Sharon L Campbell

List of Publications by Year
in descending order

119 papers	8,842 citations	38742 50 h-index	43889 91 g-index
122 all docs	122 docs citations	122 times ranked	9872 citing authors

#	Article	IF	Citations
1	Enhanced BRAF engagement by NRAS mutants capable of promoting melanoma initiation. Nature Communications, 2022, 13, .	12.8	11
2	Oncogenic KRAS G12C: Kinetic and redox characterization of covalent inhibition. Journal of Biological Chemistry, 2022, 298, 102186.	3.4	5
3	Biophysical and Structural Characterization of Novel RAS-Binding Domains (RBDs) of PI3KÎ± and PI3KÎ³. Journal of Molecular Biology, 2021, 433, 166838.	4.2	3
4	A universal allosteric mechanism for G protein activation. Molecular Cell, 2021, 81, 1384-1396.e6.	9.7	33
5	Monoubiquitination of KRAS at Lysine104 and Lysine147 Modulates Its Dynamics and Interaction with Partner Proteins. Journal of Physical Chemistry B, 2021, 125, 4681-4691.	2.6	3
6	Divergent Mechanisms Activating RAS and Small GTPases Through Post-translational Modification. Frontiers in Molecular Biosciences, 2021, 8, 707439.	3.5	13
7	Post-translational modification of RAS proteins. Current Opinion in Structural Biology, 2021, 71, 180-192.	5.7	29
8	RAS ubiquitylation modulates effector interactions. Small GTPases, 2020, 11, 1-6.	1.6	8
9	Atypical KRASG12R Mutant Is Impaired in PI3K Signaling and Macropinocytosis in Pancreatic Cancer. Cancer Discovery, 2020, 10, 104-123.	9.4	131
10	Subcellular localization of Rap1 GTPase activator CalDAGâ€GEFI is orchestrated by interaction of its atypical C1 domain with membrane phosphoinositides. Journal of Thrombosis and Haemostasis, 2020, 18, 693-705.	3.8	6
11	KRAS Ubiquitination at Lysine 104 Retains Exchange Factor Regulation by Dynamically Modulating the Conformation of the Interface. IScience, 2020, 23, 101448.	4.1	14
12	The molecular basis for immune dysregulation by the hyperactivated E62K mutant of the GTPase RAC2. Journal of Biological Chemistry, 2020, 295, 12130-12142.	3.4	9
13	Identification of lysine methylation in the core GTPase domain by GoMADScan. PLoS ONE, 2019, 14, e0219436.	2.5	6
14	Distinct Binding Modes of Vinculin Isoforms Underlie Their Functional Differences. Structure, 2019, 27, 1527-1536.e3.	3.3	4
15	Vinculin and metavinculin exhibit distinct effects on focal adhesion properties, cell migration, and mechanotransduction. PLoS ONE, 2019, 14, e0221962.	2.5	19
16	Cardiomyopathy Mutations in Metavinculin Disrupt Regulation of Vinculin-Induced F-Actin Assemblies. Journal of Molecular Biology, 2019, 431, 1604-1618.	4.2	11
17	Dominant activating RAC2 mutation with lymphopenia, immunodeficiency, and cytoskeletal defects. Blood, 2019, 133, 1977-1988.	1.4	61
18	Rationally designed carbohydrate-occluded epitopes elicit HIV-1 Env-specific antibodies. Nature Communications, 2019, 10, 948.	12.8	19

