PROTOCOL OF THE FOURTEENTH INTERLABORATORY COMPARISON STUDY (XIV, 2009) ON SEROTYPING AND PHAGE TYPING OF *SALMONELLA* STRAINS ORGANISED BY CRL-*SALMONELLA*

Introduction

The Community Reference Laboratory (CRL) - *Salmonella* organises the fourteenth interlaboratory comparison study on the typing of *Salmonella* strains amongst the National Reference Laboratories for *Salmonella* (NRLs-*Salmonella*).
The main objective of this typing study is to test the performance of the participating laboratories for serotyping and phage typing of *Salmonella* spp.
The study will take place in week 49 (starting on 30 November 2009. The timetable can be found on the last page of this protocol.
All data have to be reported in the test report, send to the CRL-*Salmonella* and will be used for analysis. The data on phage typing will be forwarded by CRL-*Salmonella* to HPA for further analyses.

Transportation of the *Salmonella* strains to the NRLs-*Salmonella*.

CRL-*Salmonella* will transport the strains for serotyping and for phage typing (if applicable) in a separate parcel. The strains will be send as Biological Substance Category B (UN 3373) with a door-to-door courier to your laboratory.

Serotyping

A total number of 20 *Salmonella* strains (indicated S-1 till S-20) have to be serotyped. The method routinely performed in your laboratory can be used in this study. Each laboratory is allowed to send strains for serotyping to another reference laboratory in their country, if this is part of the normal routine procedure.

IN THE TEST REPORT OF THIS STUDY 2 EXTRA TABLES ARE ADDED. PLEASE INDICATE THE REACTIONS FOR EVERY STRAIN-ANTISERUM COMBINATION USED. THIS SUPPLIES THE CRL-*SALMONELLA* WITH MORE INFORMATION IN CASE OF ANY DEVIATING RESULTS.

The results for each strain have to be reported with the full formula for the O-antigens and H-antigens **and** the serovar names according to the White-Kauffman-le Minor scheme of 2007 (http://www.pasteur.fr/sante/clre/cadrecnr/salmoms/WKLM_2007.pdf).
Definite conclusions can only be based on agglutination with mono-specific antisera. Otherwise it is better to identify the strains by giving the antigenic formula as far as detected.
The evaluation of the serotyping results will be performed by the CRL-*Salmonella* according to Table 1.

Table 1 Evaluation of serotyping results

Results	Evaluation	Abbreviation
Auto-agglutination or Incomplete set of antisera (outside range of antisera)	Not typable	NT
Partly typable due to incomplete set of antisera or Part of the formula (for the name of the serovar) or No name serovar	Partly correct	+/-
Wrong serovar or mixed sera formula	Incorrect	-

Phage typing

The participating laboratories will receive a parcel containing 20 *Salmonella* cultures for phage typing:

- 10 strains of *S.* Enteritidis numbered E1-E10
- 10 strains of *S.* Typhimurium numbered T11-T20

The evaluation of the phage typing results will be done in collaboration with the *Salmonella* Reference Unit of the Health Protection Agency (HPA), London, United Kingdom.

If you have questions or remarks about the interlaboratory comparison study, please contact:

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Timetable of the 14th interlaboratory comparison study (2009) on serotyping and phage typing of *Salmonella* spp.

Week	Date	Topic
46	9–13 November	Mailing of the protocol and test report 2009
48	23-27 November	Mailing of the parcels to the participants as Biological Substance Category B (UN 3373) by door-to-door courier service. After arrival at the laboratory the strains need to be sub-cultured and stored until the performance of the typing. **If you did not receive the parcel by 27 November, do contact the CRL immediately.**
49	30 November – 4 December	Starting with the identification of the strains.
51	14-18 December	Send the completed test report preferably by e-mail to CRL-*Salmonella*. **Deadline: 18 December 2009**
1-2010	4-8 January 2010 and onwards	Data input at CRL-*Salmonella* and sending these data by CRL to NRLs by email for checking. Checking the results by the participants and they will inform CRL whether their results are correct. If CRL does not receive a reaction within one week after receipt of this email the CRL will consider the results as correct.
2010	Mid January 2010 and onwards	Reporting of the results