Adrie J C Steyn

List of Publications by Year
in descending order

#	Article	IF	Citations
1	<i>Mycobacterium tuberculosis</i> DosS is a redox sensor and DosT is a hypoxia sensor. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11568-11573.	7.1	306
2	Mycobacterium tuberculosis WhiB3 Maintains Redox Homeostasis by Regulating Virulence Lipid Anabolism to Modulate Macrophage Response. PLoS Pathogens, 2009, 5, e1000545.	4.7	253
3	Mycobacterium tuberculosis WhiB3 interacts with RpoV to affect host survival but is dispensable for in vivo growth. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 3147-3152.	7.1	227
4	S100A8/A9 Proteins Mediate Neutrophilic Inflammation and Lung Pathology during Tuberculosis. American Journal of Respiratory and Critical Care Medicine, 2013, 188, 1137-1146.	5.6	216
5	Heme Oxygenase-1-derived Carbon Monoxide Induces the Mycobacterium tuberculosis Dormancy Regulon. Journal of Biological Chemistry, 2008, 283, 18032-18039.	3.4	203
6	<i>Mycobacterium tuberculosis</i> WhiB3 responds to O ₂ and nitric oxide via its [4Fe-4S] cluster and is essential for nutrient starvation survival. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11562-11567.	7.1	174
7	Turning the respiratory flexibility of Mycobacterium tuberculosis against itself. Nature Communications, 2016, 7, 12393.	12.8	174
8	Redox homeostasis in mycobacteria: the key to tuberculosis control?. Expert Reviews in Molecular Medicine, 2011, 13, e39.	3.9	153
9	Group 3 innate lymphoid cells mediate early protective immunity against tuberculosis. Nature, 2019, 570, 528-532.	27.8	153
10	Mycobacterium tuberculosis induces decelerated bioenergetic metabolism in human macrophages. ELife, 2018, 7, .	6.0	150
11	Dissecting virulence pathways of Mycobacterium tuberculosis through protein-protein association. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11346-11351.	7.1	148
12	Characterization of the Mycobacterium tuberculosis iniBAC Promoter, a Promoter That Responds to Cell Wall Biosynthesis Inhibition. Journal of Bacteriology, 2000, 182, 1802-1811.	2.2	139
13	A partner for the resuscitationâ€promoting factors of <i>Mycobacterium tuberculosis</i>. Molecular Microbiology, 2007, 66, 658-668.	2.5	136
14	Ergothioneine Maintains Redox and Bioenergetic Homeostasis Essential for Drug Susceptibility and Virulence of Mycobacterium tuberculosis. Cell Reports, 2016, 14, 572-585.	6.4	124
15	Towards host-directed therapies for tuberculosis. Nature Reviews Drug Discovery, 2015, 14, 511-512.	46.4	110
16	Interaction of the sensor module of Mycobacterium tuberculosis H37Rv KdpD with members of the Lpr family. Molecular Microbiology, 2003, 47, 1075-1089.	2.5	91
17	<i>Mycobacterium tuberculosis</i> WhiB4 regulates oxidative stress response to modulate survival and dissemination <i>in vivo</i>. Molecular Microbiology, 2012, 85, 1148-1165.	2.5	90
18	Role of Ergothioneine in Microbial Physiology and Pathogenesis. Antioxidants and Redox Signaling, 2018, 28, 431-444.	5.4	77

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19	Mycobacterial WhiB6 Differentially Regulates ESX-1 and the Dos Regulon to Modulate Granuloma Formation and Virulence in Zebrafish. Cell Reports, 2016, 16, 2512-2524.	6.4	71
20	Hydrogen sulfide stimulates Mycobacterium tuberculosis respiration, growth and pathogenesis. Nature Communications, 2020, 11, 557.	12.8	70
21	Co-expression of a Saccharomyces diastaticus glucoamylase-encoding gene and a Bacillus amyloliquefaciens Î±-amylase-encoding gene in Saccharomyces cerevisiae. Gene, 1991, 100, 85-93.	2.2	59
22	Compromised Metabolic Reprogramming Is an Early Indicator of CD8+ T Cell Dysfunction during Chronic Mycobacterium tuberculosis Infection. Cell Reports, 2019, 29, 3564-3579.e5.	6.4	58
23	Hydrogen sulfide dysregulates the immune response by suppressing central carbon metabolism to promote tuberculosis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6663-6674.	7.1	55
24	Ferritin H Deficiency in Myeloid Compartments Dysregulates Host Energy Metabolism and Increases Susceptibility to Mycobacterium tuberculosis Infection. Frontiers in Immunology, 2018, 9, 860.	4.8	53
25	Reductive Stress in Microbes: Implications for Understanding Mycobacterium tuberculosis Disease and Persistence. Advances in Microbial Physiology, 2010, 57, 43-117.	2.4	52
26	Arylvinylpiperazine Amides, a New Class of Potent Inhibitors Targeting QcrB of Mycobacterium tuberculosis. MBio, 2018, 9, .	4.1	52
27	Tissue-resident-like CD4+ T cells secreting IL-17 control Mycobacterium tuberculosis in the human lung. Journal of Clinical Investigation, 2021, 131, .	8.2	51
28	Susceptibility of Mycobacterium tuberculosis Cytochrome <i>bd</i> Oxidase Mutants to Compounds Targeting the Terminal Respiratory Oxidase, Cytochrome <i>c</i>. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	49
29	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.	3.8	49
30	Dual inhibition of the terminal oxidases eradicates antibioticâ€tolerant <i>Mycobacterium tuberculosis</i>. EMBO Molecular Medicine, 2021, 13, e13207.	6.9	47
31	Regulation of Ergothioneine Biosynthesis and Its Effect on Mycobacterium tuberculosis Growth and Infectivity. Journal of Biological Chemistry, 2015, 290, 23064-23076.	3.4	45
32	Differential skewing of donor-unrestricted and Î³Î´ T cell repertoires in tuberculosis-infected human lungs. Journal of Clinical Investigation, 2019, 130, 214-230.	8.2	45
33	<i>Mycobacterium tuberculosis</i>WhiB3: A Novel Ironâ€“Sulfur Cluster Protein That Regulates Redox Homeostasis and Virulence. Antioxidants and Redox Signaling, 2012, 16, 687-697.	5.4	41
34	Iron sulfur cluster proteins and microbial regulation: implications for understanding tuberculosis. Current Opinion in Chemical Biology, 2012, 16, 45-53.	6.1	40
35	Heme oxygenase-1 promotes granuloma development and protects against dissemination of mycobacteria. Laboratory Investigation, 2012, 92, 1541-1552.	3.7	38
36	Host-Directed Therapies for Tackling Multi-Drug Resistant Tuberculosis: Learning From the Pasteur-Bechamp Debates: Table 1.. Clinical Infectious Diseases, 2015, 61, 1432-1438.	5.8	38

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37	New 2-Ethylthio-4-methylaminoquinazoline derivatives inhibiting two subunits of cytochrome bc1 in Mycobacterium tuberculosis. PLoS Pathogens, 2020, 16, e1008270.	4.7	38
38	Mycobacterium tuberculosis arrests host cycle at the G1/S transition to establish long term infection. PLoS Pathogens, 2017, 13, e1006389.	4.7	35
39	Comprehensive Examination of the Mouse Lung Metabolome Following <i>Mycobacterium tuberculosis</i> Infection Using a Multiplatform Mass Spectrometry Approach. Journal of Proteome Research, 2020, 19, 2053-2070.	3.7	35
40	Microanatomic Distribution of Myeloid Heme Oxygenase-1 Protects against Free Radical-Mediated Immunopathology in Human Tuberculosis. Cell Reports, 2018, 25, 1938-1952.e5.	6.4	34
41	Bedaquiline reprograms central metabolism to reveal glycolytic vulnerability in Mycobacterium tuberculosis. Nature Communications, 2020, 11, 6092.	12.8	34
42	Remembering the Host in Tuberculosis Drug Development. Journal of Infectious Diseases, 2019, 219, 1518-1524.	4.0	33
43	Environmental Heme-Based Sensor Proteins: Implications for Understanding Bacterial Pathogenesis. Antioxidants and Redox Signaling, 2012, 17, 1232-1245.	5.4	30
44	Accessible and distinct decoquinate derivatives active against Mycobacterium tuberculosis and apicomplexan parasites. Communications Chemistry, 2018, 1, .	4.5	30
45	The emerging role of gasotransmitters in the pathogenesis of tuberculosis. Nitric Oxide - Biology and Chemistry, 2016, 59, 28-41.	2.7	29
46	Host-pathogen redox dynamics modulate Mycobacterium tuberculosis pathogenesis. Pathogens and Disease, 2018, 76, .	2.0	29
47	The Physiology and Genetics of Oxidative Stress in Mycobacteria. Microbiology Spectrum, 2014, 2, .	3.0	27
48	Microâ€“Computed Tomography Analysis of the Human Tuberculous Lung Reveals Remarkable Heterogeneity in Three-dimensional Granuloma Morphology. American Journal of Respiratory and Critical Care Medicine, 2021, 204, 583-595.	5.6	27
49	Cloning, sequence analysis and expression in yeasts of a cDNA containing a Lipomyces kononenkoae Î±-amylase-encoding gene. Gene, 1995, 166, 65-71.	2.2	26
50	Regional sequence homologies in starch-degrading enzymes. Current Genetics, 1993, 24, 400-407.	1.7	24
51	Conservation of Structure and Protein-Protein Interactions Mediated by the Secreted Mycobacterial Proteins EsxA, EsxB, and EspA. Journal of Bacteriology, 2010, 192, 326-335.	2.2	24
52	Metabolic plasticity of central carbon metabolism protects mycobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13135-13136.	7.1	21
53	Relevance of the Warburg Effect in Tuberculosis for Host-Directed Therapy. Frontiers in Cellular and Infection Microbiology, 2020, 10, 576596.	3.9	21
54	Characterization of a novel ?-amylase from Lipomyces kononenkoae and expression of its gene (LKA1) in Saccharomyces cerevisiae. Current Genetics, 1995, 28, 526-533.	1.7	20

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55	Attenuated heme oxygenase-1 responses predispose the elderly to pulmonary nontuberculous mycobacterial infections. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 311, L928-L940.	2.9	19
56	A Rapid Drug Resistance Genotyping Workflow for Mycobacterium tuberculosis, Using Targeted Isothermal Amplification and Nanopore Sequencing. Microbiology Spectrum, 2021, 9, e0061021.	3.0	19
57	Cloning and characterization of a second ?-amylase gene (LKA2) fromLipomyces kononenkoae IGC4052B and its expression inSaccharomyces cerevisiae. Yeast, 2003, 20, 69-78.	1.7	16
58	The Role of Host-Generated H2S in Microbial Pathogenesis: New Perspectives on Tuberculosis. Frontiers in Cellular and Infection Microbiology, 2020, 10, 586923.	3.9	15
59	RbpA and Ïƒ^B association regulates polyphosphate levels to modulate mycobacterial isoniazidâ€tolerance. Molecular Microbiology, 2018, 108, 627-640.	2.5	13
60	A Screen to Identify Small Molecule Inhibitors of Proteinâ€“Protein Interactions in Mycobacteria. Assay and Drug Development Technologies, 2011, 9, 299-310.	1.2	12
61	Formation of Lung Inducible Bronchus Associated Lymphoid Tissue Is Regulated by Mycobacterium tuberculosis Expressed Determinants. Frontiers in Immunology, 2020, 11, 1325.	4.8	11
62	Expression and secretion of Bacillus amyloliquefaciens alpha-amylase by using the yeast pheromone alpha-factor promoter and leader sequence in Saccharomyces cerevisiae. Applied and Environmental Microbiology, 1993, 59, 1253-1258.	3.1	10
63	Aggregated Mycobacterium tuberculosis Enhances the Inflammatory Response. Frontiers in Microbiology, 2021, 12, 757134.	3.5	10
64	Mycobacterium tuberculosis H2S Functions as a Sink to Modulate Central Metabolism, Bioenergetics, and Drug Susceptibility. Antioxidants, 2021, 10, 1285.	5.1	9
65	Host immunity increases Mycobacterium tuberculosis reliance on cytochrome bd oxidase. PLoS Pathogens, 2021, 17, e1008911.	4.7	8
66	Mycobacterium tuberculosis DosS binds H2S through its Fe3+ heme iron to regulate the DosR dormancy regulon. Redox Biology, 2022, 52, 102316.	9.0	8
67	Expression of human P450C17 as an export protein insaccharomyces cerevisiae. Endocrine Research, 1995, 21, 289-295.	1.2	7
68	Exposure to cigarette smoke impacts myeloid-derived regulatory cell function and exacerbates airway hyper-responsiveness. Laboratory Investigation, 2014, 94, 1312-1325.	3.7	6
69	Mycobacterium tuberculosis-Induced Maternal Immune Activation Promotes Autism-Like Phenotype in Infected Mice Offspring. International Journal of Environmental Research and Public Health, 2021, 18, 4513.	2.6	6
70	Recent developments in mycobacterial research. Current Opinion in Infectious Diseases, 1999, 12, 415-424.	3.1	6
71	<i>Mycobacterium tuberculosis</i> causes a leaky bloodâ€brain barrier and neuroinflammation in the prefrontal cortex and cerebellum regions of infected mice offspring. International Journal of Developmental Neuroscience, 2021, 81, 428-437.	1.6	5
72	A Feedback Regulatory Loop Containing McdR and WhiB2 Controls Cell Division and DNA Repair in Mycobacteria. MBio, 2022, 13, e0334321.	4.1	5

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73	Use of telepathology to facilitate COVID-19 research and education through an online COVID-19 autopsy biorepository. Journal of Pathology Informatics, 2021, 12, 48.	1.7	4
74	Heme Oxygenase-1 as a Pharmacological Target for Host-Directed Therapy to Limit Tuberculosis Associated Immunopathology. Antioxidants, 2021, 10, 177.	5.1	3
75	The Analysis of Mycobacterium tuberculosis-Induced Bioenergetic Changes in Infected Macrophages Using an Extracellular Flux Analyzer. Methods in Molecular Biology, 2020, 2184, 161-184.	0.9	3
76	Integrating environmental health and genomics research in Africa: challenges and opportunities identified during a Human Heredity and Health in Africa (H3Africa) Consortium workshop. AAS Open Research, 2019, 2, 159.	1.5	3
77	Host Bioenergetic Parameters Reveal Cytotoxicity of Antituberculosis Drugs Undetected Using Conventional Viability Assays. Antimicrobial Agents and Chemotherapy, 2021, 65, e0093221.	3.2	2
78	Mechanistic Insights into the Role of Hydrogen Sulfide in Mycobacterial Disease and Persistence. Free Radical Biology and Medicine, 2013, 65, S62.	2.9	0
79	Proteinâ€“Protein Interaction in the -Omics Era: Understanding Mycobacterium tuberculosis Function. , 2013, , 79-106.		0
80	Hydrogen Sulfide Alters M. Tuberculosis Bioenergetics and Promotes Tuberculosis Disease. Free Radical Biology and Medicine, 2015, 87, S141.	2.9	0
81	The Physiology and Genetics of Oxidative Stress in Mycobacteria. , 0, , 297-322.		0