

# Thomas M Schmidt

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6324072/publications.pdf>

Version: 2024-02-01

107  
papers

33,100  
citations

19608

61  
h-index

29081

104  
g-index

118  
all docs

118  
docs citations

118  
times ranked

38391  
citing authors

| #  | ARTICLE                                                                                                                                                                                | IF   | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Structure, function and diversity of the healthy human microbiome. <i>Nature</i> , 2012, 486, 207-214.                                                                                 | 13.7 | 9,614     |
| 2  | A framework for human microbiome research. <i>Nature</i> , 2012, 486, 215-221.                                                                                                         | 13.7 | 2,249     |
| 3  | The Ribosomal Database Project (RDP-II): previewing a new autoaligner that allows regular updates and the new prokaryotic taxonomy. <i>Nucleic Acids Research</i> , 2003, 31, 442-443. | 6.5  | 1,219     |
| 4  | Identification of the Uncultured <i>Bacillus</i> of Whipple's Disease. <i>New England Journal of Medicine</i> , 1992, 327, 293-301.                                                    | 13.9 | 1,196     |
| 5  | Fundamentals of Microbial Community Resistance and Resilience. <i>Frontiers in Microbiology</i> , 2012, 3, 417.                                                                        | 1.5  | 1,131     |
| 6  | The Agent of Bacillary Angiomatosis. <i>New England Journal of Medicine</i> , 1990, 323, 1573-1580.                                                                                    | 13.9 | 985       |
| 7  | Decreased Diversity of the Fecal Microbiome in Recurrent <i>Clostridium difficile</i> Associated Diarrhea. <i>Journal of Infectious Diseases</i> , 2008, 197, 435-438.                 | 1.9  | 954       |
| 8  | rRNA Operon Copy Number Reflects Ecological Strategies of Bacteria. <i>Applied and Environmental Microbiology</i> , 2000, 66, 1328-1333.                                               | 1.4  | 932       |
| 9  | rrndb: the Ribosomal RNA Operon Copy Number Database. <i>Nucleic Acids Research</i> , 2001, 29, 181-184.                                                                               | 6.5  | 882       |
| 10 | A new version of the RDP (Ribosomal Database Project). <i>Nucleic Acids Research</i> , 1999, 27, 171-173.                                                                              | 6.5  | 863       |
| 11 | rrnDB: improved tools for interpreting rRNA gene abundance in bacteria and archaea and a new foundation for future development. <i>Nucleic Acids Research</i> , 2015, 43, D593-D598.   | 6.5  | 817       |
| 12 | Comparison of the Respiratory Microbiome in Healthy Nonsmokers and Smokers. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2013, 187, 1067-1075.                  | 2.5  | 655       |
| 13 | Analysis of the Upper Respiratory Tract Microbiotas as the Source of the Lung and Gastric Microbiotas in Healthy Individuals. <i>MBio</i> , 2015, 6, e00037.                           | 1.8  | 601       |
| 14 | Gut microbiome-derived metabolites modulate intestinal epithelial cell damage and mitigate graft-versus-host disease. <i>Nature Immunology</i> , 2016, 17, 505-513.                    | 7.0  | 536       |
| 15 | Dynamics of Human Gut Microbiota and Short-Chain Fatty Acids in Response to Dietary Interventions with Three Fermentable Fibers. <i>MBio</i> , 2019, 10, .                             | 1.8  | 515       |
| 16 | Reproducible Community Dynamics of the Gastrointestinal Microbiota following Antibiotic Perturbation. <i>Infection and Immunity</i> , 2009, 77, 2367-2375.                             | 1.0  | 489       |
| 17 | Systematic artifacts in metagenomes from complex microbial communities. <i>ISME Journal</i> , 2009, 3, 1314-1317.                                                                      | 4.4  | 412       |
| 18 | rrnDB: documenting the number of rRNA and tRNA genes in bacteria and archaea. <i>Nucleic Acids Research</i> , 2009, 37, D489-D493.                                                     | 6.5  | 398       |

| #  | ARTICLE                                                                                                                                                                                                           | IF   | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Exploiting rRNA operon copy number to investigate bacterial reproductive strategies. <i>Nature Microbiology</i> , 2016, 1, 16160.                                                                                 | 5.9  | 371       |
| 20 | New Strategies for Cultivation and Detection of Previously Uncultured Microbes. <i>Applied and Environmental Microbiology</i> , 2004, 70, 4748-4755.                                                              | 1.4  | 369       |
| 21 | Perennial grasslands enhance biodiversity and multiple ecosystem services in bioenergy landscapes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 1652-1657. | 3.3  | 366       |
| 22 | Land-use history has a stronger impact on soil microbial community composition than aboveground vegetation and soil properties. <i>Soil Biology and Biochemistry</i> , 2011, 43, 2184-2193.                       | 4.2  | 362       |
| 23 | Application of a Neutral Community Model To Assess Structuring of the Human Lung Microbiome. <i>MBio</i> , 2015, 6, .                                                                                             | 1.8  | 325       |
| 24 | Isolation and Characterization of Soil Bacteria That Define <i>Terriglobus</i> gen. nov., in the Phylum Acidobacteria. <i>Applied and Environmental Microbiology</i> , 2007, 73, 2708-2717.                       | 1.4  | 301       |
| 25 | Acetogenesis from H <sub>2</sub> Plus CO <sub>2</sub> by Spirochetes from Termite Guts. <i>Science</i> , 1999, 283, 686-689.                                                                                      | 6.0  | 297       |
| 26 | Antibiotic-Associated Diarrhea Accompanied by Large-Scale Alterations in the Composition of the Fecal Microbiota. <i>Journal of Clinical Microbiology</i> , 2004, 42, 1203-1206.                                  | 1.8  | 282       |
| 27 | SwissFEL: The Swiss X-ray Free Electron Laser. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 720.                                                                                                              | 1.3  | 272       |
| 28 | Variable responses of human microbiomes to dietary supplementation with resistant starch. <i>Microbiome</i> , 2016, 4, 33.                                                                                        | 4.9  | 269       |
| 29 | Diversity and dynamics of microbial communities in soils from agro-ecosystems. <i>Environmental Microbiology</i> , 2003, 5, 441-452.                                                                              | 1.8  | 266       |
| 30 | Influence of Plant Polymers on the Distribution and Cultivation of Bacteria in the Phylum <i>Acidobacteria</i> . <i>Applied and Environmental Microbiology</i> , 2011, 77, 586-596.                               | 1.4  | 227       |
| 31 | Changes in the gut microbiome and fermentation products concurrent with enhanced longevity in acarbose-treated mice. <i>BMC Microbiology</i> , 2019, 19, 130.                                                     | 1.3  | 218       |
| 32 | Neonatal acquisition of <i>Clostridia</i> species protects against colonization by bacterial pathogens. <i>Science</i> , 2017, 356, 315-319.                                                                      | 6.0  | 199       |
| 33 | Shallow breathing: bacterial life at low O <sub>2</sub> . <i>Nature Reviews Microbiology</i> , 2013, 11, 205-212.                                                                                                 | 13.6 | 188       |
| 34 | Phylogenetic Analysis of Nonthermophilic Members of the Kingdom <i>Crenarchaeota</i> and Their Diversity and Abundance in Soils. <i>Applied and Environmental Microbiology</i> , 1998, 64, 4333-4339.             | 1.4  | 187       |
| 35 | Symbiotic bacteria appear to mediate hyena social odors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 19832-19837.                                         | 3.3  | 184       |
| 36 | Farming for Ecosystem Services: An Ecological Approach to Production Agriculture. <i>BioScience</i> , 2014, 64, 404-415.                                                                                          | 2.2  | 184       |

| #  | ARTICLE                                                                                                                                                                                                                                                                         | IF   | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | The Cancer Microbiome: Distinguishing Direct and Indirect Effects Requires a Systemic View. <i>Trends in Cancer</i> , 2020, 6, 192-204.                                                                                                                                         | 3.8  | 162       |
| 38 | The physiology and ecological implications of efficient growth. <i>ISME Journal</i> , 2015, 9, 1481-1487.                                                                                                                                                                       | 4.4  | 155       |
| 39 | Evolution of competitive fitness in experimental populations of <i>E. coli</i> : what makes one genotype a better competitor than another?. <i>Antonie Van Leeuwenhoek</i> , 1998, 73, 35-47.                                                                                   | 0.7  | 154       |
| 40 | Life History Implications of rRNA Gene Copy Number in <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 6670-6677.                                                                                                                            | 1.4  | 141       |
| 41 | A compact and cost-effective hard X-ray free-electron laser driven by a high-brightness and low-energy electron beam. <i>Nature Photonics</i> , 2020, 14, 748-754.                                                                                                              | 15.6 | 140       |
| 42 | Agriculture's impact on microbial diversity and associated fluxes of carbon dioxide and methane. <i>ISME Journal</i> , 2011, 5, 1683-1691.                                                                                                                                      | 4.4  | 138       |
| 43 | Bacterial colonization stimulates a complex physiological response in the immature human intestinal epithelium. <i>ELife</i> , 2017, 6, .                                                                                                                                       | 2.8  | 132       |
| 44 | A gene-targeted approach to investigate the intestinal butyrate-producing bacterial community. <i>Microbiome</i> , 2013, 1, 8.                                                                                                                                                  | 4.9  | 129       |
| 45 | The daily dynamics of cystic fibrosis airway microbiota during clinical stability and at exacerbation. <i>Microbiome</i> , 2015, 3, 12.                                                                                                                                         | 4.9  | 122       |
| 46 | Multicenter Comparison of Lung and Oral Microbiomes of HIV-infected and HIV-uninfected Individuals. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2015, 192, 1335-1344.                                                                                   | 2.5  | 120       |
| 47 | Genomic and Physiological Characterization of the Verrucomicrobia Isolate <i>Diplosphaera colitermitum</i> gen. nov., sp. nov., Reveals Microaerophily and Nitrogen Fixation Genes. <i>Applied and Environmental Microbiology</i> , 2012, 78, 1544-1555.                        | 1.4  | 115       |
| 48 | Phylogenetic relationships among the agent of bacillary angiomatosis, <i>Bartonella bacilliformis</i> , and other alpha-proteobacteria. <i>Molecular Microbiology</i> , 1992, 6, 1801-1807.                                                                                     | 1.2  | 111       |
| 49 | Environmental factors influencing the distribution of rRNA from Verrucomicrobia in soil. <i>FEMS Microbiology Ecology</i> , 2001, 35, 105-112.                                                                                                                                  | 1.3  | 108       |
| 50 | Evidence for a bacterial mechanism for group-specific social odors among hyenas. <i>Scientific Reports</i> , 2012, 2, 615.                                                                                                                                                      | 1.6  | 107       |
| 51 | Archaeal nucleic acids in picoplankton from great lakes on three continents. <i>Microbial Ecology</i> , 2003, 46, 238-248.                                                                                                                                                      | 1.4  | 101       |
| 52 | Lung and gut microbiota are altered by hyperoxia and contribute to oxygen-induced lung injury in mice. <i>Science Translational Medicine</i> , 2020, 12, .                                                                                                                      | 5.8  | 97        |
| 53 | A Small, Dilute-Cytoplasm, High-Affinity, Novel Bacterium Isolated by Extinction Culture and Having Kinetic Constants Compatible with Growth at Ambient Concentrations of Dissolved Nutrients in Seawater. <i>Applied and Environmental Microbiology</i> , 1998, 64, 4467-4476. | 1.4  | 92        |
| 54 | Functional Gene Differences in Soil Microbial Communities from Conventional, Low-Input, and Organic Farmlands. <i>Applied and Environmental Microbiology</i> , 2013, 79, 1284-1292.                                                                                             | 1.4  | 90        |

