Sharon L Campbell

List of Publications by Year in Descending Order

117 papers	7,442 citations	48 h-index	85 g-index
122 ext. papers	8,115 ext. citations	6.5 avg, IF	5.56 L-index

#	Paper	IF	Citations
117	Biophysical and Structural Characterization of Novel RAS-Binding Domains (RBDs) of PI3K and PI3K *Journal of Molecular Biology*, **2021**, 433, 166838	6.5	2
116	A universal allosteric mechanism for G protein activation. *Molecular Cell*, **2021**, 81, 1384-1396.e6	17.6	11
115	Monoubiquitination of KRAS at Lysine104 and Lysine147 Modulates Its Dynamics and Interaction with Partner Proteins. *Journal of Physical Chemistry B*, **2021**, 125, 4681-4691	3.4	1
114	Divergent Mechanisms Activating RAS and Small GTPases Through Post-translational Modification. *Frontiers in Molecular Biosciences*, **2021**, 8, 707439	5.6	1
113	Post-translational modification of RAS proteins. *Current Opinion in Structural Biology*, **2021**, 71, 180-192	8.1	5
112	The molecular basis for immune dysregulation by the hyperactivated E62K mutant of the GTPase RAC2. *Journal of Biological Chemistry*, **2020**, 295, 12130-12142	5.4	6
111	RAS ubiquitylation modulates effector interactions. *Small GTPases*, **2020**, 11, 180-185	2.7	7
110	Atypical KRAS Mutant Is Impaired in PI3K Signaling and Macropinocytosis in Pancreatic Cancer. *Cancer Discovery*, **2020**, 10, 104-123	24.4	70
109	Subcellular localization of Rap1 GTPase activator CalDAG-GEFI is orchestrated by interaction of its atypical C1 domain with membrane phosphoinositides. *Journal of Thrombosis and Haemostasis*, **2020**, 18, 693-705	15.4	4
108	KRAS Ubiquitination at Lysine 104 Retains Exchange Factor Regulation by Dynamically Modulating the Conformation of the Interface. *IScience*, **2020**, 23, 101448	6.1	8
107	Vinculin and metavinculin exhibit distinct effects on focal adhesion properties, cell migration, and mechanotransduction. *PLoS ONE*, **2019**, 14, e0221962	3.7	6
106	Cardiomyopathy Mutations in Metavinculin Disrupt Regulation of Vinculin-Induced F-Actin Assemblies. *Journal of Molecular Biology*, **2019**, 431, 1604-1618	6.5	3
105	Dominant activating RAC2 mutation with lymphopenia, immunodeficiency, and cytoskeletal defects. *Blood*, **2019**, 133, 1977-1988	2.2	42
104	Identification of lysine methylation in the core GTPase domain by GoMADScan. *PLoS ONE*, **2019**, 14, e0219436	3.7	3
103	Distinct Binding Modes of Vinculin Isoforms Underlie Their Functional Differences. *Structure*, **2019**, 27, 1527-1536.e3	5.2	2
102	Rationally designed carbohydrate-occluded epitopes elicit HIV-1 Env-specific antibodies. *Nature Communications*, **2019**, 10, 948	17.4	8
101	Regulation of large and small G proteins by ubiquitination. *Journal of Biological Chemistry*, **2019**, 294, 18613-18623	5.4	14

