### OIE Reference Laboratory Reports Activities

**Activities in 2014**

This report has been submitted: 2015-01-15 18:19:50

<table>
<thead>
<tr>
<th>Name of disease (or topic) for which you are a designated OIE Reference Laboratory:</th>
<th>Salmonellosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of laboratory:</td>
<td>OIE Reference Laboratory for Salmonellosis, Laboratory for Foodborne Zoonoses, Public Health Agency of Canada, 110 Stone Road West, Guelph, Ontario N1G 3W4 CANADA</td>
</tr>
<tr>
<td>Tel.:</td>
<td>+1-519 822.33.00</td>
</tr>
<tr>
<td>Fax:</td>
<td>+1-519 822.22.80</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:cornelis.poppe@gmail.com">cornelis.poppe@gmail.com</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.phac-aspc.gc.ca">www.phac-aspc.gc.ca</a></td>
</tr>
<tr>
<td>Name (including Title) of Head of Laboratory (Responsible Official):</td>
<td>Dr. Roger Johnson, Research Scientist, Director of Reference Laboratories</td>
</tr>
<tr>
<td>Name (including Title and Position) of OIE Reference Expert:</td>
<td>Dr. Cornelis Poppe, Research Scientist</td>
</tr>
<tr>
<td>Which of the following defines your laboratory? Check all that apply:</td>
<td>Governmental</td>
</tr>
</tbody>
</table>
ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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

<table>
<thead>
<tr>
<th>Diagnostic Test</th>
<th>Indicated in OIE Manual (Yes/No)</th>
<th>Total number of test performed last year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nationally Internationally</td>
</tr>
<tr>
<td>Indirect diagnostic tests</td>
<td>Yes</td>
<td>6483 Internationally 171</td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td>Yes</td>
<td>2139 Internationally 57</td>
</tr>
</tbody>
</table>

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards. To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

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

   No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

   No

4. Did your laboratory produce vaccines?

   No

5. Did your laboratory supply vaccines to OIE Member Countries?

   No
ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

<table>
<thead>
<tr>
<th>Name of OIE Member Country seeking assistance</th>
<th>Date (month)</th>
<th>No. samples received for provision of diagnostic support</th>
<th>No. samples received for provision of confirmatory diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHIOPIA</td>
<td>July</td>
<td>161</td>
<td>161</td>
</tr>
<tr>
<td>SUDAN</td>
<td>November</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes
Name of the OIE Member Country receiving a technical consultancy | Purpose | How the advice was provided
--- | --- | ---
TANZANIA | To give advice on diagnostic capacity building and the isolation of Salmonella from hatcheries and chicken breeder flocks | Remote
ETHIOPIA | To provide support for serotyping and phagetyping of Salmonella isolates from humans and animals | Remote
FRANCE | Recommended the use of standardized methods, such as the ISO-method 6597:2002, for the isolation and detection of Salmonella from primary animal production as described in the OIE Terrestrial Manual 2012, pages 1268-1286 | Remote
SAUDI ARABIA | To give advice regarding the isolation and distinguishing of the Salmonella AviPro Vaccine E strain and field strains from vaccinated and non-vaccinated chickens | Remote
UNITED ARAB EMIRATES | To give advice regarding introducing Salmonella serogrouping in veterinary laboratories | Remote
INDIA | Recommended using a standardized method, such as the ISO-method 6579:2002 Annex D for the isolation of Salmonella from equine samples | Remote

**ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations**

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

<table>
<thead>
<tr>
<th>Title of the study</th>
<th>Duration</th>
<th>Purpose of the study</th>
<th>Partners (Institutions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of the Salmonella GenoSerotypingArray (SGSA) version 2</td>
<td>7 years</td>
<td>To rapidly generate antigenic formula consistent with the Kauffmann-Le Minor scheme</td>
<td>Vet. Lab. Agency, Weybridge, UK, and Austrian Agency for Health and Food Safety, Vienna, Austria</td>
</tr>
</tbody>
</table>

**ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases**

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes
12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

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

a) Articles published in peer-reviewed journals: 15


b) International conferences: 3

c) National conferences: 5

d) Other:
(Provide website address or link to appropriate information) 2

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries
To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

No

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System certified according to an International Standard?

