

CURRICULUM VITAE**PROF. DR. MARTIN KALTENPOTH****EDUCATION AND ACADEMIC CAREER**

- 2020 - Director of the Department of Insect Symbiosis, Max Planck Institute for Chemical Ecology, Jena
- 2015 - 2021 Professor for Evolutionary Ecology at the Johannes Gutenberg University of Mainz
- 2009 - 2015 Independent Max Planck Research Group Leader at the MPI for Chemical Ecology, Jena, Germany (Research Group Insect Symbiosis)
- 2007 - 2009 Postdoctoral research (University of Utah, Salt Lake City, UT, USA)
- 2006 - 2009 Postdoctoral research (Zoological Institute, University of Regensburg)
- 2006 PhD Biology (summa cum laude), Department of Animal Ecology and Tropical Biology, University of Würzburg
- 2003 Diploma in Biology (with honors), University of Würzburg
- 2000 Vordiplom in Biology, University of Würzburg

FELLOWSHIPS AND AWARDS

- 2020 Teaching award of the Johannes Gutenberg University Mainz
- 2020 Fulker Award of the Behavior Genetics Association for the paper by Schneider, D.I., Ehrman, L., Engl, T., Kaltenpoth, M., Hua-Van, A., Le Rouzic, A. & Miller, W.J. (2019) Symbiont-driven male mating success in the neotropical *Drosophila paulistorum* superspecies. *Behavior Genetics* 49 (1): 83-98.
- 2018 Griswold Lecture, Department of Entomology, Cornell University
- 2015 Thuringian Research Prize for Basic Research of the Federal Ministry for Economy, Research and Digital Society
- 2007 - 2009 Postdoctoral fellowship, Volkswagen Foundation, Germany
- 2007 Young Scientist Award, Society for Experimental Biology, Glasgow, Scotland
- 2007 Postdoctoral fellowship, German Science Foundation
- 2007 Ingrid Weiss/Horst Wiehe Award
German Society for General and Applied Entomology
(Deutsche Gesellschaft für allgemeine und angewandte Entomologie)
- 2006 Biocenter Science Award 2006, University of Würzburg
- 2005 Travel grant, German National Academic Foundation

- 2005 Travel grant, Arthur-von-Gwinner Foundation
- 2005 Research Grant, UNIBUND Würzburg
- 2004 - 2006 PhD fellowship, German National Academic Foundation
(Studienstiftung des Deutschen Volkes)
- 2002 Theodore Roosevelt Memorial Grant
American Museum of Natural History, USA
- 2002 Student research grant, Department of Biology, Duke University, USA
- 2001 - 2002 Student Research Grant Award, Animal Behaviour Society, USA
- 2001 - 2002 ISA-scholarship (Integrated Studies Abroad), DAAD
- 2000 Travel grant, German National Academic Foundation
- 1999 - 2003 Student fellowship of the German National Academic Foundation
(Studienstiftung des Deutschen Volkes)

THIRD-PARTY FUNDING

- 2020 - 2023 German Science Foundation (DFG) research grant KA2846/7-1 within FOR5026 (Integrating insect immunity, microbiota and pathogens): *Selective pressures shaping the composition and activity of a symbiont-provided antimicrobial defense* (€281,126)
- 2019 - 2023 German Science Foundation (DFG) research grant proposal *Evolution of molecular mechanisms regulating function and localization of reed beetle symbionts* (application within Research Training Group "Gene regulation in evolution: from molecular to extended phenotypes") (approx. €150,000)
- 2019 - 2022 German Science Foundation (DFG) research grant proposal *Ecological relevance and molecular regulation of antibiotic-producing bacterial symbionts in Lagriinae beetles* (Co-PI with Dr. Laura Flórez) (€445,000)
- 2019 - 2024 ERC Consolidator Grant proposal *Symbiont-assisted cuticle biosynthesis as a key innovation contributing to the evolutionary success of beetles* (€1,997,750)
- 2018 - 2021 German Science Foundation (DFG) research grant KA2846/5-1 within FOR2682 (Seasonal temperature acclimation in *Drosophila*): *Impact of the microbiome on the viable temperature range of Drosophila* (€249,050)
- 2017 - 2018 JGU Research Grant (Stufe I): *Data-driven metabolic ecosystems biology applied to the firebug gut microbiota* (€38,200)
- 2017 - 2020 DFG research grant KA2846/2-2: *Effect of host defenses on symbiont adaptations and genome erosion in a protective mutualism* (€413,600)
- 2014 - 2016 Jena School of Microbial Communication (JSMC) (funded within the German Excellence Initiative) (€127,140)
Funding for 1 PhD student position (3 years)

