Klaas Vandepoele

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	ROS signaling: the new wave?. Trends in Plant Science, 2011, 16, 300-309.	8.8	1,911
2	The Phaeodactylum genome reveals the evolutionary history of diatom genomes. Nature, 2008, 456, 239-244.	27.8	1,458
3	JASPAR 2018: update of the open-access database of transcription factor binding profiles and its web framework. Nucleic Acids Research, 2018, 46, D260-D266.	14.5	1,232
4	A High Quality Draft Consensus Sequence of the Genome of a Heterozygous Grapevine Variety. PLoS ONE, 2007, 2, e1326.	2.5	945
5	JASPAR 2022: the 9th release of the open-access database of transcription factor binding profiles. Nucleic Acids Research, 2022, 50, D165-D173.	14.5	902
6	Structural and functional partitioning of bread wheat chromosome 3B. Science, 2014, 345, 1249721.	12.6	542
7	Genome-Wide Analysis of Core Cell Cycle Genes in Arabidopsis. Plant Cell, 2002, 14, 903-916.	6.6	523
8	Major events in the genome evolution of vertebrates: Paranome age and size differ considerably between ray-finned fishes and land vertebrates. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1638-1643.	7.1	489
9	The hidden duplication past of Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13627-13632.	7.1	463
10	PLAZA 4.0: an integrative resource for functional, evolutionary and comparative plant genomics. Nucleic Acids Research, 2018, 46, D1190-D1196.	14.5	460
11	The <i>Physcomitrella patens</i> chromosomeâ€scale assembly reveals moss genome structure and evolution. Plant Journal, 2018, 93, 515-533.	5.7	406
12	Convergent gene loss following gene and genome duplications creates single-copy families in flowering plants. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2898-2903.	7.1	351
13	The gain and loss of genes during 600 million years of vertebrate evolution. Genome Biology, 2006, 7, R43.	9.6	332
14	PLAZA 3.0: an access point for plant comparative genomics. Nucleic Acids Research, 2015, 43, D974-D981.	14.5	329
15	Type II Metacaspases Atmc4 and Atmc9 of Arabidopsis thaliana Cleave Substrates after Arginine and Lysine. Journal of Biological Chemistry, 2004, 279, 45329-45336.	3.4	304
16	An update on LNCipedia: a database for annotated human IncRNA sequences. Nucleic Acids Research, 2015, 43, D174-D180.	14.5	298
17	The Membrane-Bound NAC Transcription Factor ANAC013 Functions in Mitochondrial Retrograde Regulation of the Oxidative Stress Response in <i>Arabidopsis</i> Â Â. Plant Cell, 2013, 25, 3472-3490. 	6.6	293
18	The flowering world: a tale of duplications. Trends in Plant Science, 2009, 14, 680-688.	8.8	277

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19	ERF115 Controls Root Quiescent Center Cell Division and Stem Cell Replenishment. Science, 2013, 342, 860-863.	12.6	263
20	PLAZA: A Comparative Genomics Resource to Study Gene and Genome Evolution in Plants. Plant Cell, 2010, 21, 3718-3731.	6.6	243
21	Dissecting Plant Genomes with the PLAZA Comparative Genomics Platform Â. Plant Physiology, 2012, 158, 590-600.	4.8	238
22	Genome-Wide Identification of Potential Plant E2F Target Genes. Plant Physiology, 2005, 139, 316-328.	4.8	229
23	ANGUSTIFOLIA3 Binds to SWI/SNF Chromatin Remodeling Complexes to Regulate Transcription during <i>Arabidopsis</i> Leaf Development. Plant Cell, 2014, 26, 210-229.	6.6	219
24	Evidence That Rice and Other Cereals Are Ancient Aneuploids. Plant Cell, 2003, 15, 2192-2202.	6.6	212
25	Capturing the phosphorylation and protein interaction landscape of the plant TOR kinase. Nature Plants, 2019, 5, 316-327.	9.3	205
