

## Publications

Bartholomäus ATH, Roman D, Al-Jammal WK, Vilotijević I, Christine Beemelmans C (2023) Synthesis of aryl- and alkyl-containing 3-methylene-5-hydroxy esters via a barbier allylation reaction. *Eur J Org Chem* 26(18), e202300177.

Bodawatta KH, Hu H, Schalk F, Daniel JM, Maiah G, Koane B, Iova B, Beemelmans C, Poulsen M, Jönsson KA (2023) Multiple mutations in the Nav1.4 sodium channel of New Guinean toxic birds provide autoresistance to deadly batrachotoxin. *Mol Ecol* [Epub ahead of print]

Fricke J, Schalk F, Kreuzenbeck NB, Seibel E, Hoffmann J, Dittmann G, Conlon BH, Guo H, Wilhelm de Beer Z, Vassão DG, Gleixner G, Poulsen M, Beemelmans C (2023) Adaptations of *Pseudoxylaria* towards a comb-associated lifestyle in fungus-farming termite colonies. *ISME J* 17(5), 733-747.

Kreuzenbeck NB, Dhiman S, Roman D, Burkhardt I, Conlon BH, Fricke J, Guo H, Blume J, Görls H, Poulsen M, Dickschat JS, Köllner TG, Arndt HD, Beemelmans C (2023) Isolation, (bio)synthetic studies and evaluation of antimicrobial properties of drimenol-type sesquiterpenes of *Termitomyces* fungi. *Commun Chem* 6(1), 79.

Bissell AU, Rautschek J, Hoefgen S, Raguž L, Mattern DJ, Saeed N, Janevska S, Jojić K, Huang Y, Kufs JE, Herboeck B, Guo H, Hillmann F, Beemelmans C, Valiante V (2022) Biosynthesis of the sphingolipid inhibitors sphingofungins in filamentous fungi requires aminomalonnate as a metabolic precursor. *ACS Chem Biol* 17(2), 386-394.

Grosse M, Günther K, Jordan PM, Roman D, Werz O, Beemelmans C (2022) Synthesis of functionalized  $\delta$ -hydroxy- $\beta$ -keto esters and evaluation of their anti-inflammatory properties. *ChemBioChem* 23(9), e202200073.

Guo H, Daniel JM, Seibel E, Burkhardt I, Conlon BH, Görls H, Vassão DG, Dickschat JS, Poulsen M, Beemelmans C (2022) Insights into the metabolomic capacity of podaxis and isolation of podaxisterols A-D, ergosterol derivatives carrying nitrosyl cyanide-derived modifications. *J Nat Prod* 85(9), 2159-2167.

Guo H, Rischer M, Beemelmans C (2022) Signalling molecules inducing metamorphosis in marine organisms. *Nat Prod Rep* 39(9), 1833-1855. (Review)

Hoefgen S, Bissell AU, Huang Y, Gherlone F, Raguž L, Beemelmans C, Valiante V (2022) Desaturation of the sphingofungin polyketide tail results in increased serine palmitoyltransferase inhibition. *Microbiol Spectr* 10(5), e0133122.

Kreuzenbeck NB, Seibel E, Schwitalla JW, Fricke J, Conlon BH, Schmidt S, Hammerbacher A, Köllner TG, Poulsen M, Hoffmeister D, Beemelmans C (2022) Comparative genomic and metabolomic analysis of *Termitomyces* species provides insights into the terpenome of the fungal cultivar and the characteristic odor of the fungus garden of *Macrotermes natalensis* termites. *mSystems* 7(1), e0121421.

Lee SR, Schalk F, Schwitalla JW, Guo H, Yu JS, Song M, Jung WH, de Beer ZW, Beemelmans C, Kim KH (2022) GNPS\*\*-guided discovery of madurastatins A1, A2, E1, F, and G1, siderophores from the termite-associated *Actinomadura* sp. RB99. (GNPS=global natural product social molecular networking platform.) *Chemistry* 28(36), e202200612.

