

WOAH Collaborative Centre Reports Activities 2023

Activities in 2023

This report has been submitted : 1 juillet 2024 14:49

Centre Information

Title of WOA Collaborating Centre	Veterinary Services Capacity Building (Americas)
Address of WOA Collaborating Centre	"University of Minnesota 136 Andrew Boss Laboratory 1354 Eckles Avenue St Paul, Minnesota 55108 UNITED STATES OF AMERICA"
Tel.:	1-612-625-8709
E-mail address:	cahfs@umn.edu ; aperez@umn.edu
Website:	www.cahfs.umn.edu
Name Director of Institute (Responsible Official):	Andres Perez
Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	Andres Perez, Director
Name of the writer:	Maria Sol Perez Aguirreburualde, CAHFS Deputy Director

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

Category	Title of activity	Scope
		"Veterinary Public Health and Preventative Medicine Residency Program - Resident Advising and Mentoring" "Two 2nd year Residency in Veterinary Public Health, and onboard three new residents in July. The residency has trained 55 residents since 2002 and currently has 5 residents enrolled. Residents and residency involved in the public health, zoonosis and epidemiology training of DVM students within the CVM program Program Director: Melinda Wilkins Resident mentors: Tiffany Wolf, Jeff Bender, Andres Perez, Scott Wells, Katey Pelican, Melinda Wilkins, Victoria Hall, Sol Perez, Mary Katherine Obrien, " Graduate Student Advising and Mentoring 5 PhD and MsSc students. ProgRESSVet - East Africa 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 2023 the program received a renewal of funding from the Bill & Melinda Gates Foundation. Current investment will run until 2030. Cohort #4 was launched in both countries in June 2024. ProgRESSVet - South East Asia Twenty participants were trained with the goal of enhancing the capabilities of the Vietnamese and

<p>Training, capacity building (true)</p>	<p>Capacity Building of Veterinary Services</p>	<p>Philippino veterinary workforce to prevent and mitigate the impact of ASF. Four courses were delivered as ebooks, and two in-person workshops took place in May 2023 and November 2023. Also, in September 2023, 24 trainees from the Philippines and 4 from Vietnam traveled to the US to participate in the Lemman conference and further training sessions with the UMN team. Twinning project During 2023, 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 emphasis on integrating topics that align with WOA's recommendations for Day 1 Competencies of graduating veterinarians. Furthermore, three in person training were delivered - two delegation from Uzbekistan visit Minnesota, in May (3) and in October (8), and one delegation from University of Minnesota visit UZbekistan in April 2024, for the final workshop for this project. ProgRESSVet Multi-regional Africa This training was launched in June 2024 including 80 participants of 22 countries across the continent supported by funding from APHIS, USDA. ProgRESSVet Eastern Europe This training was launched in June 2024 including 37 participants of 11 countries across the region supported by funding from APHIS, USDA.</p>
---	---	--

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
<p>Evaluating the sensitivity of US surveillance system for tier-1 foreign animal diseases of swine. Funding agency: USA // USDA - APHIS</p>	<p>Improve the surveillance of TADs of swine in the US.</p>	<p>Training and education health management</p>
<p>A near-real time global surveillance system for swine diseases (renewal) Funding agency: USA // Swine Health Information Center</p>	<p>Outreach program for swine practitioners and other stakeholders of the pork value in chain in the US regarding the current status of infectious diseases that affect swine worldwide.</p>	<p>Training and education health management</p>
<p>NADPRP Knowledge Attitude and Practices regarding implementation of enhanced biosecurity measures among MN swine producers Funding agency: USA // USDA - APHIS</p>	<p>Improve the understanding of regarding the drivers for biosecurity implementation in pig farms within the US.</p>	<p>Training and education health management</p>
<p>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 Funding agency: USA // USDA - Farm Bill - NAHLN NADPRP</p>	<p>Evaluate POCTs to determine their potential use within surveillance programs across different settings in free or endemic countries; evaluate their fit for purpose.</p>	<p>Laboratory expertise Training and education health management</p>

Capacity building in laboratory diagnostics and risk assessment to support international trade of U.S. pork products in the Philippines and Vietnam Funding agency: USA // USDA - FAS-EMP	Support the veterinary services of Vietnam and the Philippines to improve the management of ASF in their countries.	Training and education health management
ProgRESSVet - Veterinary Services Regional Training Program Funding agency: WOA// APHIS, USDA	Capacity building in regulatory frameworks and risk-based interventions in Africa and in Eastern Europe	Training and education health management
Building capacity on ASF and FMD epidemiology Fundign agency: ARS, USDA	Building capacity on ASF and FMD epidemiology within the US.	Training and education health management
Leveraging PVS Gap Analysis to support Veterinary Service capacity in EA Funding agency: Gates Foundation	Capacity building program for veterinary services in East Africa	Training and education health management
Cooperative Agreement between UMN and USDA-APHIS Collection, Preparation, and Analysis of Field Data for the Parameterization of Epidemiological Models and Evaluation of the Economic Impact Of African Swine Fever in the Dominican Republic Funding agency: CEAH, USDA	Collect lessons learned from the epidemic of ASF in the Dominican Republic to enhance the preparedness program across the region.	Training and education health management
Applied epidemiological approaches to evaluate the Progressive Control Pathway for FMD (PCP-FMD) in endemic regions Funding agency: ARS, USDA	International research collaborations platform	Training and education health management

