

# Avner Schlessinger

## List of Publications by Year in descending order

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Version: 2024-02-01

87  
papers

5,444  
citations

94433

37  
h-index

91884

69  
g-index

101  
all docs

101  
docs citations

101  
times ranked

8308  
citing authors

#	ARTICLE	IF	CITATIONS
1	PredictProtein – an open resource for online prediction of protein structural and functional features. <i>Nucleic Acids Research</i> , 2014, 42, W337-W343.	14.5	589
2	Ligand discovery from a dopamine D3 receptor homology model and crystal structure. <i>Nature Chemical Biology</i> , 2011, 7, 769-778.	8.0	285
3	Impaired Amino Acid Transport at the Blood Brain Barrier Is a Cause of Autism Spectrum Disorder. <i>Cell</i> , 2016, 167, 1481-1494.e18.	28.9	265
4	Crystal structure of a eukaryotic phosphate transporter. <i>Nature</i> , 2013, 496, 533-536.	27.8	202
5	Function of human Rh based on structure of RhCG at 2.1 Å. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9638-9643.	7.1	178
6	Structure-based ligand discovery for the Large-neutral Amino Acid Transporter 1, LAT-1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 5480-5485.	7.1	173
7	Improved Disorder Prediction by Combination of Orthogonal Approaches. <i>PLoS ONE</i> , 2009, 4, e4433.	2.5	170
8	Protein flexibility and rigidity predicted from sequence. <i>Proteins: Structure, Function and Bioinformatics</i> , 2005, 61, 115-126.	2.6	161
9	SLC transporters: structure, function, and drug discovery. <i>MedChemComm</i> , 2016, 7, 1069-1081.	3.4	152
10	Evolution of modular intraflagellar transport from a coatomer-like progenitor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 6943-6948.	7.1	144
11	PROFbval: predict flexible and rigid residues in proteins. <i>Bioinformatics</i> , 2006, 22, 891-893.	4.1	135
12	PredictProtein - Predicting Protein Structure and Function for 29 Years. <i>Nucleic Acids Research</i> , 2021, 49, W535-W540.	14.5	135
13	Structure-based discovery of prescription drugs that interact with the norepinephrine transporter, NET. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 15810-15815.	7.1	120
14	Artificial intelligence and machine learning-aided drug discovery in central nervous system diseases: State-of-the-art and future directions. <i>Medicinal Research Reviews</i> , 2021, 41, 1427-1473.	10.5	120
15	Natively unstructured regions in proteins identified from contact predictions. <i>Bioinformatics</i> , 2007, 23, 2376-2384.	4.1	118
16	Molecular Basis for Redox Activation of Epidermal Growth Factor Receptor Kinase. <i>Cell Chemical Biology</i> , 2016, 23, 837-848.	5.2	100
17	Comparison of human solute carriers. <i>Protein Science</i> , 2010, 19, 412-428.	7.6	99
18	Structural basis for alternating access of a eukaryotic calcium/proton exchanger. <i>Nature</i> , 2013, 499, 107-110.	27.8	87

