Anil K Tyagi

List of Publications by Year
in descending order

100 papers	3,659 citations	109321 35 h-index	149698 56 g-index
107 all docs	107 docs citations	107 times ranked	4085 citing authors

#	Article	IF	Citations
1	Disruption of <i>mptpB</i> impairs the ability of <i>Mycobacterium tuberculosis</i> to survive in guinea pigs. Molecular Microbiology, 2003, 50, 751-762.	2.5	174
2	Cloning and Characterization of Secretory Tyrosine Phosphatases of <i>Mycobacterium tuberculosis</i>. Journal of Bacteriology, 2000, 182, 5425-5432.	2.2	170
3	The sigma factors of <i>Mycobacteriumâ€ƒtuberculosis</i>: regulation of the regulators. FEBS Journal, 2010, 277, 605-626.	4.7	141
4	Disruption of Mycobactin Biosynthesis Leads to Attenuation of Mycobacterium tuberculosis for Growth and Virulence. Journal of Infectious Diseases, 2013, 208, 1255-1265.	4.0	129
5	Iron Storage Proteins Are Essential for the Survival and Pathogenesis of Mycobacterium tuberculosis in THP-1 Macrophages and the Guinea Pig Model of Infection. Journal of Bacteriology, 2012, 194, 567-575.	2.2	123
6	Mechanistic and functional insights into fatty acid activation in Mycobacterium tuberculosis. Nature Chemical Biology, 2009, 5, 166-173.	8.0	119
7	Oral Silibinin Inhibits Lung Tumor Growth in Athymic Nude Mice and Forms a Novel Chemocombination with Doxorubicin Targeting Nuclear Factor ÎºBâ€“Mediated Inducible Chemoresistance. Clinical Cancer Research, 2004, 10, 8641-8647.	7.0	116
8	Requirement of the mymA Operon for Appropriate Cell Wall Ultrastructure and Persistence of Mycobacterium tuberculosis in the Spleens of Guinea Pigs. Journal of Bacteriology, 2005, 187, 4173-4186.	2.2	101
9	Serine/threonine protein kinases PknF and PknG of Mycobacterium tuberculosis: characterization and localization. Microbiology (United Kingdom), 2001, 147, 2307-2314.	1.8	95
10	Role of<i>Mycobacterium tuberculosis</i>Ser/Thr Kinase PknF: Implications in Glucose Transport and Cell Division. Journal of Bacteriology, 2005, 187, 3415-3420.	2.2	87
11	Secreted Acid Phosphatase (SapM) of Mycobacterium tuberculosis Is Indispensable for Arresting Phagosomal Maturation and Growth of the Pathogen in Guinea Pig Tissues. PLoS ONE, 2013, 8, e70514.	2.5	84
12	Synthesis of novel 1,2,3-triazole derivatives of isoniazid and their inÂvitro and inÂvivo antimycobacterial activity evaluation. European Journal of Medicinal Chemistry, 2014, 81, 301-313.	5.5	83
13	mymAoperon ofMycobacterium tuberculosis: its regulation and importance in the cell envelope. FEMS Microbiology Letters, 2003, 227, 53-63.	1.8	78
14	Polyphasic Taxonomic Analysis Establishes Mycobacterium indicus pranii as a Distinct Species. PLoS ONE, 2009, 4, e6263.	2.5	78
15	Serine threonine protein kinases of mycobacterial genus: phylogeny to function. Physiological Genomics, 2007, 29, 66-75.	2.3	76
16	Cytotoxic activity of nucleoside diphosphate kinase secreted from Mycobacterium tuberculosis. FEBS Journal, 2003, 270, 625-634.	0.2	68
17	Comparative Analyses of Nonpathogenic, Opportunistic, and Totally Pathogenic Mycobacteria Reveal Genomic and Biochemical Variabilities and Highlight the Survival Attributes of Mycobacterium tuberculosis. MBio, 2014, 5, e02020.	4.1	64
18	Construction of shuttle vectors for genetic manipulation and molecular analysis of mycobacteria. Gene, 1997, 190, 37-44.	2.2	61

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19	A novel nucleoid-associated protein of Mycobacterium tuberculosis is a sequence homolog of GroEL. Nucleic Acids Research, 2009, 37, 4944-4954.	14.5	60
