

# Abdussalam Azem

## List of Publications by Year in descending order

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72  
papers

2,483  
citations

136740

32  
h-index

214527

47  
g-index

76  
all docs

76  
docs citations

76  
times ranked

3105  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hsp70 chaperones accelerate protein translocation and the unfolding of stable protein aggregates by entropic pulling. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6166-6171.	3.3	220
2	The effect of nucleotides and mitochondrial chaperonin 10 on the structure and chaperone activity of mitochondrial chaperonin 60. FEBS Journal, 2001, 268, 3465-3472.	0.2	96
3	Role of Tim50 in the Transfer of Precursor Proteins from the Outer to the Inner Membrane of Mitochondria. Molecular Biology of the Cell, 2009, 20, 1400-1407.	0.9	96
4	Crystal structure of the human mitochondrial chaperonin symmetrical football complex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6044-6049.	3.3	92
5	Maintenance of structure and function of mitochondrial Hsp70 chaperones requires the chaperone Hep1. EMBO Journal, 2005, 24, 1046-1056.	3.5	89
6	Dicarboxylic amino acids and glycine-betaine regulate chaperone-mediated protein-disaggregation under stress. Molecular Microbiology, 2003, 49, 401-410.	1.2	82
7	GroEL and CCT are catalytic unfoldases mediating out-of-cage polypeptide refolding without ATP. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7199-7204.	3.3	75
8	Reconstitution of Higher Plant Chloroplast Chaperonin 60 Tetradecamers Active in Protein Folding. Journal of Biological Chemistry, 2000, 275, 11829-11835.	1.6	70
9	Type I chaperonins: not all are created equal. FEBS Letters, 2002, 529, 1-5.	1.3	64
10	The Mitochondrial hsp70 Chaperone System. Journal of Biological Chemistry, 1997, 272, 20901-20906.	1.6	63
11	Interaction of Tim23 with Tim50 Is Essential for Protein Translocation by the Mitochondrial TIM23 Complex. Journal of Biological Chemistry, 2009, 284, 4865-4872.	1.6	56
12	Effect of Divalent Cations on the Molecular Structure of the GroEL Oligomer. Biochemistry, 1994, 33, 6671-6675.	1.2	50
13	Direct Interaction of Mitochondrial Targeting Presequences with Purified Components of the TIM23 Protein Complex. Journal of Biological Chemistry, 2011, 286, 43809-43815.	1.6	50
14	The complexity of chloroplast chaperonins. Trends in Plant Science, 2013, 18, 688-694.	4.3	50
15	The MitCHAP-60 Disease Is Due to Entropic Destabilization of the Human Mitochondrial Hsp60 Oligomer. Journal of Biological Chemistry, 2009, 284, 28198-28203.	1.6	49
16	Reconstitution of the mitochondrial Hsp70 (mortalin)â€p53 interaction using purified proteins â€“ Identification of additional interacting regions. FEBS Letters, 2010, 584, 1080-1084.	1.3	47
17	Understanding the molecular mechanism of protein translocation across the mitochondrial inner membrane: Still a long way to go. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 990-1001.	1.4	45
18	Structural basis for active single and double ring complexes in human mitochondrial Hsp60-Hsp10 chaperonin. Nature Communications, 2020, 11, 1916.	5.8	44

