# 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 | Increasing complexity of Ras signaling. Oncogene, 1998, 17, 1395-1413. | 5.9 | 977 |
| 2 | A Molecular Redox Switch on p21. Journal of Biological Chemistry, 1997, 272, 4323-4326. | 3.4 | 433 |
| 3 | Copper is required for oncogenic BRAF signalling and tumorigenesis. Nature, 2014, 509, 492-496. | 27.8 | 425 |
| 4 | Rho family proteins and Ras transformation: the RHOad less traveled gets congested. Oncogene, 1998, 17, 1415-1438. | 5.9 | 337 |
| 5 | Recognition and processing of cisplatin- and oxaliplatin-DNA adducts. Critical Reviews in Oncology/Hematology, 2005, 53, 3-11. | 4.4 | 306 |
| 6 | Molecular mechanism of vinculin activation and nanoscale spatial organization in focal adhesions. Nature Cell Biology, 2015, 17, 880-892. | 10.3 | 247 |
| 7 | 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 |
| 8 | Vav2 Is an Activator of Cdc42, Rac1, and RhoA. Journal of Biological Chemistry, 2000, 275, 10141-10149. | 3.4 | 226 |
| 9 | Two Distinct Raf Domains Mediate Interaction with Ras. Journal of Biological Chemistry, 1995, 270, 9809-9812. | 3.4 | 214 |
| 10 | 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 |
| 11 | A crystallographic view of interactions between Dbs and Cdc42: PH domain-assisted guanine nucleotide exchange. EMBO Journal, 2002, 21, 1315-1326. | 7.8 | 198 |
| 12 | Direct Activation of RhoA by Reactive Oxygen Species Requires a Redox-Sensitive Motif. PLoS ONE, 2009, 4, e8045. | 2.5 | 176 |
| 13 | Mutation-Specific RAS Oncogenicity Explains NRAS Codon 61 Selection in Melanoma. Cancer Discovery, 2014, 4, 1418-1429. | 9.4 | 174 |
| 14 | Increasing Complexity of Ras Signal Transduction: Involvement of Rho Family Proteins. Advances in Cancer Research, 1997, 72, 57-107. | 5.0 | 150 |
| 15 | Dbl family proteins. Biochimica Et Biophysica Acta: Reviews on Cancer, 1997, 1332, F1-F23. | 7.4 | 140 |
| 16 | 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 |
| 17 | Atypical KRASG12R Mutant Is Impaired in PI3K Signaling and Macropinocytosis in Pancreatic Cancer. Cancer Discovery, 2020, 10, 104-123. | 9.4 | 131 |
| 18 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mechanism of Redox-mediated Guanine Nucleotide Exchange on Redox-active Rho GTPases. Journal of Biological Chemistry, 2005, 280, 31003-31010. | 3.4 | 109 |
| 20 | Dependence of Dbl and Dbs Transformation on MEK and NF-Î°B Activation. Molecular and Cellular Biology, 1999, 19, 7759-7770. | 2.3 | 108 |
| 21 | 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 |
| 22 | 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 |
| 23 | 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 |
| 24 | 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 |
| 25 | Kinetics of creatine kinase in heart: a phosphorus-31 NMR saturation- and inversion-transfer study. Biochemistry, 1985, 24, 5510-5516. | 2.5 | 92 |
| 26 | Molecular Basis for Rho GTPase Signaling Specificity. Breast Cancer Research and Treatment, 2004, 84, 61-71. | 2.5 | 90 |
| 27 | Protein interactions with platinumâ€“DNA adducts: from structure to function. Journal of Inorganic Biochemistry, 2004, 98, 1551-1559. | 3.5 | 90 |
| 28 | 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 |
| 29 | Molecular basis for Rac1 recognition by guanine nucleotide exchange factors. Nature Structural Biology, 2001, 8, 1037-1041. | 9.7 | 84 |
| 30 | Mechanism of p21RasS-Nitrosylation and Kinetics of Nitric Oxide-Mediated Guanine Nucleotide Exchangeâ€. Biochemistry, 2004, 43, 2314-2322. | 2.5 | 83 |
