

WOAH Collaborative Centre Reports Activities 2022

Activities in 2022

This report has been submitted : 16 février 2023 19:47

Centre Information

Title of WOA Collaborating Centre	
Address of WOA Collaborating Centre	
Tel.:	
E-mail address:	
Website:	
Name Director of Institute (Responsible Official):	
Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	
Name of the writer:	

TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOA

Training, Capacity Building	
Title of activity	Scope
	Two 2nd year Residency in Veterinary Public Health, and onboard two new residents in July. The residency has trained 53

<p>Veterinary Public Health and Preventative Medicine Residency Program - Resident Advising and Mentoring</p>	<p>residents since 2002 and currently has 3 residents enrolled. Residents and residency involved in the public health, zoonosis and epidemiology training of DVM students within the CVM program Resident mentors: Tiffany Wolf, Jeff Bender, Andres Perez, Scott Wells, Katey Pelican, Melinda Wilkins, Victoria Hall, Sol Perez, Mary Katherine Obrien,</p>
<p>Training, Capacity Building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>Graduate Student Advising and Mentoring</p>	<p>7 PhD and MsSc students.</p>
<p>Training, Capacity Building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>ProgRESSVet - East Africa</p>	<p>10 months training program for mid-career officials from East Africa. The program's audience consists of country-based cohorts in Kenya and Uganda. In 2022 we completed the training for Cohort 3 (16 participants in Kenya and 9 in Uganda completed the program); This cohort was the last group we trained under the current funding package from the Bill & Melinda Gates Foundation.</p>
<p>Training, Capacity Building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>ProgRESSVet - Colombia</p>	<p>8-courses training program for 24 mid-career officials of the Instituto Colombiano de Agricultural (ICA) was completed in 2022. The final workshop is expected to take place in the last week of March 2023.</p>
<p>Training, Capacity Building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>ProgRESSVet - Vietnam</p>	<p>Twenty participants were trained with the goal of enhancing the capabilities of the Vietnamese veterinary workforce to prevent and mitigate the impact of ASF. Three courses were delivered as ebooks, and two in-person workshops took place in May 2022 and November 2022. Also, in September, 13 trainees traveled to the US to participate in the Lemam conference and further training sessions with the UMN team.</p>
<p>Training, Capacity Building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>Twinning project with Samarkand Veterinary University</p>	<p>From August to November 2022, 20 faculty at Samarkand University participated in 10 online training sessions - which covered pedagogical content to support the update of the curriculum at Samarkand Veterinary University, with particular</p>

(Uzbekistan)	emphasis on integrating topics that align with WOA's recommendations for Day 1 Competencies of graduating veterinarians.
Training, Capacity Building	
Title of activity	Scope
Cochran Fellowship Program	Eight public officers from Vietnam participated in a two weeks intense training on risk based Management for plant and animal products for Vietnam

TOR3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main focus area for which you were designated

Proposal title	Scope/Content	Applicable area
Evaluating the sensitivity of US surveillance system for tier-1 foreign animal diseases of swine.	USA // USDA - APHIS	Training and education health management
Evaluation of the performance of ELISA for ASF-antibodies detection and its potential use in the US swine industry	USA // National Pork Board	Training and education health management
A near-real time global surveillance system for swine diseases (renewal)	USA // Swine Health Information Center	Training and education health management Animal production
What is causing Avian Influenza?	Minnesota/USA // State of Minnesota, Minnesota Agricultural Experiment Station	Training and education health management
NADPRP Knowledge Attitude and Practices regarding implementation of enhanced biosecurity measures among MN swine producers	USA // USDA - APHIS	Training and education health management
Improving national capacity for early detection of foreign animal disease		

incursions: critical evaluation of field accuracy, standard of procedures, risks, challenges, and opportunities for the implementation of point of care platforms for NAHLN target diseases	USA // USDA - Farm Bill - NAHLN NADPRP	Laboratory expertise Training and education health management
Improved spatial analysis to understand swine CAFOs and the surrounding environment and public health concerns	USA // National Pork Board	Training and education health management
Capacity building in laboratory diagnostics and risk assessment to support international trade of U.S. pork products in the Philippines and Vietnam	USA // USDA - FAS-EMP	Training and education health management

4. Did your Collaborating Centre maintain a network with other WOAHA Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Centro Regional para el Entrenamiento de los Servicios Veterinarios (CRESVet)	Buenos Aires, Argentina	Americas	Capacity building in the context of WOAHA learning platform.
Veterinary Public Health Centre for Asia Pacific (VPH-CAP)	Chiang Mai, Thailand	Asia and Pasific	Capacity building in the context of WOAHA learning platform.
Ecole Nationale des Services Veterinaires	Lyon, France	Europe	Capacity building in the context of WOAHA learning platform.

Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale"	Teramo, Italy		Capacity building in the context of WOAAH learning platform.
Iowa State University - Center for Food Security and Public Health (CFSPH)	Ames (IA), United States	Americas	Capacity building in the context of WOAAH learning platform.
Ecole Inter-Etats des Sciences et Médecine Vétérinaires	Dakar, Senegal	Africa	Capacity building in the context of WOAAH learning platform.
Centre National de Veille Zoosanitaire (CNVZ)	Tunis, Tunisia	Africa	Capacity building in the context of WOAAH learning platform.

TOR4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAAH Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

TOR6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOAAH?

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
Emilio León	Technical consultant	PVS Gap Analysis Mission in Kenya. May 2022 Member of the Ad Hoc Group on PVS Evaluation with African swine fever specific content methodology. Chairman. September 2022 PVS Evaluation Follow-Up mission in Guyana. November 2022
Sergio Duffy	Technical consultant	Member of the OIE ad hoc Group on Evaluation of Foot and Mouth Disease Status of Members. Virtual meeting 2,3,4, 7 and 9 November 2022.
Mary Katherine O'Brien	Technical consultant	Provided eLearning and pedagogical expertise toward the development of the WOAAH eLearning platform and related guidelines throughout 2022.

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOA, to personnel from WOA Members?

Yes

a) Technical visit : 12

b) Seminars : 103

c) Hands-on training courses: 171

d) Internships (>1 month) :

TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)	CONTENT	COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING	NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY
a	Field visit - ASF control in Vietnam / Vaccine evaluation	Vietnam	
a	ASF Control / Compartmentalization strategy	The Philippines	
a	Veterinary curriculum update	Uzbekistan	8
a	Training design for ASF laboratory capacity to support country control plan	Dominican Republic	4
a	Biosecurity at pig farms and ASF early detection protocols	Dominican Republic	
b	ProGRESSVet East Africa Symposium (Uganda, Kenya)	Multiple	65
b	Webinar series (5) ProGRESSVet Colombia	Colombia	20

b	Safety training for veterinarians and ag producers/workers (UMASH Center)	US	
b	Online training - 10 sessions - Twinning program	Uzbekistan	18
c	Online training - Proposal Development - cohort 3	Kenya	16
c	Online training - Proposal Development - cohort 3	Uganda	9
c	Online course - Design, Implementation and Evaluation of Animal Health Interventions	Colombia	24
c	Online course - Applied risk analysis	Colombia	24
c	Online course - Veterinary Public Health through the One Health approach	Colombia	24
c	In-person training - Cochran Fellowship - Risk based management for animal products	Vietnam	8
c	In-person workshop - ASF control strategies (in the US)	Vietnam	13
c	In-person workshop - ASF control & vaccine evaluation (in Vietnam)	Vietnam	33
c	In-person Workshop - curriculum review and innovative teaching tools	Uzbekistan	20

TOR8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOA?H?

No

TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOA?H that may be useful to Members of WOA?H

a) Articles published in peer-reviewed journals:

20

Charlier D, Wilson M, Modderman C, Cortus E, Janni K, Peterson C, Schossow M, Alexander BH, Bender JB. Assessing Self-reported Occupational Hazards of Manure Applicators in the Upper Midwest. *J Agromedicine*. 2022 Jun 15:1-9. doi: 10.1080/1059924X.2022.2089423. Epub ahead of print. PMID: 35689356.

Megan Schossow, Devon Charlier, Suness Hall & Jeff Bender (2023) *It Takes a Village: A Novel Process for Responding to Emerging Issues in Agricultural Health and Safety*, *Journal of Agromedicine*, 28:1, 36-41, DOI: 10.1080/1059924X.2022.2147114 (ahead of print)

Megan Schossow, Diane Kampa & Jeffrey Bender (2023) *Building Resilient Agricultural Communities: A Process for Addressing Mental Health Challenges in Agricultural Communities*, *Journal of Agromedicine*, 28:1, 97-100, DOI: 10.1080/1059924X.2022.2058138 (ahead of print)

Schambow R, Colin Y, Dave W, Schettino DN and Perez AM (2022) *Enhancing passive surveillance for African swine fever detection on U.S. swine farms*. *Front. Vet. Sci.* 9:1080150. doi: 10.3389/fvets.2022.1080150

