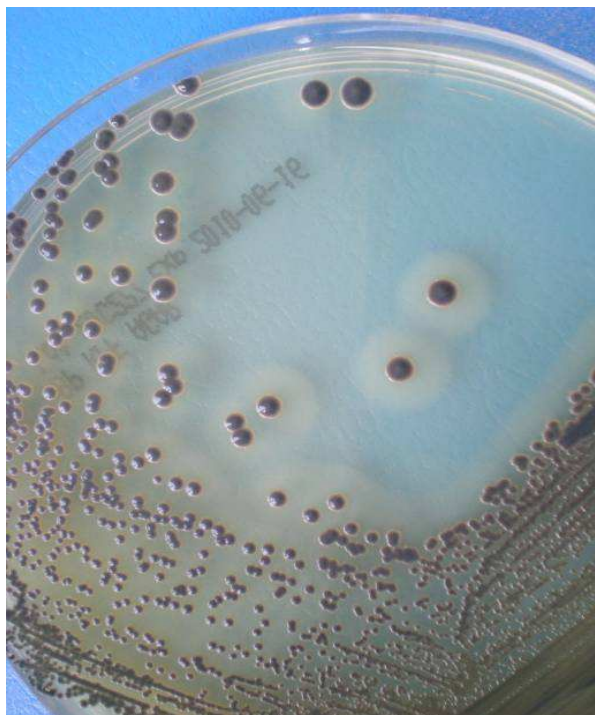


Laboratorio Nazionale di Riferimento  
per gli Stafilococchi  
coagulasi positivi,  
compreso *Staphylococcus aureus*

VIII WORKSHOP DEL LABORATORIO NAZIONALE DI RIFERIMENTO (NRL)  
PER GLI STAFILOCOCCCHI COAGULASI POSITIVI COMPRESO S.AUREUS

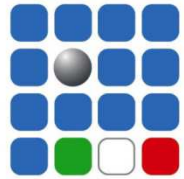


# Report of NRL activities in 2015

Silvia Gallina

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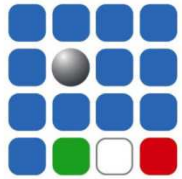


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per gli Stafilococchi  
coagulasi positivi,  
compreso *Staphylococcus aureus*

# Activities 2015

Routine  
Research Projects  
Ring trial  
Workshop





Laboratorio Nazionale di Riferimento  
per gli Stafilococchi  
coagulasi positivi,  
compreso *Staphylococcus aureus*



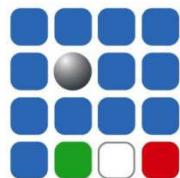
# Activities 2015

## Routine

### Staphylococcal Enterotoxins Detecion

	N° of samples ELFA	ELFA pos	N° of samples ELISA	ELISA pos
Reg. EC 2073/05	53	-	2	-
FBO	38	1	1	-
Regional Monitoring Plan	56	-	-	-
PIF / UVAC / USMAF	9	-	-	-
Research Project	67	63	-	-
Ring Trial	9	7	5	3
NRL	11	3	8	1
Other	3	-	2	1
<b>Total</b>	<b>246</b>	<b>74</b>	<b>18</b>	<b>5</b>





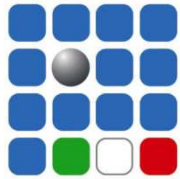
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per gli Stafilococchi  
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compreso *Staphylococcus aureus*

# Activities 2015

## Routine

### Enumeration of CPS

	Conteggio CPS
Reg. EC 2073/05	12
FBO	51
Regional Monitoring Plan	256
Raw milk control	177
PIF / UVAC / USMAF	2
Research Project	209
Ring Trial	3
NRL	1
Other	233
<b>Totale complessivo</b>	<b>944</b>

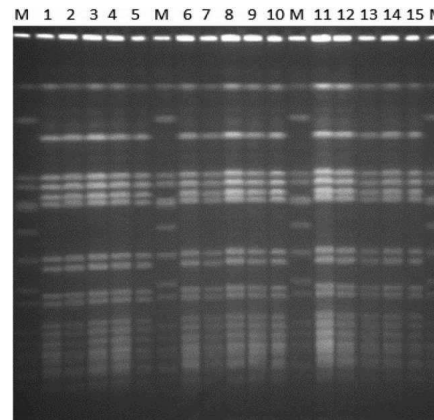


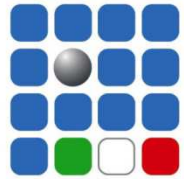
Laboratorio Nazionale di Riferimento  
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# Activities 2015

## Molecular characterization

PCR strains	PFGE strains	MecA strains
170	52	36

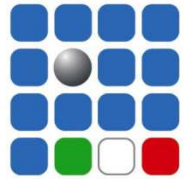




# Activities 2015

## Research projects

1. Phenotypic and genotypic characterization of *S. aureus* strains isolated from traditional dairy products from Marche and Umbria regions (Ricerca Corrente 2013).
2. Toxigenic *S. aureus* e *B. cereus*: innovative methods for the study of the key factors in toxins production in traditional dairy products (Ricerca Corrente 2014; start 01/11/2015)
3. IMPACTOR - Development of innovative methods for identifying and quantifying pathogens in diverse food matrices (Ricerca Finalizzata 2011-2012)
4. Research and innovation in the monitoring process of milk quality in the Piedmont - QUALILAT (Progetto Regionale 2015)
5. Production of Naturally Contaminated Cheeses - Pronacc
6. Distribution of staphylococci and their enterotoxins in cheeses - Desc (Alberto Bellio)



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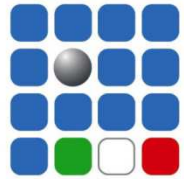
# Activities 2015

## Ring test

Annual Proficiency test for the detection of staphylococcal enterotoxins in dairy and meat products by European Screening method for detection of Staphylococcal Enterotoxins.

