



Forschungsbudget 2023 – «One Health» Zoonosen

Albini S, Imkamp F, Preiswerk B, Borel N (2023). Chlamydien als Zoonoseerreger – eine unterschätzte Gefahr? Swiss Medical Forum 23(16):1012-1015. <https://doi.org/10.4414/smf.2023.09315>.

Albini S, Marti H, Imkamp F, Borel N (2023). ChlamHealth - Update zum Zoonosepotential von Chlamydien. Schweizer Archiv für Tierheilkunde 165, 165–178. <https://doi.org/10.17236/sat00387>.

Ansarifar E, Riahi SM, Tasara T, Sadighara P, Zeinali T (2023). Campylobacter prevalence from food, animals, human and environmental samples in Iran: a systematic review and meta-analysis. BMC Microbiology 23:126. <https://doi.org/10.1186/s12866-023-02879-w>.

Barmettler K, Biggel M, Treier A, Muchaamba F, Stephan R (2023). Livestock as possible reservoir of *Escherichia albertii* in Switzerland. Schweizer Archiv für Tierheilkunde 165, 299–306. <https://doi.org/10.17236/sat00393>.

Berezowski J, De Balogh K, Dórea F C, Rüegg S R, Broglia A, Zancanaro G, Gervelmeyer A (2023). Coordinated surveillance system under the One Health approach for cross-border pathogens that threaten the Union – options for sustainable surveillance strategies for priority pathogens. EFSA Journal, 21(3):e07882.

Berezowski J, de Balogh K, Dórea F C, Rüegg S R, Broglia A, Gervelmeyer A, Kohnle L (2023). Prioritisation of zoonotic diseases for coordinated surveillance systems under the One Health approach for cross-border pathogens that threaten the Union. EFSA Journal, 21(3):e07853.

Biggel, M., Barmettler, K., Treier, A., Muchaamba, F., Stephan, R. (2023). Draft Genome Sequences of two *Escherichia albertii* isolates from healthy pets in Switzerland. Microbiology Resource Announcements 23:e0135622. doi: 10.1128/mra.01356-22.

Biggel M, Barmettler K, Treier A, Muchaamba F, Stephan R (2023). Draft genome sequences of four *Escherichia albertii* isolates from hunted wild boars in Switzerland. Microbiology Resource Announcements 12(5):e0013523. doi: 10.1128/mra.00135-23.

Casulli A, Abela-Ridder B, Petrone D, Fabiani M, Torgerson P R, Müllhaupt B, et al (2023). Unveiling the incidences and trends of the neglected zoonosis cystic echinococcosis in Europe: a systematic review from the MEmE project. Lancet Infectious Diseases, 23(3):e95-e107.

De Neck S, Penrice-Randal R, Clark JJ, Sharma P, Bentley EG, Kirby A, Mega DF, Han X, Owen A, Hiscox JA, Stewart JP, Kipar A. The stereotypic response of the pulmonary vasculature to respiratory viral infections: findings in mouse models of SARS-CoV-2, influenza A and gammaherpesvirus infections. Viruses 15, 1637



Di Bari C, Venkateswaran N, Fastl C, Gabriël S, Grace D, Havelaar A H, Huntington B, Patterson G T, Rushton J, Speybroeck N, Torgerson P, Pigott D M, Devleeschauwer B (2023). The global burden of neglected zoonotic diseases: Current state of evidence. *One health*, 17:100595.

Elnaiem A, Mohamed-Ahmed O, Zumla A, Mecaskey J, Charron N, Abakar MF, Raji T, Bahalim A, Manikam L, Risk O, Okereke E, Squires N, Nkengasong J, Rüegg SR, Abdel Hamid MM, Osman AY, Kapata N, Alders R, Heymann DL, Kock R, Dar O (2023). Global and regional governance of One Health and implications for global health security. *The Lancet*, 401(10377):688-704.

