

Dr. Gerald Lackner

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Curriculum vitae

Wissenschaftlicher Werdegang

2016 -today	Junior Group Leader
2014 - 2016	PostDoc (Feodor Lynen Research Fellowship) ETH Zurich (Jörn Piel) Research focus: Genomics of uncultured natural product producers, biosynthesis of ribosomally produced small molecules
2011 - 2014	PostDoc FSU Jena (Dirk Hoffmeister) Research focus: Polyketide and nonribosomal peptide biosynthesis in mushrooms.
2006 - 2011	PhD student HKI Jena (Christian Hertweck)

2001 - 2006

Research focus: Genomics of natural product-producing bacterial endosymbionts of fungi.
Studies of Biochemistry
FSU, Jena

Publikationen

Ehinger F, Niehs S, Dose B, Dell M, Krabbe J, Pidot SJ, Stinear TP, Scherlach K, Ross C, Lackner G, Hertweck C (2023) Analysis of rhizonin biosynthesis reveals origin of pharmacophoric furylalanine moieties in diverse cyclopeptides. *Angew Chem Int Ed Engl* 62(42), e202308540.

Details



Löhr NA, Rakhmanov M, Wurlitzer JM, Lackner G, Gressler M, Hoffmeister D (2023) Basidiomycete non-reducing polyketide synthases function independently of SAT domains. *Fungal Biol Biotechnol* 10(1), 17.

Details



Ellerhorst M, Barth SA, Graça AP, Al-Jammal WK, Peña-Ortiz L, Vilotijevic I, Lackner G# (2022) *S*-Adenosylmethionine (SAM)-dependent methyltransferase MftM is responsible for methylation of the redox cofactor mycofactocin. *ACS Chem Biol* 17(11), 3207-3217.

Details

PubMed
OPEN ACCESS
PAPER

Hasan M, Schulze S, Berndt L, Palm G J, Braga D, Richter I, Last D, Lammers M, Lackner G# (2022) Diversification by CofC and control by CofD govern biosynthesis and evolution of coenzyme F420 and its derivative 3PG-F420. *mBio* 13(1), e03501-21.

Details

PubMed
OPEN ACCESS
PAPER

Last D, Hasan M, Rothenburger L, Braga D, Lackner G# (2022) High-yield production of coenzyme F420 in *Escherichia coli* by fluorescence-based screening of multi-dimensional gene expression space. *Metab Eng* 73, 158-167.

Details

PubMed

Um S, Guo H, Thiengmag S, Benndorf R, Murphy R, Rischer M, Braga D, Poulsen M, de Beer ZW, Lackner G, Beemelmanns 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.

Details

Braga D, Hasan M, Kröber T, Last D, Lackner G (2020) Biosynthesis of the redox coenzyme F420 in *Thermomicrobia* involves reduction by standalone nitroreductase superfamily enzymes. *Appl Environ Microbiol* 86(12), e00457-20.

Details

Lenz C, Wick J, Braga D, Garcia-Altares M, Lackner G, Hertweck C, Gressler M, Hoffmeister D (2020) Injury-triggered blueing reactions of *Psilocybe* "magic" mushrooms. *Angew Chem Int Ed* 59(4), 1450-1454.

Details

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

Details

Peña-Ortiz L, Schlembach I, Lackner G, Regestein L (2020) Impact of oxygen supply and scale up on *Mycobacterium smegmatis* cultivation and mycofactocin formation. *Front Bioeng Biotechnol* 8(1399), 593781.

Details

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- Mehr laden
- Ende

Publikationsliste als PDF

Aktuelles



Cofaktor W_3: Gerald Lackner auf Professur berufen Ab dem 1. September ist Gerald Lackner Professor für Biochemie der Mikroorganismen an der Universität Bayreuth. Sein Lehrstuhl ist an der neuen Faku... 29.08.2023 Mehr erfahren



Die Karte zur Wirkstoff-Schatzkammer Jenaer Wissenschaftler entwickeln ein Modell der Evolution von Biosynthesewegen 31.01.2020 Mehr erfahren



Wenn Magic Mushrooms blau machen Psilocybin heißt der stark halluzinogene Stoff, der den Magic Mushrooms ihre Wirkung verleiht. Seit seiner Entdeckung fragen sich Wissenschaftlerinne… 28.01.2020 Mehr erfahren

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