100	A Structural Model for Vinculin Insertion into PIP-Containing Membranes and the Effect of Insertion on Vinculin Activation and Localization. *Structure*, **2017**, 25, 264-275	5.2	15
99	A KRAS GTPase K104Q Mutant Retains Downstream Signaling by Offsetting Defects in Regulation. *Journal of Biological Chemistry*, **2017**, 292, 4446-4456	5.4	20
98	Amino acid metabolites that regulate G protein signaling during osmotic stress. *PLoS Genetics*, **2017** , 13, e1006829	6	13
97	The Structural Basis of Actin Organization by Vinculin and Metavinculin. *Journal of Molecular Biology*, **2016**, 428, 10-25	6.5	32
96	Getting a Handle on RAS-targeted Therapies: Cysteine Directed Inhibitors. *Mini-Reviews in Medicinal Chemistry*, **2016**, 16, 383-90	3.2	5
95	Redox regulation of Rac1 by thiol oxidation. *Free Radical Biology and Medicine*, **2015**, 79, 237-50	7.8	27
94	Molecular mechanism of vinculin activation and nanoscale spatial organization in focal adhesions. *Nature Cell Biology*, **2015**, 17, 880-92	23.4	193
93	Rac1 modification by an electrophilic 15-deoxy [illegible]12,14)-prostaglandin J2 analog. *Redox Biology*, **2015**, 4, 346-54	11.3	12
92	Protein-protein interaction analysis by nuclear magnetic resonance spectroscopy. *Methods in Molecular Biology*, **2015**, 1278, 267-79	1.4	3
91	Copper is required for oncogenic BRAF signalling and tumorigenesis. *Nature*, **2014**, 509, 492-6	50.4	288
90	Phosphorylation at Y1065 in vinculin mediates actin bundling, cell spreading, and mechanical responses to force. *Biochemistry*, **2014**, 53, 5526-36	3.2	17
89	Rho GTPases, oxidation, and cell redox control. *Small GTPases*, **2014**, 5, e28579	2.7	41
88	Mutation-specific RAS oncogenicity explains NRAS codon 61 selection in melanoma. *Cancer Discovery*, **2014**, 4, 1418-29	24.4	121
87	Identification of an actin binding surface on vinculin that mediates mechanical cell and focal adhesion properties. *Structure*, **2014**, 22, 697-706	5.2	38
86	Biophysical and proteomic characterization strategies for cysteine modifications in Ras GTPases. *Methods in Molecular Biology*, **2014**, 1120, 75-96	1.4	4
85	Redox regulation of Ras and Rho GTPases: mechanism and function. *Antioxidants and Redox Signaling*, **2013**, 18, 250-8	8.4	67
84	Vinculin and metavinculin: oligomerization and interactions with F-actin. *FEBS Letters*, **2013**, 587, 1220-9	3.8	20
83	Differences in the regulation of K-Ras and H-Ras isoforms by monoubiquitination. *Journal of Biological Chemistry*, **2013**, 288, 36856-62	5.4	49

82	Site-specific monoubiquitination activates Ras by impeding GTPase-activating protein function. *Nature Structural and Molecular Biology*, **2013**, 20, 46-52	17.6	68
81	Structure and function of palladin's actin binding domain. *Journal of Molecular Biology*, **2013**, 425, 3325-37	6.5	18
80	Glutathiolated Ras: characterization and implications for Ras activation. *Free Radical Biology and Medicine*, **2013**, 57, 221-9	7.8	25
79	Vinculin-actin interaction couples actin retrograde flow to focal adhesions, but is dispensable for focal adhesion growth. *Journal of Cell Biology*, **2013**, 202, 163-77	7.3	172
78	Vinculin regulation of F-actin bundle formation: what does it mean for the cell?. *Cell Adhesion and Migration*, **2013**, 7, 219-25	3.2	20
77	Site-specific monoubiquitination activates Ras by impeding GTPase-activating protein function. *Small GTPases*, **2013**, 4, 186-92	2.7	11
76	Ras Activity Regulation by Monoubiquitination. *FASEB Journal*, **2013**, 27, 1046.3	0.9	
75	Detection of Ras GTPase protein radicals through immuno-spin trapping. *Free Radical Biology and Medicine*, **2012**, 53, 1339-45	7.8	9
74	In vitro phosphorylation of the focal adhesion targeting domain of focal adhesion kinase by Src kinase. *Biochemistry*, **2012**, 51, 2213-23	3.2	7
73	ROCK1 and ROCK2 are required for non-small cell lung cancer anchorage-independent growth and invasion. *Cancer Research*, **2012**, 72, 5338-47	10.1	98
72	Structural characterization of the interactions between palladin and α-actinin. *Journal of Molecular Biology*, **2011**, 413, 712-25	6.5	17
71	Flanking bases influence the nature of DNA distortion by platinum 1,2-intrastrand (GG) cross-links. *PLoS ONE*, **2011**, 6, e23582	3.7	15
70	Regulation of Ras proteins by reactive nitrogen species. *Free Radical Biology and Medicine*, **2011**, 51, 565-75	7.8	20
69	The vinculin C-terminal hairpin mediates F-actin bundle formation, focal adhesion, and cell mechanical properties. *Journal of Biological Chemistry*, **2011**, 286, 45103-15	5.4	48
68	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, 34729-40	5.4	45
67	Direct activation of RhoA by reactive oxygen species requires a redox-sensitive motif. *PLoS ONE*, **2009**, 4, e8045	3.7	146
66	Lipid binding to the tail domain of vinculin: specificity and the role of the N and C termini. *Journal of Biological Chemistry*, **2009**, 284, 7223-31	5.4	46
65	Differences in Conformation and Conformational Dynamics Between Cisplatin and Oxaliplatin DNA Adducts **2009**, 157-169		1

