

Meeting Report

FAO-OIE Rinderpest Joint Advisory Committee Third Meeting

FAO Headquarters, Rome, 26-27 February 2013

1. Opening

The Director of Animal Production and Health Division (AGA), Food and Agriculture Organization of the United Nations (FAO) welcomed members of the Committee to FAO Headquarters.

Remarks by FAO AGA Director:

Maintaining freedom from rinderpest is a serious task; if it returns, the repercussions will be catastrophic. He emphasized the importance of the Committee assisting FAO and OIE for maintaining the world free of rinderpest. During the past year, the Committee has developed a number of documents and most of them are at the final stage of completion.

Remarks by representative from the World Organisation for Animal Health (OIE):

The OIE representative highlighted that there was an urgent need to provide countries with tools and to put mechanisms in place to facilitate destruction and sequestration of remaining stocks of rinderpest virus. Although a procedure had been agreed for approving research proposals involving the use of rinderpest, it would be important to provide, as a matter of urgency, a mechanism for approving a limited number of rinderpest holding facilities.

Remarks by the Chair of the Committee:

The Chair thanked Committee members for their work in developing documents relevant to approval of research proposals and holding facilities, and guidance on virus destruction and sequestration. He emphasized the importance of their implementation.

2. Adoption of the agenda and report of previous meeting

The Committee had previously adopted the report from the October 2012 meeting by email exchange.

The Committee agreed to adopt subsequent meeting reports by email exchange so that they can be published in a timely fashion.

The meeting agenda was adopted with minor changes.

The final agenda of this third meeting and the list of participants are attached as Annexes 1 and 2.

3. Review of research proposals submitted to FAO and OIE

Following the second meeting, the Committee had developed and agreed on criteria for reviewing research proposals involving the manipulation or use of rinderpest virus containing material (RVCM), see Annex 3. The Secretariat had also developed an application form to allow researchers to submit their proposals for review (Annex 3). The first research proposal that had been received by OIE and FAO was submitted by the Pirbright Institute, United Kingdom, entitled "Testing the potential for protecting cattle

against rinderpest using attenuated peste des petits ruminants virus vaccine". The aim of the study was to assess the potential use of peste des petits ruminants (PPR) vaccines in place of vaccines that use rinderpest virus for preparedness against the possibility of a re-occurrence of rinderpest.

The Committee discussed how the study met the criteria that had been developed for reviewing research proposals, the likely usefulness of outputs from this study, safety aspects, that there would be no possibility to conduct field trials with PPR vaccines, and the ability of PPR vaccines to allow a DIVA (differentiate between infected and vaccinated animal) vaccination strategy. This proposal was accepted by the Committee with two recommendations to consider in finalizing the study design. The Committee agreed on the wording of a letter, to be signed by the Chair, advising OIE and FAO to approve the study.

4. Approval of facilities for holding RVCM

a) Application for designation as an FAO-OIE approved holding facility

The Committee reviewed the draft application form and discussed how to rationalise the list of categories that might have a valid reason for holding RVCM. The Committee agreed on four categories:

- Manipulating/storing RVCM (research)
- Diagnostic/repository of RVCM
- Vaccine production/maintaining/QC of vaccine seed virus
- Maintain stockpile vaccine, no live virus manipulation

The Committee agreed on some other modifications to the application form. The form would be updated accordingly and harmonized with the document stating the requirements for institutes holding rinderpest Virus.

It was also suggested that some guidelines should be drafted to complement the checklist used for evaluating applications.

Action:

- The criteria for each type of facility based on categories listed above would be updated by one of the committee members and circulated for review by the full Committee.

2) RVCM holding facility approval process

The Committee members were reminded that their core responsibilities were to support FAO and OIE by reviewing applications for: 1) research studies; and 2) for approval of institutes as RVCM holding facilities (as specified in FAO and OIE Resolutions No. 4/2011 and 18).

