

TARGETING EBOLA 2015

Recent Advances & Strategies

May 28-29, 2015 • Institut Pasteur • Paris



Targeting Ebola 2015

May 28-29, 2015

Institut Pasteur - Paris, France











EBOLA TASK FORCE Interministerielle

Welcome Note

On behalf of the Targeting Infectious Diseases Committee, the Institut Pasteur, the COPED and the Task Force for Ebola in France, it is our pleasure to announce the organization of the **International Congress on Targeting Ebola 2015** which will be held on **May 28-29**, 2015 at **Pasteur Institute**, Paris, France.

The World Health Organization (WHO) was notified on March 23, 2014, of an outbreak of EVD in Guinea. The disease soon spread to the bordering countries of Liberia and Sierra Leone, which are the most severely affected countries. On August 8, 2014, the epidemic was declared a "public health emergency of international concern" (WHO Ebola Response Team, NEJM 2014, 371, 1481). Suspected cases of EVD have since been reported in seven affected countries (Guinea, Liberia, Nigeria, Senegal, Sierra Leone, Spain, and the United States of America). Unprecedented in scale and geographical distribution since the identification of Ebola in 1976, the current epidemic has an apparent overall case-fatality ratio of about 70%; but it is suspected that many more cases have gone unrecorded. On May 2015, more than 10.000 deaths and 30.000 cases had been reported in Sierra Leone, Liberia and Guinea, according to the WHO. Globally, the situation is improving. The epidemic is over in Liberia, however in Guinea and Sierra Leone, the initial decline observed a few weeks ago is stable with approximately 20 new cases / week. The vast majority of cases are reported from the western prefecture of Forecariah, which borders the Sierra Leonean district of Kambia.

Targeting Ebola 2015 Challenges

While there is no licensed treatment yet available for EVD, a range of blood, immunological and drug therapies are under development and two potential vaccine candidates are undergoing evaluation, according to the WHO.

Targeting Ebola 2015 will be a unique and cutting edge conference to discuss the recent advances, strategies and challenges in all Ebola issues, with plenary lectures given by leading scientists, and poster presentations covering various aspects of Ebola infection.

Ebola 2015 will address and discuss different strategies and challenges (short and long term) across the entire innovation cycle. We will discuss the vaccine candidates available and the ability to roll out clinical trial vaccination programs in EU / Africa, and how to conduct studies in areas where Ebola virus disease is endemic. We will discuss how a rapid diagnostics can detect EVD at acceptable costs and with very high sensitivity and specificity. We have invited academics and industrials to discuss strategies to treat Ebola infection by innovative drugs, immunotherapy and others. We will take in consideration the ethical and political issues of this strategic problem.

The topics of the Ebola 2015 cover sessions:

- Ebola virus disease
- Hemoragic Fever Viruses
- Virus-Host Interactions
- Epidemiology
- Diagnostic Tools
- Treatment & Vaccines
- Operational Researches: Present & Future

There will be a discussion between speakers, scientists, the industry sector and ethical and political organizations.

We hope that you will join us for this dynamic and strategic program and look forward to welcoming you in Paris.

Pr Jean-François Delfraissy - Pr François Gros - Pr Gérard Orth Pr Felix Rey - Dr Reiko Suzuki

International Conference on

Targeting Ebola 2015

May 28-29, 2015

Institut Pasteur - Paris, France

Program

May 28, 2015

7h30 - 9h00 Registration & Welcoming Coffee

9h00 Opening session

Christian Bréchot, Institut Pasteur, France François Gros, COPED, Académie des Sciences, France Jean-François Delfraissy, Task Force for Ebola, France Reiko Suzuki, Ebola Tokyo Group, Japan

> Session 1: Ebola Virus Disease: The State-of-the-Art 9h30 - 11h15

Chaired by Sylvie Briand and Jean-François Delfraissy

Democratic Republic of Congo (DRC): Four Decades of Ebola Outbreak Experience (20') Jean-Jacques Muyembe-Tamfum, Institut National de Recherche Biomédicale, Congo

Ebola virus disease in West Africa: a shift in paradigm -The WHO perspective (20') Sylvie Briand, World Health Organization, Switzerland

Update of the current Ebola outbreak in West Africa (20')

Amadou Sall, Institut Pasteur Dakar, Senegal

Update on translational research (20')

