Peter N Dodds

List of Publications by Year in descending order

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123 papers	18,057 citations	15504 65 h-index	16650 123 g-index
126 all docs	126 docs citations	126 times ranked	11791 citing authors

#	Article	IF	Citations
1	Plant immunity: towards an integrated view of plantâ€"pathogen interactions. Nature Reviews Genetics, 2010, 11, 539-548.	16.3	2,790
2	Direct protein interaction underlies gene-for-gene specificity and coevolution of the flax resistance genes and flax rust avirulence genes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8888-8893.	7.1	695
3	Obligate biotrophy features unraveled by the genomic analysis of rust fungi. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9166-9171.	7.1	640
4	A recently evolved hexose transporter variant confers resistance to multiple pathogens in wheat. Nature Genetics, 2015, 47, 1494-1498.	21.4	575
5	Structure, function and evolution of plant disease resistance genes. Current Opinion in Plant Biology, 2000, 3, 278-284.	7.1	514
6	Identification of Regions in Alleles of the Flax Rust Resistance Gene L That Determine Differences in Gene-for-Gene Specificity. Plant Cell, 1999, 11, 495-506.	6.6	463
7	The past, present and future of breeding rust resistant wheat. Frontiers in Plant Science, 2014, 5, 641.	3.6	453
8	E<scp>ffector</scp>P: predicting fungal effector proteins from secretomes using machine learning. New Phytologist, 2016, 210, 743-761.	7.3	438
9	Haustorially Expressed Secreted Proteins from Flax Rust Are Highly Enriched for Avirulence Elicitors. Plant Cell, 2005, 18, 243-256.	6.6	399
10	The Gene <i>Sr33,</i> an Ortholog of Barley <i>Mla</i> Genes, Encodes Resistance to Wheat Stem Rust Race Ug99. Science, 2013, 341, 786-788.	12.6	370
11	The Melampsora lini AvrL567 Avirulence Genes Are Expressed in Haustoria and Their Products Are Recognized inside Plant Cells. Plant Cell, 2004, 16, 755-768.	6.6	365
12	NAD ⁺ cleavage activity by animal and plant TIR domains in cell death pathways. Science, 2019, 365, 793-799.	12.6	357
13	Improved prediction of fungal effector proteins from secretomes with EffectorP 2.0. Molecular Plant Pathology, 2018, 19, 2094-2110.	4.2	350
14	LOCALIZER: subcellular localization prediction of both plant and effector proteins in the plant cell. Scientific Reports, 2017, 7, 44598.	3.3	340
15	A novel conserved mechanism for plant NLR protein pairs: the Ã¢â‚¬Å"integrated decoyÃ¢â‚¬Â•hypothesis. Frontiers in Plant Science, 2014, 5, 606.	3.6	324
16	The <scp>NB</scp>â€‹<scp>LRR</scp> proteins <scp>RGA</scp>4 and <scp>RGA</scp>5 interact functionally and physically to confer disease resistance. EMBO Journal, 2014, 33, 1941-1959.	7.8	310
17	Structural and Functional Analysis of a Plant Resistance Protein TIR Domain Reveals Interfaces for Self-Association, Signaling, and Autoregulation. Cell Host and Microbe, 2011, 9, 200-211.	11.0	301
18	Structural Basis for Assembly and Function of a Heterodimeric Plant Immune Receptor. Science, 2014, 344, 299-303.	12.6	300