64	Vinculin tail conformation and self-association is independent of pH and H906 protonation. *Biochemistry*, **2008**, 47, 12467-75	3.2	10
63	Palladin is an actin cross-linking protein that uses immunoglobulin-like domains to bind filamentous actin. *Journal of Biological Chemistry*, **2008**, 283, 6222-31	5.4	77
62	1H, 15N, and 13C NMR chemical shift assignments for the Ig3 domain of palladin. *Biomolecular NMR Assignments*, **2008**, 2, 51-3	0.7	3
61	Backbone 1H, 13C, and 15N NMR assignments of the tail domain of vinculin. *Biomolecular NMR Assignments*, **2008**, 2, 69-71	0.7	5
60	Multiple paxillin binding sites regulate FAK function. *Journal of Molecular Signaling*, **2008**, 3, 1	1	70
59	Solution structures of a DNA dodecamer duplex with and without a cisplatin 1,2-d(GG) intrastrand cross-link: comparison with the same DNA duplex containing an oxaliplatin 1,2-d(GG) intrastrand cross-link. *Biochemistry*, **2007**, 46, 6477-87	3.2	52
58	Deciphering protein dynamics from NMR data using explicit structure sampling and selection. *Biophysical Journal*, **2007**, 93, 2300-6	2.9	61
57	Nitric oxide cell signaling: S-nitrosation of Ras superfamily GTPases. *Cardiovascular Research*, **2007**, 75, 229-39	9.9	48
56	Topological determinants of protein domain swapping. *Structure*, **2006**, 14, 5-14	5.2	67
55	Redox regulation of RhoA. *Biochemistry*, **2006**, 45, 14481-9	3.2	59
54	Ras regulation by reactive oxygen and nitrogen species. *Biochemistry*, **2006**, 45, 2200-10	3.2	46
53	Recognition and activation of Rho GTPases by Vav1 and Vav2 guanine nucleotide exchange factors. *Biochemistry*, **2005**, 44, 6573-85	3.2	45
52	Mechanism of free radical nitric oxide-mediated Ras guanine nucleotide dissociation. *Journal of Molecular Biology*, **2005**, 346, 1423-40	6.5	58
51	Novel C-Raf phosphorylation sites: serine 296 and 301 participate in Raf regulation. *FEBS Letters*, **2005**, 579, 464-8	3.8	25
50	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, 12438-45	5.4	43
49	Recognition and processing of cisplatin- and oxaliplatin-DNA adducts. *Critical Reviews in Oncology/Hematology*, **2005**, 53, 3-11	7	264
48	Mechanism of redox-mediated guanine nucleotide exchange on redox-active Rho GTPases. *Journal of Biological Chemistry*, **2005**, 280, 31003-10	5.4	92
47	Requirement for C-terminal sequences in regulation of Ect2 guanine nucleotide exchange specificity and transformation. *Journal of Biological Chemistry*, **2004**, 279, 25226-33	5.4	44

46	NMR solution structure of the focal adhesion targeting domain of focal adhesion kinase in complex with a paxillin LD peptide: evidence for a two-site binding model. *Journal of Biological Chemistry*, **2004**, 279, 8441-51	5.4	63
45	The focal adhesion targeting domain of focal adhesion kinase contains a hinge region that modulates tyrosine 926 phosphorylation. *Structure*, **2004**, 12, 881-91	5.2	35
44	New insights into FAK signaling and localization based on detection of a FAT domain folding intermediate. *Structure*, **2004**, 12, 2161-71	5.2	58
43	Molecular basis for Rho GTPase signaling specificity. *Breast Cancer Research and Treatment*, **2004**, 84, 61-71	4.4	79
42	Protein interactions with platinum-DNA adducts: from structure to function. *Journal of Inorganic Biochemistry*, **2004**, 98, 1551-9	4.2	82
41	pH-dependent perturbation of Ras-guanine nucleotide interactions and Ras guanine nucleotide exchange. *Biochemistry*, **2004**, 43, 10102-11	3.2	9
40	Mechanism of p21Ras S-nitrosylation and kinetics of nitric oxide-mediated guanine nucleotide exchange. *Biochemistry*, **2004**, 43, 2314-22	3.2	76
39	NMR solution structure of an oxaliplatin 1,2-d(GG) intrastrand cross-link in a DNA dodecamer duplex. *Journal of Molecular Biology*, **2004**, 341, 1251-69	6.5	60
38	NMR characterization of full-length farnesylated and non-farnesylated H-Ras and its implications for Raf activation. *Journal of Molecular Biology*, **2004**, 343, 1391-408	6.5	93
37	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, 6376-81	11.5	85
36	Critical role of the pleckstrin homology domain in Dbs signaling and growth regulation. *Journal of Biological Chemistry*, **2003**, 278, 21188-96	5.4	24
35	Backbone 1H, 13C, and 15N resonance assignments for the 21 kDa GTPase Rac1 complexed to GDP and Mg2+. *Journal of Biomolecular NMR*, **2003**, 27, 87-8	3	8
34	A crystallographic view of interactions between Dbs and Cdc42: PH domain-assisted guanine nucleotide exchange. *EMBO Journal*, **2002**, 21, 1315-26	13	182
33	Role of MLK3-mediated activation of p70 S6 kinase in Rac1 transformation. *Journal of Biological Chemistry*, **2002**, 277, 4770-7	5.4	18
32	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, 2487-97	4.8	45
31	Structural and biophysical insights into the role of the insert region in Rac1 function. *Biochemistry*, **2002**, 41, 3875-83	3.2	22
30	Molecular basis for Rac1 recognition by guanine nucleotide exchange factors. *Nature Structural Biology*, **2001**, 8, 1037-41		78
29	The insert region of Rac1 is essential for membrane ruffling but not cellular transformation. *Molecular and Cellular Biology*, **2001**, 21, 2847-57	4.8	34

