Sean R Cutler

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6507645/publications.pdf

Version: 2024-02-01

75	14,549	53660	85405
papers	citations	45 h-index	71 g-index

79	79	79	11103
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Closed Form Model for Molecular Ratchet-Type Chemically Induced Dimerization Modules. Biochemistry, 2023, 62, 281-291.	1.2	4
2	Chemical Approaches for Improving Plant Water Use. Methods in Molecular Biology, 2022, 2462, 221-230.	0.4	4
3	Synthesis and characterization of abscisic acid receptor modulators. Methods in Enzymology, 2022, , .	0.4	0
4	Systematic characterization of gene function in the photosynthetic alga Chlamydomonas reinhardtii. Nature Genetics, 2022, 54, 705-714.	9.4	42
5	Rapid biosensor development using plant hormone receptors as reprogrammable scaffolds. Nature Biotechnology, 2022, 40, 1855-1861.	9.4	34
6	In Planta Labeling Using a Clickable ER-Disrupting Probe Suggests a Role for Oleosins in Arabidopsis Seedling ER Integrity. ACS Chemical Biology, 2021, 16, 2151-2157.	1.6	1
7	Click-to-lead design of a picomolar ABA receptor antagonist with potent activity in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	20
8	A yeast surface display platform for plant hormone receptors: Toward directed evolution of new biosensors. AICHE Journal, 2020, 66, e16767.	1.8	6
9	User-defined single pot mutagenesis using unamplified oligo pools. Protein Engineering, Design and Selection, 2019, 32, 41-45.	1.0	19
10	The MATH-BTB BPM3 and BPM5 subunits of Cullin3-RING E3 ubiquitin ligases target PP2CA and other clade A PP2Cs for degradation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15725-15734.	3.3	56
11	Toward Development of Fluorescence-Quenching-Based Biosensors for Drought Stress in Plants. Analytical Chemistry, 2019, 91, 15644-15651.	3.2	7
12	Abscisic acid as a gateway for the crops of tomorrow. Advances in Botanical Research, 2019, 92, 341-370.	0.5	4
13	Dynamic control of plant water use using designed ABA receptor agonists. Science, 2019, 366, .	6.0	107
14	Defining and Exploiting Hypersensitivity Hotspots to Facilitate Abscisic Acid Agonist Optimization. ACS Chemical Biology, 2019, 14, 332-336.	1.6	19
15	Tuning water-use efficiency and drought tolerance in wheat using abscisic acid receptors. Nature Plants, 2019, 5, 153-159.	4.7	203
16	Optimized smallâ€molecule pullâ€downs define <scp>MLBP</scp>1 as an acylâ€lipidâ€binding protein. Plant Journal, 2019, 98, 928-941.	2.8	5
17	Where are the drought tolerant crops? An assessment of more than two decades of plant biotechnology effort in crop improvement. Plant Science, 2018, 273, 110-119.	1.7	106
18	Chemical Control of ABA Receptors to Enable Plant Protection Against Water Stress. Methods in Molecular Biology, 2018, 1795, 127-141.	0.4	8