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19	The role of effectors of biotrophic and hemibiotrophic fungi in infection. Cellular Microbiology, 2011, 13, 1849-1857.	2.1	234
20	Six Amino Acid Changes Confined to the Leucine-Rich Repeat Î²-Strand/Î²-Turn Motif Determine the Difference between the P and P2 Rust Resistance Specificities in Flax. Plant Cell, 2001, 13, 163-178.	6.6	216
21	The wheat Sr50 gene reveals rich diversity at a cereal disease resistance locus. Nature Plants, 2015, 1, 15186.	9.3	209
22	Loss of <i>AvrSr50</i> by somatic exchange in stem rust leads to virulence for <i>Sr50</i> resistance in wheat. Science, 2017, 358, 1607-1610.	12.6	206
23	Advances and Challenges in Computational Prediction of Effectors from Plant Pathogenic Fungi. PLoS Pathogens, 2015, 11, e1004806.	4.7	197
24	Rapid genetic change underpins antagonistic coevolution in a natural hostâ€pathogen metapopulation. Ecology Letters, 2012, 15, 425-435.	6.4	189
25	Flax Rust Resistance Gene Specificity is Based on Direct Resistance-Avirulence Protein Interactions. Annual Review of Phytopathology, 2007, 45, 289-306.	7.8	186
26	Internalization of Flax Rust Avirulence Proteins into Flax and Tobacco Cells Can Occur in the Absence of the Pathogen. Plant Cell, 2010, 22, 2017-2032.	6.6	185
27	Regions outside of the Leucine-Rich Repeats of Flax Rust Resistance Proteins Play a Role in Specificity Determination. Plant Cell, 2000, 12, 1367-1377.	6.6	180
28	<scp>ApoplastP</scp>: prediction of effectors and plant proteins in the apoplast using machine learning. New Phytologist, 2018, 217, 1764-1778.	7.3	180
29	EffectorP 3.0: Prediction of Apoplastic and CytoplasmicÂEffectors in Fungi and Oomycetes. Molecular Plant-Microbe Interactions, 2022, 35, 146-156.	2.6	179
30	Challenges and progress towards understanding the role of effectors in plantâ€“fungal interactions. Current Opinion in Plant Biology, 2012, 15, 477-482.	7.1	166
31	Spatial variation in disease resistance: from molecules to metapopulations. Journal of Ecology, 2011, 99, 96-112.	4.0	162
32	Terrific Protein Traffic: The Mystery of Effector Protein Delivery by Filamentous Plant Pathogens. Science, 2009, 324, 748-750.	12.6	156
33	Effectors of biotrophic fungi and oomycetes: pathogenicity factors and triggers of host resistance. New Phytologist, 2009, 183, 993-1000.	7.3	153
34	The generation of plant disease resistance gene specificities. Trends in Plant Science, 2000, 5, 373-379.	8.8	149
35	Recent progress in discovery and functional analysis of effector proteins of fungal and oomycete plant pathogens. Current Opinion in Plant Biology, 2009, 12, 399-405.	7.1	148
36	Crystal Structures of Flax Rust Avirulence Proteins AvrL567-A and -D Reveal Details of the Structural Basis for Flax Disease Resistance Specificity. Plant Cell, 2007, 19, 2898-2912.	6.6	143

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37	An Autoactive Mutant of the M Flax Rust Resistance Protein Has a Preference for Binding ATP, Whereas Wild-Type M Protein Binds ADP. Molecular Plant-Microbe Interactions, 2011, 24, 897-906.	2.6	141
38	Diversity and Evolution of Effector Loci in Natural Populations of the Plant Pathogen Melampsora lini. Molecular Biology and Evolution, 2009, 26, 2499-2513.	8.9	130
39	The genome sequence and effector complement of the flax rust pathogen Melampsora lini. Frontiers in Plant Science, 2014, 5, 98.	3.6	126
40	Emergence of the Ug99 lineage of the wheat stem rust pathogen through somatic hybridisation. Nature Communications, 2019, 10, 5068.	12.8	121
41	The problem of how fungal and oomycete avirulence proteins enter plant cells. Trends in Plant Science, 2006, 11, 61-63.	8.8	116
42	New insights in plant immunity signaling activation. Current Opinion in Plant Biology, 2011, 14, 512-518.	7.1	114
43	The AvrM Effector from Flax Rust Has a Structured C-Terminal Domain and Interacts Directly with the M Resistance Protein. Molecular Plant-Microbe Interactions, 2010, 23, 49-57.	2.6	113
44	A Near-Complete Haplotype-Phased Genome of the Dikaryotic Wheat Stripe Rust Fungus <i>Puccinia striiformis</i> f. sp. <i>tritici</i> Reveals High Interhaplotype Diversity. MBio, 2018, 9, .	4.1	112
45	A Bacterial Type III Secretion Assay for Delivery of Fungal Effector Proteins into Wheat. Molecular Plant-Microbe Interactions, 2014, 27, 255-264.	2.6	111
46	Autoactive Alleles of the Flax L6 Rust Resistance Gene Induce Non-Race-Specific Rust Resistance Associated with the Hypersensitive Response. Molecular Plant-Microbe Interactions, 2005, 18, 570-582.	2.6	110
47	Comparative Analysis of the Flax Immune Receptors L6 and L7 Suggests an Equilibrium-Based Switch Activation Model. Plant Cell, 2016, 28, 146-159.	6.6	110
48	Strategies for Wheat Stripe Rust Pathogenicity Identified by Transcriptome Sequencing. PLoS ONE, 2013, 8, e67150.	2.5	110
49	Coâ€evolutionary interactions between host resistance and pathogen effector genes in flax rust disease. Molecular Plant Pathology, 2011, 12, 93-102.	4.2	106
50	What Do We Know About NOD-Like Receptors in Plant Immunity?. Annual Review of Phytopathology, 2017, 55, 205-229.	7.8	106
51	The CC domain structure from the wheat stem rust resistance protein Sr33 challenges paradigms for dimerization in plant NLR proteins. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12856-12861.	7.1	105
52	Multiple functional self-association interfaces in plant TIR domains. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2046-E2052.	7.1	103
53	Avirulence proteins from haustoria-forming pathogens. FEMS Microbiology Letters, 2007, 269, 181-188.	1.8	99
54	Comparative genomics of Australian isolates of the wheat stem rust pathogen Puccinia graminis f. sp. tritici reveals extensive polymorphism in candidate effector genes. Frontiers in Plant Science, 2014, 5, 759.	3.6	98