In the process for approval of rinderpest holding facilities, FAO and OIE would be responsible for the final decision, taking into account the recommendations of the Committee.

There was a discussion about the respective roles of 'holding facilities' and those of OIE Reference Laboratories for rinderpest and/or FAO Reference Centres for morbillivirus.

The Committee agreed that the designation of institutes as OIE Reference Laboratories for rinderpest and/or FAO Reference Centres for morbillivirus was based on established procedures applied by each

organization and that these procedures are detached from the Committee's process of reviewing applications for approved holding facilities.

The two OIE/FAO Reference Centres/laboratories for rinderpest were not yet approved as holding facilities. Additionally, in Africa, Heads of State for African Union (AU) countries had agreed that PANVAC should serve as a holding facility for AU countries. However, PANVAC was also not yet designated as an approved holding facility by FAO and OIE.

It was agreed that there was an urgent need to approve a minimum number of holding facilities for RVCV sequestration.

The Committee also discussed the requirements for a vaccine holding facility. For instance vaccine should be kept in a facility with stringent biosafety and biosecurity standards located outside of the biocontainment area. The committee suggested that all facilities should be inspected prior to approval. Further discussion would be needed to decide on the composition of an inspection team, timing of inspections, and how resources would be secured and allocated to carry out inspections. It was suggested that if physical inspection of facilities was undertaken, it should be carried out at the expense of the institute applying to become an approved holding facility.

Action:

- The Secretariat would summarise the overall process for approving facilities for holding RVCV.
- The Committee would continue to develop the application form, guidance and criteria for reviewing holding facility applications. This would also account for how decisions are made once the Committee provides its recommendations on applications to OIE/FAO, and inspection of facilities.
- The Secretariat would contact WHO to request a copy of their procedures for inspecting institutes holding smallpox virus.

c) Estimated number of facilities currently holding rinderpest virus

The secretariat informed the Committee that, according to a survey carried out by FAO and the Royal Veterinary College (London) in 2011, approximately 25 biosafety level 3 BSL3 laboratories had claimed to hold RVCV. Following the adoption of the new OIE Terrestrial Animal Health Code (*code*) chapter on rinderpest (due for adoption in May 2013) this information would be updated on an annual basis because OIE Member Countries would be obliged to report on the status and whereabouts of RVCV in their countries.

The Committee agreed that the number of facilities holding RVCV needed to be significantly reduced, so that eventually less than five laboratories worldwide would hold RVCV.

The Committee agreed that it should be a priority for laboratories to destroy or sequester RVCV irrespective of biocontainment level and that FAO and OIE should encourage laboratories that are known to be holding RVCV to do that, drawing their attention to the document 'ten reasons for not storing rinderpest virus'.

In reducing the number of laboratories holding RVCV the Committee discussed whether this could be achieved through a regional approach, for example one holding facility selected per region.

Action:

- FAO and OIE would formulate a global strategy aimed at reducing the number of RVCM holding laboratories.

d) Existing RPV strains and samples in field

The Committee recognized that the risk of a rinderpest outbreak would be reduced when fewer facilities hold RVCM.

It would therefore be crucial to encourage facilities that currently hold RVCM to, in the first instance, destroy RVCM or send it to an approved holding facility, or, in the second instance and if the institute was BSL3 or above, to apply to become an approved holding facility. The two OIE/FAO Reference Laboratories/Centres and PANVAC should be approached to apply to become approved holding facilities.

Action:

- FAO would write to all facilities that had reported holding RVCM and offer assistance with destruction and sequestration of RVCM.
- FAO and OIE would approach the two OIE/FAO Reference Laboratories/Centres and PANVAC suggesting they submit an application to become approved holding facilities.

5. Update on New OIE Terrestrial Animal Health Code Chapter on rinderpest

The Committee was provided with the latest draft of the new OIE *Code* chapter on rinderpest (chapter 8.12). The Committee recognized and appreciated that the OIE Code Commission had included the Committee's previous suggestions in the new draft of the chapter.