#	ARTICLE	IF	CITATIONS
19	Cooperation of TOM and TIM23 Complexes during Translocation of Proteins into Mitochondria. <i>Journal of Molecular Biology</i> , 2015, 427, 1075-1084.	2.0	43
20	PrrC-anticodon nuclease: functional organization of a prototypical bacterial restriction RNase. <i>Nucleic Acids Research</i> , 2006, 34, 3209-3219.	6.5	42
21	Reactivation of protein aggregates by mortalin and Tid1—the human mitochondrial Hsp70 chaperone system. <i>Cell Stress and Chaperones</i> , 2012, 17, 57-66.	1.2	42
22	Crystal and Solution Studies of the $\alpha$ -Plus-Ca <sup>2+</sup> -Odorant-binding Protein 48 from <i>Anopheles gambiae</i> . <i>Journal of Biological Chemistry</i> , 2013, 288, 33427-33438.	1.6	42
23	Methylation-controlled J-protein MCJ acts in the import of proteins into human mitochondria. <i>Human Molecular Genetics</i> , 2013, 22, 1348-1357.	1.4	42
24	Homozygous stop mutation in AHR causes autosomal recessive foveal hypoplasia and infantile nystagmus. <i>Brain</i> , 2019, 142, 1528-1534.	3.7	41
25	Cpn20: Siamese twins of the chaperonin world. <i>Plant Molecular Biology</i> , 2009, 69, 227-238.	2.0	40
26	GroES binding regulates GroEL chaperonin activity under heat shock. <i>FEBS Letters</i> , 1997, 407, 215-219.	1.3	39
27	The TIM23 mitochondrial protein import complex: function and dysfunction. <i>Cell and Tissue Research</i> , 2017, 367, 33-41.	1.5	39
28	Effects of a Mutation in the HSPE1 Gene Encoding the Mitochondrial Co-chaperonin HSP10 and Its Potential Association with a Neurological and Developmental Disorder. <i>Frontiers in Molecular Biosciences</i> , 2016, 3, 65.	1.6	38
29	Increased Efficiency of GroE-assisted Protein Folding by Manganese Ions. <i>Journal of Biological Chemistry</i> , 1995, 270, 28387-28391.	1.6	37
30	Interaction of the Tim44 C-Terminal Domain with Negatively Charged Phospholipids. <i>Biochemistry</i> , 2009, 48, 11185-11195.	1.2	36
31	A new class of bio-composite materials of unique collagen fibers. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 36, 71-81.	1.5	35
32	The Interplay between Components of the Mitochondrial Protein Translocation Motor Studied Using Purified Components. <i>Journal of Biological Chemistry</i> , 2007, 282, 33935-33942.	1.6	34
33	The changing pattern of consanguinity in a selected region of the Israeli Arab community. <i>American Journal of Human Biology</i> , 2008, 20, 72-77.	0.8	32
34	Identification of Elements That Dictate the Specificity of Mitochondrial Hsp60 for Its Co-Chaperonin. <i>PLoS ONE</i> , 2012, 7, e50318.	1.1	32
35	Deletion of the C-terminal 138 amino acids of the wheat FKBP73 abrogates calmodulin binding, dimerization and male fertility in transgenic rice. <i>Plant Molecular Biology</i> , 2002, 48, 369-381.	2.0	29
36	GxxxG motifs hold the TIM23 complex together. <i>FEBS Journal</i> , 2015, 282, 2178-2186.	2.2	29

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37	Role of Tim17 in coupling the import motor to the translocation channel of the mitochondrial presequence translocase. <i>ELife</i> , 2017, 6, .	2.8	29
38	On the oligomeric state of chloroplast chaperonin 10 and chaperonin 20. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003, 1651, 76-84.	1.1	28
39	Mitochondrial epileptic encephalopathy, 3- $\alpha$ -methylglutaconic aciduria and variable complex V deficiency associated with <i>TIMM50</i> mutations. <i>Clinical Genetics</i> , 2017, 91, 690-696.	1.0	28
40	Crystallization and structure determination of a symmetrical 'football' complex of the mammalian mitochondrial Hsp60/Hsp10 chaperonins. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2014, 70, 116-119.	0.4	26
41	Dynamic Complexes in the Chaperonin-Mediated Protein Folding Cycle. <i>Frontiers in Molecular Biosciences</i> , 2016, 3, 80.	1.6	26
42	The Mitochondrial Protein Translocation Motor: Structural Conservation between the Human and Yeast Tim14/Pam18-Tim16/Pam16 co-Chaperones. <i>International Journal of Molecular Sciences</i> , 2009, 10, 2041-2053.	1.8	21
43	Significance of the N-terminal Domain for the Function of Chloroplast cpn20 Chaperonin*. <i>Journal of Biological Chemistry</i> , 2007, 282, 4463-4469.	1.6	20
44	Differential effects of co-chaperonin homologs on cpn60 oligomers. <i>Cell Stress and Chaperones</i> , 2009, 14, 509-519.	1.2	20
45	First-line exome sequencing in Palestinian and Israeli Arabs with neurological disorders is efficient and facilitates disease gene discovery. <i>European Journal of Human Genetics</i> , 2020, 28, 1034-1043.	1.4	20
46	[22] Structural analysis of GroE chaperonin complexes using chemical cross-linking. <i>Methods in Enzymology</i> , 1998, 290, 253-268.	0.4	19
47	Chloroplast $\beta^2$ chaperonins from <i>A. thaliana</i> function with endogenous cpn10 homologs in vitro. <i>Plant Molecular Biology</i> , 2011, 77, 105-115.	2.0	19
48	Clinical, radiological, and genetic characteristics of 16 patients with <i>ACO2</i> gene defects: Delineation of an emerging neurometabolic syndrome. <i>Journal of Inherited Metabolic Disease</i> , 2019, 42, 264-275.	1.7	18
49	Conformational properties of bacterial DnaK and yeast mitochondrial Hsp70. <i>FEBS Journal</i> , 2005, 272, 3184-3196.	2.2	16
50	Two-Step Purification of Mitochondrial Hsp70, Ssc1p, Using Mge1(His)6 Immobilized on Ni-Agarose. <i>Protein Expression and Purification</i> , 2002, 24, 268-273.	0.6	15
51	The Pam18/Tim14-Pam16/Tim16 complex of the mitochondrial translocation motor: The formation of a stable complex from marginally stable proteins. <i>Protein Science</i> , 2006, 16, 316-322.	3.1	15
52	The Cpn10(1) Co-Chaperonin of <i>A. thaliana</i> Functions Only as a Hetero-Oligomer with Cpn20. <i>PLoS ONE</i> , 2014, 9, e113835.	1.1	15
53	Comparative screening of FMF mutations in various communities of the Israeli society. <i>European Journal of Medical Genetics</i> , 2013, 56, 351-355.	0.7	14
54	A mutagenesis analysis of Tim50, the major receptor of the TIM23 complex, identifies regions that affect its interaction with Tim23. <i>Scientific Reports</i> , 2019, 9, 1012.	1.6	13