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55	Cytosolic activation of cell death and stem rust resistance by cereal MLA-family CCâ€“NLR proteins. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10204-10209.	7.1	97
56	A five-transgene cassette confers broad-spectrum resistance to a fungal rust pathogen in wheat. Nature Biotechnology, 2021, 39, 561-566.	17.5	94
57	Intramolecular Interaction Influences Binding of the Flax L5 and L6 Resistance Proteins to their AvrL567 Ligands. PLoS Pathogens, 2012, 8, e1003004.	4.7	93
58	The Ins and Outs of Rust Haustoria. PLoS Pathogens, 2014, 10, e1004329.	4.7	90
59	Contrasting modes of evolution acting on the complex N locus for rust resistance in flax. Plant Journal, 2001, 27, 439-453.	5.7	83
60	Molecular characterisation of an S-like RNase of Nicotiana alata that is induced by phosphate starvation. Plant Molecular Biology, 1996, 31, 227-238.	3.9	82
61	Induced proximity of a TIR signaling domain on a plant-mammalian NLR chimera activates defense in plants. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18832-18839.	7.1	82
62	An overview of genetic rust resistance: From broad to specific mechanisms. PLoS Pathogens, 2017, 13, e1006380.	4.7	81
63	Variation in potential effector genes distinguishing Australian and nonâ€Australian isolates of the cotton wilt pathogen <i>Fusarium oxysporum</i> f.sp. <i>vasinfectum</i>. Plant Pathology, 2011, 60, 232-243.	2.4	78
64	The role of secreted proteins in diseases of plants caused by rust, powdery mildew and smut fungi. Current Opinion in Microbiology, 2007, 10, 326-331.	5.1	77
65	Showdown at the RXLR motif: Serious differences of opinion in how effector proteins from filamentous eukaryotic pathogens enter plant cells. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14381-14382.	7.1	76
66	The Plant â€œResistosomeâ€: Structural Insights into Immune Signaling. Cell Host and Microbe, 2019, 26, 193-201.	11.0	76
67	TECHNICAL ADVANCE: Transformation of the flax rust fungus, Melampsora lini: selection via silencing of an avirulence gene. Plant Journal, 2010, 61, 364-369.	5.7	75
68	Structures of the flax-rust effector AvrM reveal insights into the molecular basis of plant-cell entry and effector-triggered immunity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17594-17599.	7.1	75
69	Genomics accelerated isolation of a new stem rust avirulence geneâ€“wheat resistance gene pair. Nature Plants, 2021, 7, 1220-1228.	9.3	67
70	New pollen-specific receptor kinases identified in tomato, maize and Arabidopsis: the tomato kinases show overlapping but distinct localization patterns on pollen tubes. Plant Molecular Biology, 2002, 50, 1-16.	3.9	65
71	A Molecular Perspective on Pollination in Flowering Plants. Cell, 1996, 85, 141-144.	28.9	62
72	N-Terminal Motifs in Some Plant Disease Resistance Proteins Function in Membrane Attachment and Contribute to Disease Resistance. Molecular Plant-Microbe Interactions, 2012, 25, 379-392.	2.6	62

