

Wishing you a very happy New Year

The EURL for rabies team wishes you, your family, friends and colleagues a happy and prosperous New Year. May 2018 turn all your dreams into reality and all your efforts into great achievements.

EURL news

News related to the EURL activities

Inter-laboratory test for rabies diagnosis: No session in 2018

During workshop for rabies 2017 in Budapest, decision was taken to change the usual rhythm of the inter-laboratory test for rabies diagnosis. There will be no FAT, RTCIT, Conventional RT-PCR, nor Real Time RT-PCR test in 2018. Depending on the years other tests might be proposed by the EURL for rabies.

Workshop for rabies 2018 will be held in Brussels

Although exact date and place remain to be confirmed at the moment, please note in your agenda that next workshop for rabies will be held in June 2018 in Brussels. A message will be sent to EU NRLs as well as concerned bordering labs to give more information when date and exact place will be determined.

Inter-laboratory test for tetracycline determination on teeth 2017: Report released and online

The report of the inter-laboratory comparison on tetracycline and age determination in red fox teeth is now online (private part only). The fourth inter-laboratory session has revealed that 92% of participating laboratories presented 100% concordant results in the tetracycline detection test. Considering the age determination of the samples, 69% of the laboratories estimated concordant age class on the whole panel. Both TTC detection and age estimation have revealed the best results ever obtained in such inter-laboratory comparison! These results demonstrate a constant high level of performance of the laboratories in the detection of tetracycline and a high improvement in age determination. For the few remaining discordant results some points are discussed in the discussion section of the report.

Rabies serology news

News related to rabies serology activities

Rabies serology inter-laboratory test 2018: Registration ongoing

According to the European regulation 2010/436/EU, Anses-Nancy organized once a year in April a rabies serology inter-laboratory test. The participation in the rabies serology proficiency allows successful laboratories to be approved by the European Commission for the serological testing in the context of the international movements of pets. Last year, seventy-two laboratories successfully passed the rabies serology inter-laboratory test. Registration for the 2018 test is now ongoing. Should your laboratory be interested in participating to it, please contact rabies.serology.eu-rl@anses.fr for information and conditions. Deadline for registration is on 2nd February 2018.

News from laboratories & International Institutions

News related to the EURL for rabies laboratory network and rabies community

EFSA annual report on outbreaks in 2016 issued

[Relayed from www.efsa.europa.eu website] "This report of the European Food Safety Authority and the European Centre for Disease Prevention and Control presents the results of the zoonoses monitoring activities carried out in 2016 in 37 European countries (28 Member States (MS) and nine non-MS). [...] The report further summarises trends and sources for bovine tuberculosis, brucellosis, trichinellosis, echinococcosis, toxoplasmosis, rabies, Q fever, West Nile fever and tularaemia." Rabies can be found in chapter 11, and is subdivided in "Surveillance and monitoring of rabies in the EU" (11.2), "Data analyses" (11.3), "Results" (11.4) and "Discussion" (11.5), followed by an interesting link section "Related projects and internet sources" (11.6).

Anses newsletter No. 41 online

Anses publishes each month an online newsletter in English covering some recent news on its activities. Main subjects in the last edition deal with: "Facilitating the marketing of biocontrol plant protection products", "Food supplements containing spirulina: the importance of choosing trustworthy supply channels", "H2020 One Health EJP Kick-off meeting", "Visit the new website of the CIQUAL French Food composition table", International conference "The impact of global change on the emergence of plant diseases and pests in Europe" and "ANSES 2016 Annual Reports". The last issue can be read online following this link.

Agenda

Forthcoming events

2018

14 Feb	Monthly Meeting: Kevin Middel on Rabies Vaccine Baiting, Peterborough (Canada)
23 Feb	VI National Conference of Consortium Against Rabies (CARCON) 2018, Patna (India)
24 Feb-04 March	2018 Paris International Agricultural Show, Paris (France)
01-04 March	18th International Congress on Infectious Diseases (ICID), Buenos Aires (Argentina)
20-22 March	6e Better Foods for Better Health Séminaire, Veyrier-du-Lac (France)
20-22 March	Regional Workshop on implementation of OIE Terrestrial Animal Health Standards, Nairobi (Kenya)
23-25 March	10th Annual International Congress of Antibodies-2018 (ICA-2018), Washington (USA)
26-27 March	International Veterinary Vaccinology Network meeting, Nairobi (Kenya)
10-12 April	OIE Sub-Regional Conference on rabies in southern Africa, Windhoek (Namibia)
19-20 April	4th Global Summit on Virology and Vaccines Conference, Valencia (Spain)
23-25 April	4th MEEREB Meeting, Veyrier-du-Lac (France)
24-26 April	OIE Sub-Regional Conference on rabies in southern Africa, Windhoek (Namibia)
May	Partner for rabies prevention, Wolfsberg (Switzerland)
02-04 May	7th Northern European Conference on Travel Medicine (NECTM7), Stockholm (Sweden)
14-15 May	ICV 2018 : 20th International Conference on Veterinary, London (United Kingdom)
June	Training of national OIE Focal Points for Animal Disease Notification on WAHIS, Paris (France)
June	10 th Workshop for rabies EU NRL, Brussels (Belgium)
22-25 June	5th International One Health Congress, Saskatoon (Canada)
02-04 July	10th International Virology Congress, Vienna, Austria
10-14 Sept	Pan-African Rabies Control Network (PARACON) meeting, Cape Town (South Africa)
Oct	RITA XXIX Conference, Queretaro (Mexico)