| 31 | Site-specific monoubiquitination activates Ras by impeding GTPase-activating protein function. Nature Structural and Molecular Biology, 2013, 20, 46-52. | 8.2 | 80 |
| 32 | Multiple paxillin binding sites regulate FAK function. Journal of Molecular Signaling, 2008, 3, 1. | 0.5 | 79 |
| 33 | Redox Regulation of Ras and Rho GTPases: Mechanism and Function. Antioxidants and Redox Signaling, 2013, 18, 250-258. | 5.4 | 77 |
| 34 | 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 |
| 35 | Redox Regulation of RhoA. Biochemistry, 2006, 45, 14481-14489. | 2.5 | 74 |
| 36 | Topological Determinants of Protein Domain Swapping. Structure, 2006, 14, 5-14. | 3.3 | 73 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Deciphering Protein Dynamics from NMR Data Using Explicit Structure Sampling and Selection. Biophysical Journal, 2007, 93, 2300-2306. | 0.5 | 72 |
| 38 | Structural and Functional Analysis of a Mutant Ras Protein That Is Insensitive to Nitric Oxide Activationâ€. Biochemistry, 1997, 36, 3640-3644. | 2.5 | 70 |
| 39 | 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 |
| 40 | Mechanism of Free Radical Nitric Oxide-mediated Ras Guanine Nucleotide Dissociation. Journal of Molecular Biology, 2005, 346, 1423-1440. | 4.2 | 66 |
| 41 | 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 |
| 42 | Differences in the Regulation of K-Ras and H-Ras Isoforms by Monoubiquitination. Journal of Biological Chemistry, 2013, 288, 36856-36862. | 3.4 | 65 |
| 43 | New Insights into FAK Signaling and Localization Based on Detection of a FAT Domain Folding Intermediate. Structure, 2004, 12, 2161-2171. | 3.3 | 62 |
| 44 | Dominant activating RAC2 mutation with lymphopenia, immunodeficiency, and cytoskeletal defects. Blood, 2019, 133, 1977-1988. | 1.4 | 61 |
| 45 | TC21 and Ras share indistinguishable transforming and differentiating activities. Oncogene, 1999, 18, 2107-2116. | 5.9 | 60 |
| 46 | Nitric oxide cell signaling: S-nitrosation of Ras superfamily GTPases. Cardiovascular Research, 2007, 75, 229-239. | 3.8 | 57 |
| 47 | 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 |
| 48 | Rho GTPases, oxidation, and cell redox control. Small GTPases, 2014, 5, e28579. | 1.6 | 57 |
| 49 | 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 |
| 50 | High-Resolution NMR Studies of Saccharomyces Cerevisiae. Annual Review of Microbiology, 1987, 41, 595-616. | 7.3 | 54 |
| 51 | 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 |
| 52 | 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 |
| 53 | Ras Regulation by Reactive Oxygen and Nitrogen Species. Biochemistry, 2006, 45, 2200-2210. | 2.5 | 51 |
| 54 | Lipid Binding to the Tail Domain of Vinculin. Journal of Biological Chemistry, 2009, 284, 7223-7231. | 3.4 | 51 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 55 | 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 |
| 56 | 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 |
| 57 | 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 |
| 58 | Identification of an Actin Binding Surface on Vinculin that Mediates Mechanical Cell and Focal Adhesion Properties. Structure, 2014, 22, 697-706. | 3.3 | 49 |
| 59 | The Structural Basis of Actin Organization by Vinculin and Metavinculin. Journal of Molecular Biology, 2016, 428, 10-25. | 4.2 | 49 |
| 60 | 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 |
| 61 | Recognition and Activation of Rho GTPases by Vav1 and Vav2 Guanine Nucleotide Exchange Factorsâ€. Biochemistry, 2005, 44, 6573-6585. | 2.5 | 46 |
| 62 | 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 |
| 63 | 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 |
| 64 | 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 |