26	Unraveling Transcriptional Control in Arabidopsis Using cis-Regulatory Elements and Coexpression Networks Â. Plant Physiology, 2009, 150, 535-546.	4.8	197
27	Cold Nights Impair Leaf Growth and Cell Cycle Progression in Maize through Transcriptional Changes of Cell Cycle Genes. Plant Physiology, 2007, 143, 1429-1438.	4.8	193
28	i-ADHoRe 3.0—fast and sensitive detection of genomic homology in extremely large data sets. Nucleic Acids Research, 2012, 40, e11-e11.	14.5	192
29	Drought Tolerance Conferred to Sugarcane by Association with Gluconacetobacter diazotrophicus: A Transcriptomic View of Hormone Pathways. PLoS ONE, 2014, 9, e114744.	2.5	187
30	An improved toolbox to unravel the plant cellular machinery by tandem affinity purification of Arabidopsis protein complexes. Nature Protocols, 2015, 10, 169-187.	12.0	160
31	Dynamic Changes in ANGUSTIFOLIA3 Complex Composition Reveal a Growth Regulatory Mechanism in the Maize Leaf. Plant Cell, 2015, 27, 1605-1619.	6.6	154
32	Gene duplication and biased functional retention of paralogs in bacterial genomes. Trends in Microbiology, 2004, 12, 148-154.	7.7	150
33	Gene functionalities and genome structure in Bathycoccus prasinos reflect cellular specializations at the base of the green lineage. Genome Biology, 2012, 13, R74.	9.6	143
34	PhyD3: a phylogenetic tree viewer with extended phyloXML support for functional genomics data visualization. Bioinformatics, 2017, 33, 2946-2947.	4.1	142
35	Transcriptome analysis during cell division in plants. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14825-14830.	7.1	140
36	Novel Plant-specific Cyclin-dependent Kinase Inhibitors Induced by Biotic and Abiotic Stresses. Journal of Biological Chemistry, 2007, 282, 25588-25596.	3.4	139

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37	Plastid gene expression and plant development require a plastidic protein of the mitochondrial transcription termination factor family. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 6674-6679.	7.1	134
38	Insights into the Evolution of Multicellularity from the Sea Lettuce Genome. Current Biology, 2018, 28, 2921-2933.e5.	3.9	134
39	The Automatic Detection of Homologous Regions (ADHoRe) and Its Application to Microcolinearity Between Arabidopsis and Rice. Genome Research, 2002, 12, 1792-1801.	5.5	127
40	Hydrogen Peroxide-Induced Gene Expression across Kingdoms: A Comparative Analysis. Molecular Biology and Evolution, 2008, 25, 507-516.	8.9	122
41	Predicting protein-protein interactions in Arabidopsis thaliana through integration of orthology, gene ontology and co-expression. BMC Genomics, 2009, 10, 288.	2.8	120
42	A Repressor Protein Complex Regulates Leaf Growth in Arabidopsis. Plant Cell, 2015, 27, 2273-2287.	6.6	118
43	How many genes are there in plants ($\hat{a} \in ^{l}_{l}$ and why are they there)?. Current Opinion in Plant Biology, 2007, 10, 199-203.	7.1	115
44	Systematic Identification of Functional Plant Modules through the Integration of Complementary Data Sources Â. Plant Physiology, 2012, 159, 884-901.	4.8	108
45	TRAPID: an efficient online tool for the functional and comparative analysis of de novo RNA-Seq transcriptomes. Genome Biology, 2013, 14, R134.	9.6	108
46	TF2Network: predicting transcription factor regulators and gene regulatory networks in Arabidopsis using publicly available binding site information. Nucleic Acids Research, 2018, 46, e31-e31.	14.5	107
47	A small CDC25 dual-specificity tyrosine-phosphatase isoform in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13380-13385.	7.1	105
48	A Functional and Evolutionary Perspective on Transcription Factor Binding in <i>Arabidopsis thaliana</i> . Plant Cell, 2014, 26, 3894-3910.	6.6	102
