

## Prof. Dr. Pierre Stallforth – *Curriculum Vitae*

Leibniz Institute for Natural Product Research  
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### Education, Research Experience, Positions

05/2022 – present	Deputy Director <b>Leibniz Institute for Natural Product Research and Infection Biology</b> (Hans Knöll Institute – HKI, Jena)
12/2021 – present	Full Professor (W3) of Bioorganic Chemistry and Paleobiotechnology at the <b>Friedrich Schiller University (FSU) Jena</b>
02/2020	Habilitation in Organic Chemistry, Faculty of Earth Sciences and Chemistry, <b>FSU Jena</b>
01/2020 – present	Head of the Department <b>Paleobiotechnology</b> funded by the Werner Siemens-Stiftung at the <b>Leibniz Institute for Natural Product Research and Infection Biology</b> (Hans Knöll Institute – HKI, Jena)
12/2019 – 10/2020	Temporary visiting professorship, Organic Chemistry, <b>University of Hamburg</b>
12/2013 – 12/2019	Independent Junior Group Leader, <b>Leibniz Institute for Natural Product Research and Infection Biology</b> , (Hans Knöll Institute – HKI, Jena) Dept. of Chemistry of Microbial Communication
02/2011 – 11/2013	Postdoc, <b>Harvard Medical School</b> , Dept. of Biological Chemistry and Molecular Pharmacology, Boston. Mentor: Prof. Jon Clardy
11/2006 – 11/2010	Graduate Studies (Dr. sc. ETH Zurich), <b>ETH Zurich</b> and <b>Max Planck Institute</b> , Colloids and Interfaces, Biomolecular Systems, Berlin Supervisor: Prof. Peter H. Seeberger (co-supervisor: Prof. Donald Hilvert) “ <i>Synthesis of Bacterial Carbohydrates and Glycolipids for Application in Novel Vaccine Strategies</i> ”
09/2005 – 07/2006	Master Thesis, <b>University of Oxford</b> , Supervisor: Prof. David E. Logan (1 <sup>st</sup> class)
10/2002 – 07/2006	MSc Studies Chemistry, St Edmund Hall, <b>University of Oxford</b> (1 <sup>st</sup> class, being placed 2 <sup>nd</sup> out of 150 students)

### Fellowships, Awards, and Third-Party Funding

03/2024	medac Research Award 2023
02/2022	Cozzarelli-Prize of the National Academy of Sciences, USA
09/2021	Finalist for the Paul Ehrlich/Ludwig Darmstaedter Young Researcher Award
08/2021	2021 International <i>Dictyostelium</i> Junior Faculty Award
12/2020	Award of the Dr.-Otto-Röhm-Gedächtnisstiftung
11/2020	Academy of Science Göttingen: Academy Prize Chemistry, 2020
01/2020	Funding by the Werner Siemens-Stiftung
10/2020	Funding by the DFG Excellence Cluster Balance of the Microverse
05/2019	Beutenberg-Campus Research Prize
02/2019	DECHEMA Research Award Natural Product Research
11/2018	medac Research Award 2018
09/2018	Best Talk, Young Scientists Symposium Bioorganic Chemistry, Bochum 2018
07/2018	Max-Buchner-Stipend of the DECHEMA
06/2018	Boehringer Ingelheim Exploration Grant
03/2018	DFG Research Grant STA1431/3-1

08/2017	Best Talk Prize, International 2017 <i>Dictyostelium</i> Conference, Geneva
07/2017	DFG Research Grant STA1431/2-1
11/2016	medac Research Award 2016
12/2015	Funding from the Fonds der Chemischen Industrie
12/2015	Funding from the Dr. Illing Foundation
02/2014	Fellowship of the Daimler and Benz Foundation
06/2012	Feodor Lynen-Postdoc Fellowship (A. v. Humboldt Foundation)
02/2011	Swiss National Fund Postdoc Fellowship
06/2007	PhD Fellowship, Studienstiftung (German Academic Merit Foundation)
06/2005	Gibbs Prize for excellence in the final examination
06/2005 – 07/2006	Fellowship of the Studienstiftung (German Academic Merit Foundation)
2003 and 2004	Turbutt Prize for excellence in practical organic chemistry
06/2003 – 07/2006	University of Oxford, Open Scholarship
06/2002	Prize for the best Abitur at Paul-Klee-Gymnasium, Gersthofen

