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13th meeting of the FAO-OIE Rinderpest Joint Advisory Committee

International Atomic Energy Agency HQ,
Vienna, Austria, 12-13 June 2018



1. Opening remarks and adoption of the agenda

The 13th meeting of the FAO-OIE Rinderpest Joint Advisory Committee (JAC) was opened by Mr Liang Qu, Director of the joint IAEA/FAO Division. The role of the International Atomic Energy Agency (IAEA) in the eradication of rinderpest through the development, evaluation, validation and distribution of immunological and molecular nuclear and nuclear-related technologies for the diagnosis and control of rinderpest was noted. Mr Qu expressed the IAEA's continued support for the rinderpest post-eradication activities and to the commitment of the JAC.

The Chair of the JAC, Dr Junaidu Maina, greeted the participants and welcomed Ms Catherine Robertson, the new member of the committee, who took the place of Dr Greg Smith in January 2018. Ms Catherine Robertson is the Director of Biorisk and Occupational Safety Services for the Public Health Agency of Canada's National Microbiology Laboratory.

On behalf of the JAC, Dr Maina also expressed the appreciation for the work of Dr Carla Stoffel, from the FAO co-Secretariat, who has moved on from her position after the last meeting.

Ms Tianna Brand, on behalf of the OIE, outlined the expectations for the meeting, highlighting areas of interest as finalizing the process for renewal of designation of the five FAO-OIE Rinderpest Holding Facilities (RHF), the pending applications for RHF and the interpretation of the results of the titration of vaccine seeds from PANVAC done by The Pirbright Institute (TPI).

Dr Lee Myers, on behalf of FAO, highlighted the top priorities as being continuing the RHF Network work on the development of non-infectious diagnostic tests, strengthening the rinderpest vaccine reserve (RVR) and making the Global Rinderpest Action Plan (GRAP) operational.

Dr Samia Metwally attended part of the meeting via skype and Dr Alejandro Costa sent his apologies.

The agenda was adopted with minor modifications, as per Appendix I.

The list of participants is included as Appendix II.

The action items from the present meeting are included in this report as Appendix III.

The Secretariat noted that members had commented and approved the report of the 12th meeting of the JAC.

2. Action Items from the 12th meeting of the JAC

Updates were provided on the actions arising from the previous meeting. A number of items were carried forward and formed part of the agenda for the 13th meeting. The update on the preparation of a summary on Reference Rinderpest Vaccine Virus seeds by Gerrit Viljoen and FAO has been postponed until the 14th meeting of the JAC. FAO is to hire a consultant to work on this area.

Following discussion on the publication of rinderpest virus full genomic sequence data and the legal implications of re-synthesizing rinderpest virus, the group questioned the legal implications of

synthetizing rinderpest virus and/or using it to harm livestock. In particular, that national governments should take effective measures to forbid the synthesis of rinderpest and that the handling of the virus is restricted to designated RHF and reference laboratories under the express approval of the relevant national authorities, as well as of FAO and OIE. The JAC recommended that the Rinderpest Secretariat determined what is the analogous legal framework in place for malicious use of smallpox virus and used such knowledge to issue a statement reminding countries, scientists and the public of the prohibition on synthetizing rinderpest virus.

ACTION ITEM 1 – OIE/FAO Co-Secretariat to follow up and explore what is the legal international framework in place (if any) in terms of sanctioning the use or synthesis of smallpox virus and how could this be applied to the case of rinderpest. David Ulaeto to contact a scientific publication to assess the possibility of publishing a piece on rinderpest in the light of horsepox synthesis, reminding scientists (and the public) of the current FAO-OIE policy on handling of the virus.

Other outstanding items were discussed throughout the meeting.

3. National Institute of Animal Health, Japan (NIAH) application for vaccine production

The JAC reviewed the application submitted by NIAH with the support of the Government of Japan. The application proposed the production of 200,000 doses of packaged LA-AKO vaccine and of bulk antigen equivalent to 300,000 doses of vaccine. The proposed duration for reaching this level of production is 10 months. NIAH, as a FAO-OIE designated RHF Category B is the physical facility that will be used for production. The vaccine will be stored at NIAH's facility in Tsukuba and be used in case of an emergency in case of the re-emergence of rinderpest, domestically and globally. The JAC recommended that FAO and OIE approved the production of vaccine within the timeframe specified. NIAH will also be conducting studies necessary to extend the shelf life of already produced vaccines. FAO is supporting storage and production through a LoA (letter of agreement) with NIAH, for use in the rinderpest vaccine reserve.

