George W Bassel

List of Publications by Year
in descending order

67 papers	6,920 citations	94433 37 h-index	106344 65 g-index
75 all docs	75 docs citations	75 times ranked	7912 citing authors

#	Article	IF	Citations
1	Homeostatic response to hypoxia is regulated by the N-end rule pathway in plants. Nature, 2011, 479, 415-418.	27.8	576
2	Germinationâ€"Still a mystery. Plant Science, 2010, 179, 574-581.	3.6	529
3	Seed vigour and crop establishment: extending performance beyond adaptation. Journal of Experimental Botany, 2016, 67, 567-591.	4.8	521
4	<i>Arabidopsis</i> PYR/PYL/RCAR Receptors Play a Major Role in Quantitative Regulation of Stomatal Aperture and Transcriptional Response to Abscisic Acid. Plant Cell, 2012, 24, 2483-2496.	6.6	493
5	Coâ€expression tools for plant biology: opportunities for hypothesis generation and caveats. Plant, Cell and Environment, 2009, 32, 1633-1651.	5.7	480
6	MorphoGraphX: A platform for quantifying morphogenesis in 4D. ELife, 2015, 4, 05864.	6.0	389
7	Nitric Oxide Sensing in Plants Is Mediated by Proteolytic Control of Group VII ERF Transcription Factors. Molecular Cell, 2014, 53, 369-379.	9.7	312
8	Identification of Reference Genes for RTâ€"qPCR Expression Analysis in Arabidopsis and Tomato Seeds. Plant and Cell Physiology, 2012, 53, 28-37.	3.1	223
9	Genome-wide network model capturing seed germination reveals coordinated regulation of plant cellular phase transitions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9709-9714.	7.1	210
10	Genetic Control of Plant Development by Overriding a Geometric Division Rule. Developmental Cell, 2014, 29, 75-87.	7.0	203
11	Ethylene-mediated nitric oxide depletion pre-adapts plants to hypoxia stress. Nature Communications, 2019, 10, 4020.	12.8	195
12	Transcriptional Dynamics of Two Seed Compartments with Opposing Roles in Arabidopsis Seed Germination Â Â. Plant Physiology, 2013, 163, 205-215.	4.8	175
13	Mechanical constraints imposed by 3D cellular geometry and arrangement modulate growth patterns in the <i>Arabidopsis</i> embryo. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8685-8690.	7.1	172
14	Accurate and versatile 3D segmentation of plant tissues at cellular resolution. ELife, 2020, 9, .	6.0	155
15	Germination of Arabidopsis thaliana seeds is not completed as a result of elongation of the radicle but of the adjacent transition zone and lower hypocotyl. Journal of Experimental Botany, 2009, 60, 3587-3594.	4.8	136
16	<i>procera</i>is a putative DELLA mutant in tomato (<i>Solanum lycopersicum</i>): effects on the seed and vegetative plant. Journal of Experimental Botany, 2008, 59, 585-593.	4.8	133
17	Oxygen Sensing Coordinates Photomorphogenesis to Facilitate Seedling Survival. Current Biology, 2015, 25, 1483-1488.	3.9	131
18	Elucidating the Germination Transcriptional Program Using Small Molecules Â Â. Plant Physiology, 2008, 147, 143-155.	4.8	104

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19	A prion-like protein regulator of seed germination undergoes hydration-dependent phase separation. Cell, 2021, 184, 4284-4298.e27.	28.9	99
20	Systems Analysis of Plant Functional, Transcriptional, Physical Interaction, and Metabolic Networks. Plant Cell, 2012, 24, 3859-3875.	6.6	96
21	Functional Network Construction in <i>Arabidopsis</i> Using Rule-Based Machine Learning on Large-Scale Data Sets Â Â. Plant Cell, 2011, 23, 3101-3116.	6.6	91
22	Temperature variability is integrated by a spatially embedded decision-making center to break dormancy in <i>Arabidopsis</i> seeds. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6629-6634.	7.1	81
23	<i>At</i><scp>MYB</scp>93 is a novel negative regulator of lateral root development in Arabidopsis. New Phytologist, 2014, 203, 1194-1207.	7.3	79
24	Global Topological Order Emerges through Local Mechanical Control of Cell Divisions in the Arabidopsis Shoot Apical Meristem. Cell Systems, 2019, 8, 53-65.e3.	6.2	74
25	A Regulatory Module Controlling GA-Mediated Endosperm Cell Expansion Is Critical for Seed Germination in Arabidopsis. Molecular Plant, 2019, 12, 71-85.	8.3	69
26	Digital Single-Cell Analysis of Plant Organ Development Using 3DCellAtlas. Plant Cell, 2015, 27, 1018-1033.	6.6	67
27	Down-Regulation of DELLA Genes Is Not Essential for Germination of Tomato, Soybean, and Arabidopsis Seeds. Plant Physiology, 2004, 136, 2782-2789.	4.8	63
28	The regulation of post-germinative transition from the cotyledon- to vegetative-leaf stages by microRNA-targeted <i>SQUAMOSA PROMOTER-BINDING PROTEIN LIKE13</i> in <i>Arabidopsis</i>. Seed Science Research, 2010, 20, 89-96.	1.7	61
29	ABI3 expression ceases following, but not during, germination of tomato and Arabidopsis seeds. Journal of Experimental Botany, 2006, 57, 1291-1297.	4.8	60
30	The decision to germinate is regulated by divergent molecular networks in spores and seeds. New Phytologist, 2016, 211, 952-966.	7.3	56
31	A Molecular Signal Integration Network Underpinning Arabidopsis Seed Germination. Current Biology, 2020, 30, 3703-3712.e4.	3.9	56
32	The microRNA156 and microRNA172 gene regulation cascades at post-germinative stages in<i>Arabidopsis</i>. Seed Science Research, 2010, 20, 79-87.	1.7	55
33	To Grow or not to Grow?. Trends in Plant Science, 2016, 21, 498-505.	8.8	53
34	The Emergence of Embryos from Hard Seeds is Related to the Structure of the Cell Walls of the Micropylar Endosperm, and not to Endo-Î²-mannanase Activity. Annals of Botany, 2005, 96, 1165-1173.	2.9	50
35	Quantifying morphogenesis in plants in 4D. Current Opinion in Plant Biology, 2016, 29, 87-94.	7.1	43
36	What is quantitative plant biology?. Quantitative Plant Biology, 2021, 2, .	2.0	43