Kanankege KST, Traynor I, Perez AM. Importance of responsible interpretation of observational studies with an impact on public health policy. *Frontiers in Veterinary Sciences*

Schambow R, Reyes R, Morales J, Diaz A, Perez AM. A qualitative assessment of alternative eradication strategies for African swine fever in the Dominican Republic. *Frontiers in Veterinary Sciences*

Groenendaal H, Costard S, Zagmutt FJ, Perez AM. Sleeping with the enemy: maintaining ASF-free farms in affected areas. *Frontiers in Veterinary Sciences*

Kanankege KST, Graham K, Corzo C, VanderWaal K, Perez A, Durr PA. Adapting an atmospheric dispersion model to assess the risk of windborne transmission of Porcine Reproductive and Respiratory Syndrome virus between swine farms. *Viruses*. 2022 Jul 28;14(8):1658. doi: 10.3390/v14081658.

Kanankege, Kaushi and Myhre Errecaborde, Kaylee and Wiratsudakul, Anuwat and Prasarnphanich, Ong-orn and Wongnak, Phrutsamon and Yoopatthanawong, Chakchalat and Thanapongtharm, Weerapong and Alvarez, Julio and Perez, Andres, *Identifying High-Risk Areas for Dog-Mediated Rabies Using Bayesian Spatial Regression*. doi.org/10.2139/ssrn.4092417

Tyulegenov SB, Zhakupbayev A, Berdikulov M, Karibayev T, Yessembekova GN, Sultanov AA, Perez AM, Abdrakhmanov SK. Foot-and-mouth disease in Kazakhstan. *Transboundary and Emerging Diseases*. htdoi.org/10.1111/tbed.14607

Schambow RA, Sampedro F, Urriola PE, van de Ligt JLG, Perez A, Shurson GC, 2022. Rethinking the uncertainty of African swine fever virus contamination in feed ingredients and risk of introduction into the United States. *Transboundary and Emerging Diseases* 69: 157-175.

Hayer SS, Casanova-Higes A, Paladino E, Elnekave E, Nault A, Johnson T, Bender J, Perez A, Alvarez J, 2022. Global Distribution of Extended Spectrum Cephalosporin and Carbapenem Resistance and Associated Resistance Markers in *Escherichia coli* of Swine Origin – A

Systematic Review and Meta-Analysis. Front. Microbiol.,

Munsey A, Mwiine FN, Ochwo S, Velazquez-Salinas L, Ahmed Z, Rodriguez LL, Rieder E, Perez A, VanderWaal K, 2022. Ecological and anthropogenic spatial gradients shape patterns of dispersal of Foot-and-Mouth Disease Virus in Uganda. *Pathogens* 11(5):524

Gunasekera, U., Biswal, J.K., Machado, G., Ranjan, R., Subramaniam, S., Rout, M., Mohapatra, J. K., Pattnaik, B., Singh, R. P., Arzt, J., Perez, A., & VanderWaal, K. (2022). Impact of mass vaccination on the spatiotemporal dynamics of FMD outbreaks in India, 2008–2016. *Transboundary and Emerging Diseases*, 69, e1936–e1950. <https://doi.org/10.1111/tbed.14528>

Xie Y, Kanankege KST, Jiang Z, Liu S, Yang Y, Wan X, Perez AM. Epidemiological characterization of Clonorchiasis in Guangxi, China. *BMC Infectious Diseases*.

Xie, Y., Kanankege, K.S.T., Jiang, Z. et al. Epidemiological characterization of Clonorchis sinensis infection in humans and freshwater fish in Guangxi, China. *BMC Infect Dis* 22, 263 (2022). <https://doi.org/10.1186/s12879-022-07244-2>

Havas K, Makau DN, VanderWaal K, Spronk G, Heron B, Dee S, Perez AM. A molecular and clinical description of a severe porcine reproductive and respiratory syndrome outbreak in a commercial swine production system in Russia. *Viruses* 2022, 14(2), 375; <https://doi.org/10.3390/v14020375>

Hayer SS, Casanova-Higes A, Paladino E, Elnekave E, Nault A, Johnson T, Bender J, Perez A and Alvarez J (2022) Global Distribution of Fluoroquinolone and Colistin Resistance and Associated Resistance Markers in Escherichia coli of Swine Origin – A Systematic Review and Meta-Analysis. *Front. Microbiol.* 13:834793. doi: 10.3389/fmicb.2022.834793