- Moghaddam Amri J, Guo H, Willing K, Wichard T, Beemelmans C (2022) Identification of the new prenyltransferase Ubi-297 from marine bacteria and elucidation of its substrate specificity. *Beilstein J Org Chem* 18, 722-731.
- Raguž L, Peng CC, Rutaganira FUN, Krüger T, Stanišić A, Jautzus T, Kries H, Kniemeyer O, Brakhage AA, King N, Beemelmans C (2022) Total synthesis and functional evaluation of IORs, sulfonolipid-based inhibitors of cell differentiation in *Salpingoeca rosetta*. *Angew Chem Int Ed* 61(41), e202209105.
- Sauer M, Beemelmans C (2022) Application of pyrrolo-protected amino aldehydes in the stereoselective synthesis of anti 1,2-amino alcohols. *ChemCom* 58(64), 8990-8993.
- Amiri Moghaddam J, Jautzus T, Alanjary M, Beemelmans C (2021) Recent highlights of biosynthetic studies on marine natural products. *Org Biomol Chem* 19(1), 123-140. (Review)
- Conlon BH, Gostinčar C, Fricke J, Kreuzenbeck NB, Daniel JM, Schlosser MSL, Peereboom N, Aanen DK, de Beer ZW, Beemelmans C, Gunde-Cimerman N, Poulsen M (2021) Genome reduction and relaxed selection is associated with the transition to symbiosis in the basidiomycete genus *Podaxis*. *iScience* 24(6), 102680.
- Guo H, Rischer M, Westermann M, Beemelmans C (2021) Two distinct bacterial biofilm components trigger metamorphosis in the colonial hydrozoan *Hydractinia echinata*. *mBio* 12(3), e0040121.
- Lee SR, Guo H, Yu JS, Park M, Dahse HM, Jung WH, Beemelmans C, Kim KH (2021) Revised structural assignment of azalomycins based on genomic and chemical analysis. *Org Chem Front* 8, 4791-4798.
- Leichnitz D, Peng CC, Raguž L, Rutaganira FUN, Jautzus T, Regestein L, King N, Beemelmans C (2021) Structural and functional analysis of bacterial sulfonosphingolipids and rosette-inducing factor 2 (RIF-2) by mass spectrometry-guided isolation and total synthesis. *Chemistry* 28(8), e202103883.
- Loos D\*, Zhang L, Beemelmans C, Kurzai O, Panagiotou G# (2021) DANIEL: A user-friendly web server for fungal ITS amplicon sequencing data. *Front Microbiol* 12, 720513.
- Marfil-Sánchez A\*, Zhang L\*, Alonso-Pernas P, Mirhakkak M, Mueller M, Seelbinder B, Ni Y, Santhanam R, Busch A, Beemelmans C, Ermolaeva M, Bauer M#, Panagiotou G# (2021) An integrative understanding of the large metabolic shifts induced by antibiotics in critical illness. *Gut Microbes* 13(1), 1993598.
- 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.
- Raguž L, Peng CC, Kaiser M, Görls H, Beemelmans C\* (2021) A modular approach to the antifungal Sphingofungin family: Concise total synthesis of Sphingofungin A and C. *Angew Chem Int Ed* 61(5), e202112616.
- Roman D, Sauer M, Beemelmans C (2021) Applications of the Horner-Wadsworth-Emmons olefination in modern natural product synthesis. *Synthesis* 53(16), 2713-2739. (Review)

Schalk F, Fricke J, Um S, Conlon BH, Maus H, Jäger N, Heinzl T, Schirmeister T, Poulsen M, Beemelmans C (2021) GNPS-guided discovery of xylacremolide C and D, evaluation of their putative biosynthetic origin and bioactivity studies of xylacremolide A and B. *RSC Adv* 11(31), 18748-18756.