| #  | ARTICLE                                                                                                                                                                                                                          | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Effects of Atypical Antipsychotic Treatment and Resistant Starch Supplementation on Gut Microbiome Composition in a Cohort of Patients with Bipolar Disorder or Schizophrenia. <i>Pharmacotherapy</i> , 2019, 39, 161-170.       | 1.2 | 81        |
| 56 | Performance of the Translational Apparatus Varies with the Ecological Strategies of Bacteria. <i>Journal of Bacteriology</i> , 2007, 189, 3237-3245.                                                                             | 1.0 | 77        |
| 57 | Bacterial Dissemination to the Brain in Sepsis. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2018, 197, 747-756.                                                                                          | 2.5 | 74        |
| 58 | Colonization of the Cecal Mucosa by <i>Helicobacter hepaticus</i> Impacts the Diversity of the Indigenous Microbiota. <i>Infection and Immunity</i> , 2005, 73, 6952-6961.                                                       | 1.0 | 72        |
| 59 | [16] Phylogenetic identification of uncultured pathogens using ribosomal RNA sequences. <i>Methods in Enzymology</i> , 1994, 235, 205-222.                                                                                       | 0.4 | 71        |
| 60 | Rates and Consequences of Recombination between rRNA Operons. <i>Journal of Bacteriology</i> , 2003, 185, 966-972.                                                                                                               | 1.0 | 71        |
| 61 | Vertebrate Hosts as Islands: Dynamics of Selection, Immigration, Loss, Persistence, and Potential Function of Bacteria on Salamander Skin. <i>Frontiers in Microbiology</i> , 2016, 7, 333.                                      | 1.5 | 65        |
| 62 | Biomass and biofuel crop effects on biodiversity and ecosystem services in the North Central US. <i>Biomass and Bioenergy</i> , 2018, 114, 18-29.                                                                                | 2.9 | 61        |
| 63 | Bacterial growth efficiency varies in soils under different land management practices. <i>Soil Biology and Biochemistry</i> , 2014, 69, 282-290.                                                                                 | 4.2 | 60        |
| 64 | A synthesis of bacterial and archaeal phenotypic trait data. <i>Scientific Data</i> , 2020, 7, 170.                                                                                                                              | 2.4 | 59        |
| 65 | <i>Muribaculaceae</i> Genomes Assembled from Metagenomes Suggest Genetic Drivers of Differential Response to Acarbose Treatment in Mice. <i>MSphere</i> , 2021, 6, e0085121.                                                     | 1.3 | 53        |
| 66 | Role of <i>Rhodobacter</i> sp. Strain PS9, a Purple Non-Sulfur Photosynthetic Bacterium Isolated from an Anaerobic Swine Waste Lagoon, in Odor Remediation. <i>Applied and Environmental Microbiology</i> , 2003, 69, 1710-1720. | 1.4 | 51        |
| 67 | The SwissFEL soft X-ray free-electron laser beamline: Athos. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1073-1084.                                                                                                      | 1.0 | 51        |
| 68 | The first cellular bioenergetic process: Primitive generation of a proton-motive force. <i>Journal of Molecular Evolution</i> , 1991, 33, 297-304.                                                                               | 0.8 | 44        |
| 69 | Distribution of the <i>tfdA</i> Gene in Soil Bacteria That Do Not Degrade 2,4-Dichlorophenoxyacetic Acid (2,4-D). <i>Microbial Ecology</i> , 1997, 34, 90-96.                                                                    | 1.4 | 43        |
| 70 | Nucleic acid content of <i>Synechococcus</i> spp. during growth in continuous light and light/dark cycles. <i>Archives of Microbiology</i> , 1998, 170, 201-207.                                                                 | 1.0 | 43        |
| 71 | Butyrogenic bacteria after acute graft-versus-host disease (GVHD) are associated with the development of steroid-refractory GVHD. <i>Blood Advances</i> , 2019, 3, 2866-2869.                                                    | 2.5 | 40        |
| 72 | Multiphasic analysis of the temporal development of the distal gut microbiota in patients following ileal pouch anal anastomosis. <i>Microbiome</i> , 2013, 1, 9.                                                                | 4.9 | 35        |

