Geoffrey A Mueller

List of Publications by Year
in descending order

112 papers	4,055 citations	126858 33 h-index	133188 59 g-index
114 all docs	114 docs citations	114 times ranked	4286 citing authors

#	Article	IF	Citations
1	A robust and cost-effective method for the production of Val, Leu, Ile (delta 1) methyl-protonated 15N-, 13C-, 2H-labeled proteins. Journal of Biomolecular NMR, 1999, 13, 369-374.	1.6	461
2	Orienting domains in proteins using dipolar couplings measured by liquid-state NMR: differences in solution and crystal forms of maltodextrin binding protein loaded with Î²-cyclodextrin. Journal of Molecular Biology, 2000, 295, 1265-1273.	2.0	197
3	Global folds of proteins with low densities of NOEs using residual dipolar couplings: application to the 370-residue maltodextrin-binding protein. Journal of Molecular Biology, 2000, 300, 197-212.	2.0	165
4	WHO/IUIS Allergen Nomenclature: Providing a common language. Molecular Immunology, 2018, 100, 3-13.	1.0	162
5	The Crystal Structure of a Major Dust Mite Allergen Der p 2, and its Biological Implications. Journal of Molecular Biology, 2002, 318, 189-197.	2.0	137
6	A synergistic approach to protein crystallization: Combination of a fixedâ€arm carrier with surface entropy reduction. Protein Science, 2010, 19, 901-913.	3.1	131
7	ZATT (ZNF451)â€“mediated resolution of topoisomerase 2 DNA-protein cross-links. Science, 2017, 357, 1412-1416.	6.0	127
8	Title is missing!. Journal of Biomolecular NMR, 1999, 14, 333-343.	1.6	122
9	The structure of the dust mite allergen Der p 7 reveals similarities to innate immune proteins. Journal of Allergy and Clinical Immunology, 2010, 125, 909-917.e4.	1.5	99
10	Ara h 2: crystal structure and IgE binding distinguish two subpopulations of peanut allergic patients by epitope diversity. Allergy: European Journal of Allergy and Clinical Immunology, 2011, 66, 878-885.	2.7	86
11	Tertiary Structure of the Major House Dust Mite Allergen Der p 2:â€‰ Sequential and Structural Homologies[,]. Biochemistry, 1998, 37, 12707-12714.	1.2	84
12	NIAID, NIEHS, NHLBI, and MCAN Workshop Report: The indoor environment and childhood asthmaâ€"implications for home environmental intervention in asthma prevention and management. Journal of Allergy and Clinical Immunology, 2017, 140, 933-949.	1.5	75
13	Dependence of Amino Acid Side Chain ¹³C Shifts on Dihedral Angle: Application to Conformational Analysis. Journal of the American Chemical Society, 2008, 130, 11097-11105.	6.6	71
14	Serological, genomic and structural analyses of the major mite allergen Der p 23. Clinical and Experimental Allergy, 2016, 46, 365-376.	1.4	69
15	The novel structure of the cockroach allergen Bla g 1 has implications for allergenicity and exposure assessment. Journal of Allergy and Clinical Immunology, 2013, 132, 1420-1426.e9.	1.5	64
16	Identification of Maillard reaction products on peanut allergens that influence binding to the receptor for advanced glycation end products. Allergy: European Journal of Allergy and Clinical Immunology, 2013, 68, 1546-1554.	2.7	63
17	New Insights into Cockroach Allergens. Current Allergy and Asthma Reports, 2017, 17, 25.	2.4	63
18	Crystal Structure of Calmodulin Binding Domain of Orai1 in Complex with Ca2+â€¢Calmodulin Displays a Unique Binding Mode. Journal of Biological Chemistry, 2012, 287, 43030-43041.	1.6	58

