

Publications Virologen 2016-2018

2016

Blomström, AL., Scharin, I., Stenberg, H., Figueiredo, J., Nhambirre, O., Abilio, AP., Berg, M., and Fafetine J. (2016) Seroprevalence of Rift Valley fever virus in sheep and goats in Zambezi, Mozambique. *Infection Ecology and Epidemiology*, 6: 31343-
<http://dx.doi.org/10.4302/iee.v6.31343>.

Blomström, AL., Fossum, C., Wallgren, P., and Berg, M. (2016) Viral metagenomic analysis displays the co-infection situation in healthy and PMWS affected pigs. *PLoS ONE* 11(12):e0166863. doi:10.1371/journal.pone.0166863.

Blomström AL, Lalander C, Komakech AJ, Vinnerås B, Boqvist S. A metagenomic analysis displays the diverse microbial community of a vermicomposting system in Uganda. *Infect Ecol Epidemiol*. 2016 Nov 8;6:32453.

Cholleti, H., Hayer, J., Abilio, AP., Chenisso Mulandane, F., Verner-Carlsson, J., Falk, K., Fafetine, JM., Berg, M. and Blomström, A-L. (2016) Discovery of Novel Viruses in Mosquitoes from the Zambezi Valley of Mozambique. *PLoS ONE* 11(9):e0162751. doi:10.1371/journal.pone.0162751.

Cuevas-Romero, S., Rivera-Benitez, JF., Hernandez-Baumgarten, E., Hernandez-Jauregui, P., Vega, M., Blomström, A-L., Berg, M., and Baule, C. (2016) Cloning, expression and characterization of potential immunogenic recombinant hemagglutinin-neuraminidase protein of Porcine rubulavirus. *Protein Expression and Purification* 128, 1-7.

Cuevas-Romero, S., Rivera-Benitez, JF., Blomström, AL., Ramliden, M., Hernández-Baumgarten, E., Hernández-Jáuregui, P., Ramírez-Mendoza, H., Berg, M. (2016) Molecular characterisation of Porcine rubulavirus (PorPV) isolates from different outbreaks in Mexico. *Virus Genes* 52, 81-90.

Engel, P., Kwong, W., McFrederick, Q., Anderson, K.E., Baribeau, S., Chandler, J.A., Cornman, S., Dainat, J., de Miranda, J., Doublet, V., Emery, O., Evans, J., Farinelli, L., Flenniken, M., Granberg, F., Grasis, J., Gauthier, L., Hayer, J., Koch, H., Kocher, S., Martinson, V., Moran, N., Munoz-Torres, M., Newton, I., Paxton, R., Powell, J., Sadd, B., Schmid- Hempel, P., Schmid- Hempel, R., Song, S.J., Schwarz, R., vanEngelsdorp, D. & Dainat, B. 2016. The bee microbiome: impact on bee health and model for evolution and ecology of host-microbe interactions. *mBio* 7(2):e02164-15. doi:10.1128/mBio.02164-15.

Granberg F, Torrsei C, Oggiano A, Malmberg M, Iscaro C, De Mia GM, Belák, S. Complete Genome Sequence of an African Swine Fever Virus Isolate from Sardinia, Italy. *Genome Announcements*. 2016 Nov 17;4(6) DOI: 10.1128/genomeA.01220-16.

Granberg F, Bálint Á, Belák S.: Novel technologies applied to the nucleotide sequencing and comparative sequence analysis of the genomes of infectious agents in veterinary medicine. *Rev Sci Tech*. 2016 Apr;35(1):15-42. doi: 10.20506/rst.35.1.2415.

Karlsson, OE., Larsson, J., Hayer, J., Berg, M., Jacobson, M. (2016) The intestinal eukaryotic virome in healthy and diarrhoeic neonatal piglets. PLoS ONE DOI:10.1371/journal.pone.0151481. 1-16.

Khaliq Z, Leijon M, Belák S, Komorowski J: Identification of combinational and singular genomic signatures of host adaptation in influenza H1N1 and H3N2 subtypes. BMC Genomics, 2016 Jul 29;17:529. doi: 10.1186/s12864-016-2919-4.

Liu L, Luo Y, Accensi F, Ganges L, Rodríguez F, Shan H, Ståhl K, Qiu HJ, Belák S.: Pre-Clinical Evaluation of a Real-Time PCR Assay on a Portable Instrument as a Possible Field Diagnostic Tool: Experiences from the Testing of Clinical Samples for African and Classical Swine Fever Viruses. Transboundary Emerging Diseases, 2016 Jun 16. doi: 10.1111/tbed.12538.

Murcia PR, Palmarini M, Belák S.; Introduction: Potential applications of pathogen genomics. Rev Sci Tech. 2016 Apr;35(1):13-23. doi: 10.20506/rst.35.1.2414.