| #  | ARTICLE                                                                                                                                                                                                                                         | IF  | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Overview of the Gastrointestinal Microbiota. <i>Advances in Experimental Medicine and Biology</i> , 2008, 635, 29-40.                                                                                                                           | 0.8 | 35        |
| 74 | Growth Rate-Dependent Accumulation of RNA from Plasmid-Borne rRNA Operons in <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 1998, 180, 1970-1972.                                                                                   | 1.0 | 32        |
| 75 | Spectral characterization of c-type cytochromes purified from <i>Beggiatoa alba</i> . <i>Archives of Microbiology</i> , 1990, 154, 453-458.                                                                                                     | 1.0 | 29        |
| 76 | Targeting the Gut Microbiome to Mitigate Immunotherapy-Induced Colitis in Cancer. <i>Trends in Cancer</i> , 2021, 7, 583-593.                                                                                                                   | 3.8 | 26        |
| 77 | Diverse events have transferred genes for edible seaweed digestion from marine to human gut bacteria. <i>Cell Host and Microbe</i> , 2022, 30, 314-328.e11.                                                                                     | 5.1 | 25        |
| 78 | Phylogenetic Characterization and Prevalence of <i>Spirobacillus cienkowskii</i> , a Red-Pigmented, Spiral-Shaped Bacterial Pathogen of Freshwater <i>Daphnia</i> Species. <i>Applied and Environmental Microbiology</i> , 2008, 74, 1575-1582. | 1.4 | 24        |
| 79 | The maturing of microbial ecology. <i>International Microbiology</i> , 2006, 9, 217-23.                                                                                                                                                         | 1.1 | 24        |
| 80 | Mechanistic insights into consumption of the food additive xanthan gum by the human gut microbiota. <i>Nature Microbiology</i> , 2022, 7, 556-569.                                                                                              | 5.9 | 21        |
| 81 | Studying the Enteric Microbiome in Inflammatory Bowel Diseases: Getting through the Growing Pains and Moving Forward. <i>Frontiers in Microbiology</i> , 2011, 2, 144.                                                                          | 1.5 | 20        |
| 82 | Development of an ecophysiological model for <i>Diplosphaera colotermitum</i> TAV2, a termite hindgut Verrucomicrobium. <i>ISME Journal</i> , 2013, 7, 1803-1813.                                                                               | 4.4 | 18        |
| 83 | Undulator beamline optimization with integrated chicanes for X-ray free-electron-laser facilities. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 861-868.                                                                                 | 1.0 | 18        |
| 84 | Protein synthesis by <i>Beggiatoa alba</i> B18LD in the presence and absence of sulfide. <i>Archives of Microbiology</i> , 1986, 144, 158-162.                                                                                                  | 1.0 | 17        |
| 85 | Identifying and Removing Artificial Replicates from 454 Pyrosequencing Data. <i>Cold Spring Harbor Protocols</i> , 2010, 2010, pdb.prot5409-pdb.prot5409.                                                                                       | 0.2 | 14        |
| 86 | Multiplicity of Ribosomal RNA Operons in Prokaryotic Genomes. , 1998, , 221-229.                                                                                                                                                                |     | 14        |
| 87 | The emergence of microbiome centres. <i>Nature Microbiology</i> , 2020, 5, 2-3.                                                                                                                                                                 | 5.9 | 13        |
| 88 | A Little O <sub>2</sub> May Go a Long Way in Structuring the GI Microbiome. <i>Gastroenterology</i> , 2014, 147, 956-959.                                                                                                                       | 0.6 | 12        |
| 89 | Application of Traditional and Phylogenetically Based Comparative Methods to Test for a Trade-off in Bacterial Growth Rate at Low versus High Substrate Concentration. <i>Microbial Ecology</i> , 1999, 38, 191.                                | 1.4 | 12        |
| 90 | Electron transport and respiration in <i>Beggiatoa</i> and <i>Vitreoscilla</i> . <i>Archives of Microbiology</i> , 1986, 145, 71-75.                                                                                                            | 1.0 | 11        |