- 2014 - 2016 Extension of Max Planck Research Group (funded by Max Planck Society) (€650,000)
Funding for independent research group, including positions, running costs, equipment (two years)
- 2012 - 2015 DFG research grant KA2846/2-1 (€146,950)
Funding for PhD student and running costs (3 years)
- 2011 - 2014 International Max Planck Research School (funded by Max Planck Society) (€46,800)
Funding for 1 PhD student fellowship (3 years)
- 2009 - 2014 Max Planck Research Group (funded by Max Planck Society) (€1,750,000)
Funding for independent research group, including positions, running costs, equipment (five years)
- 2008 - 2010 DFG research grant STR532/2-2 (Co-PI, with Prof. Dr. Erhard Strohm) (€83,500)
Funding for PhD student and running costs (2 years)
- 2007 - 2009 Volkswagen Foundation (Funding Initiative "Evolutionary Biology") (€237,500)
Funding for postdoctoral position and running costs (3 years)
- 2007 DFG postdoctoral fellowship (returned after acceptance of the VW grant) (€49,176)
Funding for postdoctoral position and running costs (2 years)

ACADEMIC SERVICE

Conference and symposium organizer

- 2021 Gutenberg Workshop: The rise and fall of mutualisms – Ecological and evolutionary dynamics of host-microbe symbioses, Oct 13-15, 2021, Kloster Wasem, Ingelheim am Rhein, Germany
- 2021 Annual Conference of the VAAM (virtual), March 18-19, 2021
Symposium: Stability and function of symbiotic interactions in the face of challenge (co-organizer with Jillian Petersen)
- 2020 Annual Conference of the VAAM, Leipzig, Germany, March 8-11, 2020
Symposium: Symbiosis at the basis of host and ecosystem health (co-organizer with Jillian Petersen)
- 2019 Symposium "Frontiers in Evolutionary Ecology", Mainz, Germany, March 21-22, 2019
- 2019 Annual Conference of the VAAM, Mainz, Germany, March 17-20, 2019

- Symposium: The impact of the microbiome on host ecology and evolution (co-organizer with Jillian Petersen)
- 2018 Symposium on “The Ecology and Evolution of Antagonistic and Mutualistic Interactions”, Ebernburg Castle, Bad Münster am Stein, September 24-25, 2018
- 2018 Symposium on “Gene Regulation in Evolution”, University of Mainz, March 15, 2018 (member of the scientific organizing committee)
- 2018 Annual Conference of the VAAM, Wolfsburg, Germany, April 15-18, 2018
- Symposium: The molecular basis of symbiosis (co-organizer with Jillian Petersen)
- 2017 5th Joint Conference of the DGHM & VAAM, Würzburg, Germany, March 5-8, 2017
- Symposium: Mutualism and manipulation in invertebrate symbioses (co-organizer with Ute Hentschel and Roy Gross)
- 2016 Annual Conference of the VAAM, Jena, Germany, March 13-16, 2016
- Symposium: The chemical language of symbiosis (co-organizer with Ute Hentschel and Christian Kost)
- 2015 8th Congress of the International Symbiosis Society, Lisbon, Portugal, July 12-18, 2015
- Symposium: Establishment and maintenance of mutualism
- 2013 5th Congress of European Microbiologists (FEMS 2013), Leipzig, Germany, July 21-25, 2013
- Workshop: Microbe-insect interactions (co-organizer with Andreas Brune)
- 2012 42nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Lüneburg, September 10-14, 2012
- Session: Chemical Ecology (co-organizer with Thomas Schmitt and Sara Leonhardt)
- 2011 13th Congress of the European Society for Evolutionary Biology
- Symposium 5: Mutualistic interactions: causes and consequences (Tübingen, August 20-25, 2011, session co-organizer with Dr. Christian Kost)
- 2005 10th Meeting of the Evolutionary Section of the German Zoological Society (DZG), *Evolutionary Chemical Ecology* (Würzburg, February 25-27, 2005, Würzburg, co-organizer)