ACTION ITEM 2– JAC to issue recommendation letter for FAO and OIE to approve vaccine production in Japan. FAO and OIE to follow up on the recommendation as appropriate.

4. Update on pending applications for RHF

Research Institute for Biological Safety Problems (RIBSP), Kazakhstan

OIE gave an update on the application submitted by the Research Institute for Biological Safety Problems (RIBSP), in April 2018. The application is for Categories A and B. The dossier submitted is missing crucial documentation and information, including the support letter from the Chief Veterinary Officer (CVO) and the inventory of the materials held by RIBSP. This application is unique, as it originates from Ministry of Education and Science and not from the CVO. A letter of acknowledgement has been issued by FAO and OIE, requesting more information on the missing items. The OIE is following up on this matter, including through its Sub-regional Office in Astana.

ACTION ITEM 3 – FAO and OIE to continue communications with Kazakhstan to complete the application form with associated documentations and request a detailed inventory of rinderpest virus containing material (RVCM) held.

Institute of Veterinary Drug Control (IVDC), China

The Committee reviewed the report pertaining to the on-site inspection of IVDC as a potential RHF for Categories A and B and noted the corrective actions recommended by the inspection team.

The JAC recommended that FAO and OIE designate IVDC as RHF for Categories A and B once the corrective actions are addressed, and support documentation is received and reviewed by the Rinderpest Secretariat.

The JAC noted that the history of all RCVM held, including vaccine strains, should be reviewed, with view to document and reduce the stock to a few vials per strain and to select the vaccine strains that have a complete history of good performance during the eradication campaign.

ACTION ITEM 4 - JAC to issue recommendation letter for FAO and OIE to designate IVDC as a RHF for Categories A and B, subject to policy and procedure revisions based on the conclusions of the inspection report. FAO and OIE to follow up on the recommendation as appropriate.

CIRAD, France

The Committee discussed the designation of CIRAD as a Category A RHF. There was agreement that CIRAD has complied with the outstanding corrective actions identified in the inspection report as well as with the risk management measures in place for on-site animals.

ACTION ITEM 5 - JAC to issue recommendation letter for FAO and OIE to designate CIRAD as a RHF category A. FAO and OIE to follow up on the recommendation as appropriate.

5. Update on the activities of the RHF Network

Dr Carrie Batten (via skype), from TPI, provided an update the activities of the RHF network, which included:

- 1) the status of completion of the proficiency test panels by the other laboratories in the RHF Network for the non-infectious control for the real time RT-PCR (Carrillo *et al*, 2010);
- 2) the results of the titration of PANVAC's vaccine virus and vaccine seeds (RBOK) – 6 out of 7 samples had titers above the desirable threshold.
- 3) the achievements of the sequence and destroy project (S&D) at TPI and CIRAD and the plans for the extension period. Almost 1000 vials (out of 1700) have been destroyed by TPI. In comparing sequence information between the two facilities, CIRAD will undertake to destroy samples that match the

genetic information of TPI samples. CIRAD will also undertake to destroy sequenced samples that are unique to its collection. Discussion is to take place with the Rinderpest Secretariat on what, if any, vaccines and challenge strains should be kept, to mitigate the event of a re-occurrence of rinderpest. Extension of the S&D has been granted until March 2019. It was pointed out by Drs Battens and Libeau that, once the S&D project is finished, TPI and CIRAD intend to issue a joint publication on their work and findings, including partial sequence information.

This information was complemented by a presentation given by Dr Geneviève Libeau, detailing the challenges to overcome in the next phase of the S&D project. The titration results of PANVAC's vaccine will be discussed further with TPI and PANVAC.

The JAC noted the good progress on the project and encouraged the continued destruction of all sequenced samples. The JAC commended the work of the RHF Network and how it adds value to maintaining the global freedom from rinderpest. The JAC encouraged the network to expand and formalize its network platform, with a focus on improving diagnostic testing. The JAC encouraged the RHF Network to explore all opportunities to meet.

ACTION ITEM 6 – TPI and PANVAC to submit the report of the titration results to the Rinderpest Secretariat (including SOP). OIE to liaise with PANVAC to assess the status of PANVAC's inventory in relation to the sequenced samples.