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73	Epidemiological and Evolutionary Outcomes in Gene-for-Gene and Matching Allele Models. Frontiers in Plant Science, 2015, 6, 1084.	3.6	62
74	Lipid binding activities of flax rust AvrM and AvrL567 effectors. Plant Signaling and Behavior, 2010, 5, 1272-1275.	2.4	59
75	Genome analysis and avirulence gene cloning using a high-density RADseq linkage map of the flax rust fungus, Melampsora lini. BMC Genomics, 2016, 17, 667.	2.8	59
76	<i>De Novo</i> Assembly and Phasing of Dikaryotic Genomes from Two Isolates of <i>Puccinia coronata</i> f. sp. <i>avenae</i> , the Causal Agent of Oat Crown Rust. MBio, 2018, 9, .	4.1	57
77	Evolution of virulence in rust fungi â€" multiple solutions to one problem. Current Opinion in Plant Biology, 2020, 56, 20-27.	7.1	54
78	In the trenches of plant pathogen recognition: Role of NB-LRR proteins. Seminars in Cell and Developmental Biology, 2009, 20, 1017-1024.	5.0	52
79	Rust of flax and linseed caused by Melampsora lini. Molecular Plant Pathology, 2007, 8, 349-364.	4.2	49
80	Recognition events and hostâ€"pathogen co-evolution in gene-for-gene resistance to flax rust. Functional Plant Biology, 2009, 36, 395.	2.1	49
81	Diversifying selection in the wheat stem rust fungus acts predominantly on pathogen-associated gene families and reveals candidate effectors. Frontiers in Plant Science, 2014, 5, 372.	3.6	45
82	Changing the Game: Using Integrative Genomics to Probe Virulence Mechanisms of the Stem Rust Pathogen Puccinia graminis f. sp. tritici. Frontiers in Plant Science, 2016, 7, 205.	3.6	45
83	Genome Evolution in Plant Pathogens. Science, 2010, 330, 1486-1487.	12.6	43
84	Characterisation of a Î²-tubulin gene from Melampsora lini and comparison of fungal Î²-tubulin genes. Mycological Research, 2001, 105, 818-826.	2.5	40
85	Relationships between rust resistance genes at the <i>M</i> locus in flax. Molecular Plant Pathology, 2010, 11, 19-32.	4.2	39
86	Genomic Analysis of Xanthomonas translucens Pathogenic on Wheat and Barley Reveals Cross-Kingdom Gene Transfer Events and Diverse Protein Delivery Systems. PLoS ONE, 2014, 9, e84995.	2.5	39
87	A recombined Sr26 and Sr61 disease resistance gene stack in wheat encodes unrelated NLR genes. Nature Communications, 2021, 12, 3378.	12.8	39
88	How Target-Sequence Enrichment and Sequencing (TEnSeq) Pipelines Have Catalyzed Resistance Gene Cloning in the Wheat-Rust Pathosystem. Frontiers in Plant Science, 2020, 11, 678.	3.6	38
89	Seeing is believing: Exploiting advances in structural biology to understand and engineer plant immunity. Current Opinion in Plant Biology, 2022, 67, 102210.	7.1	35
90	Further analysis of gene-for-gene disease resistance specificity in flax. Molecular Plant Pathology, 2007, 8, 103-109.	4.2	34