Once adopted, the *Code* Chapter would describe: case definitions for suspect and confirmed cases of rinderpest; definition of RPV-containing material; procedures to be followed in the event of suspicion or confirmation of rinderpest; recovery of free status; recovery of global free status; and the required surveillance. It would also describe the requirement for OIE Member Countries to report annually on the status of RVCM (including vaccines) in their countries.

This chapter was due to be presented to the OIE World Assembly of Delegates for adoption at the OIE General Session in May 2013, and would replace the pre-existing (pre- eradication) chapter. The pre-existing chapter would be reinstated should rinderpest re-occur.

6. Vaccine stock and vaccine bank

The Committee recognized the need for an inventory of existing stockpiles of rinderpest vaccines. The Committee also stressed the need for contacting former rinderpest vaccine manufacturers to seek their interest in the production of the vaccine if the need arises.

It was also noted that the inventory should also describe the number of batches and doses, shelf life, expiry date and strain type. OIE would be collecting data on countries holding rinderpest vaccines as part of OIE Member Countries reporting requirements.

Action:

- FAO/OIE would contact institutes known to have previously manufactured rinderpest vaccines.

7. Case definitions for passive surveillance

The Committee received a presentation by FAO's coordinator to the Global Early Warning System (GLEWS) on planned passive surveillance under a proposed USDA-funded project. According to the plan, a case definition for suspected or probable rinderpest cases (not confirmed cases) would be needed to design rumour tracking procedures.

Such cases should be investigated in a systematic way, and international community should be informed in line with reporting requirements of the draft OIE *Code* Chapter on rinderpest.

It was explained that GLEWS was a tripartite FAO, OIE and WHO mechanism which tracked rumours of disease outbreaks. The role of GLEWS would be to make sure that information would be collected, and that events would be followed-up. There would be a need to give instructions to field staff on how to investigate suspect cases, how to collect samples, and where to send samples for have confirmatory diagnosis. It was agreed that the field guidance should complement the OIE *Code* chapter on rinderpest. The Committee strongly recommended following the OIE case definition.

8. Guidance on contingency plans

The Committee received a presentation by an FAO representative on a 'national' contingency plan template which is based on the good emergency managing practices (GEMP) template www.fao.org/docrep/014/ba0137e/ba0137e00.pdf. This plan consisted of several components. After the presentation, a discussion took place on specific elements such as the compensation, case definitions, and regulation of vaccination. This national contingency plan should be accompanied by standard operating procedures (SOP) for field staff, laboratories, ruminant holders. Regarding laboratory SOPs, a need was identified to describe in the contingency plan that laboratories should stop and notify, and submit samples to to a Reference Laboratory for confirmation.

It was agreed that a simulation exercise should be carried out in high risk areas as a tool to check the effectiveness and to identify a gaps in contingency plans. It was also suggested that capacity building and exercises for rinderpest should also aim to strengthen contingency preparedness for other transboundary animal diseases.

The Chairman pointed out that, in the past meeting, FAO/OIE was asked to liaise with IATA, as stakeholders should be aware of the importance of transporting specimens safely and rapidly.

There was discussion about an international contingency plan. An international contingency plan would link together all the components of an international response including international reporting of: suspect/confirmed cases; National Contingency Plans – country level response; the FAO-OIE Crisis Management Centre; vaccine banks; Reference Laboratories; OIE Code chapter. This would most likely take the form of a chart as a living document that might change over time.

Action:

- FAO and OIE would further develop an international contingency plan.

9. Destruction and sequestration of RVCV

FAO assistance to countries & questionnaire

The FAO co-secretariat compared two surveys that took place in 2010 and 2011 and identified gaps and inconsistencies between the two surveys. FAO was prepared to send letters to countries holding RVCV at basic laboratories (outside of biocontainment) to urge countries to destroy the virus and to offer assistance in destruction and sequestration.

