



Research output 2020 – «One Health» Zoonoses

Aalto-Araneda, M., Pöntinen, A., Pesonen, M., Corander, J., Markkula, A., Tasara, T., Stephan, R., Korkeala, H. (2020). A high-throughput microbial growth data assembly and analysis protocol to elucidate the strain variability of *Listeria monocytogenes* salt stress. Applied and Environmental Microbiology 2,86(6). pii: e02378-19. doi: 10.1128/AEM.02378-19

Abdybekova, A.M., Zhang, Z., Sultanov, A.A., Abdibayeva, A.A., Zhaksylykova, A.A., Junisbayeva, S.M., Aubakirov, M.Z., Akhmetova, G.D. and Torgerson, P.R., 2020. Genotypes of Echinococcus isolated from domestic livestock in Kazakhstan. Journal of Helminthology, Volume 94 2020. e69 DOI: doi: 10.1017/S0022149X19000634

Alban, L., Häslер, B., Van Schaik, G. and Ruegg, S., 2020. Risk-based surveillance for meat-borne parasites. Experimental Parasitology, 2020 Jan;208 p.107808. doi: 10.1016/j.exppara.2019.107808

Asare, P.T., Zurfluh, K., Greppi, A., Lynch, D., Schwab, C., Stephan, R., Lacroix, C. (2020). Reuterin demonstrates potent antimicrobial activity against a broad panel of human and poultry meat *Campylobacter* spp. isolates. Microorganisms 8(1), 78;
<https://doi.org/10.3390/microorganisms8010078>

Bakker, J., W., Loy, D., E., Takken, W., Hahn, B., H., Verhulst, N., O. (2020): Attraction of mosquitoes to primate odours and implications for zoonotic Plasmodium transmission. Medical and Veterinary Entomology 34, 17-26 <https://doi.org/10.1111/mve.12402>

Campero, L., M., Schott, F., Gottstein, B., Deplazes, P., Sidler, X., Basso,W. (2020): Detection of antibodies to Toxoplasma gondii in oral fluid from pigs. International Journal for Parasitology 50, 349-355 <https://doi.org/10.1016/j.ijpara.2019.11.002>

Cernikova, L., Faso, C., Hehl, A., B. (2020): Phosphoinositide-binding proteins mark, shape and functionally modulate highly-diverged endocytic compartments in the parasitic protist Giardia lamblia. PLoS Pathog 16(2): e1008317 <http://doi.org/10.1371/journal.ppat.1008317>

Díaz-Sánchez AA, B Corona-González, ML Meli, L Roblejo-Arias, O Fonseca-Rodríguez, AP Castillo, EV Cañizares, EL Rivero, R Hofmann-Lehmann. 2020. Molecular diagnosis, prevalence and importance of zoonotic vector-borne pathogens in Cuban shelter dogs – A preliminary study. Pathogens 9:E901. doi: 10.3390/pathogens9110901. PMID: 33126690



Dusek, D., Vince, A., Kurelac, I., Papic, N., Viskovic, K., Deplazes, P., Beck, R. (2020): Human Alveolar Echinococcosis, Croatia. Emerging Infectious Diseases Vol. 26 No. 2
<https://dx.doi.org/10.3201/eid2602.181826>

Egli, A., Koch, D., Danuser, J., Hendriksen, R.S., Driesen, S., Coman Schmid, D., Neher, R., Mäusezahl, M., Seth-Smith, H.M.B., Bloemberg, G., Tschudin-Sutter, S., Endimiani, A., Perreten, V., Greub, G., Schrenzel, J., Stephan, R. One Health meets sequencing. Microbes and Infection 22(1):1-7. doi: 10.1016/j.micinf.2019.07.004

Eicher, C., Ruiz Subira, A., Corti, S., Meusburger, A., Stephan, R., Guldmann, C. (2020). Growth potential of *Listeria monocytogenes* in three different salmon products. Foods 9, 1048.
<https://doi.org/10.3390/foods9081048>

Fritschi J, Marti H, Seth-Smith HMB, Aeby S, Greub G, Meli ML, Hofmann-Lehmann R, Mühldorfer K, Stokar-Regenscheit N, Wiederkehr D, Pilo P, Van Den Broek PR, Borel N. Prevalence and phylogeny of Chlamydiae and hemotropic mycoplasma species in captive and free-living bats. BMC Microbiol. 2020 Jun 26;20(1):182. doi.org/10.1186/s12866-020-01872-x. PMID: 3259094