49	Comparative Network Analysis Reveals That Tissue Specificity and Gene Function Are Important Factors Influencing the Mode of Expression Evolution in Arabidopsis and Rice Â. Plant Physiology, 2011, 156, 1316-1330.	4.8	100
50	Phylogenomic analysis of gene coâ€expression networks reveals the evolution of functional modules. Plant Journal, 2017, 90, 447-465.	5.7	97
51	PLAZA 5.0: extending the scope and power of comparative and functional genomics in plants. Nucleic Acids Research, 2022, 50, D1468-D1474.	14.5	95
52	Molecular and Physiological Analysis of Growth-Limiting Drought Stress in Brachypodium distachyon Leaves. Molecular Plant, 2013, 6, 311-322.	8.3	94
53	CoExpNetViz: Comparative Co-Expression Networks Construction and Visualization Tool. Frontiers in Plant Science, 2015, 6, 1194.	3.6	93
54	Genome-wide analysis of the diatom cell cycle unveils a novel type of cyclins involved in environmental signaling. Genome Biology, 2010, 11, R17.	9.6	91

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55	Are We There Yet? Reliably Estimating the Completeness of Plant Genome Sequences. Plant Cell, 2016, 28, 1759-1768.	6.6	89
56	KIRA1 and ORESARA1 terminate flower receptivity by promoting cell death in the stigma of Arabidopsis. Nature Plants, 2018, 4, 365-375.	9.3	88
57	picoâ€ <scp>PLAZA</scp> , a genome database of microbial photosynthetic eukaryotes. Environmental Microbiology, 2013, 15, 2147-2153.	3.8	87
58	Neoproterozoic origin and multiple transitions to macroscopic growth in green seaweeds. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2551-2559.	7.1	85
59	A DNA-binding-site landscape and regulatory network analysis for NAC transcription factors in <i>Arabidopsis thaliana</i> . Nucleic Acids Research, 2014, 42, 7681-7693.	14.5	84
60	Comparative coâ€expression analysis in plant biology. Plant, Cell and Environment, 2012, 35, 1787-1798.	5.7	83
61	Functional characterization of the Arabidopsis transcription factor bZIP29 reveals its role in leaf and root development. Journal of Experimental Botany, 2016, 67, 5825-5840.	4.8	78
62	Small-scale gene duplications played a major role in the recent evolution of wheat chromosome 3B. Genome Biology, 2015, 16, 188.	8.8	76
63	Quantitative RNA expression analysis with Affymetrix Tiling 1.0R arrays identifies new E2F target genes. Plant Journal, 2009, 57, 184-194.	5.7	65
64	A widespread alternative squalene epoxidase participates in eukaryote steroid biosynthesis. Nature Microbiology, 2019, 4, 226-233.	13.3	64
65	The <i>PRA1</i> Gene Family in Arabidopsis Â. Plant Physiology, 2008, 147, 1735-1749.	4.8	63
66	Building Genomic Profiles for Uncovering Segmental Homology in the Twilight Zone. Genome Research, 2004, 14, 1095-1106.	5.5	62
67	The MCM-Binding Protein ETG1 Aids Sister Chromatid Cohesion Required for Postreplicative Homologous Recombination Repair. PLoS Genetics, 2010, 6, e1000817.	3.5	58
68	Metagenomes of the Picoalga Bathycoccus from the Chile Coastal Upwelling. PLoS ONE, 2012, 7, e39648.	2.5	58
69	Inference of Transcriptional Networks in <i>Arabidopsis</i> through Conserved Noncoding Sequence Analysis. Plant Cell, 2014, 26, 2729-2745.	6.6	57
70	Identification of novel regulatory modules in dicotyledonous plants using expression data and comparative genomics. Genome Biology, 2006, 7, R103.	9.6	55
71	The Seminavis robusta genome provides insights into the evolutionary adaptations of benthic diatoms. Nature Communications, 2020, 11, 3320.	12.8	55
