

Publication List Prof. Dr. Christoph Arenz ORCID: 0000-0001-7613-9437

(IF = Impact factor, © 2018 by JCR Science Foundation):

I) Peer-reviewed Accepted Publications

1. T. Jiang, R. Samapati, S. Klassen, S. Winoto-Morbach, Z. H. Mohamed, R. Göggel, J. Yin, L. Tan, C. Arenz, S. Schulz, L. Erfinanda, R. Preissner, S. Simmons, S. Schütze, S. Uhlig, W. M. Kuebler* "Mannose-6-phosphate attenuates acute lung injury by competitive release of acid sphingomyelinase from the mannose-6-phosphate receptor in endothelial caveolae"
Eur Respir J. **2025**, 65, DOI 10.1183/13993003.00003-2024 (IF = 17.0)
2. Y. Feng, F. Gärber, E.M. Saied, C. Spedalieri, Z. Kochovski, S. Werner, C. Pratsch, C. Arenz, S. Seifert, J. Kneipp* "SERS Spectra Indicate the Molecular Effects of 7-Nitrobenz-2-oxa-1,3-diazole (NBD) on Living Cells"
J. Phys. Chem. C **2024**, just accepted, jp-2024-05260z.R1 (IF = 3.3)
3. M.-A. Kirmpaki, E.M. Saied, F. Schumacher, K. Prause, B. Kleuser, C. Arenz* "Live-Cell Identification of Inhibitors of the Lipid Transfer Protein CERT Using Nanoluciferase Bioluminescence Resonance Energy Transfer (NanoBRET)"
Angew Chem Int Ed Engl **2024**, 63, e202413562. (IF = 16.6)
4. M. Rühling, L. Kersting, F. Wagner, F. Schumacher, D. Wigger, D.A. Helmerich, T. Pfeuffer, R. Elflein, C. Kappe, M. Sauer, C. Arenz, B. Kleuser, T. Rudel, M. Fraunholz*, Jürgen Seibel* "Trifunctional sphingomyelin derivatives enable nanoscale resolution of sphingomyelin turnover in physiological and infection processes via expansion microscopy"
Nat Commun **2024**, 15, 7456. (IF = 14.7)
5. P. Maurya, M. Kumar, R. Jain, H.T. Abdulhameed Almuqdadi, H. Singh, A. Gupta, C. Arenz, N.A. Gaur*, S. Singh* "Expression of Plasmodium major facilitator superfamily protein in transporters–D Candida identifies a drug transporter"
Fut. Microbiology **2024**, 19(15), 1293–1307. (IF = 2.5)
6. N. Coant, J.D. Bickel, R. Rahaim, Y. Otsuka, Y.-M. Choi, R. Xu, M. Simoes, C. Cariello, C. Mao, E.M. Saied, C. Arenz, T.P. Spicer, T.D. Bannister, P.J.

- Tonge, M.V. Airola, L. Scampavia, Y.A. Hannun, R.C. Rizzo, J.D. Haley*
"Neutral ceramidase-active site inhibitor chemotypes and binding modes"
Bioorg Med Chem **2023**, 139, 106747-106751. (IF = 3.3)
7. A. Behl R. Shoaib, F. De Leon, G. Kumari, M. Saini, E. Madan, V. Kumar, H. Singh, J. Kumari, P. Maurya, S. Garg, P.C. Mishra, C. Arenz and S. Singh*
"Targeting an essential Plasmodium cold shock protein to block growth and transmission of malaria parasite "
iScience **2023**, 26 106637. (IF = 4.6)
8. L.S. Kalinichenko, C. Muhle, T. Jia, F. Anderheiden, M. Datz, A.L. Eberle, V. Eulenburg, J. Granzow, M. Hofer, J. Hohenschild, S.E. Huber, S. Kampf, G. Kogias, L. Lacatusu, C. Lugmair, S.M. Taku, D. Meixner, N.K. Sembritzki, M. Praetner, C. Rhein, C. Sauer, J. Scholz, F. Ulrich, F. Valenta, E. Weigand, M. Werner, N. Tay, C.J. Mc Veigh, J. Haase, A.L. Wang, L. Abdel-Hafiz, J.P. Huston, I. Smaga, M. Frankowska, M. Filip, A. Lourdusamy, P. Kirchner, A.B. Ekici, L.M. Marx, N.P. Suresh, R. Frischknecht, A. Fejtova, E.M. Saied, C. Arenz, A. Bozec, I. Wank, S. Kreitz, A. Hess, T. Bauerle, M.D. Ledesma, D.N. Mitroi, A.M. Miranda, T.G. Oliveira, B. Lenz, G. Schumann, J. Kornhuber, C.P. Muller* "Adult alcohol drinking and emotional tone are mediated by neutral sphingomyelinase during development in males"
Cereb Cortex **2023**, 33 844–864. (IF = 2.9)
9. Y. Feng, Z. Kochovski, C. Arenz, Y. Lu, J. Kneipp*
„Structure and Interaction of Ceramide-Containing Liposomes with Gold Nanoparticles as Characterized by SERS and Cryo-EM”
J. Phys. Chem. C **2022**, DOI: 10.1021/acs.jpcc.2c01930 (IF = 4.1)
10. T. Jiang, R. Samapati, S. Klassen, D. Lei, L. Erfinanda, V. Jankowski, S. Simmons, J. Yin, C. Arenz, A. Dietrich, T. Gudermann, D. Adam, M. Schaefer, J. Jankowski, V. Flockerzi, R. Nusing, S. Uhlig, W.M. Kuebler*
"Stimulation of the EP3 receptor causes lung edema by activation of TRPC6 in pulmonary endothelial cells"
Eur Respir J **2022**, DOI 10.1183/13993003.02635-2021. (IF = 33.8)