Schalk F, Gostinčar C, Kreuzenbeck NB, Conlon BH, Sommerwerk E, Rabe P, Burkhardt I, Krüger T, Kniemeyer O, Brakhage AA, Gunde-Cimerman N, de Beer ZW, Dickschat JS, Poulsen M, Beemelmans C (2021) The termite fungal cultivar *Termitomyces* combines diverse enzymes and oxidative reactions for plant biomass conversion. *mBio* 12(3), e0355120.

Schmidt S, Kildgaard S, Guo H, Beemelmans C, Poulsen M (2021) The chemical ecology of the fungus-farming termite symbiosis. *Nat Prod Rep* 39(2), 231-248. (Review)

Schorn MA, Verhoeven S, Ridder L, Huber F, Acharya DD, Aksenov AA, Aleti G, Moghaddam JA, Aron AT, Aziz S, Bauermeister A, Bauman KD, Baunach M, Beemelmans C, Beman JM, Berlanga-Clavero MV, Blacutt AA, Bode HB, Boullie A, Brejnrod A, Bugni TS, Calteau A, Cao L, Carrión VJ, Castelo-Branco R, Chanana S, Chase AB, Chevrette MG, Costa-Lotufo LV, Crawford JM, Currie CR, Cuypers B, Dang T, de Rond T, Demko AM, Dittmann E, Du C, Drozd C, Dujardin JC, Dutton RJ, Edlund A, Fewer DP, Garg N, Gauglitz JM, Gentry EC, Gerwick L, Glukhov E, Gross H, Gugger M, Guillén Matus DG, Helfrich EJN, Hempel BF, Hur JS, Iorio M, Jensen PR, Kang KB, Kaysser L, Kelleher NL, Kim CS, Kim KH, Koester I, König GM, Leao T, Lee SR, Lee YY, Li X, Little JC, Maloney KN, Männle D, Martin HC, McAvoy AC, Metcalf WW, Mohimani H, Molina-Santiago C, Moore BS, Mullowney MW, Muskat M, Nothias LF, O'Neill EC, Parkinson EI, Petras D, Piel J, Pierce EC, Pires K, Reher R, Romero D, Roper MC, Rust M, Saad H, Saenz C, Sanchez LM, Sørensen SJ, Sosio M, Süßmuth RD, Sweeney D, Tahlan K, Thomson RJ, Tobias NJ, Trindade-Silva AE, van Wezel GP, Wang M, Weldon KC, Zhang F, Ziemert N, Duncan KR, Crüsemann M, Rogers S, Dorrestein PC, Medema MH, van der Hooft JJJ (2021) A community resource for paired genomic and metabolomic data mining. *Nat Chem Biol* 17(4), 363-368.

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.

Um S, Seibel E, Schalk F, Balluf S, Beemelmans C (2021) Targeted isolation of saalfelduracin B-D from *Amycolatopsis saalfeldensis* using LC-MS/MS-based molecular networking. *J Nat Prod* 84(4), 1002-1011.

Vidkjær NH, Schmidt S, Hu H, Bodawatta KH, Beemelmans C, Poulsen M (2021) Species- and caste-specific gut metabolomes in fungus-farming termites. *Metabolites* 11(2), 839.

Benndorf R, Martin K, Küfner 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.

Ghodsi Z, Kalbassi MR, Farzaneh P, Mobarez AM, Beemelmans C, Amiri Moghaddam J (2020)

Immunomodulatory function of antimicrobial peptide Ec-Hepcidin1 modulates the induction of inflammatory gene expression in primary cells of caspian trout (*Salmo trutta caspius* Kessler, 1877). *Fish Shellfish Immunol* 104, 55-61.

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.

Hubert P, Seibel E, Beemelmans C, Campagne JM, de Figueiredo RM (2020) Stereoselective construction of (E,Z)-1,3-dienes and its application in natural product synthesis. *Adv Synth Catal* 362(24), 5532-5575. (Review)

Lee SR, Kreuzenbeck NB, Jang M, Oh T, Ko SK, Ahn JS, Beemelmans C, Kim KH (2020) Xyloneside A: A new glycosylated incisterol derivative from *Xylaria* sp. FB. *ChemBioChem* 21(16), 2253-2258.