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19	The Molecular Basis of Peanut Allergy. Current Allergy and Asthma Reports, 2014, 14, 429.	2.4	58
20	Hydrogen Exchange Nuclear Magnetic Resonance Spectroscopy Mapping of Antibody Epitopes on the House Dust Mite Allergen Der p 2. Journal of Biological Chemistry, 2001, 276, 9359-9365.	1.6	54
21	Solution Structure of the RNase H Domain of the HIV-1 Reverse Transcriptase in the Presence of Magnesiumâ€. Biochemistry, 2003, 42, 639-650.	1.2	53
22	Dynamic Characterization of a DNA Repair Enzyme:Â NMR Studies of [methyl-13C]Methionine-Labeled DNA Polymerase Î². Biochemistry, 2004, 43, 8911-8922.	1.2	53
23	Der p 5 Crystal Structure Provides Insight into the Group 5 Dust Mite Allergens. Journal of Biological Chemistry, 2010, 285, 25394-25401.	1.6	52
24	Analysis of glutathione S-transferase allergen cross-reactivity in a North American population: RelevanceÂfor molecular diagnosis. Journal of Allergy and Clinical Immunology, 2015, 136, 1369-1377.	1.5	52
25	Future directions for allergen immunotherapy. Journal of Allergy and Clinical Immunology, 1998, 102, 335-343.	1.5	51
26	Multiple roles of Bet v 1 ligands in allergen stabilization and modulation of endosomal protease activity. Allergy: European Journal of Allergy and Clinical Immunology, 2019, 74, 2382-2393.	2.7	51
27	Direct structure refinement of high molecular weight proteins against residual dipolar couplings and carbonyl chemical shift changes upon alignment: an application to maltose binding protein. Journal of Biomolecular NMR, 2001, 21, 31-40.	1.6	50
28	APE2 Zf-GRF facilitates 3â€²-5â€² resection of DNA damage following oxidative stress. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 304-309.	3.3	50
29	Expression and Secondary Structure Determination by NMR Methods of the Major House Dust Mite Allergen Der p 2. Journal of Biological Chemistry, 1997, 272, 26893-26898.	1.6	49
30	Revised structure of the AbrB N-terminal domain unifies a diverse superfamily of putative DNA-binding proteins. FEBS Letters, 2005, 579, 5669-5674.	1.3	45
31	Comparison of a Neural Net-Based QSAR Algorithm (PCANN) with Hologram- and Multiple Linear Regression-Based QSAR Approaches:â€‰ Application to 1,4-Dihydropyridine-Based Calcium Channel Antagonists. Journal of Chemical Information and Computer Sciences, 2001, 41, 505-511.	2.8	43
32	Structural studies of the PARP-1 BRCT domain. BMC Structural Biology, 2011, 11, 37.	2.3	41
33	The Focal Adhesion Targeting Domain of Focal Adhesion Kinase Contains a Hinge Region that Modulates Tyrosine 926 Phosphorylation. Structure, 2004, 12, 881-891.	1.6	37
34	Allergens and their associated small molecule ligandsâ€"their dual role in sensitization. Allergy: European Journal of Allergy and Clinical Immunology, 2021, 76, 2367-2382.	2.7	36
35	Conformational dependence of 13C shielding and coupling constants for methionine methyl groups. Journal of Biomolecular NMR, 2010, 48, 31-47.	1.6	35
36	A comparison of BRCT domains involved in nonhomologous end-joining: Introducing the solution structure of the BRCT domain of polymerase lambda. DNA Repair, 2008, 7, 1340-1351.	1.3	33