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19	Molecular Modeling and Ligand Docking for Solute Carrier (SLC) Transporters. <i>Current Topics in Medicinal Chemistry</i> , 2013, 13, 843-856.	2.1	85
20	Natively Unstructured Loops Differ from Other Loops. <i>PLoS Computational Biology</i> , 2007, 3, e140.	3.2	84
21	Epitome: database of structure-inferred antigenic epitopes. <i>Nucleic Acids Research</i> , 2006, 34, D777-D780.	14.5	78
22	Large-Scale Analysis of Thermostable, Mammalian Proteins Provides Insights into the Intrinsically Disordered Proteome. <i>Journal of Proteome Research</i> , 2009, 8, 211-226.	3.7	76
23	Automated Identification of Complementarity Determining Regions (CDRs) Reveals Peculiar Characteristics of CDRs and B Cell Epitopes. <i>Journal of Immunology</i> , 2008, 181, 6230-6235.	0.8	73
24	Loss-of-function variants of SETD5 cause intellectual disability and the core phenotype of microdeletion 3p25.3 syndrome. <i>European Journal of Human Genetics</i> , 2015, 23, 753-760.	2.8	73
25	Genetic Polymorphisms in Organic Cation Transporter 1 (OCT1) in Chinese and Japanese Populations Exhibit Altered Function. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2010, 335, 42-50.	2.5	72
26	Redefining the Protein Kinase Conformational Space with Machine Learning. <i>Cell Chemical Biology</i> , 2018, 25, 916-924.e2.	5.2	65
27	Integrative Structure Modeling of Macromolecular Assemblies from Proteomics Data. <i>Molecular and Cellular Proteomics</i> , 2010, 9, 1689-1702.	3.8	64
28	Coordinating the impact of structural genomics on the human $\alpha$ -helical transmembrane proteome. <i>Nature Structural and Molecular Biology</i> , 2013, 20, 135-138.	8.2	64
29	Ligand Discovery for the Alanine-Serine-Cysteine Transporter (ASCT2, SLC1A5) from Homology Modeling and Virtual Screening. <i>PLoS Computational Biology</i> , 2015, 11, e1004477.	3.2	62
30	Mutations in the Na <sup>+</sup> /Citrate Cotransporter NaCT (SLC13A5) in Pediatric Patients with Epilepsy and Developmental Delay. <i>Molecular Medicine</i> , 2016, 22, 310-321.	4.4	59
31	A whole-animal platform to advance a clinical kinase inhibitor into new disease space. <i>Nature Chemical Biology</i> , 2018, 14, 291-298.	8.0	56
32	LAT1 activity of carboxylic acid bioisosteres: Evaluation of hydroxamic acids as substrates. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 5000-5006.	2.2	54
33	Reevaluating the Substrate Specificity of the L-Type Amino Acid Transporter (LAT1). <i>Journal of Medicinal Chemistry</i> , 2018, 61, 7358-7373.	6.4	54
34	LAT-1 activity of meta-substituted phenylalanine and tyrosine analogs. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 2616-2621.	2.2	53
35	High Selectivity of the $\beta$ -Aminobutyric Acid Transporter 2 (GAT-2, SLC6A13) Revealed by Structure-based Approach. <i>Journal of Biological Chemistry</i> , 2012, 287, 37745-37756.	3.4	49
36	Inhibitor Discovery for the Human GLUT1 from Homology Modeling and Virtual Screening. <i>ACS Chemical Biology</i> , 2016, 11, 1908-1916.	3.4	49