### Organization of Scientific Meetings and Editorial Work

2024 – present	Member of the Advisory Board of RSC <i>Chemical Science</i>
2023	Chair of the Organizing Committee for the conference <i>Advances in Chemical Biology</i> , Frankfurt am Main
2021	Section Editor at microLife (Oxford University Press)
2021	Chair of the Organizing Committee for the conference <i>Advances in Chemical Biology</i> , online
2019	Guest Editor at <i>ChemBioChem</i> (Special Collection Biosynthesis of Bacterial Natural Products and Small Molecules in Microbial Interactions)
2019	Chair of the Organizing Committee for the conference <i>Advances in Chemical Biology</i> , Frankfurt am Main
2019	Chair of the Session ‘Molecules in Life – Molecules of Life’ Science forum of the German Chemical Society (GDCh), Aachen
2016	Chair of the <i>Young Scientists Symposium Bioorganic Chemistry</i> ( <i>Nachwuchswissenschaftler-Symposium Bioorganische Chemie</i> ), Jena

### Commissions of Trust

2024 – present	Chair of the Natural Product Section of the DECHEMA (German Society for Chemical Engineering and Biotechnology)
2024 – present	Member of the Advisory Board of RSC <i>Chemical Science</i>
2022 – present	Member of the Executive Board of the Excellence Cluster Balance of the Microverse
2021 – present	Vice Speaker of the Leibniz Research Alliance Bioactive Compounds and Biotechnology
2018 – present	Sub-coordinator of the Research Area A, Excellence Cluster Balance of the Microverse
2018 – 2024	Chair of the Common Division of Chemical Biology (Gemeinsame Fachgruppe Chemische Biologie der DECHEMA, GDCh, DPhG, GBM)
2010 – present	Member of the Selection Committee, German Academic Merit Foundation (Studienstiftung des deutschen Volkes)

## Teaching Experience

04/2023 – present	Organic Chemistry for Biochemists (4 weekly lecture hours), Friedrich Schiller University Jena
10/2022 – present	Seminars (winter semester) Organic Chemistry 4 and OCF, FSU Jena
04/2020 – 10/2020	Lectures (summer semester) Natural Products (2 weekly lecture hours), University of Hamburg Lectures (summer semester) General Organic Chemistry (4 weekly lecture hours), Hamburg, University of Technology (TUHH) Seminar (summer semester) Organic Chemistry II, (2 weekly lecture hours), University of Hamburg
12/2019 – 04/2020	Lectures (winter semester) Advanced Organic Chemistry (2 weekly lecture hours), University of Hamburg
04/2018 – present	Lectures (summer semester): Synthesis Strategies (for master students in Chemical Biology, 2 weekly lecture hours), FSU Jena
11/2016 – 02/2018	Lectures (winter semester): Microbiology (for pharmacists, 2 weekly lecture hours) and Biochemistry (for pharmacists, 2 weekly lecture hours), FSU Jena
08/2016	Summer School (2 weeks, Studienstiftung) Antibiotics and Resistance
11/2015 – 12/2015	Lectures (winter semester): Analytical Chemistry (FSU Jena, Ringvorlesung 4 lectures)
09/2014 – 01/2018	Seminars (winter semester): Bioanalytical Chemistry (FSU Jena, 2 weekly lecture hours)
07/2013	Biosynthesis (5d summer school Braz. Soc. of Pharmacognosy, Macapá, Brazil)
09/2009 – 12/2009	Practical Organic Chemistry I (ETH Zurich)
02/2008 – 06/2008	Practical Organic Chemistry II (ETH Zurich)
09/2007 – 12/2007	Teaching Assistant: Biological Chemistry I (ETH Zurich)
02/2007 – 07/2007	Teaching Assistant: Organic Chemistry II (ETH Zurich)

## Institutional Responsibilities

2022 – present	Executive Board Member Excellence Cluster Balance of the Microverse
2018 – present	Excellence Cluster: Balance of the Microverse Associate Member and Sub-Coordinator of Research Area A
2014 – present	Associated member of the Faculty of Biological and Pharmaceutical Sciences, Friedrich Schiller University Jena
2014 – present	Faculty member, Jena School for Microbial Communication, Jena
2014 – present	Faculty member, International Leibniz Research School, Jena
2013 – present	Faculty member, Leibniz Institute for Natural Product Research and Infection Biology, Hans Knöll Institute – HKI

## Supervision of Graduate Students and Postdoctoral Fellows

2013 – present	14 Postdocs, 11 PhD, 10 Master students, 5 Bachelor students, ca. 30 interns
2011 – 2013	2 PhD students (rotation students, Harvard Medical School)
2006 – 2011	2 Master students, 1 Bachelor student (ETH Zurich)

## PhD Commissions

2013 –	Faculty of Earth Sciences and Chemistry/Faculty of Biological Sciences, FSU Jena
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**Invited Talks and Conference Presentations**