As previously discussed under agenda items 3 and 4 the Committee recommended that FAO with OIE should write to all facilities known to be holding RVCV and suggest that as a priority that they destroy RVCV or send it to an OIE/FAO Reference Laboratory/Centre, or alternatively, for BSL3 and above facilities, (least preferred option) apply themselves to become an approved holding facility. In this letter FAO would also offer assistance with destruction of RVCV. The letter would be sent to all facilities that had indicated in at least one survey that they were holding RVCV.

Communication

The Committee discussed the need to present the Committee's activities at OIE and FAO meetings including the OIE General Session and the FAO Committee on Agriculture for Ministers.

The Committee Chair also proposed to publish an annual report or a newsletter highlighting the work of the Committee and advocating for countries to take action on maintaining global freedom from rinderpest.

The Committee identified that there would be a need for FAO and OIE to issue a press release lifting the moratorium on FAO-OIE-approved research involving the use and manipulation of rinderpest virus before the approved research study (see agenda item 3) at Pirbright got under way.

Action:

- The Secretariat and Chairman would draft an annual Committee newsletter.
- FAO and OIE would issue a press release lifting the moratorium on research involving the use and manipulation of RVCV, reminding countries that any research must first be approved by FAO and OIE.

SOPs on destruction and RVCV transport and laboratory decontamination

The Committee discussed draft SOPs on decontamination of RVCV-holding facility, destruction and shipping of RVCV including: a need to include generic reason of sending RVCV; optimal use of available disinfectant for surface de-contamination; disinfectant disposal related hazard (e.g. Phenol); co-housed materials in a same box; need for secured storage when autoclave is only available outside of the biocontainment. Since the upper limit of sending specimen is 50 ml or gram per shipment (as cargo on passenger flight), the SOP would be revised omitting the reference to serum samples.

The Committee discussed handling of RVCV and decided that minor changes of the wording were needed, including specifying vaccine as 'Plowright vaccine'. In addition, a table showing which samples would be critical and which would be prepared by a committee member. The Committee agreed that Plowright rinderpest vaccine (a live attenuated vaccine) is unlikely to be considered as a source of rinderpest re-emergence because the calculated mutation rate of the attenuated virus would be very

low. However if an animal was vaccinated even with the attenuated Plowright vaccine virus it may be considered to be or confused with a 'case' of rinderpest and therefore vaccine would need to be treated as RVCM.

The Committee noted that when a country would use vaccine, it would lose its free status. In order to regain free status the country needs to cease vaccination. The proposed new chapter of the OIE Terrestrial Animal Health Code defines that rinderpest PCR positive animal is defined as a 'case' in the era of global freedom where vaccine is not used.

The Committee noted that transmission of the virus through plasma/serum is highly unlikely even if it is fresh. Further discussion on transmission by different item will be continued through email exchanges. A list of rinderpest viruses including vaccine strains will be prepared by a Committee member.

Action:

- Committee to finalize the above mentioned SOPs.

10. Roadmap and Work Plan

The secretariat presented the first draft of a roadmap for all rinderpest post eradication activities. This was presented as a living document and further revisions would be circulated to the Committee.

The Committee also reviewed and agreed its tentative work plan, this would be finalised through email exchanges after the meeting.

11. Closing

The Committee reiterated the importance of reducing the number of RVCM holding facilities, and scrutinizing the approval of research proposals. The need for continuous advocacy by both organisations was emphasized.

The Director, AGA, thanked the Committee for the work, referring Nelson Mandela's "No easy walk to freedom". He agreed on the need for presentations on sequestration, at OIE World Assembly also at FAO Committee of Agriculture (COAG) meeting that takes place every other year, next meeting will take place in 2014.

12. Next meeting

The next meeting of the Committee would take place at OIE Headquarters in Paris on 4 to 5 September 2013.