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19	Regulation of large and small G proteins by ubiquitination. Journal of Biological Chemistry, 2019, 294, 18613-18623.	3.4	28
20	A Structural Model for Vinculin Insertion into PIP2-Containing Membranes and the Effect of Insertion on Vinculin Activation and Localization. Structure, 2017, 25, 264-275.	3.3	23
21	A KRAS GTPase K104Q Mutant Retains Downstream Signaling by Offsetting Defects in Regulation. Journal of Biological Chemistry, 2017, 292, 4446-4456.	3.4	36
22	Amino acid metabolites that regulate G protein signaling during osmotic stress. PLoS Genetics, 2017, 13, e1006829.	3.5	16
23	The Structural Basis of Actin Organization by Vinculin and Metavinculin. Journal of Molecular Biology, 2016, 428, 10-25.	4.2	49
24	Getting a Handle on RAS-targeted Therapies: Cysteine Directed Inhibitors. Mini-Reviews in Medicinal Chemistry, 2016, 16, 383-390.	2.4	5
25	Molecular mechanism of vinculin activation and nanoscale spatial organization in focal adhesions. Nature Cell Biology, 2015, 17, 880-892.	10.3	247
26	Rac1 modification by an electrophilic 15-deoxy Î”12,14-prostaglandin J2 analog. Redox Biology, 2015, 4, 346-354.	9.0	12
27	Redox regulation of Rac1 by thiol oxidation. Free Radical Biology and Medicine, 2015, 79, 237-250.	2.9	34
28	Protein-Protein Interaction Analysis by Nuclear Magnetic Resonance Spectroscopy. Methods in Molecular Biology, 2015, 1278, 267-279.	0.9	12
29	Rho GTPases, oxidation, and cell redox control. Small GTPases, 2014, 5, e28579.	1.6	57
30	Mutation-Specific RAS Oncogenicity Explains NRAS Codon 61 Selection in Melanoma. Cancer Discovery, 2014, 4, 1418-1429.	9.4	174
31	Identification of an Actin Binding Surface on Vinculin that Mediates Mechanical Cell and Focal Adhesion Properties. Structure, 2014, 22, 697-706.	3.3	49
32	Copper is required for oncogenic BRAF signalling and tumorigenesis. Nature, 2014, 509, 492-496.	27.8	425
33	Phosphorylation at Y1065 in Vinculin Mediates Actin Bundling, Cell Spreading, and Mechanical Responses to Force. Biochemistry, 2014, 53, 5526-5536.	2.5	19
34	Biophysical and Proteomic Characterization Strategies for Cysteine Modifications in Ras GTPases. Methods in Molecular Biology, 2014, 1120, 75-96.	0.9	7
35	Redox Regulation of Ras and Rho GTPases: Mechanism and Function. Antioxidants and Redox Signaling, 2013, 18, 250-258.	5.4	77
36	Vinculin and metavinculin: Oligomerization and interactions with Fâ€actin. FEBS Letters, 2013, 587, 1220-1229.	2.8	31

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37	Differences in the Regulation of K-Ras and H-Ras Isoforms by Monoubiquitination. Journal of Biological Chemistry, 2013, 288, 36856-36862.	3.4	65
38	Site-specific monoubiquitination activates Ras by impeding GTPase-activating protein function. Nature Structural and Molecular Biology, 2013, 20, 46-52.	8.2	80
39	Structure and Function of Palladin's Actin Binding Domain. Journal of Molecular Biology, 2013, 425, 3325-3337.	4.2	22
40	Glutathiolated Ras: Characterization and implications for Ras activation. Free Radical Biology and Medicine, 2013, 57, 221-229.	2.9	28
41	Vinculinâ€"actin interaction couples actin retrograde flow to focal adhesions, but is dispensable for focal adhesion growth. Journal of Cell Biology, 2013, 202, 163-177.	5.2	230
42	Vinculin regulation of F-actin bundle formation. Cell Adhesion and Migration, 2013, 7, 219-225.	2.7	28
43	Site-specific monoubiquitination activates Ras by impeding GTPase-activating protein function. Small GTPases, 2013, 4, 186-192.	1.6	14
44	Ras Activity Regulation by Monoubiquitination. FASEB Journal, 2013, 27, 1046.3.	0.5	0
45	ROCK1 and ROCK2 Are Required for Non-Small Cell Lung Cancer Anchorage-Independent Growth and Invasion. Cancer Research, 2012, 72, 5338-5347.	0.9	108
46	Detection of Ras GTPase protein radicals through immuno-spin trapping. Free Radical Biology and Medicine, 2012, 53, 1339-1345.	2.9	10
47	In Vitro Phosphorylation of the Focal Adhesion Targeting Domain of Focal Adhesion Kinase by Src Kinase. Biochemistry, 2012, 51, 2213-2223.	2.5	7
48	Structural Characterization of the Interactions between Palladin and Î±-Actinin. Journal of Molecular Biology, 2011, 413, 712-725.	4.2	18
49	Flanking Bases Influence the Nature of DNA Distortion by Platinum 1,2-Intrastrand (GG) Cross-Links. PLoS ONE, 2011, 6, e23582.	2.5	19
50	Regulation of Ras proteins by reactive nitrogen species. Free Radical Biology and Medicine, 2011, 51, 565-575.	2.9	23
51	The Vinculin C-terminal Hairpin Mediates F-actin Bundle Formation, Focal Adhesion, and Cell Mechanical Properties. Journal of Biological Chemistry, 2011, 286, 45103-45115.	3.4	55
52	Aberrant Overexpression of the Rgl2 Ral Small GTPase-specific Guanine Nucleotide Exchange Factor Promotes Pancreatic Cancer Growth through Ral-dependent and Ral-independent Mechanisms. Journal of Biological Chemistry, 2010, 285, 34729-34740.	3.4	49
53	Direct Activation of RhoA by Reactive Oxygen Species Requires a Redox-Sensitive Motif. PLoS ONE, 2009, 4, e8045.	2.5	176
54	Lipid Binding to the Tail Domain of Vinculin. Journal of Biological Chemistry, 2009, 284, 7223-7231.	3.4	51