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37	100ÂYears later: Celebrating the contributions of x-ray crystallography to allergy and clinical immunology. Journal of Allergy and Clinical Immunology, 2015, 136, 29-37.e10.	1.5	33
38	Context matters: TH2 polarization resulting from pollen composition and not from protein-intrinsic allergenicity. Journal of Allergy and Clinical Immunology, 2018, 142, 984-987.e6.	1.5	33
39	Abundance and Stability as Common Properties of Allergens. Frontiers in Allergy, 2021, 2, 769728.	1.2	33
40	Primary Identification, Biochemical Characterization, and Immunologic Properties of the Allergenic Pollen Cyclophilin Cat r 1. Journal of Biological Chemistry, 2014, 289, 21374-21385.	1.6	31
41	Metal-induced DNA translocation leads to DNA polymerase conformational activation. Nucleic Acids Research, 2012, 40, 2974-2983.	6.5	30
42	Structural Aspects of the Allergen-Antibody Interaction. Frontiers in Immunology, 2020, 11, 2067.	2.2	29
43	Solution Structure of the Lyase Domain of Human DNA Polymerase Î». Biochemistry, 2003, 42, 9564-9574.	1.2	27
44	Solution structure of the Drosha double-stranded RNA-binding domain. Silence: A Journal of RNA Regulation, 2010, 1, 2.	8.0	26
45	Solution Structure of Polymerase Î¼'s BRCT Domain Reveals an Element Essential for Its Role in Nonhomologous End Joining. Biochemistry, 2007, 46, 12100-12110.	1.2	25
46	Selective unfolding of one Ribonuclease H domain of HIV reverse transcriptase is linked to homodimer formation. Nucleic Acids Research, 2014, 42, 5361-5377.	6.5	25
47	Backbone Dynamics of the RNase H Domain of HIV-1 Reverse Transcriptase. Biochemistry, 2004, 43, 9332-9342.	1.2	24
48	NMR analysis of [methyl-13C]methionine UvrB from Bacillus caldotenax reveals UvrBâ€"domain 4 heterodimer formation in solution. Journal of Molecular Biology, 2007, 373, 282-295.	2.0	24
49	NMR Studies of the Interaction of a Type II Dihydrofolate Reductase with Pyridine Nucleotides Reveal Unexpected Phosphatase and Reductase Activityâ€. Biochemistry, 2003, 42, 11150-11160.	1.2	22
50	NvAssign: protein NMR spectral assignment with NMRView. Bioinformatics, 2004, 20, 1201-1203.	1.8	21
51	Mapping Human Monoclonal IgE Epitopes on the Major Dust Mite Allergen Der p 2. Journal of Immunology, 2020, 205, 1999-2007.	0.4	21
52	Mouse/human chimeric IgGl and IgG4 antibodies directed to the house dust mite allergen Der p 2: use in quantification of allergen specific IgG. Clinical and Experimental Allergy, 1997, 27, 1095-1102.	1.4	20
53	The Nuclease A Inhibitor Represents a New Variation of the Rare PR-1 Fold. Journal of Molecular Biology, 2002, 320, 771-782.	2.0	20
54	Nuclear Magnetic Resonance Solution Structure of the Escherichia coli DNA Polymerase III Î¸ Subunit. Journal of Bacteriology, 2005, 187, 7081-7089.	1.0	19

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55	NMR Structure of AbhN and Comparison with AbrBN. Journal of Biological Chemistry, 2006, 281, 21399-21409.	1.6	19
56	Solution characterization of [methyl-13C]methionine HIV-1 reverse transcriptase by NMR spectroscopy. Antiviral Research, 2009, 84, 205-214.	1.9	19
57	Homodimerization of the p51 Subunit of HIV-1 Reverse Transcriptase. Biochemistry, 2010, 49, 2821-2833.	1.2	19
58	Contributions and Future Directions for Structural Biology in the Study of Allergens. International Archives of Allergy and Immunology, 2017, 174, 57-66.	0.9	19
59	A Human IgE Antibody Binding Site on Der p 2 for the Design of a Recombinant Allergen for Immunotherapy. Journal of Immunology, 2019, 203, 2545-2556.	0.4	19
60	Identification of the aminoâ€terminal fragment of Ara h 1 as a major target of the IgEâ€binding activity in the basic peanut protein fraction. Clinical and Experimental Allergy, 2020, 50, 401-405.	1.4	19
61	Asymmetric conformational maturation of HIV-1 reverse transcriptase. ELife, 2015, 4, .	2.8	19
62	Complementation of Der p 2â€"induced histamine release from human basophils sensitized with monoclonal IgE: Not only by IgE, but also by IgG antibodies directed to a nonoverlapping epitope of Der p 2â˜†â˜†â˜†â˜…â˜…â˜…. Journal of Allergy and Clinical Immunology, 1998, 101, 404-409.	1.5	18
63	The N-Terminal Domain of the Drosophila Histone mRNA Binding Protein, SLBP, Is Intrinsically Disordered with Nascent Helical Structure,. Biochemistry, 2004, 43, 9390-9400.	1.2	18
64	Genomic, RNAseq, and Molecular Modeling Evidence Suggests That the Major Allergen Domain in Insects Evolved from a Homodimeric Origin. Genome Biology and Evolution, 2013, 5, 2344-2358.	1.1	18
65	Leucine-rich repeats and calponin homology containing 4 (Lrch4) regulates the innate immune response. Journal of Biological Chemistry, 2019, 294, 1997-2008.	1.6	16
66	Keeping Allergen Names Clear and Defined. Frontiers in Immunology, 2019, 10, 2600.	2.2	16
67	A method for incorporating dipolar couplings into structure calculations in cases of (near) axial symmetry of alignment. Journal of Biomolecular NMR, 2000, 18, 183-188.	1.6	15
68	Are dust mite allergens more abundant and/or more stable than other Dermatophagoides pteronyssinus proteins?. Journal of Allergy and Clinical Immunology, 2017, 139, 1030-1032.e1.	1.5	15
69	Proteases of Dermatophagoides pteronyssinus. International Journal of Molecular Sciences, 2017, 18, 1204.	1.8	14
70	The Draft Genome Assembly of <i>Dermatophagoides pteronyssinus</i> Supports Identification of Novel Allergen Isoforms in <i>Dermatophagoides</i> Species. International Archives of Allergy and Immunology, 2018, 175, 136-146.	0.9	14
71	Hydrophobic ligands influence the structure, stability, and processing of the major cockroach allergen Bla g 1. Scientific Reports, 2019, 9, 18294.	1.6	14
72	Comparison of phytochemical composition of Ginkgo biloba extracts using a combination of non-targeted and targeted analytical approaches. Analytical and Bioanalytical Chemistry, 2020, 412, 6789-6809.	1.9	14

