World Organisation for Animal Health

Larry A. Hanson - - UNITED_STATES_OF_AMERICA

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 1 février 2026 03:11

LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Enteric septicaemia of catfish
***Address of laboratory:**	PO Box 6100, 240 Wise center Drive, Mississippi State, Mississippi, 39762 USA
***Tel:**	+1-662 325 12 02
***E-mail address:**	hanson@cvm.msstate.edu
Website:	
***Name (including Title) of Head of Laboratory (Responsible Official):**	Larry A. Hanson, PhD Professor, Director of the Fish Diagnostic Laboratory
***Name (including Title and Position) of WOAH Reference Expert:**	Larry A. Hanson, PhD Professor, Director of the Fish Diagnostic Laboratory
***Which of the following defines your laboratory? Check all that apply:**	Academic institution

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Direct diagnostic tests		Nationally	Internationally
Bacterial culture, identification and antibiotic sensitivity	Yes	98	0
qPCR	No	20	0

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?

No

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

No

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

No

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

2

Rahman, M. Mishkatur, Ayman Sajjad Akash, Harun Pirim, Larry Hanson, Matt Griffin, and Hasan C. Tekedar (2025). "Machine Learning and Protein Language Models for Vaccine Candidate Prediction in Aquaculture." In IISE Annual Conference. Proceedings, pp. 1-6. Institute of Industrial and Systems Engineers (IISE), 2025. DOI:10.21872/2025IISE_6571

Muire, P. J., L. A. Hanson and L. Petrie-Hanson (2025) "Rapid Natural Killer Cell Gene Responses, Generated by TLR Ligand-Induced Trained Immunity, Provide Protection to Bacterial Infection in rag1−/− Mutant Zebrafish (Danio rerio)." International Journal of Molecular Sciences 26 DOI: 10.3390/ijms26030962.

b) International conferences:

c) National conferences:

5

Hanson, Larry A., Alison Marchant, Treva Billyard, and Lora Petrie-Hanson (2025). The Potential of Cyanotoxins to Predispose Catfish to Bacterial Diseases. Mississippi State University Aquatic Antimicrobial Resistance Workshop, October 9–10, 2025. Starkville, MS.

Collinsgru, Anna, Natalie Stilwell, Larry Hanson. Evaluating the Reliability of Using Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS) for the Correct Identification of Edwardsiella species in Aquatic Diagnostics. American Society for Microbiology South Central Branch Meeting–Annual Meeting, November 14-15, 2025. Starkville, MS.

Rose, D., C. E. Older, B. M. Richardson, T. I. Heckman, S. Balami, C. C. Ware, A. Nalamalapu, G. C. Waldbieser, L. H. Khoo, H. C. Tekedar, A. Perkins, L. Hanson, T. G. Rosser, D. J. Wise, and M. J. Griffin. (2025). A Cross-Sectional Analysis of Antibiotic Resistance in Microbial Communities from Catfish Culture Systems Joint 31st Aquatic Drug Approval Coordination Workshop, 64th Western Fish Disease Workshop, and Annual AFS Fish Health Section Meeting. June 23 – 27, 2025, Bozeman, Montana.

Panel Member of "AMR and diagnostic trends from southeastern diagnostic labs." Mississippi State University Aquatic Antimicrobial Resistance Workshop, October 9–10, 2025. Starkville, MS.

Hanson, L. A., Disease Prevention and Diagnostics. East Mississippi Catfish Producers Meeting. December 2, 2025. Columbus MS.

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

0

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 17025	PDF	QAU-F-043 - MVRDLS Letter of Quality Assurance RevJan23.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Bacterial culture and identification	American Society of Veterinary Diagnosticians
Antibiotic Sensitivity testing	American Society of Veterinary Diagnosticians

20. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

All labs in the system are AAVLD accredited and have approved biorisk management protocols and internal auditing.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?

Not applicable (only WOAH Reference Laboratory designated for the disease

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?

Not applicable (only WOAH Reference Laboratory designated for the disease

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

Not applicable (Only WOAH Reference Laboratory designated for the disease)

N/A

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Not applicable (only WOAH Reference Laboratory designated for the disease

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen during the past 2 years?

No

N/A

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

No

29. Additional comments regarding your report:

No