DD.MM.YY

20.03.2025 Institute Seminar, Masaryk University, Brno, Czech Republic  
25.02.2025 Institute Seminar, Leibniz-Forschungsinstitut für Molekulare Pharmakologie, Berlin  
21.01.2025 Keynote talk at Advances in Chemical Biology, Frankfurt  
29.11.2024 Institute Seminar, University of Zurich, Switzerland  
25.10.2024 3<sup>rd</sup> Japanese-German Symposium on the Biosynthesis of Natural Products, Bonn  
23.10.2024 5<sup>th</sup> European Conference on Natural Products, Würzburg  
15.10.2024 IGSTC Workshop, National Centre for Cell Science, Pune, India  
10.10.2024 EUREKA! 2024 Symposium, Würzburg  
20.09.2024 Keynote speech at the 58<sup>th</sup> Scientific Conference of the German speaking Mycological Society, Jena  
  
16.07.2024 Konstanz Research School Chemical Biology, University of Konstanz  
20.06.2024 Retreat Graduate School Berlin, Pāwesin  
14.06.2024 Chemistry Meeting: Humboldt Meets Leibniz, Leibniz University Hannover  
13.05.2024 Institute Seminar, Max Planck Institute for Chemistry, Mainz  
19.04.2024 SINOGFOS, Alexander von Humboldt Foundation, Shanghai, China  
17.04.2024 Institute Seminar, Jiangnan University, Wuxi, China  
21.02.2024 Doctoral student's Day, Friedrich-Alexander-University Erlangen-Nürnberg  
16.02.2024 36<sup>th</sup> Irsee Natural Product Symposium  
04.12.2023 Nikolaus Symposium, Ludwig-Maximilian University Munich  
27.11.2023 Institute Seminar, University Freiburg  
05.11.2023 Conference on Metabolic and Protein Engineering for Biosynthesis, Dalian, China  
  
16.10.2023 Inaugural Lecture, Jena  
06.10.2023 Chemistry Seminars, University of Vienna, Austria  
21.09.2023 VAAM Workshop Natural Products, Saarbrücken  
11.09.2023 VAAM conference, Göttingen  
28.08.2023 16<sup>th</sup> German Peptide Symposium, Jena  
13.06.2023 Biochemistry Seminars, University of Leipzig  
08.06.2023 NUVISAN ICB GmbH, Berlin  
29.05.2023 Chemistry Seminar, Hebrew University, Jerusalem, Israel  
28.05.2023 Chemistry Seminar, Tel Aviv University, Israel  
23.05.2023 Synmicro Meeting Marburg  
12.05.2023 Microbiology Seminar, University of Zurich, Switzerland  
02.05.2023 German-Japanese Biosynthesis Meeting, Kyoto, Japan  
07.02.2023 Awake Africa Online Conference  
02.12.2022 Seminars in Ecology and Evolution, University of Copenhagen, Denmark  
15.11.2022 Young Researchers' Symposium, Friedrich Loeffler Institute Riems  
18.10.2022 Chemistry Seminars, University of Hannover  
05.10.2022 Chemistry Seminars, University of Edinburgh, United Kingdom  
22.09.2022 Bacterial Lipopeptides Workshop, Liège, Belgium  
05.09.2022 4<sup>th</sup> Symposium „Chemistry at the Interface of Biology and Medicine” Patras, Greece  
  
08.08.2022 International *Dictyostelium* Meeting 2022, Stirling, United Kingdom  
01.07.2022 GDCh Biochemistry 2022, Münster  
14.06.2022 Microbial Secondary Metabolites in Microbiomes 2022, Helsingør  
10.06.2022 PFSaM Meeting, University of Saskatoon, Canada