Reviewing activities

Journals

American Naturalist, Annals of Applied Biology, Annals of the Entomological Society of America, Apidologie, Applied and Environmental Microbiology, Archives of Insect Biochemistry & Physiology, Archives of Microbiology, Arthropod Structure and Development, Behavioral Ecology and Sociobiology, Biochemical Systematics and Ecology, Biology Letters, BMC Biology, BMC Microbiology, Bulletin of Insectology, Cell Reports, Current Biology, Current Opinion in Microbiology, Developmental and Comparative Immunology, Ecological Entomology, Ecology Letters, eLife, Environmental Microbiology, European Journal of Entomology, Evolution, FEMS Microbiology Ecology, Frontiers in Microbiology, Frontiers in Zoology, Fungal Ecology, Genome Biology and Evolution, International Journal of Genomics, International Journal of Systematic and Evolutionary Microbiology, Insectes Sociaux, Journal of Animal Ecology, Journal of Applied Microbiology, Journal of Chemical Ecology, Journal of Experimental Biology, Journal of Invertebrate Pathology, Journal of Molecular Biology, Journal of Zoology, mBio, Microbial Biotechnology, Microbial Ecology, Microbiome, Molecular Ecology, Molecular Ecology Resources, mSystems, Myrmecological News, Natural Product Reports, Nature, Nature Communications, Nature Ecology and Evolution, Nature Microbiology, Nature Reviews Microbiology, Philosophical Transactions of the Royal Society B, Plant Cell & Environment, PLoS Biology, PLoS ONE, PLoS Pathogens, Proceedings of the National Academy of Sciences of the USA, Proceedings of the Royal Society of London B, Research Journal of the Costa Rican Distance Education University, Science, Scientific Reports, Symbiosis, The ISME Journal, Trends in Ecology and Evolution, Trends in Microbiology, Trends in Parasitology, Zoological Letters

Funding Agencies

AgreenSkills (INRA, France) (*ad hoc* reviewer)
Alexander von Humboldt Foundation (*ad hoc* reviewer)
Biotechnology and Biological Sciences Research Council (BBSRC, UK) (*ad hoc* reviewer)
Czech Science Foundation (*ad hoc* reviewer)
Danish National Research Foundation (*ad hoc* reviewer)
European Research Council (ERC) (*ad hoc* reviewer)
Evangelisches Studienwerk (*ad hoc* reviewer)
FWF Austrian Science Fund (*ad hoc* reviewer)
German Science Foundation (DFG, panel service and *ad hoc* reviewer)
Gordon and Betty Moore Foundation (*ad hoc* reviewer)
Israel Science Foundation (ISF) (*ad hoc* reviewer)
Johannes Gutenberg University, Mainz, Germany (*ad hoc* reviewer)

National Geographic Society (*ad hoc* reviewer)
National Research Foundation of South Africa (*ad hoc* reviewer)
National Science Center, Poland (*ad hoc* reviewer)
National Science Foundation (NSF, panel service and *ad hoc* reviewer)
Natural Environment Research Council (NERC), UK (*ad hoc* reviewer)
Netherlands Organisation for Scientific Research (NWO)
Novo Nordisk Foundation (Denmark) (*ad hoc* reviewer)
Sächsisches Staatsministerium für Wissenschaft und Kunst (*ad hoc* reviewer)
Sigma Delta Epsilon / Graduate Women in Science (*ad hoc* reviewer)
Swiss National Science Foundation (*ad hoc* reviewer)
The Royal Society (UK) (*ad hoc* reviewer)
United States-Israel Binational Science Foundation (*ad hoc* reviewer)

STUDENT SUPERVISION

Postgraduate researchers (postdocs)

