

Full List of Peer-reviewed articles

104. Elling FJ, Könneke M, Nicol GW, Stieglmeier M, Bayer B, Spieck E, de la Torre JR, Becker KW, Thomm M, Prosser JI, Herndl GJ, Schleper C, Hinrichs KU. (2017) Chemotaxonomic characterisation of the thaumarchaeal lipidome. **Environmental Microbiology** 19(7):2681-2700. doi: 10.1111/1462-2920.13759.
103. Kerou M, Offre P, Valledor L, Abby SS, Melcher M, Nagler M, Weckwerth W, Schleper C. (2016) Proteomics and comparative genomics of *Nitrososphaera viennensis* reveal the core genome and adaptations of archaeal ammonia oxidizers. **Proceedings of the National Academy of Sciences of the United States of America** 113(49): E7937-E7946. DOI: 10.1073/pnas.1601212113
102. Jung MY, Kim JG, Sinninghe Damsté JS, Rijpstra WI, Madsen EL, Kim SJ, Hong H, Si OJ, Kerou M, Schleper C, Rhee SK. (2016) A hydrophobic ammonia-oxidizing archaeon of the *Nitrosocosmicus* clade isolated from coal tar-contaminated sediment. **Environmental Microbiology Reports** 8(6):983-992. doi: 10.1111/1758-2229.12477.
101. Zebec Z, Zink IA, Kerou M, Schleper C (2016) Efficient CRISPR-Mediated Post-Transcriptional Gene Silencing in a Hyperthermophilic Archaeon Using Multiplexed crRNA Expression. **G3 (Bethesda)** 6(10):3161-3168. doi: 10.1534/g3.116.032482.
100. Wild B, Gentsch N, Čapek P, Diáková K, Alves RJ, Bárta J, Gittel A, Hugelius G, Knoltsch A, Kuhry P, Lashchinskiy N, Mikutta R, Palmtag J, Schleper C, Schneckner J, Shibistova O, Takriti M, Torsvik VL, Urich T, Watzka M, Šantrůčková H, Guggenberger G, Richter A (2016) Plant-derived compounds stimulate the decomposition of organic matter in arctic permafrost soils. **Scientific Reports** 6:25607. doi: 10.1038/srep25607.
99. Nesme J, Achouak W, Agathos SN, Bailey M, Baldrian P, Brunel D, Frostegård Å, Heulin T, Jansson JK, Jurkevitch E, Kruus KL, Kowalchuk GA, Lagares A, Lappin-Scott HM, Lemanceau P, Le Paslier D, Mandic-Mulec I, Murrell JC, Myrold DD, Nalin R, Nannipieri P, Neufeld JD, O'Gara F, Parnell JJ, Pühler A, Pylro V, Ramos JL, Roesch LF, Schloter M, Schleper C, Sczyrba A, Sessitsch A, Sjöling S, Sørensen J, Sørensen SJ, Tebbe CC, Topp E, Tsiamis G, van Elsas JD, van Keulen G, Widmer F, Wagner M, Zhang T, Zhang X, Zhao L, Zhu YG, Vogel TM, Simonet P (2016) Back to the Future of Soil Metagenomics. **Frontiers in Microbiology** 7:73. doi: 10.3389/fmicb.2016.00073.
98. Kozłowski JA, Stieglmeier M, Schleper C, Klotz MG, Stein LY (2016) Pathways and key intermediates required for obligate aerobic ammonia-dependent chemolithotrophy in bacteria and Thaumarchaeota. **The ISME Journal** 10(8): 1836-45. doi: 10.1038/ismej.2016.2.
97. Söllinger A, Schwab C, Weinmaier T, Loy A, Tveit AT, Schleper C, Urich T (2015) Phylogenetic and genomic analysis of *Methanomassiliicoccales* in wetlands and animal intestinal tracts reveals clade-specific habitat preferences. **FEMS Microbiology Ecology** 92(1). doi: 10.1093/femsec/fiv149.
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95. Berry D, Kuzyk O, Rauch I, Heider S, Schwab C, Hainzl E, Decker T, Müller M, Strobl B, Schleper C, Urich T, Wagner M, Kenner L, Loy A (2015) Intestinal Microbiota Signatures Associated with Inflammation History in Mice Experiencing Recurring Colitis. **Frontiers in Microbiology** 6:1408. doi: 10.3389/fmicb.2015.01408.