20.05.2022	Lise-Meitner-Colloquium, FU Berlin
14.01.2022	Zhejiang University, Hangzhou, China (online)
16.11.2021	EPFL, Switzerland (online)
28.09.2021	Max-Planck-Institute of Chemical Ecology (hybrid)
27.09.2021	Wirkstofftage (online)
17.09.2021	Paul-Ehrlich-Ludwig-Darmstaedter Young Investigator Prize Symposium
16.07.2021	Academy of Sciences, Göttingen (online)
04.12.2020	Indiana University–Bloomington, USA (online)
27.10.2020	Duke University, USA (online)
30.09.2020	Megasyn Conference, Bad Nauheim
02.09.2020	Microverse Conference, Jena (online)
14.05.2020	Heinrich Pette Institute, Hamburg, cancelled due to COVID-19
30.04.2020	School of basic Medical Sciences at Hangzhou, China, cancelled due to COVID-19
24.04.2020	SINOGFOS, Alexander von Humboldt Foundation, Suzhou, China, cancelled due to COVID-19
08.04.2020	University of Marburg (Chemistry Department), cancelled due to COVID-19
02.04.2020	Japanese-Germany Symposium on Natural Products, Shizuoka, Japan, cancelled due to COVID-19
17.03.2020	EPFL (Chemistry Department), Switzerland, cancelled due to COVID-19
07.11.2019	Jacobs University, Bremen
17.10.2019	Technical University Munich (Chemistry Department)
14.10.2019	Technical University Munich, (Medicinal Microbiology Department)
24.09.2019	2019 Bioorganic Symposium, Bochum
04.09.2019	Swiss Society for Microbiology Meeting, Zurich, Switzerland
29.07.2019	University of York (Biology Department), United Kingdom
29.07.2019	University of York (Chemistry Department), United Kingdom
14.06.2019	University of Konstanz
13.05.2019	Karlsruhe Institute of Technology
15.04.2019	University of Braunschweig
19.03.2019	Chemiedozententagung, Koblenz
19.03.2019	VAAM Conference, Mainz
20.02.2019	31 <sup>st</sup> Irsee Natural Product Symposium
10.01.2019	University of Cologne
13.12.2018	Biomolecular Systems Day, MPI Colloids and Interfaces, Potsdam-Golm
06.11.2018	Chemistry Colloquium, University of Hamburg
19.09.2018	2018 Bioorganic Symposium, Bochum
04.09.2018	Harvard Medical School, Boston MA, USA
14.08.2018	<i>Dictyostelium</i> Conference, Egmond aan Zee, The Netherlands
26.07.2018	University of Tübingen
17.07.2018	Freie Universität Berlin
28.05.2018	Max Planck Institute for Terrestrial Microbiology, Marburg
24.04.2018	Leibniz Research Alliance, Bioactive Compounds and Biotechnology, Halle
05.04.2018	MPI for Chemical Ecology, Jena
27.03.2018	University of Utrecht, The Netherlands
19.03.2018	MiCom, Jena
05.03.2018	Chemiedozententagung, Jena
31.01.2018	Advances in Chemical Biology, Frankfurt
11.01.2018	MPI for Chemical Ecology, Jena

21.09.2017	2017 Bioorganic Symposium, Berlin
22.08.2017	<i>Dictyostelium</i> Conference, Geneva, Switzerland
13.06.2017	Bioorganic Gordon Research Conference, Andover NH, USA
04.05.2017	New England Biolabs, Ipswich MA, USA
10.04.2017	Leibniz Research Alliance, Bioactive Compounds and Biotechnology, Freising
22.03.2017	MiCom, Jena