2021 - Dr. Roy Kirsch (MPICE Jena)
2020 - Dr. Olivia Tidswell (MPICE Jena)
2020 - Dr. Aurélien Vigneron (JGU Mainz)
2020 - Dr. Philipp Dirksen (JGU Mainz)
2018 - Dr. Eugen Bauer (JGU Mainz)
Nutritional systems biology of the cotton stainer's gut microbiota
2018 - 2019 Dr. Junbeom Lee (JGU Mainz)
Detoxifying symbionts in stored product pest beetles
2017 - Dr. Mario Sandoval Calderon (JGU Mainz)
Comparative genomics of beewolf symbionts
2016 - Dr. Laura Victoria Flórez (JGU Mainz)
Defensive symbiosis in Lagriinae beetles
2015 - 2018 Adam J. Martinez PhD (JGU Mainz)
Evolution of microbial symbiosis in pyrrhocorid bugs
2015 - 2017 Shantanu Shukla PhD (MPI CE)
Evolution and function of the symbiotic microbiome of burying beetles

- 2015 - 2017 Melissa Whitaker PhD (MPI CE)
Comparative analysis of bacterial communities in lycaenid butterflies
- 2015 - 2016 Sailendharan Sudakaran PhD (MPI CE)
Evolutionary and ecological factors shaping microbial communities across holometabolous insects
- 2014 - 2015 Hassan Salem PhD (MPI CE)
Potential involvement of bacterial symbionts in detoxification in firebugs
- 2012 - 2016 Dr. Peter Biedermann (MPI CE)
Microbial symbionts and their functions in fungus-culturing ambrosia beetles
- 2011 - Dr. Tobias Engl (MPI CE and JGU Mainz)
Chemical host-symbiont interactions in the beewolf-Streptomyces symbiosis
- 2010 - 2015 Dr. Taras Nechitaylo (MPI CE)
Comparative genomics of symbiotic streptomycetes in beewolves
- 2009 - 2010 Dr. Johannes Kroiss (MPI CE)
Evolution of a symbiont-produced antibiotic cocktail in solitary wasps

Graduate students (PhD)

- 2021 - Camila Fiori Pereira (MPICE Jena)
Metabolic host-symbiont integration in a cuticle supplementing symbiosis
- 2021 - Ronja Krüsemer (MPICE Jena)
Establishment of an experimental system to study host-symbiont interactions
- 2021 - Alina Nick (MPICE Jena)
Chemical mediators of microbiota composition and functionality in a multipartite defensive symbiosis
- 2021 - Ana Banos Quintana (MPICE Jena)
Taxonomic and functional characterization of microbial symbionts in bark beetles
- 2021 - Bernal Matarrita (MPICE Jena)
Selective pressures shaping the composition and activity of a symbiont-provided antimicrobial defense
- 2020 - Ana Simao Pinto de Carvalho (JGU Mainz)
Evolution of molecular mechanisms regulating function and localization of reed beetle symbionts
- 2019 - Sthandiwe Nomthandazo Kanyile (JGU Mainz)
Ecological implications of symbiont-mediated tyrosine supplementation in beetles
- 2019 - Jürgen Wierz (JGU Mainz)
Evolution of Dasytidae symbiosis

- 2018 - Marion Lemoine (JGU Mainz)
Role of the microbiome in Drosophila cold acclimation
- 2018 - Julian Kiefer (JGU Mainz)
Nutritional endosymbionts of stored product pest beetles
- 2017 - Ramya Ganesan (JGU Mainz)
Role of quorum sensing in the establishment of a defensive mutualism
- 2017 - Rebekka Janke (JGU Mainz)
Life history and evolution of a defensive symbiosis in beetles
- 2017 - Chantal Selina Ebert (JGU Mainz)
Effect of host defenses on symbiont adaptations and genome erosion in a protective mutualism
- 2014 - Thomas Ogao Onchuru (MPI CE and JGU Mainz)
Host and symbiont contributions towards parasite resistance in cotton stainer bugs
- 2014 - 2017 Eric Kwok-Hei Tang (MPI CE)
Molecular basis of partner choice in a defensive symbiosis
- 2012 - Anne-Kathrin Dietel (MPI CE, co-supervision with Dr. Christian Kost)
Genomic consequences of host-symbiont co-evolution in an experimental model system
- 2012 - 2017 Aileen Berasategui (MPI CE, co-supervision with Prof. Dr. Jonathan Gershenzon and Dr. Axel Schmidt)
The role of microbial symbionts for digestion in a wood-feeding beetle
- 2011 - 2016 Laura Victoria Flórez (MPI CE)
Evolution and chemical ecology of Burkholderia symbionts in beetles
- 2010 - 2015 Sailendharan Sudakaran (MPI CE)
Evolution of mutualistic microbiome in firebugs and cotton strainers (Hemiptera; Pyrrhocoridae)
- 2010 - 2014 Sabrina Köhler (MPI CE)
Protective Streptomyces in beewolves - Ecology, evolutionary history and specificity of symbiont-mediated defense in Philanthini wasps (Hymenoptera, Crabronidae)
- 2010 - 2014 Hassan Salem (MPI CE)
Actinobacteria and the vitamin metabolism of firebugs
- 2007 - 2011 Kerstin Roeser-Mueller (Uni Regensburg, co-supervision with Prof. Dr. Erhard Strohm)
Phylogenies and pheromones - Defensive symbionts, phylogenetic affiliations and olfactory communication in beewolves (Philanthini, Hymenoptera, Crabronidae)

Undergraduate students (Diploma, MSc, BSc)

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| 2012 - 2021 | >40 BSc thesis candidates |
| 2011 - 2021 | 19 MSc thesis candidates |
| 2016 - 2017 | 1 MEd thesis candidate |
| 2005 - 2018 | 9 Diploma thesis candidates |
| 2003 - 2021 | Many internship students |

COURSES AND LECTURES

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|-------------|--|
| 2017 -2021 | BSc Module 4-2: Lecture and exercises in <i>Biostatistics and Bioinformatics</i> , Johannes Gutenberg University Mainz |
| 2016 -2021 | BSc Module 10A: Lecture in <i>Ecology, Biodiversity and Evolution</i> , Johannes Gutenberg University Mainz |
| 2016 -2021 | BSc Module 10A: Practical course on <i>Animal Identification</i> , Johannes Gutenberg University Mainz |
| 2016 -2021 | BSc Module 14A: Lecture and practical in <i>Animal Ecology</i> , Johannes Gutenberg University Mainz |
| 2015 -2017 | BSc Module 9: Soft Skills (Presentation techniques), Johannes Gutenberg University Mainz |
| 2015 -2021 | BEd Module 6: Practical in <i>Animal Ecology</i> , Johannes Gutenberg University Mainz |
| 2015 -2021 | MSc Module 6b: Seminar and F2 practical in <i>Ecology</i> , Johannes Gutenberg University Mainz |
| 2015 - 2021 | MSc Module 6a: Lecture and F1 practical in <i>Ecology</i> , Johannes Gutenberg University Mainz |
| 2014 | SERB DST School on Chemical Ecology (NCBS Bangalore, India): <i>The chemical ecology of symbiotic interactions with microorganisms</i> |
| 2013 | Microbial interactions, University of Jena (lecture) <i>Topics covered: Cooperation and conflict Host-symbiont interactions Antagonism and antibiotics</i> |
| 2013 | Evolutionary Biology, University of Jena (lecture) <i>Topic covered: Symbiosis as a driving force in evolution</i> |
| 2013 | Fluorescence in-situ hybridization as a powerful tool in microbial ecology, IMPRS graduate student course (practical course and lectures) <i>Topics covered: FISH, CARD-FISH, MS-imaging/FISH</i> |
| 2012 | Microbial interactions, University of Jena (lecture) <i>Topics covered: Cooperation and conflict Host-symbiont interactions Antagonism and antibiotics</i> |

- 2012 International Max Planck Research School (IMPRS) Basic Lecture
Chemical interactions at the host-symbiont interface
- 2012 Frontiers in Chemical Ecology (MPICE Jena): *The chemical ecology of symbiotic interactions with microorganisms*
- 2012 Evolutionary Biology, University of Jena
Topic covered: Symbiosis as a driving force in evolution
- 2012 High school student practical on “Symbiosis” (lecture and practical)
- 2011 Workshop: Insect-bacteria symbioses, 2nd Student Conference on Microbial Communication (MiCom)
- 2011 International Max Planck Research School (IMPRS) Basic Lecture
Insect-bacteria symbioses – driving forces of evolutionary innovation
- 2008 - 2009 Morphology and Systematics of Animals, University of Regensburg (lecture and practical course, including field trips)
Topics covered: Orientation and Migration in Animals | Identification of birds
- 2005 Animal Ecology I, University of Würzburg (practical course)
Topics covered: The ideal free distribution | Herbivory | Predator-prey interactions | Statistical analysis of ecological experiments
- 2004 Systematics and ecology of plants and animals I: Hemimetabolous insects, University of Würzburg (lecture and practical course)
Topics covered: Insect morphology | Insect ecology | Evolution of insects
- 2004 Identification of the local fauna, University of Würzburg (field trips)
Topics covered: Hymenoptera and Coleoptera | Ecology of water birds | Aquatic insects | Terrestrial arthropods
- 2003 - 2004 Introductory class ‘Soil Biology’, University of Würzburg (lecture and practical course)
Topics covered: Soil geochemistry | Introduction into the soil fauna and microfauna | Sampling methods | Identification of soil organisms | Diversity of soil microorganisms | Soil ecology

INVITED PRESENTATIONS

- 2021 ERATO International Seminar, Tsukuba, Japan / 8th International Conference on Microbial Communication for Young Scientists, Jena, Germany / University of Lisbon, Portugal / University of Leiden, The Netherlands
- 2020 Instituto Gulbenkian de Ciência, Oeiras, Portugal / University of Leiden, The Netherlands / Wageningen University, The Netherlands / University of East Anglia, Norwich, UK
- 2019 Radboud University, Nijmegen, The Netherlands / Max Planck Institute for Marine Microbiology, Bremen, Germany / University of Kiel, Germany /

- University of Würzburg, Germany / Max Planck Institute for Chemical Ecology, Jena, Germany / Annual Conference 2019 of the Association for General and Applied Microbiology, Mainz, Germany / Aarhus University, Denmark / Gordon Research Conference “Plant herbivore interaction”, Ventura, CA, USA
- 2018 Cornell University, Ithaca, NY, USA / Annual Meeting of the Entomological Society of America, Vancouver, Canada / Microbial Communication Colloquium, Jena, Germany / Naito Conference “Mechanisms of Evolution and Biodiversity”, Sapporo, Japan / AIST Tsukuba, Japan / Swedish University of Agricultural Sciences, Alnarp, Sweden / University of Münster, Germany / University of Lausanne, Switzerland / University of Liverpool, UK / Max Planck Institute for Chemical Ecology, Jena, Germany / Microbiology Society Annual Conference, Birmingham, UK / Max Planck Institute for Terrestrial Microbiology, Marburg, Germany / Chemical Ecology Course, Alnarp, Sweden / University of Kaiserslautern, Germany / University of Münster, Germany
- 2017 University of Halle, Germany / Insect symbiosis meeting, Ben-Gurion University of the Negev, Sede Boqer, Israel / Ecological Immunology Workshop, Blossin, Germany / University of Osnabrück, Germany / University of Marburg, Germany / Free University of Berlin, Germany
- 2016 Gordon Research Conference “Marine Natural Products”, Ventura, CA, USA / VAAM conference, Jena, Germany / Max Planck Institute for Molecular Cell Biology and Genetics, Dresden, Germany / Annual Meeting of the International Society of Chemical Ecology (ISCE), Foz do Iguaçu, Brazil / Annual Meeting of the German Zoological Society (DZG), Kiel, Germany / International Congress of Entomology, Orlando, Florida, USA / Princeton University, Princeton, NJ, USA
- 2015 University of Mainz, Germany / Gordon Research Conference “Animal - Microbe Symbioses”, Waterville Valley, NH, USA / University of Kiel, Germany / ETH Zürich, Switzerland
- 2014 NCBS Bangalore, India / University of Jena, Germany / Max Planck Institute for Developmental Biology, Tuebingen, Germany / Volkswagen Initiative Evolutionary Biology, Final Status Symposium, Hannover, Germany / European Congress of Entomology, York, UK / Symbiomics Meeting, Palma de Mallorca, Spain / Annual Meeting of the Entomological Society of America, Portland, Oregon, USA / University of Münster, Germany
- 2013 Irseer Naturstofftage der Dechema, Kloster Irsee, Germany / FEMS Microbiology Congress, Leipzig, Germany / IMPRS symposium of the Max Planck Institute for Evolutionary Biology, Bad Bederkesa, Germany / Section symposium (BMS) of the Max Planck Society, Berlin, Germany / University of Mainz, Germany
- 2012 University of Amsterdam, The Netherlands / University of Goettingen, Germany / EAWAG Zürich, Switzerland / LeadNet meeting of the Max Planck Society, Berlin, Germany / XXIV. International Congress of Entomology, Daegu, South Korea / Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Lüneburg, Germany

