H Steven Wiley

List of Publications by Year
in descending order

105 papers	8,515 citations	47006 47 h-index	48315 88 g-index
109 all docs	109 docs citations	109 times ranked	9184 citing authors

#	Article	IF	Citations
1	Dynamics and Sensitivity of Signaling Pathways. Current Pathobiology Reports, 2022, 10, 11-22.	3.4	2
2	Surfactant-assisted one-pot sample preparation for label-free single-cell proteomics. Communications Biology, 2021, 4, 265.	4.4	46
3	Facile One-Pot Nanoproteomics for Label-Free Proteome Profiling of 50â€“1000 Mammalian Cells. Journal of Proteome Research, 2021, 20, 4452-4461.	3.7	12
4	Receptor-Driven ERK Pulses Reconfigure MAPK Signaling and Enable Persistence of Drug-Adapted BRAF-Mutant Melanoma Cells. Cell Systems, 2020, 11, 478-494.e9.	6.2	71
5	Carrier-Assisted Single-Tube Processing Approach for Targeted Proteomics Analysis of Low Numbers of Mammalian Cells. Analytical Chemistry, 2019, 91, 1441-1451.	6.5	24
6	Targeted Quantification of Phosphorylation Dynamics in the Context of EGFR-MAPK Pathway. Analytical Chemistry, 2018, 90, 5256-5263.	6.5	39
7	How low can you go?. ELife, 2018, 7, .	6.0	4
8	A systems perspective of heterocellular signaling. Essays in Biochemistry, 2018, 62, 607-617.	4.7	12
9	Facile carrier-assisted targeted mass spectrometric approach for proteomic analysis of low numbers of mammalian cells. Communications Biology, 2018, 1, 103.	4.4	21
10	Decoding Signal Processing at the Single-Cell Level. Cell Systems, 2017, 5, 542-543.	6.2	1
11	Predicting Species-Resolved Macronutrient Acquisition during Succession in a Model Phototrophic Biofilm Using an Integrated â€˜Omics Approach. Frontiers in Microbiology, 2017, 8, 1020.	3.5	287
12	Conservation of protein abundance patterns reveals the regulatory architecture of the EGFR-MAPK pathway. Science Signaling, 2016, 9, rs6.	3.6	119
13	Science Signaling Podcast for 12 July 2016: Adaptor proteins limit signaling. Science Signaling, 2016, 9, c16.	3.6	0
14	Sensitive Targeted Quantification of ERK Phosphorylation Dynamics and Stoichiometry in Human Cells without Affinity Enrichment. Analytical Chemistry, 2015, 87, 1103-1110.	6.5	32
15	Open questions: The disrupted circuitry of the cancer cell. BMC Biology, 2014, 12, 88.	3.8	4
16	Autocrine HBEGF expression promotes breast cancer intravasation, metastasis and macrophage-independent invasion in vivo. Oncogene, 2014, 33, 3784-3793.	5.9	85
17	Inference of interactions in cyanobacterialâ€“heterotrophic co-cultures via transcriptome sequencing. ISME Journal, 2014, 8, 2243-2255.	9.8	75
18	Changes in translational efficiency is a dominant regulatory mechanism in the environmental response of bacteria. Integrative Biology (United Kingdom), 2013, 5, 1393.	1.3	46