Olasz F, Dénes B, Bálint Á, Magyar T, Belák S, Zádori Z.: Immunological and biochemical characterisation of 7ap, a short protein translated from an alternative frame of ORF7 of PRRSV. Acta Vet Hung. 2016 Jun;64(2):273-87. doi: 10.1556/004.2016.027.

Osbjer, K., Berg, M., Sokerya, S., Cheng, K., San, S., Davun, H., Magnusson, U., Olsen, B., Zohari, S. (2016) Influenza A virus in backyard pigs and poultry in rural Cambodia. Transboundary and Emerging Diseases, DOI: 10.1111/tbed.12547.

Roth A, Lin J, Magnius L, Karlsson M, Belák S, Widén F, Norder H.: Markers for Ongoing or Previous Hepatitis E Virus Infection Are as Common in Wild Ungulates as in Humans in Sweden. Viruses. 2016 Sep 19;8(9). pii: E259.

Torsson, E., Kgotlele, T., Berg, M., Mtui-Malamsha, N., S. Swai, E., Johansson Wensman, J., Misinzo, G. (2016) History and current situation of peste des petits ruminants virus in Tanzania. Infection Ecology and Epidemiology 2016, 6: 32701 - <http://dx.doi.org/10.3402/iee.v6.32701>.

Van Borm, S., Wang, J., Granberg, F. & Colling A. 2016. Towards validation and quality assurance of next-generation sequencing (NGS) workflows in veterinary infection biology. Scientific and Technical Review (OIE) 35 (1).

Wensman, JJ, Leukowius, K., Yan. J., Berg, A.-L., Ludwig H., Bode, L., Belák, S., Landegren, U. and Berg M. (2016) Visualization of Borna disease virus and its interactions with host proteins using in situ proximity ligation assay. British Journal of Virology 3 (1): 11-23.

2017

Blomström, AL., Oma, V., Khatri, M., Hansen, HH., Stokstad M., Berg M., and Myrmel M. (2017). Genome of a bovine rhinitis B virus identified in cattle in Sweden. Genome Announcements 5, Issue 19 e00172-17.

Brandão, PE., Taniwaki, SA., Berg, M., and Hora AS. (2017) Complete genome of Avian coronavirus vaccine strains Ma5 and BR-I. *Genome Announcements* 5:e00201-17. <https://doi.org/10.1128/genomeA.00201-17>.

Dietrich I, Shi X, McFarlane M, Watson M, Blomström AL, Skelton JK, Kohl A, Elliott RM, Schnettler E. The Antiviral RNAi Response in Vector and Non-vector Cells against Orthobunyaviruses. *PLoS Negl Trop Dis.* 2017 Jan 6;11(1):e0005272.

Goecke NB, Hjulsager C.K., Kongsted H., Boye M., Rasmussen S., Granberg F, Fischer T.K., Midgley S.E., Rasmussen L.D., Angen Ø., Nielsen JP, Jorsal S.E. & Larsen LE. 2017. No evidence of enteric viral involvement in the new neonatal porcine diarrhea syndrome in Danish pigs. *BMC Vet Res.* 2017 Nov 7;13(1):315. doi: 10.1186/s12917-017-1239-5.

Myrmel, M., Sunniva Oma, V., Khatri, M., Hansen, HH., Stokstad, M., Berg, M., Blomström, AL. (2017) Single primer isothermal amplification (SPIA) combined with next generation sequencing provides complete bovine coronavirus genome coverage and higher sequence depth compared to sequence-independent single primer amplification (SISPA). *PLoS ONE* 12 (11): e0187780. <https://doi.org/10.1371/journal.pone.0187780>.

Moiane, B., Mapaco, L., Thomson, P., Berg, M., Albihn, A., Fafetine, J. (2017) High seroprevalence of Rift Valley Fever phlebovirus in domestic ruminants and African buffaloes in Mozambique shows need for intensified surveillance. *Infection Ecology and Epidemiology* Vol 7, 1416248. <https://doi.org/101080/20008686.2017.1416248>.