#	Article	IF	Citations
19	Small Molecule Probes of ABA Biosynthesis and Signaling. Plant and Cell Physiology, 2018, 59, 1490-1499.	1.5	70
20	Abscisic Acid Signaling and Biosynthesis: Protein Structures and Molecular Probes. , 2018, , 113-146.		1
21	Engineering Plant Signal Transduction for Water Smart Crops. FASEB Journal, 2018, 32, 380.1.	0.2	0
22	A Rationally Designed Agonist Defines Subfamily IIIA Abscisic Acid Receptors As Critical Targets for Manipulating Transpiration. ACS Chemical Biology, 2017, 12, 2842-2848.	1.6	57
23	ACCERBATIN, a small molecule at the intersection of auxin and reactive oxygen species homeostasis with herbicidal properties. Journal of Experimental Botany, 2017, 68, 4185-4203.	2.4	7
24	Chemical-Induced Inhibition of Blue Light-Mediated Seedling Development Caused by Disruption of Upstream Signal Transduction Involving Cryptochromes inArabidopsis thaliana. Plant and Cell Physiology, 2016, 58, pcw181.	1.5	5
25	50Âyears of Arabidopsis research: highlights and future directions. New Phytologist, 2016, 209, 921-944.	3.5	186
26	Hormone signalling: ABA has a breakdown. Nature Plants, 2016, 2, 16137.	4.7	6
27	Modification of plant cell wall structure accompanied by enhancement of saccharification efficiency using a chemical, lasalocid sodium. Scientific Reports, 2016, 6, 34602.	1.6	15
28	Chemical manipulation of plant water use. Bioorganic and Medicinal Chemistry, 2016, 24, 493-500.	1.4	58
29	Novel Vein Patterns in Arabidopsis Induced by Small Molecules. Plant Physiology, 2016, 170, 338-353.	2.3	11
30	A Novel Phenolic Compound, Chloroxynil, Improves Agrobacterium-Mediated Transient Transformation in Lotus japonicus. PLoS ONE, 2015, 10, e0131626.	1.1	14
31	Agrochemical control of plant water use using engineered abscisic acid receptors. Nature, 2015, 520, 545-548.	13.7	217
32	Discovery of small molecule inhibitors of xyloglucan endotransglucosylase (XET) activity by high-throughput screening. Phytochemistry, 2015, 117, 220-236.	1.4	13
33	Caenorhabditis elegans is a useful model for anthelmintic discovery. Nature Communications, 2015, 6, 7485.	5.8	163
34	Plant genome engineering in full bloom. Trends in Plant Science, 2014, 19, 284-287.	4.3	83
35	A Mesoscale Abscisic Acid Hormone Interactome Reveals a Dynamic Signaling Landscape in Arabidopsis. Developmental Cell, 2014, 29, 360-372.	3.1	109
36	Tomato PYR/PYL/RCAR abscisic acid receptors show high expression in root, differential sensitivity to the abscisic acid agonist quinabactin, and the capability to enhance plant drought resistance. Journal of Experimental Botany, 2014, 65, 4451-4464.	2.4	173

#	Article	IF	Citations
37	Designed abscisic acid analogs as antagonists of PYL-PP2C receptor interactions. Nature Chemical Biology, 2014, 10, 477-482.	3.9	98
38	Generation of a luciferase-based reporter for CHH and CG DNA methylation in Arabidopsis thaliana. Silence: A Journal of RNA Regulation, 2013, 4, 1.	8.0	15
39	Glutamate signalling via a <scp>MEKK</scp>1 kinaseâ€dependent pathway induces changes in <scp>A</scp>rabidopsis root architecture. Plant Journal, 2013, 75, 1-10.	2.8	65
40	Activation of dimeric ABA receptors elicits guard cell closure, ABA-regulated gene expression, and drought tolerance. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12132-12137.	3.3	262
41	Sulfamethazine Suppresses Epigenetic Silencing in Arabidopsis by Impairing Folate Synthesis. Plant Cell, 2012, 24, 1230-1241.	3.1	77
42	Molecular Mimicry Regulates ABA Signaling by SnRK2 Kinases and PP2C Phosphatases. Science, 2012, 335, 85-88.	6.0	439
43	Location, location â€¦ structure. Current Opinion in Plant Biology, 2011, 14, 477-479.	3.5	0
44	Sortin1-Hypersensitive Mutants Link Vacuolar-Trafficking Defects and Flavonoid Metabolism in Arabidopsis Vegetative Tissues. Chemistry and Biology, 2011, 18, 187-197.	6.2	38
45	Potent and selective activation of abscisic acid receptors in vivo by mutational stabilization of their agonist-bound conformation. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20838-20843.	3.3	89
46	Modulation of Abscisic Acid Signaling in Vivo by an Engineered Receptor-Insensitive Protein Phosphatase Type 2C Allele Â Ã. Plant Physiology, 2011, 156, 106-116.	2.3	104
47	A thermodynamic switch modulates abscisic acid receptor sensitivity. EMBO Journal, 2011, 30, 4171-4184.	3.5	161
48	Inducible Gene Expression in Mammals: Plants Add to the Menu. Science Signaling, 2011, 4, pe13.	1.6	4
49	Structural and functional insights into core ABA signaling. Current Opinion in Plant Biology, 2010, 13, 495-502.	3.5	234
50	PYR/PYL/RCAR family members are majorinâ€vivoABI1 protein phosphatase 2Câ€interacting proteins in Arabidopsis. Plant Journal, 2010, 61, 290-299.	2.8	451
51	Identification and mechanism of ABA receptor antagonism. Nature Structural and Molecular Biology, 2010, 17, 1102-1108.	3.6	145
52	Structural basis for selective activation of ABA receptors. Nature Structural and Molecular Biology, 2010, 17, 1109-1113.	3.6	104
53	A predictive model for drug bioaccumulation and bioactivity in Caenorhabditis elegans. Nature Chemical Biology, 2010, 6, 549-557.	3.9	164
54	Abscisic Acid: Emergence of a Core Signaling Network. Annual Review of Plant Biology, 2010, 61, 651-679.	8.6	2,506