16.03.2017	Symposium Biosynthetic Strategies, Jena
14.03.2017	Chemiedozententagung, Marburg
02.03.2017	University of Geneva, Switzerland
08.12.2016	University of Düsseldorf
12.11.2016	Peter Seeberger Symposium, Berlin
10.10.2016	Small Molecules and Microbes, Konstanz
04.08.2016	Summer Academy, Studienstiftung, Neubeuern
14.03.2016	VAAM Conference, Jena
15.01.2016	University of Mainz
2015	2015 Bioorganic Symposium, Hamburg
2015	Harvard Medical School, Boston MA, USA
2014	Daimler and Benz Foundation, Ladenburg
2014	Leibniz Research Alliance, Bioactive Compounds and Biotechnology, Berlin
2012	Hans Knöll Institute, Jena

### Publications (<sup>†</sup> equal contributions, \*corresponding author)

61. S. Zhang, Y. Huang, R. Nachawati, P. Huber, G. Walther, L. Gregor, I. Vilotijevic, **P. Stallforth\*** (*submitted*)
60. S. Zhang, K. Schlabach, V. H. Pérez Carillo, A. Ibrahim, S. Nayem, A. Komor, R. Mukherji, S. Chowdhury, L. Reimer, F. Trottmann, A. C. Vlot, C. Hertweck, U. A. Hellmich, **P. Stallforth\*** *Cell* **2025** (*accepted*)
59. Y. Bando, M. Klapper, R. Herbst, A. Sachse, **P. Stallforth**, H.-D. Arndt\* *Org. Lett.* **2025** (*accepted*)
58. I. Wasmuth, C. Warinner\*, **P. Stallforth\*** *Nat. Prod. Rep.* **2025**, doi: 10.1039/D4NP00074A
57. H. Suma, **P. Stallforth\*** “Pleiotropic regulation of bacterial toxin production and Allee effect govern microbial predator-prey interactions” *ISME COMMUN.* **2025**, ycaf031, doi: 10.1093/ismeco/ycaf031
56. K. Li, Y. I. Cho\*, M. A. Tran, C. Wiedemann, S. Zhang, R. S. Koweek, N. K. Hoàng, G. S. Hamrick, M. A. Bowen, B. Kokona, **P. Stallforth**, J. Beld, U. A. Hellmich\*, L. K. Charkoudian\* “Strategic Acyl Carrier Protein Engineering Enables Functional Type II Polyketide Synthase Reconstitution In Vitro” *ACS Chem. Biol.* **2025**, doi: 10.1021/acscchembio.4c00678
55. T. Vuong, P. Shetty, E. Kurtoglu, C. Schultz, L. Schrader, P. Then, J. Petersen, M. Westermann, A. Rredhi, S. Chowdhury, R. Mukherji, M. Schmitt, J. Popp, **P. Stallforth**, M. Mittag\* “Metamorphosis of a unicellular green alga in the presence of acetate and a spatially structured three-dimensional environment” *New Phytol.* **2024**, doi: 10.1111/nph.20299
54. M. Klapper, **P. Stallforth\*** “Accessing microbial natural products of the past” *microLife* **2024**, doi: 10.1093/femsml/ugae
53. S. Zhang, **P. Stallforth\*** “Biofilms and exopolysaccharides in *Pseudomonas aeruginosa*: pathogenesis, immune evasion, and lung–brain signaling during pneumonia” *Signal Transduct. Target. Ther.* **2024**, 9, 204, Review, doi: 10.1039/D3SC03335J
52. S. Pflanze, R. Mukherji, A. Ibrahim, M. Günther, S. Götze, S. Chowdhury, L. Reimer, L. Regestein, **P. Stallforth\*** “Nonribosomal peptides protect *Pseudomonas nunensis* 4A2e from amoebal and nematodal predation” *Chem. Sci.* **2023**, Advance Article, doi: 10.1039/D3SC03335J