Yazdan Yazdanpanah, INSERM Unité 1137 ATIP AVENIR, France

Cultural aspects of Ebola virus Disease (20')

Frédéric Le Marcis, ENS Lyon UMR 5206, France

11h15 - 11h45 Coffee break

Session 2: Hemorragic fever viruses 11h45 - 13h00

Chaired by Philippe Kourilsky and Felix Rey

Entry steps of Ebola and Lassa fever viruses (20')

Thijn Brummelkamp, Netherlands Cancer Institute (NKI), Amsterdam, The Netherlands

Replication and transport of filoviruses (20')

Stephan Becker, P4 Marburg, Germany

Structure & function relations (20')

Winfried Weissenhorn, Université Joseph Fournier, France

Short Communications:

Analysis of Ebola Virus Entry into Macrophages (5')

Stephan Pöhlmann, German Primate Center, Germany

Circulating Ebola virus-encoded microRNAs are the biomarkers for early diagnosis (5')

Xi Chen, School of Life Sciences, Nanjing University, China

13h00 - 14h15 - Lunch Break

Session 3: Virus-host interactions 14h15 - 16h00

Chaired by Gérard Orth and Laurent Abel

Twists and Turns: Ebola Virus and a Vaccine (25')

Nancy Sullivan, NIH - Bethesda, USA

Ebola virus glycoproteins trigger an excessive immune activation and increased vascular permeability. (25')

Viktor Volchkov, CIRI Lyon, France

Deciphering dendritic cell subsets along mammalian species: from primates to bats (25')

Florent Ginhoux, Singapore Immunology Network (SIgN), Agency for Science, Technology and Research (A*STAR)", Singapore

Primate models (25')

Hervé Raoul, P4 Lyon, France

Short Communication:

Ebola Fever: A Disorder of Platelet Function (5')

Dermot Cox, Royal College of Surgeons, Ireland

16h00 - 16h30 - Coffee break

Session 4: Round Table - Actions in West Africa 16h30 - 18h00

Chaired by Jean-Jacques Muyembe-Tamfun and Patrice Debré

Improved field labs for a better care of patients in Ebola treatment centers (20')

Sylvain Baize, Institut Pasteur, Ubive Lyon, France

Experiences implementing three Ebola clinical trials: An ONG perspective (20')

Annick Antierens, MSF-Brussels, Belgium

Ebola Virus Diseases: Where are we now and where do we go (20')

Colin Brown, King's Health Partners, United Kingdom

RESAOLAB: a network strengthening West-African healthcare systems to fight ebola virus

disease (20')

Benoît Miribel, Fondation Mérieux, France

Short Communications:

Capacity Building for Ebola Diagnostics in Côte d'Ivoire (5')

Claudia Kohl, Robert Koch Institute, Germany

Clinical, Epidemiological & laboratory Findings from Kenema Government Hospital (5')

Nadia Wauquier, Metabiota, France & Sierra Leone

18h00 - 20h00 - Stand-up Posters Presentation around Wine and cheese party

20h00 End of the First Day

May 29, 2015

08h15 Welcoming Coffee

08h55 Opening of the Second Day

Session 5: Epidemiology 09h00 - 10h30

Chaired by Alain-Jacques Valleron and François Dabis

Epidemiology and control of Ebola: Continuity and change (30')

Peter Piot, London School of Hygiene and Tropical Medicine, United Kingdom

Epidemiological modeling of virus transmission in Guinea (30')

Simon Cauchemez, Institut Pasteur, France

Mapping the zoonotic niche of Ebola virus in Africa (30')

Simon Hay, University of Oxford, United Kingdom

10h30 - 11h00 - Coffee break

Session 6: The Diagnostic tools 11h00 - 12h20

Chaired by Amadou Sall and Hubert Endtz

Strategies for rapid diagnostics (20')

Xavier de Lamballerie, UMR D190-Marseille, France

Molecular pathogens detection in the field, directly at the point of care (20')

Jean-Claude Manuguerra, Institut Pasteur, France

Update on diagnostic tools for ebola virus disease (20')

Françoise Gay-Andrieu, BioMérieux, France

Ebola Ezyscreen®: A rapid diagnostic test for Ebola virus disease, development and analytical performance assessment ©

Laurent Bellanger, CEA, France

Short Communications:

