

# Amir Aharoni

## List of Publications by Year in descending order

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66  
papers

4,351  
citations

236612

25  
h-index

110170

64  
g-index

74  
all docs

74  
docs citations

74  
times ranked

5914  
citing authors

#	ARTICLE	IF	CITATIONS
1	The 'evolvability' of promiscuous protein functions. <i>Nature Genetics</i> , 2005, 37, 73-76.	9.4	742
2	Structure and evolution of the serum paraoxonase family of detoxifying and anti-atherosclerotic enzymes. <i>Nature Structural and Molecular Biology</i> , 2004, 11, 412-419.	3.6	569
3	Automated Structure- and Sequence-Based Design of Proteins for High Bacterial Expression and Stability. <i>Molecular Cell</i> , 2016, 63, 337-346.	4.5	363
4	Directed evolution of mammalian paraoxonases PON1 and PON3 for bacterial expression and catalytic specialization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 482-487.	3.3	275
5	High-throughput screening methodology for the directed evolution of glycosyltransferases. <i>Nature Methods</i> , 2006, 3, 609-614.	9.0	211
6	High-Throughput Screening of Enzyme Libraries: Thiolactonases Evolved by Fluorescence-Activated Sorting of Single Cells in Emulsion Compartments. <i>Chemistry and Biology</i> , 2005, 12, 1281-1289.	6.2	197
7	High-throughput screens and selections of enzyme-encoding genes. <i>Current Opinion in Chemical Biology</i> , 2005, 9, 210-216.	2.8	187
8	Proliferating Cell Nuclear Antigen Is a Novel Inhibitory Ligand for the Natural Cytotoxicity Receptor NKp44. <i>Journal of Immunology</i> , 2011, 187, 5693-5702.	0.4	176
9	Covalent Inhibition of Bacterial Quorum Sensing. <i>Journal of the American Chemical Society</i> , 2009, 131, 10610-10619.	6.6	172
10	Fusion Peptides Derived from the HIV Type 1 Glycoprotein 41 Associate within Phospholipid Membranes and Inhibit Cell-Cell Fusion. <i>Journal of Biological Chemistry</i> , 1997, 272, 13496-13505.	1.6	152
11	Directed evolution of proteins for heterologous expression and stability. <i>Current Opinion in Structural Biology</i> , 2005, 15, 50-56.	2.6	122
12	Surface Display of Redox Enzymes in Microbial Fuel Cells. <i>Journal of the American Chemical Society</i> , 2009, 131, 12052-12053.	6.6	100
13	Fine-tuning of the Msn2/4-mediated yeast stress responses as revealed by systematic deletion of Msn2/4 partners. <i>Molecular Biology of the Cell</i> , 2011, 22, 3127-3138.	0.9	75
14	Pif1 is essential for efficient replisome progression through lagging strand G-quadruplex DNA secondary structures. <i>Nucleic Acids Research</i> , 2018, 46, 11847-11857.	6.5	75
15	Targeting Deubiquitinases Enabled by Chemical Synthesis of Proteins. <i>Journal of the American Chemical Society</i> , 2012, 134, 3281-3289.	6.6	67
16	Coevolution Predicts Direct Interactions between mtDNA-Encoded and nDNA-Encoded Subunits of Oxidative Phosphorylation Complex I. <i>Journal of Molecular Biology</i> , 2010, 404, 158-171.	2.0	66
17	The Molecular Basis for the Broad Substrate Specificity of Human Sulfotransferase 1A1. <i>PLoS ONE</i> , 2011, 6, e26794.	1.1	54
18	Inter-ring Communication is Disrupted in the GroEL Mutant Arg13 → Gly; Ala126 → Val with Known Crystal Structure. <i>Journal of Molecular Biology</i> , 1996, 258, 732-735.	2.0	48

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19	Condition-specific genetic interaction maps reveal crosstalk between the <i>cAMP</i> and <i>PKA</i> and the <i>HOG MAPK</i> pathways in the activation of the general stress response. <i>Molecular Systems Biology</i> , 2015, 11, 829.	3.2	46
20	Sequential switching of binding partners on PCNA during in vitro Okazaki fragment maturation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14118-14123.	3.3	45
21	Subtle Alterations in PCNA-Partner Interactions Severely Impair DNA Replication and Repair. <i>PLoS Biology</i> , 2010, 8, e1000507.	2.6	39
22	Tight coevolution of proliferating cell nuclear antigen (PCNA)-partner interaction networks in fungi leads to interspecies network incompatibility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E406-14.	3.3	37
23	Interplay of metagenomics and <i>in vitro</i> compartmentalization. <i>Microbial Biotechnology</i> , 2009, 2, 31-39.	2.0	29
24	A Live-Cell Imaging Approach for Measuring DNA Replication Rates. <i>Cell Reports</i> , 2018, 24, 252-258.	2.9	28
25	Bacteriorhodopsin Experiences Light-induced Conformational Alterations in Nonisomerizable C13=C14 Pigments. <i>Journal of Biological Chemistry</i> , 2000, 275, 21010-21016.	1.6	27
26	Harnessing the Oxidation Susceptibility of Deubiquitinases for Inhibition with Small Molecules. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 599-603.	7.2	27
27	The Transition of Human Estrogen Sulfotransferase from Generalist to Specialist Using Directed Enzyme Evolution. <i>Journal of Molecular Biology</i> , 2012, 416, 21-32.	2.0	23
28	Conserved Motifs in the Msn2-Activating Domain are Important for Msn2-Mediated Yeast Stress Response. <i>Journal of Cell Science</i> , 2012, 125, 3333-42.	1.2	22
29	A continuous kinetic assay for protein and DNA methyltransferase enzymatic activities. <i>Epigenetics and Chromatin</i> , 2015, 8, 56.	1.8	21
30	Marker-free genetic manipulations in yeast using CRISPR/CAS9 system. <i>Current Genetics</i> , 2018, 64, 1129-1139.	0.8	21
31	Protein- $\pi^2$ -Ionone Ring Interactions Enhance the Light-Induced Dipole of the Chromophore in Bacteriorhodopsin. <i>Journal of Physical Chemistry B</i> , 2003, 107, 6221-6225.	1.2	20
32	Directed Evolution of a Soluble Human IL-17A Receptor for the Inhibition of Psoriasis Plaque Formation in a Mouse Model. <i>Chemistry and Biology</i> , 2013, 20, 202-211.	6.2	17
33	Novel Hybrid Esterase-Haloacid Dehalogenase Enzyme. <i>ChemBioChem</i> , 2010, 11, 1975-1978.	1.3	16
34	Protein co-evolution: how do we combine bioinformatics and experimental approaches?. <i>Molecular BioSystems</i> , 2013, 9, 175-181.	2.9	16
35	CNN Based Yeast Cell Segmentation in Multi-modal Fluorescent Microscopy Data. , 2017, , .		16
36	Evolution in Microfluidic Droplet. <i>Chemistry and Biology</i> , 2012, 19, 929-931.	6.2	13