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55	Haploinsufficiency due to a novel ACO2 deletion causes mitochondrial dysfunction in fibroblasts from a patient with dominant optic nerve atrophy. <i>Scientific Reports</i> , 2020, 10, 16736.	1.6	12
56	The mitochondrial 60-kDa heat shock protein in marine invertebrates: biochemical purification and molecular characterization. <i>Cell Stress and Chaperones</i> , 2004, 9, 38.	1.2	11
57	In Vivo Dissection of the Intrinsically Disordered Receptor Domain of Tim23. <i>Journal of Molecular Biology</i> , 2020, 432, 3326-3337.	2.0	10
58	Mental retardation and consanguinity in a selected region of the Israeli Arab community. <i>Open Medicine (Poland)</i> , 2010, 5, 91-96.	0.6	9
59	<i>P. falciparum</i> cpn20 Is a Bona Fide Co-Chaperonin That Can Replace GroES in <i>E. coli</i> . <i>PLoS ONE</i> , 2013, 8, e53909.	1.1	9
60	Homozygous mutation in <i>PTRH2</i> gene causes progressive sensorineural deafness and peripheral neuropathy. <i>American Journal of Medical Genetics, Part A</i> , 2017, 173, 1051-1055.	0.7	9
61	A novel biallelic loss-of-function mutation in <i>TMCO1</i> gene confirming and expanding the phenotype spectrum of cerebrofaciothoracic dysplasia. <i>American Journal of Medical Genetics, Part A</i> , 2019, 179, 1338-1345.	0.7	9
62	A novel variant of the human mitochondrial DnaJ protein, Tid1, associates with a human disease exhibiting developmental delay and polyneuropathy. <i>European Journal of Human Genetics</i> , 2019, 27, 1072-1080.	1.4	9
63	Over-expression of highly conserved mitochondrial 70-kDa heat-shock protein in the sea anemone <i>Anemonia viridis</i> . <i>Journal of Thermal Biology</i> , 2007, 32, 367-373.	1.1	6
64	Cross-linking with bifunctional reagents and its application to the study of the molecular symmetry and the arrangement of subunits in hexameric protein oligomers. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2010, 1804, 768-780.	1.1	5
65	Tracking the Interplay between Bound Peptide and the Lid Domain of DnaK, Using Molecular Dynamics. <i>International Journal of Molecular Sciences</i> , 2013, 14, 12675-12695.	1.8	4
66	Reconstitution of Pure Chaperonin Hetero-Oligomer Preparations in Vitro by Temperature Modulation. <i>Frontiers in Molecular Biosciences</i> , 2018, 5, 5.	1.6	3
67	Deletion of Mgr2p Affects the Gating Behavior of the TIM23 Complex. <i>Frontiers in Physiology</i> , 2019, 9, 1960.	1.3	3
68	Gene and Protein Expression in Subjects With a Nystagmus-Associated AHR Mutation. <i>Frontiers in Genetics</i> , 2020, 11, 582796.	1.1	2
69	Many Faces of Mortalin and Tid1. , 2012, , 225-244.		2
70	Unraveling the genetic cause of hereditary ophthalmic disorders in Arab societies from Israel and the Palestinian Authority. <i>European Journal of Human Genetics</i> , 2020, 28, 742-753.	1.4	1
71	Classical biochemistry reveals the complexity of the mitochondrial protein import system. <i>FEBS Letters</i> , 2017, 591, 255-256.	1.3	0
72	Editorial: Type I Chaperonins: Mechanism and Beyond. <i>Frontiers in Molecular Biosciences</i> , 2018, 5, 72.	1.6	0