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37	Molecular Modeling of Drug-Transporter Interactions An International Transporter Consortium Perspective. <i>Clinical Pharmacology and Therapeutics</i> , 2018, 104, 818-835.	4.7	43
38	Crowdsourced mapping of unexplored target space of kinase inhibitors. <i>Nature Communications</i> , 2021, 12, 3307.	12.8	41
39	Advances and Challenges in Rational Drug Design for SLCs. <i>Trends in Pharmacological Sciences</i> , 2019, 40, 790-800.	8.7	40
40	An IRAK1-PIN1 signalling axis drives intrinsic tumour resistance to radiation therapy. <i>Nature Cell Biology</i> , 2019, 21, 203-213.	10.3	38
41	DFGmodel: Predicting Protein Kinase Structures in Inactive States for Structure-Based Discovery of Type-II Inhibitors. <i>ACS Chemical Biology</i> , 2015, 10, 269-278.	3.4	37
42	Novel selective thiadiazine DYRK1A inhibitor lead scaffold with human pancreatic $\beta$ -cell proliferation activity. <i>European Journal of Medicinal Chemistry</i> , 2018, 157, 1005-1016.	5.5	36
43	Rational design of ASCT2 inhibitors using an integrated experimental-computational approach. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	35
44	An Overview of Cell-Based Assay Platforms for the Solute Carrier Family of Transporters. <i>Frontiers in Pharmacology</i> , 2021, 12, 722889.	3.5	31
45	Exploiting Allosteric Properties of RAF and MEK Inhibitors to Target Therapy-Resistant Tumors Driven by Oncogenic BRAF Signaling. <i>Cancer Discovery</i> , 2021, 11, 1716-1735.	9.4	30
46	Structure activity relationships of benzylproline-derived inhibitors of the glutamine transporter ASCT2. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 398-402.	2.2	29
47	Effects of Mutations and Ligands on the Thermostability of the L-Arginine/Agmatine Antiporter AdiC and Deduced Insights into Ligand-Binding of Human L-Type Amino Acid Transporters. <i>International Journal of Molecular Sciences</i> , 2018, 19, 918.	4.1	29
48	Association of Autism Spectrum Disorder With Prenatal Exposure to Medication Affecting Neurotransmitter Systems. <i>JAMA Psychiatry</i> , 2018, 75, 1217.	11.0	28
49	KinaMetrix: a web resource to investigate kinase conformations and inhibitor space. <i>Nucleic Acids Research</i> , 2019, 47, D361-D366.	14.5	28
50	Transcriptomic profiling of human cardiac cells predicts protein kinase inhibitor-associated cardiotoxicity. <i>Nature Communications</i> , 2020, 11, 4809.	12.8	28
51	Structures of ligand-occupied $\beta$ -Klotho complexes reveal a molecular mechanism underlying endocrine FGF specificity and activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 7819-7824.	7.1	27
52	Structure-Based Identification of Inhibitors for the SLC13 Family of Na <sup>+</sup> /Dicarboxylate Cotransporters. <i>Biochemistry</i> , 2015, 54, 4900-4908.	2.5	26
53	Determinants of Substrate and Cation Transport in the Human Na <sup>+</sup> /Dicarboxylate Cotransporter NaDC3. <i>Journal of Biological Chemistry</i> , 2014, 289, 16998-17008.	3.4	24
54	Interaction of <i>Bacillus subtilis</i> Polynucleotide Phosphorylase and RNase Y. <i>Journal of Biological Chemistry</i> , 2016, 291, 6655-6663.	3.4	24

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55	Novel alanine serine cysteine transporter 2 (ASCT2) inhibitors based on sulfonamide and sulfonic acid ester scaffolds. <i>Journal of General Physiology</i> , 2019, 151, 357-368.	1.9	24
56	High-Resolution Structure and Inhibition of the Schizophrenia-Linked Pseudokinase ULK4. <i>Journal of the American Chemical Society</i> , 2020, 142, 33-37.	13.7	24
57	Identification of newborns at risk for autism using electronic medical records and machine learning. <i>European Psychiatry</i> , 2020, 63, e22.	0.2	24
58	<i>SLC13A3</i> variants cause acute reversible leukoencephalopathy and ketoglutarate accumulation. <i>Annals of Neurology</i> , 2019, 85, 385-395.	5.3	22
59	Homology Modeling Informs Ligand Discovery for the Glutamine Transporter ASCT2. <i>Frontiers in Chemistry</i> , 2018, 6, 279.	3.6	21
60	Human neurons from Christianson syndrome iPSCs reveal mutation-specific responses to rescue strategies. <i>Science Translational Medicine</i> , 2021, 13, .	12.4	21
61	Identification of discriminative gene-level and protein-level features associated with pathogenic gain-of-function and loss-of-function variants. <i>American Journal of Human Genetics</i> , 2021, 108, 2301-2318.	6.2	21
62	Chemical Modulation of the Human Oligopeptide Transporter 1, hPepT1. <i>Molecular Pharmaceutics</i> , 2017, 14, 4685-4693.	4.6	20
63	Identification of a G-Protein-Independent Activator of GIRK Channels. <i>Cell Reports</i> , 2020, 31, 107770.	6.4	20
64	GEN3VA: aggregation and analysis of gene expression signatures from related studies. <i>BMC Bioinformatics</i> , 2016, 17, 461.	2.6	17
65	Human Concentrative Nucleoside Transporter 3 (hCNT3, SLC28A3) Forms a Cyclic Homotrimer. <i>Biochemistry</i> , 2017, 56, 3475-3483.	2.5	15
66	SLC16 Family: From Atomic Structure to Human Disease. <i>Trends in Biochemical Sciences</i> , 2021, 46, 28-40.	7.5	15
67	Encounter and React: Computer-Guided Design of Covalent Inhibitors. <i>Cell Chemical Biology</i> , 2019, 26, 6-8.	5.2	14
68	Multi-targeting Drug Community Challenge. <i>Cell Chemical Biology</i> , 2017, 24, 1434-1435.	5.2	13
69	l-Type amino acid transporter 1 activity of 1,2,3-triazolyl analogs of l-histidine and l-tryptophan. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 2254-2258.	2.2	13
70	Functional and structural analysis of rare SLC2A2 variants associated with Fanconi-Bickel syndrome and metabolic traits. <i>Human Mutation</i> , 2019, 40, 983-995.	2.5	13
71	Dual targeting of salt inducible kinases and CSF1R uncouples bone formation and bone resorption. <i>ELife</i> , 2021, 10, .	6.0	12
72	Environmental Pressure May Change the Composition Protein Disorder in Prokaryotes. <i>PLoS ONE</i> , 2015, 10, e0133990.	2.5	11