#	Article	IF	Citations
55	Plant Nuclear Hormone Receptors: A Role for Small Molecules in Protein-Protein Interactions. Annual Review of Cell and Developmental Biology, 2010, 26, 445-469.	4.0	93
56	Modulation of drought resistance by the abscisic acid receptor PYL5 through inhibition of cladeâ€ƒA PP2Cs. Plant Journal, 2009, 60, 575-588.	2.8	476
57	The abscisic acid receptor PYR1 in complex with abscisic acid. Nature, 2009, 462, 665-668.	13.7	457
58	In vitro reconstitution of an abscisic acid signalling pathway. Nature, 2009, 462, 660-664.	13.7	1,113
59	A gateâ€“latchâ€“lock mechanism for hormone signalling by abscisic acid receptors. Nature, 2009, 462, 602-608.	13.7	608
60	Abscisic Acid Inhibits Type 2C Protein Phosphatases via the PYR/PYL Family of START Proteins. Science, 2009, 324, 1068-1071.	6.0	2,385
61	Structural Mechanism of Abscisic Acid Binding and Signaling by Dimeric PYR1. Science, 2009, 326, 1373-1379.	6.0	457
62	Elucidating the Germination Transcriptional Program Using Small Molecules Â Â. Plant Physiology, 2008, 147, 143-155.	2.3	104
63	Morlin, an inhibitor of cortical microtubule dynamics and cellulose synthase movement. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5854-5859.	3.3	149
64	Arabidopsis P-Glycoprotein19 Participates in the Inhibition of Gravitropism by Gravacin. Chemistry and Biology, 2007, 14, 1366-1376.	6.2	128
65	Chemical genetic interrogation of natural variation uncovers a molecule that is glycoactivated. Nature Chemical Biology, 2007, 3, 716-721.	3.9	103
66	Dispersion of Wood Microfibers in a Matrix of Thermoplastic Starch and Starchâ€“Polylactic Acid Blend. Journal of Biobased Materials and Bioenergy, 2007, 1, 71-77.	0.1	22
67	A small-molecule screen in C. elegans yields a new calcium channel antagonist. Nature, 2006, 441, 91-95.	13.7	263
68	High-throughput screening of small molecules for bioactivity and target identification in Caenorhabditis elegans. Nature Protocols, 2006, 1, 1906-1914.	5.5	110
69	Imaging plant cell death: GFP-Nit1 aggregation marks an early step of wound and herbicide induced cell death. BMC Plant Biology, 2005, 5, 4.	1.6	39
70	Dude, Where's My Phenotype? Dealing with Redundancy in Signaling Networks. Plant Physiology, 2005, 138, 558-559.	2.3	69
71	Polarized cytokinesis in vacuolate cells of Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2812-2817.	3.3	88
72	Dead cells don't dance: insights from live-cell imaging in plants. Current Opinion in Plant Biology, 2000, 3, 532-537.	3.5	19

#	Article	IF	Citations
73	Regulation of Abscisic Acid Signaling by the Ethylene Response Pathway in Arabidopsis. Plant Cell, 2000, 12, 1117-1126.	3.1	507
74	The irregular xylem3 Locus of Arabidopsis Encodes a Cellulose Synthase Required for Secondary Cell Wall Synthesis. Plant Cell, 1999, 11, 769-779.	3.1	492
75	Cellulose synthesis: Cloning in silico. Current Biology, 1997, 7, R108-R111.	1.8	69