Macromolecular (pro)drugs in antiviral therapy (5')

Alexander Zelikin, Aarhus University, Denmark

Bringing Sanger sequencing to the site of Ebola outbreak (5')

Sin Hang Lee, Milford Hospital, USA

12h30 - 13h30 - Lunch Break

Session 7: Treatments & Vaccines 13h30 - 15h40

Chaired by François Bricaire and James Di Santo

Jiki clinical trials Denis Malvy, INSERM U 897 Bordeaux, France (15')

Updates on treatments: NGOs view (15') Augustin Augier, ALIMA NGO, France

Drug discovery inspired by viruses (15') Vincent Lotteau, CIRI Lyon, France

Emergency evaluation of convalescent plasma for Ebola Virus Disease (EVD) in Guinea Johan van Griensven, Institute of Tropical Medicine, Belgium) (15')

Accelerated development of Ebola vaccines. (15') Rodolphe Thiébaut, University of Bordeaux Inserm U897. France

Randomization and prioritization in Ebola research and care (15') David Shaw, University of Basel, Switzerland

Short Communications:

Enhanced Immunogenicity of Ebola Vaccination with a Booster Dose of Recombinant modified Vaccinia Virus Ankara (5')

Katie Ewer, University of Oxford, United Kingdom

Development of a specific polyclonal immunoglobulin against Ebola (5')

Cécile Herbreteau, Fabentech, France

15h40 - 16h10 - Coffee break

Session 8: Operational Research: Present and Future 16h10 - 17h45

Chaired by Marc Jouan and France Mentré

European Mobile Laboratory Project - Outbreak Response & Operational Research (25') *Stephan Günther, Bernhard Nocht Institute, Germany*

Presentation of Survivor's cohort (20') Eric Delaporte, UMS Inserm IRD Montpellier, France

Optimising clinical research for outbreaks: lessons learned from ebola (20') *Piero Olliaro, University of Oxford, United Kingdom*

The Ebola Reservoir (20') Martine Peeters, UMS Inserm IRD Montpellier, France

Round table: Research and the future of Ebola (45')

Presenters:

Frédéric Le Marcis, ENS Lyon, France Xavier Anglaret, ISPED, University of Bordeaux, France Papa Salif Sow, Gates Foundation, Senegal

18h30 Conclusions

Peter Piot, London School of Hygiene and Tropical Medicine, United Kingdom Yves Levy, CEO Inserm, France Benoît Vallet, Directeur Général de la Santé, France