Rabies notifications

10 Jan 2018 ★ Israel

Rabies (03): Asia (Israel) wild, domestic, OIE

09 Jan 2018 ★ Israel

Rabies (02): Asia (Israel) wild, domestic, spread, control measures

07 Jan 2018 ★ Morocco

Rage, canine, humaine - Maroc (01): (Tanger-Tétouan-Al Hoceima) enfant mordu par un chat

04 Jan 2018 ★ Israel

Rabies (01): Asia (Israel) wildlife, livestock, human exp, spread



04 Jan 2018 ★ Russia

Зарубежное эпидобозрение - бешенство (подозрение на заражение) - Израиль

27 Dec 2017 ★ Egypt, Israel

Rabies (51): Africa (Egypt) Asia (Israel) animal, domestic, wildlife

25 Dec 2017 ★ Egypt

Rabies, Egypt (Follow-up report No. 4)

20 Dec 2017 ★ Russia

Бешенство (животные) - Россия (Ростовская область)

17 Dec 2017 ★ Egypt

Rabies, Egypt, (Follow-up report No. 3)

05 Dec 2017 ★ Israel

Rabies (50): Asia (Israel) wildlife, human exp, spread, alert
Rabies - Israel (07): wildlife, human exposure, spread, alert

02 Dec 2017 ★ Israel

Rabies (49): Asia (Israel) wildlife, human exp, control, alert
Rabies - Israel (06): animal, infection, updates / معلومات تحديثية عن، (6) بلواني -الكبداء

01 Dec 2017 ★ Israel

Rabies - Israel (05): animal, infection / صلابقوان، (5) بلواني -الكبداء

30 Nov 2017 ★ Algeria

Rabies - Algeria (06): (Bejaia) bovine / بوي (بجاية): (6) الواز - الكبداء
Rage, bovine - Algérie (06): (Béjaia) alerte

Ec.europa.eu website rabies notifications

(Total cases of rabies reported in Europe from 01/01/2018 to 08/01/2018)

https://ec.europa.eu/food/sites/food/files/animals/docs/ad_adns_outbreaks-per-disease.pdf (This link is also valid for other diseases).

Rabies publications

A selection of publications on rabies, diagnosis, virology and vaccinology.

Animal and human rabies

Assessing the risk of rabies re-introduction into the United Kingdom from Eastern European countries

Berriman, A. D. C., et al. 2017. Microbial Risk Analysis.
<http://www.sciencedirect.com/science/article/pii/S2352352217301111>

Bat rabies surveillance in France: first report of unusual mortality among serotine bats

Picard-Meyer, E., et al. 2017. BMC veterinary research 13(1), 387.
<https://bmcvetres.biomedcentral.com/articles/10.1186/s12917-017-1303-1>

Distribution of bat-borne viruses and environment patterns

Afelt, A., et al. 2018. Infection, Genetics and Evolution 58, 181-91.
<http://www.sciencedirect.com/science/article/pii/S1567134817304355>

Editorial: Towards Elimination of Dog Mediated Human Rabies

Dürr, S., et al. 2017. Frontiers in Veterinary Science 4(142).
<https://www.frontiersin.org/article/10.3389/fvets.2017.00142>

Rabies

Fooks, A. R., et al. 2017. Nat Rev Dis Primers 3, 17091.
<https://www.nature.com/articles/nrdp201791>



Rabies elimination research: juxtaposing optimism, pragmatism and realism

Cleaveland, S., et al. 2017. Proceedings of the Royal Society B: Biological Sciences 284(1869).
<http://rspb.royalsocietypublishing.org/content/royprsb/284/1869/20171880.full.pdf>

Diagnosis, virology and vaccinology

Addition of C3d-P28 adjuvant to a rabies DNA vaccine encoding the G5 linear epitope enhances the humoral immune response and confers protection

Galvez-Romero, G., et al. 2017. Vaccine.
<https://www.sciencedirect.com/science/article/pii/S0264410X17316110>

Antigenic site changes in the rabies virus glycoprotein dictates functionality and neutralizing capability against divergent lyssaviruses

Evans, J. S., et al. 2018. Journal of General Virology.
<http://jgv.microbiologyresearch.org/content/journal/jgv/10.1099/jgv.0.000998.v1>

An assessment of shedding with the oral rabies virus vaccine strain SPBN GASGAS in target and non-target species

Vos, A., et al. 2018. Vaccine.
<https://www.sciencedirect.com/science/article/pii/S0264410X1731839X>