Costard S, Perez AM, Zagmutt FJ, Pouzou JG and Groenendaal H (2022) Partitioning, a Novel Approach to Mitigate the Risk and Impact of African Swine Fever in Affected Areas. *Front. Vet. Sci.* 8:812876. doi: 10.3389/fvets.2021.812876

Abdrakhmanov SK, Mukhanbetkaliyev YY, Sultanov AA, Yessembekova GN, Borovikov SN, Namet A, Abishov AA, Perez AM, Korennoy FI. Mapping the risks of Peste des Petits Ruminants spread in the Republic of Kazakhstan. *Transboundary and Emerging Diseases*, 30 Jul 2021, 69(4):2296-2305
DOI: 10.1111/tbed.14237

b) International conferences:

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Schettino D, Perez AM. Different surveillance approaches for different pig farm types: Classical Swine Fever (CSF) in Mato Grosso, Brazil. 4th International Conference on Animal Health Surveillance. Copenhagen Denmark. May 2022

Elnekave E, Hong S, Lim S, Shivdeep HS, Boxrud D, Taylor AJ, Lappi V, Johnson T, Rovira A, Davies P, Perez A, Alvarez J. Genetic resistance determinants to quinolones and extended spectrum cephalosporins and the plasmids harboring them in Salmonella in United States. Symposium Salmonella and Salmonellosis. Saint-Malo, France. June 2022.

Elnekave E, Hong SL, Lim S, Boxrud D, Rovira A, Mather AE, Perez A, Alvarez JA The spread of the emerging multidrug-resistant Salmonella enterica serotype 4,[5],12:i:-sequence type 34 from Europe to the United States. Symposium Salmonella and Salmonellosis. Saint-Malo, France. June 2022.

Schettino DN, Korennoy FI, Remmenga M, Abdrakhmanov SK, Perez AM. Application of quantitative methods for risk prediction of transboundary animal diseases. IV Encontro Nacional de Epidemiologia Veterinaria (ENEPI). Brazil. July 2022.

Adamchick J, Perez AM. Risk modeling to guide FMD control and investment. 16th International Symposium of Veterinary Epidemiology and Economics. Halifax, Canada. August 2022

Schambow R, Giménez-Lirola LG, Perez AM. Modeling the accuracy of a novel ELISA for African swine fever virus antibody and PCR using Bayesian latent class analysis. 16th International Symposium of Veterinary Epidemiology and Economics. Halifax, Canada. August 2022.

Schambow R, Reyes R, Schettino D, Morales J, Diaz A, Perez AM. Using SWOT analysis to evaluate potential controls strategies for African Swine Fever in the Dominican Republic. 16th International Symposium of Veterinary Epidemiology and Economics. Halifax, Canada. August 2022.

Kanankege KST, Graham K, Corzo CA, VanderWaal K, Perez AM, Durr PA. Adapting an Atmospheric Dispersion Model to Assess the Risk of Windborne Transmission of Porcine Reproductive and Respiratory Syndrome Virus between Swine Farms. Halifax, Canada. August 2022.

Kanankege KST, Traynor I, Perez AM. Large hog farms unfairly blamed for poor health in neighboring communities in North Carolina. Halifax, Canada. August 2022.

c) National conferences:

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Kanankege KST, Graham K, Corzo CA, VanderWaal K, Perez AM, Durr PA. Adapting an Atmospheric Dispersion Model to Assess the Risk of Windborne Transmission of Porcine Reproductive and Respiratory Syndrome Virus between Swine Farms. Allen D. Leman Swine Conference. St. Paul, MN, USA. September 2022.

Schambow R, Giménez-Lirola LG, Perez AM. Evaluation of the diagnostic sensitivity and specificity of African swine fever virus real-time PCR and indirect ELISA tests using Bayesian latent class analysis during a cross-sectional field study in Vietnam. Allen D. Leman Swine Conference. St. Paul, MN, USA. September 2022.

Schambow R, Reyes R, Schettino D, Morales J, Diaz A, Perez AM. A qualitative SWOT assessment of potential controls strategies for African Swine Fever in the Dominican Republic. Allen D. Leman Swine Conference. St. Paul, MN, USA. September 2022.

Schambow R, Giménez-Lirola LG, Perez AM. Bayesian latent class analysis of the sensitivity and specificity of a novel PCR and indirect ELISA for African swine fever virus antibody. USAHA/AAVLD. Minneapolis, October 2022.

d) Other (Provide website address or link to appropriate information):

11. What have you done in the past year to advance your area of focus, e.g. updated technology?

12. Additional comments regarding your report: