

# Publications

Bahrs C, Schönherr C, Panning M, Rose N, Dähne T, Hagel S, Weis S, Rupp J, Rohde G, Witzenzath M, Pletz MW (2024) Frequency and clinical significance of Herpes simplex virus type 1/2 reactivation in adult patients with mild to moderately severe community-acquired pneumonia: a multicentre cohort study. *Infection* , 1-7.

Giamarellos-Bourboulis EJ, Aschenbrenner AC, Bauer M, Bock C, Calandra T, Gat-Viks I, Kyriazopoulou E, Lupse M, Monneret G, Pickkers P, Schultze JL, van der Poll T, van de Veerdonk FL, Vlaar APJ, Weis S, Wiersinga WJ, Netea MG (2024) The pathophysiology of sepsis and precision-medicine-based immunotherapy. *Nat Immunol* 25(1), 19-28. (Review)

Kaasch AJ, López-Cortés LE, Rodríguez-Baño J, Cisneros JM, Dolores Navarro M, Fätkenheuer G, Jung N, Rieg S, Lepeule R, Coutte L, Bernard L, Lemaigen A, Kösters K, MacKenzie CR, Soriano A, Hagel S, Fantin B, Lafaurie M, Talarmin JP, Dinh A, Guimard T, Boutoille D, Welte T, Reuter S, Kluytmans J, Martin ML, Forestier E, Stocker H, Vitrat V, Tattevin P, Rommerskirchen A, Noret M, Adams A, Kern WV, Hellmich M, Seifert H (2024) Efficacy and safety of an early oral switch in low-risk *Staphylococcus aureus* bloodstream infection (SABATO): an international, open-label, parallel-group, randomised, controlled, non-inferiority trial. *Lancet Infect Dis* 24(5), 523-534.

Schnizer M, Schellong P, Rose N, Fleischmann-Struzek C, Hagel S, Abbas M, Payne B, Evans RN, Pletz MW, Weis S (2024) Long versus short course anti-microbial therapy of uncomplicated *Staphylococcus aureus* bacteraemia: a systematic review. *Clin Microbiol Infect* 30(10), 1254-1260.

Slim MA, van Mourik N, Bakkerus L, Fuller K, Acharya L, Giannidis T, Dionne JC, Oczkowski SJW, Netea MG, Pickkers P, Giamarellos-Bourboulis EJ, Müller MCA, van der Poll T, Wiersinga WJ, Vlaar APJ, van Vught LA (2024) Towards personalized medicine: a scoping review of immunotherapy in sepsis. *Crit Care* 28(1), 183. (Review)

Thomas-Rüddel D, Bauer M, Moita LF, Helbig C, Schlattmann P, Ehler J, Rahmel T, Meybohm P, Gründling M, Schenk H, Köcher T, Brunkhorst FM, Gräler M, Heger AJ, Weis S (2024) Epirubicin for the Treatment of Sepsis and Septic Shock (EPOS-1): study protocol for a randomised, placebo-controlled phase IIa dose-escalation trial. *BMJ Open* 14(4), e075158.

von Loeffelholz C, Winkler R, Weigel C, Piskor EM, Vivas W, Rauchfuß F, Settmacher U, Rubio I, Weis S, Gräler MH, Bauer M, Kosan C (2024) Increased peritoneal B1-like cells during acute phase of human septic peritonitis. *iScience* 27(7), 110133.

Weis S, King IL, Vivas W (2024) To sense or not to sense, Paneth cell regulation of mucosal immunity. *Cell Host Microbe* 32(10), 1648-1650.

Westfall S, Gentile ME, Olsen TM, Karo-Atar D, Bogza A, Röstel F, Pardy RD, Mandato G, Fontes G, View ORCID Profile De'Broski H, Melichar HJ, Abadie V, Richer MJ, Vinh DC, Koenig JFE, View ORCID Profile Harrison OJ, View ORCID Profile Divangahi M, Weis S, Gregorieff A, View ORCID Profile King IL (2024) A type 1 immune-stromal cell network mediates disease tolerance and barrier protection against intestinal infection. *bioRxiv* [Preprint]

Wu Q, Carlos AR, Braza F, Bergman ML, Kitoko JZ, Bastos-Amador P, Cuadrado E, Martins R, Oliveira BS, Martins VC, Scicluna BP, Landry JJ, Jung FE, Ademolue TW, Peitzsch M, Almeida-Santos J, Thompson J, Cardoso S, Ventura P, Slot M, Rontogianni S, Ribeiro V, Domingues VDS,

Cabral IA, Weis S, Groth M, Ameneiro C, Fidalgo M, Wang F, Demengeot J, Amsen D, Soares MP (2024) Ferritin heavy chain supports stability and function of the regulatory T cell lineage. *EMBO J* 43(8), 1445-1483.

Asantewaa G, Godwin Anabire N, Bauer M, Weis S, Neugebauer S, Quaye O, Helegbe GK (2023) Serum metabolome signatures characterizing co-infection of *Plasmodium falciparum* and HBV in pregnant women. *Diseases* 11(3), 94.

Bahrs C, Weis S, Kesselmeier M, Ankert J, Hagel S, Beier S, Maschmann J, Stallmach A, Steiner A, Bauer M, Behringer W, Baier M, Richert C, Zepf F, Walter M, Scherag A, Kiehntopf M, Löffler B, Pletz MW (2023) Non-patient-related SARS-CoV-2 exposure from colleagues and household members poses the highest infection risk for hospital employees in a German university hospital: follow-up of the prospective Co-HCW seroprevalence study. *Infection* 51(4), 1051-1059.

Bode C, Weis S, Sauer A, Wendel-Garcia P, David S (2023) Targeting the host response in sepsis: current approaches and future evidence. *Crit Care* 27(1), 478.

Hills TE, Lorenzi E, Berry LR, Shyamsundar M, Al-Beidh F, Annane D, Arabi Y, Aryal D, Au C, Beane A, Bhimani Z, Bonten M, Bradbury CA, Brunkhorst FM, Burrell A, Buxton M, Calfee CS, Cecconi M, Cheng AC, Cove ME, Detry MA, Estcourt LJ, Fitzgerald M, Goligher EC, Goossens H, Green C, Haniffa R, Harrison DA, Hashmi M, Higgins AM, Huang DT, Ichihara N, Jayakumar D, Kruger PS, Lamontagne F, Lampro L, Lawler PR, Marshall JC, Mason AJ, McGlothlin A, McGuinness S, McQuilten ZK, McVerry BJ, Mouncey PR, Murthy S, Neal MD, Nichol AD, O'Kane CM, Parke RL, Parker JC, Rabindrarajan E, Reyes LF, Rowan KM, Saito H, Santos M, Saunders CT, Seymour CW, Shankar-Hari M, Sinha P, Thompson BT, Turgeon AF, Turner AM, van de Veerdonk FV, Weis S, Young IS, Zarychanski R, Lewis RJ, McArthur CJ, Angus DC, Berry SM, Derde LPG, Webb SA, Gordon AC, McAuley DF (2023) Simvastatin in critically ill patients with Covid-19. *N Engl J Med* 389(25), 2341-2354.

Licht A, Wetzker W, Scholz J, Scherag A, Weis S, Pletz MW, Bauer M, Dickmann P (2023) Public health risk communication through the lens of a quarantined community: Insights from a coronavirus hotspot in Germany. *PLoS One* 18(10), e0292248.

Powell RE, Soares MP, Weis S (2023) What's new in intensive care: disease tolerance. *Intensive Care Med* 49(10), 1235-1237.

Schnizer C, Andreas N, Vivas W, Kamradt T, Baier M, Kiehntopf M, Glöckner S, Scherag A, Löffler B, Kolanos S, Guerra J, Pletz MW, Weis S (2023) Persistent humoral and CD4+ TH cell immunity after mild SARS-COV-2 infection-the CoNAN long-term study. *Front Immunol* 13, 1095129.

Andreas N, Weis S, Kolanos S, Baumgart S, Kamradt T, Pletz MW (2022) Persistent T-cell reactivity in a seronegative patient after SARS-CoV-2 infection and one vaccination. *Vaccines (Basel)* 10(1), 114.

Burgold-Voigt S, Müller E, Zopf D, Monecke S, Braun SD, Frankenfeld K, Kiehntopf M, Weis S, Schumacher T, Pletz MW, Ehrlich R (2022) Development of a new antigen-based microarray platform for screening and detection of human IgG antibodies against SARS-CoV-2. *Sci Rep* 12(1), 8067.

Hagel S, Bahrs C, Schumann R, Pletz M, Weis S (2022) Complicated and uncomplicated *S. aureus* bacteraemia: an international Delphi survey among infectious diseases experts on

definitions and treatment. *Clin Microbiol Infect* 28(7), 1026.e7.

Morales-Prieto DM, Murrieta-Coxca JM, Stojiljkovic M, Diezel C, Streicher PE, Henao-Restrepo JA, Röstel F, Lindner J, Witte OW, Weis S, Schmeer C, Marz M (2022) Small extracellular vesicles from peripheral blood of aged mice pass the blood-brain barrier and induce glial cell activation. *Cells* 11(4), 625.

Pletz MW, Dürrwald R, Reiche J, Rose N, Scherag A, Weis S, CoNAN study group (2022) Impact of the COVID-19 pandemic on influenza and RSV antibody titres in the community - a prospective cohort study in Neustadt Thuringia/Germany. *Eur Respir J* 60(5), 2200947.

Ramos S, Ademolue TW, Jentho E, Wu Q, Guerra J, Martins R, Pires G, Weis S, Carlos AR, Mahú I, Seixas E, Duarte D, Rajas F, Cardoso S, Sousa AGG, Lilue J, Paixão T, Mithieux G, Nogueira F, Soares MP (2022) A hypometabolic defense strategy against malaria. *Cell Metab* 34(8), 1183-1200.e12.

Schellong P, Hagel S, Pletz MW, Weis S (2022) Behandlung von *Staphylococcus-aureus*-Blutstrominfektionen. *Z Pneumologie* 19, 343-358.

Vivas W, Weis S (2022) Tidy up - The unfolded protein response in sepsis. *Front Immunol* 13, 980680. (Review)

Weis S, Hagel S, Palm J, Scherag A, Kolanos S, Bahrs C, Löffler B, Schmitz RPH, Reißner F, Brunkhorst FM, Pletz MW (2022) Effect of automated telephone infectious disease consultations to nonacademic hospitals on 30-day mortality among patients with *Staphylococcus aureus* Bacteremia: The SUPPORT cluster randomized clinical trial. *JAMA Netw Open* 5(6), e2218515.

Colaço HG, Barros A, Neves-Costa A, Seixas E, Pedroso D, Velho T, Willmann KL, Faisca P, Grabmann G, Yi HS, Shong M, Benes V, Weis S, Köcher T, Moita LF (2021) Tetracycline antibiotics induce Host-dependent disease tolerance to infection. *Immunity* 54(1), 53-67.e7.

Divangahi M, Aaby P, Khader SA, Barreiro LB, Bekkering S, Chavakis T, van Crevel R, Curtis N, DiNardo AR, Dominguez-Andres J, Duivenvoorden R, Fanucchi S, Fayad Z, Fuchs E, Hamon M, Jeffrey KL, Khan N, Joosten LAB, Kaufmann E, Latz E, Matarese G, van der Meer JWM, Mhlanga M, Moorlag SJCFM, Mulder WJM, Naik S, Novakovic B, O'Neill L, Ochando J, Ozato K, Riksen NP, Sauerwein R, Sherwood ER, Schlitzer A, Schultze JL, Sieweke MH, Benn CS, Stunnenberg H, Sun J, van de Veerdonk FL, Weis S, Williams DL, Xavier R, Netea MG (2021) Trained immunity, tolerance, priming and differentiation: distinct immunological processes. *Nat Immunol* 22(1), 2-6.

Jentho E, Ruiz-Moreno C, Novakovic B, Kourtzelis I, Megchelenbrink WL, Martins R, Chavakis T, Soares MP, Kalafati L, Guerra J, Roestel F, Bohm P, Godmann M, Grinenko T, Eugster A, Beretta M, Joosten LAB, Netea MG, Bauer M, Stunnenberg HG, Weis S (2021) Trained innate immunity, long-lasting epigenetic modulation, and skewed myelopoiesis by heme. *Proc Natl Acad Sci U S A* 118(42), e2102698118.

Jentho E, Weis S (2021) DAMPs and innate immune training. *Front Immunol* 12, 699563. (Review)

Mourits VP, van Puffelen JH, Novakovic B, Bruno M, Ferreira AV, Arts RJ, Groh L, Crişan TO, Zwaag J, Jentho E, Kox M, Pickkers P, van de Veerdonk FL, Weis S, Oosterwijk E, Vermeulen

SH, Netea MG, Joosten LA (2021) Lysine methyltransferase G9a is an important modulator of trained immunity. *Clin Transl Immunology* 10(2), e1253.

Osuchowski MF, Winkler MS, Skirecki T, Cajander S, Shankar-Hari M, Lachmann G, Monneret G, Venet F, Bauer M, Brunkhorst FM, Weis S, Garcia-Salido A, Kox M, Cavaillon JM, Uhle F, Weigand MA, Flohé SB, Wiersinga WJ, Almansa R, de la Fuente A, Martin-Loeches I, Meisel C, Spinetti T, Schefold JC, Cilloniz C, Torres A, Giamarellos-Bourboulis EJ, Ferrer R, Girardis M, Cossarizza A, Netea MG, van der Poll T, Bermejo-Martín JF, Rubio I (2021) The COVID-19 puzzle: deciphering pathophysiology and phenotypes of a new disease entity. *Lancet Respir Med* 9(6), 622-642. (Review)

Scholz J, Wetzker W, Licht A, Heintzmann R, Scherag A, Weis S, Pletz M, Betsch C, Bauer M, Dickmann P (2021) The role of risk communication in public health interventions. An analysis of risk communication for a community quarantine in Germany to curb the SARS-CoV-2 pandemic. *PLOS One* 16(8), e0256113.

Vandewalle J, Timmermans S, Paakinaho V, Vancraeynest L, Dewyse L, Vanderhaeghen T, Wallaey C, Van Wyngene L, Van Looveren K, Nuytens L, Eggermont M, Dewaele S, Velho TR, Moita LF, Weis S, Sponholz C, van Grunsven LA, Dewerchin M, Carmeliet P, De Bosscher K, Van de Voorde J, Palvimo JJ, Libert C (2021) Combined glucocorticoid resistance and hyperlactatemia contributes to lethal shock in sepsis. *Cell Metab* 33(9), 1763-1776.

Weis S, Scherag A, Baier M, Kiehnopf M, Kamradt T, Kolanos S, Ankert J, Glöckner S, Makarewicz O, Hagel S, Bahrs C, Kimmig A, Proquitté H, Guerra J, Rimek D, Löffler B, Pletz MW (2021) Antibody response using six different serological assays in a completely PCR-tested community after a coronavirus disease 2019 outbreak-the CoNAN study. *Clin Microbiol Infect* 27(3), 470.e1-470.e9.

Winkler MS, Skirecki T, Brunkhorst FM, Cajander S, Cavaillon JM, Ferrer R, Flohé SB, García-Salido A, Giamarellos-Bourboulis EJ, Girardis M, Kox M, Lachmann G, Martin-Loeches I, Netea MG, Spinetti T, Schefold JC, Torres A, Uhle F, Venet F, Weis S, Scherag A, Rubio I, Osuchowski MF (2021) Bridging animal and clinical research during SARS-CoV-2 pandemic: A new-old challenge. *EBioMedicine* 66, 103291. (Review)

Blankenhaus B, Braza F, Martins R, Bastos-Amador P, González-García I, Carlos AR, Mahu I, Faisca P, Nunes JM, Ventura P, Hoerr V, Weis S, Guerra J, Cardoso S, Domingos A, López M, Soares MP (2019) Ferritin regulates organismal energy balance and thermogenesis. *Mol Metab* 24, 64-79.

Bauer M, Weis S, Netea MG, Wetzker R (2018) Remembering Pathogen Dose: Long-Term Adaptation in Innate Immunity. *Trends Immunol* 39(6), 438-445. (Review)

Weis S, Carlos AR, Moita MR, Singh S, Blankenhaus B, Cardoso S, Larsen R, Rebelo S, Schäuble S, Del Barrio L, Mithieux G, Rajas F, Lindig S, Bauer M, Soares MP (2017) Metabolic Adaptation Establishes Disease Tolerance to Sepsis. *Cell* 169(7), 1263-1275.e14.

Weis S, Hagel S, Schmitz RP, Scherag A, Brunkhorst FM, Forstner C, Löffler B, Pletz MW (2017) Study on the utility of a statewide counselling programme for improving mortality outcomes of patients with *Staphylococcus aureus* bacteraemia in Thuringia (SUPPORT): a study protocol of a cluster-randomised crossover trial. *BMJ Open* 7(4), e013976.

Weis S, Rubio I, Ludwig K, Weigel C, Jentho E (2017) Hormesis and Defense of Infectious

Disease. *Int J Mol Sci* 18(6), (Review)

Soares MP, Gozzelino R, Weis S (2014) Tissue damage control in disease tolerance. *Trends Immunol* 35(10), 483-494. (Review)

Lin Q, Weis S, Yang G, Weng YH, Helston R, Rish K, Smith A, Bordner J, Polte T, Gaunitz F, Dennerly PA (2007) Heme oxygenase-1 protein localizes to the nucleus and activates transcription factors important in oxidative stress. *J Biol Chem* 282(28), 20621-20633.

\*equal contribution #corresponding author