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73	Solution structure and function of YndB, an AHSA1 protein from<i>Bacillus subtilis</i>. Proteins: Structure, Function and Bioinformatics, 2010, 78, 3328-3340.	1.5	13
74	Mechanism of <scp>APTX</scp> nicked <scp>DNA</scp> sensing and pleiotropic inactivation in neurodegenerative disease. EMBO Journal, 2018, 37, .	3.5	13
75	The mosquito protein AEG12 displays both cytolytic and antiviral properties via a common lipid transfer mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	13
76	Phage Like It HOT. Structure, 2004, 12, 2221-2231.	1.6	12
77	Analytical solution to the coupled evolution of multidimensional NMR data. Journal of Biomolecular NMR, 2009, 44, 13-23.	1.6	12
78	Enhanced Approaches for Identifying Amadori Products: Application to Peanut Allergens. Journal of Agricultural and Food Chemistry, 2016, 64, 1406-1413.	2.4	11
79	Human IgE monoclonal antibody recognition of mite allergen Der p 2 defines structural basis of an epitope for IgE cross-linking and anaphylaxis <i>in vivo</i>. , 2022, 1, .		11
80	Metal and ligand binding to the HIV-RNase H active site are remotely monitored by Ile556. Nucleic Acids Research, 2012, 40, 10543-10553.	6.5	10
81	A metabolomic, geographic, and seasonal analysis of the contribution of pollen-derived adenosine to allergic sensitization. Metabolomics, 2016, 12, 1.	1.4	10
82	Unfolding the HIV-1 reverse transcriptase RNase H domain â€" how to lose a molecular tug-of-war. Nucleic Acids Research, 2016, 44, 1776-1788.	6.5	10
83	Structure, Immunogenicity, and IgE Cross-Reactivity among Walnut and Peanut Vicilin-Buried Peptides. Journal of Agricultural and Food Chemistry, 2022, 70, 2389-2400.	2.4	9
84	Identification of drivers for the metamorphic transition of HIV-1 reverse transcriptase. Biochemical Journal, 2017, 474, 3321-3338.	1.7	7
85	Are allergens more abundant and/or more stable than other proteins in pollens and dust?. Allergy: European Journal of Allergy and Clinical Immunology, 2020, 75, 1267-1269.	2.7	7
86	Mixture analyses of air-sampled pollen extracts can accurately differentiate pollen taxa. Atmospheric Environment, 2020, 243, 117746.	1.9	7
87	Removal and Replacement of Endogenous Ligands from Lipid-Bound Proteins and Allergens. Journal of Visualized Experiments, 2021, , .	0.2	7
88	Characterization of the Redox Transition of the XRCC1 N-terminal Domain. Structure, 2014, 22, 1754-1763.	1.6	6
89	Characterization of an anti-Bla g 1 scFv: Epitope mapping and cross-reactivity. Molecular Immunology, 2014, 59, 200-207.	1.0	6
90	Structural Analysis of Recent Allergen-Antibody Complexes and Future Directions. Current Allergy and Asthma Reports, 2019, 19, 17.	2.4	6