3. In exercising your activities, have you identified any regulatory research needs* relevant for WOA?H?

No

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

Yes

Name of WOA?H 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 WOA?H learning platform.
Veterinary Public Health Centre for Asia Pacific (VPH-CAP)	Chiang Mai, Thailand	Asia and Pasific	"Capacity building in the context of WOA?H learning platform."
Ecole Nationale des Services Veterinaires	Lyon, France	Europe	"Capacity building in the context of WOA?H learning platform."

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

TOR4 AND 5: NETWORKING AND COLLABORATION

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

Yes

Name of WOAH CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Reference Laboratory for ASF and AHS	Univ Complutense de, Madrid, Spain	Europe	Collaboration for supporting capacity building on ASF
Center for Epidemiology and Animal Health (CEAH)	Fort Collins, US	Americas	Animal Disease Surveillance Systems, Risk Analysis and Epidemiological Modelling
Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA)	San Salvador, El Salvador	Americas	Support the development of animal health plans and the strengthening member countries quarantine systems.
USDA Foreign Agriculture Service (FAS)	Washington, DC	Americas	Enhance export opportunities and global food security.
Global FMD Research Alliance (GFRA) and Global Alliance for ASF control (GARA)	Multiple	Africa Americas Asia and Pasific Europe MiddleEast	Coordinate research activities between and among multiple reference laboratories on ASF and FMD control globally
"Centre of Excellence for Sustainable Food Systems Global	Liverpool, UK	Europe	Economics of Animal Health

Burden of Animal Diseases Programme (GBADS)"			
Panaftosa	"Rio de Janeiro, Brazil"	Americas	Capacity building in food safety and zoonotic diseases.

TOR6: EXPERT CONSULTANTS

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

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
Emilio León	PVS Analysis Mission in the Philippines (focused on ASF). May 2023 Member of the Ad Hoc Group on PVS Evaluation with African swine fever specific content methodology. Chairman. September 2023	
Sergio Duffy	Member of the OIE ad hoc Group on Evaluation of Foot and Mouth Disease Status of Members. Virtual meeting throughout November, 2023.	
Mary Katherine O'Brien	Provided eLearning and pedagogical expertise toward the development of the WOA?H eLearning platform and related guidelines.	

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

TECHNICAL VISITS:

1. Field visit - ASF control in Vietnam / Vaccine evaluation Vietnam
2. ASF Control / Compartmentalization strategyThe Philippines
3. Veterinary curriculum update Uzbekistan (8)
4. Training design for ASF laboratory capacity to support country control plan Dominican Republic (4)
5. Biosecurity at pig farms and ASF early detection protocolsDominican Republic

SEMINARS

1. ProgRESSVet Symposium 2023 Uganda / Kenya (57)
2. Online training - 10 sessions - Twinning program Uzbekistan 18 (average)

IN PERSON OR ONLINE TRAINING

1. Introduction to design of surveillance systems. LATAM 24
2. Introduction to spatial analysis applied to animal surveillance LATAM 24
3. In-person workshop - ASF control strategies (in the US) Vietnam 13
4. In-person workshop - ASF control & vaccine evaluation (in Vietnam) Vietnam 33
5. In-person Workshop - curriculum review and innovative teaching tools Uzbekistan 20

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

No

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 WOAHA that may be useful to Members of WOAHA

a) Articles published in peer-reviewed journals:

19

Hsu C-H, Yang CH, Perez AM. Google Trends as an early indicator of African Swine Fever outbreaks in Southeast Asia. *Frontiers in Veterinary Science*.

Lozano Calderon LC, Cabanne GS, Marcos A, Galdo Novo S, Torres C, Perez AM, Pybus OG, König GA. Análisis filodinámico de la evolución del virus de la fiebre aftosa en Mar Chiquita, Argentina. *Archives of Virology*.

Hsu C-H, Chang C-Y, Otake S, Molitor T, Perez A. Strategies for Transboundary Swine Disease Management in island countries of Asia: Foot and Mouth Disease, Classical Swine Fever and African Swine Fever in Taiwan, Japan, and the Philippines. *Veterinary Science*.

Kadyrov A, Ussenbayev A, Kurenkeyeva D, Abdrakhmanova A, Mukhanbetkaliyev Y, Adilbekov Z, Perez A, Abdrakhmanov S. Challenges and opportunities for online education of veterinary sciences in Kazakhstan. *Frontiers in Computer Sciences*.

