

# Giles E D Oldroyd

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4906980/publications.pdf>

Version: 2024-02-01

121  
papers

22,721  
citations

8181

76  
h-index

18647

119  
g-index

171  
all docs

171  
docs citations

171  
times ranked

13821  
citing authors

#	ARTICLE	IF	CITATIONS
1	Symbiotic regulation: How plants seek salvation in starvation. <i>Current Biology</i> , 2022, 32, R46-R48.	3.9	4
2	Engineered plant control of associative nitrogen fixation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2117465119.	7.1	32
3	Lipid exchanges drove the evolution of mutualism during plant terrestrialization. <i>Science</i> , 2021, 372, 864-868.	12.6	90
4	A mycorrhiza-associated receptor-like kinase with an ancient origin in the green lineage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	15
5	Processing of NODULE INCEPTION controls the transition to nitrogen fixation in root nodules. <i>Science</i> , 2021, 374, 629-632.	12.6	33
6	Ligand-recognizing motifs in plant LysM receptors are major determinants of specificity. <i>Science</i> , 2020, 369, 663-670.	12.6	87
7	The calcium-permeable channel OSCA1.3 regulates plant stomatal immunity. <i>Nature</i> , 2020, 585, 569-573.	27.8	208
8	A plant's diet, surviving in a variable nutrient environment. <i>Science</i> , 2020, 368, .	12.6	241
9	An ancestral signalling pathway is conserved in intracellular symbioses-forming plant lineages. <i>Nature Plants</i> , 2020, 6, 280-289.	9.3	150
10	The negative regulator SMAX1 controls mycorrhizal symbiosis and strigolactone biosynthesis in rice. <i>Nature Communications</i> , 2020, 11, 2114.	12.8	101
11	Engineering transkingdom signalling in plants to control gene expression in rhizosphere bacteria. <i>Nature Communications</i> , 2019, 10, 3430.	12.8	93
12	A protein complex required for polar growth of rhizobial infection threads. <i>Nature Communications</i> , 2019, 10, 2848.	12.8	72
13	A combination of chitooligosaccharide and lipochitooligosaccharide recognition promotes arbuscular mycorrhizal associations in <i>Medicago truncatula</i> . <i>Nature Communications</i> , 2019, 10, 5047.	12.8	129
14	Atypical Receptor Kinase RINRK1 Required for Rhizobial Infection But Not Nodule Development in <i>Lotus japonicus</i> . <i>Plant Physiology</i> , 2019, 181, 804-816.	4.8	28
15	NODULE INCEPTION Recruits the Lateral Root Developmental Program for Symbiotic Nodule Organogenesis in <i>Medicago truncatula</i> . <i>Current Biology</i> , 2019, 29, 3657-3668.e5.	3.9	177
16	NIN Acts as a Network Hub Controlling a Growth Module Required for Rhizobial Infection. <i>Plant Physiology</i> , 2019, 179, 1704-1722.	4.8	106
17	Characterizing standard genetic parts and establishing common principles for engineering legume and cereal roots. <i>Plant Biotechnology Journal</i> , 2019, 17, 2234-2245.	8.3	28
18	Genetic strategies for improving crop yields. <i>Nature</i> , 2019, 575, 109-118.	27.8	799

#	ARTICLE	IF	CITATIONS
19	Heterologous Expression of Rhizobial CelC2 Cellulase Impairs Symbiotic Signaling and Nodulation in <i>Medicago truncatula</i> . <i>Molecular Plant-Microbe Interactions</i> , 2018, 31, 568-575.	2.6	9
20	Callose-Regulated Symplastic Communication Coordinates Symbiotic Root Nodule Development. <i>Current Biology</i> , 2018, 28, 3562-3577.e6.	3.9	41
21	<i>MtNODULE ROOT1</i> and <i>MtNODULE ROOT2</i> Are Essential for Indeterminate Nodule Identity. <i>Plant Physiology</i> , 2018, 178, 295-316.	4.8	40
22	Giles Oldroyd. <i>Current Biology</i> , 2018, 28, R856-R857.	3.9	0
23	Fatty acids in arbuscular mycorrhizal fungi are synthesized by the host plant. <i>Science</i> , 2017, 356, 1175-1178.	12.6	503
24	MtLAX2, a Functional Homologue of the Arabidopsis Auxin Influx Transporter AUX1, Is Required for Nodule Organogenesis. <i>Plant Physiology</i> , 2017, 174, 326-338.	4.8	56
25	Plant signalling in symbiosis and immunity. <i>Nature</i> , 2017, 543, 328-336.	27.8	576
26	Understanding the Arbuscule at the Heart of Endomycorrhizal Symbioses in Plants. <i>Current Biology</i> , 2017, 27, R952-R963.	3.9	176
27	Receptor-mediated chitin perception in legume roots is functionally separable from Nod factor perception. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8118-E8127.	7.1	143
28	Nuclear-localized cyclic nucleotide-gated channels mediate symbiotic calcium oscillations. <i>Science</i> , 2016, 352, 1102-1105.	12.6	230
29	The Symbiosis-Related ERN Transcription Factors Act in Concert to Coordinate Rhizobial Host Root Infection. <i>Plant Physiology</i> , 2016, 171, pp.00230.2016.	4.8	48
30	Symbiotic Nitrogen Fixation and the Challenges to Its Extension to Nonlegumes. <i>Applied and Environmental Microbiology</i> , 2016, 82, 3698-3710.	3.1	443
31	A <i>Medicago truncatula</i> Cystathionine-Î <sup>2</sup> -Synthase-like Domain-Containing Protein Is Required for Rhizobial Infection and Symbiotic Nitrogen Fixation. <i>Plant Physiology</i> , 2016, 170, 2204-2217.	4.8	55
32	Bacterial-induced calcium oscillations are common to nitrogen-fixing associations of nodulating legumes and non-legumes. <i>New Phytologist</i> , 2015, 207, 551-558.	7.3	89
33	Standards for plant synthetic biology: a common syntax for exchange of DNA parts. <i>New Phytologist</i> , 2015, 208, 13-19.	7.3	263
34	Red clover ( <i>Trifolium pratense</i> L.) draft genome provides a platform for trait improvement. <i>Scientific Reports</i> , 2015, 5, 17394.	3.3	136
35	The NIN Transcription Factor Coordinates Diverse Nodulation Programs in Different Tissues of the <i>Medicago truncatula</i> Root. <i>Plant Cell</i> , 2015, 27, 3410-3424.	6.6	178
36	Activation of Symbiosis Signaling by Arbuscular Mycorrhizal Fungi in Legumes and Rice. <i>Plant Cell</i> , 2015, 27, 823-838.	6.6	188

#	ARTICLE	IF	CITATIONS
37	Tracing the evolutionary path to nitrogen-fixing crops. <i>Current Opinion in Plant Biology</i> , 2015, 26, 95-99.	7.1	44
38	Algal ancestor of land plants was preadapted for symbiosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 13390-13395.	7.1	292
39	The receptor kinase <i>CERK1</i> has dual functions in symbiosis and immunity signalling. <i>Plant Journal</i> , 2015, 81, 258-267.	5.7	232
40	The Root Hair <i>Infected</i> of <i>Medicago truncatula</i> Uncovers Changes in Cell Cycle Genes and Reveals a Requirement for Auxin Signaling in Rhizobial Infection. <i>Plant Cell</i> , 2014, 26, 4680-4701.	6.6	313
41	Abscisic Acid Promotion of Arbuscular Mycorrhizal Colonization Requires a Component of the PROTEIN PHOSPHATASE 2A Complex. <i>Plant Physiology</i> , 2014, 166, 2077-2090.	4.8	81
42	A DELLA protein complex controls the arbuscular mycorrhizal symbiosis in plants. <i>Cell Research</i> , 2014, 24, 130-133.	12.0	168
43	Biotechnological solutions to the nitrogen problem. <i>Current Opinion in Biotechnology</i> , 2014, 26, 19-24.	6.6	259
44	Synthetic biology approaches to engineering the nitrogen symbiosis in cereals. <i>Journal of Experimental Botany</i> , 2014, 65, 1939-1946.	4.8	160
45	Calcium/Calmodulin-Dependent Protein Kinase Is Negatively and Positively Regulated by Calcium, Providing a Mechanism for Decoding Calcium Responses during Symbiosis Signaling. <i>Plant Cell</i> , 2014, 25, 5053-5066.	6.6	124
46	A H <sup>+</sup> -ATPase That Energizes Nutrient Uptake during Mycorrhizal Symbioses in Rice and <i>Medicago truncatula</i> . <i>Plant Cell</i> , 2014, 26, 1818-1830.	6.6	131
47	The identification of novel loci required for appropriate nodule development in <i>Medicago truncatula</i> . <i>BMC Plant Biology</i> , 2013, 13, 157.	3.6	53
48	Host-specific Nod factors associated with <i>Medicago truncatula</i> nodule infection differentially induce calcium influx and calcium spiking in root hairs. <i>New Phytologist</i> , 2013, 200, 656-662.	7.3	42
49	Speak, friend, and enter: signalling systems that promote beneficial symbiotic associations in plants. <i>Nature Reviews Microbiology</i> , 2013, 11, 252-263.	28.6	1,373
50	<i>RAM1</i> and <i>RAM2</i> function and expression during Arbuscular Mycorrhizal Symbiosis and <i>Aphanomyces euteiches</i> colonization. <i>Plant Signaling and Behavior</i> , 2013, 8, e26049.	2.4	76
51	Rhizobial Infection Is Associated with the Development of Peripheral Vasculature in Nodules of <i>Medicago truncatula</i> . <i>Plant Physiology</i> , 2013, 162, 107-115.	4.8	92
52	Phosphorylation of S344 in the calmodulin-binding domain negatively affects <i>CCaMK</i> function during bacterial and fungal symbioses. <i>Plant Journal</i> , 2013, 76, 287-296.	5.7	26
53	Nuclear Calcium Signaling in Plants. <i>Plant Physiology</i> , 2013, 163, 496-503.	4.8	70
54	The role of DMI1 in establishing Ca <sup>2+</sup> oscillations in legume symbioses. <i>Plant Signaling and Behavior</i> , 2013, 8, e22894.	2.4	20

#	ARTICLE	IF	CITATIONS
55	Rhizobial and Mycorrhizal Symbioses in <i>Lotus japonicus</i> Require Lectin Nucleotide Phosphohydrolase, Which Acts Upstream of Calcium Signaling. <i>Plant Physiology</i> , 2012, 161, 556-567.	4.8	51
56	Buffering Capacity Explains Signal Variation in Symbiotic Calcium Oscillations. <i>Plant Physiology</i> , 2012, 160, 2300-2310.	4.8	39
57	A Common Signaling Process that Promotes Mycorrhizal and Oomycete Colonization of Plants. <i>Current Biology</i> , 2012, 22, 2242-2246.	3.9	291
58	A GRAS-Type Transcription Factor with a Specific Function in Mycorrhizal Signaling. <i>Current Biology</i> , 2012, 22, 2236-2241.	3.9	262
59	The Role of Diffusible Signals in the Establishment of Rhizobial and Mycorrhizal Symbioses. <i>Signaling and Communication in Plants</i> , 2012, , 1-30.	0.7	7
60	<i>Medicago truncatula</i> ERN Transcription Factors: Regulatory Interplay with NSP1/NSP2 GRAS Factors and Expression Dynamics throughout Rhizobial Infection. <i>Plant Physiology</i> , 2012, 160, 2155-2172.	4.8	127
61	Calcium Ion Binding Properties of <i>Medicago truncatula</i> Calcium/Calmodulin-Dependent Protein Kinase. <i>Biochemistry</i> , 2012, 51, 6895-6907.	2.5	19
62	Legume pectate lyase required for root infection by rhizobia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 633-638.	7.1	225
63	The Rules of Engagement in the Legume-Rhizobial Symbiosis. <i>Annual Review of Genetics</i> , 2011, 45, 119-144.	7.6	1,008
64	The <i>Medicago</i> genome provides insight into the evolution of rhizobial symbioses. <i>Nature</i> , 2011, 480, 520-524.	27.8	1,166
65	<i>Lotus japonicus symRK4</i> uncouples the cortical and epidermal symbiotic program. <i>Plant Journal</i> , 2011, 67, 929-940.	5.7	71
66	One hundred important questions facing plant science research. <i>New Phytologist</i> , 2011, 192, 6-12.	7.3	82
67	<i>Vapyrin</i> , a gene essential for intracellular progression of arbuscular mycorrhizal symbiosis, is also essential for infection by rhizobia in the nodule symbiosis of <i>Medicago truncatula</i> . <i>Plant Journal</i> , 2011, 65, 244-252.	5.7	211
68	The broad spectrum of plant associations with other organisms. <i>Current Opinion in Plant Biology</i> , 2011, 14, 347-350.	7.1	10
69	<i>Medicago truncatula</i> IPD3 Is a Member of the Common Symbiotic Signaling Pathway Required for Rhizobial and Mycorrhizal Symbioses. <i>Molecular Plant-Microbe Interactions</i> , 2011, 24, 1345-1358.	2.6	147
70	Automated Bayesian model development for frequency detection in biological time series. <i>BMC Systems Biology</i> , 2011, 5, 97.	3.0	14
71	The <i>ROOT DETERMINED NODULATION1</i> Gene Regulates Nodule Number in Roots of <i>Medicago truncatula</i> and Defines a Highly Conserved, Uncharacterized Plant Gene Family. <i>Plant Physiology</i> , 2011, 157, 328-340.	4.8	89
72	Nuclear membranes control symbiotic calcium signaling of legumes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14348-14353.	7.1	191