Malmberg M, Rubio-Guerri C, Hayer J, García-Párraga D, Nieto-Pelegrín E, Melero M, Álvaro T, Valls M, Sánchez-Vizcaíno JM, Belák S, Granberg F. Phylogenomic analysis of the complete sequence of a gastroenteritis-associated cetacean adenovirus (bottlenose dolphin adenovirus 1) reveals a high degree of genetic divergence. *Infection Genetics and Evolution.* 2017 Sep;53:47-55 DOI: 10.1016/j.meegid.2017.05.008

Mwaiswelo R, Ngasala1 B, Gil PG, Malmberg M, Jovel I, Xu W, Premji Z, Mmbando BP, Björkman A, Mårtensson A. Sustained high cure rate of artemether-lumefantrine against uncomplicated Plasmodium falciparum malaria after 8 years of its wide-scale use in Bagamoyo District, Tanzania. *American Journal of Tropical Medicine & Hygiene.* 2017 Aug;97(2):526-532 DOI: 10.4269/ajtmh.16-0780

Olasz F, Dénes B, Bálint Á, Magyar T, Belák S, Zádori Z: Characterisation of the nucleic acid binding features of the PRRSV 7ap and its ability to induce antinuclear antibodies. *Acta Vet Hung.* 2017 Mar;65(1):124-134. doi: 10.1556/004.2017.013.

Pennisi MG, Hofmann-Lehmann R, Radford AD, Tasker S, Belák S, Addie DD, Boucraut-Baralon C, Egberink H, Frymus T, Gruffydd-Jones T, Hartmann K, Horzinek MC, Hosie MJ, Lloret A, Lutz H, Marsilio F, Thiry E, Trynen U, Möstl K.: Anaplasma, Ehrlichia and Rickettsia species infections in cats: European guidelines from the ABCD on prevention and management. *J Feline Med Surg.* 2017 May;19(5):542-548. doi: 10.1177/1098612X17706462.

Süli T, Halas M, Benyeda Z, Boda R, Belák S, Martínez-Avilés M, Fernández-Carrión E, Sánchez-Vizcaíno JM.: Body temperature and motion: Evaluation of an online monitoring system in pigs challenged with Porcine Reproductive & Respiratory Syndrome Virus. *Res Vet Sci.* 2017 Oct;114:482-488. doi: 10.1016/j.rvsc.2017.09.021. Epub 2017 Sep 28.

Torsson E, Berg M, Misinzo G, Herbe I, Kgotlele T, Päärti M, Roos N, Blomström AL, Ståhl K, Johansson Wensman J. Seroprevalence and risk factors for peste des petits ruminants and selected differential diagnosis in sheep and goats in Tanzania. *Infect Ecol Epidemiol.* 2017 Sep 8;7(1):1368336. doi: 10.1080/20008686.2017.1368336.

Torsson, E., Berg, M., Blomström, A-L., Kgotlele, T., Misinzo, G., Munir, M., Ståhl, K., and Johansson Wensman, J. (2017) Seroprevalence and risk factors for Peste des petits ruminants and selected differential diagnosis in sheep and goats in Tanzania. *Infection Ecology and Epidemiology*, Vol 7, 1368336. <http://dx.doi.org/10.1080/20008686.2017.1368336>.

2018-19

Blomström, AL., Ye, X., Fossum, C., Wallgren P., and Berg, M (2018) Characterisation of the virome of tonsils from conventional pigs and from specific pathogen-free pigs. *Viruses*, 10, 382; doi:10.3390/v10070382.

Brandão, PE., Hora, AS., Silva, SOS., Berg, M., and Taniwaki SA. (2018) The complete genome of Avian coronavirus D274 strain. *Microbiology Resource Announcements*. *Microbiology Resource Announcements* Vol 7, (8), <https://doi.org/10.1128/MRA.01003-18>.

Balinandi S, Mugisha L, Johnson B, Kabasa W, Nakayiki T, Bakkes DK, Lutwama JJ, Chitimia-Dobler L, Malmberg M. General and local morphological anomalies in Amblyomma lepidum and Rhipicephalus decoloratus (Acari: Ixodidae) infesting cattle in Uganda. *Journal of Medical Entomology* xx,1-5, doi:10.1093/jme/tjy221.

Cholleti, H., Hayer, J., Fafetine, JM., Berg, M. and Blomström, A-L. (2018) Genetic characterization of a novel picorna-like virus in *Culex* spp. mosquitoes from Mozambique. *Virology Journal* 15:71 <https://doi.org/10.1186/s12985-018-0981-z>

Cholleti, H., Hayer, J., Chanissso Mulandane, F., Verner-Carlsson, J., Falk, KI, Fafetine, JM., Berg, M., and Blomström A-L. (2018) Viral metagenomics reveals the presence of highly divergent quaranjavirus in *Rhipicephalus* ticks from Mozambique. *Infection Ecology and Epidemiology*, <https://doi.org/10.1080/20008686.2018.1478585>.

Cholleti, H., Berg, M., Hayer, J. And Blomström AL (2018) Vector-borne viruses and their detection by viral metagenomics. *Infection Ecology and Epidemiology*, <https://doi.org/10.1080/20008686.2018.1553465>.