Twinning project

The OIE provided an update on the status of the twinning between PANVAC and TPI. The project has been extended until the end of 2018 to ensure that all the corrective actions to mitigate the concerns raised by the inspection team in 2015 were successfully and sustainably implemented. The JAC is pleased with the twinning project and would like to see FAO and the OIE encourage AU to provide long term sustainable funding for PANVAC.

6. Rinderpest Holding Facilities end of term and procedure for extension

The Committee discussed the process for the extension of designation of the five RHF. The aim, steps and accomplishment of the evaluation of the extension of designation were discussed.

It was recommended that the RHF. wishing to renew their designation for three more years would provide a letter from the national authority to re-confirm that they endorse the RHF as well as the submission of a renewal form outlining how they have met the mandate of their current 3-year designation. The JAC recommended changes to the wording of the proposed renewal form to be inclusive of biosafety and biosecurity measures.

FAO highlighted the need to comply with the legal process required for extending the designation.

ACTION ITEM 7 - OIE to finalize the form for extension of designation as soon as possible and circulate it through the JAC members for comment.

ACTION ITEM 8 - FAO to follow internal procedures for extension of designation of RHF.

7. Regional Rinderpest Tabletop Exercise (TTX) in Colombo, Sri Lanka

Dr Lee Myers provided a debrief of the Regional TTX for Asia, including an overview of the FAO Emergency Management Centre – Animal Health (EMC-AH) and how its activities support the rinderpest-post eradication programme.

Twelve countries attended the TTX in Colombo, Sri Lanka held in March 2018. This TTX benefited from the lessons learned from the first Regional TTX, held in Nairobi, Kenya, in November 2017, namely in terms of planning of the breakout sessions. Participants were actively engaged and this assisted in further recommendations for improving the GRAP. Furthermore, the TTX brought up gaps in the chapter on rinderpest in the OIE *Terrestrial Animal Health Code*; the OIE is intending to revise the chapter to include appropriate provisions should rinderpest re-occur.

8. Publication of the GRAP

Dr Lee Myers gave an update on the publication of the GRAP, noting that a prototype version was distributed during the *FAO-OIE Conference on Global Rinderpest Action Plan and Stakeholder Commitment*, held on 29 - 30 March 2018 at the FAO Headquarters in Rome. This version will be changed to reflect comments received after the said meeting and sent to the editor by the end of June 2018. The publication and editorial process is estimated to take 6-8 weeks.

A “ready reference guide” (RRG) will be prepared by FAO and the OIE after the GRAP is finalized. The RRG will have contact information and some of the flowcharts contained in the GRAP and will be updated on a need basis without having to update the whole GRAP.

The JAC congratulated Lee Myers, FAO and the OIE for the efforts put into finalizing the GRAP and the achievements to date in this regard. The JAC expressed gratitude for Dr Myers contributions to emergency management in the post-eradication era.

ACTION ITEM 9 - JAC to provide comments to the GRAP

9. Criteria and mechanism for selection of vaccine manufacturers

Dr David Ulaeto led the discussion on the criteria for selection of manufacturers wishing to produce rinderpest vaccine, drafted by a group of experts which met at the OIE Headquarters in December 2017. The criteria include requirements (mandatory) and recommendations (preferable) that cover good manufacturing practices and other aspects that are specific to an eradicated disease.

The procedure for selection was described, and it differs whether this refers to replenishment or to an emergency, even though the same criteria apply in both situations. It was suggested to apply the same criteria for replenishment and for emergency manufacture but to specify what is different in the emergency process. The final version of the criteria was agreed upon, as was the procedure for selection of manufacturers for replenishment. The emergency procedure will be further discussed before being finalized. A pre-authorization procedure would alleviate some of the potential risks of an

emergency selection policy. Establishing a pool of trusted and verified safe facilities should be a step in the rinderpest vaccine manufacture procedure.

The criteria will be shared with AU-PANVAC soon, so that the AU can prepare to release a call for tender to replenish its stocks as part of the rinderpest vaccine reserve.

ACTION ITEM 10 – JAC to provide suggestions for improvement of the emergency procedure for selection of manufacturers of rinderpest vaccine in an emergency.