Annex 1

Meeting Agenda

FAO-OIE Rinderpest Joint Advisory Committee

3rd Meeting

FAO headquarters, Rome, 26-27 February 2013

Canada Room

Day 1		26 February 2013	
09:00-09:15		Welcoming remarks – FAO and OIE	B. Tekola
09:15-09:30		Introduction by Chair	Junaidu Maina
09:30-10:00		Adopt agenda and report of last meeting	Junaidu Maina
10:00-10:30		Coffee break	
10:30-12:00		Review Pirbright research proposal “Testing the potential for protecting cattle against rinderpest using attenuated peste des petits ruminants virus vaccines”	Junaidu Maina
12:00- 13:15		Lunch	
13:15- 15:00		Holding facility for rinderpest virus containing materials <ol style="list-style-type: none"> 1. Application form 2. Checklist/criteria for evaluation of application and facility 3. Process for facility approval 4. Expected number of facilities for each category 5. List of valuable strains and samples to keep in repository 	Secretariat Gordon Abraham All All Genevieve Libeau
15:00-15:30		Coffee break	
15:30-16:00		Update on code chapter – database for virus inventory	Keith Hamilton
16:00-17:00		Vaccine stock and activation of vaccine bank	All
17:00-17:30		Rinderpest case definition	Samia Metwally
Day 2		27 February 2013	
9:00- 9:15		Summary of the first day	Junaidu Maina
9:15-10:15		Review and finalize template for country contingency plan	Ed Arza
10:15-10:45		Coffee break	
10:45- 12:00		Destruction and sequestration of rinderpest virus <ol style="list-style-type: none"> 1. FAO assistance to countries 2. SOPs to finalize 3. Countries did not respond to questionnaires 	Samia Metwally David Ulaeto Genevieve Libeau All
12:00- 13:00		Lunch	

13:00-13:45		Discussion – road map for future activities	Secretariat
13:45-14:00		Action items	Secretariat
14:00-14:15		Meeting wrap-up and date of next meeting	Junaidu/Gerrit

Working documents:

1. Meeting agenda and list of participants
2. Report of October meeting in Paris
3. Research approval criteria, final
4. Research proposal by Pirbright
5. Summary of JAC’s review on proposal
6. Draft requirements for Institutes Holding Rinderpest Virus
7. Draft application for holding facility
8. Draft guidelines for facilities holding RVCM
9. Contingency plan
10. Decontamination of rinderpest virus SOP
11. Destruction of rinderpest virus SOP
12. Handling, packaging and shipping of rinderpest material
13. Identification of biological material (including diagnostic/surveillance samples) which hold an unacceptable risk for containing rinderpest virus

Annex 2

Joint FAO/OIE Advisory Committee Members

Member	Position	Organization
Dr Beverly Schmitt, DVM, MS	Director	Diagnostic Virology Laboratory National Veterinary Services Laboratories Ames, Iowa, 50010
Dr David Ulaeto FSB	Principal Scientist	Department Biomedical Sciences Dstl Porton Down Salisbury SP4 0JQ UK
Prof. Mo Salman BVMS, MPVM, PhD, DACVPM, F.A.C.E.	Professor	Veterinary Epidemiology Campus Stop 1644 Animal Population Health Institute College of Veterinary Medicine and Biomedical Sciences Colorado State University Fort Collins CO 80523-1644 Voice message
Dr Junaidu Maina DVM, FCVSN	Former CVO of Nigeria	J M Global Associates Ltd 13 Khartoum Street Wuse Zone 5 Post Office Box 8867 Abuja, Nigeria Post code 900281
Dr Genevieve Libeau	In charge of FAO Reference Centre for Morbilliviruses in Ruminants	CIRAD-Département Systèmes Biologiques UPR "Contrôle des Maladies Animales Exotiques et Emergentes" Groupe Virologie TA A-15/G (bureau G204) Campus International de Baillarguet 34398 Montpellier cedex 5 France
Dr Gerrit Viljoen	Head	Animal Production and Health Section Joint FAO/IAEA Programme of Nuclear Techniques in Food and Agriculture PO Box 100 A-1400 Vienna Austria
Dr Gordon Abraham	Virology & Biosecurity specialist	Gordon Abraham, B.Sc., PhD. 8 St Georges Court Highton, Vic. 3216 Australia
Secretariat		
Dr Samia Metwally	Animal Health Officer/Virologist	FAO Secretariat Food and Agriculture Organization of the United Nations (FAO) Viale delle Terme di Caracalla 00153 Rome

