

List of Publications - Annelies S. Zinkernagel

Peer Reviewed Original Articles:

1. Bär J, Boumasmoud M, Mairpady Shambat S, Vulin C, Huemer M, Schweizer TA, Gómez-Mejia A, Eberhard N, Achermann Y, Zingg PO, Mestres CA, Brugger SD, Schuepbach RA, Kouyos RD, Hasse B, **Zinkernagel AS**. Clin Microbiol Infect. 2022 Feb 3:S1198-743X(22)00045-3. doi: 10.1016/j.cmi.2022.01.021. Online ahead of print.PMID: 35124264
2. Huang A, Cicin-Sain C, Pasin C, Epp S, Audigé A, Müller NJ, Nilsson J, Bankova A, Wolfensberger N, Viliinovszki O, Nair G, Hockl P, Schanz U, Kouyos RD, Hasse B, **Zinkernagel AS**, Trkola A, Manz MG, Abela IA, Müller AMS. Transplant Cell Ther. 2022 Jan 26:S2666-6367(22)00039-2. doi: 10.1016/j.jtct.2022.01.019. Online ahead of print.PMID: 35092892 Free PMC article.
3. Mairpady Shambat S, Gómez-Mejia A, Schweizer TA, Huemer M, Chang CC, Acevedo C, Bergada-Pijuan J, Vulin C, Hofmaenner DA, Scheier TC, Hertegonne S, Parietti E, Miroshnikova N, Wendel Garcia PD, Hilty MP, Buehler PK, Schuepbach RA, Brugger SD, **Zinkernagel AS**. PLoS Pathog. 2022 Jan 10;18(1):e1010176. doi: 10.1371/journal.ppat.1010176. eCollection 2022 Jan.PMID: 35007290 Free PMC article.
4. Schweizer TA, Mairpady Shambat S, Vulin C, Hoeller S, Acevedo C, Huemer M, Gomez-Mejia A, Chang CC, Baum J, Hertegonne S, Hitz E, Scheier TC, Hofmaenner DA, Buehler PK, Moch H, Schuepbach RA, Brugger SD, **Zinkernagel AS**. Blunted sFasL signalling exacerbates TNF-driven neutrophil necroptosis in critically ill COVID-19 patients. Clin Transl Immunology. 2021 Dec 11;10(12):e1357. doi: 10.1002/cti2.1357
5. Herren SC, Huemer M, Acevedo CT, Gómez-Mejia A, Andreoni F, Mairpady Shambat S, Hasse B, Zbinden R, Brugger SD, **Zinkernagel AS**. Antimicrob Agents Chemother. 2022 Jan 18;66(1):e0096721. doi: 10.1128/AAC.00967-21. Epub 2021 Oct 25.PMID: 34694884
6. Van Hemelrijck M, Frank M, **Zinkernagel AS**, Buechel R, Sromicki J, Wilhelm MJ, Klein H, Hasse B, Mestres CA. Indian J Thorac Cardiovasc Surg. 2021 Sep;37(5):573-576. doi: 10.1007/s12055-021-01144-x. Epub 2021 Feb 17.PMID: 34511767 Free PMC article
7. Yokota M, Häffner N, Kassier M, Brunner M, Shambat SM, Brennecke F, Schniering J, Marques Maggio E, Distler O, **Zinkernagel AS**, Maurer B. FASEB J. 2021 Jul;35(7):e21695. doi: 10.1096/fj.201902836R.PMID: 34160101 Free article.
8. Leung YKS, Ledergerber B, Eberhard N, Mestres CA, Rancic Z, Zimmermann A, Zbinden R, Brugger SD, **Zinkernagel AS**, Hasse B; Vascular Graft Cohort Study. JAC Antimicrob Resist. 2021 Mar 25;3(1):dlab041. doi: 10.1093/jacamr/dlab041. eCollection 2021 Mar.PMID: 34223108 Free PMC article.
9. Buehler PK, **Zinkernagel AS**, Hofmaenner DA, Wendel Garcia PD, Acevedo CT, Gómez-Mejia A, Shambat SM, Andreoni F, Maibach MA, Bartussek J, Hilty MP, Frey PM, Schuepbach RA, Brugger SD. Bacterial pulmonary superinfections are associated with longer duration of ventilation in critically ill COVID-19 patients. Cell Rep Med. 2021 Mar 14:100229. doi: 10.1016/j.xcrm.2021.100229. PMID: 33748789

10. Huemer M, Mairpady Shambat S, Bergada-Pijuan J, Söderholm S, Boumasmoud M, Vulin C, Gómez-Mejía A, Antelo Varela M, Tripathi V, Götschi S, Marques Maggio E, Hasse B, Brugger SD, Bumann D, Schuepbach RA, **Zinkernagel AS**. Molecular reprogramming and phenotype switching in *Staphylococcus aureus* lead to high antibiotic persistence and affect therapy success. *Proc Natl Acad Sci U S A*. 2021 Feb 16;118(7):e2014920118. doi: 10.1073
11. Frey PM, Baer J, Bergada-Pijuan J, Lawless C, Bühler PK, Kouyos RD, Lemon KP, **Zinkernagel AS**, Brugger SD. Quantifying Variation in Bacterial Reproductive Fitness: a High-Throughput Method. *mSystems*. 2021 Feb 2;6 (1):e01323-20. doi: 10.1128/mSystems.01323-20.PMID: 33531411 Free PMC article.
12. Maurer SM, Kursawe L, Rahm S, Prinz J, **Zinkernagel AS**, Moter A, Kuster SP, Zbinden R, Zingg PO, Achermann Y. *Cutibacterium avidum* resists surgical skin antisepsis in the groin—a potential risk factor for periprosthetic joint infection: a quality control study. *Antimicrob Resist Infect Control*. 2021 Feb 1;10(1):27. doi: 10.1186/s13756-021-00883-1.PMID: 33522957 Free PMC article.
13. Hofmaenner DA, Wendel Garcia PD, Duvnjak B, Chakrakodi B, Maier JD, Huber M, Huder J, Wolfensberger A, Schreiber PW, Schuepbach RA, **Zinkernagel AS**, Buehler PK, Brugger SD; COVID-19 ICU-Research Group Zurich. Bacterial but no SARS-CoV-2 contamination after terminal disinfection of tertiary care intensive care units treating COVID-19 patients. *Antimicrob Resist Infect Control*. 2021 Jan 12;10(1):11. doi: 10.1186/s13756-021-00885-z. PMID: 33436105
14. Maccio U, **Zinkernagel AS**, Shambat SM, Zeng X, Cathomas G, Ruschitzka F, Schuepbach RA, Moch H, Varga Z. SARS-CoV-2 leads to a small vessel endotheliitis in the heart. *EBioMedicine*. 2021 Jan 7;63:103182. doi: 10.1016/j.ebiom.2020.103182.
15. Neff A, Chok L, von Both U, Matt U, Tarnutzer A, Andreoni F, van der Linden M, Plock JA, Bühler PK, Brugger SD, Schuepbach RA, Zbinden R, **Zinkernagel AS**. Characterisation of clinical manifestations and treatment strategies for invasive beta-haemolytic streptococcal infections in a Swiss tertiary hospital. *Swiss Med Wkly*. 2020 Dec 5;150:w20378. doi: 10.4414/smw.2020.20378. eCollection 2020 Nov 30. PMID: 33277914
16. Cervia C, Nilsson J, Zurbuchen Y, Valaperti A, Schreiner J, Wolfensberger A, Raeber ME, Adamo S, Weigang S, Emmenegger M, Hasler S, Bosshard PP, De Cecco E, Bächli E, Rudiger A, Stüssi-Helbling M, Huber LC, **Zinkernagel AS**, Schaer DJ, Aguzzi A, Kochs G, Held U, Probst-Müller E, Rampini SK, Boyman O. Systemic and mucosal antibody responses specific to SARS-CoV-2 during mild versus severe COVID-19. *J Allergy Clin Immunol*. 2020 Nov 19:S0091-6749(20)31623-7. doi: 10.1016/j.jaci.2020.10.040.
17. Burkhard-Koren NM, Haberecker M, Maccio U, Ruschitzka F, Schuepbach RA, **Zinkernagel AS**, Hardmeier T, Varga Z, Moch H Higher prevalence of pulmonary macrothrombi in SARS-CoV-2 than in influenza A: autopsy results from 'Spanish flu' 1918/1919 in Switzerland to Coronavirus disease 2019. *J Pathol Clin Res*. 2020 Nov 13. doi: 10.1002/cjp2.189.
18. Bär J, Boumasmoud M, Kouyos RD, **Zinkernagel AS**, Vulin C. Efficient microbial colony growth dynamics quantification with ColTapp, an automated image analysis application. *Sci Rep*. 2020 Sep 30;10(1):16084. doi: 10.1038/s41598-020-72979-4.

19. Sobieraj AM, Huemer M, Zinsli LV, Meile S, Keller AP, Röhrig C, Eichenseher F, Shen Y, **Zinkernagel AS**, Loessner MJ, Schmelcher M. Engineering of Long-Circulating Peptidoglycan Hydrolases Enables Efficient Treatment of Systemic Staphylococcus aureus Infection. *mBio*. 2020 Sep 22;11(5):e01781-20. PMID: 32963004
20. Schweizer TA, Shambat SM, Haunreiter VD, Mestres CA, Weber A, Maisano F, **Zinkernagel AS**, Hasse B. Polyester Vascular Graft Material and Risk for Intracavitary Thoracic Vascular Graft Infection. *Emerg Infect Dis*. 2020 Oct;26(10):2448-2452. doi: 10.3201/eid2610.191711.PMID: 32946737 Free article.
21. Andronic O, Achermann Y, Jentzsch T, Bearth F, Schweizer A, Wieser K, Fucentese SF, Rahm S, **Zinkernagel AS**, Zingg PO. Factors affecting outcome in the treatment of streptococcal periprosthetic joint infections: results from a single-centre retrospective cohort study. *Int Orthop*. 2020 Aug 27. doi: 10.1007/s00264-020-04722-7. Online ahead of print.PMID: 32856092
22. Häffner N, Bär J, Dengler Haunreiter V, Mairpady Shambat S, Seidl K, Crosby HA, Horswill AR, **Zinkernagel AS**. Intracellular Environment and agr System Affect Colony Size Heterogeneity of Staphylococcus aureus. *Front Microbiol*. 2020 Jun 30;11:1415. doi: 10.3389/fmicb.2020.01415. eCollection 2020.PMID: 32695082.
23. Manka R, Karolyi M, Polacin M, Holy EW, Nemeth J, Steiger P, Schuepbach RA, **Zinkernagel AS**, Alkadhi H, Mehra MR, Ruschitzka F. Myocardial edema in COVID-19 on cardiac MRI. *J Heart Lung Transplant*. 2020 Jul;39(7):730-732. doi: 10.1016/j.healun.2020.04.025. Epub 2020 May 28.PMID: 32650881
24. Egli A, Battegay M, Büchler AC, Bühlmann P, Calandra T, Eckert P, Furrer H, Greub G, Jakob SM, Kaiser L, Leib SL, Marsch S, Meinshausen N, Pagani JL, Pugin J, Rättsch G, Schrenzel J, Schüpbach R, Siegemund M, Zamboni N, Zbinden R, **Zinkernagel A**, Borgwardt K. SPHN/PHRT: Forming a Swiss-Wide Infrastructure for Data-Driven Sepsis Research. *Stud Health Technol Inform*. 2020 Jun 16;270:1163-1167. doi: 10.3233/SHTI200346.PMID: 32570564.
25. Amodio E, Kuster SP, Garzoni C, **Zinkernagel AS**, Sax H, Wolfensberger A. Disinfecting noncritical medical equipment-Effectiveness of hydrogen peroxide dry mist as an adjunctive method. *Am J Infect Control*. 2020 Aug;48(8):897-902. doi: 10.1016/j.ajic.2020.05.016. Epub 2020 May 25.PMID: 32464292
26. Varga Z, Flammer AJ, Steiger P, Haberecker M, Andermatt R, **Zinkernagel AS**, Mehra MR, Schuepbach RA, Ruschitzka F, Moch H. Endothelial cell infection and endotheliitis in COVID-19. *Lancet*. 2020 May 2;395(10234):1417-1418. doi: 10.1016/S0140-6736(20)30937-5. Epub 2020 Apr 21.PMID: 3232502
27. Röhrig C, Huemer M, Lorgé D, Luterbacher S, Phothaworn P, Schefer C, Sobieraj AM, Zinsli LV, Mairpady Shambat S, Leimer N, Keller AP, Eichenseher F, Shen Y, Korbsrisate S, **Zinkernagel AS**, Loessner MJ, Schmelcher M. Targeting Hidden Pathogens: Cell-Penetrating Enzybiotics Eradicate Intracellular Drug-Resistant Staphylococcus aureus.. *mBio*. 2020 Apr 14;11(2):e00209-20. doi: 10.1128/mBio.00209-20.PMID: 32291298