51. P. S. Seibold, S. Lawrinowitz, I. Raztsou, M. Gressler, H.-D. Arndt, **P. Stallforth**, D. Hoffmeister\* “Bifurcate evolution of quinone synthetases in basidiomycetes” *Fungal Biol. Biotechnol.* **2023**, *10*, 14, doi: 10.1186/s40694-023-00162-1
50. M. Klapper<sup>+</sup>, A. Hübner<sup>+</sup>, A. Ibrahim<sup>+</sup>, I. Wasmuth, Maxime Borry, V. G. Haensch, S. Zhang, W. K. Al-Jammal, H. Suma, J. A. Fellows Yates, J. Frangenberg, I. M. Velsko, S. Chowdhury, R. Herbst, E. V. Bratovanov, H.-M. Dahse, T. Horch, C. Hertweck, M. R. González Morales, L. G. Straus, I. Vilotijevic, C. Warinner\*, **P. Stallforth**\* “Natural products from reconstructed bacterial genomes of the Middle and Upper Paleolithic” *Science* **2023**, *380*, 619–624, doi: 10.1126/science.adf5300
49. S. Götze, R. Vij, K. Burow, N. Thome, L. Urvat, N. Schlosser, S. Pflanze, R. Müller, V. G. Hänsch, K. Schlabach, L. Fazlikhani, G. Walther, H.-M. Dahse, L. Regestein, S. Brunke, B. Hube, C. Hertweck, P. Franken, **P. Stallforth**\* “Ecological Niche-Inspired Genome Mining Leads to the Discovery of Crop-Protecting Nonribosomal Lipopeptides Featuring a Transient Amino Acid Building Block” *J. Am. Chem. Soc.* **2023**, *145*, 2342–2353, doi: 10.1021/jacs.2c11107
48. **P. Stallforth**\*, C. Hertweck, M. Mittag, A. A. Brakhage, U. Hellmich\* “Functional Modulation of Chemical Mediators in Microbial Communities” *Trends Biochem. Sci.* **2023**, *48*, 1, doi: 10.1016/j.tibs.2022.07.006
47. N. Declas, J. R. J. Maynard, L. Menin, N. Gasilovac, S. Götze, J. L. Sprague, **P. Stallforth**, S. Matile, J. Waser\* “Tyrosine Bioconjugation with Hypervalent Iodine” *Chem. Sci.* **2022**, *13*, 12808–12817, doi: 10.1039/D2SC04558C
46. M. Günther<sup>+</sup>, C. Reimer<sup>+</sup>, R. Herbst<sup>+</sup>, J. E. Kufs, J. Rautschek, N. Ueberschaar, S. Zhang, G. Peschel, L. Reimer, L. Regestein, V. Valiante, F. Hillmann\*, **P. Stallforth**\* “Yellow polyketide pigment suppresses premature hatching in social amoeba” *Proc. Natl. Acad. Sci. U. S. A.* **2022**, *119*, e2116122119, doi: 10.1073/pnas.2116122119
45. J. E. Kufs, C. Reimer, **P. Stallforth**, F. Hillmann, L. Regestein\* “The potential of amoeba-based processes for natural product syntheses” *Curr. Opin. Biotechnol.* **2022**, *77*, 102766, doi: 10.1016/j.copbio.2022.102766
44. Y. Bando, Y. Hou, L. Seyfarth, J. Probst, S. Götze, M. Bogacz, U. A. Hellmich, P. Stallforth, M. Mittag, H.-D. Arndt\* “Total Synthesis and Structure Correction of the Cyclic Lipopeptide Orfamide A” *Chem. Eur. J.* **2022**, *28*, e202104417, doi: 10.1002/chem.202104417
43. V. Nasufović, F. Küllmer, J. Bößneck, H.-M. Dahse, H. Görls, P. Bellstedt, **P. Stallforth**, H.-D. Arndt\* “Total synthesis and bioactivity mapping of geodiamolide H” *Chem. Eur. J.* **2021**, *27*, 11633–11642, doi: 10.1002/chem.202100989
42. M. Baunach\*, S. Chowdhury, **P. Stallforth**, E. Dittmann\* “The landscape of recombination events that create nonribosomal peptide diversity” *Mol. Biol. Evol.* **2021**, *38*, 2116–2130, doi: 10.1093/molbev/msab015
41. S. Zhang<sup>+</sup>, R. Mukherji<sup>+</sup>, S. Chowdhury, L. Reimer, **P. Stallforth**\* “Lipopeptide-mediated Bacterial Interaction Enables Cooperative Predator Defense” *Proc. Natl. Acad. Sci. U. S. A.* **2021**, *118*, e2013759118, doi: 10.1073/pnas.2013759118
40. M. R. Seyedsayamdost\*, **P. Stallforth**\* “Special Issue in Honor of Professor Jon Clardy”, *J. Nat. Prod.* **2020**, *83*, 565–568, doi: 10.1021/acs.jnatprod.0c00199
39. P. Stallforth\* “Cellular microbiology interview-Dr. Pierre Stallforth” *Cell. Microbiol.* **2020**, *22*, e13188, doi: 10.1111/cmi.13188
38. S. Götze, **P. Stallforth**\* “Structure Elucidation of Bacterial Nonribosomal Lipopeptides” *Org. Biomol. Chem.* **2020**, *18*, 1710–1727, doi: 10.1039/C9OB02539A
37. S. Götze, **P. Stallforth**\* “Structure, Properties, and Biological Functions of Nonribosomal Lipopeptides from Pseudomonads” *Nat. Prod. Rep.* **2020**, *37*, 29–54, doi: 10.1039/C9NP00022D
36. R. Mukherji<sup>+</sup>, S. Zhang<sup>+</sup>, S. Chowdhury, **P. Stallforth**\* “Chimeric LuxR Transcription Factors Rewire Natural Product Regulation” *Angew. Chem. Int. Ed.* **2020**, *59*, 6192–6195, doi: 10.1002/ange.01914449

