Shinichiro Sawa

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6850138/publications.pdf

Version: 2024-02-01

126 papers	8,560 citations	76322 40 h-index	48312 88 g-index
130 all docs	130 docs citations	130 times ranked	7701 citing authors

#	Article	IF	Citations
1	Insights into Land Plant Evolution Garnered from the Marchantia polymorpha Genome. Cell, 2017, 171, 287-304.e15.	28.9	973
2	Dodeca-CLE Peptides as Suppressors of Plant Stem Cell Differentiation. Science, 2006, 313, 842-845.	12.6	567
3	Non-cell-autonomous control of vascular stem cell fate by a CLE peptide/receptor system. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15208-15213.	7.1	453
4	Comprehensive Comparison of Auxin-Regulated and Brassinosteroid-Regulated Genes in Arabidopsis. Plant Physiology, 2004, 134, 1555-1573.	4.8	437
5	A Plant Peptide Encoded by CLV3 Identified by in Situ MALDI-TOF MS Analysis. Science, 2006, 313, 845-848.	12.6	431
6	FILAMENTOUS FLOWER, a meristem and organ identity gene of Arabidopsis, encodes a protein with a zinc finger and HMG-related domains. Genes and Development, 1999, 13, 1079-1088.	5.9	419
7	RPK2 is an essential receptor-like kinase that transmits the CLV3 signal in <i>Arabidopsis</i>. Development (Cambridge), 2010, 137, 3911-3920.	2.5	291
8	CLE-CLAVATA1 peptide-receptor signaling module regulates the expansion of plant root systems in a nitrogen-dependent manner. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2029-2034.	7.1	278
9	Brassinolide Induces IAA5, IAA19, and DR5, a Synthetic Auxin Response Element in Arabidopsis, Implying a Cross Talk Point of Brassinosteroid and Auxin Signaling. Plant Physiology, 2003, 133, 1843-1853.	4.8	226
10	RANKL expressed on synovial fibroblasts is primarily responsible for bone erosions during joint inflammation. Annals of the Rheumatic Diseases, 2016, 75, 1187-1195.	0.9	177
11	A Novel Rice PR10 Protein, RSOsPR10, Specifically Induced in Roots by Biotic and Abiotic Stresses, Possibly via the Jasmonic Acid Signaling Pathway. Plant and Cell Physiology, 2004, 45, 550-559.	3.1	172
12	The HAT2 gene, a member of the HD-Zip gene family, isolated as an auxin inducible gene by DNA microarray screening, affects auxin response in Arabidopsis. Plant Journal, 2002, 32, 1011-1022.	5.7	165
13	FILAMENTOUS FLOWER Controls the Formation and Development of Arabidopsis Inflorescences and Floral Meristems. Plant Cell, 1999, 11, 69-86.	6.6	152
14	Gain-of-Function Phenotypes of Chemically Synthetic CLAVATA3/ESR-Related (CLE) Peptides in Arabidopsis thaliana and Oryza sativa. Plant and Cell Physiology, 2007, 48, 1821-1825.	3.1	142
15	The Receptor-Like Kinase SOL2 Mediates CLE Signaling in Arabidopsis. Plant and Cell Physiology, 2008, 49, 1752-1757.	3.1	139
16	VAN3 ARFâ€"GAP-mediated vesicle transport is involved in leaf vascular network formation. Development (Cambridge), 2005, 132, 1699-1711.	2.5	137
17	Mitogen-Activated Protein Kinase Regulated by the CLAVATA Receptors Contributes to Shoot Apical Meristem Homeostasis. Plant and Cell Physiology, 2011, 52, 14-29.	3.1	130
18	CLE peptides and their signaling pathways in plant development. Journal of Experimental Botany, 2016, 67, 4813-4826.	4.8	119

#	Article	IF	Citations
19	The CLE9/10 secretory peptide regulates stomatal and vascular development through distinct receptors. Nature Plants, 2018, 4, 1071-1081.	9.3	114
