

Akos T Kovacs

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

4,619
citations

109321

35
h-index

138484

58
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135
all docs

135
docs citations

135
times ranked

4271
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | <i>Bacillus velezensis</i> stimulates resident rhizosphere <i>Pseudomonas stutzeri</i> for plant health through metabolic interactions. <i>ISME Journal</i> , 2022, 16, 774-787. | 9.8 | 125 |
| 2 | Quantitative High-Throughput Screening Methods Designed for Identification of Bacterial Biocontrol Strains with Antifungal Properties. <i>Microbiology Spectrum</i> , 2022, 10, e0143321. | 3.0 | 6 |
| 3 | <i>Bacillus cereus</i> sensu lato biofilm formation and its ecological importance. <i>Biofilm</i> , 2022, 4, 100070. | 3.8 | 21 |
| 4 | Adaptation and phenotypic diversification of <i>Bacillus thuringiensis</i> biofilm are accompanied by fuzzy spreader morphotypes. <i>Npj Biofilms and Microbiomes</i> , 2022, 8, 27. | 6.4 | 4 |
| 5 | Experimental evolution of <i>Bacillus subtilis</i> on <i>Arabidopsis thaliana</i> roots reveals fast adaptation and improved root colonization. <i>IScience</i> , 2022, 25, 104406. | 4.1 | 20 |
| 6 | Physiological and transcriptional profiling of surfactin exerted antifungal effect against <i>Candida albicans</i> . <i>Biomedicine and Pharmacotherapy</i> , 2022, 152, 113220. | 5.6 | 6 |
| 7 | Complex extracellular biology drives surface competition during colony expansion in <i>Bacillus subtilis</i> . <i>ISME Journal</i> , 2022, 16, 2320-2328. | 9.8 | 16 |
| 8 | Molecular Aspects of Plant Growth Promotion and Protection by <i>Bacillus subtilis</i> . <i>Molecular Plant-Microbe Interactions</i> , 2021, 34, 15-25. | 2.6 | 134 |
| 9 | Pervasive prophage recombination occurs during evolution of spore-forming <i>Bacilli</i> . <i>ISME Journal</i> , 2021, 15, 1344-1358. | 9.8 | 26 |
| 10 | A circadian clock in a nonphotosynthetic prokaryote. <i>Science Advances</i> , 2021, 7, . | 10.3 | 59 |
| 11 | Quantitative image analysis of microbial communities with BiofilmQ. <i>Nature Microbiology</i> , 2021, 6, 151-156. | 13.3 | 181 |
| 12 | Genomic and Chemical Diversity of <i>Bacillus subtilis</i> Secondary Metabolites against Plant Pathogenic Fungi. <i>MSystems</i> , 2021, 6, . | 3.8 | 55 |
| 13 | Impact of Rap-Phr system abundance on adaptation of <i>Bacillus subtilis</i> . <i>Communications Biology</i> , 2021, 4, 468. | 4.4 | 18 |
| 14 | Phylogenetic Distribution of Secondary Metabolites in the <i>Bacillus subtilis</i> Species Complex. <i>MSystems</i> , 2021, 6, . | 3.8 | 39 |
| 15 | <i>Bacillus subtilis</i> biofilm formation and social interactions. <i>Nature Reviews Microbiology</i> , 2021, 19, 600-614. | 28.6 | 213 |
| 16 | Biofilm Dispersal for Spore Release in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2021, 203, e0019221. | 2.2 | 3 |
| 17 | Deletion of Rap-Phr systems in <i>Bacillus subtilis</i> influences in vitro biofilm formation and plant root colonization. <i>MicrobiologyOpen</i> , 2021, 10, e1212. | 3.0 | 13 |
| 18 | Phages carry interbacterial weapons encoded by biosynthetic gene clusters. <i>Current Biology</i> , 2021, 31, 3479-3489.e5. | 3.9 | 30 |

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|----|---|-----|-----------|
| 19 | Diversification of <i>Bacillus subtilis</i> during experimental evolution on <i>A. rabidopsis thaliana</i> and the complementarity in root colonization of evolved subpopulations. <i>Environmental Microbiology</i> , 2021, 23, 6122-6136. | 3.8 | 26 |
| 20 | Adaptation of <i>Bacillus thuringiensis</i> to Plant Colonization Affects Differentiation and Toxicity. <i>MSystems</i> , 2021, 6, e0086421. | 3.8 | 16 |
| 21 | Complete Genome Sequences of Four Soil-Derived Isolates for Studying Synthetic Bacterial Community Assembly. <i>Microbiology Resource Announcements</i> , 2021, 10, e0084821. | 0.6 | 6 |
| 22 | Metal ions weaken the hydrophobicity and antibiotic resistance of <i>Bacillus subtilis</i> NCIB 3610 biofilms. <i>Npj Biofilms and Microbiomes</i> , 2020, 6, 1. | 6.4 | 82 |
| 23 | A fungal scent from the cheese. <i>Environmental Microbiology</i> , 2020, 22, 4524-4526. | 3.8 | 2 |
| 24 | Privatization of Biofilm Matrix in Structurally Heterogeneous Biofilms. <i>MSystems</i> , 2020, 5, . | 3.8 | 27 |
| 25 | Cheaters shape the evolution of phenotypic heterogeneity in <i>Bacillus subtilis</i> biofilms. <i>ISME Journal</i> , 2020, 14, 2302-2312. | 9.8 | 23 |
| 26 | Differential equation-based minimal model describing metabolic oscillations in <i>Bacillus subtilis</i> biofilms. <i>Royal Society Open Science</i> , 2020, 7, 190810. | 2.4 | 8 |
| 27 | Complete Genome Sequences of 13 <i>Bacillus subtilis</i> Soil Isolates for Studying Secondary Metabolite Diversity. <i>Microbiology Resource Announcements</i> , 2020, 9, . | 0.6 | 13 |
| 28 | Surfactin production is not essential for pellicle and root-associated biofilm development of <i>Bacillus subtilis</i> . <i>Biofilm</i> , 2020, 2, 100021. | 3.8 | 33 |
| 29 | Modelling population dynamics in a unicellular social organism community using a minimal model and evolutionary game theory. <i>Open Biology</i> , 2020, 10, 200206. | 3.6 | 11 |
| 30 | Secondary metabolites of <i>Bacillus subtilis</i> impact the assembly of soil-derived semisynthetic bacterial communities. <i>Beilstein Journal of Organic Chemistry</i> , 2020, 16, 2983-2998. | 2.2 | 18 |
| 31 | Biofilm: Introducing a new journal for the broad biofilm field. <i>Biofilm</i> , 2019, 1, 100003. | 3.8 | 0 |
| 32 | Depiction of secondary metabolites and antifungal activity of <i>Bacillus velezensis</i> DTU001. <i>Synthetic and Systems Biotechnology</i> , 2019, 4, 142-149. | 3.7 | 46 |
| 33 | Are There Circadian Clocks in Non-Photosynthetic Bacteria?. <i>Biology</i> , 2019, 8, 41. | 2.8 | 26 |
| 34 | <i>Bacillus subtilis</i> . <i>Trends in Microbiology</i> , 2019, 27, 724-725. | 7.7 | 84 |
| 35 | The Ectomycorrhizospheric Habitat of Norway Spruce and <i>Tricholoma vaccinum</i> : Promotion of Plant Growth and Fitness by a Rich Microorganismic Community. <i>Frontiers in Microbiology</i> , 2019, 10, 307. | 3.5 | 19 |
| 36 | Evolved Biofilm: Review on the Experimental Evolution Studies of <i>Bacillus subtilis</i> Pellicles. <i>Journal of Molecular Biology</i> , 2019, 431, 4749-4759. | 4.2 | 57 |

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|----|---|------|-----------|
| 37 | Fungal hyphae colonization by <i>Bacillus subtilis</i> relies on biofilm matrix components. <i>Biofilm</i> , 2019, 1, 100007. | 3.8 | 26 |
| 38 | Evolution of exploitative interactions during diversification in <i>Bacillus subtilis</i> biofilms. <i>FEMS Microbiology Ecology</i> , 2018, 94, . | 2.7 | 33 |
| 39 | Impaired competence in flagellar mutants of <i>Bacillus subtilis</i> is connected to the regulatory network governed by DegU. <i>Environmental Microbiology Reports</i> , 2018, 10, 23-32. | 2.4 | 10 |
| 40 | Collapse of genetic division of labour and evolution of autonomy in pellicle biofilms. <i>Nature Microbiology</i> , 2018, 3, 1451-1460. | 13.3 | 51 |
| 41 | Hampered motility promotes the evolution of wrinkly phenotype in <i>Bacillus subtilis</i> . <i>BMC Evolutionary Biology</i> , 2018, 18, 155. | 3.2 | 16 |
| 42 | Effect of Novel Quercetin Titanium Dioxide-Decorated Multi-Walled Carbon Nanotubes Nanocomposite on <i>Bacillus subtilis</i> Biofilm Development. <i>Materials</i> , 2018, 11, 157. | 2.9 | 11 |
| 43 | Division of Labor during Biofilm Matrix Production. <i>Current Biology</i> , 2018, 28, 1903-1913.e5. | 3.9 | 203 |
| 44 | Dissimilar pigment regulation in <i>Serpula lacrymans</i> and <i>Paxillus involutus</i> during inter-kingdom interactions. <i>Microbiology (United Kingdom)</i> , 2018, 164, 65-77. | 1.8 | 23 |
| 45 | The Peculiar Functions of the Bacterial Extracellular Matrix. <i>Trends in Microbiology</i> , 2017, 25, 257-266. | 7.7 | 180 |
| 46 | De novo evolved interference competition promotes the spread of biofilm defectors. <i>Nature Communications</i> , 2017, 8, 15127. | 12.8 | 60 |
| 47 | <i>Lysinibacillus fusiformis</i> M5 Induces Increased Complexity in <i>Bacillus subtilis</i> 168 Colony Biofilms via Hypoxanthine. <i>Journal of Bacteriology</i> , 2017, 199, . | 2.2 | 17 |
| 48 | Sliding on the surface: bacterial spreading without an active motor. <i>Environmental Microbiology</i> , 2017, 19, 2537-2545. | 3.8 | 71 |
| 49 | Surfing of bacterial droplets: <i>Bacillus subtilis</i> sliding revisited. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8802. | 7.1 | 12 |
| 50 | Structural damage of <i>Bacillus subtilis</i> biofilms using pulsed laser interaction with gold thin films. <i>Journal of Biophotonics</i> , 2017, 10, 1043-1052. | 2.3 | 1 |
| 51 | Application of quercetin and its bio-inspired nanoparticles as anti-adhesive agents against <i>Bacillus subtilis</i> attachment to surface. <i>Materials Science and Engineering C</i> , 2017, 70, 753-762. | 7.3 | 19 |
| 52 | YsbA and LytST are essential for pyruvate utilization in <i>Bacillus subtilis</i> . <i>Environmental Microbiology</i> , 2017, 19, 83-94. | 3.8 | 32 |
| 53 | From Cell Death to Metabolism: Holin-Antiholin Homologues with New Functions. <i>MBio</i> , 2017, 8, . | 4.1 | 22 |
| 54 | Presence of Calcium Lowers the Expansion of <i>Bacillus subtilis</i> Colony Biofilms. <i>Microorganisms</i> , 2017, 5, 7. | 3.6 | 33 |

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|----|--|-----|-----------|
| 55 | The Role of Functional Amyloids in Multicellular Growth and Development of Gram-Positive Bacteria. <i>Biomolecules</i> , 2017, 7, 60. | 4.0 | 27 |
| 56 | Draft Genome Sequence of the Soil Isolate <i>Lysinibacillus fusiformis</i> M5, a Potential Hypoxanthine Producer. <i>Genome Announcements</i> , 2016, 4, . | 0.8 | 6 |
| 57 | The global regulator CodY is required for the fitness of <i>Bacillus cereus</i> in various laboratory media and certain beverages. <i>FEMS Microbiology Letters</i> , 2016, 363, fnw126. | 1.8 | 4 |
| 58 | Laboratory Evolution of Microbial Interactions in Bacterial Biofilms. <i>Journal of Bacteriology</i> , 2016, 198, 2564-2571. | 2.2 | 69 |
| 59 | Unraveling the predator-prey relationship of <i>Cupriavidus necator</i> and <i>Bacillus subtilis</i> . <i>Microbiological Research</i> , 2016, 192, 231-238. | 5.3 | 22 |
| 60 | Monitoring Spatial Segregation in Surface Colonizing Microbial Populations. <i>Journal of Visualized Experiments</i> , 2016, , . | 0.3 | 16 |
| 61 | Bacterial differentiation via gradual activation of global regulators. <i>Current Genetics</i> , 2016, 62, 125-128. | 1.7 | 40 |
| 62 | The impact of manganese on biofilm development of <i>Bacillus subtilis</i> . <i>Microbiology (United Kingdom)</i> , 2016, 162, 1468-1478. | 1.8 | 41 |
| 63 | Specific <i>Bacillus subtilis</i> 168 variants form biofilms on nutrient-rich medium. <i>Microbiology (United)</i> Tj ETQq1 1 0.784314 rgBT /Overlo 1.8 63 | 1.8 | 63 |
| 64 | Single Cell FRET Analysis for the Identification of Optimal FRET-Pairs in <i>Bacillus subtilis</i> Using a Prototype MEM-FLIM System. <i>PLoS ONE</i> , 2015, 10, e0123239. | 2.5 | 12 |
| 65 | A Duo of Potassium-Responsive Histidine Kinases Govern the Multicellular Destiny of <i>Bacillus subtilis</i> . <i>MBio</i> , 2015, 6, e00581. | 4.1 | 89 |
| 66 | Spatio-temporal Remodeling of Functional Membrane Microdomains Organizes the Signaling Networks of a Bacterium. <i>PLoS Genetics</i> , 2015, 11, e1005140. | 3.5 | 39 |
| 67 | Motility, Chemotaxis and Aerotaxis Contribute to Competitiveness during Bacterial Pellicle Biofilm Development. <i>Journal of Molecular Biology</i> , 2015, 427, 3695-3708. | 4.2 | 127 |
| 68 | <i>Bacillus subtilis</i> attachment to <i>Aspergillus niger</i> hyphae results in mutually altered metabolism. <i>Environmental Microbiology</i> , 2015, 17, 2099-2113. | 3.8 | 112 |
| 69 | Repeated triggering of sporulation in <i>Bacillus subtilis</i> selects against a protein that affects the timing of cell division. <i>ISME Journal</i> , 2014, 8, 77-87. | 9.8 | 16 |
| 70 | The YmdB Phosphodiesterase Is a Global Regulator of Late Adaptive Responses in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2014, 196, 265-275. | 2.2 | 69 |
| 71 | Impact of spatial distribution on the development of mutualism in microbes. <i>Frontiers in Microbiology</i> , 2014, 5, 649. | 3.5 | 32 |
| 72 | Comparative genomics and transcriptomics analysis of experimentally evolved <i>Escherichia coli</i> MC1000 in complex environments. <i>Environmental Microbiology</i> , 2014, 16, 856-870. | 3.8 | 12 |

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|----|---|-----|-----------|
| 73 | From environmental signals to regulators: Modulation of biofilm development in Gram-positive bacteria. <i>Journal of Basic Microbiology</i> , 2014, 54, 616-632. | 3.3 | 53 |
| 74 | In <i>Bacillus subtilis</i> LutR is part of the global complex regulatory network governing the adaptation to the transition from exponential growth to stationary phase. <i>Microbiology (United Kingdom)</i> , 2014, 160, 243-260. | 1.8 | 15 |
| 75 | Density of founder cells affects spatial pattern formation and cooperation in <i>Bacillus subtilis</i> biofilms. <i>ISME Journal</i> , 2014, 8, 2069-2079. | 9.8 | 231 |
| 76 | DEAD-Box RNA Helicases in <i>Bacillus subtilis</i> Have Multiple Functions and Act Independently from Each Other. <i>Journal of Bacteriology</i> , 2013, 195, 534-544. | 2.2 | 69 |
| 77 | Benchmarking Various Green Fluorescent Protein Variants in <i>Bacillus subtilis</i> , <i>Streptococcus pneumoniae</i> , and <i>Lactococcus lactis</i> for Live Cell Imaging. <i>Applied and Environmental Microbiology</i> , 2013, 79, 6481-6490. | 3.1 | 110 |
| 78 | Functional Analysis of the ComK Protein of <i>Bacillus coagulans</i> . <i>PLoS ONE</i> , 2013, 8, e53471. | 2.5 | 8 |
| 79 | CodY, a pleiotropic regulator, influences multicellular behaviour and efficient production of virulence factors in <i>Bacillus cereus</i> . <i>Environmental Microbiology</i> , 2012, 14, 2233-2246. | 3.8 | 87 |
| 80 | The protective layer of biofilm: a repellent function for a new class of amphiphilic proteins. <i>Molecular Microbiology</i> , 2012, 85, 8-11. | 2.5 | 39 |
| 81 | Crystal Structures of Two Transcriptional Regulators from <i>Bacillus cereus</i> Define the Conserved Structural Features of a PadR Subfamily. <i>PLoS ONE</i> , 2012, 7, e48015. | 2.5 | 42 |
| 82 | Distinct Roles of ComK1 and ComK2 in Gene Regulation in <i>Bacillus cereus</i> . <i>PLoS ONE</i> , 2011, 6, e21859. | 2.5 | 6 |
| 83 | Biofilm formation and dispersal in Gram-positive bacteria. <i>Current Opinion in Biotechnology</i> , 2011, 22, 172-179. | 6.6 | 240 |
| 84 | Rok Regulates <i>yuaB</i> Expression during Architecturally Complex Colony Development of <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2011, 193, 998-1002. | 2.2 | 48 |
| 85 | Transcriptional Responses of <i>Bacillus cereus</i> towards Challenges with the Polysaccharide Chitosan. <i>PLoS ONE</i> , 2011, 6, e24304. | 2.5 | 10 |
| 86 | Genetic Tool Development for a New Host for Biotechnology, the Thermotolerant Bacterium <i>Bacillus coagulans</i> . <i>Applied and Environmental Microbiology</i> , 2010, 76, 4085-4088. | 3.1 | 37 |
| 87 | Response of <i>Bacillus cereus</i> ATCC 14579 to challenges with sublethal concentrations of enterocin AS-48. <i>BMC Microbiology</i> , 2009, 9, 227. | 3.3 | 21 |
| 88 | Ubiquitous late competence genes in <i>Bacillus</i> species indicate the presence of functional DNA uptake machineries. <i>Environmental Microbiology</i> , 2009, 11, 1911-1922. | 3.8 | 60 |
| 89 | Induction of natural competence in <i>Bacillus cereus</i> ATCC14579. <i>Microbial Biotechnology</i> , 2008, 1, 226-235. | 4.2 | 39 |
| 90 | Anaerobic regulation of hydrogenase transcription in different bacteria. <i>Biochemical Society Transactions</i> , 2005, 33, 36-38. | 3.4 | 11 |