11. L.S. Kalinichenko, C. Muhle, T. Jia, F. Anderheiden, M. Datz, A.L. Eberle, V. Eulenburg, J. Granzow, M. Hofer, J. Hohenschild, S.E. Huber, S. Kampf, G. Kogias, L. Lacatusu, C. Lugmair, S.M. Taku, D. Meixner, N.K. Sembritzki, M. Praetner, C. Rhein, C. Sauer, J. Scholz, F. Ulrich, F. Valenta, E. Weigand, M. Werner, N. Tay, C.J. Mc Veigh, J. Haase, A.L. Wang, L. Abdel-Hafiz, J.P. Huston, I. Smaga, M. Frankowska, M. Filip, A. Lourdusamy, P. Kirchner, A.B. Ekici, L.M. Marx, N.P. Suresh, R. Frischknecht, A. Fejtova, E.M. Saied, C. Arenz, A. Bozec, I. Wank, S. Kreitz, A. Hess, M.D. Ledesma, D.N. Mitroi, A.M. Miranda, T.G. Oliveira, B. Lenz, G. Schumann, J. Kornhuber, C.P. Muller*
"Adult alcohol drinking and emotional tone are mediated by neutral sphingomyelinase during development in males"
Cereb Cortex **2022**, DOI 10.1093/cercor/bhac106. (IF = 4.8)
12. Y.M. Suleimen, R.A. Jose, R.N. Suleimen, C. Arenz, M.Y. Ishmuratova, S. Toppet, W. Dehaen, B.A. Alsfolk, E.B. Elkaeed, I.H. Eissa, A.M. Metwaly*
"Jusanin, a New Flavonoid from Artemisia commutata with an In Silico Inhibitory Potential against the SARS-CoV-2 Main Protease"
Molecules **2022**, 27, DOI 10.3390/molecules27051636. (IF = 4.4)
13. Y.M. Suleimen, R.A. Jose, R.N. Suleimen, C. Arenz, M. Ishmuratova, S. Toppet, W. Dehaen, A.A. Alsfolk, E.B. Elkaeed, I.H. Eissa, A.M. Metwaly*
"Isolation and In Silico Anti-SARS-CoV-2 Papain-Like Protease Potentialities of Two Rare 2-Phenoxychromone Derivatives from Artemisia spp"
Molecules, **2022**, 27, DOI 10.3390/molecules27041216. (IF = 4.4)
14. R.D. Healey, E.M. Saied, X. Cong, G. Karsai, L. Gabellier, J. Saint Paul, E. Del Nero, S. Jeannot, M. Drapeau, S. Fontanel, D. Maurel, S. Basu, C. Leyrat, J. Golebiowski, G. Bossis, C. Bechara, T. Hornemann, C. Arenz, S. Granier*
"Discovery and mechanism of action of small molecule inhibitors of ceramidases"
Angew. Chem. Int. Ed. **2022**, doi/10.1002/anie.202109967. (IF = 15.3)
15. E. M. Saied and C. Arenz*
"Stereoselective Synthesis of Novel Sphingoid Bases Utilized for Exploring the Secrets of Sphinx"
Int J Mol Sci **2021**, 22, 8171. DOI: 10.3390/ijms22158171. (IF = 5.9)