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55	Differences in Conformation and Conformational Dynamics Between Cisplatin and Oxaliplatin DNA Adducts. , 2009, , 157-169.		1
56	1H, 15N, and 13C NMR chemical shift assignments for the Ig3 domain of palladin. Biomolecular NMR Assignments, 2008, 2, 51-53.	0.8	3
57	Backbone 1H, 13C, and 15N NMR assignments of the tail domain of vinculin. Biomolecular NMR Assignments, 2008, 2, 69-71.	0.8	5
58	Multiple paxillin binding sites regulate FAK function. Journal of Molecular Signaling, 2008, 3, 1.	0.5	79
59	Vinculin Tail Conformation and Self-Association Is Independent of pH and H906 Protonation. Biochemistry, 2008, 47, 12467-12475.	2.5	11
60	Palladin Is an Actin Cross-linking Protein That Uses Immunoglobulin-like Domains to Bind Filamentous Actin. Journal of Biological Chemistry, 2008, 283, 6222-6231.	3.4	87
61	Nitric oxide cell signaling: S-nitrosation of Ras superfamily GTPases. Cardiovascular Research, 2007, 75, 229-239.	3.8	57
62	Solution Structures of a DNA Dodecamer Duplex with and without a Cisplatin 1,2-d(GG) Intrastrand Cross-Link:â€‰ Comparison with the Same DNA Duplex Containing an Oxaliplatin 1,2-d(GG) Intrastrand Cross-Link,. Biochemistry, 2007, 46, 6477-6487.	2.5	57
63	Deciphering Protein Dynamics from NMR Data Using Explicit Structure Sampling and Selection. Biophysical Journal, 2007, 93, 2300-2306.	0.5	72
64	Redox Regulation of RhoA. Biochemistry, 2006, 45, 14481-14489.	2.5	74
65	Ras Regulation by Reactive Oxygen and Nitrogen Species. Biochemistry, 2006, 45, 2200-2210.	2.5	51
66	Topological Determinants of Protein Domain Swapping. Structure, 2006, 14, 5-14.	3.3	73
67	Recognition and processing of cisplatin- and oxaliplatin-DNA adducts. Critical Reviews in Oncology/Hematology, 2005, 53, 3-11.	4.4	306
68	Mechanism of Redox-mediated Guanine Nucleotide Exchange on Redox-active Rho GTPases. Journal of Biological Chemistry, 2005, 280, 31003-31010.	3.4	109
69	Recognition and Activation of Rho GTPases by Vav1 and Vav2 Guanine Nucleotide Exchange Factorsâ€. Biochemistry, 2005, 44, 6573-6585.	2.5	46
70	Mechanism of Free Radical Nitric Oxide-mediated Ras Guanine Nucleotide Dissociation. Journal of Molecular Biology, 2005, 346, 1423-1440.	4.2	66
71	Novel C-Raf phosphorylation sites: serine 296 and 301 participate in Raf regulation. FEBS Letters, 2005, 579, 464-468.	2.8	29
72	Superoxide Anion Radical Modulates the Activity of Ras and Ras-related GTPases by a Radical-based Mechanism Similar to That of Nitric Oxide. Journal of Biological Chemistry, 2005, 280, 12438-12445.	3.4	51

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73	Requirement For C-terminal Sequences in Regulation of Ect2 Guanine Nucleotide Exchange Specificity and Transformation. Journal of Biological Chemistry, 2004, 279, 25226-25233.	3.4	49
74	NMR Solution Structure of the Focal Adhesion Targeting Domain of Focal Adhesion Kinase in Complex with a Paxillin LD Peptide. Journal of Biological Chemistry, 2004, 279, 8441-8451.	3.4	69
75	The Focal Adhesion Targeting Domain of Focal Adhesion Kinase Contains a Hinge Region that Modulates Tyrosine 926 Phosphorylation. Structure, 2004, 12, 881-891.	3.3	37
76	New Insights into FAK Signaling and Localization Based on Detection of a FAT Domain Folding Intermediate. Structure, 2004, 12, 2161-2171.	3.3	62
77	Molecular Basis for Rho GTPase Signaling Specificity. Breast Cancer Research and Treatment, 2004, 84, 61-71.	2.5	90
78	Protein interactions with platinumâ€“DNA adducts: from structure to function. Journal of Inorganic Biochemistry, 2004, 98, 1551-1559.	3.5	90
79	pH-Dependent Perturbation of Rasâ^'Guanine Nucleotide Interactions and Ras Guanine Nucleotide Exchangeâ€. Biochemistry, 2004, 43, 10102-10111.	2.5	9
80	Mechanism of p21RasS-Nitrosylation and Kinetics of Nitric Oxide-Mediated Guanine Nucleotide Exchangeâ€. Biochemistry, 2004, 43, 2314-2322.	2.5	83
81	NMR Solution Structure of an Oxaliplatin 1,2-d(GG) Intrastrand Cross-link in a DNA Dodecamer Duplex. Journal of Molecular Biology, 2004, 341, 1251-1269.	4.2	65
82	NMR Characterization of Full-length Farnesylated and Non-farnesylated H-Ras and its Implications for Raf Activation. Journal of Molecular Biology, 2004, 343, 1391-1408.	4.2	107
83	Backbone 1H, 13C, and 15N resonance assignments for the 21 kDa GTPase Rac1 complexed to GDP and Mg2+. Journal of Biomolecular NMR, 2003, 27, 87-88.	2.8	8
84	Structural and biochemical studies of p21Ras S-nitrosylation and nitric oxide-mediated guanine nucleotide exchange. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6376-6381.	7.1	95
85	Critical Role of the Pleckstrin Homology Domain in Dbs Signaling and Growth Regulation. Journal of Biological Chemistry, 2003, 278, 21188-21196.	3.4	27
86	Role of MLK3-mediated Activation of p70 S6 Kinase in Rac1 Transformation. Journal of Biological Chemistry, 2002, 277, 4770-4777.	3.4	18
87	Critical but Distinct Roles for the Pleckstrin Homology and Cysteine-Rich Domains as Positive Modulators of Vav2 Signaling and Transformation. Molecular and Cellular Biology, 2002, 22, 2487-2497.	2.3	47
88	Structural and Biophysical Insights into the Role of the Insert Region in Rac1 Functionâ€. Biochemistry, 2002, 41, 3875-3883.	2.5	24
89	A crystallographic view of interactions between Dbs and Cdc42: PH domain-assisted guanine nucleotide exchange. EMBO Journal, 2002, 21, 1315-1326.	7.8	198
90	Molecular basis for Rac1 recognition by guanine nucleotide exchange factors. Nature Structural Biology, 2001, 8, 1037-1041.	9.7	84