Lee SR, Lee D, Park M, Lee JC, Park HJ, Kang KS, Kim CE, Beemelmans C, Kim KH (2020) Absolute configuration and corrected NMR assignment of 17-hydroxycyclooctatin, a fused 5-8-5 tricyclic diterpene. *J Nat Prod* 83(2), 354-361.

Maniei F, Moghaddam JA, Crüsemann M, Beemelmans C, König GM, Wägele H (2020) From Persian Gulf to Indonesia: Interrelated phylogeographic distance and chemistry within the genus *Peronia* (Onchidiidae, Gastropoda, Mollusca). *Sci Rep* 10(1), 13048.

Peña-Ortiz L, Graça AP, Guo H, Braga D, Köllner TG, Regestein L, Beemelmans C, Lackner G (2020) Structure elucidation of the redox cofactor mycofactocin reveals oligo-glycosylation by MftF. *Chem Sci* 11, 5182-5190.

Rak Lee S, Kang H, Yoo MJ, Yu JS, Lee S, Yi SA, Beemelmans C, Lee J, Kim KH (2020) Anti-adipogenic pregnane steroid from a hydractinia-associated fungus, *Cladosporium sphaerospermum* sp. SW67. *Nat Prod Sci* 26(3), 230-235.

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.

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.

Schalk F, Um S, Guo H, Kreuzenbeck NB, Görls H, de Beer ZW, Beemelmans C (2020) Targeted discovery of tetrapeptides and cyclic polyketide-peptide hybrids from a fungal antagonist of farming termites. *ChemBioChem* 21(20), 2991-2996.

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

Beemelmans C, Nitsch D, Bentz C, Reissig HU (2019) Stereoselective cascade cyclizations with samarium diiodide to tetracyclic indolines - precursors of fluorostrychnines and brucine. *Chemistry* 25(37), 8780-8789.

Braga D, Last D, Hasan M, Guo H, Lechnitz D, Uzum Z, Richter I, Schalk F, Beemelmans C,

- Hertweck C, Lackner G (2019) Metabolic pathway rerouting in *Paraburkholderia rhizoxinica* evolved long-overlooked derivatives of coenzyme F420. *ACS Chem Biol* 14(9), 2088-2094.
- Burkhardt I, Kreuzenbeck N, Beemelmans C, Dickschat J (2019) Mechanistic characterization of three sesquiterpene synthases from the termite-associated fungus *Termitomyces*. *Org Biol Chem* 17(13), 3348-3355.
- Conlon BH, Aanen DK, Beemelmans C, de Beer ZW, De Fine Licht HH, Gunde-Cimerman N, Schiøtt M, Poulsen M (2019) Reviewing the taxonomy of podaxis: Opportunities for understanding extreme fungal lifestyles. *Fungal Biol* 123(3), 183-187. (Review)
- Guo H, Roman D, Beemelmans C (2019) Tropolone natural products. *Nat Prod Rep* 36(8), 1137-1155. (Review)
- Klassen JL, Lee SR, Poulsen M, Beemelmans C\*, Kim KH\* (2019) Efomycins K and L from a termite-associated *Streptomyces* sp. M56 and their putative biosynthetic origin. *Front Microbiol* 10, 1739.
- Lee SR, Kufner M, Park M, Jung WH, Choi SU, Beemelmans C, Kim KH (2019) Beauvetetraones A-C, phomaligadione-derived polyketide dimers from the entomopathogenic fungus, *Beauveria bassiana*. *Org Chem Front* 6, 162-166.
- Lee SR, Lee D, Eom HJ, Rischer M, Ko YJ, Kang KS, Kim CS, Beemelmans C, Kim KH (2019) Hybrid polyketides from a *Hydractinia*-associated *Cladosporium sphaerospermum* SW67 and their putative biosynthetic origin. *Mar Drugs* 17(11), 606.
- Lechnitz D, Pflanze S, Beemelmans C (2019) Stereoselective synthesis of unnatural (2S,3S)-6-hydroxy-4-sphingenine-containing sphingolipids. *Org Biomol Chem* 17(29), 6964-6969.
- Otani S, Challinor V, Kreuzenbeck N, Kildgaard S, Christensen S, Larsen L, Aanen D, Rasmussen SA, Beemelmans C, Poulsen M (2019) Disease-free monoculture farming by fungus-growing termites. *Sci Rep* 9(1), 8819.
- Raguz L, Beemelmans C (2019) Ursprung und Funktionen der Sphingolipide. *Nachrichten aus der Chemie* 67(2), 66-70. (Review)
- Rischer M, Lee SR, Eom HJ, Park HB, Vollmers J, Kaster AK, Shin JH, Oh DC, Kim KH, Beemelmans C (2019) Spirocyclic cladosporicin A and cladosporiumins I and J from a *Hydractinia*-associated *Cladosporium sphaerospermum* SW67. *Org Chem Front* 6, 1084-1093.
- 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.