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73	Mapping Functionally Important Residues in the Na <sup>+</sup> /Dicarboxylate Cotransporter, NaDC1. <i>Biochemistry</i> , 2017, 56, 4432-4441.	2.5	10
74	Integrated computational and Drosophila cancer model platform captures previously unappreciated chemicals perturbing a kinase network. <i>PLoS Computational Biology</i> , 2019, 15, e1006878.	3.2	10
75	Maternal health around pregnancy and autism risk: a diagnosis-wide, population-based study. <i>Psychological Medicine</i> , 2022, 52, 4076-4084.	4.5	10
76	Generation of G protein-coupled receptor antibodies differentially sensitive to conformational states. <i>PLoS ONE</i> , 2017, 12, e0187306.	2.5	10
77	Exploring the conformational diversity of proteins. <i>ELife</i> , 2022, 11, .	6.0	10
78	Systems Pharmacology: An Overview. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2016, , 53-80.	0.6	7
79	Crowdsourced identification of multi-target kinase inhibitors for RET- and TAU- based disease: The Multi-Targeting Drug DREAM Challenge. <i>PLoS Computational Biology</i> , 2021, 17, e1009302.	3.2	7
80	Computing Substrate Selectivity in a Peptide Transporter. <i>Cell Chemical Biology</i> , 2016, 23, 211-213.	5.2	6
81	Type II Binders Targeting the $\alpha$ -GLR-Out Conformation of the Pseudokinase STRAD $\pm$ . <i>Biochemistry</i> , 2021, 60, 289-302.	2.5	6
82	The Effects of Prodrug Size and a Carbonyl Linker on $\alpha$ -Type Amino Acid Transporter 1 Targeted Cellular and Brain Uptake. <i>ChemMedChem</i> , 2021, 16, 869-880.	3.2	5
83	Protein structure-based gene expression signatures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	5
84	Interaction of the neutral amino acid transporter ASCT2 with basic amino acids. <i>Biochemical Journal</i> , 2020, 477, 1443-1457.	3.7	4
85	Alanine serine cysteine transporter (ASCT) substrate binding site properties probed with hydroxyhomoserine esters. <i>Journal of Physical Organic Chemistry</i> , 2022, 35, .	1.9	4
86	Co-expression and co-localization of hub proteins and their partners are encoded in protein sequence. <i>Molecular BioSystems</i> , 2014, 10, 787.	2.9	1
87	Inside Back Cover Image, Volume 41, Issue 3. <i>Medicinal Research Reviews</i> , 2021, 41, iii.	10.5	0