16. T. Wang, Z. Wang, L. de Fabritus, J. Tao, E.M. Saied, H-J Lee, B.R. Ramazanov, B. Jackson, D. Burkhardt, M. Parker, A.S. Gleinich, Z. Wang, D.E. Seo, T. Zhou, S. Xu, Irina Alecu, P. Azadi, C. Arenz, T. Hornemann, S. Krishnaswamy, S.A. van de Pavert, S.M. Kaech, N.B. Ivanova, F.R. Santori, 1-deoxysphingolipids bind to COUP-TF to modulate lymphatic and cardiac cell development,
Dev Cell, **2021**, *56*, 3128-3145 (IF = 12.2)
17. L.S. Kalinichenko, C. Mühle, N. Tay, T. Jia, F. Anderheiden, M. Datz, A-L. Eberle, V. Eulenburg, J. Granzow, M. Hofer, J. Hohenschild, S. Huber, S. Kämpf, G. Kogias, L. Lacatusu, C. Lugmaier, S. Mbu Taku, D. Meixner, N. Tesch, M. Preatner, C. Rhein, C. Sauer, J. Scholz, F. Ulrich, F. Valenta, E. Weigand, M. Werner, C.J. Mc Veigh, J. Haase, A-L. Wang, L. Abdel-Hafiz, J.P. Huston, I. Smaga, M. Frankowska, M. Filip, A. Lourdusamy, P. Kirchner, A.B. Ekici, L. Marx, N.P. Suresh, R. Frischknecht, A. Fejtova, E.M. Saied, C. Arenz, A. Bozec, I. Wank, S. Kreitz, A. Hess, T. Bäuerle, M.D. Ledesma, A.M Miranda, T.G. Oliveira, E. Gulbins, B. Lenz, G. Schumann, J. Kornhuber, C.P. Müller*
"Neutral sphingomyelinase mediates the comorbidity trias of alcohol abuse, major depression and bone defects"
Mol Psychiatry **2021**, *accepted*, MS No 2021MP000962RR. (IF = 12.3)
18. E. M. Saied and C.Arenz*
"Stereoselective Synthesis of Novel Sphingoid Bases Utilized for Exploring the Secrets of Sphinx"
Int J Mol Sci **2021**, *22*, 8171. DOI: 10.3390/ijms22158171. (IF = 5.9)
19. Z.H. Mohamed, C. Rhein, B. Schmid, P. Tripal, J. Kornhuber and C. Arenz*
"Synthesis and Characterization of a New Two Photon Excitable Acid Sphingomyelinase FRET Probe"
Bioorg Med Chem **2021**, *44*, 116303. (IF = 3.6)
20. G. Naseri*, K. Prause, H.H. Hamdo, C. Arenz
"Artificial transcription factors for tuneable gene expression in *Pichia pastoris*"
Front. Bioeng. Biotech. **2021**, DOI:10.3389/fbioe.2021.676900 (IF = 5.4)

21. T.C.B. Santos, E.M. Saied, C. Arenz, A. Fedorov, M. Prieto, L.C. Silva*
"The long chain base unsaturation has a stronger impact on 1-deoxy(methyl)-
sphingolipid biophysical properties than the structure of its C1 functional group"
BBA - Biomembranes **2021**, accepted, BBAMEM-21-41R1.
22. M.J. McVey, S. Weidenfeld, M. Maishan, C. Spring, M. Kim, A. Tabuchi, V.
Srbely, A. Takabe-French, S. Simmons, C. Arenz, J. W. Semple and W.M.
Kuebler* "Platelet Extracellular Vesicles mediate Transfusion-related Acute
Lung Injury by imbalancing the Sphingolipid Rheostat"
Blood **2020**, accepted, DOI: 10.1182/blood.2020005985 (IF = 17.5)
23. K. Prause, G. Naseri, F. Schumacher, C. Kappe, B. Kleuser and C. Arenz*
„A Photocaged Inhibitor of Acid Sphingomyelinase“
Chem. Commun. **2020**, 56, 14885–14888. (IF = 5.9)
24. D. Samaha, H.H. Hamdo, X. Cong, F. Schumacher, S. Banhart, Ö. Aglar, H. M.
Möller, D. Heuer, B. Kleuser, E. M. Saied* and C. Arenz*
"A liposomal FRET assay identifies potent drug-like inhibitors of the ceramide
transport protein CERT"
Chemistry –European J. **2020**, 26, 16616-16621. (IF = 4.8)
25. Y. Otsuka, M. V. Airola, Y. M. Choi, N. Coant, J. Snider, C. Cariello, E. M.
Saied, C. Arenz, T. Bannister, R. Rahaim, Jr., Y. A. Hannun, J. Shumate, L.
Scampavia, J. D. Haley, T. P. Spicer*
"Identification of Small-Molecule Inhibitors of Neutral Ceramidase (nCDase) via
Target-Based High-Throughput Screening"
SLAS Discov. **2021**, 26, 113-121. (IF = 2.3)
26. M. A. Lone , A. J. Huelsmeier , E.M. Saied , G. Karsai , C. Arenz , A. von
Eckardstein , T. Hornemann*
"Subunit composition of the mammalian serine-palmitoyltransferase defines the
spectrum of straight and methyl-branched long-chain bases"
Proc. Natl. Acad Sci. **2020**, 17, 15591-15598. (IF = 9.5)