19h00 End of Targeting Ebola 2015

LIST OF ABSTRACTS ACCEPTED FOR POSTERS PRESENTATION

i e	
Abayomi A.	Results from a training workshop focusing on stigma reduction for Ebola survivors in Monrovia, Liberia 14–16 JAN 2015
Abayomi E. A.	A historic focusing of minds on the African continent to address a global threat: Experience of Global Emerging Pathogens Treatment Consortium (GET) in containment of Ebola Virus Disease in West Africa.
Adams N. H.	Development of a User-Focused Assay for Ebola Virus Sample Collection and Detection
Adjogoua E. V.	Introduction of biological surveillance of Ebola virus disease in Ivory Coast
Agwale SM	Construction and evaluation of a highly immunogenic Ebola influenza VLP vaccine candidate
Akinsola H.A.	Ethical obligation to provide care: factors that can hinder or motivate the participation of student nurses in South Africa in caring for Ebola patients in case of a possible outbreak
Ampofo W.	Surveillance for Ebola virus disease (EVD) in Ghana
Bah I.	Awareness campaigns the key to halting Ebola outbreak
Barden-O'Fallon J.	Implications of the Ebola outbreak on RMNCH service delivery and utilization in Guinea
Benabdellah A.	Surveillance and prepardness for Ebola virus disease
Bentley E.	Ebolavirus pseudotypes as antigen surrogates for serological studies
Biswas M.H.A	Modeling and control of the spread of Ebola like epidemic: a case study of deadly nipah virus (niv) infection in bangladesh
Boitard A.	EbolaMoDRAD – Ebola Virus: Modern Approaches for developing bedside Rapid Diagnostics
Bonacic Marinovic A.	Timing of Ebola contact tracing intervention and prospects for stopping the outbreak.
Brandao dos Santos Pedrosa P.	Comparison of evolutionary dynamics of zaire Ebolaviruses from the still ongoing westen Africa epidemic and previously described zaire eolaviruses
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Chen G.	Engineering of protective synthetic antibodies targeting sudv by phage display
Chong Go B.	Development of Antibody-like binders for rapid in-field Ebola infection screening guided by Computer-Aided design and biomolecular simulations
Cnops L.	Laboratory diagnosis of Ebola virus disease in belgium
Cori A.	Contact patterns driving Ebola transmission in west Africa
Cotte J.	Fluid resuscitation in an Ebola treatment unit: a comparison of central and peripheral venous access
Daino G. L.	A new fluorescence assay to measure vp35-dsrna binding activity
Diercke M.	How to engage european public health professionals to support the international Ebola response in west Africa
D'Ortenzio E.	Reported incidents in the Ebola crisis management in Guinea, Liberia and Sierra Leone: a systematic review
Dozio E.	Impact of psychological support to people affected by evd outbreack in Liberia
Dupoteau F.	First rapid Ebola test authorized for emergency use combined with real-time digital data capture and management
Ekat M. H.	Ebola virus diseases signs, symptom and predicting death: a literature review
Ezekiel Adebiyi	Human metabolic network modeling: simulation and interpretation of Ebola high throughput data from pathological and drug treated states
Fusco D.	Interferon effectors as a platform for broad-acting antiviral design
Gesser A.	Outbreak or epidemic? How obama's language choice transformed the Ebola outbreak into an epidemic
Gesser A.	Science vs fear: the Ebola quarantine debate as a case study that reveals how the public perceives risk
Gesser A.	What does the public know about Ebola? The public's risk perceptions regarding the current Ebola outbreak in an as-yet uninfected country

Goumka Mafopa N.	Preliminary data on sero-surveillance and sero-prevalence of Ebola infection in the northern district of sierra leone
Grimes D. E.	Who will care for patients during an Ebola outbreak in developed countries: lessons from bioterrorism
Hamakubo T.	Protective effect of pentraxin 3 in animal models of sepsis
Harmer A.	Research for health in humanitarian crises: Ebola call projects in focus
Hawley J.	Ebola outbreak in west Africa: factors contributing to the spread of infection and understanding the challlenges of reducing transmission
Helson L.	Liposomal curcumin (lipocurctm) and in vitro surrogates for cytokine storm associated with uncontrolled Ebola infection
Hunt L.	Clinical presentation, biochemical and hematological parameters and their association with outcome in patients with Ebola virus disease at kerry town, sierra leone
Ikemura T.	Big data bioinformatics for designing therapeutic oligonucleotides fo Ebolaviruses diseases
Ippolito G.	The quandhip-niv network in the Ebola virus disease (evd) crisis
Janvier F.	Zaire Ebola virus negative results by re alstar® filovirus screen rt-pcr kit 1.0 in Guinea
Karlas A.	Global identification of host cell factors essential for Ebola virus replication
Kashaija L. M.	Life after epidemic: experiences of Ebola survivors in kibaale and luwero districts in uganda
Kasonta R.	Rvsv vaccine expressing zaire Ebola glycoprotein: data from the phase i trial in germany
Kizek	Ebola gp protein fragments and their basic characterisation provided by mass spectrometry, spectroscopy, chromatography and electrochemistry
Knott V.	Palliative care in an Ebola setting: challenges from the front line
Krause G.	Surveillance and outbreak response management system to support the control of the Ebola virus disease (evd) outbreak