94. Bayer B, Vojvoda J, Offre P, Alves RJE, Elisabeth NH, Garcia JA, Volland JM, Srivastava A, Schleper C, Herndl GJ (2015) Physiological and genomic characterization of two novel marine thaumarchaeal strains indicates niche differentiation. **The ISME Journal**. 2015 Nov 3. [Epub ahead of print] doi: 10.1038/ismej.2015.200.
93. Hainzl E, Rauch I, Heider S, Berry D, Schwab C, Lassnig C, Loy A, Urich T, Wagner M, Schleper C, Kenner L, Decker T, Strobl B, Müller M (2015) Intestinal epithelial cell tyrosine kinase 2 transduces interleukin-22 signals to protect from acute colitis. **The Journal of Immunology** 195(10): 5011–5024. doi: 10.4049/jimmunol.1402565.
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89. Gittel A, Barta J, Lacmanova I, Schnecker J, Wild B, Capek P, Kaiser C, Torsvik V, Richter A, Schleper C, Urich T (2014) Site- and horizon-specific pattern of microbial community structure and enzyme activities in permafrost-affected soils of Greenland. **Frontiers in Microbiology - Terrestrial Microbiology** 5: 541.
88. Offre P, Kerou M, Spang A, Schleper C (2014) Variability of the transporter gene complement in ammonia-oxidizing archaea. **Trends in Microbiology** 22(12): 665-675.
87. Rauch I, Hainzl E, Rosebrock F, Heider S, Schwab C, Berry D, Stoiber D, Wagner M, Schleper C, Loy A, Urich T, Müller M, Strobl B, Kenner L, Decker T (2014) Type I interferons have opposing effects during the emergence and recovery phases of colitis. **European Journal of Immunology** 44(9): 2749-2760.
86. Stieglmeier M, Klingl A, Alves RJ, Rittmann SK, Melcher M, Leisch N, Schleper C (2014) *Nitrososphaera viennensis* sp. nov., an aerobic and mesophilic ammonia-oxidizing archaeon from soil and member of the archaeal phylum Thaumarchaeota. **International Journal of Systematic and Evolutionary Microbiology** 64(Pt 8): 2738-2752.
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82. Schwab C, Berry D, Rauch I, Rennisch I, Ramesmayer J, Hainzl E, Heider S, Decker T, Kenner L, Müller M, Strobl B, Wagner M, Schleper C, Loy A, Urich T (2014) Longitudinal study of murine microbiota activity and interactions with the host during acute inflammation and recovery. **The ISME Journal** 8: 1101-1114.
81. Schwab C, Tveit A, Schleper C, Urich T (2014) Gene expression of lactobacilli in murine forestomach biofilms. **Microbial Biotechnology** 7(4): 347-359.
80. Stieglmeier M, Mooshammer M, Kitzler B, Wanek W, Zechmeister-Boltenstern S, Richter A, Schleper C (2014) Aerobic nitrous oxide production through N-nitrosating hybrid formation in ammonia-oxidizing archaea. **The ISME Journal** 8(5): 1135-1146.
79. Zebec Z, Manica A, Zhang J, White M, Schleper C (2014) CRISPR-mediated targeted mRNA degradation in the archaeon *Sulfolobus solfataricus*. **Nucleic Acids Research** 42(8): 5280-5288.
78. Prommer J, Wanek W, Hofhansl F, Trojan D, Offre P, Urich T, Schleper C, Sassmann S, Kitzler B, Soja G, Hood-Nowotny R (2014) Biochar Decelerates Soil Organic Nitrogen Cycling but Stimulates Soil Nitrification in a Temperate Arable Field Trial. **PLOS One** 9(1): e86388.
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76. Manica A, Zebec Z, Steinkellner J, Schleper C (2013) Unexpectedly broad target recognition of the CRISPR-mediated virus defense system of the Archaeon *Sulfolobus solfataricus*. **Nucleic Acids Research** 41(22): 10509-10517.
75. Alves R, Wanek W, Zappe A, Richter A, Svenning M, Schleper C, Urich T (2013) Nitrification rates in Arctic soils are associated with functionally distinct populations of ammonia-oxidizing archaea. **The ISME Journal** 7(8): 1620-1631.
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73. Eme L, Reigstad L, Spang A, Lanzen A, Weinmaier T, Rattei T, Schleper C, Brochier-Armanet C (2013) Metagenomics of Kamchatkan hot spring filaments reveal two new major (hyper)thermophilic lineages related to Thaumarchaeota. **Research in Microbiology** 164(5): 425-438.
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69. Spang A, Poehlein A, Offre P, Zumbärgel S, Haider S, Rychlik N, Nowka B, Schmeisser C, Lebedeva EV, Rattei T, Böhm C, Schmid M, Galushko A, Hatzepichler R, Weinmaier T, Daniel R, Schleper C, Spieck E, Streit W, Wagner M (2012) The genome of the ammonia-

- oxidizing *Candidatus Nitrosopshaera gargensis*: Insights into metabolic versatility and environmental adaptations. **Environmental Microbiology** 14(12): 3122-3145.
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65. Bartossek R, Spang A, Weidler G, Lanzen A, Schleper C (2012) Metagenomic analysis of ammonia-oxidizing archaea affiliated with the soil group. **Frontiers in Microbiology** 3: 208.
64. Radax R, Rattei T, Lanzen A, Bayer C, Rapp HT, Urich T, Schleper C (2012) Metatranscriptomics of the marine sponge *Geodia barretti*: tackling phylogeny and function of its microbial community. **Environmental Microbiology** 14(5): 1308-1324.
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