| #   | ARTICLE                                                                                                                                                                                                                                              | IF  | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91  | Differences in codon bias cannot explain differences in translational power among microbes. BMC Bioinformatics, 2005, 6, 3.                                                                                                                          | 1.2 | 11        |
| 92  | Bacterial Communities in Malagasy Soils with Differing Levels of Disturbance Affecting Botanical Diversity. PLoS ONE, 2014, 9, e85097.                                                                                                               | 1.1 | 11        |
| 93  | The effect of natural selection on the performance of maximum parsimony. BMC Evolutionary Biology, 2007, 7, 94.                                                                                                                                      | 3.2 | 8         |
| 94  | Analysis of the first magnetic results of the PSI APPLE X undulators in elliptical polarisation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 987, 164741. | 0.7 | 8         |
| 95  | Age-Related Variation in the Scent Pouch Bacterial Communities of Striped Hyenas ( <i>Hyaena hyaena</i> ). , 2016, , 87-103.                                                                                                                         |     | 8         |
| 96  | Physiological and Ecological Adaptations of Slow-Growing, Heterotrophic Microbes and Consequences for Cultivation. Microbiology Monographs, 2009, , 257-276.                                                                                         | 0.3 | 6         |
| 97  | Demonstration of a compact x-ray free-electron laser using the optical klystron effect. Applied Physics Letters, 2021, 119, .                                                                                                                        | 1.5 | 6         |
| 98  | A systems approach to model natural variation in reactive properties of bacterial ribosomes. BMC Systems Biology, 2008, 2, 62.                                                                                                                       | 3.0 | 5         |
| 99  | Microfluidic Sensors with Impregnated Fluorophores for Simultaneous Imaging of Spatial Structure and Chemical Oxygen Gradients. ACS Sensors, 2019, 4, 317-325.                                                                                       | 4.0 | 5         |
| 100 | Environmental factors influencing the distribution of rRNA from Verrucomicrobia in soil. , 0, .                                                                                                                                                      |     | 4         |
| 101 | The Effect of Natural Selection on Phylogeny Reconstruction Algorithms. Lecture Notes in Computer Science, 2003, , 13-24.                                                                                                                            | 1.0 | 3         |
| 102 | Conceptual Exchanges for Understanding Free-Living and Host-Associated Microbiomes. MSystems, 2022, 7, e0137421.                                                                                                                                     | 1.7 | 3         |
| 103 | Bacteria Battling for Survival. , 2012, , 59-64.                                                                                                                                                                                                     |     | 2         |
| 104 | Changes in <i>Synechococcus</i> Population Size and Cellular Ribosomal RNA Content in Response to Predation and Nutrient Limitation. Microbial Ecology, 2004, 48, 1-9.                                                                               | 1.4 | 1         |
| 105 | Rational Modification of Intestinal Microbiome and Metabolites after Allogeneic Hematopoietic Stem Cell Transplantation with Resistant Starch: A Pilot Study. Blood, 2019, 134, 3276-3276.                                                           | 0.6 | 1         |
| 106 | Measurement of rRNA Abundance by Hybridization with Oligodeoxynucleotide Probes. , 0, , 897-908.                                                                                                                                                     |     | 0         |
| 107 | Stitching together a healthy gut microbiome with fiber. Cell Host and Microbe, 2022, 30, 762-763.                                                                                                                                                    | 5.1 | 0         |