Yes

<table>
<thead>
<tr>
<th>Quality management system adopted</th>
<th>Certificate scan (PDF, JPG, PNG format)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 17025</td>
<td>Cert of Accred 2013.pdf</td>
</tr>
</tbody>
</table>

16. Is your laboratory accredited by an international accreditation body?

Yes

<table>
<thead>
<tr>
<th>Test for which your laboratory is accredited</th>
<th>Accreditation body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serotyping of Salmonella isolates</td>
<td>Standards Council of Canada</td>
</tr>
<tr>
<td>Phagotyping of Salmonella Enteritidis, S. Heidelberg and S. Typhimurium</td>
<td>Standards Council of Canada</td>
</tr>
</tbody>
</table>

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

Yes

(See Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2014, Chapter 1.1.3a)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

No
**ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results**

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

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

<table>
<thead>
<tr>
<th>Purpose of the proficiency tests: ¹</th>
<th>Role of your Reference Laboratory (organiser/participant)</th>
<th>No. participants</th>
<th>Participating OIE Ref. Labs/organising OIE Ref. Lab.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To develop and validate the Salmonella Genoserotyping Array (SGSA) version 2</td>
<td>Organizer</td>
<td>2</td>
<td>Vet. Lab. Agency, Weybridge, UK, and the OIE Reference Laboratory for Salmonellosis, Guelph, Ontario, CANADA</td>
</tr>
</tbody>
</table>

¹ validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.

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

Yes

<table>
<thead>
<tr>
<th>Title of the project or contract</th>
<th>Scope</th>
<th>Name(s) of relevant OIE Reference Laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td>To develop and validate a Salmonella genoserotyping array (SGSA) that rapidly generates antigenic formula consistent with the White-Kauffmann-LeMinor serotyping scheme</td>
<td>To replace the laborious, costly and time-consuming Salmonella serotyping procedure with a rapid genoserotyping typing array</td>
<td>Vet. Lab. Agency, Weybridge, UK, and the OIE Reference Laboratory for Salmonellosis at Guelph, Ontario, CANADA</td>
</tr>
</tbody>
</table>

**ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results**

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes
### Purpose for inter-laboratory test comparisons

<table>
<thead>
<tr>
<th>Purpose for inter-laboratory test comparisons</th>
<th>No. participating laboratories</th>
<th>Region(s) of participating OIE Member Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Quality Assurance System (EQAS) for serotyping, phagotyping and determination of antimicrobial susceptibility of Salmonella strains, with other WHO Global Foodborne Infectious Network member laboratories</td>
<td>Laboratories participating in the EQAS of the WHO</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
</tr>
<tr>
<td>Inter-Laboratory QA program regarding Salmonella serotyping and phagotyping with the Public Health Ontario (PHO), Enteric Laboratory, Toronto, Ontario, and with the Laboratoire d'épidémiosurveillance animale du Quebec. MAPAQ, St-Hyacinthe, Quebec</td>
<td>3</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
</tr>
<tr>
<td>Proficiency tests for phage-typing of Salmonella Enteritidis, S. Typhimurium and S. Heidelberg strains.</td>
<td>2</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
</tr>
</tbody>
</table>

**ToR 12: To place expert consultants at the disposal of the OIE**

24. Did your laboratory place expert consultants at the disposal of the OIE?

Yes

<table>
<thead>
<tr>
<th>Kind of consultancy</th>
<th>Location</th>
<th>Subject (facultative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On request of the OIE Animal Production Food Safety Working Group and the Codex Alimentarius Commission reviewed a manuscript on the control of Salmonella spp. in food producing animals other than poultry.</td>
<td>OIE Ref. Laboratory for Salmonellosis in Guelph, Ontario, Canada</td>
<td>A review of the scientific literature on the control of Salmonella spp. in food producing animals other than poultry.</td>
</tr>
</tbody>
</table>

25. Additional comments regarding your report: