

Publications

Richter I, Hasan M, Kramer JW, Wein P, Krabbe J, Woitas KP, Stinear TP, Pidot SJ, Kloss F, Hertweck C, Lackner G (2024) Deazaflavin metabolite produced by endosymbiotic bacteria controls fungal host reproduction. *ISME J* 18(1), wrae074.

Chalo DM, Franke K, Nchiozem-Ngnitedem VA, Kakudidi E, Origa-Oryem H, Namukobe J, Kloss F, Yenesew A, Wessjohann LA (2023) Prenylated isoflavanones with antimicrobial potential from the root bark of *Dalbergia melanoxylon*. *Metabolites* 13(6), 678.

Eckhardt E, Li Y, Mamerow S, Schinköthe J, Sehl-Ewert J, Dreisbach J, Corleis B, Dorhoi A, Teifke J, Menge C, Kloss F, Bastian M (2023) Pharmacokinetics and efficacy of the Benzothiazinone BTZ-043 against *Tuberculous Mycobacteria* inside granulomas in the Guinea pig model. *Antimicrob Agents Chemother* 67(4), e0143822.

Joch M, Wojtas KP, Torres-Gómez H, Li Y, Meyer F, Straßburger M, Kerndl V, Dahse HM, Hertweck C, Hoffmann H, Görls H, Walter K, Hölscher C, Kloss F (2023) Whole cell hydride Meisenheimer complex biotransformation guided optimization of antimycobacterial benzothiazinones. *Eur J Med Chem* 264, 116023.

Keiff F, Jacques dit Lapierre TJW, Bernal F, Kloss F (2023) Design and synthesis of benzofuran- and naphthalene-fused thiazinones as antimycobacterial agents. *Arch Pharm (Weinheim)* 356(11), e2300356.

Alt S, Haggstrom D, Kessmann H, Kloss F, Schneider CE, Jäger T, Schwede T, Brakhage A, Dehio C (2022) INCATE: a partnership to boost the antibiotic pipeline. *Nat Rev Drug Discov* 21(9), 621-622. (Review)

Bernal FA, Hammann P, Kloss F (2022) Natural products in antibiotic development: is the success story over? *Curr Opin Biotechnol* 78, 102783. (Review)

Bitar L, Uphaus T, Thalman C, Muthuraman M, Gyr L, Ji H, Domingues M, Endle H, Groppa S, Steffen F, Koirala N, Fan W, Ibanez L, Heitsch L, Cruchaga C, Lee JM, Kloss F, Bittner S, Nitsch R, Zipp F, Vogt J (2022) Inhibition of the enzyme autotaxin reduces cortical excitability and ameliorates the outcome in stroke. *Sci Transl Med* 14(641), eabk0135.

Endle H, Horta G, Stutz B, Muthuraman M, Tegeder I, Schreiber Y, Snodgrass IF, Gurke R, Liu ZW, Sestan-Pesa M, Radyushkin K, Streu N, Fan W, Baumgart J, Li Y, Kloss F, Groppa S, Opel N, Dannlowski U, Grabe HJ, Zipp F, Rácz B, Horvath TL, Nitsch R, Vogt J (2022) AgRP neurons control feeding behaviour at cortical synapses via peripherally derived lysophospholipids. *Nat Metab* 4(6), 683-692.

Haensch V, Neuwirth T, Bergner A, Bruhnke J, Kloss F, Hertweck C (2022) Sustainable and highly controlled aryl couplings revealed by systematic assessment of photoactivatable linkers. *Chem Sci* 13(19), 5680-5686.

Riabova O, Egorova A, Lepioshkin A, Li Y, Voigt K, Kloss F, Makarov V (2022) Thienol[2,3-d]pyrimidine-core compounds show activity against clinically relevant gram-positive bacteria. *ChemMedChem* 17(17), e202200207.

Schieferdecker S, Bernal FA, Wojtas KP, Keiff F, Li Y, Dahse HM, Kloss F (2022) Development of

predictive classification models for whole cell antimycobacterial activity of benzothiazinones. *J Med Chem* 65(9), 6748-6763.

Stein J, Schlosser N, Bardl B, Peschel G, Meyer F, Kloss F, Rosenbaum MA, Regestein L (2022) Scalable downstream method for the cyclic lipopeptide jagaricin. *Eng Life Sci* 22(12), 811-817.

Schlosser N, Espino-Martínez J, Kloss F, Meyer F, Bardl B, Rosenbaum MA, Regestein L (2021) Host nutrition-based approach for biotechnological production of the antifungal cyclic lipopeptide jagaricin. *J Biotechnol* 336, 1-9.

Roman D, Raguž L, Keiff F, Meyer F, Barthels F, Schirmeister T, Kloss F, Beemelmans C (2020) Modular solid-phase synthesis of antiprotozoal barnesin derivatives. *Org Lett* 22(10), 3744-3748.

Sester A, Stür-Patowsky K, Hiller W, Kloss F, Lütz S, Nett M (2020) Biosynthetic plasticity enables production of fluorinated aurachins. *Chembiochem* 21(16), 2268-2273.

Dunbar KL, Dell M, Molloy EM, Kloss F, Hertweck C (2019) Reconstitution of iterative thioamidation in closthioamide biosynthesis reveals a novel nonribosomal peptide backbone-tailoring strategy. *Angew Chem Int Ed* 58(37), 13014-13018.

Fischer D, Gessner G, Fill TP, Barnett R, Tron K, Dornblut K, Kloss F, Stallforth P, Hube B, Heinemann SH, Hertweck C, Scherlach K, Brunke S (2019) Disruption of membrane integrity by the bacteria-derived antifungal jagaricin. *Antimicrob Agents Chemother* 63(9), e00707-19.

Haensch VG, Neuwirth T, Steinmetzer J, Kloss F, Beckert R, Gräfe S, Kupfer S, Hertweck C (2019) Metal-free aryl cross-coupling directed by traceless linkers. *Chem Eur J* 25(70), 16068-16073.

Kloss F, Gerbach S (2018) Hürden und Aussichten neuer antimikrobieller Konzepte in Forschung und Entwicklung. [Obstacles and perspectives of new antimicrobial concepts within research and development]. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz* 61(5), 595-605. (Review)

Kloss F, Neuwirth T, Haensch VG, Hertweck C (2018) Metal-free synthesis of pharmaceutically important biaryls by photosplicing. *Angew Chem Int Ed* 57(44), 14476-14481.

Kloss F, Krchnak V, Krchnakova A, Schieferdecker S, Dreisbach J, Krone V, Möllmann U, Hoelscher M, Miller MJ (2017) *In Vivo* Dearomatization of the Potent Antituberculosis Agent BTZ043 via Meisenheimer Complex Formation. *Angew Chem Int Ed* 56(8), 2187-2191.

Chiriac AI, Kloss F, Krämer J, Vuong C, Hertweck C, Sahl HG (2015) Mode of action of closthioamide: the first member of the polythioamide class of bacterial DNA gyrase inhibitors. *J Antimicrob Chemother* 70(9), 2576-2588.

Kloss F, Chiriac AI, Hertweck C (2014) Mapping of the modular closthioamide architecture reveals crucial motifs of polythioamide antibiotics. *Chemistry* 20(47), 15451-15458.

Pidot SJ, Coyne S, Kloß F, Hertweck C (2014) Antibiotics from neglected bacterial sources. *Int J Med Microbiol* 304(1), 14-22.

Ross C, Scherlach K, Kloss F, Hertweck C (2014) The molecular basis of conjugated polyene biosynthesis in phytopathogenic bacteria. *Angew Chem Int Ed Engl* 53(30), 7794-7798.

Behnken S, Lincke T, Kloss F, Ishida K, Hertweck C (2012) Antiterminator-mediated unveiling of cryptic polythioamides in an anaerobic bacterium. *Angew Chem Int Ed Engl* 51(10), 2425-2428.

*equal contribution #corresponding author