28	Bacterial expressed DH and DH/PH domains. *Methods in Enzymology*, **2000**, 325, 25-38	1.7	22
27	The Ras/p120 GTPase-activating protein (GAP) interaction is regulated by the p120 GAP pleckstrin homology domain. *Journal of Biological Chemistry*, **2000**, 275, 35021-7	5.4	35
26	Elucidation of binding determinants and functional consequences of Ras/Raf-cysteine-rich domain interactions. *Journal of Biological Chemistry*, **2000**, 275, 22172-9	5.4	78
25	Vav2 is an activator of Cdc42, Rac1, and RhoA. *Journal of Biological Chemistry*, **2000**, 275, 10141-9	5.4	208
24	TC21 and Ras share indistinguishable transforming and differentiating activities. *Oncogene*, **1999**, 18, 2107-16	9.2	54
23	Dependence of Dbl and Dbs transformation on MEK and NF-kappaB activation. *Molecular and Cellular Biology*, **1999**, 19, 7759-70	4.8	101
22	Increasing complexity of Ras signal transduction: involvement of Rho family proteins. *Advances in Cancer Research*, **1998**, 72, 57-107	5.9	133
21	Increasing complexity of Ras signaling. *Oncogene*, **1998**, 17, 1395-413	9.2	903
20	Rho family proteins and Ras transformation: the RHOad less traveled gets congested. *Oncogene*, **1998**, 17, 1415-38	9.2	316
19	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, 21578-84	5.4	36
18	A molecular redox switch on p21(ras). Structural basis for the nitric oxide-p21(ras) interaction. *Journal of Biological Chemistry*, **1997**, 272, 4323-6	5.4	379
17	14-3-3 zeta negatively regulates raf-1 activity by interactions with the Raf-1 cysteine-rich domain. *Journal of Biological Chemistry*, **1997**, 272, 20990-3	5.4	103
16	Structural and functional analysis of a mutant Ras protein that is insensitive to nitric oxide activation. *Biochemistry*, **1997**, 36, 3640-4	3.2	60
15	Dbl family proteins. *Biochimica Et Biophysica Acta: Reviews on Cancer*, **1997**, 1332, F1-23	11.2	112
14	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, 8312-7	11.5	170
13	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, 1577-81	11.5	72
12	Involvement of the switch 2 domain of Ras in its interaction with guanine nucleotide exchange factors. *Journal of Biological Chemistry*, **1996**, 271, 11076-82	5.4	43
11	Ras interaction with two distinct binding domains in Raf-1 may be required for Ras transformation. *Journal of Biological Chemistry*, **1996**, 271, 233-7	5.4	126

10	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		
9	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, 1272-6	11.5	34
8	Two distinct Raf domains mediate interaction with Ras. *Journal of Biological Chemistry*, **1995**, 270, 9809-12	5.4	181
7	Refolding and purification of Ras proteins. *Methods in Enzymology*, **1995**, 255, 3-13	1.7	29
6	Biomolecular applications of heteronuclear multidimensional NMR. *Current Opinion in Biotechnology*, **1994**, 5, 346-54	11.4	4
5	Improved 4D NMR experiments for the assignment of backbone nuclei in13C/15N labelled proteins. *Journal of Biomolecular NMR*, **1992**, 2, 631-637	3	43
4	High-resolution NMR studies of Saccharomyces cerevisiae. *Annual Review of Microbiology*, **1987**, 41, 595-616	17.9	48
3	Exciton interactions in phycoerythrin. *Photosynthesis Research*, **1986**, 10, 209-15	3.7	1
2	Kinetics of creatine kinase in heart: a 31P NMR saturation- and inversion-transfer study. *Biochemistry*, **1985**, 24, 5510-6	3.2	80
1	In vivo 31P nuclear magnetic resonance saturation transfer measurements of phosphate exchange reactions in the yeast Saccharomyces cerevisiae. *FEBS Letters*, **1985**, 193, 189-93	3.8	24