72	The transcriptional repressor complex FRS7-FRS12 regulates flowering time and growth in Arabidopsis. Nature Communications, 2017, 8, 15235.	12.8	54

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73	Whole-genome analysis reveals molecular innovations and evolutionary transitions in chromalveolate species. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 3427-3432.	7.1	53
74	Investigating ancient duplication events in the Arabidopsis genome. Journal of Structural and Functional Genomics, 2003, 3, 117-129.	1.2	52
75	Detecting the undetectable: uncovering duplicated segments in Arabidopsis by comparison with rice. Trends in Genetics, 2002, 18, 606-608.	6.7	50
76	Selection for Improved Energy Use Efficiency and Drought Tolerance in Canola Results in Distinct Transcriptome and Epigenome Changes. Plant Physiology, 2015, 168, 1338-1350.	4.8	49
77	The Transcription Factor MYB29 Is a Regulator of <i>ALTERNATIVE OXIDASE1a</i> . Plant Physiology, 2017, 173, 1824-1843.	4.8	46
78	The Plastid Genome in Cladophorales Green Algae Is Encoded by Hairpin Chromosomes. Current Biology, 2017, 27, 3771-3782.e6.	3.9	45
79	Ancient duplication of cereal genomes. New Phytologist, 2005, 165, 658-661.	7.3	43
80	A Generic Tool for Transcription Factor Target Gene Discovery in Arabidopsis Cell Suspension Cultures Based on Tandem Chromatin Affinity Purification. Plant Physiology, 2014, 164, 1122-1133.	4.8	43
81	Identification and evolution of gene regulatory networks: insights from comparative studies in plants. Current Opinion in Plant Biology, 2020, 54, 42-48.	7.1	43
82	Integrative inference of transcriptional networks in Arabidopsis yields novel ROS signalling regulators. Nature Plants, 2021, 7, 500-513.	9.3	43
83	Exploring the Plant Transcriptome through Phylogenetic Profiling Â. Plant Physiology, 2005, 137, 31-42.	4.8	41
84	A Collection of Conserved Noncoding Sequences to Study Gene Regulation in Flowering Plants. Plant Physiology, 2016, 171, 2586-2598.	4.8	39
85	Multiâ€omics networkâ€based functional annotation of unknown Arabidopsis genes. Plant Journal, 2021, 108, 1193-1212.	5.7	39
86	Identification of cis-regulatory elements specific for different types of reactive oxygen species in Arabidopsis thaliana. Gene, 2012, 499, 52-60.	2.2	36
87	Gearing up to handle the mosaic nature of life in the quest for orthologs. Bioinformatics, 2018, 34, 323-329.	4.1	36
88	Genome Analyses of the Microalga Picochlorum Provide Insights into the Evolution of Thermotolerance in the Green Lineage. Genome Biology and Evolution, 2018, 10, 2347-2365.	2.5	36
89	Understanding genetic control of root system architecture in soybean: Insights into the genetic basis of lateral root number. Plant, Cell and Environment, 2019, 42, 212-229.	5.7	36
90	<scp>SHUGOSHIN</scp> s and <scp>PATRONUS</scp> protect meiotic centromere cohesion in <i><scp>A</scp>rabidopsis thaliana</i> . Plant Journal, 2014, 77, 782-794.	5.7	34

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91	Investigating ancient duplication events in the Arabidopsis genome. Journal of Structural and Functional Genomics, 2003, 3, 117-29.	1.2	32
92	Evolutionary relationships and expression analysis of EUL domain proteins in rice (Oryza sativa). Rice, 2017, 10, 26.	4.0	31
93	Genomeâ€wide characterization of differential transcript usage in <i>Arabidopsis thaliana</i> . Plant Journal, 2017, 92, 1218-1231.	5.7	31
94	Tetraspanin genes in plants. Plant Science, 2012, 190, 9-15.	3.6	30
95	Virus-host coexistence in phytoplankton through the genomic lens. Science Advances, 2020, 6, eaay2587.	10.3	30
96	Functional Analysis of Arabidopsis TETRASPANIN Gene Family in Plant Growth and Development. Plant Physiology, 2015, 169, pp.01310.2015.	4.8	29