Cárdenas CA, González-Aravena M, Font A, Hestetun JT, Hajdu E, Trefault E, Malmberg M, Bongcam-Rudloff E. High similarity in the microbiota of cold-water sponges of the Genus *Mycale* from two different geographical areas. *PeerJ.* 2018 Jun 7;6:e4935. DOI: 10.7717/peerj.4935.

Cavaleiro Pinto, M., Rondahl, V., Berg, M., Ågren, E., Carvalheira, J., Thompson, G. and Johansson Wensman J. (2019) Detection and phylogenetic analysis of parrot bornavirus 4 isolated from a Swedish Blue-winged macaw (*Primolius maracana*) with unusual nonsuppurative myositis. *Infection Ecology and Epidemiology*, VOL. 9, 1547097
<https://doi.org/10.1080/20008686.2018.1547097>

Howson ELA, Soldan A, Webster K, Beer M, Zientara S, Belák S, Sanchez-Vizcaino JM, Van Borm S, King DP, Fowler VL: Technological advances in veterinary diagnostics: opportunities to deploy rapid decentralised tests to detect pathogens affecting livestock. *Rev Sci Tech*. 2017 Aug;36(2):479-498. doi: 10.20506/rst.36.2.2668.

Kgotlele, T., Chota, A., Chubwa, C.C. et al., Torsson E. et al. Detection of peste des petits ruminants and concurrent secondary diseases in sheep and goats in Ngorongoro district, Tanzania. *Comp Clin Pathol* (2018). <https://doi.org/10.1007/s00580-018-2848-5>

Mwaiswelo, B Ngasala, I Jovel, W Xu, E Larson, M Malmberg, JP Gil, Z Premji, BP Mmbando, A Mårtensson, Prevalence of and risk factors associated with PCR-determined *Plasmodium falciparum* parasitemia on day 3 after initiation of artemether-lumefantrine treatment for uncomplicated malaria in Bagamoyo district, Tanzania, Accepted 16th Dec 2018

Mészáros I, Olasz F, Kádár-Hürkacz E, Bálint Á, Hornyák Á, Belák S, Zádori Z.: Cellular localisation of the proteins of region 3 of feline enteric coronavirus. *Acta Vet Hung*. 2018 Sep;66(3):493-508. doi: 10.1556/004.2018.044.

Torsson, E., Abubakar, M., Alvåsen, K., Manzoor, S., Roos, N., Kgotlele, T., Bin Zahur, A., Misinzo, G., Berg, M., and Johansson Wensman, J. (2019) Filter paper is a simple and cost-effective transport medium for serological diagnosis of Peste des petits ruminants. *Small Ruminant Research* 170, 154-159. <https://doi.org/10.1016/j.smallrumres.2018.11.023>.

Thaduri S., Locke B., Granberg F. & de Miranda, J.R. 2018. Temporal changes in the viromes of Swedish Varroa-resistant and Varroa-susceptible honeybee populations. *PLoS One* 13(12):e0206938

Tasker S, Hofmann-Lehmann R, Belák S, Frymus T, Addie DD, Pennisi MG, Boucraut-Baralon C, Egberink H, Hartmann K, Hosie MJ, Lloret A, Marsilio F, Radford AD, Thiry E, Tryuen U, Möstl K.: Haemoplasmosis in cats: European guidelines from the ABCD on prevention and management. *J Feline Med Surg*. 2018 Mar;20(3):256-261. doi: 10.1177/1098612X18758594.

Ye, X., Berg, M., Fossum, C., Wallgren P. and Blomström AL (2018) Detection and genetic characterisation of Porcine Circovirus 3 from pigs in Sweden. *Virus Genes* [10.1007/s11262-018-1553-4](https://doi.org/10.1007/s11262-018-1553-4).

Öhlund P, Lundén H, Blomström AL. Insect-specific virus evolution and potential effects on vector competence. *Virus Genes*. 2019 Jan 10. doi: 10.1007/s11262-018-01629-9. [Epub ahead of print]

Populärvetenskap

Moreno López, J. and Berg, M. (2016). Från klassisk veterinär virologi till hybrid-DNA-teknik -Tumörvirusforskningen på SLU. Svensk Veterinärtidning 12, 11-17.

Berg, M., Blomström, AL., Malmberg, M., and Hayer J. (2018). Forskningssamarbete mellan SLU och University of Sao Paulo. Svensk Veterinärtidning 2, 2018, 17-21.

Torsson, E., Dahl, S., and Berg M. (2018). Felint morbillivirus - en möjlig orsak till kronisk njursvikt hos katt? Svensk Veterinärtidning 6, 27-29.

Berg M. (2018). Rapport från senaste Internationella Kongressen i Veterinärvirologi i Wien. Svensk Veterinärtidning. <https://www.svenskveterinartidning.se/2018/12/17/rapport-fran-senaste-internationella-kongressen-i-veterinarvirologi-i-wien/>