35. M. Klapper, K. Schlabach, A. Paschold, S. Zhang, S. Chowdhury, K.-D. Menzel, M. A. Rosenbaum, **P. Stallforth\*** “Biosynthesis of *Pseudomonas*-Derived Butenolides” *Angew. Chem. Int. Ed.* **2020**, *59*, 5607–5610, doi: 10.1002/anie.201914154
34. R. Herbst, M. Günther, **P. Stallforth\*** “Chemical Ecology of *Dictyostelium discoideum*” *Comprehensive Natural Products III*, Elsevier, **2020**, doi: 10.1016/B978-0-12-409547-2.14719-5
33. S. Götze, J. Arp, G. Lackner, S. Zhang, H. Kries, M. Klapper, M. García-Altres, K. Willing, M. Günther, **P. Stallforth\*** “Structure Elucidation of the Syringafactin Lipopeptides Provides Insight in the Evolution of Nonribosomal Peptide Synthetases” *Chem. Sci.* **2019**, *10*, 10979–10990, doi: 10.1039/C9SC03633D
32. D. Fischer, G. Gessner, T. Pacheco Fill, R. Barnett, K. Tron, K. Dornblut, F. Kloss, **P. Stallforth**, B. Hube, S. H. Heinemann, C. Hertweck, K. Scherlach,\* S. Brunke\* “Disruption of membrane integrity by the bacteria-derived antifungal jagaricin” *Antimicrob. Agents Chemother.* **2019**, *63*, e00707, doi: 10.1128/AAC.00707-19
31. M. Klapper, A. Paschold, S. Zhang, C. Weigel, H.-M. Dahse, S. Götze, S. Pace, S. König, Z. Rao, L. Reimer, O. Werz, **P. Stallforth\*** “Bioactivity and Mode of Action of Bacterial Tetramic Acids” *ACS Chem. Biol.* **2019**, *14*, 1693–1697, doi: 10.1021/acscchembio.9b00388
30. A. Oberheide, S. Pflanze, **P. Stallforth**, H.-D. Arndt\* “Solid Phase-Based Total Synthesis and Stereochemical Assignment of the Cryptic Natural Product Aurantizolicin” *Org. Lett.* **2019**, *21*, 729–732, doi: 10.1021/acs.orglett.8b03940
29. F. Broecker, S. Götze, J. Hudon, D. C. K. Rathwell, C. L. Pereira, **P. Stallforth**, A. Chakkumkalag, P. H. Seeberger\* “Synthesis, Liposomal Formulation, and Immunological Evaluation of a Minimalistic Carbohydrate- $\alpha$ -GalCer Vaccine Candidate” *J. Med. Chem.* **2018**, *61*, 4918–4927, doi: 10.1021/acs.jmedchem.8b00312
28. D. Heinrich, R. Barnett, L. Tweedy, R. Insall, **P. Stallforth**, T. Winckler\* “The chemoattractant glorin is inactivated by ester cleavage during multicellular development of the social amoeba *Polysphondylium pallidum*” *ACS Chem. Biol.* **2018**, *13*, 1506–1513, doi: 10.1021/acscchembio.8b00046
27. J. Arp<sup>+</sup>, S. Götze<sup>+</sup>, R. Mukherji, D. J. Mattern, M. García-Altres, M. Klapper, D. A. Brock, A. A. Brakhage, J. E. Strassmann, D. C. Queller, B. Bardl, K. Willing, G. Peschel, **P. Stallforth\***, “Synergistic activity of co-secreted natural products from amoebae-associated bacteria” *Proc. Natl. Acad. Sci. U. S. A.* **2018**, *115*, 3758–3763, doi: 10.1073/pnas.17217901
26. M. Klapper, D. Braga, G. Lackner, R. Herbst, **P. Stallforth\*** “Bacterial Alkaloid Biosynthesis: Structural Diversity via a Minimalistic Nonribosomal Peptide Synthetase” *Cell Chem. Biol.* **2018**, *25*, 659–665, doi: 10.1016/j.chembiol.2018.02.013
25. M. Klapper, J. Arp, M. Günther, **P. Stallforth\*** “The Role of Bacterial Natural Products in Predator Defense” *Synlett*, **2018**, *29*, 537–541, doi: 10.1055/s-0037-1609226
24. R. Barnett, **P. Stallforth\***, “Natural Products from Social Amoebae” *Chem. Eur. J.* **2018**, *24*, 4202–4214, doi: 10.1002/chem.201703694
23. S. Götze, R. Herbst-Irmer, M. Klapper, H. Görls, K. R. A. Schneider, R. Barnett, T. Burks, U. Neu, **P. Stallforth\*** “Structure, Biosynthesis, and Biological Activity of the Cyclic Lipopeptide Anikasin” *ACS Chem. Biol.* **2017**, *12*, 2498–2502, doi: 10.1021/acscchembio.7b00589
22. R. Gallegos-Monterrosa, S. Kankel, S. Götze, R. Barnett, **P. Stallforth\***, A. T. Kovács\* “*Lysinibacillus fusiformis* M5 induces increased complexity in *Bacillus subtilis* 168 colony biofilms via hypoxanthine” *J. Bact.* **2017**, *199*:e00204–17, doi: 10.1128/jb.00204-17
21. J. Arp, **P. Stallforth\*** “Rationalizing the Right Ratios” *Cell Chem. Biol.* **2017**, *24*, 539, doi: 10.1016/j.chembiol.2017.05.007
20. R. Barnett, D. Raszkowski, T. Winckler, **P. Stallforth\*** “Versatile Synthesis of the Signaling Peptide Glorin” *Beilstein J. Org. Chem.* **2017**, *13*, 247–250, doi: 10.3762/bjoc.13.27
19. M. Klapper, S. Götze, R. Barnett, K. Willing, **P. Stallforth\*** “Bacterial Alkaloids Prevent Amoebal Predation” *Angew. Chem. Int. Ed. Engl.* **2016**, *55*, 8944–8947, doi: 10.1002/anie.201603312



18. A. Adibekian\*, **P. Stallforth\*** “Cutting Edge Chemical Biology: Report from the 2016 International Symposium on Chemical Biology, January 13–15, Geneva, Switzerland” *ACS Chem. Biol.* **2016**, *11*, 816–820, doi: 10.1021/acscchembio.6b00267
17. S. Götze, **P. Stallforth\***, “Chemical Communication in Microbial Communities” *GIT Lab. J.* **2015**, *11–12*, 16
16. J. Braesel, S. Götze, F. Shah, D. Heine, J. Tauber, C. Hertweck, A. Tunlid, **P. Stallforth**, D. Hoffmeister\* “Three Redundant Synthetases Secure Redox-Active Pigments Production in the Basidiomycete *Paxillus involutus*” *Chem. Biol.* **2015**, *22*, 1325–1334, doi: 10.1016/j.chembiol.2015.08.016
15. S. Matthies, **P. Stallforth**, P. H. Seeberger\* “Total Synthesis of Legionaminic Acid as Basis for Serological Studies” *J. Am. Chem. Soc.* **2015**, *137*, 2848–2851, doi: 10.1021/jacs.5b00455
14. M. Cavallari<sup>+</sup>, **P. Stallforth**<sup>+</sup>, A. Kalinichenko<sup>+</sup>, D. Rathwell, T. M. A. Gronewold, A. Adibekian, L. Mori, R. Landmann, P. H. Seeberger\*, G. DeLibero\* “A semisynthetic carbohydrate-lipid vaccine that protects against *S. pneumoniae* in mice” *Nat. Chem. Biol.* **2014**, *10*, 950–956, doi: 10.1038/nchembio.1650
13. **P. Stallforth**, J. Clardy\* “Atlas for Drug Discovery” *Proc. Natl. Acad. Sci. U. S. A.* **2014**, *111*, 3655–3656, doi: 10.1073/pnas.140051611
12. **P. Stallforth**, D. A. Brock, A. M. Cantley, X. Tian, D. C. Queller, J. E. Strassmann, J. Clardy\* “A bacterial symbiont is converted from an inedible producer of beneficial molecules into food by a single mutation in the *gacA* gene” *Proc. Natl. Acad. Sci. U. S. A.* **2013**, *110*, 14528–14533, doi: 10.1073/pnas.1308199110 (Highlighted in PNAS, *Nat. Rev. Microbiol.*, *BioTechniques*, and other)
11. **P. Stallforth**, J. Clardy\* “X-ray crystallography: one size fits most” *Nature* **2013**, *495*, 456–457, doi: 10.1038/495456a
10. **P. Stallforth**<sup>+</sup>, S. Matthies<sup>+</sup>, A. Adibekian, D. G. Gillingham, D. Hilvert, P. H. Seeberger\* “De novo chemoenzymatic synthesis of sialic acid” *Chem. Commun.* **2012**, *48*, 11987–11989, doi: 10.1039/C2CC37305J
9. **P. Stallforth**, J. Clardy\* “Protein Evolution: When Two Become Three” *Curr. Biol.* **2012**, *22*, R685, doi: 10.1016/j.cub.2012.07.055
8. A. Adibekian, **P. Stallforth**, M.-L. Hecht, D. B. Werz, P. Gagneux, P. H. Seeberger\* “Comparative bioinformatics analysis of the mammalian and bacterial glycomes” *Chem. Sci.* **2011**, *2*, 337–344, doi: 10.1039/C0SC00322K
7. T. Ohara, A. Adibekian, D. Esposito, **P. Stallforth** and P. H. Seeberger\* “Towards the synthesis of a *Yersinia pestis* cell wall polysaccharide: enantioselective synthesis of an L-glycero-D-manno-heptose building blocks” *Chem. Commun.* **2010**, *46*, 4106–4108, doi: 10.1039/C000784F
6. R. Pragani, **P. Stallforth**, P. H. Seeberger\* “De Novo Synthesis of a 2-Acetamido-4-amino-2,4,6-trideoxy-D-galactose (AAT) Building Block for the Preparation of a *Bacteroides fragilis* A1 Polysaccharide Fragment” *Org. Lett.* **2010**, *12*, 1624–1627, doi: 10.1021/ol1003912
5. D. G. Gillingham<sup>+</sup>, **P. Stallforth**<sup>+</sup>, A. Adibekian, P. H. Seeberger\*, D. Hilvert\* “Chemoenzymatic synthesis of differentially protected 3-deoxysugars” *Nature Chem.* **2010**, *2*, 102–105, doi: 10.1038/nchem.504
4. **P. Stallforth**, B. Lepenies, A. Adibekian, P. H. Seeberger\* “Carbohydrates – A Frontier in Medicinal Chemistry” *J. Med. Chem.* **2009**, *52*, 5561–5577, doi: 10.1021/jm900819p
3. M.-L. Hecht, **P. Stallforth**, D. Varón-Silva, A. Adibekian, P. H. Seeberger\* “Recent Advances in Carbohydrate-based Vaccines” *Curr. Opin. Chem. Biol.* **2009**, *13*, 354–359, doi: 10.1016/j.cbpa.2009.05.127
2. A. Adibekian, M. S. M. Timmer, **P. Stallforth**, J. van Rijn, P. H. Seeberger\* “Stereocontrolled synthesis of fully functionalized D-glucosamine monosaccharides via a domino nitro Michael/Henry reaction” *Chem. Commun.* **2008**, *30*, 3549–3551, doi: 10.1039/b805159c

1. **P. Stallforth**, A. Adibekian, P. H. Seeberger\* “De novo Synthesis of a D-Galacturonic Acid Thioglycoside as Key to the Total Synthesis of a Glycosphingolipid from *Sphingomonas yanoikuyae*” *Org. Lett.* **2008**, *10*, 1573–1576, doi: 10.1021/ol800227b

### Patents

2. S. Pflanze, S. Götze, **P. Stallforth** “Kanamycins and uses thereof in medicine and plant protection US Patent App. 18/672,777
1. P. H. Seeberger, **P. Stallforth**, G. DeLibero, M. Cavallari, “Carbohydrate-Glycolipid Conjugate Vaccines” WO 2013/178236 A1