European Union Reference Laboratory for Parasites
Istituto Superiore di Sanità

Proficiency Testing for the detection of anti-*Toxoplasma* IgG in goat serum samples

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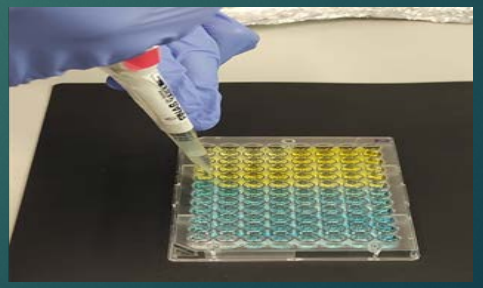
The aims of the proficiency testing (PT) are

To evaluate:

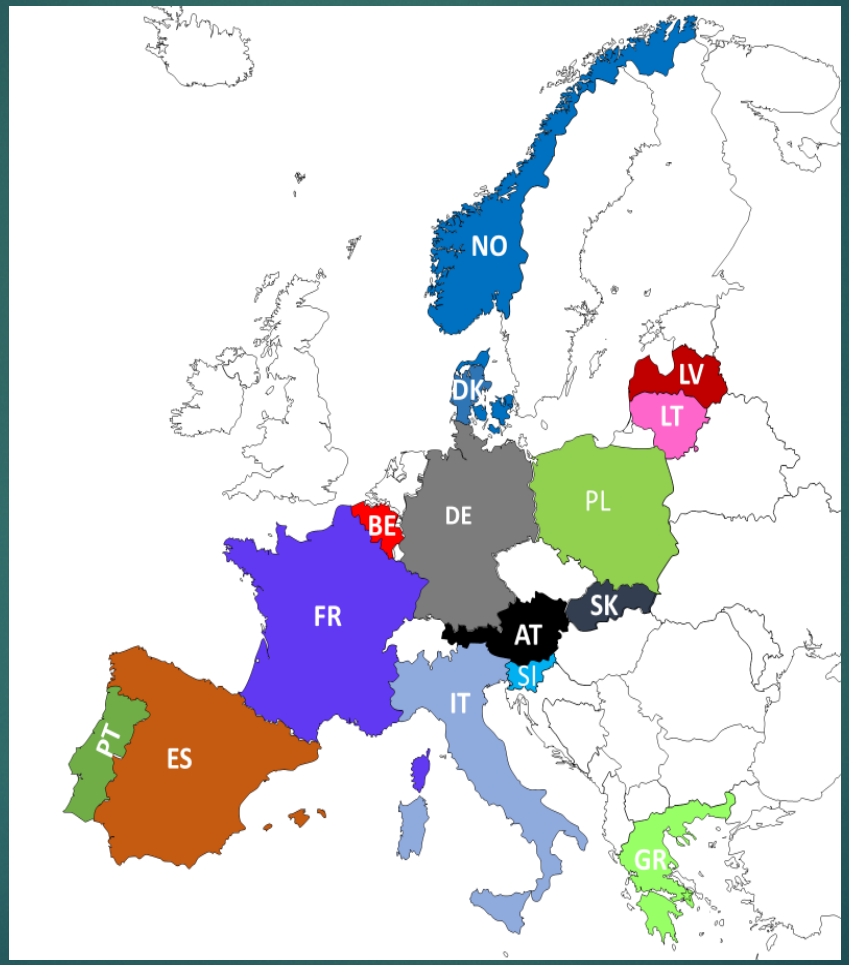
- **The laboratories competence in detection of anti-*Toxoplasma* IgG in goat serum samples**

- **The performance of the commercial kits utilized for the detection of anti-*Toxoplasma* IgG in goat serum samples**



Participating laboratories:

Fifteen Labs partecipated to this PT



Methods

Any serological test based on the detection of anti-*Toxoplasma* IgG could be used. Each laboratory should choose the test/s routinely used

Materials and Methods 1

The test material forwarded to each laboratory consisted of a panel of 3 serum samples collected from *T. gondii* experimentally infected animals

These serum samples were individually tested for anti-Toxoplasma IgG by ID Screen Toxoplasmosis Indirect Multi-species

Test interpretation

Serum sample code	Expected result	S/P
s.1	positive	66,5%
s.2	positive	90%
s.3	negative	2,4%

S/P ≤ 40%	Negative
40%<S/P<50%	Doubtful
S/P ≥50%	Positive

→ IDvet

Materials and Methods 2

Serum samples were:

- **distributed in 150 µL aliquots,**
- **preserved with 1% merthiolate solution,**
- **labelled with a code**

Materials and Methods 3

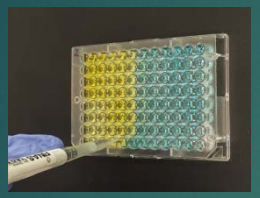
Each laboratory received a link available to NRLs on the EURLP website

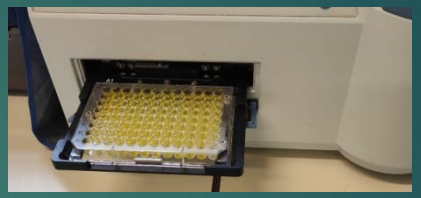
to the online survey platform Microsoft Forms, through which PT results

and other details could be submitted

Tests used by the participants

The more frequently used commercial kits are immunoenzimatic assays





- **IDVET Screen®toxoplasmosis indirect multi-species Ab**, **14 labs**, coded: A,B,C,D,E,F,G,I,J,L,M,N,O,P
- **Indirect Immunofluoresence antibody test** (IFAT), in house methods **1 lab**, coded: **E** (additional test)
- **Pigtype Toxoplasma Ab, Indical Bioscience**, **1 lab**, coded: C (additional test)
- **Immunoblotting full Antigen or P30 Antigen, 1 lab**, coded: C (in house, additional test)
- **VetLineToxoplasma ELISA Test (Novatec), 1 lab Coded :H**

Criteria for the results evaluation

The participating laboratory had to indicate the positivity or negativity of each sample

The result of the analysis of each serum sample was reported as:

Correctly classified

Incorrectly classified

Results

15/15 NRLs correctly classified as positive all serum samples

Sample Code	Expec. results	Lab. code													
		A	B	C	D	E	F	G	H	I	J	L	M	N	O	P
1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Criteria for the final PT evaluation

- **The result evaluation is qualitative,**

IgG titers will be considered as additional information to compare the performance of tests used by participants

- **Final evaluation is considered as**

“positive” if all samples are correctly classified

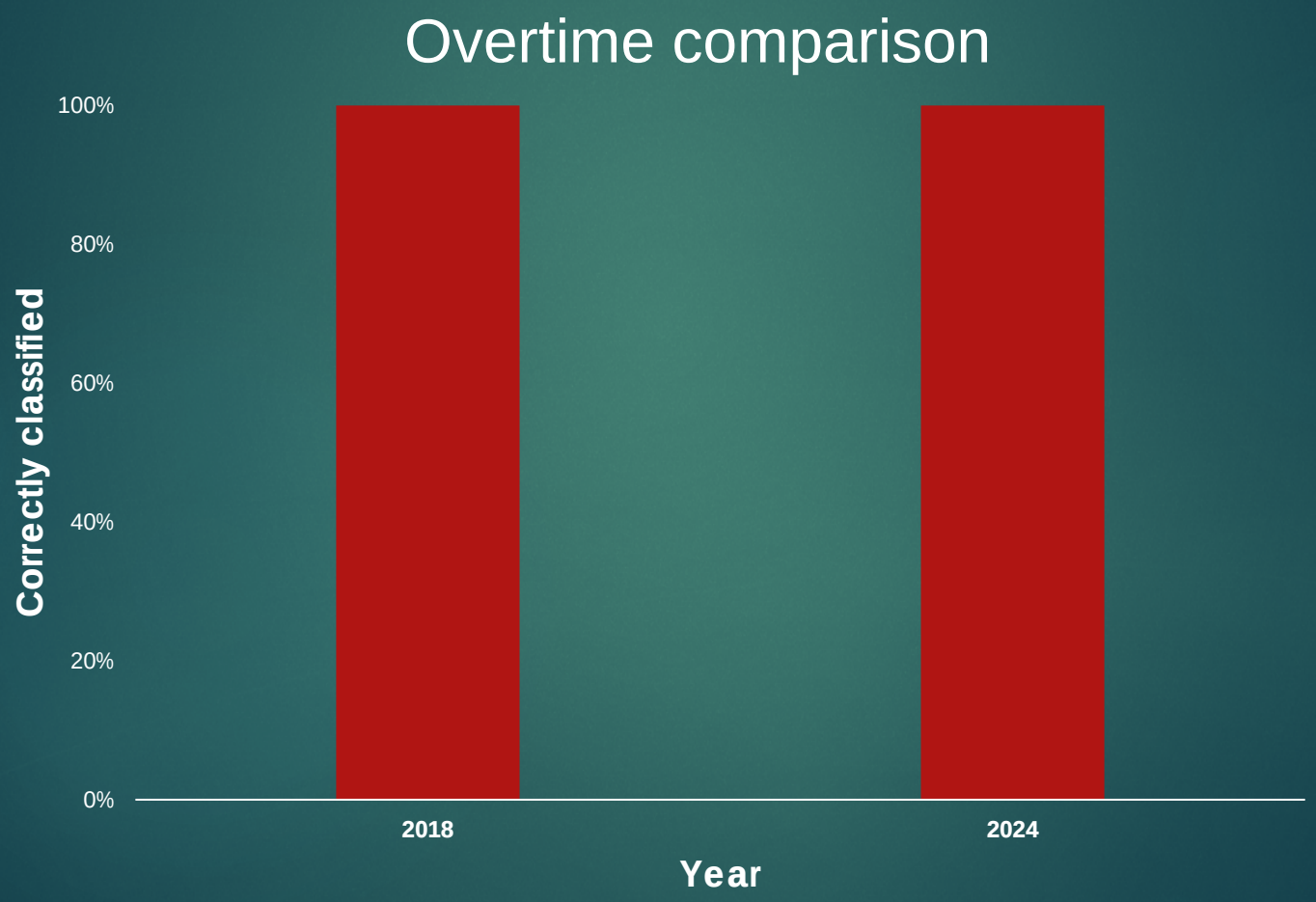
“negative” in all the other cases.

PT evaluation

Laboratory code	N° of samples correctly classified	N° of samples NOT correctly classified	Final evaluation
A	3/3	0/3	Positive
B	3/3	0/3	Positive
C	3/3	0/3	Positive
D	3/3	0/3	Positive
E	3/3	0/3	Positive
F	3/3	0/3	Positive
G	3/3	0/3	Positive
H	3/3	0/3	Positive
I	3/3	0/3	Positive
J	3/3	0/3	Positive
L	3/3	0/3	Positive
M	3/3	0/3	Positive
N	3/3	0/3	Positive
O	3/3	0/3	Positive
P	3/3	0/3	Positive

Conclusion

All laboratories (100%) correctly classified all serum samples



Thanks for your attention!