| 65 | 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 |
| 66 | 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 |
| 67 | A KRAS GTPase K104Q Mutant Retains Downstream Signaling by Offsetting Defects in Regulation. Journal of Biological Chemistry, 2017, 292, 4446-4456. | 3.4 | 36 |
| 68 | Redox regulation of Rac1 by thiol oxidation. Free Radical Biology and Medicine, 2015, 79, 237-250. | 2.9 | 34 |
| 69 | A universal allosteric mechanism for G protein activation. Molecular Cell, 2021, 81, 1384-1396.e6. | 9.7 | 33 |
| 70 | [1] Refolding and purification of ras proteins. Methods in Enzymology, 1995, 255, 3-13. | 1.0 | 32 |
| 71 | Vinculin and metavinculin: Oligomerization and interactions with Fâ€actin. FEBS Letters, 2013, 587, 1220-1229. | 2.8 | 31 |
| 72 | Novel C-Raf phosphorylation sites: serine 296 and 301 participate in Raf regulation. FEBS Letters, 2005, 579, 464-468. | 2.8 | 29 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Post-translational modification of RAS proteins. Current Opinion in Structural Biology, 2021, 71, 180-192. | 5.7 | 29 |
| 74 | Glutathiolated Ras: Characterization and implications for Ras activation. Free Radical Biology and Medicine, 2013, 57, 221-229. | 2.9 | 28 |
| 75 | Vinculin regulation of F-actin bundle formation. Cell Adhesion and Migration, 2013, 7, 219-225. | 2.7 | 28 |
| 76 | Regulation of large and small G proteins by ubiquitination. Journal of Biological Chemistry, 2019, 294, 18613-18623. | 3.4 | 28 |
| 77 | 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 |
| 78 | Critical Role of the Pleckstrin Homology Domain in Dbs Signaling and Growth Regulation. Journal of Biological Chemistry, 2003, 278, 21188-21196. | 3.4 | 27 |
| 79 | Bacterial expressed DH and DH/PH domains. Methods in Enzymology, 2000, 325, 25-38. | 1.0 | 26 |
| 80 | Structural and Biophysical Insights into the Role of the Insert Region in Rac1 Functionâ€. Biochemistry, 2002, 41, 3875-3883. | 2.5 | 24 |
| 81 | Regulation of Ras proteins by reactive nitrogen species. Free Radical Biology and Medicine, 2011, 51, 565-575. | 2.9 | 23 |
| 82 | 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 |
| 83 | Structure and Function of Palladin's Actin Binding Domain. Journal of Molecular Biology, 2013, 425, 3325-3337. | 4.2 | 22 |
| 84 | Flanking Bases Influence the Nature of DNA Distortion by Platinum 1,2-Intrastrand (GG) Cross-Links. PLoS ONE, 2011, 6, e23582. | 2.5 | 19 |
| 85 | Phosphorylation at Y1065 in Vinculin Mediates Actin Bundling, Cell Spreading, and Mechanical Responses to Force. Biochemistry, 2014, 53, 5526-5536. | 2.5 | 19 |
| 86 | Vinculin and metavinculin exhibit distinct effects on focal adhesion properties, cell migration, and mechanotransduction. PLoS ONE, 2019, 14, e0221962. | 2.5 | 19 |
| 87 | Rationally designed carbohydrate-occluded epitopes elicit HIV-1 Env-specific antibodies. Nature Communications, 2019, 10, 948. | 12.8 | 19 |
| 88 | Role of MLK3-mediated Activation of p70 S6 Kinase in Rac1 Transformation. Journal of Biological Chemistry, 2002, 277, 4770-4777. | 3.4 | 18 |
| 89 | Structural Characterization of the Interactions between Palladin and Î±-Actinin. Journal of Molecular Biology, 2011, 413, 712-725. | 4.2 | 18 |
| 90 | Amino acid metabolites that regulate G protein signaling during osmotic stress. PLoS Genetics, 2017, 13, e1006829. | 3.5 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Site-specific monoubiquitination activates Ras by impeding GTPase-activating protein function. Small GTPases, 2013, 4, 186-192. | 1.6 | 14 |