Ghielmetti, Giovanni; Hilbe, Monika; Friedel, Ute; Menegatti, Chiara; Bacciarini, Luca; Stephan, Roger; Bloemberg, Guido (2020). Mycobacterial infections in wild boars (*Sus scrofa*) from Southern Switzerland: Diagnostic improvements, epidemiological situation and zoonotic potential. Transboundary and Emerging Diseases 2020 Jul 8. doi: 10.1111/tbed.13717

Glavinic, U., Varga, J., Paslaru, A. I., Hauri, J., Torgerson, P., Schaffner, F., Veronesi, E. (2020): Assessing the role of two populations of *Aedes japonicus japonicus* for Zika virus transmission under a constant and a fluctuating temperature regime. Parasites & Vectors. 2020. 13 :479
<https://doi.org/10.1186/s13071-020-04361-2>

Grimm, J., Nell, J., Hillenbrandz, A., Henne-Brunns, D., Schmidberger, J., Kratzer, W., Gruener, B., Graeter, T., Reinehr, M., Weber, A., Deplazes, P., Möller, P., Beck, A., Barth, T., F., E. (2020): Immunohistological detection of small particles of *Echinococcus multilocularis* and *Echinococcus granulosus* in lymph nodes is associated with enlarged lymph nodes in alveolar and cystic echinococcosis. PLoS Negl Trop Dis 14(12) <https://doi.org/10.1371/journal.pntd.0008921>

Guggisberg, A., Alvarez Rojas, C., A., Kronenberg, P., A., Miranda, N., Deplazes, P. (2020): A Sensitive, One-Way Sequential Sieving Method to Isolate Helminths' Eggs and Protozoal Oocysts from Lettuce for Genetic Identification. Pathogens, 9(8):E624

<https://doi.org/10.3390/pathogens9080624>



Joekel, D., E., Nur, S., Monné Rodriguez, J., Kronenberg, P., A., Kipar, A., Leibundgut-Landmann, S., Deplazes, P. (2020) : Agranulocytosis leads to intestinal *Echinococcus multilocularis* oncosphere invasion and hepatic metacestode development in naturally resistant Wistar rats. *Parasitology* 22:1-10 <https://doi.org/10.1017/S0031182020002012>

Kragh, M.L., Muchaamba, F., Tasara, T., Truelstrup Hansen, L. Cold-shock proteins affect desiccation tolerance, biofilm formation and motility in *Listeria monocytogenes*. *International Journal of Food Microbiology* 329:108662. doi: 10.1016/j.ijfoodmicro.2020.108662

Krishnan, A., Kloehn, J., Lunghi, M., Chiappino-Pepe, A., Waldman, B., S., Nicolas, D., Varesio, E., Hehl, A., Lourido, S., Hatzimanikatis, V., Soldati-Favre, D. (2020): Functional and Computational Genomics Reveal Unprecedented Flexibility in Stage-Specific Toxoplasma Metabolism. *Cell Host Microbe* 27:2, 290-306.e11 <http://doi.org/10.1016/j.chom.2020.01.002>

Mattila, M., Somervuo, P., Korkeala, H., Stephan, R., Tasara, T. (2020). Transcriptomic and phenotypic analyses of the Sigma B-dependent characteristics and the synergism between Sigma B and Sigma L in *Listeria monocytogenes* EGD-e. *Microorganisms* 8(11), 1644; <https://doi.org/10.3390/microorganisms8111644>

Muchaamba, F., Eshwar, A.K., von Ah, U., Stevens, M.J.A., Tasara, T. (2020). Evolution of *Listeria monocytogenes* during a persistent human prosthetic hip joint infection. *Frontiers in Microbiology*, 11:1726. doi: 10.3389/fmicb.2020.01726

Muchaamba, F., Stephan, R., Tasara, T. (2020). β -phenylethylamine as a natural food additive shows antimicrobial activity against *Listeria monocytogenes* on ready-to-eat foods. *Foods* 9(10), 1363. <https://doi.org/10.3390/foods9101363>