#	ARTICLE	IF	CITATIONS
73	Conservation in Function of a SCAR/WAVE Component During Infection Thread and Root Hair Growth in <i>Medicago truncatula</i> . <i>Molecular Plant-Microbe Interactions</i> , 2010, 23, 1553-1562.	2.6	69
74	How close are we to nitrogen-fixing cereals?. <i>Current Opinion in Plant Biology</i> , 2010, 13, 556-564.	7.1	134
75	<i>Sesbania rostrata</i> : a case study of natural variation in legume nodulation. <i>New Phytologist</i> , 2010, 186, 340-345.	7.3	60
76	Reprogramming Plant Cells for Endosymbiosis. <i>Science</i> , 2009, 324, 753-754.	12.6	160
77	Calcium Spiking Patterns and the Role of the Calcium/Calmodulin-Dependent Kinase CCaMK in Lateral Root Base Nodulation of <i>Sesbania rostrata</i> . <i>Plant Cell</i> , 2009, 21, 1526-1540.	6.6	75
78	Positioning the nodule, the hormone dictum. <i>Plant Signaling and Behavior</i> , 2009, 4, 89-93.	2.4	92
79	GRAS-domain transcription factors that regulate plant development. <i>Plant Signaling and Behavior</i> , 2009, 4, 698-700.	2.4	198
80	LIN, a Novel Type of U-Box/WD40 Protein, Controls Early Infection by Rhizobia in Legumes. <i>Plant Physiology</i> , 2009, 151, 1239-1249.	4.8	84
81	GRAS Proteins Form a DNA Binding Complex to Induce Gene Expression during Nodulation Signaling in <i>Medicago truncatula</i> . <i>Plant Cell</i> , 2009, 21, 545-557.	6.6	342
82	Integrated Nod Factor Signaling in Plants. <i>Signaling and Communication in Plants</i> , 2009, , 71-90.	0.7	3
83	Rearrangement of Actin Cytoskeleton Mediates Invasion of <i>Lotus japonicus</i> Roots by <i>Mesorhizobium loti</i> . <i>Plant Cell</i> , 2009, 21, 267-284.	6.6	149
84	Deletion-Based Reverse Genetics in <i>Medicago truncatula</i> . <i>Plant Physiology</i> , 2009, 151, 1077-1086.	4.8	97
85	Nonlinear Time Series Analysis of Nodulation Factor Induced Calcium Oscillations: Evidence for Deterministic Chaos?. <i>PLoS ONE</i> , 2009, 4, e6637.	2.5	18
86	Coordinating Nodule Morphogenesis with Rhizobial Infection in Legumes. <i>Annual Review of Plant Biology</i> , 2008, 59, 519-546.	18.7	942
87	How CYCLOPS keeps an eye on plant symbiosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 20053-20054.	7.1	12
88	EFD Is an ERF Transcription Factor Involved in the Control of Nodule Number and Differentiation in <i>Medicago truncatula</i> . <i>Plant Cell</i> , 2008, 20, 2696-2713.	6.6	172
89	Abscisic Acid Coordinates Nod Factor and Cytokinin Signaling during the Regulation of Nodulation in <i>Medicago truncatula</i> . <i>Plant Cell</i> , 2008, 20, 2681-2695.	6.6	189
90	Differential and chaotic calcium signatures in the symbiosis signaling pathway of legumes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 9823-9828.	7.1	262

#	ARTICLE	IF	CITATIONS
91	Mastoparan Activates Calcium Spiking Analogous to Nod Factor-Induced Responses in <i>Medicago truncatula</i> Root Hair Cells. <i>Plant Physiology</i> , 2007, 144, 695-702.	4.8	46
92	The <i>Medicago truncatula</i> DMI1 Protein Modulates Cytosolic Calcium Signaling. <i>Plant Physiology</i> , 2007, 145, 192-203.	4.8	99
93	An ERF Transcription Factor in <i>Medicago truncatula</i> That Is Essential for Nod Factor Signal Transduction. <i>Plant Cell</i> , 2007, 19, 1221-1234.	6.6	298
94	PLANT SCIENCE: Nodules and Hormones. <i>Science</i> , 2007, 315, 52-53.	12.6	71
95	<i>Medicago truncatula</i> NIN Is Essential for Rhizobial-Independent Nodule Organogenesis Induced by Autoactive Calcium/Calmodulin-Dependent Protein Kinase. <i>Plant Physiology</i> , 2007, 144, 324-335.	4.8	404
96	Crosstalk between jasmonic acid, ethylene and Nod factor signaling allows integration of diverse inputs for regulation of nodulation. <i>Plant Journal</i> , 2006, 46, 961-970.	5.7	204
97	Analysis of calcium spiking using a cameleon calcium sensor reveals that nodulation gene expression is regulated by calcium spike number and the developmental status of the cell. <i>Plant Journal</i> , 2006, 48, 883-894.	5.7	150
98	Nodulation independent of rhizobia induced by a calcium-activated kinase lacking autoinhibition. <i>Nature</i> , 2006, 441, 1149-1152.	27.8	350
99	Nuclear calcium changes at the core of symbiosis signalling. <i>Current Opinion in Plant Biology</i> , 2006, 9, 351-357.	7.1	228
100	The Tomato NBARC-LRR Protein Prf Interacts with Pto Kinase in Vivo to Regulate Specific Plant Immunity. <i>Plant Cell</i> , 2006, 18, 2792-2806.	6.6	239
101	Analysis of Nod-Factor-Induced Calcium Signaling in Root Hairs of Symbiotically Defective Mutants of <i>Lotus japonicus</i> . <i>Molecular Plant-Microbe Interactions</i> , 2006, 19, 914-923.	2.6	164
102	Legume genome evolution viewed through the <i>Medicago truncatula</i> and <i>Lotus japonicus</i> genomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14959-14964.	7.1	286
103	Highly syntenic regions in the genomes of soybean, <i>Medicago truncatula</i> , and <i>Arabidopsis thaliana</i> . <i>BMC Plant Biology</i> , 2005, 5, 15.	3.6	86
104	Nodulation Signaling in Legumes Requires NSP2, a Member of the GRAS Family of Transcriptional Regulators. <i>Science</i> , 2005, 308, 1786-1789.	12.6	525
105	Peace Talks and Trade Deals. Keys to Long-Term Harmony in Legume-Microbe Symbioses: Figure 1.. <i>Plant Physiology</i> , 2005, 137, 1205-1210.	4.8	99
106	From The Cover: A Ca <sup>2+</sup> /calmodulin-dependent protein kinase required for symbiotic nodule development: Gene identification by transcript-based cloning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 4701-4705.	7.1	433
107	Calcium, kinases and nodulation signalling in legumes. <i>Nature Reviews Molecular Cell Biology</i> , 2004, 5, 566-576.	37.0	312
108	<i>Medicago truncatula</i> DMI1 Required for Bacterial and Fungal Symbioses in Legumes. <i>Science</i> , 2004, 303, 1364-1367.	12.6	493

#	ARTICLE	IF	CITATIONS
109	The NFP locus of <i>Medicago truncatula</i> controls an early step of Nod factor signal transduction upstream of a rapid calcium flux and root hair deformation. <i>Plant Journal</i> , 2003, 34, 495-506.	5.7	350
110	Identification and Characterization of Nodulation-Signaling Pathway 2, a Gene of <i>Medicago truncatula</i> Involved in Nod Factor Signaling. <i>Plant Physiology</i> , 2003, 131, 1027-1032.	4.8	190
111	Dissecting Symbiosis: Developments in Nod Factor Signal Transduction. <i>Annals of Botany</i> , 2001, 87, 709-718.	2.9	67
112	Evidence for structurally specific negative feedback in the Nod factor signal transduction pathway. <i>Plant Journal</i> , 2001, 28, 191-199.	5.7	82
113	Ethylene Inhibits the Nod Factor Signal Transduction Pathway of <i>Medicago truncatula</i> . <i>Plant Cell</i> , 2001, 13, 1835-1849.	6.6	268
114	Genetic analysis of calcium spiking responses in nodulation mutants of <i>Medicago truncatula</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 13407-13412.	7.1	265
115	Plants expressing the <i>Pto</i> disease resistance gene confer resistance to recombinant PVX containing the avirulence gene <i>AvrPto</i> . <i>Plant Journal</i> , 1999, 17, 41-50.	5.7	52
116	Genetically engineered broad-spectrum disease resistance in tomato. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 10300-10305.	7.1	186
117	Tomato <i>Prf</i> Is a Member of the Leucine-Rich Repeat Class of Plant Disease Resistance Genes and Lies Embedded within the <i>Pto</i> Kinase Gene Cluster. <i>Cell</i> , 1996, 86, 123-133.	28.9	553
118	Intergeneric Transfer and Functional Expression of the Tomato Disease Resistance Gene <i>Pto</i> . <i>Plant Cell</i> , 1995, 7, 1537.	6.6	3
119	Genetic dissection of bacterial speck disease resistance in tomato. <i>Euphytica</i> , 1994, 79, 195-200.	1.2	8
120	Fast Neutron Mutagenesis for Functional Genomics. , 0, , 291-305.		2
121	Callose-Regulated Symplastic Communication Coordinates Symbiotic Root Nodule Development. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0