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19	Coregulation of Terpenoid Pathway Genes and Prediction of Isoprene Production in Bacillus subtilis Using Transcriptomics. PLoS ONE, 2013, 8, e66104.	2.5	30
20	Microbial Diversity and Biogeochemical Function of the Phototrophic Microbial Mats of Epsomitic Hot Lake, WA. Microscopy and Microanalysis, 2012, 18, 10-11.	0.4	3
21	Integrated experimental and model-based analysis reveals the spatial aspects of EGFR activation dynamics. Molecular BioSystems, 2012, 8, 2868.	2.9	15
22	Improving RNA-Seq Precision with MapAl. Frontiers in Genetics, 2012, 3, 28.	2.3	3
23	Network Analysis of Epidermal Growth Factor Signaling Using Integrated Genomic, Proteomic and Phosphorylation Data. PLoS ONE, 2012, 7, e34515.	2.5	37
24	Integrating Multiple Types of Data for Signaling Research: Challenges and Opportunities. Science Signaling, 2011, 4, pe9.	3.6	17
25	Characterization and improvement of RNA-Seq precision in quantitative transcript expression profiling. Bioinformatics, 2011, 27, i383-i391.	4.1	119
26	Basic Fibroblast Growth Factor Regulates Persistent ERK Oscillations in Premalignant but Not Malignant JB6 Cells. Journal of Investigative Dermatology, 2010, 130, 1444-1456.	0.7	24
27	The heparin-binding domain of HB-EGF mediates localization to sites of cell-cell contact and prevents HB-EGF proteolytic release. Journal of Cell Science, 2010, 123, 2308-2318.	2.0	40
28	Oscillatory dynamics of the extracellular signal-regulated kinase pathway. Current Opinion in Genetics and Development, 2010, 20, 650-655.	3.3	34
29	Structure of the EGF receptor transactivation circuit integrates multiple signals with cell context. Molecular BioSystems, 2010, 6, 1293.	2.9	23
30	Rapid and sustained nuclearâ€“cytoplasmic ERK oscillations induced by epidermal growth factor. Molecular Systems Biology, 2009, 5, 332.	7.2	216
31	An analysis pipeline for the inference of protein-protein interaction networks. International Journal of Data Mining and Bioinformatics, 2009, 3, 409.	0.1	3
32	HER/ErbB receptor interactions and signaling patterns in human mammary epithelial cells. BMC Cell Biology, 2009, 10, 78.	3.0	34
33	An Extensive Survey of Tyrosine Phosphorylation Revealing New Sites in Human Mammary Epithelial Cells. Journal of Proteome Research, 2009, 8, 3852-3861.	3.7	51
34	A General System for Studying Proteinâ^'Protein Interactions in Gram-Negative Bacteria. Journal of Proteome Research, 2008, 7, 3319-3328.	3.7	24
35	The Mammary Epithelial Cell Secretome and Its Regulation by Signal Transduction Pathways. Journal of Proteome Research, 2008, 7, 558-569.	3.7	29
36	Multiple Mechanisms Are Responsible for Transactivation of the Epidermal Growth Factor Receptor in Mammary Epithelial Cells. Journal of Biological Chemistry, 2008, 283, 31477-31487.	3.4	53

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37	Smad Signaling Dynamics: Insights from a Parsimonious Model. Science Signaling, 2008, 1, pe41.	3.6	8
38	Investigating the correspondence between transcriptomic and proteomic expression profiles using coupled cluster models. Bioinformatics, 2008, 24, 2894-2900.	4.1	117
39	Cell Surface Receptors for Signal Transduction and Ligand Transport: A Design Principles Study. PLoS Computational Biology, 2007, 3, e101.	3.2	75
40	EGF-receptor-mediated mammary epithelial cell migration is driven by sustained ERK signaling from autocrine stimulation. Journal of Cell Science, 2007, 120, 3688-3699.	2.0	82
41	Enabling high-throughput data management for systems biology: The Bioinformatics Resource Manager. Bioinformatics, 2007, 23, 906-909.	4.1	45
42	Statistically Inferring Proteinâ^'Protein Associations with Affinity Isolation LCâ^'MS/MS Assays. Journal of Proteome Research, 2007, 6, 3788-3795.	3.7	11
43	High speed method for in situ multispectral image registration. Microscopy Research and Technique, 2007, 70, 382-389.	2.2	5
44	Receptor downregulation and desensitization enhance the information processing ability of signalling receptors. BMC Systems Biology, 2007, 1, 48.	3.0	64
45	Modeling the Effects of HER/ErbB1-3 Coexpression on Receptor Dimerization and Biological Response. Biophysical Journal, 2006, 90, 3993-4009.	0.5	62
46	The Membrane-anchoring Domain of Epidermal Growth Factor Receptor Ligands Dictates Their Ability to Operate in Juxtacrine Mode. Molecular Biology of the Cell, 2005, 16, 2984-2998.	2.1	31
47	Parsing ERK Activation Reveals Quantitatively Equivalent Contributions from Epidermal Growth Factor Receptor and HER2 in Human Mammary Epithelial Cells. Journal of Biological Chemistry, 2005, 280, 6157-6169.	3.4	63
48	A Model of Cytokine Shedding Induced by Low Doses of Gamma Radiation. Radiation Research, 2005, 163, 337-342.	1.5	7
49	Ligand Accumulation in Autocrine Cell Cultures. Biophysical Journal, 2005, 88, 2384-2390.	0.5	38
50	Cholesterol Dictates the Freedom of EGF Receptors and HER2 in the Plane of the Membrane. Biophysical Journal, 2005, 89, 1362-1373.	0.5	116
51	Simple Protein Complex Purification and Identification Method for High-Throughput Mapping of Protein Interaction Networks. Journal of Proteome Research, 2005, 4, 268-274.	3.7	17
52	News. IET Systems Biology, 2005, 152, 53.	2.0	1
53	Identification of Proteins in Human Cytomegalovirus (HCMV) Particles: the HCMV Proteome. Journal of Virology, 2004, 78, 10960-10966.	3.4	521
54	Induced Autocrine Signaling through the Epidermal Growth Factor Receptor Contributes to the Response of Mammary Epithelial Cells to Tumor Necrosis Factor Î±. Journal of Biological Chemistry, 2004, 279, 18488-18496.	3.4	48