20	Enhanced and Enduring Protection against Tuberculosis by Recombinant BCG-Ag85C and Its Association with Modulation of Cytokine Profile in Lung. PLoS ONE, 2008, 3, e3869.	2.5	58
21	Phosphoprotein phosphatase of Mycobacterium tuberculosis dephosphorylates serineâ€“threonine kinases PknA and PknB. Biochemical and Biophysical Research Communications, 2003, 311, 112-120.	2.1	57
22	Ferritin Structure from Mycobacterium tuberculosis: Comparative Study with Homologues Identifies Extended C-Terminus Involved in Ferroxidase Activity. PLoS ONE, 2011, 6, e18570.	2.5	57
23	Expression Systems for Study of Mycobacterial Gene Regulation and Development of Recombinant BCG Vaccines. Biochemical and Biophysical Research Communications, 1998, 246, 797-804.	2.1	54
24	Functional Studies of Multiple Thioredoxins from <i>Mycobacterium tuberculosis</i>. Journal of Bacteriology, 2008, 190, 7087-7095.	2.2	54
25	Identification and Analysis of â€œExtended âˆ'10â€•Promoters from Mycobacteria. Journal of Bacteriology, 1998, 180, 2568-2573.	2.2	53
26	Mechanistic Insights into a Novel Exporter-Importer System of Mycobacterium tuberculosis Unravel Its Role in Trafficking of Iron. PLoS ONE, 2008, 3, e2087.	2.5	51
27	Gene cooption in Mycobacteria and search for virulence attributes: Comparative proteomic analyses of Mycobacterium tuberculosis, Mycobacterium indicus pranii and other mycobacteria. International Journal of Medical Microbiology, 2014, 304, 742-748.	3.6	51
28	Necrosis Driven Triglyceride Synthesis Primes Macrophages for Inflammation During Mycobacterium tuberculosis Infection. Frontiers in Immunology, 2018, 9, 1490.	4.8	45
29	Mycobacterial transcriptional signals: requirements for recognition by RNA polymerase and optimal transcriptional activity. Nucleic Acids Research, 2006, 34, 4245-4257.	14.5	44
30	Differential Roles of Iron Storage Proteins in Maintaining the Iron Homeostasis in Mycobacterium tuberculosis. PLoS ONE, 2017, 12, e0169545.	2.5	42
31	Crystal Structure of Bfr A from Mycobacterium tuberculosis: Incorporation of Selenomethionine Results in Cleavage and Demetallation of Haem. PLoS ONE, 2009, 4, e8028.	2.5	41
32	Facilitated Oligomerization of Mycobacterial GroEL: Evidence for Phosphorylation-Mediated Oligomerization. Journal of Bacteriology, 2009, 191, 6525-6538.	2.2	40
33	Virtual Screening, pharmacophore development and structure based similarity search to identify inhibitors against IdeR, a transcription factor of Mycobacterium tuberculosis. Scientific Reports, 2017, 7, 4653.	3.3	40
34	Molecular Analysis of a Leprosy Immunotherapeutic Bacillus Provides Insights into Mycobacterium Evolution. PLoS ONE, 2007, 2, e968.	2.5	39
35	A Booster Vaccine Expressing a Latency-Associated Antigen Augments BCG Induced Immunity and Confers Enhanced Protection against Tuberculosis. PLoS ONE, 2011, 6, e23360.	2.5	39
36	Elicitation of efficient, protective immune responses by using DNA vaccines against tuberculosis. Vaccine, 2005, 23, 5655-5665.	3.8	37

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37	Secretory Phosphatases Deficient Mutant of Mycobacterium tuberculosis Imparts Protection at the Primary Site of Infection in Guinea Pigs. PLoS ONE, 2013, 8, e77930.	2.5	37
38	Massive gene acquisitions in Mycobacterium indicus pranii provide a perspective on mycobacterial evolution. Nucleic Acids Research, 2012, 40, 10832-10850.	14.5	36
39	Skewing of the Th1/Th2 responses in mice due to variation in the level of expression of an antigen in a recombinant BCG system. Immunology Letters, 2003, 88, 175-184.	2.5	35
40	Deciphering the genes involved in pathogenesis of Mycobacterium tuberculosis. Tuberculosis, 2005, 85, 325-335.	1.9	33
41	Sequence of a newly identified Mycobacterium tuberculosis gene encoding a protein with sequence homology to virulence-regulating proteins. Gene, 1993, 126, 157-158.	2.2	31
42	Nucleoside diphosphate kinase ofMycobacterium tuberculosisacts as GTPase-activating protein for Rho-GTPases. FEBS Letters, 2004, 571, 212-216.	2.8	31
43	Recombinant BCG approach for development of vaccines: cloning and expression of immunodominant antigens ofM. tuberculosis. FEMS Microbiology Letters, 2000, 190, 309-316.	1.8	29
44	Novel isoniazidâ€“amidoether derivatives: synthesis, characterization and antimycobacterial activity evaluation. MedChemComm, 2015, 6, 131-137.	3.4	28
45	Latency Antigen Î±-Crystallin Based Vaccination Imparts a Robust Protection against TB by Modulating the Dynamics of Pulmonary Cytokines. PLoS ONE, 2011, 6, e18773.	2.5	28
46	Nuclear Localization and in Situ DNA Damage by Mycobacterium tuberculosis Nucleoside-diphosphate Kinase. Journal of Biological Chemistry, 2004, 279, 50142-50149.	3.4	27
47	Role of 5Ã¢Â€Â²-TGN-3Ã¢Â€Â² motif in the interaction of mycobacterial RNA polymerase with a promoter of Ã¢Â€Â˜extended Ã¢Âˆâ€™10Ã¢Â€Â™ class. FEMS Microbiology Letters, 2003, 225, 75-83.	1.8	25
48	Immunogenicity of recombinant BCG vaccine strains overexpressing components of the antigen 85 complex of Mycobacterium tuberculosis. Medical Microbiology and Immunology, 2004, 193, 19-25.	4.8	25
49	Dissecting the Role of Critical Residues and Substrate Preference of a Fatty Acyl-CoA Synthetase (FadD13) of Mycobacterium tuberculosis. PLoS ONE, 2009, 4, e8387.	2.5	25
50	Structural Ordering of Disordered Ligand-Binding Loops of Biotin Protein Ligase into Active Conformations as a Consequence of Dehydration. PLoS ONE, 2010, 5, e9222.	2.5	25
51	Interaction of l-alanosine (NSC 153, 353) with enzymes metabolizing l-aspartic acid, l-glutamic acid and their amides. Biochemical Pharmacology, 1980, 29, 227-245.	4.4	23
52	Metabolites of alanosine, an antitumor antibiotic. Biochemical Pharmacology, 1979, 28, 3551-3566.	4.4	22
53	Boosting with a DNA vaccine expressing ESAT-6 (DNAE6) obliterates the protection imparted by recombinant BCG (rBCGE6) against aerosol Mycobacterium tuberculosis infection in guinea pigs. Vaccine, 2009, 28, 63-70.	3.8	22
54	Identification of Inhibitors against Mycobacterium tuberculosis Thiamin Phosphate Synthase, an Important Target for the Development of Anti-TB Drugs. PLoS ONE, 2011, 6, e22441.	2.5	22

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55	Structural biology of Mycobacterium tuberculosis proteins: The Indian efforts. Tuberculosis, 2011, 91, 456-468.	1.9	22
56	Inactivation of yeast ornithine decarboxylase by polyamines invivo does not result from the incorporation of polyamines into enzyme protein. Biochemical and Biophysical Research Communications, 1982, 109, 533-540.	2.1	21
57	Over-expression of superoxide dismutase obliterates the protective effect of BCG against tuberculosis by modulating innate and adaptive immune responses. Vaccine, 2011, 29, 8118-8125.	3.8	21
58	Expression and purification of recombinant antigens of Mycobacterium tuberculosis for application in serodiagnosis. Protein Expression and Purification, 2005, 44, 75-85.	1.3	20
59	Molecular modeling studies of Fatty acyl-CoA synthetase (FadD13) from Mycobacterium tuberculosisâ€"a potential target for the development of antitubercular drugs. Journal of Molecular Modeling, 2011, 17, 301-313.	1.8	20
60	Endonuclease IV Is the Major Apurinic/Apyrimidinic Endonuclease in Mycobacterium tuberculosis and Is Important for Protection against Oxidative Damage. PLoS ONE, 2013, 8, e71535.	2.5	20
61	Biochemical Pharmacology, Metabolism, and Mechanism of Action of L-Alanosine, a Novel, Natural Antitumor Agent. Advances in Pharmacology, 1984, 20, 69-121.	2.0	19
62	bioA mutant of Mycobacterium tuberculosis shows severe growth defect and imparts protection against tuberculosis in guinea pigs. PLoS ONE, 2017, 12, e0179513.	2.5	18
63	Adjunctive immunotherapy with Î±-crystallin based DNA vaccination reduces Tuberculosis chemotherapy period in chronically infected mice. Scientific Reports, 2013, 3, 1821.	3.3	17
64	Analysis, expression and prevalence of theMycobacterium tuberculosishomolog of bacterial virulence regulating proteins. FEMS Microbiology Letters, 1999, 172, 137-143.	1.8	15
65	[19] Ornithine decarboxylase (Saccharomyces cerevisiae). Methods in Enzymology, 1983, 94, 135-139.	1.0	14
66	An attenuated quadruple gene mutant of Mycobacterium tuberculosis imparts protection against tuberculosis in guinea pigs. Biology Open, 2017, 7, .	1.2	13
67	Identification of Mycobacterium tuberculosis BioA inhibitors by using structure-based virtual screening. Drug Design, Development and Therapy, 2018, Volume 12, 1065-1079.	4.3	13
68	Studies on the mechanism of resistance of selected murine tumors to l-alanosine. Biochemical Pharmacology, 1981, 30, 915-924.	4.4	12
69	Development of the first oligonucleotide microarray for global gene expression profiling in guinea pigs: defining the transcription signature of infectious diseases. BMC Genomics, 2012, 13, 520.	2.8	12
70	Whole-Cell Screening-Based Identification of Inhibitors against the Intraphagosomal Survival of Mycobacterium tuberculosis. Antimicrobial Agents and Chemotherapy, 2013, 57, 6372-6377.	3.2	12
71	Development of vaccines against tuberculosis. Tuberculosis, 2011, 91, 469-478.	1.9	11
72	MhaAI, a novel isoschizomer ofPstI fromMycobacterium habanarecognizing 5â€²-CTGCA/G-3â€². Nucleic Acids Research, 1992, 20, 2891-2891.	14.5	10

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73	Expression and purification of recombinant 38-kDa and Mtb81 antigens of Mycobacterium tuberculosis for application in serodiagnosis. Protein Expression and Purification, 2005, 40, 169-176.	1.3	10
74	Cloning, expression, purification, crystallization and preliminary X-ray crystallographic analysis of bacterioferritin A from<i>Mycobacterium tuberculosis</i>. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 398-401.	0.7	10
75	Unique Residues at the 3-Fold and 4-Fold Axis of Mycobacterial Ferritin Are Involved in Oligomer Switching. Biochemistry, 2013, 52, 1694-1704.	2.5	10
76	A combination of docking and cheminformatics approaches for the identification of inhibitors against 4â€² phosphopantetheinyl transferase of<i>Mycobacterium tuberculosis</i>. RSC Advances, 2018, 8, 328-341.	3.6	10
77	Use of automated chromatography on the amino acid analyzer with lithium citrate buffers to separate nucleic acid bases, nucleosides, nucleotides and their precursors. Journal of Proteomics, 1979, 1, 221-226.	2.4	9
78	MchAI and MchAII, two class-II restriction endonucleases from Mycobacterium chelonei. Gene, 1993, 132, 119-123.	2.2	9