27. T. C. B. Santos, A. Vaz, A. E. Ventura, E. M. Saied, C. Arenz, A. Fedorov, M. Prieto, L. C. Silva* "Canonical and 1-Deoxy(methyl) Sphingoid Bases: Tackling the Effect of the Lipid Structure on Membrane Biophysical Properties" *Langmuir* **2020**, 36, 6007–6016. (IF = 3.6)
28. C. Kirschbaum, E.M. Saied, K. Greis, E. Mucha, S. Gewinner, W. Schöllkopf, G. Meijer, G. von Helden, B.L.J. Poad, S.J. Blanksby, C. Arenz* and K. Pagel* "Resolving Sphingolipid Isomers using Cryogenic Infrared Spectroscopy" *Angew Chem* **2020**, 132, 13740-13744. (IF = 12.4)
29. N. Loibl, C. Arenz* and O. Seitz* "Monitoring Dicer-mediated miRNA-21 maturation and Ago2 loading by a dual colour FIT PNA probe set" *ChemBioChem* **2020**, 21, 2527-2532. (IF = 2.6)
30. E. Naser, S. Kadow, F. Schumacher, Z. H. Mohamed, C. Kappe, G. Hessler, B. Pollmeier, B. Kleuser, C. Arenz, K. A. Becker, E. Gulbins, A. Carpinteiro* "Characterization of the small molecule ARC39, a direct and specific inhibitor of acid sphingomyelinase in vitro." *J. Lipid Res.*, **2020**, 61, 896-910. (IF = 4.5)
31. C. Kappe, Z. H. Mohamed, E. Naser, A. Carpinteiro, C. Arenz* "A novel visible range FRET probe for monitoring acid sphingomyelinase activity in living cells" *Chemistry – Eur J* **2020**, 26, 5780-5783. (IF = 5.2)
32. L. Laraia, G. Garivet, D. J. Foley, N. Kaiser, S. Müller, S. Zinken, T. Pinkert, J. Wilke, D. Corkery, A. Pahl, S. Sievers, P. Janning, C. Arenz, Y. Wu, R. Rodriguez, H. Waldmann* "Image-based morphological profiling identifies a lysosomotropic, iron-sequestering autophagy inhibitor" *Angew. Chem.* **2020**, 132, 5770-5778. (IF = 12.4)
33. M. Boss and C. Arenz* "A Fast and Easy Method for Specific Detection of circRNA by Rolling Circle Amplification" *ChemBioChem* **2020**, 21, 793-796. (IF = 2.6)

34. D. Samaha, H.H. Hamdo, M. Wilde, K. Prause, C. Arenz*
"Sphingolipid transporting enzymes as cancer therapeutic targets (Review)"
Int J. Med Sci. (Molecular Oncology) **2019**, *20*, 3554. (IF = 4.2)

35. V. Živanovic, Seifert, D. Drescher, P. Schrade, S. Werner, P. Guttmann, G. P. Szekeres, S. Bachmann, G. Schneider, C. Arenz, J. Kneipp* "Optical Nanosensing of Lipid Accumulation due to Enzyme Inhibition in Live Cells"
ACS Nano. **2019**, *13*, 9363-9375. (IF = 13.9)

36. I. Vasiliauskaitė-Brooks, R. D. Healey, P. Rochaix, R. Sounier, C. Grison, T. Waltrich-Augusto, M. Fortier, F. Hoh, E.M. Saied, C. Arenz, S. Basu, C. Leyrat*, S. Granier* "Structure of a human intramembrane ceramidase explains enzymatic dysfunction found in leukodystrophy"
Nat. Commun. **2018**, *9*, 5437. (IF = 11.8)

37. V. Živanovic, Z. Kochovski, C. Arenz, Y. Lu, and J. Kneipp*
"SERS and Cryo-EM Directly Reveal Different Liposome Structures During Interaction with Gold Nanoparticles"
J Phys Chem Lett **2018**, *9*, 6767-6772. (IF = 7.3)

38. Z. H. Mohamed, T. Soukka, C. Arenz, M. Schäferling*
"Five-, four- and three-dentate europium chelates for anion sensing and their applicability to enzymatic dephosphorylation reactions"
Chemistry Select **2018**, *3*, 12430-12439. (IF = 1.7)

39. Z. Mohamed, C. Rhein, E. M. Saied, J. Kornhuber, C. Arenz*
"FRET probes for measuring sphingolipid metabolizing enzyme activity"
Chem Phys Lipids **2018**, *216*, 152-161. (IF = 2.7)

40. J. Ren, E. M. Saied, A. Zhong, C. Arenz, L. M. Obeid, Y. A. Hannun*
"Tsc3 regulates SPT amino acid selectivity in yeast *S. cerevisiae* by promoting alanine incorporation into the sphingolipid pathway"
J. Lipid Res **2018**, *59*, 2126-2139. (IF = 4.4)

41. E. M. Saied, T. L.-S. Le, T. Hornemann and C. Arenz*
"Synthesis and Characterization of some Atypical Sphingoid Bases"
Bioorg Med Chem **2018**, *26*, 4047-4057. (IF = 2.9)

42. B. L. J. Poad*, A. T. Maccarone, H. Yu, T. W. Mitchell, E. M. Saied, C. Arenz, T. Hornemann, J. N. Bull, E. J. Bieske, S. J. Blanksby*
"Differential-mobility spectrometry of 1-deoxysphingosine isomers: new insights into the gas phase structures of ionized lipids"
Anal Chem **2018**, *90*, 5343–5351. (IF = 6.3)
43. V. Zivanovic, F. Madzharova, Z. Heiner, C. Arenz, J. Kneipp*
"Specific Interaction of Tricyclic Antidepressants With Gold and Silver Nanostructures as Revealed by Combined One and Two-Photon Vibrational Spectroscopy"
J. Phys. Chem. C **2017**, *121*, 22958-22968. (IF = 4.5)
44. L. Collenburg, N. Beyersdorf, C. Arenz, E. M. Saied, E. Avota, S. Schneider-Schaulies* "The activity of the neutral sphingomyelinase is important in T cell recruitment and directional migration"
Front. Immunol. **2017**, *8*, 1007. (IF = 5.6)
45. C. Arenz*
"Recent advances and novel treatments for sphingolipidoses (Review)"
Future Med Chem **2017**, *9*, 1687-1700. (IF = 3.7)
46. S. Koch-Edelmann, S. Banhart, E. M. Saied, L. Rose, L. Aeberhard, M. Laue, J. Doellinger, C. Arenz and D. Heuer*
"The cellular ceramide transport protein CERT promotes Chlamydia psittaci infection and controls bacterial sphingolipid uptake"
Cell Microbiol **2017**, *19*, e12752, doi: 110.1111/cmi.12752 (IF = 4.5)
47. I. Vasiliauskaite-Brooks, R. Sounier, P. Rochaix, G. Bellot, M. Fortier, F. Hoh, L. De Colibus, C. Bechara, E.M. Saied, C. Arenz, C. Leyrat*, S. Granier*
"Structural insights into adiponectin receptors suggest ceramidase activity"
Nature **2017**, *544*, 120-123. (IF = 38.1)
48. M. McVey, M. Kim, A. Tabuchi, V. Srbely, L. Japtok, C. Arenz, O. Rotstein, B. Kleuser, J. Semple, W. Kuebler* "Acid sphingomyelinase mediates murine acute lung injury following transfusion of aged platelets"
Am J Physiol Lung Cell Mol Physiol. **2017**, doi:10.1152/ajplung.00317.2016 (IF = 4.7)

49. T. Pinkert, D. Furkert, T. Korte, A. Herrmann, C. Arenz* "Lipid-Water Partition-Amplified FRET Probe for Life-Cell Detection of Acid Sphingomyelinase"
Angew. Chem. **2017**, 129, 2834–2838. (IF = 11.7)

50. M. Sharar, E.M. Saied, M. Corte, C. Arenz, M. Linscheid, M. Montes-Bayón* "Elemental Labelling and Mass Spectrometry for the Specific Detecion of Sulfenic Acid Groups in Model Peptides: A Proof of Concept"
Anal. Bioanal. Chem. **2017**, 409, 2015-2027. (IF = 3.1)

51. I. Alecu, A. Othman, A. Penno, E.M. Saied, C. Arenz, A. von Eckardstein and T. Hornemann* "Cytotoxic 1-Deoxysphingolipids Are Metabolized by a Cytochrome P450-Dependent Pathway"
J. Lipid Res. **2017**, 58, 60-71. (IF = 4.4)

52. J. Sosna, S. Philipp, J. Fuchslocher Chico, C. Saggau, J. Fritsch, A. Föll, J. Plenge, C. Arenz, T. Pinkert, H. Kalthoff, A. Trauzold, I. Schmitz, S. Schütze, D. Adam "Differences and similarities in TRAIL- and TNF-mediated necroptotic signaling in cancer cells"
Mol. Cell Biol. **2016**, 36, 2626-44. (IF = 4.4)

53. R. Steiner*, E.M. Saied*, A. Othman, C. Arenz, A.T. Maccarone, B.L.J. Poad, S.J. Blanksby, A. von Eckardstein, T. Horneman* "Elucidating the chemical structure of native 1-deoxysphingosine"
J. Lipid Res. **2016**, 57, 1194-1203. (IF = 4.4)

54. T. Kirkegaard, J. Gray, D.A. Priestman, K.-L. Wallom, J. Atkins, O.D. Olsen, A. Klein, S. Drndarski, L. Ingemann, C. Bornæs, S.H. Jørgensen, I. Williams, A. Hinsby, C. Arenz, D. Begley, M. Jäättelä, F.M. Platt "Heat shock protein–based therapy as a potential candidate for treating the sphingolipidoses"
Science Transl Med **2016**, 8, 355RA118. (IF = 16.3)

55. M. Hesse and C. Arenz* "A rapid and versatile assay of Ago2-mediated cleavage using branched rolling circle amplification"
ChemBioChem **2016**, 17, 304-307. (IF = 2.9)

56. E. M. Saied, C. Arenz* "Inhibitors of Ceramidases"
Chem Phys Lipids **2016**, 19760-68. (IF = 2.9)

57. E. M. Saied, S. Banhart, S. E. Bürkle, D. Heuer, C. Arenz* "A Series of Ceramide Analogues Modified at the 1-Position With Potent Activity Against the Intracellular Growth of Chlamydia trachomatis"
Future Med Chem **2015**, 7, 1971-1980. (IF = 3.3)

58. C. Tabeling, H. Yu, L. Wang, H. Ranke, N. M. Goldenberg, D. Zabini, E. Noe, A. Krauszman, B. Gutbier, J. Yin, M. Schaefer, C. Arenz, A. C. Hocke, N. Suttorp, R. L. Proia, M. Witzenrath, W. M. Kuebler* "CFTR and sphingolipids mediate hypoxic pulmonary vasoconstriction"
Proc Natl Acad Sci USA **2015**, 112, E1614–E1623. (IF = 9.4)

59. N. Ogorodnikova and C. Arenz* "miRNAs as novel therapeutic targets and diagnostic biomarkers for Parkinson's disease: a patent evaluation of WO2014018650"
Expert Opin Ther Pat. **2015**, 25, 723-727 (IF = 4.6)

60. M. Hesse and C. Arenz* "miRNAs as novel therapeutic targets and diagnostic biomarkers for Parkinson's disease: a patent evaluation of WO2014018650"
Expert Opin Ther Pat. **2014**, 11, 1271-6. (IF = 4.6)