28. Meerwein M, Tarnutzer A, Böni M, Van Bambeke F, Hombach M, **Zinkernagel AS**. Increased Azithromycin Susceptibility of Multidrug-Resistant Gram-Negative Bacteria on RPMI-1640 Agar Assessed by Disk Diffusion Testing. *Antibiotics (Basel)*. 2020 Apr 29;9(5):218. doi: 10.3390/antibiotics9050218. PMID: 32365460
29. Malerba M, Louis S, Cuvellier S, Mairpady Shambat S, Hua C, Gomart C, Fouet A, Ortonne N, Decousser JW, **Zinkernagel AS**, Mathieu JR, Peyssonnaud C. Epidermal hepcidin is required for neutrophil response to bacterial infection. *J Clin Invest*. 2020 Jan 2;130(1):329-334.
30. Plate A, Anagnostopoulos A, Glanzmann J, Stadler L, Weigelt L, Sutter R, Kästli M, **Zinkernagel AS**, Zingg PO, Achermann Y. Synovial C-reactive protein features high negative predictive value but is not useful as a single diagnostic parameter in suspected periprosthetic joint infection (PJI). *J Infect*. 2019 Jun;78(6):439-444. doi: 10.1016/j.jinf.2019.04.003. Epub 2019 Apr 6.
31. Dengler Haunreiter V, Boumasmoud M*, Häffner N*, Wipfli D, Leimer N, Rachmühl C, Kühnert D, Achermann Y, Zbinden R, Benussi S, Vulin C, **Zinkernagel AS**. In-host evolution of *Staphylococcus epidermidis* in a pacemaker-associated endocarditis resulting in increased antibiotic tolerance. *Nature communications* 2019 Mar 8;10(1):1149. doi: 10.1038/s41467-019-09053-9. *these authors contributed equally
32. Keller N, Woytschak J, Heeb LE, Maggio EM, Shambat SM, Snäll J, Hyldegaard O, Boyman O, Norrby-Teglund A, **Zinkernagel AS**. Group A streptococcal DNase Sda1 impairs plasmacytoid dendritic cell's type I interferon response. *J Invest Dermatol*. 2018 Dec 10. PMID: 30543898
33. Seijsing J, Sobieraj AM, Keller N, Shen Y, **Zinkernagel AS**, Loessner MJ, Schmelcher M. Improved Biodistribution and Extended Serum Half-Life of a Bacteriophage Endolysin by Albumin Binding Domain Fusion. *Front Microbiol*. 2018 Nov 27;9:2927. doi: 10.3389/fmicb.2018.02927. eCollection 2018. PMID: 30538696
34. Andreoni F, Toyofuku M, Menzi C, Kalawong R, Mairpady Shambat S, François P, **Zinkernagel AS***, Eberl L*. Antibiotics stimulate vesicles formation in *Staphylococcus aureus* in a phage-dependent and independent fashion and via different routes. *Antimicrob Agents Chemother*. 2018 Dec 3. pii: AAC.01439-18. doi: 10.1128/AAC.01439-18. PMID: 30509943 * these authors contributed equally
35. Achermann Y, **Zinkernagel AS**. Identifying the Pathogen by Multiplex Polymerase Chain Reaction in Bone and Joint Infections: Challenges and Future. *J Rheumatol*. 2018 Nov;45(11):1497-1500. Epub 2018 Nov 1. PMID: 30385695
36. Kalt F, Schulthess B, Sidler F, Herren S, Fucentese SF, Zingg PO, Berli M, **Zinkernagel AS**, Zbinden R, Achermann Y. *Corynebacterium* species rarely cause orthopedic infections. *J Clin Microbiol*. 2018 Oct 10. pii: JCM.01200-18. doi: 10.1128/JCM.01200-18.
37. Vulin C, Leimer N, Huemer M, Ackermann M*, **Zinkernagel AS***. Prolonged bacterial lag time results in small colony variants that represent a sub-population of persisters. *Nature communications* 2018 Oct 4;9(1):4074. doi: 10.1038/s41467-018-06527-0. PMID: 30287875 * these authors contributed equally.
38. Tarnutzer A, Andreoni F, Keller N, Zürcher C, Norrby-Teglund A, Schuepbach R, **Zinkernagel AS**. Human polyspecific immunoglobulin attenuates group A streptococcal

- virulence factor activity and reduces disease severity in a murine necrotizing fasciitis model. *Clin Microbiol Infect.* 2018 Jul 16. pii: S1198-743X(18)30522-6. doi: 10.1016/j.cmi.2018.07.007. PMID:30025835
39. Ajdler-Schaeffler E, Scherrer AU, Keller PM, Anagnostopoulos A, Hofmann M, Rancic Z, **Zinkernagel AS**, Bloemberg GV, Hasse BK. and the VASGRA Cohort. Increased Pathogen Identification in Vascular Graft Infections by the Combined Use of Tissue Cultures and 16S rRNA Gene Polymerase Chain Reaction. *Front Med (Lausanne).* 2018 Jun 4;5:169. doi: 10.3389/fmed.2018.00169. eCollection 2018. PMID:29915786
 40. Keller N, Andreoni F, Reiber C, Luethi-Schaller H, Schuepbach RA, Moch H, Marques Maggio E*, **Zinkernagel AS***. Human Streptococcal Necrotizing Fasciitis Histopathology Mirrored in a Murine Model. *Am J Pathol.* 2018 Jul;188(7):1517-1523. doi: 10.1016/j.ajpath.2018.03.009. Epub 2018 Apr 22. PMID:29684366 * these authors contributed equally
 41. Plate A, Stadler L, Sutter R, Anagnostopoulos A, Frustaci D, Zbinden R, Fucentese SF, **Zinkernagel AS**, Zingg PO, Achermann Y. Inflammatory disorders mimicking periprosthetic joint infections may result in false positive α -defensin. *Clin Microbiol Infect.* 2018 Feb 26. pii: S1198-743X(18)30194-0. doi: 10.1016/j.cmi.2018.02.019. PMID: 29496595
 42. Anagnostopoulos A, Bossard DA, Ledergerber B, Zingg PO, **Zinkernagel AS**, Gerber C, Achermann Y. Perioperative antibiotic prophylaxis has no effect on time to positivity and proportion of positive samples: a cohort study of 64 *Cutibacterium acnes* bone and joint infections. *J Clin Microbiol.* 2018 Jan 24;56(2). pii: e01576-17. doi: 10.1128/JCM.01576.
 43. Seidl K, Leemann M, **Zinkernagel AS**. The ArlRS two-component system is a regulator of *Staphylococcus aureus*-induced endothelial cell damage. *Eur J Clin Microbiol Infect Dis.* 2018 Feb;37(2):289-292. doi: 10.1007/s10096-017-3130-5. Epub 2017 Nov 27. PMID: 29177635
 44. Andreoni F, Ugolini F, Keller N, Neff A, Nizet V, Hollands A, Marques Maggio E, **Zinkernagel AS***, Schuepbach RA*. Immunoglobulin attenuates streptokinase-mediated virulence in *Streptococcus dysgalactiae* subsp. *equisimilis* necrotizing fasciitis. *J Infect Dis.* 2018 Jan 4;217(2):270-279. doi: 10.1093/infdis/jix560. PMID 29099935.
* these authors contributed equally
 45. Achermann Y, Liu J, Zbinden R, Zingg PO, Anagnostopoulos A, Barnard E, Sutter R, Li H, McDowell A, **Zinkernagel AS**. *Propionibacterium avidum* - a virulent pathogen causing hip periprosthetic joint infection. *Clin Infect Dis.* 2018 Jan 6;66(1):54-63. doi: 10.1093/cid/cix665. PMID 29020266 *Clin Infect Dis.* 2017 Aug 2. doi: 10.1093/cid/cix665.
 46. Wilk CM, Weber I, Seidl K, Rachmühl C, Holzmann-Bürgel A, Müller AMS, Kuster SP, Schanz U, **Zinkernagel AS**. Impact of oral gut decontamination on *staphylococcus aureus* colonization in patients undergoing allogeneic hematopoietic stem cell transplantation. *Int J Antimicrob Agents.* 2017 Aug 7. pii: S0924-8579(17)30300-X. doi: 10.1016/j.ijantimicag.2017.08.008. PMID: 28797807
 47. Matt U, Selchow P, Dal Molin M, Strommer S, Sharif O, Schilcher K, Andreoni F, Stenzinger A, **Zinkernagel AS**, Zeitlinger M, Sander P, Nemeth J. Chloroquine enhances the antimycobacterial activity of isoniazid and pyrazinamide by reversing inflammation-

- induced macrophage efflux. *Int J Antimicrob Agents*. 2017 Jul;50(1):55-62. doi: 10.1016/j.ijantimicag.2017.02.022. Epub 2017 May 12. PMID: 28506804
48. Seidl K, Leemann M, Palheiros Marques M, Rachmühl C, Leimer N, Andreoni F, Achermann Y, **Zinkernagel AS**. High level methicillin resistance correlates with reduced *Staphylococcus aureus* endothelial cell damage; *Int J Med Microbiol*. 2017 Jan;307(1):11-20. doi: 10.1016/j.ijmm.2016.11.009.
 49. Schilcher K, Andreoni F, Dengler Haunreiter V, Seidl K, Hasse B, **Zinkernagel AS**. Modulation of *Staphylococcus aureus* biofilm matrix by subinhibitory concentrations of clindamycin. *Antimicrobial Agents and Chemotherapy*. 25 July 2016, doi: 10.1128/AAC.00463-16
 50. Woytschak J, Keller N, Krieg C, Impellizzieri D, Thompson RW, Wynn TA, **Zinkernagel AS**, Boyman O. Type 2 Interleukin-4 Receptor Signaling in Neutrophils Antagonizes Their Expansion and Migration during Infection and Inflammation. *Immunity*. 2016 Jul 19;45(1):172-84. doi: 10.1016/j.immuni.2016.06.025
 51. Scherrer AU, Bloemberg G, Zbinden R, **Zinkernagel AS**, Fuchs C, Frauenfelder S, Rancic Z, Mayer D, Hasse B; VASGRA Cohort. Prosthetic vascular graft infections: bacterial cultures from negative pressure wound therapy foams do not improve diagnostics. *J Clin Microbiol*. 2016 Jun 1. pii: JCM.01102-16.
 52. Andreoni F, Zürcher C, Tarnutzer A, Schilcher K, Neff A, Keller N, Maggio EM, Poyart C, Schuepbach R, **Zinkernagel A**. Clindamycin Affects Group A *Streptococcus* Virulence Factors and Improves Clinical Outcome. *J Infect Dis*. 2016 May 30. pii: jiw229.
 53. Uchiyama S, Keller N, Schlaepfer E, Grube C, Schuepbach RA, Speck RF, **Zinkernagel AS**. Interferon α -Enhanced Clearance of Group A *Streptococcus* Despite Neutropenia. *J Infect Dis*. 2016. doi: 10.1093/infdis/jiw157. First published online: April 18, 2016
 54. Hepatitis C- working group for COHERE in Eurocoord, Smit C, Arends J, Peters L, Montforte Ad, Dabis F, Zangerle R, Daikos G, Mussini C, Mallolas J, de Wit S, **Zinkernagel A**, Cosin J, Chene G, Raben D, Rockstroh J. Effect of abacavir on sustained virologic response to HCV treatment in HIV/HCV co-infected patients, Cohere in Eurocoord. *BMC Infect Dis*. 2015 Nov 4;15:498. doi: 10.1186/s12879-015-1224-1.
 55. Möllerherm H, Neumann A, Schilcher K, Blodkamp S, Zeitouni NE, Dersch P, Lühje P, Naim HY, **Zinkernagel AS**, von Köckritz-Blickwede M. *Yersinia enterocolitica*-mediated degradation of neutrophil extracellular traps (NETs). *FEMS Microbiol Lett*. 2015 Dec;362(23).
 56. Meyer Sauter PM, Leimer N, Chan PK, Rely C, Seidl K, **Zinkernagel AS**, Berger C. Methicillin-resistant *Staphylococcus aureus* eradication in young infants should include the diaper area and treat housing contacts. *Acta Paediatr*. 2015 Sep 5. doi: 10.1111/apa.13179. PMID: 26341723
 57. Achermann Y, Seidl K, Kuster SP, Leimer N, Durisch N, Ajdler-Schäffler E, Karrer S, Senn G, Holzmann-Bürgel A, Wolfensberger A, Leone A, Arlettaz R, **Zinkernagel AS***, Sax H*. Epidemiology of Methicillin-Susceptible *Staphylococcus aureus* in a Neonatology Ward. *Infect Control Hosp Epidemiol*. 2015 Aug 20:1-8. [Epub ahead of print] PMID: 26290400