Dr Keith Hamilton		OIE Secretariat World Organisation for Animal Health 12, Rue de Prony 75017 Paris
FAO Participant		
Berhe G. Tekola	Director	Animal Production and Health Division Food and Agriculture Organization of the United Nations (FAO) Viale delle Terme di Caracalla 00153 Rome

Annex 3

CRITERIA FOR ASSESSING APPLICATIONS FOR RESEARCH INVOLVING RINDERPEST VIRUS

Background

1. The World Assembly of the OIE Delegates at the 79th General Session (May 2011) and the 37th FAO Conference (June 2011) declared the world free from rinderpest infection. The OIE Resolution No. 18 (Appendix 1) adopted by the World Assembly requested the Director General of the OIE to establish, jointly with FAO, an advisory body that assists both Organisations in (i) the approval of facilities for holding rinderpest virus-containing material and of facilities that produce and/or hold rinderpest vaccines, (ii) the approval of requests for research and other manipulations of the rinderpest virus, (iii) reviewing the plans and results of regular site visits of virus repositories, and (iv) planning and implementing other rinderpest-related activities as required ; and to ensure that Member Countries are informed of the status of rinderpest virus sequestration and research involving rinderpest virus. The same Resolution urged Member Countries to destroy, under the supervision of the Veterinary Authority, rinderpest virus-containing materials or assure the storage or use of these materials in a biosecure facility in their country or, where applicable, assure the safe transfer to an approved laboratory in another country in agreement with the Veterinary Authority of the receiving country and complying with the standards of the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* and the Guidelines elaborated by the Joint FAO/OIE Committee on Global Rinderpest Eradication (Appendix 2);
2. In accordance with the above Resolutions, FAO and the OIE established the Joint FAO/OIE Rinderpest Advisory Committee (JAC) in June 2012.
3. Now that rinderpest virus (RPV) infection has been eradicated, herd immunity to RPV is absent and there is potential for rapid spread of infection from an index case. Extensive surveillance has demonstrated no evidence of wildlife reservoirs for RPV and the most likely source for re-introduction of the infection is perceived to be accidental release from a laboratory. The most likely sequence of events leading to such a release would involve laboratory use of rinderpest virus containing materials (RVCM).
4. In accordance with OIE Resolution No. 18 (May 2011)¹ '*Declaration of global eradication of rinderpest and implementation of follow-up measures to maintain world freedom from rinderpest*' Rinderpest virus (RPV) containing material (RVCM) is defined as field and laboratory strains of RPV; vaccine strains of RPV including valid and expired vaccine stocks; tissues, sera and other clinical material from infected or suspect *animals*; and diagnostic material containing or encoding live virus. Recombinant morbilliviruses (segmented or non-segmented) containing unique rinderpest virus nucleic acid or amino acid sequences are considered to be rinderpest virus. Full length genomic material including virus RNA and cDNA copies of virus RNA is considered to be RVCM. Sub-genomic

¹ http://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/RESO_18_EN.pdf

fragments of morbillivirus nucleic acid that are not capable of being incorporated in a replicating morbillivirus or morbillivirus-like virus are not considered as RVCVM.