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91	The Insert Region of Rac1 Is Essential for Membrane Ruffling but Not Cellular Transformation. Molecular and Cellular Biology, 2001, 21, 2847-2857.	2.3	38
92	Bacterial expressed DH and DH/PH domains. Methods in Enzymology, 2000, 325, 25-38.	1.0	26
93	The Ras/p120 GTPase-activating Protein (GAP) Interaction Is Regulated by the p120 GAP Pleckstrin Homology Domain. Journal of Biological Chemistry, 2000, 275, 35021-35027.	3.4	41
94	Elucidation of Binding Determinants and Functional Consequences of Ras/Raf-Cysteine-rich Domain Interactions. Journal of Biological Chemistry, 2000, 275, 22172-22179.	3.4	93
95	Vav2 Is an Activator of Cdc42, Rac1, and RhoA. Journal of Biological Chemistry, 2000, 275, 10141-10149.	3.4	226
96	TC21 and Ras share indistinguishable transforming and differentiating activities. Oncogene, 1999, 18, 2107-2116.	5.9	60
97	Dependence of Dbl and Dbs Transformation on MEK and NF-ÎºB Activation. Molecular and Cellular Biology, 1999, 19, 7759-7770.	2.3	108
98	Increasing complexity of Ras signaling. Oncogene, 1998, 17, 1395-1413.	5.9	977
99	Rho family proteins and Ras transformation: the RHOad less traveled gets congested. Oncogene, 1998, 17, 1415-1438.	5.9	337
100	Identification of Residues in the Cysteine-rich Domain of Raf-1 That Control Ras Binding and Raf-1 Activity. Journal of Biological Chemistry, 1998, 273, 21578-21584.	3.4	44
101	A Molecular Redox Switch on p21. Journal of Biological Chemistry, 1997, 272, 4323-4326.	3.4	433
102	14-3-3 Î¶ Negatively Regulates Raf-1 Activity by Interactions with the Raf-1 Cysteine-rich Domain. Journal of Biological Chemistry, 1997, 272, 20990-20993.	3.4	111
103	Increasing Complexity of Ras Signal Transduction: Involvement of Rho Family Proteins. Advances in Cancer Research, 1997, 72, 57-107.	5.0	150
104	Structural and Functional Analysis of a Mutant Ras Protein That Is Insensitive to Nitric Oxide Activationâ€. Biochemistry, 1997, 36, 3640-3644.	2.5	70
105	Dbl family proteins. Biochimica Et Biophysica Acta: Reviews on Cancer, 1997, 1332, F1-F23.	7.4	140
106	The solution structure of the Raf-1 cysteine-rich domain: a novel ras and phospholipid binding site.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 8312-8317.	7.1	201
107	Peptides containing a consensus Ras binding sequence from Raf-1 and theGTPase activating protein NF1 inhibit Ras function.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 1577-1581.	7.1	74
108	Involvement of the Switch 2 Domain of Ras in Its Interaction with Guanine Nucleotide Exchange Factors. Journal of Biological Chemistry, 1996, 271, 11076-11082.	3.4	50

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109	Ras Interaction with Two Distinct Binding Domains in Raf-1 5 Be Required for Ras Transformation. Journal of Biological Chemistry, 1996, 271, 233-237.	3.4	136
110	New insights into the Ras onco-protein and its interactions with the Raf-1-1 kinase. Proceedings Annual Meeting Electron Microscopy Society of America, 1996, 54, 878-879.	0.0	0
111	[1] Refolding and purification of ras proteins. Methods in Enzymology, 1995, 255, 3-13.	1.0	32
112	Biological and structural characterization of a Ras transforming mutation at the phenylalanine-156 residue, which is conserved in all members of the Ras superfamily.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 1272-1276.	7.1	38
113	Two Distinct Raf Domains Mediate Interaction with Ras. Journal of Biological Chemistry, 1995, 270, 9809-9812.	3.4	214
114	Biomolecular applications of heteronuclear multidimensional NMR. Current Opinion in Biotechnology, 1994, 5, 346-354.	6.6	7
115	Improved 4D NMR experiments for the assignment of backbone nuclei in13C/15N labelled proteins. Journal of Biomolecular NMR, 1992, 2, 631-637.	2.8	52
116	High-Resolution NMR Studies of Saccharomyces Cerevisiae. Annual Review of Microbiology, 1987, 41, 595-616.	7.3	54
117	Exciton interactions in phycoerythrin. Photosynthesis Research, 1986, 10, 209-215.	2.9	1
118	Kinetics of creatine kinase in heart: a phosphorus-31 NMR saturation- and inversion-transfer study. Biochemistry, 1985, 24, 5510-5516.	2.5	92
119	In vivo31P nuclear magnetic resonance saturation transfer measurements of phosphate exchange reactions in the yeastSaccharomyces cerevisiae. FEBS Letters, 1985, 193, 189-193.	2.8	27