10. RVR and requests for vaccine

An action item on the preparation of a summary on Reference Vaccine Virus Seeds was outstanding from the 11th meeting of the JAC. Dr Samia Metwally (via skype) led the discussion on this topic and informed the group that it is FAO's intention to work with the RHF Network for establishing the inventory and complete history of the potential vaccine strains to include in a rinderpest vaccine seed bank. Dr Metwally informed the group that a consultant, starting in August, would be working on this topic. TPI would be requested to do the characterization and titration of the chosen strains. A stock of vaccine master and production seeds would be prepared and stored in the bank. The location and the governance framework of the bank is yet to be determined.

ACTION ITEM 11 - FAO to provide an update on the establishment of the vaccine seed bank at future JAC meetings.

FAO, through a cooperation project with Japan, is discussing scaling up production of vaccine for global use, as well as to extend the shelf life of the existing stocks.

FAO and OIE had sent a joint letter to the management of AU-IBAR concerning the use of vaccine stored at AU-PANVAC by any country in need. The group was informed that during the Conference on Global Rinderpest Action Plan and Stakeholder Commitment, held in Rome on 29 - 30 March 2018, the representative of AU-PANVAC announced that ten million doses of rinderpest vaccine would be financed by the African union and stockpiled for African Countries' priority use.

The JAC noted that the importance of PANVAC in the post-RP eradication era should be highlighted and the AU should be encouraged to support and invest in PANVAC's activities and infrastructure. Also, the Rinderpest Secretariat was encouraged to continue working with AU-PANVAC and NIAH to commit their respective vaccine reserves to global emergency use.

11. Update on RHF and OIE Member Countries' annual reports

Dr Mariana Marrana presented the results of the 2017 annual survey on rinderpest. As in the previous year, 100% of OIE Members replied to the survey. As of 1 November 2017, RVCM was being stored outside of RHF in 12 institutes, located in 12 countries. It was noted that even though five countries destroyed all their RVCM during the reporting period, five other countries reported for the first time

this year; therefore, the absolute number of countries and institutes holding RVCM are similar to the 2016 survey.

ACTION ITEM 12- FAO and the OIE will liaise with relevant stakeholders from the 12 countries that still hold RVCM, in an effort to advocate for its destruction or sequestration to a RHF of their choice.

12. Update on Communications

Dr Mariana Marrana provided an update on the ongoing “Rinderpest Vigilance” campaign. All the communication materials have been published online in the six UN languages and can be downloaded from <http://rinderpestvigilance.com/en/> The Rinderpest Game, also in six languages, has been finalized and technical details are being ironed out. The OIE will disseminate the materials and the game this October with the assistance of a communications agency specializing in social media platforms.

13. Roadmap

Worksheets will be created for every meeting, containing the action items for the meeting and all the ongoing items that require discussion and recommendations. The Roadmap will be updated regularly outside of the meetings and provided to the JAC members for feedback.

14. Closing and dates of the next meeting

The members of the JAC, FAO and the OIE thanked Drs Liang Qu and Gerrit Viljoen and for hosting the meeting at the IAEA Headquarters. The 14th meeting of the JAC is tentatively scheduled for 11-12 December 2018, at the OIE Headquarters in Paris, France.

Appendix I

13TH MEETING, RINDERPEST JOINT ADVISORY COMMITTEE

Vienna, 12-13 June 2018

Agenda

Tuesday 12 th June 2018	Item	Speaker
9:30 – 10:00	Opening remarks FAO and OIE expectations for JAC (priorities for rinderpest activities) Adoption of the agenda	J Maina (Chair of JAC) and L Qu (IAEA host) T Brand (OIE) and L Myers (FAO)
10:00 – 10:30	Action items from the 12 th meeting (<i>excluding GRAP and virus seed related action items</i>)	J Maina
10:30 – 11:00	<i>Coffee break and group picture</i>	
11:00 – 11:45	NIAH's application for vaccine production	M Salman
11:45 – 13:30	Update on pending applications for RHF's – Kazakhstan – China – CIRAD	T Brand (OIE) C Robertson C Robertson
13:30 – 14:30	<i>Lunch</i>	
14:30 – 15:00	Update on the RHF network activities – PCR PT panels (FADDL) – Support to the vaccine seed bank (TPI) – Reducing the RVC stock (all) – Research projects (S&D; Results of C-ELISA QC; Titration and sequence of vaccine virus seeds stored in PANVAC)	C Batten <i>via skype</i>
15:00 – 15:30	Update on sequence and destroy projects (work plan for extension period, publication, etc.)	G Libeau
15:30 – 17:00	Rinderpest Holding Facilities end of term and procedure for renewal – Review and update on the requirements for RHF designation (<i>Guidelines</i>) – Renewal of RHF's for a second term – Agreement on a template for renewal	M Salman
17:00 – 17:15	<i>Coffee break</i>	
17:15 – 18:15	Debrief of the TTX Asia	L Myers (FAO)