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|-----|---|-----|-----------|
| 91 | The hydrogenases of <i>Thiocapsa roseopersicina</i> . <i>Biochemical Society Transactions</i> , 2005, 33, 61-63. | 3.4 | 18 |
| 92 | Hydrogen independent expression of hupSL genes in <i>Thiocapsa roseopersicina</i> BBS. <i>FEBS Journal</i> , 2005, 272, 4807-4816. | 4.7 | 18 |
| 93 | An FNR-Type Regulator Controls the Anaerobic Expression of Hyn Hydrogenase in <i>Thiocapsa roseopersicina</i> . <i>Journal of Bacteriology</i> , 2005, 187, 2618-2627. | 2.2 | 13 |
| 94 | The PpsR regulator family. <i>Research in Microbiology</i> , 2005, 156, 619-625. | 2.1 | 24 |
| 95 | Cyanobacterial-Type, Heteropentameric, NAD ⁺ -Reducing NiFe Hydrogenase in the Purple Sulfur Photosynthetic Bacterium <i>Thiocapsa roseopersicina</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 722-728. | 3.1 | 68 |
| 96 | Modular Broad-Host-Range Expression Vectors for Single-Protein and Protein Complex Purification. <i>Applied and Environmental Microbiology</i> , 2004, 70, 712-721. | 3.1 | 34 |
| 97 | Improvement of biohydrogen production and intensification of biogas formation. <i>Reviews in Environmental Science and Biotechnology</i> , 2004, 3, 321-330. | 8.1 | 18 |
| 98 | Accessory proteins functioning selectively and pleiotropically in the biosynthesis of [NiFe] hydrogenases in <i>Thiocapsa roseopersicina</i> . <i>FEBS Journal</i> , 2003, 270, 2218-2227. | 0.2 | 37 |
| 99 | Genes Involved in the Biosynthesis of Photosynthetic Pigments in the Purple Sulfur Photosynthetic Bacterium <i>Thiocapsa roseopersicina</i> . <i>Applied and Environmental Microbiology</i> , 2003, 69, 3093-3102. | 3.1 | 39 |
| 100 | Hydrogenases, accessory genes and the regulation of 6NiFe9 hydrogenase biosynthesis in <i>Thiocapsa roseopersicina</i> . <i>International Journal of Hydrogen Energy</i> , 2002, 27, 1463-1469. | 7.1 | 27 |
| 101 | Transposon Mutagenesis in Purple Sulfur Photosynthetic Bacteria: Identification of hypF , Encoding a Protein Capable of Processing [NiFe] Hydrogenases in I ₁ , I ₂ , and I ₃ Subdivisions of the Proteobacteria. <i>Applied and Environmental Microbiology</i> , 2001, 67, 2476-2483. | 3.1 | 41 |