Olearo, F., Marinosci, A., Stephan, R., Cherkaoui, A., Renzi, G., Gaia, N., Leo, S., Lazarevic, V., Schrenzel, J. (2020). First case of *Streptococcus suis* infection in Switzerland: an emerging public health problem? *Travel Medicine and Infectious Disease* 5;101590. doi: 10.1016/j.tmaid.2020.101590

Patel, Sameera; Sinigaglia, Alessandro; Barzon, Luisa; Fassan, Matteo; Sparber, Florian; LeibundGut-Landmann, Salomé; Ackermann, Mathias. Role of NS1 and TLR3 in pathogenesis and immunity of WNV. *Viruses*, 11(7):603. doi.org/10.3390/v11070603

Paternoster, G., Boo, G., Wang, C., Minbaeva, G., Usualieva, J., Raimkulov, K., M., Abdykadr, Z., Abdykerimov, K., K., Kronenberg, P., A., Müllhaupt, B., Furrer, R., Deplazes, P., Torgerson, P., R.



(2020): Epidemic cystic and alveolar echinococcosis in Kyrgyzstan: an analysis of national surveillance data. Lancet Global Health 8:e603-11 [https://doi.org/10.1016/s2214-109x\(20\)30038-3](https://doi.org/10.1016/s2214-109x(20)30038-3)

Perruzza, Lisa; Jaconi, Stefano; Lombardo, Gloria; Pinna, Debora; Strati, Francesco; Morone, Diego; Seehusen, Frauke; Hu, Yue; Bajoria, Sakshi; Xiong, Jian; Kumru, Ozan Selahattin; Joshi, Sangeeta Bagai; Volkin, David Bernard; Piantanida, Renato; Benigni, Fabio; Grassi, Fabio; Corti, Davide; Pizzuto, Matteo Samuele (2020). Prophylactic Activity of Orally Administered FliD-Reactive Monoclonal IgG Against Campylobacter Infection. Frontiers in Immunology, 11:1011

Reinehr, M., Micheloud, C., Grimm, F., Kronenberg, A., P., Grimm, J., Beck, A., Nell, J., Meyer zu Schwabedissen, C., Furrer, E., Müllhaupt, B., Barth, T., F., E., Deplazes, P., Weber, A.: A Morphologic and Immunohistochemical Study on 138 Specimens With Focus on the Differential Diagnosis Between Cystic and Alveolar Echinococcosis, Am J Surg Pathol (2020). doi: 10.1097/PAS.0000000000001374

Schreiber, N., Basso, W., Riond, B., Willi, B., Torgerson, P., Deplazes, P. (2020): Antibody kinetics and exposure to *Toxoplasma gondii* in cats: a seroepidemiological study. Int J Parasitol. S0020-7519(20)30319-2 <https://doi.org/10.1016/j.ijpara.2020.09.011>

Tamarozzi, F., Deplazes, P., Casulli, A. (2020): Reinventing the Wheel of *Echinococcus granulosus* sensu lato Transmission to Humans. Trends in Parasitology, Vol. 36 No. 5 <https://doi.org/10.1016/j.pt.2020.02.004>

Veronesi, Rebecca; Morach, Marina; Hübschke, Ella; Bachofen, Claudia; Stephan, Roger; Nüesch-Inderbinen, Magdalena. Seroprevalence of hepatitis E virus in dogs in Switzerland. Zoonoses Public Health. 2020 Nov 15. doi: 10.1111/zph.12779

Winiger, R., R., Hehl, A., B. (2020): A streamlined CRISPR/Cas9 approach for fast genome editing in *Toxoplasma gondii* and *Besnoitia besnoiti*. Journal of Biological Methods Vol. 7, No 4 <http://dx.doi.org/10.14440/jbm.2020.343>

Zbinden, F.R., De Ste Croix, M., Grandgirard, D., Haigh, R.D., Vacca, I., Zamudio, R., Goodall, E.C., Stephan, R., Oggioni, M.R., Leib, S.L. (2020). Pathogenic differences of type 1 restriction-modification allele variants in experimental *Listeria monocytogenes* meningitis. Frontiers in Cellular and Infection Microbiology 10:590657. doi: 10.3389/fcimb.2020.590657