Krejcova	Beads-based automatic pcr for detection of lentivirus with Ebola gp protein
Kuehne A.	Differentiating high and low suspect Ebola cases based on clinical presentation and history of contact
Lambe R.	Humoral immunity induced by prime boost vaccination regimen using viral vectored vaccines towards Ebola virus
Le Mercier P.	Ebolavirus molecular biology in viralzone resource
Leendertz F. H.	Interdisciplinarity as a prerequisite to illuminatethe zoonotic origins of Ebola epidemics
Luczkowiak J. A.	Specific neutralizing response in plasma from convalescent patients of Ebola virus disease against the west Africa makona variant of Ebolavirus
MacDermott N.	A mobile rapid response model to address cluster outbreaks of Ebola virus disease (evd)
Madelain V.	Ebola viral dynamics in mice treated with favipiravir
Manda V.	The use of 'zoning' to control Ebola at a mine site in sierra leone
Masumu J.	Effective control of Ebola disease: outstanding challenges
Mbala K. P.	Prompt diagnosis and first characterization of the viruses responsible for the 2014 Ebola viruses outbreak in the democratic republic of congo
McCarthy S. D. S.	Post-exposure treatment with ifn-β and nucleoside analogs inhibit Ebola replication in a rapid screening assay
Michalek P.	The preparation and characterisation of lentivirus with Ebola gp protein
Milligan I.	A phase i, randomised, placebo-controlled, observer-blind trial of heterologous prime-boost schedules of ad26 and mva vector vaccines expressing Ebolavirus target proteins: a preliminay data
Morley D.	Ireland's plan for Ebola viral disease
Moschos S.	Ebolacheck: realising molecular diagnostics at the point of need

Namy O.	Ribosome profiling to explore genome-wide translational modifications in response to Ebola virus infection
Neeman N.	Identification of immunodominant epitopes in HIV-1 infected indian individuals
Nelson D.	Prototype multi-agent lateral flow immunoassay (Ifi) for the detection of lassa virus (lasv), malaria and Ebola virus (ebov) for the point of care detection of endemic infections
Ngolole F.	Cultural barriers seriously impede the application of response strategies during Ebola outbreaks
Nicastri E.	Fully neurological recovery in a patient with severe Ebola virus disease requiring mechanical ventilation
Ogbewi K.	Modeling the Nigerian public health competencies in developing responsive public health care systems in early filovirus (Ebola) outbreaks in developing Africa
Oladimeji A. M.	Ebola virus disease outbreak - gaps in knowledge and practices among health-care workers – lagos, Nigeria, august 2014
Ouedraogo D.E.	Ebola virus disease: which lessons learnt and which riposte strategies for unreached countries near outbreak areas?
Page M.	Production of serological and rna reference materials for Ebolavirus
Palombi L.	Retention and mortality in an HIV-infected patient cohort in conakry during the Ebola outbreak. Results from the dream (drug resource enahncement against aids and malnutrition) program
Parikesit A. A.	Screening of cyclic peptides conjugated to HIV-1 tat as inhibitor of nhr gp2 Ebolavirus through in silico analysis
Quigley S.	Ebovac: testing the safety and efficacy of a novel prime boost prophylactic vaccine regimen against Ebola virus disease
Rosales-Mendoza S.	Developing epitope-based Ebola vaccines made in plant cells
Rowland M.	Development of prototype filovirus recombinant antigen immunoassays
Rwemisisi J. T.	Psychosocial, cultural and workplace concerns of healthworkers during the luwero Ebola outbreak in uganda: lessons for future outbreak management
Santermans E.	Spatiotemporal evolution of Ebola virus disease at sub-national level during the 2014 west Africa epidemic

Schnierle B.	Assay development and identification of inhibitors of Ebola virus cell entry
Semple MG.	Characterisation of post Ebola syndrome
Sheriff A.	Effects of Ebola on medical training in sierra leone
Shey Nsagha D.	Control of Ebola virus disease at the community level along the Nigeria-cameroon border in the south west region of cameroon
Slegers C.	Current results and next steps for merck rvsv-ebov vaccine program
Strecker T.	European mobile laboratory unit guéckédou, Guinea: field evaluation of capillary blood samples as a new approach for the rapid diagnosis of Ebola virus disease
Taylor E.	Cellular selenoprotein mRNA tethering via antisense interactions with Ebola and HIV-1 mRNAs may impact host selenium biochemistry
Tramontano E.	Definition of key residues in dsrna recognition of Ebola virus vp35 for drug development
Verbeek L.	Pilot phase "effo" – efficient by formation - prevention of Ebola
Watson R.J.	Towards a novel rapid loop mediated isothermal amplification diagnostic for Ebola
Wilkie J. J.	Short-range air transportation of Ebola suspect cases: an evidence-based protocol
Wülfroth P	Vascular leak- anunderestimated problem in Ebola and other hemorrhagic diseases
Zhang CY.	Small RNA in natural herb inhibits the function of Ebola virus by targeting GP protein in mouse model

General Information

International Conference on

Targeting Ebola

May 28-29, 2015 - Institut Pasteur - Paris, France

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