61. S. Banhart, E. M. Saied, A. Martini, S. Koch, L. Aeberhard, K. Madela, C. Arenz, and D. Heuer* "Improved plaque assay identifies a novel anti-Chlamydia ceramide derivative with altered intracellular localization"
Antimicrob. Agents Chemother **2014**, 58, 5537-5546. (IF = 4.4)

62. E. M. Saied, C. Arenz* "Small Molecule Inhibitors of Ceramidases"
Cell Phys Biochem **2014**, 34, 197-212. (IF = 4.6)

63. E. M. Saied, S. Diederich, C. Arenz* "Facile Synthesis of the CERT Inhibitor HPA-12 and Some Novel Derivatives"
Chem Asian J **2014**, in press DOI: 10.1002/asia.201402241. (IF = 4.6)

64. G. Schwarzmann*, C. Arenz*, K. Sandhoff*
"Labeled Chemical Biology Tools for Investigating Sphingolipid Metabolism, Trafficking and Interaction with Lipids and Proteins" (Review)
BBA - Molecular and Cell Biology of Lipids **2014**, in press (IF = 4.1)

65. S. Voigt, S. Philipp, P. Davarnia, S. Winoto-Morbach, C. Röder, C. Arenz, A. Trauzold, D. Kabelitz, S. Schütze, H. Kalthoff and D. Adam* "TRAIL-induced programmed necrosis as a novel approach to eliminate tumor cells", *BMC Cancer* **2014**, *14*, 74. (IF = 3.3)
66. N. H. T. Petersen, O. D. Olsen, L. Groth-Pedersen, A. M. Ellegaard, M. Bilgin, S. Redmer, M. S. Ostefeld, D. Ulanet, T. H. Dovmark, A. Lønborg, S. D. Vindeløv, D. Hanahan, C. Arenz, C. S. Ejsing, T. Kirkegaard, M. Rhode, J. Nylandsted, M. Jäätelä*,
"Transformation-associated changes in sphingolipid metabolism sensitize cells to lysosomal cell death induced by inhibitors of acid sphingomyelinase"
Cancer Cell **2013**, *24*, 379-393. (IF = 26.6)
67. A. A. Bastian, E. M. Warszawik, P. Panduru, C. Arenz and A. Herrmann*
"Regioselective Diazo-Transfer Reaction at the C3-Position of the 2-Desoxystreptamine Ring of Neamine Antibiotics"
Chem Eur J **2013**, *19*, 9151-9154 (IF = 5.9)
68. K. P. Bhabak, A. Hauser, S. Redmer, S. Banhart, D. Heuer, C. Arenz*
"Development of a Novel FRET Probe for the Real-Time Determination of Ceramidase Activities"
ChemBioChem **2013**, *14*, 1049-1052 (IF = 3.8)
69. C. Schöniger, C. Arenz* "Perspectives in targeting miRNA function" (Review)
Bioorg. Med. Chem. **2013**, *21*, 6115-6118 (IF = 2.8)
70. C. M. Dojahn, M. Hesse, C. Arenz* "Chemo-enzymatic Approach to specifically click-modified RNA"
Chem. Commun. **2013**, *49*, 3128-3130. (IF = 6.2)
71. K. P. Bhabak, B. Kleuser, A. Huwiler, C. Arenz* "Effective Inhibition of Acid and Neutral Ceramidases by Novel B-13 and LCL-464 analogues"
Bioorg. Med. Chem. **2013**, *21*, 874-882. (IF = 2.8)
72. K. P. Bhabak, C. Arenz* „Novel Amide- and Sulfonamide-based Aromatic Ethanolamines: Effects of Various Substituents on the Inhibition of Acid and Neutral Ceramidases"

- Bioorg. Med. Chem.* **2012**, 20, 6162-6170. (IF = 2.8)
73. K. P. Bhabak, D. Proksch, S. Redmer, C. Arenz* „Novel Fluorescent Ceramide Derivatives for Probing Ceramidase Substrate Specificity”
Bioorg. Med. Chem. **2012**, 20, 6154-6161. (IF = 2.8)
74. R. Samapati, Y. Yang, J. Yin, C. Arenz, A. Dietrich, T. Gudermann, D. Adam, S. Wu, C. Stoerger, V. Flockerzi, S. Uhlig*, W. Kübler* „Regulation of lung vascular permeability by acid sphingomyelinase dependent activation of TRPC6”,
Am J Respir Crit Care Med. **2012**, 185, 160-170. (IF = 10.7)
75. M. Sand*, M. Skrygan, C. Arenz, D. Georgas, T. Gambichler, D. Sand, P. Altmeyer, F.G. Bechara “Expression Levels of the microRNA Maturing Microprocessor Complex Component DGCR8 and the RNA-Induced Silencing Complex (RISC) Components Argonaute-1, Argonaute-2, PACT, TARBP1, and TARBP2 in Epithelial Skin Cancer”,
Mol. Carcinog. **2012**, 51, 916-922. (IF = 3.2)
76. S. Neubacher, C.M. Dojahn, C. Arenz* „A Rapid Assay for miRNA Maturation Using Unmodified pre-miRNA”
ChemBioChem, **2011**, 12, 2302-2305. (IF = 3.8)
77. D. Proksch, J.J. Klein, C. Arenz* “Potent Inhibition of Acid Ceramidase by Novel B-13 Analogues”,
J. Lipids, **2011**, DOI: 10.1155/2011/971618 (IF = n.a., new journal)
78. S. Wetzel, W. Wilk, S. Chamma, B. Sperl, A.G. Roth, S. Renner, T. Berg, C. Arenz, T.I. Oprea, D. Rauh, M. Kaiser, and H. Waldmann*, “Prospective Bioactivity Annotation by Scaffold Tree Merging”
Angew Chem. Int. Ed. **2010**, 49, 3666-3670. (IF = 11.8)
79. C. Arenz*, Small-Molecule Inhibitors of Acid Sphingomyelinase (Review)
Cell. Phys. Biochem. **2010**, 26, 1-8. (IF = 3.5)
80. T. Kirkegaard, A. G. Roth, N. H. T. Petersen, A. K. Mahalka, O. D. Olsen, I. Moilanen, A. Zylicz, J. Knudsen, K. Sandhoff, C. Arenz, P. K. J. Kinnunen, J. Nylandsted, M. Jäättelä*, Hsp70 stabilizes lysosomes and reverts Niemann-Pick disease-associated lysosomal pathology