20	Interaction of Auxin and ERECTA in Elaborating Arabidopsis Inflorescence Architecture Revealed by the Activation Tagging of a New Member of the YUCCA Family Putative Flavin Monooxygenases. Plant Physiology, 2005, 139, 192-203.	4.8	112
21	The receptor-like kinase KLAVIER mediates systemic regulation of nodulation and non-symbiotic shoot development in <i>Lotus japonicus</i>. Development (Cambridge), 2010, 137, 4317-4325.	2.5	109
22	Nematode CLE signaling in Arabidopsis requires CLAVATA2 and CORYNE. Plant Journal, 2011, 65, 430-440.	5.7	108
23	Overexpression of chlorophyllide a oxygenase (CAO) enlarges the antenna size of photosystem II in Arabidopsis thaliana. Plant Journal, 2001, 26, 365-373.	5.7	103
24	CLE9 peptideâ€induced stomatal closure is mediated by abscisic acid, hydrogen peroxide, and nitric oxide in <scp><i>Arabidopsis thaliana</i></scp>. Plant, Cell and Environment, 2019, 42, 1033-1044.	5.7	101
25	Role of LOTR1 in Nutrient Transport through Organization of Spatial Distribution of Root Endodermal Barriers. Current Biology, 2017, 27, 758-765.	3.9	98
26	Chloroplastic <scp>ATP</scp> synthase builds up a proton motive force preventing production of reactive oxygen species in photosystem I. Plant Journal, 2017, 91, 306-324.	5.7	96
27	Heterotrimeric G proteins control stem cell proliferation through <scp>CLAVATA</scp> signaling in <i>Arabidopsis</i>. EMBO Reports, 2014, 15, 1202-1209.	4.5	92
28	Three-Dimensional Imaging of Plant Organs Using a Simple and Rapid Transparency Technique. Plant and Cell Physiology, 2016, 57, 462-472.	3.1	79
29	Plant meristems: CLAVATA3/ESR-related signaling in the shoot apical meristem and the root apical meristem. Journal of Plant Research, 2009, 122, 31-39.	2.4	78
30	Phosphoinositide-dependent regulation of VAN3 ARF-GAP localization and activity essential for vascular tissue continuity in plants. Development (Cambridge), 2009, 136, 1529-1538.	2.5	77
31	The Function of the CLE Peptides in Plant Development and Plant-Microbe Interactions. The Arabidopsis Book, 2011, 9, e0149.	0.5	69
32	BAM 1 and RECEPTOR â€•LIKE PROTEIN KINASE 2 constitute a signaling pathway and modulate CLE peptideâ€triggered growth inhibition in A rabidopsis root. New Phytologist, 2015, 208, 1104-1113.	7.3	64
33	The dynamics of root cap sloughing in Arabidopsis is regulated by peptide signalling. Nature Plants, 2018, 4, 596-604.	9.3	62
34	A plant U-box protein, PUB4, regulates asymmetric cell division and cell proliferation in the root meristem. Development (Cambridge), 2015, 142, 444-453.	2.5	61
35	The Naming of Names: Guidelines for Gene Nomenclature in<i>Marchantia</i>. Plant and Cell Physiology, 2016, 57, 257-261.	3.1	60
36	Peptide signaling in vascular development. Current Opinion in Plant Biology, 2007, 10, 477-482.	7.1	56

#	Article	IF	Citations
37	Synergistic Interaction of CLAVATA1, CLAVATA2, and RECEPTOR-LIKE PROTEIN KINASE 2 in Cyst Nematode Parasitism of <i>Arabidopsis</i>. Molecular Plant-Microbe Interactions, 2013, 26, 87-96.	2.6	55
38	Control of proliferation in the haploid meristem by CLE peptide signaling in Marchantia polymorpha. PLoS Genetics, 2019, 15, e1007997.	3.5	55
39	Induction of Multichotomous Branching by CLAVATA Peptide in Marchantia polymorpha. Current Biology, 2020, 30, 3833-3840.e4.	3.9	54
40	Evolutionarily conserved CLE peptide signaling in plant development, symbiosis, and parasitism. Current Opinion in Plant Biology, 2013, 16, 598-606.	7.1	51
41	Differential Effects of the Peptides Stomagen, EPF1 and EPF2 on Activation of MAP Kinase MPK6 and the SPCH Protein Level. Plant and Cell Physiology, 2013, 54, 1253-1262.	3.1	51
42	Diverse function of plant peptide hormones in local signaling and development. Current Opinion in Plant Biology, 2019, 51, 81-87.	7.1	49
43	Root-Knot and Cyst Nematodes Activate Procambium-Associated Genes in Arabidopsis Roots. Frontiers in Plant Science, 2017, 8, 1195.	3.6	46
44	Involvement of HLS1 in Sugar and Auxin Signaling in Arabidopsis Leaves. Plant and Cell Physiology, 2006, 47, 1603-1611.	3.1	42
45	SUPPRESSOR OF <scp>LLP</scp>1 1â€mediated Câ€“terminal processing is critical for <scp>CLE</scp>19 peptide activity. Plant Journal, 2013, 76, 970-981.	5.7	42
46	Rootâ€knot nematodes induce gall formation by recruiting developmental pathways of postâ€embryonic organogenesis and regeneration to promote transient pluripotency. New Phytologist, 2020, 227, 200-215.	7.3	41
47	The roles of peptide hormones during plant root development. Current Opinion in Plant Biology, 2013, 16, 56-61.	7.1	40
48	A Collection of Mutants for CLE-Peptide-Encoding Genes in Arabidopsis Generated by CRISPR/Cas9-Mediated Gene Targeting. Plant and Cell Physiology, 2017, 58, 1848-1856.	3.1	40
49	Evolution of CLE signaling. Plant Signaling and Behavior, 2009, 4, 477-481.	2.4	39
50	CLV3/ESR-related (CLE) peptides as intercellular signaling molecules in plants. Chemical Record, 2006, 6, 303-310.	5.8	37
51	Identification of Naturally Occurring Polyamines as Root-Knot Nematode Attractants. Molecular Plant, 2020, 13, 658-665.	8.3	35
52	Maturation processes and structures of small secreted peptides in plants. Frontiers in Plant Science, 2014, 5, 311.	3.6	33
53	Overexpression of the AtmybL2 Gene Represses Trichome Development in Arabidopsis. DNA Research, 2002, 9, 31-34.	3.4	32
54	Identification of an EMS-induced causal mutation in a gene required for boron-mediated root development by low-coverage genome re-sequencing inArabidopsis. Plant Signaling and Behavior, 2013, 8, e22534.	2.4	32

#	Article	IF	Citations
55	The Conflict Between Cell Proliferation and Expansion Primarily Affects Stem Organogenesis in Arabidopsis. Plant and Cell Physiology, 2014, 55, 1994-2007.	3.1	31
56	The rootâ€knot nematode effector MiEFF18 interacts with the plant core spliceosomal protein SmD1 required for giant cell formation. New Phytologist, 2021, 229, 3408-3423.	7.3	31
57	Gene Trapping in Arabidopsis Reveals Genes Involved in Vascular Development. Plant and Cell Physiology, 2006, 47, 1394-1405.	3.1	30
58	Regulation of Root-Knot Nematode Behavior by Seed-Coat Mucilage-Derived Attractants. Molecular Plant, 2019, 12, 99-112.	8.3	30
59	The sequenced genomes of nonflowering land plants reveal the innovative evolutionary history of peptide signaling. Plant Cell, 2021, 33, 2915-2934.	6.6	30
60	<i>CLE6</i> expression recovers gibberellin deficiency to promote shoot growth in Arabidopsis. Plant Journal, 2014, 78, 241-252.	5.7	29
61	The ATE Genes Are Responsible for Repression of Transdifferentiation into Xylem Cells in Arabidopsis. Plant Physiology, 2005, 137, 141-148.	4.8	28
62	A large family of genes that share homology with CLE domain in Arabidopsis and rice. Plant Signaling and Behavior, 2008, 3, 337-339.	2.4	28
63	CLE Signaling Systems During Plant Development and Nematode Infection. Plant and Cell Physiology, 2012, 53, 1989-1999.	3.1	28
64	Mystery in genetics: PUB4 gives a clue to the complex mechanism of CLV signaling pathway in the shoot apical meristem. Plant Signaling and Behavior, 2015, 10, e1028707.	2.4	28
65	Developing Heritable Mutations in Arabidopsis thaliana Using a Modified CRISPR/Cas9 Toolkit Comprising PAM-Altered Cas9 Variants and gRNAs. Plant and Cell Physiology, 2019, 60, 2255-2262.	3.1	28
66	DRP1A Is Responsible for Vascular Continuity Synergistically Working with VAN3 in Arabidopsis. Plant Physiology, 2005, 138, 819-826.	4.8	27
67	BEACH-Domain Proteins Act Together in a Cascade to Mediate Vacuolar Protein Trafficking and Disease Resistance in Arabidopsis. Molecular Plant, 2015, 8, 389-398.	8.3	27
68	Polyamine Resistance Is Increased by Mutations in a Nitrate Transporter Gene NRT1.3 (AtNPF6.4) in Arabidopsis thaliana. Frontiers in Plant Science, 2016, 7, 834.	3.6	26
69	Plant peptide hormone signalling. Essays in Biochemistry, 2015, 58, 115-131.	4.7	26
70	Seed Mucilage: Biological Functions and Potential Applications in Biotechnology. Plant and Cell Physiology, 2021, 62, 1847-1857.	3.1	24
71	The RopGEF KARAPPO Is Essential for the Initiation of Vegetative Reproduction in Marchantia polymorpha. Current Biology, 2019, 29, 3525-3531.e7.	3.9	23
72	CLE42 delays leaf senescence by antagonizing ethylene pathway in <i>Arabidopsis</i>. New Phytologist, 2022, 235, 550-562.	7.3	23

#	Article	IF	Citations
73	COE1, an LRR-RLK responsible for commissural vein pattern formation in rice. Plant Journal, 2010, 63, 405-416.	5.7	19
74	Chemotaxis assay of plant-parasitic nematodes on a gel-filled microchannel device. Sensors and Actuators B: Chemical, 2015, 221, 1483-1491.	7.8	19
75	The Meloidogyne incognita Nuclear Effector MiEFF1 Interacts With Arabidopsis Cytosolic Glyceraldehyde-3-Phosphate Dehydrogenases to Promote Parasitism. Frontiers in Plant Science, 2021, 12, 641480.	3.6	19
76	A ClearSee-Based Clearing Protocol for 3D Visualization of Arabidopsis thaliana Embryos. Plants, 2021, 10, 190.	3.5	17
77	Chemotactic Host-Finding Strategies of Plant Endoparasites and Endophytes. Frontiers in Plant Science, 2020, 11, 1167.	3.6	16
78	Callose Synthesis Suppresses Cell Death Induced by Low-Calcium Conditions in Leaves. Plant Physiology, 2020, 182, 2199-2212.	4.8	16
79	Insight into early diversification of leucine-rich repeat receptor-like kinases provided by the sequenced moss and hornwort genomes. Plant Molecular Biology, 2021, 107, 337-353.	3.9	16
80	Root-knot nematode chemotaxis is positively regulated by <scp>l</scp> -galactose sidechains of mucilage carbohydrate rhamnogalacturonan-I. Science Advances, 2021, 7, .	10.3	15
81	Protocol for root-knot nematode culture by a hydroponic system and nematode inoculation to <i>Arabidopsi</i><i>s </i>. Nihon Senchu Gakkai Shi = Japanese Journal of Nematology, 2015, 45, 45-49.	0.3	13
82	RPK2 is an essential receptor-like kinase that transmits the CLV3 signal in <i>Arabidopsis</i>. Development (Cambridge), 2010, 137, 4327-4327.	2.5	12