Freitag TL, Fagerlund R, Laham Karam N, Leppänen V-M, Ugurlu H, Kant R, Mäkinen P, Tawfek A, Kumar S, Strandin T, Leskinen K, Hepojoki J, Kesti T, Kareinen L, Kuivanen S, Koivulehto E, Sormunen A, Laidinen S, Khattab A, Saavalainen P, Meri S, Kipar A, Sironen T, Vapalahti O, Alitalo K, Ylä-Herttua S, Saksela K, 2023. Intranasal administration of adenoviral vaccines expressing SARS-CoV-2 spike protein improves vaccine immunity in mouse models. *Vaccine* 41(20):3233-3246.

Ghielmetti G, Loubser J, Kerr TJ, Stuber T, Thacke, T, Martin LC, O'Hare MA, Mhlophe SK, AbOkunola A, Loxton A G, Warren RM, Moseley MH, Mille, MA, Goosen WJ (2023). Advancing animal tuberculosis surveillance using culture-independent long-read whole-genome sequencing. *Frontiers in Microbiology* 14:1307440. doi: 10.3389/fmicb.2023.1307440.

Ghielmetti G, Seth-Smith HMB, Roloff T, Cernela N, Biggel M, Stephan R, Egli A (2023). Whole genome-based characterization of *Campylobacter jejuni* from human patients with gastroenteritis collected over an 18-year period (2003-2020). *Microbial Genomics* 9:000941 DOI 10.1099/mgen.0.000941.

Hoppe JM, Füeßli LU, Hartmann K, Hofmann-Lehmann R, Graf A, Krebs S, Blum H, Badell I, Keppler OT, Muenchhoff M. 2023. Secondary zoonotic dog-to-human transmission of SARS-CoV-2 suggested by timeline but refuted by viral genome sequencing. *Infection*. 2023;51(1):253-9. doi: 10.1007/s15010-022-01902-y. PMID: 35986880.

Kuhlmeier E, Chan T, Meli ML, Willi B, Wolfensberger A, Reitt K, Hüttl J, Jones S, Tyson G, Hosie MJ, Zablotzki Y, Hofmann-Lehmann R. 2023. A risk factor analysis of SARS-CoV-2 infection in animals in COVID-19-affected households. *Viruses* 15:731. doi: 10.3390/v15030731. PMID: 36992440.

Kuhlmeier E, Chan T, Agüí CV, Willi B, Wolfensberger A, Beisel C, Topolsky I, Beerenwinkel N, Stadler T, Swiss Sars-CoV-Sequencing Consortium, Jones S, Tyson G, Hosie MJ, Reitt K, Hüttl J, Meli ML, Hofmann-Lehmann R. 2023. Detection and molecular characterization of the SARS-CoV-2 Delta variant and the specific immune response in companion animals in Switzerland. *Viruses* 15:245. doi: 10.3390/v15010245. PMID: 36680285.

Laing G, Duffy E, Anderson N, Antoine-Moussiaux N, Aragrande M, Luiz Beber C, Hitziger M, Rüegg S R, Vogler B (2023). Advancing One Health: Updated core competencies. *CABI One Health*, 2023:1-13.



Mäkelä AR, Uğurlu H, Hannula L, Salminen P, Kant R, Salminen P, Fagerlund R, Mäki S, Haveri A, Strandin T, Kareinen L, Hepojoki J, Levanov L, Pasternack A, Naves RA, Ritvos O, Österlund P, Sironen T, Vapalahti O, Kipar A, Huiskonen J, Rissanen I, Saksela K. Intranasal inhibitor broadly blocks SARS-CoV-2 including recent highly immunoevasive Omicron subvariants. *Nature Comm* 14(1), 1637.

Muleme J, Ssempebwa J C, Musoke D, Kankya C, Wafula S T, Okello J, Ninsiima L R, Wambi R, Baguma J N, Lubega G, Wagaba B, Hartnack S (2023). Antimicrobial resistance among farming communities in Wakiso District, Central Uganda: A knowledge, awareness and practice study. *PLoS ONE*, 18(6):e0284822.