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91	Increased virulence of Puccinia coronata f. sp.avenae populations through allele frequency changes at multiple putative Avr loci. PLoS Genetics, 2020, 16, e1009291.	3.5	34
92	Positive selection in AvrP4 avirulence gene homologues across the genus Melampsora. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 2913-2922.	2.6	33
93	Production of small cysteineâ€rich effector proteins in <i>Escherichia coli</i> for structural and functional studies. Molecular Plant Pathology, 2017, 18, 141-151.	4.2	32
94	The stem rust effector protein AvrSr50 escapes Sr50 recognition by a substitution in a single surfaceâ€exposed residue. New Phytologist, 2022, 234, 592-606.	7.3	32
95	Host Adaptation and Virulence in Heteroecious Rust Fungi. Annual Review of Phytopathology, 2021, 59, 403-422.	7.8	30
96	A genetic map of the Nicotiana alata S locus that includes three pollen-expressed genes. Theoretical and Applied Genetics, 2000, 100, 956-964.	3.6	28
97	Pollen-expressed S-RNases are not involved in self-incompatibility in Lycopersicon peruvianum. Sexual Plant Reproduction, 1999, 12, 76-87.	2.2	27
98	Starving the enemy. Science, 2016, 354, 1377-1378.	12.6	27
99	<i>De Novo</i> Genome Assembly and Comparative Genomics of the Barley Leaf Rust Pathogen <i>Puccinia hordei</i> Identifies Candidates for Three Avirulence Genes. G3: Genes, Genomes, Genetics, 2019, 9, 3263-3271.	1.8	25
100	Crystal structure of the Melampsora lini effector AvrP reveals insights into a possible nuclear function and recognition by the flax disease resistance protein P. Molecular Plant Pathology, 2018, 19, 1196-1209.	4.2	24
101	Direct recognition of pathogen effectors by plant NLR immune receptors and downstream signalling. Essays in Biochemistry, 2022, 66, 471-483.	4.7	21
102	Computational Methods for Predicting Effectors in Rust Pathogens. Methods in Molecular Biology, 2017, 1659, 73-83.	0.9	19
103	Effectors of biotrophic fungal plant pathogens. Functional Plant Biology, 2010, 37, 913.	2.1	17
104	A Bacterial Type III Secretion-Based Delivery System for Functional Assays of Fungal Effectors in Cereals. Methods in Molecular Biology, 2014, 1127, 277-290.	0.9	15
105	Structural and functional insights into the modulation of the activity of a flax cytokinin oxidase by flax rust effector AvrL567â€A. Molecular Plant Pathology, 2019, 20, 211-222.	4.2	15
106	The stem rust fungus Puccinia graminis f. sp. tritici induces centromeric small RNAs during late infection that are associated with genome-wide DNA methylation. BMC Biology, 2021, 19, 203.	3.8	15
107	Plant Pathology: Monitoring a Pathogen-Targeted Host Protein. Current Biology, 2003, 13, R400-R402.	3.9	14
108	The use of Co2+for crystallization and structure determination, using a conventional monochromatic X-ray source, of flax rust avirulence protein. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 209-213.	0.7	14

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109	Flax rust infection transcriptomics reveals a transcriptional profile that may be indicative for rust Avr genes. PLoS ONE, 2019, 14, e0226106.	2.5	14
110	Wheat rust resistance research at CSIRO. Australian Journal of Agricultural Research, 2007, 58, 507.	1.5	13
111	A chromosome-level, fully phased genome assembly of the oat crown rust fungus <i>Puccinia coronata</i> f. sp. <i>avenae</i>: a resource to enable comparative genomics in the cereal rusts. G3: Genes, Genomes, Genetics, 2022, 12, .	1.8	12
112	Plant NLR Origins Traced Back to Green Algae. Trends in Plant Science, 2018, 23, 651-654.	8.8	11
113	Purification of the M flax-rust resistance protein expressed in Pichia pastoris. Plant Journal, 2007, 50, 1107-1117.	5.7	10
114	Cloning and Nucleotide Sequence of the S7-RNase from Nicotiana alata Link and Otto. Plant Physiology, 1995, 108, 427-428.	4.8	7
115	Plant Infection by Biotrophic Fungal and Oomycete Pathogens. Signaling and Communication in Plants, 2012, , 183-212.	0.7	7
116	Crystallization and preliminary X-ray diffraction analyses of the TIR domains of three TIRâ€"NBâ€"LRR proteins that are involved in disease resistance in<i>Arabidopsis thaliana</i>. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 1275-1280.	0.7	5
117	Constructing Haustorium-Specific cDNA Libraries from Rust Fungi. Methods in Molecular Biology, 2011, 712, 79-87.	0.9	5
118	Avirulence proteins of rust fungi: penetrating the host - haustorium barrier. Australian Journal of Agricultural Research, 2007, 58, 512.	1.5	4
119	The interaction of avirulence and resistance gene products in flax rust disease â€" providing advances in rust research^{â€}. Canadian Journal of Plant Pathology, 2010, 32, 11-19.	1.4	4
120	Crystallization and X-ray diffraction analysis of the C-terminal domain of the flax rust effector protein AvrM. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 1603-1607.	0.7	4
121	Dancing with the Stars: An Asterid NLR Family. Trends in Plant Science, 2017, 22, 1003-1005.	8.8	4
122	Crystallization, X-ray diffraction analysis and preliminary structure determination of the TIR domain from the flax resistance protein L6. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 237-240.	0.7	3
123	Crystallization and preliminary X-ray diffraction analysis of the flax cytokinin oxidase LuCKX1.1. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 1094-1096.	0.7	2