83	RPK2 functions in diverged CLE signaling. Plant Signaling and Behavior, 2011, 6, 86-88.	2.4	12
84	Epitypification, emendation and synonymy of Lecanorchis taiwaniana (Vanilleae, Vanilloideae,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302	0.3	11
85	CLE14 peptide signaling in Arabidopsis root hair cell fate determination. Plant Biotechnology, 2018, 35, 17-22.	1.0	10
86	Visualization of Toyoura sand-grown plant roots by X-ray computer tomography. Plant Biotechnology, 2020, 37, 481-484.	1.0	10
87	Tryptophan auxotroph mutants suppress the<i>superroot2</i>phenotypes, modulating IAA biosynthesis in<i>Arabidopsis.</i>. Plant Signaling and Behavior, 2011, 6, 1351-1355.	2.4	9
88	Stem integrity in<i>Arabidopsis thaliana</i>requires a load-bearing epidermis. Development (Cambridge), 2021, 148, .	2.5	9
89	The RGF/GLV/CLEL Family of Short Peptides Evolved Through Lineage-Specific Losses and Diversification and Yet Conserves Its Signaling Role Between Vascular Plants and Bryophytes. Frontiers in Plant Science, 2021, 12, 703012.	3.6	9
90	Adaptation and Evolution of Seed Shape on Bleeding Area in Japanese Orchids. International Journal of Biology, 2012, 4, .	0.2	7

#	Article	IF	Citations
91	Artificial Cultivation System for Gastrodia spp. and Identification of Associated Mycorrhizal Fungi. International Journal of Biology, 2017, 9, 27.	0.2	7
92	The atypical E2F transcription factor DEL1 modulates growthâ€"defense tradeoffs of host plants during root-knot nematode infection. Scientific Reports, 2020, 10, 8836.	3.3	7
93	Expression of peat moss VASCULAR RELATED NAC-DOMAIN homologs in Nicotiana benthamiana leaf cells induces ectopic secondary wall formation. Plant Molecular Biology, 2021, 106, 309-317.	3.9	7
94	Long-distance translocation of CLAVATA3/ESR-related 2 peptide and its positive effect on roots sucrose status. Plant Physiology, 2022, 189, 2357-2367.	4.8	7
95	A rapid method for detection of single base changes inArabidopsis thaliana using the polymerase chain reaction. Plant Molecular Biology Reporter, 1997, 15, 179-185.	1.8	6
96	Characteristics of the Falling Speed of Japanese Orchid Seeds. International Journal of Biology, 2012, 4, .	0.2	6
97	Root-knot nematodes modulate cell walls during root-knot formation in Arabidopsis roots. Journal of Plant Research, 2020, 133, 419-428.	2.4	6
98	SNPs of CLAVATA receptors in tomato, in the context of root-knot nematode infection. Nihon Senchu Gakkai Shi = Japanese Journal of Nematology, 2011, 41, 35-40.	0.3	6
99	Identification of genes involved in <i>Meloidogyne incognita</i>-induced gall formation processes in <i>Arabidopsis thaliana</i>. Plant Biotechnology, 2021, 38, 1-8.	1.0	5
100	Database mining of plant peptide homologues. Plant Biotechnology, 2021, 38, 137-143.	1.0	5
101	A Phalaenopsis variety with floral organs showing C class homeotic transformation and its revertant may enable Phalaenopsis as a potential molecular genetic material. Genes and Genetic Systems, 2011, 86, 93-95.	0.7	4
102	MM31/EIR1promotes lateral root formation inArabidopsis. Plant Signaling and Behavior, 2011, 6, 968-973.	2.4	4
103	Balanced cell proliferation and expansion is essential for flowering stem growth control. Plant Signaling and Behavior, 2015, 10, e992755.	2.4	4