97	Mitotic recombination between homologous chromosomes drives genomic diversity in diatoms. Current Biology, 2021, 31, 3221-3232.e9.	3.9	29
98	Inference of plant gene regulatory networks using data-driven methods: A practical overview. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2020, 1863, 194447.	1.9	28
99	Comprehensive and Functional Analysis of Horizontal Gene Transfer Events in Diatoms. Molecular Biology and Evolution, 2020, 37, 3243-3257.	8.9	28
100	Ensemble gene function prediction database reveals genes important for complex I formation in <i>Arabidopsis thaliana</i> . New Phytologist, 2018, 217, 1521-1534.	7.3	27
101	Investigating ancient duplication events in the Arabidopsis genome. , 2003, , 117-129.		27
102	Curse: building expression atlases and co-expression networks from public RNA-Seq data. Bioinformatics, 2019, 35, 2880-2881.	4.1	25
103	A greedy, graph-based algorithm for the alignment of multiple homologous gene lists. Bioinformatics, 2011, 27, 749-756.	4.1	24
104	Enhanced Maps of Transcription Factor Binding Sites Improve Regulatory Networks Learned from Accessible Chromatin Data. Plant Physiology, 2019, 181, 412-425.	4.8	24
105	Comparative transcriptomics enables the identification of functional orthologous genes involved in early leaf growth. Plant Biotechnology Journal, 2020, 18, 553-567.	8.3	24
106	On the origin and evolution of vertebrate and viral profilins. FEBS Letters, 2007, 581, 211-217.	2.8	23
107	Recent developments in computational approaches for uncovering genomic homology. BioEssays, 2004, 26, 1225-1235.	2.5	22
108	Associated Bacteria Affect Sexual Reproduction by Altering Gene Expression and Metabolic Processes in a Biofilm Inhabiting Diatom. Frontiers in Microbiology, 2019, 10, 1790.	3.5	21

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109	Evolution of vascular plants through redeployment of ancient developmental regulators. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 733-740.	7.1	21
110	Distinctive Growth and Transcriptional Changes of the Diatom Seminavis robusta in Response to Quorum Sensing Related Compounds. Frontiers in Microbiology, 2020, 11, 1240.	3.5	21
111	TRAPID 2.0: a web application for taxonomic and functional analysis of <i>de novo</i> transcriptomes. Nucleic Acids Research, 2021, 49, e101-e101.	14.5	21
112	Canonical correlations reveal adaptive loci and phenotypic responses to climate in perennial ryegrass. Molecular Ecology Resources, 2021, 21, 849-870.	4.8	20
113	Evolutionary trails of plant steroid genes. Trends in Plant Science, 2015, 20, 301-308.	8.8	19
114	GS ^{yellow} , a Multifaceted Tag for Functional Protein Analysis in Monocot and Dicot Plants. Plant Physiology, 2018, 177, 447-464.	4.8	19
115	Comparative genomics reveals new functional insights in uncultured MAST species. ISME Journal, 2021, 15, 1767-1781.	9.8	18
116	Neofunctionalization of Mitochondrial Proteins and Incorporation into Signaling Networks in Plants. Molecular Biology and Evolution, 2019, 36, 974-989.	8.9	17
117	Mating type specific transcriptomic response to sex inducing pheromone in the pennate diatom <i>Seminavis robusta</i> . ISME Journal, 2021, 15, 562-576.	9.8	17
118	Chromosome-scale assembly and annotation of the perennial ryegrass genome. BMC Genomics, 2022, 23, .	2.8	17
119	Gene space completeness in complex plant genomes. Current Opinion in Plant Biology, 2019, 48, 9-17.	7.1	16
120	Diurnal transcript profiling of the diatom <i>Seminavis robusta</i> reveals adaptations to a benthic lifestyle. Plant Journal, 2021, 107, 315-336.	5.7	15
121	The Mouse Thymosin Beta15 Gene Family Displays Unique Complexity and Encodes A Functional Thymosin Repeat. Journal of Molecular Biology, 2009, 387, 809-825.	4.2	14
122	BLSSpeller: exhaustive comparative discovery of conserved <i>cis</i> -regulatory elements. Bioinformatics, 2015, 31, 3758-3766.	4.1	14
123	Overcoming challenges in variant calling: exploring sequence diversity in candidate genes for plant development in perennial ryegrass (<i>Lolium perenne</i>). DNA Research, 2019, 26, 1-12.	3.4	14
124	Chromatin accessibility landscapes activated by cell-surface and intracellular immune receptors. Journal of Experimental Botany, 2021, 72, 7927-7941.	4.8	14
125	Gene expression during bacterivorous growth of a widespread marine heterotrophic flagellate. ISME Journal, 2021, 15, 154-167.	9.8	13
126	Light Regulation of LHCX Genes in the Benthic Diatom Seminavis robusta. Frontiers in Marine Science, 2020, 7, .	2.5	12

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127	A Guide to the PLAZA 3.0 Plant Comparative Genomic Database. Methods in Molecular Biology, 2017, 1533, 183-200.	0.9	11
128	Unravelling cis-Regulatory Elements in the Genome of the Smallest Photosynthetic Eukaryote: Phylogenetic Footprinting in Ostreococcus. Journal of Molecular Evolution, 2009, 69, 249-259.	1.8	10
129	Identification of putative cancer genes through data integration and comparative genomics between plants and humans. Cellular and Molecular Life Sciences, 2012, 69, 2041-2055.	5.4	10
130	A new evolutionary model for the vertebrate actin family including two novel groups. Molecular Phylogenetics and Evolution, 2019, 141, 106632.	2.7	10
131	Subfunctionalization of Paralog Transcription Factors Contributes to Regulation of Alkaloid Pathway Branch Choice in Catharanthus roseus. Frontiers in Plant Science, 2021, 12, 687406.	3.6	10
132	The Quest for Genomic Homology. Current Genomics, 2004, 5, 299-308.	1.6	10
133	Evolutionary Genomics of Sex-Related Chromosomes at the Base of the Green Lineage. Genome Biology and Evolution, 2021, 13, .	2.5	5
134	A network-based comparative framework to study conservation and divergence of proteomes in plant phylogenies. Nucleic Acids Research, 2021, 49, e3-e3.	14.5	5
135	Light intensity and spectral composition drive reproductive success in the marine benthic diatom Seminavis robusta. Scientific Reports, 2021, 11, 17560.	3.3	4
136	Spatiotemporal expression profile of novel and known small RNAs throughout rice plant development focussing on seed tissues. BMC Genomics, 2022, 23, 44.	2.8	4
137	MAGIC: access portal to a cross-platform gene expression compendium for maize. Bioinformatics, 2014, 30, 1316-1318.	4.1	2
138	The mutation <i>nrpb1â€A325V</i> in the largest subunit of <scp>RNA</scp> polymerase <scp>II</scp> suppresses compromised growth of <i>Arabidopsis</i> plants deficient in a function of the general transcription factor <scp>IIF</scp> . Plant Journal, 2017, 89, 730-745.	5.7	2
139	Comment on â€~Hayai-Annotation Plants: an ultrafast and comprehensive functional gene annotation system in plants': the importance of taking the GO graph structure into account. Bioinformatics, 2021, 36, 5558-5560.	4.1	2
140	The medium-size noncoding RNA transcriptome of Ostreococcus tauri, the smallest living eukaryote, reveals a large family of small nucleolar RNAs displaying multiple genomic expression strategies. NAR Genomics and Bioinformatics, 2020, 2, Iqaa080.	3.2	1
141	A Parallel, Distributed-Memory Framework for Comparative Motif Discovery. Lecture Notes in Computer Science, 2014, , 268-277.	1.3	1