Schambow RA, Hussain S, Antognoli MC, Kreindel S, Reyes R, Perez AM. Epidemiological assessment of African Swine Fever spread in the Dominican Republic. *Pathogens*. Nkamwesiga J, Lumu P, Nalumenya DP, Korennoy F, Roesel K, Wieland B, Perez A, Kiara H, Muhanguzi D. Seroprevalence and predictors of Peste des Petits Ruminants in different production systems in Uganda. *Preventive Veterinary Medicine*.

Kabzhanova AM, Kadyrov AS, Mukhanbetkaliyeva AA, Yessembekova GN, Mukhanbetkaliyev YY, Korennoy FI, Perez AM, Abdrakhmanov SK. Rabies in the Republic of Kazakhstan: Spatial and Temporal Characteristics of Disease Spread over One Decade (2013-2022). *Frontiers in Veterinary Science*

Ochwo S, Perez AM, Pérez Aguirreburualde S. Beyond Accuracy: leveraging ASSURED criteria for field evaluation of point-of-care tests for infectious animal diseases. *Frontiers in Veterinary Science*.

Lim S, Perez AM, Kanankege KST. Modeling the seasonal variation of windborne transmission of porcine reproductive and respiratory syndrome virus between swine farms. *Viruses*

Hsu CH, Schambow R, Montenegro M, Miclat-Sonaco R, Perez AM. Factors affecting the spread, diagnosis, and control of African Swine Fever in the Philippines. *Pathogens* Capozzo AV, Vosloo W, De Los Santos T, Perez AM, Pérez-Filgueira M. Foot-And-Mouth Disease Epidemiology, Vaccines and Vaccination: Moving Forward. *Frontiers in Veterinary Science*.

Hsu CH, Montenegro M, Perez AM. Space-time dynamics of African Swine Fever spread in the Philippines. *Microorganisms*.

Perry BD, Rich KM, Perez AM. Editorial: Challenging standards and paradigms to support animal disease prevention and control. *Frontiers in Veterinary Science*.

Sultanov AA, Tyulegenov SB, Yessembekova GN, Berdikulov MA, Mukhanbetkaliyev YY, Akhmetzhanova A, Perez AM, Abdrakhmanov SK. The progressive control of foot-and-mouth disease (FMD) in the Republic of Kazakhstan: successes and challenges. *Frontiers in Veterinary Sciences*.

La Sala LF, Burgos JM, Caruso N, Bagnato CE, Ballari SA, Guadagnin DL, Kindel A, Etges M, Merino M, Marcos A, Skewes O, Schettino D, Perez A, Condori E, Tammone A, Carpinetti B, Zalba SM. Wild pigs and their widespread threat to biodiversity conservation in South America. *Journal for Nature Conservation*

Schambow R, Giménez-Lirola LG, Vu DH, Lai TLH, Nguyen TL, Pham HT, Do DL, Ha XB, Rauh R, Nelson W, Mora-Díaz JC, Rovira A, Culhane M, Perez AM. Modeling the accuracy of a novel ELISA for African swine fever virus antibody and PCR using Bayesian latent class analysis. *Frontiers in Veterinary Sciences*

Gomez-Buendía A, Pozo P, Picasso-Risso C, Branscum A, Perez A, Alvarez J. Accuracy of Tests for Diagnosis of Animal Tuberculosis: Moving Away from the Golden Calf (and towards Bayesian Models). *Transboundary and Emerging Diseases*.

Gunasekara U, Bertram MR, Perez A, Arzt J, VanderWaal K. Phylogeography as a proxy for population connectivity for spatial modeling of foot-and-mouth disease outbreaks in Vietnam. *Viruses*.

Schettino D, Lantigua E, Perez D, Beemer O, Remmenga M, Vanicek C, Lopes G, Arzt J, Reyes R, Perez A. Enhanced passive surveillance to early detect African and Classical swine fevers. *OIE Scientific and Technical Review*.

b) International conferences:

4

1. Hsu C, Montenegro M, Perez A. Spatial-temporal evaluation of African Swine Fever in the Philippines. *International Symposium on Emerging and Re-emerging Swine Diseases*. Bangkok, Thailand, June 2023.

2. Hsu C, Montenegro M, Perez A. Temporal and spatial patterns of African Swine Fever spread in the Philippines, 2019-2022. *Asian Pig Veterinary Society Congress*. Taipei, Taiwan, July 2023.

3. Schambow R, Hsu C, Ochwo S, Hussain S, Akinyede O, Birtcil B, Velimirovich-Holtz M, O'Brien MK, Perez Aguirreburualde MS, Perez AM. An overview of CAHFS international research and activities supporting ASF prevention and control and veterinary capacity building. *Global African Swine Fever Research Alliance (GARA) meeting*. Philippines, December 2023.

c) National conferences:

2

1. Hsu JCH, Montenegro M, Perez AM. Analyzing key factors and dynamics of African Swine Fever spread: Philippine insights. *Conference of Research Workers in Animal Diseases*. Chicago, January 2024.

2. *Advancing Global Veterinary Education: The WOAHA Educational Twinning Project Samarkand State University of Veterinary Medicine. Internationalizing the Curriculum and Campus*. University of Minnesota. 2024.

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: