

# Kevin H Gardner

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6544964/publications.pdf>

Version: 2024-02-01

117  
papers

10,547  
citations

31902

53  
h-index

32761

100  
g-index

129  
all docs

129  
docs citations

129  
times ranked

9493  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Basis of a Phototropin Light Switch. <i>Science</i> , 2003, 301, 1541-1544.	6.0	708
2	THE USE OF $^2\text{H}$ , $^{13}\text{C}$ , $^{15}\text{N}$ MULTIDIMENSIONAL NMR TO STUDY THE STRUCTURE AND DYNAMICS OF PROTEINS. <i>Annual Review of Biophysics and Biomolecular Structure</i> , 1998, 27, 357-406.	18.3	561
3	Targeting renal cell carcinoma with a HIF-2 antagonist. <i>Nature</i> , 2016, 539, 112-117.	13.7	521
4	A robust and cost-effective method for the production of Val, Leu, Ile ( $\delta$ 1) methyl-protonated $^{15}\text{N}$ -, $^{13}\text{C}$ -, $^2\text{H}$ -labeled proteins. <i>Journal of Biomolecular NMR</i> , 1999, 13, 369-374.	1.6	461
5	White Collar-1, a DNA Binding Transcription Factor and a Light Sensor. <i>Science</i> , 2002, 297, 840-843.	6.0	401
6	Evolutionary information for specifying a protein fold. <i>Nature</i> , 2005, 437, 512-518.	13.7	374
7	An optogenetic gene expression system with rapid activation and deactivation kinetics. <i>Nature Chemical Biology</i> , 2014, 10, 196-202.	3.9	317
8	Selective Methyl Group Protonation of Perdeuterated Proteins. <i>Journal of Molecular Biology</i> , 1996, 263, 627-636.	2.0	292
9	Disruption of the LOV $\sim$ J $\pm$ Helix Interaction Activates Phototropin Kinase Activity. <i>Biochemistry</i> , 2004, 43, 16184-16192.	1.2	276
10	Production and Incorporation of $^{15}\text{N}$ , $^{13}\text{C}$ , $^2\text{H}$ ( $^1\text{H}$ - $^1\text{Methyl}$ ) Isoleucine into Proteins for Multidimensional NMR Studies. <i>Journal of the American Chemical Society</i> , 1997, 119, 7599-7600.	6.6	248
11	Artificial ligand binding within the HIF2 $\pm$ PAS-B domain of the HIF2 transcription factor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 450-455.	3.3	248
12	Global Folds of Highly Deuterated, Methyl-Protonated Proteins by Multidimensional NMR. <i>Biochemistry</i> , 1997, 36, 1389-1401.	1.2	244
13	Allosteric inhibition of hypoxia inducible factor-2 with small molecules. <i>Nature Chemical Biology</i> , 2013, 9, 271-276.	3.9	234
14	Structural basis for PAS domain heterodimerization in the basic helix-loop-helix-PAS transcription factor hypoxia-inducible factor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 15504-15509.	3.3	211
15	Identification of small-molecule antagonists that inhibit an activator:coactivator interaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 17622-17627.	3.3	180
16	Rationally improving LOV domain-based photoswitches. <i>Nature Methods</i> , 2010, 7, 623-626.	9.0	180
17	Blue-Light Receptors for Optogenetics. <i>Chemical Reviews</i> , 2018, 118, 10659-10709.	23.0	176
18	Structural basis of photosensitivity in a bacterial light-oxygen-voltage/helix-turn-helix (LOV-HTH) DNA-binding protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 9449-9454.	3.3	164

#	ARTICLE	IF	CITATIONS
19	Solution NMR spectroscopy beyond 25 kDa. <i>Current Opinion in Structural Biology</i> , 1997, 7, 722-731.	2.6	162
20	PAS Domain-Mediated WC-1/WC-2 Interaction Is Essential for Maintaining the Steady-State Level of WC-1 and the Function of Both Proteins in Circadian Clock and Light Responses of <i>Neurospora</i> . <i>Molecular and Cellular Biology</i> , 2002, 22, 517-524.	1.1	160
21	Structure of a bacterial BLUF photoreceptor: Insights into blue light-mediated signal transduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 12350-12355.	3.3	155
22	Tripping the Light Fantastic: Blue-Light Photoreceptors as Examples of Environmentally Modulated Protein-Protein Interactions. <i>Biochemistry</i> , 2011, 50, 4-16.	1.2	144
23	Solution NMR Studies of a 42 kDa <i>Escherichia Coli</i> Maltose Binding Protein/ $\beta$ -2-Cyclodextrin Complex: $\Delta$ Chemical Shift Assignments and Analysis. <i>Journal of the American Chemical Society</i> , 1998, 120, 11738-11748.	6.6	142
24	Structure and Interactions of PAS Kinase N-Terminal PAS Domain. <i>Structure</i> , 2002, 10, 1349-1361.	1.6	140
25	Estimation of the available free energy in a LOV2-J $\pm$ photoswitch. <i>Nature Chemical Biology</i> , 2008, 4, 491-497.	3.9	132
26	Assignment of $^{15}\text{N}$ , $^{13}\text{C}$ , $^{13}\text{C}$ , and HN Resonances in an $^{15}\text{N}$ , $^{13}\text{C}$ , $^2\text{H}$ Labeled 64 kDa Trp Repressor-Operator Complex Using Triple-Resonance NMR Spectroscopy and $^2\text{H}$ -Decoupling. <i>Journal of the American Chemical Society</i> , 1996, 118, 6570-6579.	6.6	131
27	On the acquisition and analysis of microscale thermophoresis data. <i>Analytical Biochemistry</i> , 2016, 496, 79-93.	1.1	130
28	Functional and topological diversity of LOV domain photoreceptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E1442-51.	3.3	125
29	Structural Basis of ARNT PAS-B Dimerization: Use of a Common Beta-sheet Interface for Hetero- and Homodimerization. <i>Journal of Molecular Biology</i> , 2005, 353, 664-677.	2.0	122
30	Molecular basis for peptidoglycan recognition by a bactericidal lectin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 7722-7727.	3.3	121
31	Principles of Ligand Binding within a Completely Buried Cavity in HIF-2 $\pm$ PAS-B. <i>Journal of the American Chemical Society</i> , 2009, 131, 17647-17654.	6.6	102
32	Development of Inhibitors of the PAS-B Domain of the HIF-2 $\pm$ Transcription Factor. <i>Journal of Medicinal Chemistry</i> , 2013, 56, 1739-1747.	2.9	101
33	Novel metal-binding proteins by design. <i>Nature Structural and Molecular Biology</i> , 1995, 2, 368-373.	3.6	100
34	A Conserved Glutamine Plays a Central Role in LOV Domain Signal Transmission and Its Duration. <i>Biochemistry</i> , 2008, 47, 13842-13849.	1.2	99
35	PAS kinase: An evolutionarily conserved PAS domain-regulated serine/threonine kinase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 8991-8996.	3.3	98
36	Signaling mechanisms of LOV domains: new insights from molecular dynamics studies. <i>Photochemical and Photobiological Sciences</i> , 2013, 12, 1158-1170.	1.6	97

#	ARTICLE	IF	CITATIONS
37	Regulation of Nuclear Import/Export of Carbohydrate Response Element-binding Protein (ChREBP). <i>Journal of Biological Chemistry</i> , 2008, 283, 24899-24908.	1.6	87
38	An NMR Experiment for Measuring Methyl <sup>13</sup> C-Methyl NOEs in <sup>13</sup> C-Labeled Proteins with High Resolution. <i>Journal of the American Chemical Society</i> , 1998, 120, 7617-7625.	6.6	86
39	Conformational Changes in a Photosensory LOV Domain Monitored by Time-Resolved NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2004, 126, 3390-3391.	6.6	86
40	An (H)C(CO)NH-TOCSY pulse scheme for sequential assignment of protonated methyl groups in otherwise deuterated <sup>15</sup> N, <sup>13</sup> C-labeled proteins. <i>Journal of Biomolecular NMR</i> , 1996, 8, 351-356.	1.6	85
41	Regulation of C-type Lectin Antimicrobial Activity by a Flexible N-terminal Prosegment. <i>Journal of Biological Chemistry</i> , 2009, 284, 4881-4888.	1.6	84
42	Full-length structure of a monomeric histidine kinase reveals basis for sensory regulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 17839-17844.	3.3	80
43	Blue Light-Induced Dimerization of a Bacterial LOV <sup>+</sup> HTH DNA-Binding Protein. <i>Biochemistry</i> , 2013, 52, 6653-6661.	1.2	75
44	Ligand modulation of sidechain dynamics in a wild-type human GPCR. <i>ELife</i> , 2017, 6, .	2.8	75
45	Functions of the Per/ARNT/Sim Domains of the Hypoxia-inducible Factor. <i>Journal of Biological Chemistry</i> , 2005, 280, 36047-36054.	1.6	72
46	Structure and Insight into Blue Light-Induced Changes in the BlrP1 BLUF Domain. <i>Biochemistry</i> , 2009, 48, 2620-2629.	1.2	72
47	TAE1: A zebrafish-optimized optogenetic gene expression system with fine spatial and temporal control. <i>Development (Cambridge)</i> , 2017, 144, 345-355.	1.2	67
48	Effectors of animal and plant pathogens use a common domain to bind host phosphoinositides. <i>Nature Communications</i> , 2013, 4, 2973.	5.8	62
49	Structure of the binuclear metal-binding site in the GAL4 transcription factor. <i>Biochemistry</i> , 1991, 30, 11292-11302.	1.2	61
50	The plug domain of FepA, a TonB-dependent transport protein from <i>Escherichia coli</i> , binds its siderophore in the absence of the transmembrane barrel domain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 10676-10681.	3.3	59
51	Changes at the KinA PAS-A Dimerization Interface Influence Histidine Kinase Function. <i>Biochemistry</i> , 2008, 47, 4051-4064.	1.2	59
52	Identification of Natural and Artificial DNA Substrates for Light-Activated LOV <sup>+</sup> HTH Transcription Factor EL222. <i>Biochemistry</i> , 2012, 51, 10024-10034.	1.2	59
53	Isoform-Selective and Stereoselective Inhibition of Hypoxia Inducible Factor-2. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 5930-5941.	2.9	59
54	Coactivators necessary for transcriptional output of the hypoxia inducible factor, HIF, are directly recruited by ARNT PAS-B. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 7739-7744.	3.3	58

#	ARTICLE	IF	CITATIONS
55	Solution Structure of a DNA Dodecamer Containing the Anti-Neoplastic Agent Arabinosylcytosine: Combined Use of NMR, Restrained Molecular Dynamics, and Full Relaxation Matrix Refinement. <i>Biochemistry</i> , 1994, 33, 11460-11475.	1.2	55
56	Identification and Biosynthesis of Cyclic Enterobacterial Common Antigen in <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 2003, 185, 1995-2004.	1.0	53
57	Directly light-regulated binding of RGS-LOV photoreceptors to anionic membrane phospholipids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E7720-E7727.	3.3	52
58	Coactivator recruitment: A new role for PAS domains in transcriptional regulation by the bHLH-PAS family. <i>Journal of Cellular Physiology</i> , 2010, 223, 553-557.	2.0	47
59	Structural Requirements for Key Residues and Auxiliary Portions of a BLUF Domain. <i>Biochemistry</i> , 2008, 47, 10271-10280.	1.2	46
60	Variations in Protein-Flavin Hydrogen Bonding in a Light, Oxygen, Voltage Domain Produce Non-Arrhenius Kinetics of Adduct Decay. <i>Biochemistry</i> , 2011, 50, 8771-8779.	1.2	45
61	Modulating LOV Domain Photodynamics with a Residue Alteration outside the Chromophore Binding Site. <i>Biochemistry</i> , 2011, 50, 2411-2423.	1.2	44
62	A Sensitive Pulse Scheme for Measuring the Backbone Dihedral Angle $\psi$ Based on Cross-correlation Between $(^{13}\text{C}(\alpha)-^1\text{H})$ Dipolar and Carbonyl Chemical Shift Anisotropy Relaxation Interactions. <i>Journal of Biomolecular NMR</i> , 1998, 11, 213-220.	1.6	43
63	Methyl labeling and TROSY NMR spectroscopy of proteins expressed in the eukaryote <i>Pichia pastoris</i> . <i>Journal of Biomolecular NMR</i> , 2015, 62, 239-245.	1.6	42
64	Mechanism of substrate specificity in <i>Bacillus subtilis</i> ResA, a thioredoxin-like protein involved in cytochrome c maturation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 4410-4415.	3.3	37
65	The Third Conformation of p38 MAP Kinase Observed in Phosphorylated p38 and in Solution. <i>Structure</i> , 2010, 18, 1571-1578.	1.6	37
66	Mutational and Structural Studies of the PixD BLUF Output Signal That Affects Light-Regulated Interactions with PixE. <i>Biochemistry</i> , 2011, 50, 6365-6375.	1.2	37
67	Regulating the ARNT/TACC3 Axis: Multiple Approaches to Manipulating Protein/Protein Interactions with Small Molecules. <i>ACS Chemical Biology</i> , 2013, 8, 626-635.	1.6	37
68	Hemerythrin-like Domain within F-box and Leucine-rich Repeat Protein 5 (FBXL5) Communicates Cellular Iron and Oxygen Availability by Distinct Mechanisms. <i>Journal of Biological Chemistry</i> , 2012, 287, 23710-23717.	1.6	35
69	Molecular Basis of Coiled Coil Coactivator Recruitment by the Aryl Hydrocarbon Receptor Nuclear Translocator (ARNT). <i>Journal of Biological Chemistry</i> , 2009, 284, 15184-15192.	1.6	32
70	Blue Light Regulated Two-Component Systems: Enzymatic and Functional Analyses of Light-Oxygen-Voltage (LOV)-Histidine Kinases and Downstream Response Regulators. <i>Biochemistry</i> , 2013, 52, 4656-4666.	1.2	32
71	On the use of <i>Pichia pastoris</i> for isotopic labeling of human GPCRs for NMR studies. <i>Journal of Biomolecular NMR</i> , 2018, 71, 203-211.	1.6	31
72	Solution structure of the <i>Kluyveromyces lactis</i> LAC9 Cd2Cys6 DNA-binding domain. <i>Nature Structural Biology</i> , 1995, 2, 898-905.	9.7	29

#	ARTICLE	IF	CITATIONS
73	Significantly Improved Resolution for NOE Correlations from Valine and Isoleucine ( $C^{13}2$ ) Methyl Groups in $^{15}N,^{13}C$ - and $^{15}N,^{13}C,2H$ -Labeled Proteins. <i>Journal of the American Chemical Society</i> , 1998, 120, 4825-4831.	6.6	29
74	ARNT PAS-B has a fragile native state structure with an alternative $\beta$ -sheet register nearby in sequence space. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 2617-2622.	3.3	29
75	Unraveling the Mechanism of a LOV Domain Optogenetic Sensor: A Glutamine Lever Induces Unfolding of the $\beta$ -Helix. <i>ACS Chemical Biology</i> , 2020, 15, 2752-2765.	1.6	29
76	Enlightening molecular mechanisms through study of protein interactions. <i>Journal of Molecular Cell Biology</i> , 2012, 4, 270-283.	1.5	26
77	Coiled-coil Coactivators Play a Structural Role Mediating Interactions in Hypoxia-inducible Factor Heterodimerization. <i>Journal of Biological Chemistry</i> , 2015, 290, 7707-7721.	1.6	26
78	O Acetylation of the Enterobacterial Common Antigen Polysaccharide Is Catalyzed by the Product of the <i>yiaH</i> Gene of <i>Escherichia coli</i> K-12. <i>Journal of Bacteriology</i> , 2006, 188, 7542-7550.	1.0	23
79	Lighting the way: Recent insights into the structure and regulation of phototropin blue light receptors. <i>Journal of Biological Chemistry</i> , 2021, 296, 100594.	1.6	20
80	Subunit-specific backbone NMR assignments of a 64 kDa <i>trp</i> repressor/DNA complex: a role for N-terminal residues in tandem binding. <i>Journal of Biomolecular NMR</i> , 1998, 11, 307-318.	1.6	19
81	Identification and Optimization of Protein Domains for NMR Studies. <i>Methods in Enzymology</i> , 2005, 394, 3-16.	0.4	19
82	Insights into histidine kinase activation mechanisms from the monomeric blue light sensor EL346. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 4963-4972.	3.3	19
83	Hypoxia-Inducible Factors Per/ARNT/Sim Domains: Structure and Function. <i>Methods in Enzymology</i> , 2007, 435, 1-24.	0.4	18
84	Can You Hear Me Now? Regulating Transcriptional Activators by Phosphorylation. <i>Science Signaling</i> , 2005, 2005, pe44-pe44.	1.6	17
85	$^{113}Cd$ - $^1H$ hetero TOCSY: A method for determining metal-protein connectivities. <i>Journal of Biomolecular NMR</i> , 1994, 4, 761-774.	1.6	16
86	HeteroTOCSY-based experiments for measuring heteronuclear relaxation in nucleic acids and proteins. <i>Journal of Biomolecular NMR</i> , 1995, 6, 180-188.	1.6	15
87	Ligand-Induced Folding of a Two-Component Signaling Receiver Domain. <i>Biochemistry</i> , 2015, 54, 1353-1363.	1.2	15
88	Solution Structure of the WNK1 Autoinhibitory Domain, a WNK-Specific PF2 Domain. <i>Journal of Molecular Biology</i> , 2013, 425, 1245-1252.	2.0	13
89	Cyclic enterobacterial common antigen: Potential contaminant of bacterially expressed protein preparations. <i>Journal of Biomolecular NMR</i> , 2004, 29, 199-204.	1.6	12
90	Slow Transition between Two $\beta$ -Strand Registers Is Dictated by Protein Unfolding. <i>Journal of the American Chemical Society</i> , 2009, 131, 11306-11307.	6.6	12

#	ARTICLE	IF	CITATIONS
91	Basis of Mutual Domain Inhibition in a Bacterial Response Regulator. <i>Cell Chemical Biology</i> , 2016, 23, 945-954.	2.5	12
92	Cosolvent-induced transformation of a death domain tertiary structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 11151-11156.	3.3	11
93	Volume and compressibility differences between protein conformations revealed by high-pressure NMR. <i>Biophysical Journal</i> , 2021, 120, 924-935.	0.2	10
94	Designing Single-Component Optogenetic Membrane Recruitment Systems: The Rho-Family GTPase Signaling Toolbox. <i>ACS Synthetic Biology</i> , 2022, 11, 515-521.	1.9	10
95	<sup>1</sup> H, <sup>13</sup> C and <sup>15</sup> N chemical shift assignments of the N-terminal PAS domain of mNPAS2. <i>Journal of Biomolecular NMR</i> , 2001, 21, 383-384.	1.6	9
96	TAEI 2.0: An Improved Optogenetic Expression System for Zebrafish. <i>Zebrafish</i> , 2021, 18, 20-28.	0.5	9
97	Isotopic Labeling of Eukaryotic Membrane Proteins for NMR Studies of Interactions and Dynamics. <i>Methods in Enzymology</i> , 2019, 614, 37-65.	0.4	8
98	A LOVely view of blue light photosensing. <i>Nature Chemical Biology</i> , 2007, 3, 372-374.	3.9	7
99	How Plants See the Invisible. <i>Science</i> , 2012, 335, 1451-1452.	6.0	6
100	In support of the BMRB. <i>Nature Structural and Molecular Biology</i> , 2012, 19, 854-860.	3.6	6
101	Computational Repacking of HIF-2 $\alpha$ Cavity Replaces Water-Based Stabilized Core. <i>Structure</i> , 2016, 24, 1918-1927.	1.6	6
102	Internet conferences in NMR spectroscopy. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 1997, 31, 107-117.	3.9	4
103	The Three Rs of Transcription: Recruit, Retain, and Recycle. <i>Molecular Cell</i> , 2010, 40, 855-858.	4.5	4
104	1021 Preparation and analysis of penicilloic acid and penilloic acid using high resolution nuclear magnetic resonance. <i>Journal of Allergy and Clinical Immunology</i> , 2000, 105, S346.	1.5	2
105	Multidimensional <sup>2</sup> H-Based NMR Methods for Resonance Assignment, Structure Determination, and The Study of Protein Dynamics. , 2002, , 27-74.		2
106	Transcription factor TFIIIA stimulates DNA supercoiling promoted by a fractionated cell-free extract from <i>Xenopus laevis</i> . <i>FEBS Journal</i> , 1990, 192, 311-320.	0.2	1
107	Fragile protein folds: sequence and environmental factors affecting the equilibrium of two interconverting, stably folded protein conformations. <i>Magnetic Resonance</i> , 2021, 2, 63-76.	0.8	1
108	Two steps, one ligand: How PPAR $\beta$ binds small-molecule agonists. <i>Structure</i> , 2021, 29, 935-936.	1.6	1

#	ARTICLE	IF	CITATIONS
109	Zinc as a structural and folding element of proteins which interact with DNA. Journal of Inorganic Biochemistry, 1997, 67, 342.	1.5	0
110	The Use of <sup>31</sup> P Relaxation Experiments to Probe the Effects of Nucleoside Analogs on DNA Dynamics. Phosphorus, Sulfur and Silicon and the Related Elements, 1999, 144, 301-304.	0.8	0
111	Molecular biophysics at UT Southwestern Medical Center: Strength through breadth. Biopolymers, 2008, 89, 244-247.	1.2	0
112	A tribute to Lewis E Kay on his 50th birthday. Journal of Biomolecular NMR, 2011, 51, 3-4.	1.6	0
113	Shining light on the alphaproteobacterial general stress response. Molecular Microbiology, 2019, 112, 438-441.	1.2	0
114	Molecular basis of transcriptional coactivator recruitment by ARNT PAS domains. FASEB Journal, 2008, 22, 825.2.	0.2	0
115	Blue light photosensors: Examples of environmentally regulated protein/protein interactions. FASEB Journal, 2009, 23, 432.2.	0.2	0
116	Modulation of HIF-2 Function with Small Molecules: Did Nature Beat Us to It?. Blood, 2011, 118, SCI-39-SCI-39.	0.6	0
117	Converting Nature's Switches Into Scientists' Tools: How Biophysical Insights Lay The Foundation For Artificial Control Of Protein Activity. FASEB Journal, 2018, 32, 533.98.	0.2	0