# Kyu Y Rhee

List of Publications by Year
in descending order



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|---|---|---|---|
| 102 papers | 6,258 citations | 66234 42 h-index | 79541 73 g-index |
| 107 all docs | 107 docs citations | 107 times ranked | 6739 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Metabolomics of Mycobacterium tuberculosis Reveals Compartmentalized Co-Catabolism of Carbon Substrates. Chemistry and Biology, 2010, 17, 1122-1131. | 6.2 | 313 |
| 2 | Gluconeogenic carbon flow of tricarboxylic acid cycle intermediates is critical for <i>Mycobacterium tuberculosis</i> to establish and maintain infection. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9819-9824. | 3.3 | 299 |
| 3 | A chemical genetic screen in Mycobacterium tuberculosis identifies carbon-source-dependent growth inhibitors devoid of in vivo efficacy. Nature Communications, 2010, 1, 57. | 5.8 | 250 |
| 4 | Multifunctional essentiality of succinate metabolism in adaptation to hypoxia in <i>Mycobacterium tuberculosis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6554-6559. | 3.3 | 246 |
| 5 | High-fructose corn syrup enhances intestinal tumor growth in mice. Science, 2019, 363, 1345-1349. | 6.0 | 243 |
| 6 | Isocitrate lyase mediates broad antibiotic tolerance in Mycobacterium tuberculosis. Nature Communications, 2014, 5, 4306. | 5.8 | 228 |
| 7 | Selective Killing of Nonreplicating Mycobacteria. Cell Host and Microbe, 2008, 3, 137-145. | 5.1 | 180 |
| 8 | <i>Para</i> -Aminosalicylic Acid Acts as an Alternative Substrate of Folate Metabolism in <i>Mycobacterium tuberculosis</i>. Science, 2013, 339, 88-91. | 6.0 | 178 |
| 9 | A genetic strategy to identify targets for the development of drugs that prevent bacterial persistence. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19095-19100. | 3.3 | 167 |
| 10 | S-nitroso proteome of Mycobacterium tuberculosis: Enzymes of intermediary metabolism and antioxidant defense. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 467-472. | 3.3 | 165 |
| 11 | Metabolic principles of persistence and pathogenicity in Mycobacterium tuberculosis. Nature Reviews Microbiology, 2018, 16, 496-507. | 13.6 | 162 |
| 12 | Central carbon metabolism in Mycobacterium tuberculosis: an unexpected frontier. Trends in Microbiology, 2011, 19, 307-314. | 3.5 | 156 |
| 13 | Depletion of antibiotic targets has widely varying effects on growth. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4176-4181. | 3.3 | 141 |
| 14 | Methylcitrate cycle defines the bactericidal essentiality of isocitrate lyase for survival of <i>Mycobacterium tuberculosis</i> on fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4976-4981. | 3.3 | 138 |
| 15 | Dietary fructose improves intestinal cell survival and nutrient absorption. Nature, 2021, 597, 263-267. | 13.7 | 133 |
| 16 | Evaluating the Sensitivity of Mycobacterium tuberculosis to Biotin Deprivation Using Regulated Gene Expression. PLoS Pathogens, 2011, 7, e1002264. | 2.1 | 127 |
| 17 | Ergothioneine Maintains Redox and Bioenergetic Homeostasis Essential for Drug Susceptibility and Virulence of Mycobacterium tuberculosis. Cell Reports, 2016, 14, 572-585. | 2.9 | 124 |
| 18 | Virulence of Mycobacterium tuberculosis Depends on Lipoamide Dehydrogenase, a Member of Three Multienzyme Complexes. Cell Host and Microbe, 2011, 9, 21-31. | 5.1 | 115 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Activity-Based Metabolomic Profiling of Enzymatic Function: Identification of Rv1248c as a Mycobacterial 2-Hydroxy-3-oxoadipate Synthase. Chemistry and Biology, 2010, 17, 323-332. | 6.2 | 104 |
| 20 | Glucose Phosphorylation Is Required for Mycobacterium tuberculosis Persistence in Mice. PLoS Pathogens, 2013, 9, e1003116. | 2.1 | 97 |
| 21 | Mitochondrial ClpX Activates a Key Enzyme for Heme Biosynthesis and Erythropoiesis. Cell, 2015, 161, 858-867. | 13.5 | 95 |
| 22 | Hierarchical expression of genes controlled by the <i>Bacillus subtilis</i> global regulatory protein CodY. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8227-8232. | 3.3 | 88 |
| 23 | <i>N</i> -methylation of a bactericidal compound as a resistance mechanism in <i>Mycobacterium tuberculosis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4523-30. | 3.3 | 88 |
| 24 | Metabolic anticipation in Mycobacterium tuberculosis. Nature Microbiology, 2017, 2, 17084. | 5.9 | 85 |
| 25 | Glyoxylate detoxification is an essential function of malate synthase required for carbon assimilation in <i>Mycobacterium tuberculosis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2225-E2232. | 3.3 | 82 |
| 26 | A spectrum of CodY activities drives metabolic reorganization and virulence gene expression in <i>Staphylococcus aureus</i>. Molecular Microbiology, 2016, 101, 495-514. | 1.2 | 81 |
| 27 | Verapamil Targets Membrane Energetics in Mycobacterium tuberculosis. Antimicrobial Agents and Chemotherapy, 2018, 62, . | 1.4 | 79 |
| 28 | Tuberculosis Drug Development: History and Evolution of the Mechanism-Based Paradigmâ€ƒ: Figure 1.. Cold Spring Harbor Perspectives in Medicine, 2015, 5, a021147. | 2.9 | 77 |
| 29 | Essential but Not Vulnerable: Indazole Sulfonamides Targeting Inosine Monophosphate Dehydrogenase as Potential Leads against <i>Mycobacterium tuberculosis</i>. ACS Infectious Diseases, 2017, 3, 18-33. | 1.8 | 77 |
| 30 | Pyrazolo[1,5-<i>a</i>]pyridine Inhibitor of the Respiratory Cytochrome <i>bcc</i> Complex for the Treatment of Drug-Resistant Tuberculosis. ACS Infectious Diseases, 2019, 5, 239-249. | 1.8 | 74 |
| 31 | Folate Pathway Disruption Leads to Critical Disruption of Methionine Derivatives in Mycobacterium tuberculosis. Chemistry and Biology, 2014, 21, 819-830. | 6.2 | 70 |
| 32 | Microbial metabolomics: innovation, application, insight. Current Opinion in Microbiology, 2014, 19, 90-96. | 2.3 | 65 |
| 33 | Inactivation of Fructose-1,6-Bisphosphate Aldolase Prevents Optimal Co-catabolism of Glycolytic and Gluconeogenic Carbon Substrates in Mycobacterium tuberculosis. PLoS Pathogens, 2014, 10, e1004144. | 2.1 | 64 |
| 34 | Validation of CoaBC as a Bactericidal Target in the Coenzyme A Pathway of <i>Mycobacterium tuberculosis</i>. ACS Infectious Diseases, 2016, 2, 958-968. | 1.8 | 62 |
| 35 | Mycobacterial genes essential for the pathogen's survival in the host. Immunological Reviews, 2015, 264, 319-326. | 2.8 | 59 |
| 36 | Multisystem Analysis of <i>Mycobacterium tuberculosis</i> Reveals Kinase-Dependent Remodeling of the Pathogen-Environment Interface. MBio, 2018, 9, . | 1.8 | 57 |

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|---|---|---|---|
| 37 | E1 of Î±-ketoglutarate dehydrogenase defends <i>Mycobacterium tuberculosis</i> against glutamate anaplerosis and nitroxidative stress. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5834-43. | 3.3 | 55 |
| 38 | Crosstalk between the tricarboxylic acid cycle and peptidoglycan synthesis in Caulobacter crescentus through the homeostatic control of Î±-ketoglutarate. PLoS Genetics, 2017, 13, e1006978. | 1.5 | 55 |
| 39 | Two enzymes with redundant fructose bisphosphatase activity sustain gluconeogenesis and virulence in Mycobacterium tuberculosis. Nature Communications, 2015, 6, 7912. | 5.8 | 54 |
| 40 | Dissociation of Adaptive Thermogenesis from Glucose Homeostasis in Microbiome-Deficient Mice. Cell Metabolism, 2020, 31, 592-604.e9. | 7.2 | 54 |
| 41 | Opposing reactions in coenzyme A metabolism sensitize <i>Mycobacterium tuberculosis</i> to enzyme inhibition. Science, 2019, 363, . | 6.0 | 53 |
| 42 | Mycobacterium Tuberculosis Metabolism and Host Interaction: Mysteries and Paradoxes. Current Topics in Microbiology and Immunology, 2012, 374, 163-188. | 0.7 | 51 |
| 43 | 2-Mercapto-Quinazolinones as Inhibitors of Type II NADH Dehydrogenase and <i>Mycobacterium tuberculosis</i>: Structureâ€“Activity Relationships, Mechanism of Action and Absorption, Distribution, Metabolism, and Excretion Characterization. ACS Infectious Diseases, 2018, 4, 954-969. | 1.8 | 49 |
| 44 | Triosephosphate Isomerase Is Dispensable <i>In Vitro</i> yet Essential for Mycobacterium tuberculosis To Establish Infection. MBio, 2014, 5, e00085. | 1.8 | 48 |
| 45 | Mass Spectrometric Identification of Urinary Biomarkers of Pulmonary Tuberculosis. EBioMedicine, 2018, 31, 157-165. | 2.7 | 46 |
| 46 | Metabolomics of Mycobacterium tuberculosis. Methods in Molecular Biology, 2015, 1285, 105-115. | 0.4 | 45 |
| 47 | Rac-Mediated Macropinocytosis of Extracellular Protein Promotes Glucose Independence in Non-Small Cell Lung Cancer. Cancers, 2019, 11, 37. | 1.7 | 45 |
| 48 | The membrane protein ANKH is crucial for bone mechanical performance by mediating cellular export of citrate and ATP. PLoS Genetics, 2020, 16, e1008884. | 1.5 | 45 |
| 49 | Fumarase Deficiency Causes Protein and Metabolite Succination and Intoxicates Mycobacterium tuberculosis. Cell Chemical Biology, 2017, 24, 306-315. | 2.5 | 44 |
| 50 | Aspartate aminotransferase Rv3722c governs aspartate-dependent nitrogen metabolism in Mycobacterium tuberculosis. Nature Communications, 2020, 11, 1960. | 5.8 | 44 |
| 51 | Targeting <i>Mycobacterium tuberculosis</i> Biotin Protein Ligase (MtBPL) with Nucleoside-Based Bisubstrate Adenylation Inhibitors. Journal of Medicinal Chemistry, 2015, 58, 7349-7369. | 2.9 | 39 |
| 52 | Mode-of-action profiling reveals glutamine synthetase as a collateral metabolic vulnerability of <i>M. tuberculosis</i> to bedaquiline. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19646-19651. | 3.3 | 38 |
| 53 | Synergistic Lethality of a Binary Inhibitor of Mycobacterium tuberculosis KasA. MBio, 2018, 9, . | 1.8 | 37 |
| 54 | Central Role of Pyruvate Kinase in Carbon Co-catabolism of Mycobacterium tuberculosis. Journal of Biological Chemistry, 2016, 291, 7060-7069. | 1.6 | 35 |

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|---|---|---|---|
| 55 | Risk factors and outcomes of infections caused by extremely drug-resistant gram-negative bacilli in patients hospitalized in intensive care units. American Journal of Infection Control, 2014, 42, 626-631. | 1.1 | 33 |
| 56 | The Tuberculosis Drug Accelerator at year 10: what have we learned?. Nature Medicine, 2021, 27, 1333-1337. | 15.2 | 32 |
| 57 | Growth of<i>Mycobacterium tuberculosis</i>at acidic pH depends on lipid assimilation and is accompanied by reduced GAPDH activity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 31 |
| 58 | Metabolomics of Central Carbon Metabolism in <i>Mycobacterium tuberculosis</i>. Microbiology Spectrum, 2014, 2, . | 1.2 | 29 |
| 59 | Evolution of a thienopyrimidine antitubercular relying on medicinal chemistry and metabolomics insights. Tetrahedron Letters, 2015, 56, 3246-3250. | 0.7 | 27 |
| 60 | Multiform antimicrobial resistance from a metabolic mutation. Science Advances, 2021, 7, . | 4.7 | 25 |
| 61 | Suitability of silica hydride stationary phase, aqueous normal phase chromatography for untargeted metabolomic profiling of <i>Enterococcus faecium</i> and <i>Staphylococcus aureus</i>. Journal of Separation Science, 2009, 32, 2262-2265. | 1.3 | 24 |
| 62 | Targeting protein biotinylation enhances tuberculosis chemotherapy. Science Translational Medicine, 2018, 10, . | 5.8 | 24 |
| 63 | Impact of CodY protein on metabolism, sporulation and virulence in Clostridioides difficile ribotype 027. PLoS ONE, 2019, 14, e0206896. | 1.1 | 24 |
| 64 | Depletion of the DarG antitoxin in <i>Mycobacterium tuberculosis</i> triggers the DNAâ€damage response and leads to cell death. Molecular Microbiology, 2020, 114, 641-652. | 1.2 | 24 |
| 65 | Emerging Approaches to Tuberculosis Drug Development: At Home in the Metabolome. Trends in Pharmacological Sciences, 2017, 38, 393-405. | 4.0 | 22 |
| 66 | Two for the price of one: Attacking the energetic-metabolic hub of mycobacteria to produce new chemotherapeutic agents. Progress in Biophysics and Molecular Biology, 2020, 152, 35-44. | 1.4 | 22 |
| 67 | CinA mediates multidrug tolerance in Mycobacterium tuberculosis. Nature Communications, 2022, 13, 2203. | 5.8 | 22 |
| 68 | An amiloride derivative is active against the F1Fo-ATP synthase and cytochrome bd oxidase of Mycobacterium tuberculosis. Communications Biology, 2022, 5, 166. | 2.0 | 21 |
| 69 | Prevalence, persistence, and microbiology of Staphylococcus aureus nasal carriage among hemodialysis outpatients at a major New York Hospital. Diagnostic Microbiology and Infectious Disease, 2011, 70, 37-44. | 0.8 | 20 |
| 70 | Metabolism and the Evolution of Social Behavior. Molecular Biology and Evolution, 2017, 34, 2367-2379. | 3.5 | 20 |
| 71 | Chemicalâ€“genetic interaction mapping links carbon metabolism and cell wall structure to tuberculosis drug efficacy. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2201632119. | 3.3 | 20 |
| 72 | Minding the gaps: metabolomics mends functional genomics. EMBO Reports, 2013, 14, 949-950. | 2.0 | 19 |

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|---|---|---|---|
| 73 | Identification of a Mycothiol-Dependent Nitroreductase from <i>Mycobacterium tuberculosis</i>. ACS Infectious Diseases, 2018, 4, 771-787. | 1.8 | 19 |
| 74 | Intermediate-Type Vancomycin Resistance (VISA) in Genetically-Distinct Staphylococcus aureus Isolates Is Linked to Specific, Reversible Metabolic Alterations. PLoS ONE, 2014, 9, e97137. | 1.1 | 18 |
| 75 | Endemic Acinetobacter baumannii in a New York Hospital. PLoS ONE, 2011, 6, e28566. | 1.1 | 17 |
| 76 | Transcriptional regulator-induced phenotype screen reveals drug potentiators in Mycobacterium tuberculosis. Nature Microbiology, 2021, 6, 44-50. | 5.9 | 15 |
| 77 | Metabolic Perspectives on Persistence. Microbiology Spectrum, 2017, 5, . | 1.2 | 14 |
| 78 | Metabolomics of Mycobacterium tuberculosis. Methods in Molecular Biology, 2021, 2314, 579-593. | 0.4 | 12 |
| 79 | GLUT5 (SLC2A5) enables fructose-mediated proliferation independent of ketohexokinase. Cancer & Metabolism, 2021, 9, 12. | 2.4 | 12 |
| 80 | Bacillus subtilis PgcA moonlights as a phosphoglucosamine mutase in support of peptidoglycan synthesis. PLoS Genetics, 2019, 15, e1008434. | 1.5 | 11 |
| 81 | Multiple acyl-CoA dehydrogenase deficiency kills Mycobacterium tuberculosis in vitro and during infection. Nature Communications, 2021, 12, 6593. | 5.8 | 11 |
| 82 | Control of biotin biosynthesis in mycobacteria by a pyruvate carboxylase dependent metabolic signal. Molecular Microbiology, 2017, 106, 1018-1031. | 1.2 | 10 |
| 83 | Deciphering functional redundancy and energetics of malate oxidation in mycobacteria. Journal of Biological Chemistry, 2022, 298, 101859. | 1.6 | 10 |
| 84 | Two Interacting ATPases Protect Mycobacterium tuberculosis from Glycerol and Nitric Oxide Toxicity. Journal of Bacteriology, 2020, 202, . | 1.0 | 8 |
| 85 | Inhibiting Mycobacterium tuberculosis CoaBC by targeting an allosteric site. Nature Communications, 2021, 12, 143. | 5.8 | 8 |
| 86 | Activity-based annotation: the emergence of systems biochemistry. Trends in Biochemical Sciences, 2022, 47, 785-794. | 3.7 | 8 |
| 87 | Comparison of transposon and deletion mutants in Mycobacterium tuberculosis : The case of rv1248c , encoding 2-hydroxy-3-oxoadipate synthase. Tuberculosis, 2015, 95, 689-694. | 0.8 | 7 |
| 88 | Allostery and compartmentalization: old but not forgotten. Current Opinion in Microbiology, 2014, 18, 23-29. | 2.3 | 5 |
| 89 | Urinary biomarkers of mycobacterial load and treatment response in pulmonary tuberculosis. JCI Insight, 2020, 5, . | 2.3 | 5 |
| 90 | Microbial Metabolomics: Fifty Shades of Metabolism. ACS Infectious Diseases, 2015, 1, 73-75. | 1.8 | 4 |

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|---|---|---|---|
| 91 | Innovations in MD-only physician-scientist training: experiences from the Burroughs Wellcome Fund physician-scientist institutional award initiative. Journal of Clinical Investigation, 2021, 131, . | 3.9 | 4 |
| 92 | Metabolic bifunctionality of Rv0812 couples folate and peptidoglycan biosynthesis in <i>Mycobacterium tuberculosis</i>. Journal of Experimental Medicine, 2021, 218, . | 4.2 | 4 |
| 93 | Targeting <i>Mycobacterium tuberculosis</i> CoaBC through Chemical Inhibition of 4â€²-Phosphopantothenoyl-<scp>l</scp>-cysteine Synthetase (CoaB) Activity. ACS Infectious Diseases, 2021, 7, 1666-1679. | 1.8 | 3 |
| 94 | Metabolic Perspectives on Persistence. , 2017, , 653-669. | | 2 |
| 95 | A Tandem Liquid Chromatography–Mass Spectrometry-based Approach for Metabolite Analysis of <em>Staphylococcus aureus</em>. Journal of Visualized Experiments, 2017, , . | 0.2 | 1 |
| 96 | 1886. N1,N12-Diacetylspermine as Potential Urinary Biomarker to Monitor Treatment Response and Bacterial Load in Pulmonary Tuberculosis. Open Forum Infectious Diseases, 2019, 6, S53-S53. | 0.4 | 1 |
| 97 | A d-Phenylalanine-Benzoxazole Derivative Reveals the Role of the Essential Enzyme Rv3603c in the Pantothenate Biosynthetic Pathway of Mycobacterium tuberculosis. ACS Infectious Diseases, 2022, 8, 330-342. | 1.8 | 1 |
| 98 | Metabolomics of Central Carbon Metabolism in<i>Mycobacterium tuberculosis</i>. , 0, , 323-339. | | 0 |
| 99 | Title is missing!. , 2020, 16, e1008884. | | 0 |
| 100 | Title is missing!. , 2020, 16, e1008884. | | 0 |
| 101 | Title is missing!. , 2020, 16, e1008884. | | 0 |
| 102 | Title is missing!. , 2020, 16, e1008884. | | 0 |