

Publications

Murphy R, Benndorf R, De Beer ZW, Vollmers J, Kaster AK, Beemelmans C, Poulsen M (2021) Comparative genomics reveals sanitary and catabolic capabilities of *Actinobacteria* within the fungus-farming termite symbiosis. *mSphere* 6(2), e01233-20.

Um S, Guo H, Thiengmag S, Benndorf R, Murphy R, Rischer M, Braga D, Poulsen M, de Beer ZW, Lackner G, Beemelmans C (2021) Comparative genomic and metabolic analysis of *Streptomyces* sp. RB110 morphotypes illuminates genomic rearrangements and formation of a new 46-membered antimicrobial macrolide. *ACS Chem Biol* 16(8), 1482-1492.

Benndorf R, Martin K, Kufner M, de Beer ZW, Vollmers J, Kaster AK, Beemelmans C (2020) *Actinomadura rubteroloni* sp. nov. and *Actinomadura macrotermis* sp. nov., isolated from the gut of the fungus growing-termite *Macrotermes natalensis*. *Int J Syst Evol Microbiol* 70(10), 5255-5262.

Benndorf R, Schwitalla JW, Martin K, de Beer ZW, Vollmers J, Kaster AK, Poulsen M, Beemelmans C (2020) *Nocardia macrotermis* sp. nov. and *Nocardia aurantia* sp. nov., isolated from the gut of the fungus-growing termite *Macrotermes natalensis*. *Int J Syst Evol Microbiol* 70(10), 5226-5234.

Guo H, Schwitalla JW, Benndorf R, Baunach M, Steinbeck C, Görls H, de Beer ZW, Regestein L, Beemelmans C (2020) Gene cluster activation in a bacterial symbiont leads to halogenated angucyclic maduralactomycins and spirocyclic actinospirols. *Org Lett* 22(7), 2634-2638.

Rak Lee S, Schalk F, Schwitalla JW, Benndorf R, Vollmers J, Kaster AK, de Beer ZW, Park M, Ahn MJ, Jung WH, Beemelmans C, Kim KH (2020) Polyhalogenation of isoflavonoids by the termite-associated *Actinomadura* sp. RB99. *J Nat Prod* 83(10), 3102-3110.

Schwitalla JW, Benndorf R, Martin K, Vollmers J, Kaster AK, de Beer ZW, Poulsen M, Beemelmans C (2020) *Streptomyces smaragdinus* sp. nov. isolated from the gut of fungus growing-termite *Macrotermes natalensis*. *Int J Syst Evol Microbiol* 70(11), 5806-5811.

Yoon SY, Lee SR, Hwang JY, Benndorf R, Beemelmans C, Chung SJ, Kim KH (2019) Fridamycin A, a microbial natural product, stimulates glucose uptake without inducing adipogenesis. *Nutrients* 11(4), 765.

Benndorf R, Guo H, Sommerwerk E, Weigel C, Garcia-Altare M, Martin K, Hu H, Kuefner M, de Beer ZW, Poulsen M, Beemelmans C (2018) Natural products from Actinobacteria associated with fungus-growing termites. *Antibiotics* 7(3), 83.

Guo H, Benndorf R, König S, Lechnitz D, Weigel C, Peschel G, Berthel P, Kaiser M, Steinbeck C, Werz O, Poulsen M, Beemelmans C (2018) Expanding the rubterolone family: Intrinsic reactivity and directed diversification of PKS-derived pyrans. *Chem Eur J* 24(44), 11319-11324.

Lee RS, Lee D, Yu JS, Benndorf R, Lee S, Lee DS, Huh J, de Beer ZW, Kim YH, Beemelmans C, Kang KS, Kim KH (2018) Natalenamides A-C, cyclic tripeptides from the termite-associated *Actinomadura* sp. RB99. *Molecules* 23(11), 3003.

Benndorf R, Lechnitz D, Rischer M, Beemelmans C (2017) Wie sich Bakterien schützen. *Nachrichten aus der Chemie* 65(1), 21-25. (Review)

Kang HR, Lee D, Benndorf R, Jung WH, Beemelmans C, Kang KS, Kim KH (2016) Termisoflavones A-C, isoflavonoid glycosides from termite-associated *Streptomyces* sp. RB1. *J Nat Prod* 79(12), 3072-3078.

Lünsmann V, Kappelmeyer U, Benndorf R, Martinez-Lavanchy PM, Taubert A, Adrian L, Duarte M, Pieper DH, Bergen Mv, Müller JA, Heipieper HJ, Jehmlich N (2015) *In-situ* Protein-SIP highlights *Burkholderiaceae* as key players degrading toluene by para ring hydroxylation in a constructed wetland model. *Environ Microbiol* 18(4), 1176-1186.

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