Wednesday 13 th June 2018		
	Item	Speaker/Chair
8:30 – 8:45	Summary of day 1	J Maina
8:45 – 9:30	Update on the publication of the GRAP <i>(including update on related action items from 12th JAC meeting)</i>	L Myers (FAO)
9:30 – 10:15	Vaccine virus seed bank <i>(including update on related action items from the 12th JAC meeting)</i>	G Viljoen (and S Metwally (FAO) via skype)
10:15 – 10:30	<i>Coffee break</i>	
10:30 – 11:00	Criteria and mechanism for selection of vaccine manufacturers	D Ulaeto
	RVR and requests for vaccine <ul style="list-style-type: none"> – Establishing terms and conditions for an agreement with RHF-B on their vaccine contribution in the face of a global emergency 	FAO and OIE
11:00 – 11:30	Update on RVC held in countries (2017 annual report) and on countries with interest in becoming RHF	M Marrana (OIE)
11:30 – 12:00	Communications: RP Game + Challenge	M Marrana (OIE)
12:00 – 12:30	AOB Update Rinderpest Roadmap Meeting summary and dates for the next meeting	FAO and OIE J Maina

Appendix II

13TH MEETING, RINDERPEST JOINT ADVISORY COMMITTEE

Vienna, 12-13 June 2018

List of participants

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Appendix III

MEETING OF THE RINDERPEST JOINT ADVISORY COMMITTEE

Vienna, 12-13 June 2018

Action Items from the 13th Meeting

No	Item	Responsible party	Deadline
1	OIE Co-Secretariat to explore what is the legal international framework in place (if any) in terms of sanctioning the use or synthesis of smallpox virus and how could this be applied to the case of rinderpest. David Ulaeto to contact a scientific publication to assess the possibility of publishing a piece on rinderpest in the light of horsepox synthesis, reminding scientists (and the public) of the current FAO-OIE policy on handling of the virus.	D Ulaeto and OIE	14 th JAC
2	JAC to issue recommendation letter for FAO and OIE to approve vaccine production in Japan.	JAC (FAO and OIE to draft)	As soon as possible
3	Rinderpest Secretariat to continue communications with Kazakhstan to complete the application form with associated documentations and receive a detailed inventory of RVCM held	OIE-led	14 th JAC
4	JAC to issue recommendation letter for FAO and OIE to designate IVDC as a RHF in categories A and B based on the conclusions of the inspection report. FAO and OIE to follow up on the recommendation as appropriate.	Secretariat	14 th JAC
5	JAC to issue recommendation letter for FAO and OIE to designate CIRAD as a RHF category A. FAO and OIE to follow up on the recommendation as appropriate.	JAC (FAO and OIE to draft)	End of June 2018
6	TPI and PANVAC to submit the report of the titration results to the Rinderpest Secretariat (including SOP). OIE to liaise with PANVAC to determine how the titrated vials relate to PANVAC's inventory.	OIE	14 th JAC
7	OIE to finalize the form for extension of designation as soon as possible and circulate it through the JAC members for comment.	OIE	As soon as possible
8	FAO to follow internal procedures for extension of designation of RHF.	FAO	As soon as possible
9	JAC to provide comments to the GRAP	JAC	End of June 2018

10	JAC to provide suggestions for improvement of the emergency procedure for selection of manufacturers of rinderpest vaccine in an emergency.	D Ulaeto	14 th JAC
11	FAO to provide an update on the establishment of the vaccine seed bank.	FAO	14 th JAC
12	FAO and the OIE will liaise with relevant stakeholders from the 12 countries that still hold RVCV, in an effort to advocate for its destruction or sequestration at a FAO-OIE designated RHF.	FAO and OIE	14 th JAC