10h30 12h30	-	**Field activities** Presentation of results obtained during the field study and presentation of the organization of dog vaccination campaign	20 min/group
12h30 14h00	-	Lunch	
14h00 15h45	-	**Education, awareness and community participation** - Presentation (40 min)	Chari Amparo
15h45 16:00	-	**Coffee break**	
16h00 18h00	-	**Education, awareness and community participation** - Round table (1 h) - Work in group on the organization of a communication campaign)	Chari Amparo

Thursday November 5			
8h00 10h30	-	**Other tool: Modeling : theory and practice**	Pierre Nouvellet Raphael Duboz
10h30 11h00	-	Coffee break	
11h00 11h30	-	**Other tools; Modeling : theory and practice**	Pierre Nouvellet Raphael Duboz
11h30 12h30	-	**Example for dog mass vaccination campaign**	Ahmed Be Nazir via skype
h30 14h00	-	Lunch	
14h00 15h45	-	**Other tools** Phylogeny: theory and practice	Cécile Troupin + Matthew Hall by visio
15h45 16:00	-	**Coffee break**	
16h00 18h00	-	**Other tools** Phylogeny: theory and practice	Cécile Troupin + Matthew Hall by video

Friday November 6			
8h00 10h30	-	**Presentation of results by trainees** 1. National program of rabies control: restitution of the working groups	Chairman: Jean-Pierre Kraehenbuhl
10h30 11h0	-	Coffee break	
11h00 13h00	-	**Presentation of results by trainees** 2. Education and awareness: organization of a communication campaign	Chairman: Chari Amparo
13h30 14h00	-	Lunch	
14h00 15h45	-	**New perspectives in rabies elimination and control**	Hervé Bourhy
15h45 16:00	-	**Coffee break**	
16h00 18h00	-	**Final Examination**	All

Saturday November 7			
8h00 10h30	-	**Conference Rabies in Asia and in Cambodia** Prospects for rabies elimination in Asia and in Cambodia - Round table	Gyanendra Gongal Anna Fahrion
10h30 11h00	-	Coffee break	
11h00 13h00	-	Graduation ceremony - Closing ceremony	All

Annex 3: Photo of the participants to the opening ceremony

Annex 4: Photo and name of the participants to the course

Workshop on Surveillance and Control of Rabies
Phnom Penh - Cambodia
27 October - 7 November 2015

1. Theng Kouch
2. Phan Thi Ngoc Uyen
3. De Silva Ganga
4. De Jesus Joanne
5. Hussein Wahid
6. Chiedza Machingaidze
7. Rajnich Kumar
8. Shabbir Muhammad Zubair
9. Leuangvilay Phetdavanh
10. Grigorian Grigori
11. Nguyen Anh Thi
12. Filoteo Michael Angelo
13. Imanishi Maho
14. Phat So
15. Fazeli Myriam
16. Mukhtar Nadia
17. Geng Menglie
18. Phunlang Sun (IPC)
19. Kraehenbuhl Jean-Pierre (HSET)
20. Fahrion Anna (WHO-HQ)
21. Tarantola Arnaud
22. Bourhy Hervé (IP)
23. Gyanendra Gongal (WHO-SEARO)
24. Troupin Cécile (IP)
25. Dussart Philippe (IPC)
26. Bun Sreng (not on the picture)
27. Yi Sengdoeurn (not on the picture)
28. Zeng Zheng (not on the picture)

Annex 5: Countries of origin of the trainees

Annex 6: List of teachers involved

Name	Institution	e-mail
Bernadette ABELA-RIDDER	WHO HQ - Switzerland	abelab@who.int
Chari AMPARO	GARC – Philippines	chari.amparo@rabiesalliance.org
Jacques BARRAT	ANSES Nancy - France	jacques.barrat@anses.fr
Ahmed BE NAZIR	National Institute of Preventive and Social Medicine (NIPSOM) Ministry of Health and Family Welfare Bangladesh	dbenazirahmed@yahoo.com
Hervé BOURHY	WHO CC - IP Paris - France	herve.bourhy@pasteur.fr
Nareth CHHOR	Calmette Hospital – Cambodia	nareth@csc.org
Florence CLIQUET	WHO - OIE CC - ANSES Nancy – France	florence.cliquet@anses.fr
Laurent DACHEUX	WHO CC - IP Paris - France	laurent.dacheux@pasteur.fr
Holl DAVUN	National Veterinary Research Institute – Cambodia	vun.navri@gmail.com
Katinka DE BALOGH	FAO – Italy	Katinka.DeBalogh@fao.org
Paola DE BENEDICTIS	Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe) - FAO – Italy	pdebenedictis@izsvenezie.it
Veasna DONG	IP Phnom-Penh - Cambodia	dveasna@pasteur-kh.org
Raphael DUBOZ	IP Phnom-Penh - Cambodia	rduboz@pasteur-kh.org
Philippe DUSSART	IP Phnom-Penh - Cambodia	pdussart@pasteur-kh.org
Anna FAHRION	WHO HQ - Switzerland	fahrionan@who.int
Gyanendra GONGAL	WHO Regional office for South East Asia - India	gongalg@who.int
Matthew HALL	University of Edinburgh – United Kingdom	m.d.hall@sms.ed.ac.uk
Thiravat HEMACHUDHA	Faculty of Medicine, Chulalongkom University – Thailand	fmedthm@gmail.com
Jean-Pierre KRAEHENBUHL	HSeT Foundation – Switzerland	jean-pierre.kraehenbuhl@hset.org
Pierre NOUVELLET	Imperial College – United Kingdom	p.nouvellet@imperial.ac.uk
Perrine PARIZE	WHO CC - IP Paris - France	perrine.parize@pasteur.fr
Ly SOWATH	IP Phnom-Penh - Cambodia	lsowath@pasteur-kh.org
Daniel STEWART	SPCA – South Africa	fotobydaniel@telkomsa.net
Arnaud TARANTOLA	IP Phnom-Penh - Cambodia	atarantola@pasteur-kh.org
Veera TEPSUMETHANON	WHO CC - Queen Saovabha Memorial Institute – Thailand	tepsumethanonv@yahoo.com
Cécile TROUPIN	WHO CC - IP Paris - France	cecile.troupin@pasteur.fr