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58. Leimer N, Rachmühl C, Palheiros Marques M, Bahlmann AS, Furrer A, Eichenseher F, Seidl K, Matt U, Loessner MJ, Schuepbach RA*, **Zinkernagel AS***. Non-stable *Staphylococcus aureus* small colony variants are induced by low pH and sensitized to antimicrobial therapy by phagolysosomal alkalization. *J Infect Dis*. 2015 Jul 17. pii: jiv388. [Epub ahead of print] * these authors contributed equally
59. Milleret V, Buzzi S, Gehrig P, Ziogas A, Grossmann J, Schilcher K, **Zinkernagel AS**, Zucker A, Ehrbar M. Protein adsorption steers blood contact activation on engineered cobalt chromium alloy oxide layers. *Acta Biomater*. 2015 Jun 20. pii: S1742-7061(15)00289-5. doi: 10.1016/j.actbio.2015.06.020. [Epub ahead of print]
60. Seidl K, Leimer N, Palheiros Marques M, Furrer A, Holzmann-Bürgel A, Senn G, Zbinden R, **Zinkernagel AS**. Clonality and antimicrobial susceptibility of methicillin-resistant *Staphylococcus aureus* at the University Hospital Zurich, Switzerland between 2012 and 2014. *Ann Clin Microbiol Antimicrob*. 2015 Mar 19;14:14. doi: 10.1186/s12941-015-0075-3.
61. Shalova IN, Lim JY, Chittezhath M, **Zinkernagel AS**, Beasley F, Hernández-Jiménez E, Toledano V, Cubillos-Zapata C, Rapisarda A, Chen J, Duan K, Yang H, Poidinger M, Melillo G, Nizet V, Arnalich F, López-Collazo E, Biswas SK. Human Monocytes Undergo Functional Re-programming during Sepsis Mediated by Hypoxia-Inducible Factor-1 α . *Immunity*. 2015 Mar 17;42(3):484-98. doi: 10.1016/j.immuni.2015.02.001.
62. Seidl K, Leimer N, Palheiros Marques M, Furrer A, Senn G, Holzmann-Bürgel A, Matt U, **Zinkernagel AS**. USA300 methicillin-resistant *Staphylococcus aureus* in Zurich, Switzerland between 2001 and 2013. *Int J Med Microbiol*. 2014 Nov;304(8):1118-22. doi: 10.1016/j.ijmm.2014.08.005.
63. Andreoni F, Ogawa T, Ogawa M, Madon J, Uchiyama S, Schuepbach RA, **Zinkernagel AS**. The IL-8 protease SpyCEP is detrimental for Group A *Streptococcus* host-cells interaction and biofilm formation. *Front Microbiol*. 2014 Jul 10;5:339. doi: 10.3389/fmicb.2014.00339. eCollection 2014
64. Osterhoff G, Spirig J, Klasen J, Kuster SP, **Zinkernagel AS**, Sax H, Min K. Perforation and Bacterial Contamination of Microscope Covers in Lumbar Spinal Decompressive Surgery. *Med Princ Pract*. 2014 Jun 4. [Epub ahead of print] PMID 24903448
65. Schilcher K, Andreoni F, Uchiyama S, Ogawa T, Schuepbach RA, **Zinkernagel AS**. Increased NET-mediated *Staphylococcus aureus* clearance through inhibition of nuclease activity by clindamycin and immunoglobulins. *Journal of Infectious diseases* 2014 Mar 25. doi: 10.1093/infdis/jiu091. Epub 2014 Feb 12.
66. Gonzalez DJ, Vuong L, Gonzalez IS, Keller N, McGrosso D, Hwang HK, Hung J, **Zinkernagel AS**, Dixon JE, Dorrestein PC, Nizet V Phenol Soluble Modulins Variants of Community-Associated Methicillin-Resistant *Staphylococcus aureus* Captured Using Mass Spectrometry-Based Molecular Networking. *Mol Cell Proteomics*. 2014 May;13(5):1262-72. doi: 10.1074/mcp.M113.031336. Epub 2014 Feb 24.
67. Ender M, Andreoni F, **Zinkernagel AS**, Schuepbach RAS. Streptococcal SpeB Cleaved PAR-1 Suppresses ERK Phosphorylation and Blunts Thrombin-Induced Platelet Aggregation. *PLoS One*. 2013 Nov 22;8(11):e81298.

68. Bostanci N, Thurnheer T, Aduse-Opoku J, Curtis MA, **Zinkernagel AS**, Belibasakis GN. Porphyromonas gingivalis regulates TREM-1 in human polymorphonuclear neutrophils via its gingipains. PLoS One. 2013 Oct 4;8(10):e75784.
69. Ueda S, Uchiyama S, Azzi T, Gysin C, Berger C, Bernasconi M, Harabuchi Y, **Zinkernagel AS**, Nadal D. Oropharyngeal Group A Streptococcal Colonization Disrupts Latent Epstein-Barr Virus Infection. J Infect Dis. 2013 Aug 9.
70. Veloso TR, Zbinden A, Andreoni F, Giddey M, Vouillamoz J, Moreillon P, **Zinkernagel AS**, Entenza JM. *Streptococcus tigurinus* is highly virulent in a rat model of experimental endocarditis. International Journal of Medical Microbiology 2013, June 20. doi:pii: S1438-4221(13)00085-4. 10.1016.
71. Quiblier C, Seidl K, Roschitzki B, **Zinkernagel AS**, Berger-Bächli B, Senn MM. Secretome Analysis Defines the Major Role of SecDF in *Staphylococcus aureus* Virulence. PLoS One. 2013 May 3;8(5):e63513.
72. Weibel P, Ender M, Madon J, **Zinkernagel AS**, Schuepbach RA. Selection Vector for Direct Cloning of Proof Reading Polymerase Chain Reaction Products Based on the Lethal ccdB Gene in *Escherichia coli*. Advances in Microbiology. March 27, 2013. DOI: 10.4236/aim.2013.31002.
73. Seidl K, **Zinkernagel AS**. The MTT assay is a rapid and reliable quantitative method to assess *Staphylococcus aureus* induced endothelial cell damage. Journal of Microbiol Methods, 2013 Mar;92(3):307-9.
74. Uchiyama U, Andreoni F, Zürcher C, Schilcher K, Ender M, Madon J, Matt U, Ghosh P, Nizet V, Schuepbach RA, **Zinkernagel AS**. Coiled-coil irregularities of the M1 protein structure influence group A *Streptococcus* host cell interactions and virulence. J Mol Med. 2013 Feb 27.
75. Sambatakou H, Dabis F, Geffard S, Smit C, de Wolf F, van der Meer J, Peters L, Puoti M, Monforte AD, Tural C, **Zinkernagel A**, Ledergerber B, Rauch A, de Wit S, Suarez-Lozano N. Effect of hepatitis C treatment on CD4+ T-cell counts and the risk of death in HIV-HCV-coinfected patients: the COHERE collaboration. HCV working group of the Collaboration of Observational HIV Epidemiological Research in Europe (COHERE) in EuroCoord. Antivir Ther. 2012;17(8):1541-50. doi: 10.3851/IMP2263.
76. Uchiyama U, Andreoni F, Schuepbach RA, Nizet V, **Zinkernagel AS**. DNase Sda1 Allows Invasive M1T1 Group A *Streptococcus* to Prevent TLR9-Dependent Recognition. PLOS Pathogens, 2012 Jun;8(6):e1002736. Epub 2012 Jun 14.
77. **Zinkernagel AS***, Hruz P, Uchiyama S, von Köckritz-Blickwede M, Schuepbach RA, Hayashi T, Carson DA, Nizet V. Importance of Toll like receptor 9 in host defense against M1T1 Group A *Streptococcus* infections. J Innate Immunity 2012;4(2):213-8.
*corresponding author
78. Quiblier C, **Zinkernagel AS**, Schuepbach RA, Berger-Bächli B, Senn MM. Contribution of SecDF to *Staphylococcus aureus* resistance and expression of virulence factors. BMC Microbiol. 2011;11(1):72.

79. Macheboeuf P, Buffalo C, Fu C, **Zinkernagel AS**, Cole JN, Johnson JE, Nizet V, Ghosh P. Streptococcal M1 protein constructs a pathological host fibrinogen network. *Nature* 2011; 472:64-68.
80. Chow OA, von Köckritz-Blickwede M, Bright AT, Hensler ME, **Zinkernagel AS**, Cogen AL, Gallo RL, Monestier M, Wang Y, Glass CK, Nizet V. Statins enhance formation of phagocyte extracellular traps. *Cell Host Microbe* 2010; 8:445-454.
81. Kaur SJ, Nerlich A, Bergmann S, Rohde M, Fulde M, Zähler D, Hanski E, **Zinkernagel A**, Nizet V, Chhatwal GS, Talay SR. The CXC chemokine-degrading protease SpyCEP of *Streptococcus pyogenes* promotes its uptake into endothelial cells. *J Biol Chem*. 2010 Sep 3;285(36):27798-805.
82. Kurupati P, Turner CE, Tziona I, Lawrenson RA, Alam FM, Nohadani M, Stamp GW, **Zinkernagel AS**, Nizet V, Edwards RJ, Sriskandan S. Chemokine-cleaving *Streptococcus pyogenes* protease SpyCEP is necessary and sufficient for bacterial dissemination within soft tissues and the respiratory tract. *Mol Microbiol*. 2010 Jun;76(6):1387-97.
83. Hruz P*, **Zinkernagel AS***, Jenikova G, Botwin G, Karin M, Nizet V, Eckmann L. NOD2 Contributes to Cutaneous Defense Against *Staphylococcus aureus* through Cytolisin-Dependent Innate Immune Activation. *Proc Natl Acad Sci USA* 2009, 106:12873-8
* these authors contributed equally
84. Navarini-Meury AA, Lang KS, Verschoor A, Recher M, **Zinkernagel AS**, Nizet V, Odermatt B, Hengartner H, Zinkernagel RM. Innate immune-induced depletion of bone marrow neutrophils aggravates systemic bacterial infections. *Proc Natl Acad Sci USA* 2009, 28: 10: 7107-7112.
85. Lauth X, von Köckritz-Blickwede M, McNamara CW, Myskowski S, **Zinkernagel AS**, Beall B, Ghosh P, Gallo RL, Nizet V. M1 protein allows group A streptococcal survival in phagocyte extracellular traps through cathelicidin inhibition. *J Innate Immun* 2009, 1:202-214.
86. **Zinkernagel AS**, Timmer AM, Buchanan JT, Pence M, Turner CE, Mishalian I, Sriskandan S, Hanski E, Nizet V. IL-8 Protease SpyCEP/ScpC Contributes to Neutrophil Resistance and Virulence of Invasive M1T1 Group A *Streptococcus*. *Cell Host & Microbe* 2008, 4: 170-178.
87. Rius J, Guma M, Schachtrup C, Akassoglou K, **Zinkernagel AS**, Nizet V, Johnson RS, Haddad GG, Karin M. NF- κ B links innate immunity to the hypoxic response through transcriptional regulation of HIF-1 α . *Nature* 2008, 454: 807-811.
88. McNamara CW, **Zinkernagel AS**, Macheboeuf P, Cunningham MW, Nizet V, Ghosh P. Coiled-coil irregularities and instabilities in Group A *Streptococcus* M1 are required for virulence functions. *Science* 2008, 319:1405-1408.
89. Peyssonnaud C, Boutin A, **Zinkernagel AS**, Datta V, Nizet V, Johnson RS. Critical Role of HIF-1 α in Keratinocyte Defense against Bacterial Infection. *J Invest Dermatol*. 2008,128: 1964-1968.
90. **Zinkernagel AS**, Peyssonnaud C, Johnson RS, Nizet V. Pharmacologic Augmentation of HIF-1 α with Mimosine Boosts the Bactericidal Capacity of Phagocytes. *J Infect Dis* 2008, 197: 214-217.
91. **Zinkernagel AS**, Zinkernagel MS, Elzi MV, Genoni M, Gubler J, Zbinden R, Mueller NJ. Significance of *Staphylococcus lugdunensis* bacteremia: report of 28 cases and review of the literature. *Infection* 2008, 36: 314-321.

92. Peyssonnaud C, **Zinkernagel AS**, Schuepbach RA, Rankin E, Haase VH, Nizet V, Johnson RS. VHL mediated stabilization of HIF orchestrates the iron metabolic response. *J Clin Invest.* 2007, 117: 1926-1932.
93. Peyssonnaud C, Cejudo-Martin P, Doedens A, **Zinkernagel AS**, Johnson RS, Nizet V. Cutting edge: Essential Role of Hypoxia Inducible Factor-1 α in Development of LPS-Induced Sepsis. *J Immunol* 2007,178:7516-7519.
94. Thiel MA*, **Zinkernagel AS***, Burhenne J, Kaufmann C, Haefeli WE. Voriconazole concentration in human aqueous humor and plasma during topical or combined topical and systemic administration for fungal keratitis. *Antimicrob Agents Chemother.* 2007, 51: 239-244.
* these authors contributed equally
95. Chen Y, Corriden R, Inoue Y, Yip L, Hashiguchi N, **Zinkernagel A**, Nizet V, Insel A, Junger WG. Polarized ATP release, P2Y2 receptors, and A3 adenosine receptors guide neutrophil chemotaxis. *Science* 2006, 314:1792-1795
96. Keiser O, Martinez de Tejada B, Wunder D, Chapuis-Taillard C, Zellweger C, **Zinkernagel AS**, ELzi L, Schmid P, Bernasconi E, Aebi-Popp K, Rickenbach M. Frequency of Gynecologic Follow-Up and Cervical Cancer Screening in the Swiss HIV Cohort Study. *J Acquir Immune Defic Syndr.* 2006, 43: 550-555.
97. **Zinkernagel AS**, von Wyl V, Ledergerber B, Rickenbach M, Furrer HJ, Battegay M, Hirschel B, Tarr PE, Opravil O, Bernasconi E, Schmid P, Rainer Weber, and the Swiss HIV Cohort Study. Eligibility for and Outcome of Hepatitis C Treatment of HIV Co-infected Persons in Clinical Practice: The Swiss HIV Cohort Study. *Antivir Ther* 2006, 11: 131-142.
98. Vora S, Marcelin A, Günthard HF, Flandre P, Hirsch HH, Masquelier B, **Zinkernagel A**, Peytavin G, Calvez G, Perrin L, Yerly S. Clinical validation of atazanavir/ritonavir genotypic resistance score in protease inhibitor-experienced patients. *AIDS* 2006, 20: 35-40.
99. Peyssonnaud C, **Zinkernagel AS**, Datta V, Lauth X, Johnson RS, Nizet V. TLR-4 Dependent Hepcidin Expression by Myeloid Cells in Response to Bacterial Pathogens. *Blood* 2006, 107:3727-32
100. Rauch A, Rickenbach M, Weber R, Hirschel B, Tarr P, Bucher H, Vernazza P, Bernasconi E, **Zinkernagel AS**, Furrer H and the Swiss HIV Cohort Study. Unsafe sex and increased incidence of hepatitis C virus infection among HIV-infected men who have sex with men: the Swiss HIV Cohort Study. *Clin Infect Dis.* 2005, 41:395-402.
101. Von der Ploeg JR, Gierstein E, Lüdin B, Mörgeli Ch, **Zinkernagel AS**, Gmür R. Quantitative detection of *Porphyromonas gingivitis* filmA genotypes in dental plaque. *FEMS Microbiology letters* 2004, 232: 31-37.
102. **Zinkernagel AS**, Fenner L, Gmür R, Schoedon G, Schneemann M. Marginal and subgingival plaque - a natural habitat of *T. whippelii*? *Infection* 2003, 31, 86-91.
103. **Zinkernagel AS**, von Graevenitz A, Funke G. Heterogeneity within *Corynebacterium minutissimum* strains is explained by misidentified *Corynebacterium amycolatum* strains. *Clinical Microbiology and Infectious Disease* 1996, 106: 378-383.

Letters:

104. Varga Z, Flammer AJ, Steiger P, Haberecker M, Andermatt R, **Zinkernagel A**, Mehra MR, Scholkmann F, Schüpbach R, Ruschitzka F, Moch H. Electron microscopy of SARS-CoV-2: a challenging task - Authors' reply. *Lancet*. 2020 May 30;395(10238):e100. doi: 10.1016/S0140-6736(20)31185-5. Epub 2020 May 19.
105. Scudeller L, Rodríguez-Baño J, **Zinkernagel A**, Tacconelli E, Akova M, Friedrich AW, Sanguinetti M, Paul M, Poljak M. ESCMID white paper: a guide on ESCMID guidance documents. *Clin Microbiol Infect*. 2018 Aug 23. pii: S1198-743X(18)30577-9. doi: 10.1016/j.cmi.2018.08.005. [Epub ahead of print] PMID:30145398
106. Poljak M, Akova M, Friedrich AW, Rodríguez-Baño J, Sanguinetti M, Tacconelli E, **Zinkernagel A**. ESCMID-an international Europe-based society committed to fostering cross-border collaboration and education to improve patient care. *Clin Microbiol Infect*. 2017 Jun 2. pii: S1198-743X(17)30284-7. doi: 10.1016/j.cmi.2017.05.024. PMID: 28583741
107. Schilcher K, Dengler Haunreiter V, **Zinkernagel AS**. Reply to "Modulatory Effects of a Subinhibitory Concentration of Clindamycin in Community-Acquired Methicillin-Resistant Staphylococcus aureus Strains of Sequence Type 30". *Antimicrob Agents Chemother*. 2017 Feb 23;61(3). pii: e02386-16. doi: 10.1128/AAC.02386-16. Print 2017 Mar.
108. Leimer N, **Zinkernagel AS**; Reply to Perez and Patel, *J Infect Dis*. 2016 Dec 14. pii: jiw504. PMID: 27974435, DOI: 10.1093/infdis/jiw504

Case Reports:

109. Adamo S, Gian Vital D, **Zinkernagel AS**, Kollias S, Steiner UC. Carotidynie: eine seltene Manifestation einer nicht so seltenen Erkrankung. *Praxis (Bern 1994)*. 2017 Nov;106(24):1350-1353. doi: 10.1024/1661-8157/a002837. German. PMID: 29183214
110. Kolios AGA, Cozzio A, **Zinkernagel AS**, French LE, Kündig TM. Cutaneous Corynebacterium Infection Presenting with Disseminated Skin Nodules and Ulceration. *Case Rep Dermatol*. 2017 May 16;9(2):8-12. doi: 10.1159/000476054. eCollection 2017 May-Aug. PMID: 28611629
111. Huser MC, Meindl-Fridez C, **Zinkernagel AS**. Grampositives toxisches Schocksyndrom. *Praxis (Bern 1994)*. 2014 Oct 29;103(22):1293-9; quiz 1300-1. doi: 10.1024/1661-8157/a001817. German. PMID: 25351691
112. Hasse B, Husmann L, **Zinkernagel A**, Weber R, Lachat M, Mayer D. Vascular graft infections. *Swiss Med Wkly*. 2013 Jan 24;143:w13754. doi: 10.4414/smw.2013.13754.
113. **Zinkernagel AS**, Johnson RS, Nizet V. Hypoxia inducible factor (HIF) function in innate immunity and infection. *J Mol Med*. 2007, 85:1339-46.
114. **Zinkernagel AS**, Nizet V. Staphylococcus aureus: a blemish on skin immunity. *Cell Host Microbe*. 2007, 1:161-2.

Review:

115. Huemer M, Mairpady Shambat S, Brugger SD, **Zinkernagel AS**. Antibiotic resistance and persistence-Implications for human health and treatment perspectives. *EMBO Rep*. 2020 Dec 3;21(12):e51034. doi: 10.15252/embr.202051034.
116. Balaban NQ, Helaine S, Lewis K, Ackermann M, Aldridge B, Andersson DI, Brynildsen MP, Bumann D, Camilli A, Collins JJ, Dehio C, Fortune S, Ghigo JM, Hardt WD, Harms A, Heinemann M, Hung DT, Jenal U, Levin BR, Michiels J, Storz G, Tan MW, Tenson T, Van Melderen L, **Zinkernagel A**. Definitions and guidelines for research on antibiotic persistence. *Nat Rev Microbiol*. 2019 Jul;17(7):441-448. doi: 10.1038/s41579-019-0196-3. Review. Erratum in: *Nat Rev Microbiol*. 2019 Apr 29
117. Huser MC, Meindl-Fridez C, Zinkernagel AS. Grampositives toxisches Schocksyndrom. *Praxis (Bern 1994)*. 2014 Oct 29;103(22):1293-9; quiz 1300-1. doi: 10.1024/1661-8157/a001817. German. PMID: 25351691
118. Hasse B, Husmann L, Zinkernagel A, Weber R, Lachat M, Mayer D. Vascular graft infections. *Swiss Med Wkly*. 2013 Jan 24;143:w13754. doi: 10.4414/smw.2013.13754.
119. Zinkernagel AS, Johnson RS, Nizet V. Hypoxia inducible factor (HIF) function in innate immunity and infection. *J Mol Med*. 2007, 85:1339-46.
120. Zinkernagel AS, Nizet V. Staphylococcus aureus: a blemish on skin immunity. *Cell Host Microbe*. 2007, 1:161-2.

Other:

121. Hilty MP, Keiser S, Wendel Garcia PD, Moser A, Schuepbach RA; RISC-19-ICU Investigators for Switzerland. *Intensive Care Med*. 2022 Jan 20:1-4. doi: 10.1007/s00134-021-06610-z. Online ahead of print. PMID: 35050384 Free PMC article. No abstract available.