| 92 | KRAS Ubiquitination at Lysine 104 Retains Exchange Factor Regulation by Dynamically Modulating the Conformation of the Interface. IScience, 2020, 23, 101448. | 4.1 | 14 |
| 93 | Divergent Mechanisms Activating RAS and Small GTPases Through Post-translational Modification. Frontiers in Molecular Biosciences, 2021, 8, 707439. | 3.5 | 13 |
| 94 | Rac1 modification by an electrophilic 15-deoxy Î”12,14-prostaglandin J2 analog. Redox Biology, 2015, 4, 346-354. | 9.0 | 12 |
| 95 | Protein-Protein Interaction Analysis by Nuclear Magnetic Resonance Spectroscopy. Methods in Molecular Biology, 2015, 1278, 267-279. | 0.9 | 12 |
| 96 | Vinculin Tail Conformation and Self-Association Is Independent of pH and H906 Protonation. Biochemistry, 2008, 47, 12467-12475. | 2.5 | 11 |
| 97 | Cardiomyopathy Mutations in Metavinculin Disrupt Regulation of Vinculin-Induced F-Actin Assemblies. Journal of Molecular Biology, 2019, 431, 1604-1618. | 4.2 | 11 |
| 98 | Enhanced BRAF engagement by NRAS mutants capable of promoting melanoma initiation. Nature Communications, 2022, 13, . | 12.8 | 11 |
| 99 | Detection of Ras GTPase protein radicals through immuno-spin trapping. Free Radical Biology and Medicine, 2012, 53, 1339-1345. | 2.9 | 10 |
| 100 | pH-Dependent Perturbation of Rasâ^'Guanine Nucleotide Interactions and Ras Guanine Nucleotide Exchangeâ€. Biochemistry, 2004, 43, 10102-10111. | 2.5 | 9 |
| 101 | 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 |
| 102 | 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 |
| 103 | RAS ubiquitylation modulates effector interactions. Small GTPases, 2020, 11, 1-6. | 1.6 | 8 |
| 104 | Biomolecular applications of heteronuclear multidimensional NMR. Current Opinion in Biotechnology, 1994, 5, 346-354. | 6.6 | 7 |
| 105 | In Vitro Phosphorylation of the Focal Adhesion Targeting Domain of Focal Adhesion Kinase by Src Kinase. Biochemistry, 2012, 51, 2213-2223. | 2.5 | 7 |
| 106 | Biophysical and Proteomic Characterization Strategies for Cysteine Modifications in Ras GTPases. Methods in Molecular Biology, 2014, 1120, 75-96. | 0.9 | 7 |
| 107 | Identification of lysine methylation in the core GTPase domain by GoMADScan. PLoS ONE, 2019, 14, e0219436. | 2.5 | 6 |
| 108 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Backbone 1H, 13C, and 15N NMR assignments of the tail domain of vinculin. Biomolecular NMR Assignments, 2008, 2, 69-71. | 0.8 | 5 |
| 110 | Getting a Handle on RAS-targeted Therapies: Cysteine Directed Inhibitors. Mini-Reviews in Medicinal Chemistry, 2016, 16, 383-390. | 2.4 | 5 |
| 111 | Oncogenic KRAS G12C: Kinetic and redox characterization of covalent inhibition. Journal of Biological Chemistry, 2022, 298, 102186. | 3.4 | 5 |
| 112 | Distinct Binding Modes of Vinculin Isoforms Underlie Their Functional Differences. Structure, 2019, 27, 1527-1536.e3. | 3.3 | 4 |
| 113 | 1H, 15N, and 13C NMR chemical shift assignments for the Ig3 domain of palladin. Biomolecular NMR Assignments, 2008, 2, 51-53. | 0.8 | 3 |
| 114 | Biophysical and Structural Characterization of Novel RAS-Binding Domains (RBDs) of PI3KÎ± and PI3KÎ³. Journal of Molecular Biology, 2021, 433, 166838. | 4.2 | 3 |
| 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. | 2.6 | 3 |
| 116 | Exciton interactions in phycoerythrin. Photosynthesis Research, 1986, 10, 209-215. | 2.9 | 1 |
| 117 | Differences in Conformation and Conformational Dynamics Between Cisplatin and Oxaliplatin DNA Adducts. , 2009, , 157-169. | | 1 |
| 118 | Ras Activity Regulation by Monoubiquitination. FASEB Journal, 2013, 27, 1046.3. | 0.5 | 0 |
| 119 | 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 |