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91	Nanobody Paratope Ensembles in Solution Characterized by MD Simulations and NMR. International Journal of Molecular Sciences, 2022, 23, 5419.	1.8	6
92	Antigenic and Molecular Structure of the Mite Allergen Der p 2. International Archives of Allergy and Immunology, 1997, 113, 99-101.	0.9	5
93	NMR assignment of polymerase Î² labeled with 2H, 13C, and 15N in complex with substrate DNA. Biomolecular NMR Assignments, 2007, 1, 33-35.	0.4	5
94	Protein-Mediated Antagonism between HIV Reverse Transcriptase Ligands Nevirapine and MgATP. Biophysical Journal, 2013, 104, 2695-2705.	0.2	5
95	1H, 13C, and 15N NMR assignments for the Bacillus subtilis yndB START domain. Biomolecular NMR Assignments, 2009, 3, 191-194.	0.4	4
96	Transitions in DNA polymerase Î² Î¼s-ms dynamics related to substrate binding and catalysis. Nucleic Acids Research, 2018, 46, 7309-7322.	6.5	3
97	NMR assignment of protein side chains using residue-correlated labeling and NOE spectra. Journal of Magnetic Resonance, 2003, 165, 237-247.	1.2	2
98	Evaluation of the allergenic activity of the Glutathione Transferase from Blomia tropicalis (Blo t 8) in a mouse model of airway inflammation. Journal of Allergy and Clinical Immunology, 2019, 143, AB187.	1.5	2
99	Influence of Hydrophobic Cargo Binding on the Structure, Stability, and Allergenicity of the Cockroach Allergen Bla g 1. Journal of Allergy and Clinical Immunology, 2019, 143, AB213.	1.5	2
100	The Der p 7 Crystal Structure Reveals Similarities to Innate Immune Proteins. Journal of Allergy and Clinical Immunology, 2010, 125, AB188.	1.5	1
101	Analysis of GST Allergen Cross-Reactivity in a North American Population for Molecular Diagnosis. Journal of Allergy and Clinical Immunology, 2015, 135, AB187.	1.5	1
102	Structural, Serological, and Genomic Analyses of the Major Mite Allergen Der p 23. Journal of Allergy and Clinical Immunology, 2016, 137, AB267.	1.5	1
103	Mapping human monoclonal IgE epitopes on Der p 2. Journal of Allergy and Clinical Immunology, 2019, 143, AB183.	1.5	1
104	The Cockroach Allergen Bla g 1 Forms Alpha Helical Capsules with an Internal Lipid Binding Cavity: Implications for Allergenicity. Journal of Allergy and Clinical Immunology, 2013, 131, AB16.	1.5	0
105	Epitope Mapping Of An Anti-Bla g 1 ScFv Used For Cockroach Allergen Quantitation. Journal of Allergy and Clinical Immunology, 2014, 133, AB100.	1.5	0
106	Antigenic Analysis Of The Major Cockroach Allergen Bla g 5 and Its Dust Mite Homolog Der p 8. Journal of Allergy and Clinical Immunology, 2014, 133, AB100.	1.5	0
107	Are Dust Mite Allergens More Abundant or More Stable Than Other Dermatophagoides Pteronyssinus Proteins?. Journal of Allergy and Clinical Immunology, 2016, 137, AB268.	1.5	0
108	The NMR structure and IgE Epitopes of Ara h 1 Leader Sequence. Journal of Allergy and Clinical Immunology, 2019, 143, AB240.	1.5	0

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109	Analysis Of IgE Antigenic Determinants On Der p 2 For Design Of Immunotherapy. Journal of Allergy and Clinical Immunology, 2019, 143, AB185.	1.5	0
110	Response to Letter to the Editor regarding â€œComparison of phytochemical composition of Ginkgo biloba extracts using a combination of non-targeted and targeted analytical approachesâ€• Analytical and Bioanalytical Chemistry, 2021, 413, 7627-7629.	1.9	0
111	Editorial: Activation of Innate Immunity by Allergens and Allergenic Sources. Frontiers in Allergy, 2021, 2, 800929.	1.2	0
112	Bet v 1 and other birch allergens are more resistant to proteolysis and more abundant than other birch pollen proteins. Allergy: European Journal of Allergy and Clinical Immunology, 2022, 77, 1307-1309.	2.7	0