5. FAO and OIE jointly regulate all use and storage of RVCVM, and its use requires prior permission of the two organizations. The only purposes for which use of RVCVM can be approved are those which offer clearly defined significant scientific benefits as described below. Although all research using RVCVM should be discouraged, this document will serve the JAC as a basis for advising OIE and FAO on evaluation of applications for research involving manipulation of rinderpest virus. The JAC shall have due regard to the justification for the research and to the undertaking that the research, if approved, will be conducted safely and securely without risk to global rinderpest freedom status. The JAC may propose modifications to the proposed research plan and/or attach conditions that are deemed necessary. If the JAC concludes that the proposed research is not justified, or cannot/will not be undertaken with due regard to biosafety and biosecurity, it may recommend approval be withheld.
 6. This document is also shared with FAO/OIE approved repositories for RVCVM and interested research facilities proposing essential research.
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CRITERIA TO CONSIDER WHEN REVIEWING RESEARCH PROPOSALS INVOLVING THE MANIPULATION OF RINDERPEST VIRUS

Consideration of the research proposal should account for benevolent scientific intent and benefits that the proposed research is expected to yield, weighed against the risks that the research may pose for rinderpest reoccurrence (risk-benefit ratio). In general, the following criteria are meant to be used taking into account an overall balance, rather than a single criterion being considered in an absolute manner.

Objectives of the research proposal should meet one or more of the following criteria:

1) Food security

Outputs or impacts of the research aim to protect or improve food security for local and worldwide populations.

2) Sustaining effective and efficient global freedom from rinderpest

Outputs of the research would contribute to effective and efficient safe storage of remaining rinderpest virus stocks; destruction and sequestration of remaining stocks of rinderpest virus; early detection of rinderpest virus infection, and /or cost-effective disease control measures should there be a reoccurrence of rinderpest. Such research may inform global contingency plans.

3) Significant scientific benefits for public health or animal health

Outputs or impacts of the research would provide significant scientific benefits for public health or animal health.

Review of research proposals should account for the following factors:

- The intent of the research meets one or more of the objectives above
- The overall scientific and technical merits of the proposal and methodology are valid and feasible
- Whether the use of RVCM is essential for the research
- The research addresses an issue of significance to the post eradication era which has not adequately been addressed before and is timely to address it now
- Adequate biosecurity and biosafety measures to prevent accidental or deliberate release of RPV would be in place
- Appropriate animal welfare standards are ensured for all animals used in the research
- Potential for malign use of the research outputs has been considered

- Principal investigators' knowledge, capabilities, related experience, past performance and qualifications are relevant to the proposal
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RP5/2013

APPLICATION FORM for Research Involving Rinderpest

- 1** **Project information**
- 2** **Executive Summary**
- 3** **Research Plan**
- 4** **Budget** (including currency)
- 5** **References**
- 6** **Curriculum Vitae of research staff involved in project**

Title of proposal:

Type of research:

Start date:

Duration of project:

Name of principle investigator:

Title:

Affiliation:

Position at institute:

Mailing Address:

Telephone:

Facsimile:

Email:

Funding information:

(A funding source should be established before submitting an application to OIE and FAO)

Details of any collaborating institutes (name, address, contact etc.):

2

Executive Summary

(Maximum one page of text)

Objectives:

Background:

(Brief description)

Significance of the research:

Justification for the research and relationship with prior studies:

Experimental Design and Methods:

(Specify if live rinderpest virus will be used and the type of reagents. If live animals will be used specify measures taken to ensure welfare of these animals)

Statement of Work (describe each activity with timeline of completion in chronically order):

Source of rinderpest virus containing material and strain of virus:

Location where research will be undertaken:

(Approved facility for holding rinderpest? If any rinderpest virus containing material is to be shipped from /or to another institute, details must be given)

Description of necessary physical resources at the Institute(s) where work will be conducted e.g. animal rooms, laboratory equipment vital for the research, etc:

Measures taken to ensure adequate biosecurity and biosafety at the laboratory where work will be conducted:

(Including physical biosecurity/biocontainment of facility; methods of disposal of infective material and contaminated equipment; details about cleansing and disinfection; destruction and disposal of infected animals)

Potential for research findings to be applied to malicious use (dual use) and measures to minimise these risks:

Name and contact details of biosafety officer at institute:

4

Budget (including currency)

6

Curriculum Vitae of research staff involved in project