- Nature* **2010**, 463, 549-554. (IF = 34.5)
81. A. G. Roth, S. Redmer and C. Arenz* “Carbohydrate-Derived Inhibitors of Acid Sphingomyelinase”
Bioorg. Med. Chem. **2010**, 18, 939-944. (IF = 2.8)
82. A. G. Roth, D. Drescher, Y. Yang, S. Redmer, S. Uhlig, C. Arenz* - Potent and Selective Inhibition of Acid Sphingomyelinase by Bisphosphonates,
Angew. Chem. Int. Ed. **2009**, 48, 7560-7563. (IF = 11.8)
83. A. G. Roth, S. Redmer, C. Arenz* - Potent Inhibition of Acid Sphingomyelinase by Phosphoinositide Analogues
ChemBioChem. **2009**, 10, 2367-2374. (IF = 3.8)
84. S. Neubacher, C. Arenz*, Rolling Circle Amplification – Unshared Advantages in miRNA Detection (Review),
ChemBioChem **2009**, 10, 1289-1291. (IF = 3.8)
85. C.M. Klemm, A. Berthelmann, S. Neubacher, C. Arenz*, Short and Efficient Synthesis of Alkyne-Modified Amino Glycoside Building Blocks,
Eur J. Org. Chem **2009**, 2788-2794. (IF = 3.1)
86. B.P. Davies, C. Arenz*, A Fluorescence Probe for Assaying Micro RNA Maturation,
Bioorg. Med. Chem. **2008**, 16, 49-55. (IF = 2.8)
87. J.O. Babalola, M. Wendeler, B. Breiden, C. Arenz, G. Schwarzmann, S. Locatelli-Hoops, K. Sandhoff*, Development of an Assay for the Intermembrane Transfer of Cholesterol by Niemann-Pick C2 Protein,
Biol. Chem. **2007**, 388, 617-26. (IF = 2.7)
88. C. Arenz*, Mikro RNAs – Future DrugTargets ? (Review),
Angew. Chem. Int. Ed. **2006**, 45, 5550-5552. (IF = 11.8)
89. B.P. Davies, C. Arenz*, A Homogenous Assay of Micro RNA Maturation,
Angew. Chem. Int. Ed. **2006**, 45, 5048-5050. (IF = 11.8)
90. C. Arenz, U. Schepers*, RNA Interference: from an ancient mechanism to a state of the art therapeutic application ? (Review)

- Naturwissenschaften* **2003**, 90, 345-359. (IF = 2.3)
91. M. Kölzer, C. Arenz, K. Ferlinz, N. Werth, H. Schulze, R. Klingenstein, K. Sandhoff* Phosphatidylinositol-3,5-Bisphosphate is a potent and selective inhibitor of acid sphingomyelinase
Biol. Chem. **2003**, 384, 1293-1298. (IF = 2.7)
92. M. Diallo, C. Arenz, K. Schmitz, K. Sandhoff, U. Schepers*, Long endogenous dsRNA can induce complete gene silencing in mammalian cell and primary cultures,
Oligonucleotides **2003**, 13, 357-363. (IF = 2.5)
93. M. Diallo, C. Arenz, K. Schmitz, K. Sandhoff, U. Schepers*, RNA Interference: A new method to analyze the function of glycoproteins [...]
Meth. Enzymol. **2003**, 363, 173-190. (IF = 1.9)
94. C. Arenz, M. Gartner V. Wascholowski, A. Giannis*, Synthesis and Biological Investigation of Scyphostatin Analogues as Inhibitors of Neutral Sphingomyelinase
Bioorg. Med. Chem. **2001**, 11, 2901-4. (IF = 2.8)
95. C. Arenz, M. Thutewohl, O. Block, H. Waldmann, H.-J. Altenbach, A. Giannis*, Manumycin A and its Analogues Are Irreversible Inhibitors of Neutral Sphingomyelinase
ChemBioChem **2001**, 2, 141-143. (IF = 3.8)
96. C. Arenz, A. Giannis*, Synthesis of the First Selective Irreversible Inhibitor of Neutral Sphingomyelinase
Eur. J. Org. Chem. **2001**, 1, 137-140 (IF = 3.1)
97. C. Arenz, A. Giannis*, Synthesis of the First Selective Irreversible Inhibitor of Neutral Sphingomyelinase
Angew. Chem. **2000**, 112, 1498-1500 (IF = 11.8)