- Guo H, Schmidt A, Stephan P, Raguž L, Braga D, Kaiser M, Dahse HM, Weigel C, Lackner G, Beemelmans C (2018) Precursor-directed diversification of cyclic tetrapeptidic pseudoxylallemycins. *ChemBioChem* 19(21), 2307-2311.
- 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.
- Lee SR, Song JH, Song JH, Ko HJ, Baek JY, Trinh TA, Beemelmans C, Yamabe N, Kim KH (2018) Chemical identification of isoflavonoids from a termite-associated *Streptomyces* sp. RB1 and their neuroprotective effects in murine hippocampal HT22 cell line. *Int J Mol Sci* 19(9), 2640.
- Park YJ, Lee SR, Kim DM, Yu JS, Beemelmans C, Chung KH, Kim KH (2018) The inhibitory effects of cyclodepsipeptides from the entomopathogenic fungus *Beauveria bassiana* on myofibroblast differentiation in A549 alveolar epithelial cells. *Molecules* 23(10), 2568.
- Rischer M, Raguz L, Guo H, Keiff F, Diekert G, Goris T, Beemelmans C (2018) Biosynthesis, synthesis and activities of barnesin A, a NRPS-PKS hybrid produced by an anaerobic Epsilonproteobacterium. *ACS Chem Biol* 13(8), 1990-1995.
- Wichard T, Beemelmans C (2018) Role of chemical mediators in aquatic interactions across the prokaryote eukaryote boundary. *J Chem Ecol* 44(11), 1008-1021. (Review)
- Beemelmans C, Ramadhar TR, Kim KH, Klassen JL, Cao S, Wyche TP, Hou Y, Poulsen M, Bugni TS, Currie CR, Clardy J (2017) Macrotermycins A-D, Glycosylated Macrolactams from a Termite-Associated *Amycolatopsis* sp. M39. *Org Lett* 19(5), 1000-1003.
- Benndorf R, Lechnitz D, Rischer M, Beemelmans C (2017) Wie sich Bakterien schützen. *Nachrichten aus der Chemie* 65(1), 21-25. (Review)
- Guo H, Benndorf R, Lechnitz D, Klassen JL, Vollmers J, Görls H, Steinacker M, Weigel C, Dahse HM, Kaster AK, de Beer ZW, Poulsen M, Beemelmans C (2017) Isolation, biosynthesis and chemical modifications of rubterolones A-F, rare tropolone alkaloids from *Actinomadura* sp. 5-2. *Chem Eur J* 23(39), 9338-9345.
- Guo H, Rischer M, Sperfeld M, Weigel C, Menzel KD, Clardy J, Beemelmans C (2017) Natural products and morphogenic activity of  $\gamma$ -Proteobacteria associated with the marine hydroid polyp *Hydractinia echinata*. *Bioorg Med Chem* 25(22), 6088-6097.
- Lechnitz D, Raguž L, Beemelmans C (2017) Total synthesis and functional analysis of microbial signalling molecules. *Chem Soc Rev* 46(20), 6330-6344. (Review)
- Rischer M, Lechnitz D, Beemelmans C (2017) Bakterien-induzierte Morphogenese mariner Eukaryoten Wissenschaft. *BIOSpektrum* 2017(6), 634-637. (Review)
- Wyche TP, Ruzzini AC, Beemelmans C, Kim KH, Klassen JL, Cao S, Poulsen M, Bugni TS, Currie CR, Clardy J (2017) Linear Peptides Are the Major Products of a Biosynthetic Pathway That Encodes for Cyclic Depsipeptides. *Org Lett* 19(7), 1772-1775.
- Beemelmans C, Guo H, Rischer M, Poulsen M (2016) Natural products from microbes associated with insects. *Beilstein J Org Chem* 12, 314-327.