104	The taxonomic identity of three varieties of Lecanorchis nigricans (Vanilleae, Vanilloideae,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td	1.0	4
105	PUCHI Regulates Giant Cell Morphology During Root-Knot Nematode Infection in Arabidopsis thaliana. Frontiers in Plant Science, 2021, 12, 755610.	3.6	4
106	CLAVATA3-like genes are differentially expressed in grape vine (Vitis vinifera) tissues. Journal of Plant Physiology, 2013, 170, 1379-1383.	3.5	3
107	Light-dependent green gall formation induced by MeloidogyneÂincognita. Nematology, 2014, 16, 889-893.	0.6	3
108	Discovery, characterization and functional improvement of kumamonamide as a novel plant growth inhibitor that disturbs plant microtubules. Scientific Reports, 2021, 11, 6077.	3.3	3

#	Article	IF	Citations
109	Effect of the CLE14 polypeptide on <i>GLABRA2</i> homolog gene expression in rice and tomato roots. Plant Biotechnology, 2019, 36, 205-208.	1.0	3
110	3D Body Evolution: Adding a New Dimension to Colonize the Land. Current Biology, 2018, 28, R838-R840.	3.9	2
111	Control of Fusarium and nematodes by entomopathogenic fungi for organic production of Zingiber officinale. Journal of Natural Medicines, 2022, 76, 291-297.	2.3	2
112	Development of a dynamic imaging method for gravitropism in pea sprouts using clinical magnetic resonance imaging system. Plant Biotechnology, 2020, 37, 437-442.	1.0	1
113	Control of Root Stem Cell Differentiation and Lateral Root Emergence by CLE16/17 Peptides in Arabidopsis. Frontiers in Plant Science, 2022, 13, 869888.	3.6	1
114	CLAVATA3. , 2013, , 1-4.		0
115	Behavior analysis of plant-parasitic nematode in a microchannel. , 2013, , .		0
116	Identification of Japanese Lecanorchis (Orchidaceae) Species in Fruiting Stage. International Journal of Biology, 2014, 6, .	0.2	0
117	Negative phototaxis in M. incognita. International Journal of Biology, 2017, 9, 51.	0.2	0
118	Effects of CLE peptides on growth of in vitro roots and shoots of persimmon. Acta Horticulturae, 2018, , 93-98.	0.2	0
119	Tools to Develop Genetic Model Plants in the Orchidaceous Family. Molecular Biology (Los Angeles,) Tj ETQq1 1 0.784314 rgBT /Overl	0.0	0
120	Epitypification of Gastrodia pubilabiata (Gastrodieae, Epidendroideae, Orchidaceae). Phytotaxa, 2018, 347, 193.	0.3	0
121	Lecanorchis moritae (Orchidaceae, Vanilloideae), a new mycoheterotrophic species from Amami-Oshima Island, Japan, based on morphological and molecular data. Phytotaxa, 2019, 404, 137.	0.3	0
122	Editorial: Developmental Modification Under Biotic Interactions in Plants. Frontiers in Plant Science, 2020, 11, 619804.	3.6	0
123	Calcium sulfate and calcium carbonate as root-knot-nematode attractants and possible trap materials to protect crop plants. Plant Biotechnology, 2021, 38, 157-159.	1.0	0
124	5PM1-C-6 MicroChannel device for behavior analysis of plant-parasitic nematode : verification of channel standard and concentration distribution in channel. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2013, 2013.5, 35-36.	0.0	0
125	The RopGEF KARAPPO is Essential for the Initiation of Vegetative Reproduction in Marchantia. SSRN Electronic Journal, 0, , .	0.4	0
126	A method for evaluating root-knot nematode infection in rice using a transparent paper pouch. Plant Biotechnology, 2020, 37, 343-347.	1.0	0