II) Selected Non Peer-reviewed Publications

1. M. Rühling, F. Schmelz, K. Ulbrich, J. Wolf, M. Pfefferle, A. Moldovan, N. Knoch, A. Iwanowitsch, C. Kappe, K. Paprotka, C. Arenz, M.J. Fraunholz* "A Novel Rapid Host Cell Entry Pathway Determines Intracellular Fate of *Staphylococcus aureus*"
eLife **2024**, 13, RP102810. (peer-reviewed preprint)
2. M. Boss and C. Arenz*
"Analyse von zirkulären RNAs mithilfe der rolling circle amplification"
Biospektrum **2020**, 6, 635-638.
3. E. M. Saied and C. Arenz*
"Synthesis and Characterization of Novel Atypical Sphingoid Bases"
ChemRxiv **2020**, DOI:10.26434/chemrxiv.12094041.v1209404.
4. B.F. Straub et al. Trendbericht Organische Chemie 2017 (Review)
Nachr. Chem. **2018**, 65, 249-280.
5. K. Hinrichs, T. Shaykhutdinov, C. Kratz, F. Rösicke, C. Schöniger, C. Arenz, N.H. Nickel, J. Rappich "Electrochemical Modification of Large Area Graphene and Characterization by Vibrational Spectroscopy"
Reference Module in Chemistry, Molecular Sciences and Chemical Engineering (Elsevier) **2017**, DOI 10.1016/B978-0-12-409547-2.14194-0
6. B.F. Straub et al. Trendbericht Organische Chemie 2016 (Review)
Nachr. Chem. **2017**, 64, 266-304.
7. B.F. Straub et al. Trendbericht Organische Chemie 2015 (Review)
Nachr. Chem. **2016**, 63, 255-294.
8. B.F. Straub et al. Trendbericht Organische Chemie 2014 (Review)
Nachr. Chem. **2015**, 62, 260-299.
9. S. Bräse et al. Trendbericht Organische Chemie 2013 (Review)
Nachr. Chem. **2014**, 62, 264-301.
10. M. Hesse, C. Arenz*
"Micro RNA maturation and human disease (Review)",

- Meth Mol Biol* (Ed. C. Arenz) **2014**, 1095, 11-25.
11. M. Hesse, B.P. Davies, C. Arenz*, "Assaying Dicer-mediated miRNA maturation by means of fluorescent substrates",
Mol Biol (Ed. C. Arenz) **2014**, 1095, 95-102.
 12. S. Neubacher, C. Arenz*
"Assaying micro RNA Maturation Using Unmodified pre-miRNA",
Meth Mol Biol (Ed. C. Arenz) **2014**, 1095, 109-119.
 13. S. Bräse et al. Trendbericht Organische Chemie 2012 (Review)
Nachr. Chem. **2013**, 61, 265-297.
 14. S. Bräse et al. Trendbericht Organische Chemie 2011 (Review)
Nachr. Chem. **2012**, 60, 265-299.
 15. S. Bräse et al. Trendbericht Organische Chemie 2010 (Review)
Nachr. Chem. **2011**, 59, 254-283.
 16. S. Bräse et al. Trendbericht Organische Chemie 2009 (Review)
Nachr. Chem. **2010**, 58, 269-299.
 17. C. Arenz, O. Seitz*, Purines only – a new Watson-Crick pairing mode in DNA (invited commentary),
Chem. Biol., **2007**, 14, 467-469.
 18. C. Arenz*, Trendbericht Biochemie und Molekularbiologie 2005:
Peptidnukleinsäuren in der Biomedizin (Review)
Nachr. Chem. **2006**, 54, 270-272.
 19. C. Arenz, A.Giannis*
"Design and Synthesis of Modulators of Sphingolipid Biosynthesis" in U.
Diederichsen et. Al. (Ed.) *Bioorganic Chemistry, Highlights and New Aspects*,
Wiley-VCH, Weinheim, **1999**, 225-231.

III) Patents

1. C. Arenz*, B. P. Davies, S. Neubacher, C. M. Klemm „MiRNA processing inhibitor efficacy assays and substances” US60/961,366.
2. C. Arenz*, A. G. Roth, D. Drescher, S. Uhlig „Inhibition of Acid Sphingomyelinase by Bisphosphonates“ Patent filed 08/2009.
3. C. Arenz*, D. Proksch “Synthesis of novel sphingosine derivatives Patent filed 04/2011.

IV) Edited Books

1. Methods in Molecular Biology (1095): *miRNA Maturation*, C. Arenz (Ed.) **2014**, Springer, New York, 203 pages, ISBN 978-1-62703-702-0.