- Cantley AM, Woznica A, Beemelmans C, King N, Clardy J (2016) Isolation and Synthesis of a Bacterially Produced Inhibitor of Rosette Development in Choanoflagellates. *J Am Chem Soc* 138(13), 4326-4329.
- Guo H, Kreuzenbeck NB, Otani S, Garcia-Altare M, Dahse HM, Weigel C, Aanen DK, Hertweck C, Poulsen M, Beemelmans C (2016) Pseudoxylallemycins A-F, cyclic tetrapeptides with rare allenyl modifications isolated from *Pseudoxylaria* sp. X802: A competitor of fungus-growing termite cultivars. *Org Lett* 18, 3338-3341.
- 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.
- Lee SR, Beemelmans C, Tsumac LMM, Clardy J, Cao S, Kim KH (2016) A New Diketopiperazine, Cyclo(D-trans-Hyp-L-Leu) from a Kenyan Bacterium *Bacillus licheniformis* LB 8CT *Nat Prod Commun* 4(11), 461-463.
- Rischer M, Klassen J, Wolf T, Guo H, Shelest E, Clardy J, Beemelmans C (2016) Draft Genome Sequence of *Shewanella* sp. P1-14-1, a Bacterial Inducer of Settlement and Morphogenesis in Larvae of the Marine Hydroid Hydractinia Echinata *Genome Announc* 4(1), e00003-16.
- Woznica A, Cantley AM, Beemelmans C, Freinkman E, Clardy J, King N (2016) Bacterial lipids activate, synergize, and inhibit a developmental switch in choanoflagellates. *Proc Natl Acad Sci U S A* 113(28), 7894-7899.
- Beemelmans C, Reissig H.-U. (2015) Evolution of a Short Route to Strychnine by Using the Samarium Diiodide-Induced Cascade Cyclization as a Key Step *Chemistry - A European Journal* 21(23), 8416-8425.
- Beemelmans C, Reissig H.-U. (2015) Strychnine as Target - Samarium Diiodide as Tool - A Personal Story *The Chemical Record* 15(5), 872-885.
- Kim KH, Beemelmans C, Clardy J, Cao S (2015) A new antibacterial octaketide and cytotoxic phenylethanoid glycosides from Pogostemon cablin (Blanco) Benth *Bioorg. Med. Chem. Lett.* 14(25), 2834-2836.
- Klassen JL, Rischer M, Wolf T, Guo H, Shelest E, Clardy J, Beemelmans C (2015) Genome Sequences of Three *Pseudoalteromonas* Strains P1-8, P1-11 and P1-30 Isolated from the Marine Hydroid *Hydractinia echinata* *Genome Announc.* 3(6), e01380-15.
- Klassen JL, Wolf T, Rischer M, Guo H, Shelest E, Clardy J, Beemelmans C (2015) Draft Genome Sequences of Six *Pseudoalteromonas* sp. Strains P1-7a, P1-9, P1-13-1a, P1-16-1b, P1-25 and P1-26, which Induce Larval Settlement and Metamorphosis in *Hydractinia echinata* *Genome Announc.* 3(6), e01477-15.
- Beemelmans C, Woznica A, Alegado RA, Cantley AM, King N, Clardy J (2014) Synthesis of the rosette-inducing factor RIF-1 and analogs. *J. Am. Chem. Soc.* 136(29), 10210-10213.
- Kim KH, Beemelmans C, Murillo C, Guillén A, Umaña L, Tamayo-Castillo G., Kim SN, Clardy J, Cao, S (2014) Naphthalenones and isocoumarins from a Costa Rican fungus Xylariaceae sp. CR1546C *Journal of Chemical Research* 38(12), 722-725.