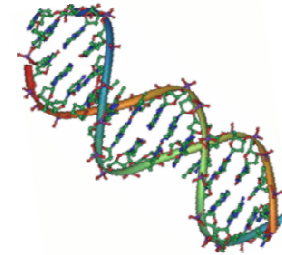
(Alberto Bellio, Francesco Ingravalle)





Laboratorio Nazionale di Riferimento  
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# Activities 2015



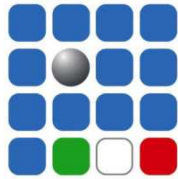
## Ring test

“Proficiency Test on *S.aureus* strains for the research of staphylococcal enterotoxins encoding genes by EURL methods:

- Detection of genes encoding staphylococcal enterotoxins multiplex pcr for sea to see and ser” - Vers 1, october 2009;
- Detection of genes encoding staphylococcal enterotoxins multiplex pcr for seg to sej and sep“ - Vers 1, october 2009;.”

(Guerrino Macori)





Laboratorio Nazionale di Riferimento  
per gli Stafilococchi  
coagulasi positivi,  
compreso *Staphylococcus aureus*

#### Registration Form

Reply by fax to the Organizing Secretariat to the number +39 (0) 11 2686357 deadline 30 Sept. 2015

- \* Name .....
- \* Surname .....
- \* Date of Birth .....
- \* Place of Birth .....
- \* Phone number .....
- \* e-mail .....
- \* qualification:
  - veterinarian
  - biologist
  - biomedical laboratory technician
- \* contact for iza .....

\* all data are mandatory

**Privacy:** taking note of the rights recognized by reg.196/2003, I hereby consent to the processing of the above information, aware that the execution of the required services can not take place without the disclosure of personal data to IZS Turin Department and/or persons to whom must be contacted.

Signature

.....

Participants will be included on a first come, first served basis. The acceptance of entries is silent, except for different communication by the secretariat.

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Manila Bianchi, IZSPLV  
Silvia Gallina, IZSPLV  
Fabio Zuccon, IZSPLV

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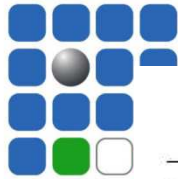
outdoor event no. 13



### VIII WORKSHOP OF THE NATIONAL REFERENCE LABORATORY (NRL) FOR COAGULASE POSITIVE STAPHYLOCOCCI INCLUDING S.AUREUS

19-20 November 2015

Conference Room  
Istituto Zooprofilattico Sperimentale del  
Piemonte, Liguria e Valle d'Aosta  
Via Bologna 148 – Torino



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Short communication

## Methicillin resistance in *Staphylococcus aureus* strains isolated from food and wild animal carcasses in Italy



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L. Domenis<sup>a, c</sup>, P. Cavallerio<sup>d</sup>, L. Fossati<sup>d</sup>, R. Serra<sup>d</sup>, L. Decastelli<sup>a, b</sup>

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<sup>b</sup> Laboratorio Nazionale di Riferimento per gli stafilococchi coagulasi positivi compreso *S. aureus*, S.C. Controllo Alimenti e Igiene delle Produzioni, via Bologna 148, 10154 Torino, Italy

<sup>c</sup> Centro di Referenza Nazionale per le Malattie degli Animali Selvatici, S.C. Valle d'Aosta, Regione Amerique 7G, 11020 Quart, Aosta, Italy

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### ARTICLE INFO

*Article history:*

Received 29 April 2014

Received in revised form

12 May 2015

Accepted 20 July 2015

Available online 22 July 2015

*Keywords:*

MRSA

Food

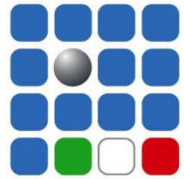
Bulk tank milk

Wild animal carcasses

### ABSTRACT

Following the detection of methicillin-resistant *Staphylococcus aureus* (MRSA) ST398 in food-producing animals, both livestock and wildlife, and derived products, are considered potential sources of MRSA in humans. There is a paucity of data on MRSA in foods in Italy, and the data regarding wild animals are particularly scarce. A total of 2162 food samples collected during official monitoring activities in 2008 were analyzed for the detection of *S. aureus*. Also, samples from 1365 wild animals collected by the National Reference Center for Wild Animal Diseases in 2003–2009 were subjected to anatomopathological examination. *S. aureus* isolates were processed for phenotypic and molecular methicillin resistance determinations.

*S. aureus* was found in 2.0% of wild animal carcasses and in 3.2% of wild boar lymph nodes: none showed methicillin resistance. The prevalence of *S. aureus* in food was 17.1%. Two MRSA strains, both from bulk tank milk (prevalence 0.77%) were isolated: the strains were resistant to tetracycline, had spa-type t899, and were negative for the Panton-Valentine leukocidin gene. The low prevalence of MRSA suggests that the risk of transmission to humans via food is limited. However, attention should be paid to the cattle food chain, which may be a potential route of transmission of LA-MRSA.



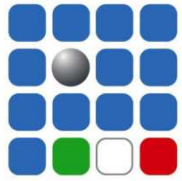
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# Activities 2015

May 28 – 29 2015: IX Annual Workshop organized by EURL  
CPS (Maisons-Alfort, Parigi – Francia)

- Focused on staphylococcal enterotoxins
  - FBO
  - Revision of the European Screening Method
  - Development of certified reference materials DESC Project
  - Use of mass spectrometry

(Guerrino Macori)



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Thanks and enjoy the meeting!