79	Purification and characterization of restriction endonuclease MgoI from Mycobacterium gordonae. Gene, 1993, 131, 153-154.	2.2	9
80	Unraveling the role of the transcriptional regulator VirS in low pHâ€"induced responses of Mycobacterium tuberculosis and identification of VirS inhibitors. Journal of Biological Chemistry, 2019, 294, 10055-10075.	3.4	9
81	Role of polyamines in the synthesis of RNA in mycobacteria. Molecular and Cellular Biochemistry, 1987, 78, 3-8.	3.1	8
82	MfoAI, a novel isoschizomer ofHaeIII fromMycobacterium fortuitumrecognizing 5â€²-GG/CC-3â€². Nucleic Acids Research, 1992, 20, 2890-2890.	14.5	8
83	Boosting with recombinant MVA expressing M. tuberculosis Î±-crystallin antigen augments the protection imparted by BCG against tuberculosis in guinea pigs. Scientific Reports, 2017, 7, 17286.	3.3	8
84	Apurinic/Apyrimidinic Endonucleases of Mycobacterium tuberculosis Protect against DNA Damage but Are Dispensable for the Growth of the Pathogen in Guinea Pigs. PLoS ONE, 2014, 9, e92035.	2.5	7
85	Prospects for the chemotherapy of cancer using analogs ofl-aspartic acid. Trends in Pharmacological Sciences, 1983, 4, 299-304.	8.7	6
86	KefB inhibits phagosomal acidification but its role is unrelated to M. tuberculosis survival in host. Scientific Reports, 2013, 3, 3527.	3.3	6
87	Determinants of the toxicity of L-alanosine to various organs of the mouse. Toxicology, 1981, 21, 59-69.	4.2	5
88	Diversity in Functional Organization of Class I and Class II Biotin Protein Ligase. PLoS ONE, 2011, 6, e16850.	2.5	5
89	Modulation of arginine decarboxylase activity from Mycobacterium smegmatis. Evidence for pyridoxal-5'-phosphate-mediated conformational changes in the enzyme. FEBS Journal, 1989, 183, 339-345.	0.2	4
90	Inhibition of ABCG2 efflux pumps renders the Mycobacterium tuberculosis hiding in mesenchymal stem cells responsive to antibiotic treatment. Infection, Genetics and Evolution, 2021, 87, 104662.	2.3	4

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91	A radiometric technique for the measurement of adenylosuccinate lyase. Journal of Proteomics, 1980, 2, 291-297.	2.4	3
92	Recent Advances in Tuberculosis Research in India. Advances in Biochemical Engineering/Biotechnology, 2003, 84, 211-273.	1.1	3
93	Recombinant BCG approach for development of vaccines: cloning and expression of immunodominant antigens of M. tuberculosis. FEMS Microbiology Letters, 2000, 190, 309-316.	1.8	3
94	Regulation of ornithine decarboxylase from Mycobacterium smegmatis. Archives of Biochemistry and Biophysics, 1988, 264, 288-294.	3.0	2
95	Reply to Jones and Niederweis. Journal of Infectious Diseases, 2014, 209, 971-972.	4.0	2
96	Challenges and Advances in TB Drug Discovery. , 2019, , 463-495.		2
97	Benzofurano derivatives of coumarins as possible antifertility agents. Journal of Heterocyclic Chemistry, 1985, 22, 235-237.	2.6	1
98	Crystallization and preliminary X-ray diffraction analysis of biotin acetyl-CoA carboxylase ligase (BirA) fromMycobacterium tuberculosis. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 524-527.	0.7	1
99	Response of the authors to the letter entitled, â€œWarning: Differences in the copy number of duplication unit 2 (DU2) within BCG Danish 1331 may influence findings involving genetically-modified BCG Danish strainsâ€•by Dr. Douglas S. Kernodle. Vaccine, 2012, 30, 6015.	3.8	0
100	The Role of Mycobacterial Kinases and Phosphatases in Growth, Pathogenesis, and Cell Wall Metabolism. , 0, , 323-343.		0