- Kim KH, Ramadhar TR, Beemelmans C, Cao S, Poulsen M, Currie CR, Clardy J (2014) Natalamycin A, an ansamycin from a termite-associated *Streptomyces* sp *Chem. Sci.* 5(11), 4333-4338.
- Ramadhar TR, Beemelmans C, Currie CR, Clardy J (2014) Bacterial symbionts in agricultural systems provide a strategic source for antibiotic discovery. *J Antibiot (Tokyo)* 67(1), 53-58.
- Beemelmans C, Gross S, Reissig HU (2013) Towards the core structure of Strychnos alkaloids using samarium diiodide-induced reactions of indole derivatives. *Chemistry* 19(52), 17801-17808.
- Beemelmans C, Husmann R, Whelligan DK, Özcubukçu S, Bolm C (2012) Planar Chiral Disilanols and Diols as H-Bonding Asymmetric Organocatalysts *Eur. J. Org. Chem.* , 3373-3376.
- Beemelmans C, Lentz D, Reissig HU (2011) Samarium diiodide induced cyclizations of  $\gamma$ -,  $\delta$ - and  $\epsilon$ -indolyl ketones: reductive coupling, intermolecular trapping, and subsequent transformations of indolines. *Chemistry* 17(35), 9720-9730.
- Beemelmans C, Reissig HU (2011) New Samarium Diiodide Induced Cyclizations *Pure Appl. Chem.* 83, 507-518.
- Beemelmans C, Reissig HU (2011) Samarium diiodide induced ketyl-(het)arene cyclisations towards novel N-heterocycles. *Chem Soc Rev* 40(5), 2199-2210.
- Beemelmans C, Blot V, Gross S, Lentz D, Reissig HU (2010) Highly Diastereoselective Samarium Diiodide Induced Ketyl Cyclizations of Indole and Pyrrole Derivatives – Scope and Limitations. *Eur J Org Chem* 2010(14), 2716-2732.
- Beemelmans C, Reissig HU (2010) A short formal total synthesis of strychnine with a samarium diiodide induced cascade reaction as the key step. *Angew Chem Int Ed Engl* 49(43), 8021-8025.
- Beemelmans C, Reissig HU (2009) Highly diastereoselective samarium diiodide induced cyclizations of new 3-substituted indole derivatives. *Org Biomol Chem* 7(21), 4475-4480.
- Beyler M, Beemelmans C, Heitz V, Sauvage JP (2009) Various Synthetic Routes to a Gable-Like Bis(porphyrin) Constructed on a 1,10-Phenanthroline Chelate *Eur. J. Org. Chem.* , 2801-2805.
- Monguchi D, Beemelmans C, Hashizume D, Hamashima Y, Sodeoka M (2008) Catalytic asymmetric conjugate reduction with ethanol: A more reactive system Pd(II)-iPr-DUPHOS complex with molecular sieves *Journal of Organometallic Chemistry* 693(5), 867-873.

\* equal contribution # corresponding author