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55	Epidermal growth factor receptor signaling in tissues. IEEE Control Systems, 2004, 24, 53-61.	0.8	5
56	Should software hold data hostage?. Nature Biotechnology, 2004, 22, 1037-1038.	17.5	16
57	Self-Organization of Polarized Cell Signaling via Autocrine Circuits: Computational Model Analysis. Biophysical Journal, 2004, 86, 10-22.	0.5	52
58	FRET measurements between small numbers of molecules identifies subtle changes in receptor interactions. , 2004, , .		0
59	Computational modeling of the EGF-receptor system: a paradigm for systems biology. Trends in Cell Biology, 2003, 13, 43-50.	7.9	328
60	Flow-cytometric isolation of human antibodies from a nonimmune Saccharomyces cerevisiae surface display library. Nature Biotechnology, 2003, 21, 163-170.	17.5	462
61	Trafficking of the ErbB receptors and its influence on signaling. Experimental Cell Research, 2003, 284, 78-88.	2.6	318
62	An Integrated Model of Epidermal Growth Factor Receptor Trafficking and Signal Transduction. Biophysical Journal, 2003, 85, 730-743.	0.5	159
63	HER2-Mediated Effects on EGFR Endosomal Sorting: Analysis of Biophysical Mechanisms. Biophysical Journal, 2003, 85, 2732-2745.	0.5	62
64	Quantitative Analysis of HER2-mediated Effects on HER2 and Epidermal Growth Factor Receptor Endocytosis. Journal of Biological Chemistry, 2003, 278, 23343-23351.	3.4	158
65	Trafficking of the ErbB receptors and its influence on signaling. , 2003, , 81-91.		1
66	Coregulation of epidermal growth factor receptor/human epidermal growth factor receptor 2 (HER2) levels and locations: quantitative analysis of HER2 overexpression effects. Cancer Research, 2003, 63, 1130-7.	0.9	111
67	Affinity regulates spatial range of EGF receptor autocrine ligand binding. Developmental Biology, 2002, 250, 305-16.	2.0	19
68	Spatial Range of Autocrine Signaling: Modeling and Computational Analysis. Biophysical Journal, 2001, 81, 1854-1867.	0.5	113
69	Probability-Weighted Dynamic Monte Carlo Method for Reaction Kinetics Simulations. Journal of Physical Chemistry B, 2001, 105, 11026-11034.	2.6	55
70	Regulation of Receptor Tyrosine Kinase Signaling by Endocytic Trafficking. Traffic, 2001, 2, 12-18.	2.7	228
71	Achieving Molecular Selectivity in Imaging Using Multiphoton Raman Spectroscopy Techniques. Traffic, 2001, 2, 781-788.	2.7	47
72	Autocrine epidermal growth factor signaling stimulates directionally persistent mammary epithelial cell migration. Journal of Cell Biology, 2001, 155, 1123-1128.	5.2	76