Canine vaccination: Bridging the rabies knowledge gap

Baghi, H. B., et al. 2017. Vaccine.
<http://www.sciencedirect.com/science/article/pii/S0264410X1731575X>

Development and evaluation of an anti-rabies virus phosphoprotein-specific monoclonal antibody for detection of rabies neutralizing antibodies using RFFIT

Um, J., et al. 2017. PLoS Neglected Tropical Diseases 11(12), e0006084.
<http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0006084>

Development of a genotype-by-sequencing immunogenetic assay as exemplified by screening for variation in red fox with and without endemic rabies exposure

Donaldson, M. E., et al. Ecology and Evolution, n/a-n/a.
<http://onlinelibrary.wiley.com/doi/10.1002/ece3.3583/abstract>

Development of molecular and cellular tools to decipher the type I IFN pathway of the common vampire bat

Sarkis, S., et al. 2018. Developmental & Comparative Immunology 81(Supplement C), 1-7.
<http://www.sciencedirect.com/science/article/pii/S0145305X17303208>

The effect of selected molecules influencing the detrimental host immune response on a course of rabies virus infection in a murine model

Smreczak, M., et al. 2017. Vaccine.
<http://www.sciencedirect.com/science/article/pii/S0264410X1731527X>

Genetic analysis of a rabies virus host shift event reveals within-host viral dynamics in a new host

Marston, D. A., et al. 2017. Virus Evol 3(2), vex038.
<http://epubs.surrey.ac.uk/845247/1/vex038.pdf>

Immunization with recombinant rabies virus expressing Interleukin-18 exhibits enhanced immunogenicity and protection in mice

Gai, W., et al. 2017. Oncotarget 8(53), 91505-15.
[http://www.oncotarget.com/index.php?journal=oncotarget&page=article&op=view&path\[\]=21065&path\[\]=67076](http://www.oncotarget.com/index.php?journal=oncotarget&page=article&op=view&path[]=21065&path[]=67076)

The impact of host genetic diversity on virus evolution and emergence

Rodriguez-Nevedo, C., et al. 2017. Ecol Lett.
<http://onlinelibrary.wiley.com/doi/10.1111/ele.12890/abstract>

Indirect ELISA for the detection of rabies virus antibodies in dog sera

Yang, D. K., et al. 2017. Journal of Bacteriology and Virology 47(3), 148-55.
<https://synapse.koreamed.org/DOIx.php?id=10.4167/jbv.2017.47.3.148>



Is rabies transmissible through milk?

Kaur, R. 2017. *Global Scientific Journals* 5(11), 105-11.

<http://www.globalscientificjournal.com/researchpaper/IS-RABIES-TRANSMISSABLE-THROUGH-MILK.pdf>

Longitudinal survey of two serotine bat (*Eptesicus serotinus*) maternity colonies exposed to EBLV-1 (European Bat Lyssavirus type 1): Assessment of survival and serological status variations using capture-recapture models

Robardet, E., et al. 2017. *PLoS Negl Trop Dis* 11(11), e0006048.

<http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0006048>

The lyssavirus host-specificity conundrum-rabies virus-the exception not the rule

Marston, D. A., et al. 2017. *Current Opinion in Virology* 28, 68-73.

<http://www.sciencedirect.com/science/article/pii/S1879625717301013>

Molecular Epidemiology and Evolution of European Bat Lyssavirus 2

McElhinney, L., et al. 2018. *International Journal of Molecular Sciences* 19(1), 156.

<http://www.mdpi.com/1422-0067/19/1/156>

A phase II randomized study to determine the safety and immunogenicity of the novel PIKA rabies vaccine containing the PIKA adjuvant using an accelerated regimen

Kalimuddin, S., et al. *Vaccine*.

<https://www.sciencedirect.com/science/article/pii/S0264410X17315268>

Prokaryotic expression and monoclonal antibody preparation of rabies virus phosphoprotein

Hu, J., et al. 2017. *Jundishapur Journal of Microbiology* 10(8).

<http://jjmicrobiol.com/en/articles/13022.html>

Regulation of NF- κ B by the p105-ABIN2-TPL2 complex and RelA β 3 during rabies virus infection

Besson, B., et al. 2017. *PLoS Pathogens* 13(10).

<http://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1006697>

Review on Rabies and Vaccines

Abraham, S., et al. 2017. *Int. J. Curr. Microbiol. App. Sci.* 6(12), 2064-85.

<https://www.ijcmas.com/abstractview.php?ID=5680&vol=6-12-2017&SNo=237#citeid>

A thermostable messenger RNA based vaccine against rabies

Stitz, L., et al. 2017. *PLoS Negl Trop Dis* 11(12), e0006108.

<http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0006108>

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European Reference Laboratory for Rabies
French agency for food, environmental and occupational health safety
Anses-Nancy Laboratory for Rabies and Wildlife
Technopôle Agricole et Vétérinaire, Bâtiment H,
Domaine de Pixérécourt,
CS 40009,
F-54220 Malzéville – France
<https://eurl-rabies.anses.fr/>