Nooh F, Chernet A, Reither K, Okuma J, Brattig N W, Utzinger Jürg, Probst-Hensch N, Paris D H, Dreyfus A (2023). Prevalence of fever of unidentified aetiology in East African adolescents and adults: a systematic review and meta-analysis. *Infectious Diseases of Poverty*, 12(1):55.

Njenga Gichure J, Coorey R, Murigu Kamau Njage P, Wambui JM Dykes, GA, Buys EM (2023). Systematic review and meta-analysis of the impact of decontamination interventions on the prevalence and concentration of *Salmonella* in broiler chickens during primary processing. *International Journal of Food Science and Technology* 58, 6456–6474. <https://doi.org/10.1111/ijfs.16759>.

Nüesch-Inderbinnen M, Treier A, Stevens M, Stephan R (2023). Whole genome sequence-based characterisation of Shiga toxin-producing *Escherichia coli* isolated from game meat. *Scientific Reports* 13:3247. <https://doi.org/10.1038/s41598-023-30333-4>.

Ormea V, Evaristo R, Durand S, Lover A, Rüegg S R (2023). COVID-19 exposes weaknesses in public health in the Peruvian Amazon and highlights opportunities for a One Health approach. *CABI One Health*, 2023:1-7.

Persson K, Schulz C, Deckers J, Pilchová V, Wirz K, Hartnack S, Meurer M, Richter A, Wystub P, van Herten J, von Köckritz-Blickwede M, Fossati P, Kunzmann P (2023). Companion Animals in Zoonoses Research – Ethical Considerations. *Journal of Applied Animal Ethics Research*, 5(2):178-207.

Rasper-Hoessinger M, Biggel M, Stephan R, Seehusen F, Scherrer S (2023). Strain diversity in *Mycobacterium avium* subsp. *paratuberculosis*-positive bovine fecal samples collected in Switzerland. *Frontiers in Veterinary Science* 10:1154516. doi: 10.3389/fvets.2023.1154516.

Stegmüller S, Qi W, Torgerson PR, Fraefel C, Kubacki J (2023). Hazard potential of Swiss *Ixodes ricinus* ticks: Virome composition and presence of selected bacterial and protozoan pathogens. *PLoS One*. 18:e0290942. doi: 10.1371/journal.pone.0290942.

Stegmüller S, Fraefel C, Kubacki J (2023). Genome Sequence of Alongshan Virus from *Ixodes ricinus* Ticks Collected in Switzerland. *Microbiol Resour Announc*. 12:e0128722. doi: 10.1128/mra.01287-22.

Traore T, Shanks S, Haider N, Ahmed K, Jain V, Rüegg S R, Razavi A, Kock R, Erondou N, Rahman-Shepherd A, Yavlinsky A, Mboera L, Asogun D, McHugh T D, Elton L, Oyebanji O, Okunromade O, Ansumana R, Djingarey M



H, Ali Ahmed Y, Diallo A B, Balde T, Talisuna A, Ntumi F, Zumla A, Heymann D, Socé Fall I, Dar O (2023). How prepared is the world? Identifying weaknesses in existing assessment frameworks for global health security through a One Health approach. *The Lancet*, 401(10377):673-687.

Zingre T, Bagatella S, Wenker C, Kittl S, Meli ML, Wyss F, Grau-Roma L. 2023. Fatal gastritis and enterocolitis due to concurrent *Helicobacter pylori* and *Campylobacter jejuni* infection in a captive cheetah (*Acinonyx jubatus*). *J Comp Pathol* 201:81-86. doi:10.1016/j.jcpa.2022.12.016. PMID: 36745967.

Zhuang X, Gallo G, Sharma P, Ha J, Magri A, Borrmann H, Harris JM, Tsukuda S, Bentley EG, Kirby A, De Neck S, Yang H, Balfe P, Wing PAC, Matthews D, Harris AL, Kipar A, Stewart JP, Bailey D, McKeating JA, 2023. Hypoxia inducible factors inhibit respiratory syncytial virus infection by modulation of nucleolin expression. *iScience* 27(1):108763.

15. April 2024