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73	Regulation of Epidermal Growth Factor Receptor Signaling by Endocytosis and Intracellular Trafficking. Molecular Biology of the Cell, 2001, 12, 1897-1910.	2.1	333
74	Structural and Functional Characterization of the Human Gene for Sorting Nexin 1 (SNX1). DNA and Cell Biology, 2001, 20, 287-296.	1.9	1
75	Quantitative analysis of the EGF receptor autocrine system reveals cryptic regulation of cell response by ligand capture. Journal of Cell Science, 2001, 114, 2301-2313.	2.0	78
76	Ratiometric Assay of Epidermal Growth Factor Receptor Tyrosine Kinase Activation. Analytical Biochemistry, 2000, 277, 135-142.	2.4	16
77	Trafficking and Proteolytic Release of Epidermal Growth Factor Receptor Ligands Are Modulated by Their Membrane-anchoring Domains. Journal of Biological Chemistry, 2000, 275, 557-564.	3.4	68
78	Internalized Epidermal Growth Factor Receptors Participate in the Activation of p21 in Fibroblasts. Journal of Biological Chemistry, 1999, 274, 34350-34360.	3.4	134
79	ErbB-2 Amplification Inhibits Down-regulation and Induces Constitutive Activation of Both ErbB-2 and Epidermal Growth Factor Receptors. Journal of Biological Chemistry, 1999, 274, 8865-8874.	3.4	293
80	Effect of Epidermal Growth Factor Receptor Internalization on Regulation of the Phospholipase C-Î³1 Signaling Pathway. Journal of Biological Chemistry, 1999, 274, 8958-8965.	3.4	104
81	Metalloprotease-mediated ligand release regulates autocrine signaling through the epidermal growth factor receptor. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 6235-6240.	7.1	241
82	Amphiregulin acts as an autocrine growth factor in two human polarizing colon cancer lines that exhibit domain selective EGF receptor mitogenesis. British Journal of Cancer, 1999, 80, 1012-1019.	6.4	64
83	Human mammary epithelial cells rapidly exchange empty EGFR between surface and intracellular pools. , 1999, 180, 448-460.		39
84	Removal of the Membrane-anchoring Domain of Epidermal Growth Factor Leads to Intracrine Signaling and Disruption of Mammary Epithelial Cell Organization. Journal of Cell Biology, 1998, 143, 1317-1328.	5.2	55
85	Real-time quantitative measurement of autocrine ligand binding indicates that autocrine loops are spatially localized. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 15368-15373.	7.1	54
86	Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells. American Journal of Physiology - Cell Physiology, 1998, 275, C1419-C1428.	4.6	65
87	Structural Aspects of the Epidermal Growth Factor Receptor Required for Transmodulation of erbB-2/neu. Journal of Biological Chemistry, 1997, 272, 8594-8601.	3.4	36
88	The Enhanced Tumorigenic Activity of a Mutant Epidermal Growth Factor Receptor Common in Human Cancers Is Mediated by Threshold Levels of Constitutive Tyrosine Phosphorylation and Unattenuated Signaling. Journal of Biological Chemistry, 1997, 272, 2927-2935.	3.4	502
89	Endocytic Relay as a Potential Means for Enhancing Ligand Transport through Cellular Tissue Matrices: Analysis and Possible Implications for Drug Delivery. Tissue Engineering, 1996, 2, 17-38.	4.6	10
90	Engineering dynamics of growth factors and other therapeutic ligands. , 1996, 52, 61-80.		12

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91	Engineering epidermal growth factor for enhanced mitogenic potency. Nature Biotechnology, 1996, 14, 1696-1699.	17.5	97
92	Ligand-induced endocytosis of epidermal growth factor receptors that are defective in binding adaptor proteins.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 8719-8723.	7.1	83
93	Molecular/cell engineering approach to autocrine ligand control of cell function. Annals of Biomedical Engineering, 1995, 23, 208-215.	2.5	14
94	Studies on Engineered Autocrine Systems: Requirements for Ligand Release from Cells Producing an Artificial Growth Factor. Tissue Engineering, 1995, 1, 81-94.	4.6	13
95	Endocytosis and Lysosomal Targeting of Epidermal Growth Factor Receptors Are Mediated by Distinct Sequences Independent of the Tyrosine Kinase Domain. Journal of Biological Chemistry, 1995, 270, 4325-4333.	3.4	135
96	Epidermal growth factor binding and trafficking dynamics in fibroblasts: relationship to cell proliferation. Chemical Engineering Science, 1990, 45, 2367-2373.	3.8	14
97	Functional independence of the epidermal growth factor receptor from a domain required for ligand-induced internalization and calcium regulation. Cell, 1989, 59, 33-43.	28.9	424
98	Reassessment of fluid-phase endocytosis and diacytosis in monolayer cultures of human fibroblasts. Journal of Cellular Physiology, 1988, 136, 389-397.	4.1	34
99	[39] Assay of growth factor stimulation of fluid-phase endocytosis. Methods in Enzymology, 1987, 146, 402-417.	1.0	9
100	Chapter 9 Receptors as Models for the Mechanisms of Membrane Protein Turnover and Dynamics. Current Topics in Membranes and Transport, 1985, 24, 369-412.	0.6	28
101	Altered degradation of epidermal growth factor in a diphtheria toxin-resistant clone of KB cells. Journal of Cellular Physiology, 1985, 124, 322-330.	4.1	9
102	An enzymatic method for radiolabeling vertebrate vitellogenin. Analytical Biochemistry, 1984, 140, 372-379.	2.4	5
103	Epidermal growth factor stimulates fluid phase endocytosis in human fibroblasts through a signal generated at the cell surface. Journal of Cellular Biochemistry, 1982, 19, 383-394.	2.6	34
104	A steady state model for analyzing the cellular binding, internalization and degradation of polypeptide ligands. Cell, 1981, 25, 433-440.	28.9	229
105	New methods for the purification of vertebrate vitellogenin. Analytical Biochemistry, 1979, 97, 145-152.	2.4	108