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37	The functional importance of co-evolving residues in proteins. <i>Cellular and Molecular Life Sciences</i> , 2014, 71, 673-682.	2.4	12
38	The evolution of a G1/S transcriptional network in yeasts. <i>Current Genetics</i> , 2018, 64, 81-86.	0.8	12
39	Transcription-replication coordination revealed in single live cells. <i>Nucleic Acids Research</i> , 2022, 50, 2143-2156.	6.5	12
40	Mining for new enzymes. <i>Microbial Biotechnology</i> , 2009, 2, 128-129.	2.0	11
41	Gene duplication and co-evolution of G1/S transcription factor specificity in fungi are essential for optimizing cell fitness. <i>PLoS Genetics</i> , 2017, 13, e1006778.	1.5	11
42	Directed evolution of SIRT6 for improved deacylation and glucose homeostasis maintenance. <i>Scientific Reports</i> , 2018, 8, 3538.	1.6	11
43	Point Mutation of a Non-Elastase-Binding Site in Human $\alpha_1$ -Antitrypsin Alters Its Anti-Inflammatory Properties. <i>Frontiers in Immunology</i> , 2018, 9, 759.	2.2	11
44	Experimental analysis of co-evolution within protein complexes: The yeast exosome as a model. <i>Proteins: Structure, Function and Bioinformatics</i> , 2013, 81, 1997-2006.	1.5	10
45	Light-Induced Hydrolysis and Rebinding of Nonisomerizable Bacteriorhodopsin Pigment. <i>Biophysical Journal</i> , 2002, 82, 2617-2626.	0.2	9
46	Computational protein design suggests that human PCNA $\epsilon$ partner interactions are not optimized for affinity. <i>Proteins: Structure, Function and Bioinformatics</i> , 2013, 81, 341-348.	1.5	9
47	Increased Potency of a Bi-specific TL1A-ADAM17 (TACE) Inhibitor by Cell Surface Targeting. <i>Frontiers in Molecular Biosciences</i> , 2017, 4, 61.	1.6	8
48	Proteasome accessory factor A (PafA) transferase activity makes sense in the light of its homology with glutamine synthetase. <i>Journal of Molecular Biology</i> , 2018, 430, 668-681.	2.0	8
49	Employing directed evolution for the functional analysis of multi-specific proteins. <i>Bioorganic and Medicinal Chemistry</i> , 2013, 21, 3511-3516.	1.4	7
50	Dissecting the Roles of the N $\epsilon$ - and C $\epsilon$ -Flanking Residues of Acetyllysine Substrates for SIRT1 Activity. <i>ChemBioChem</i> , 2013, 14, 577-581.	1.3	7
51	Directed evolution of a soluble human DR3 receptor for the inhibition of TL1A induced cytokine secretion. <i>PLoS ONE</i> , 2017, 12, e0173460.	1.1	7
52	Cac1 WHD and PIP domains have distinct roles in replisome progression and genomic stability. <i>Current Genetics</i> , 2021, 67, 129-139.	0.8	7
53	Enhanced PKMT-substrate recognition through non active-site interactions. <i>Biochemical and Biophysical Research Communications</i> , 2018, 501, 1029-1033.	1.0	6
54	Photoreduction of Bacteriorhodopsin Schiff Base at Low Humidity. A Study with C13=C14 Nonisomerizable Artificial Pigments $\epsilon$ . <i>Photochemistry and Photobiology</i> , 2002, 75, 668.	1.3	6

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55	Human SIRT1 Multispecificity Is Modulated by Active-Site Vicinity Substitutions during Natural Evolution. <i>Molecular Biology and Evolution</i> , 2021, 38, 545-556.	3.5	5
56	Directed evolution of recombinant serum paraoxonase (PON) variants. <i>Discovery Medicine</i> , 2004, 4, 120-4.	0.5	5
57	A bi-specific inhibitor targeting IL-17A and MMP-9 reduces invasion and motility in MDA-MB-231 cells. <i>Oncotarget</i> , 2018, 9, 28500-28513.	0.8	4
58	Engineering of Methylation State Specific 3xMBT Domain Using ELISA Screening. <i>PLoS ONE</i> , 2016, 11, e0154207.	1.1	3
59	Evolved to overcome Bt-toxin resistance. <i>Nature</i> , 2016, 533, 39-40.	13.7	2
60	A Bacterial Quorum Sensing Molecule Elicits a General Stress Response in <i>Saccharomyces cerevisiae</i> . <i>Frontiers in Microbiology</i> , 2021, 12, 632658.	1.5	2
61	Application of directed evolution and back-to-consensus algorithms to human alpha1-antitrypsin leads to diminished anti-protease activity and augmented anti-inflammatory activities. <i>Cellular Immunology</i> , 2020, 355, 104135.	1.4	2
62	Editorial overview: Engineering, evolving, and designing proteins. <i>Current Opinion in Structural Biology</i> , 2021, 69, iii-v.	2.6	1
63	Serum paraoxonase PON1 and its interactions with HDL. <i>FASEB Journal</i> , 2008, 22, 811.1.	0.2	1
64	High-throughput Screens and Selections of Enzyme-encoding Genes. , 2006, , 163-181.		0
65	Photoreduction of Bacteriorhodopsin Schiff Base at Low Humidity. A Study with C13=C14 Nonisomerizable Artificial Pigments. <i>Photochemistry and Photobiology</i> , 2007, 75, 668-674.	1.3	0
66	A KLK4 proteinase substrate capture approach to antagonize PAR1. <i>Scientific Reports</i> , 2021, 11, 16170.	1.6	0