- 2011 Society for General Microbiology Spring Conference, Harrogate, UK / Institute of Science and Technology Austria, Vienna / University of Copenhagen, Denmark
- 2010 COST Action FA0701 "Arthropod Symbioses: from fundamental studies to pest and disease management", Workshop on "Evolution and Diversity of Symbioses of Arthropods", Bad Bevensen / University of Bern / Max Planck Institute for Terrestrial Microbiology, Marburg
- 2009 Max Planck Institute for Chemical Ecology, Jena, Germany
- 2007 University of Utah, USA
- 2006 University of Würzburg, Germany
- 2005 Free University of Berlin, Germany

PUBLICATIONS

Peer-reviewed publications

1. Wierz, J., Gaube, P., Klebsch, D., **Kaltenpoth, M.**, Flórez, L. V. (in press) Transmission of bacterial symbionts with and without genome erosion between a beetle host and the plant environment. *Frontiers in Microbiology*.
2. Salem, H. and **Kaltenpoth, M.** (in press) Beetle-bacterial symbioses: Endless forms most functional. *Annual Review of Entomology* (invited review).
3. Ganesan, R., **Kaltenpoth, M.**, Flórez, L. V. (2021) Transposon-insertion sequencing as a tool to elucidate bacterial colonization factors in a *Burkholderia gladioli* symbiont of *Lagria villosa* beetles. *Journal of Visualized Experiments* 174: e62843.
4. Kiefer, J.S.T., Batsukh, S., Bauer, E., Hirota, B., Weiss, B., Wierz, J., Fukatsu, T., **Kaltenpoth, M.**, Engl, T. (2021) Inhibition of a nutritional endosymbiont by glyphosate abolishes mutualistic benefit on cuticle synthesis in *Oryzaephilus surinamensis*. *Communications Biology* 4:554.
5. Dose, B., Niehs, S.P., Scherlach, K., Shahda, S., Flórez, L.V., **Kaltenpoth, M.**, Hertweck, C. (2021) Biosynthesis of sinapigliadioside, an antifungal isothiocyanate from *Burkholderia* symbionts. *ChemBioChem* 22: 1920-1924.
6. Nechitaylo, T.Y., Sandoval-Calderón, M., Engl, T., Wielsch, N., Dunn, D.M., Goesmann, A., Strohm, E., Svatoš, A., Dale, C., Weiss, R.B., **Kaltenpoth, M.** (2021) Incipient genome erosion and metabolic streamlining for antibiotic production in a defensive symbiont. *Proceedings of the National Academy of Sciences of the USA* 118 (17): e2023047118.
7. Keeseey, I.W., Doll, G., Chakraborty, S.D., Baschwitz, A., Lemoine, M., **Kaltenpoth, M.**, Svatoš, A., Sachse, S., Knaden, M., Hansson, B.S. (2020) Alcohol boosts pheromone production in male flies and makes them sexier. *bioRxiv*, <https://doi.org/10.1101/2020.08.09.242784>.

8. Brückner, A., **Kaltenpoth, M.**, Heethoff, M. (2020) *De novo* biosynthesis of simple aromatic compounds by an arthropod (*Archezogozetes longisetosus*). *Proceedings of the Royal Society B-Biological Sciences* 287: 20201429.
9. **Kaltenpoth, M.** (2020) An endosymbiont's journey through metamorphosis of its insect host. *Proceedings of the National Academy of Sciences of the USA* 117 (35): 20994-20996.
10. Niehs, S. P., Kumpfmüller, J., Dose, B., Little, R.F., Ishida, K., Flórez, L.V., **Kaltenpoth, M.**, Hertweck, C. (2020) Insect-associated bacteria assemble the antifungal butenolide gladiofungin by non-canonical polyketide chain termination. *Angewandte Chemie – International Edition* 59: 23122-23126.
11. Reis, F., Kirsch, R., Pauchet, Y., Bauer, E., Bilz, L.C., Fukumori, K., Fukatsu, T., Kölsch, G., **Kaltenpoth, M.** (2020) Bacterial symbionts support larval sap feeding and adult folivory in (semi-)aquatic reed beetles. *Nature Communications* 11: 2964.
12. Semiatizki, A., Weiss, B., Bagim, S., Rohkin-Shalom, S., **Kaltenpoth, M.**, Chiel, E. (2020) Effects, interactions and localization of *Rickettsia* and *Wolbachia* in the house fly parasitoid, *Spalangia endius*. *Microbial Ecology* 80: 718–728.
13. Wu, Y., Liu, Q., Weiss, B., **Kaltenpoth, M.**, Kadowaki, T. (2020) Honey bee suppresses the parasitic mite vitellogenin by antimicrobial peptide. *Frontiers in Microbiology* 11: 1037.
14. Waterworth, S.C., Flórez, L.V., Rees, E.R., Hertweck, C., **Kaltenpoth, M.** and Kwan, J.C. (2020) Horizontal gene transfer to a defensive symbiont with a reduced genome in a multipartite beetle microbiome. *mBio* 11: e02430-19.
15. Lemoine, M., Engl, T. & **Kaltenpoth, M.** (2020) Microbial symbionts expanding or constraining abiotic niche space in insects. *Current Opinion in Insect Science* 39:14-20 (invited review).
16. **Kaltenpoth, M.** & Flórez, L.V. (2020) Versatile and dynamic symbioses between insects and *Burkholderia* bacteria. *Annual Review of Entomology* 65: 145-170 (invited review).
17. Bauer, E., **Kaltenpoth, M.*** & Salem, H.* (2020) Minimal fermentative metabolism fuels extracellular symbiont in leaf beetles. *The ISME Journal* 14: 866-870. *Co-corresponding authors.
18. Martinez, A.J., Onchuru, T.O., Ingham, C.S., Sandoval-Calderon, M., Salem, H., Deckert, J. & **Kaltenpoth, M.** (2019) Angiosperm to Gymnosperm host-plant switch entails shifts in microbiota of the *Welwitschia* bug, *Probergrothius angolensis* (Distant, 1902). *Molecular Ecology* 28: 5172-5187.
19. Segers, F.H.I.D., **Kaltenpoth, M.** & Foitzik, S. (2019) Abdominal microbial communities in ants depend on colony membership rather than caste and are linked to colony productivity. *Ecology and Evolution* 9: 13450-13467.
20. Onchuru, T.O. & **Kaltenpoth, M.** (2019) Quantitative PCR primer design affects quantification of dsRNA-mediated gene knockdown. *Ecology and Evolution* 9 (14): 8187-8192.

21. Onchuru, T. O. & **Kaltenpoth, M.** (2019) Established cotton stainer gut bacterial mutualists evade regulation by host antimicrobial peptides. *Applied and Environmental Microbiology* 85 (13): e00738-19.
22. Strohm, E., Herzner, G., Ruther, J., **Kaltenpoth, M.** & Engl, T. (2019) Nitric oxide radicals are emitted by wasp eggs to kill mold fungi. *eLife* 8: e43718.
23. Dietel, A.-K., Merker, H., **Kaltenpoth, M.** & Kost C. (2019) Selective advantages favour high genomic AT-contents in intracellular elements. *PLoS Genetics* 15 (4): e1007778.
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