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37	Using positional information to provide context for biological image analysis with MorphoGraphX 2.0. ELife, 2022, 11, .	6.0	41
38	The Transcription Factor ATHB5 Affects GA-Mediated Plasticity in Hypocotyl Cell Growth during Seed Germination. Plant Physiology, 2017, 173, 907-917.	4.8	40
39	Information Processing and Distributed Computation in Plant Organs. Trends in Plant Science, 2018, 23, 994-1005.	8.8	40
40	A single-cell morpho-transcriptomic map of brassinosteroid action in the Arabidopsis root. Molecular Plant, 2021, 14, 1985-1999.	8.3	40
41	Mechanisms of hormonal regulation of endosperm capâ€specific gene expression in tomato seeds. Plant Journal, 2012, 71, 575-586.	5.7	37
42	Topological analysis of multicellular complexity in the plant hypocotyl. ELife, 2017, 6, .	6.0	37
43	Variability in seeds: biological, ecological, and agricultural implications. Journal of Experimental Botany, 2017, 68, erw397.	4.8	33
44	Network analysis of Arabidopsis mitochondrial dynamics reveals a resolved tradeoff between physical distribution and social connectivity. Cell Systems, 2021, 12, 419-431.e4.	6.2	33
45	Vision, challenges and opportunities for a Plant Cell Atlas. ELife, 2021, 10, .	6.0	31
46	Plant behaviour in response to the environment: information processing in the solid state. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180370.	4.0	28
47	Accuracy in Quantitative 3D Image Analysis. Plant Cell, 2015, 27, 950-953.	6.6	26
48	Trait Specific Expression Profiling of Salt Stress Responsive Genes in Diverse Rice Genotypes as Determined by Modified Significance Analysis of Microarrays. Frontiers in Plant Science, 2016, 7, 567.	3.6	23
49	Network-based approaches to quantify multicellular development. Journal of the Royal Society Interface, 2017, 14, 20170484.	3.4	23
50	Identification of a bet-hedging network motif generating noise in hormone concentrations and germination propensity in <i>Arabidopsis</i>. Journal of the Royal Society Interface, 2018, 15, 20180042.	3.4	22
51	Bridging Scales in Plant Biology Using Network Science. Trends in Plant Science, 2017, 22, 1001-1003.	8.8	18
52	3DCellAtlas Meristem: a tool for the global cellular annotation of shoot apical meristems. Plant Methods, 2019, 15, 33.	4.3	16
53	Re-induction of the cell cycle in the Arabidopsis post-embryonic root meristem is ABA-insensitive, GA-dependent and repressed by KRP6. Scientific Reports, 2016, 6, 23586.	3.3	14
54	Efficient vasculature investment in tissues can be determined without global information. Journal of the Royal Society Interface, 2020, 17, 20200137.	3.4	12

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55	Multicellular Systems Biology: Quantifying Cellular Patterning and Function in Plant Organs Using Network Science. Molecular Plant, 2019, 12, 731-742.	8.3	10
56	Linking Genes to Shape in Plants Using Morphometrics. Annual Review of Genetics, 2020, 54, 417-437.	7.6	8
57	Quantitative analysis of the 3D cell shape changes driving soybean germination. Journal of Experimental Botany, 2017, 68, 1531-1537.	4.8	7
58	In Silico Methods for Cell Annotation, Quantification of Gene Expression, and Cell Geometry at Single-Cell Resolution Using 3DCellAtlas. Methods in Molecular Biology, 2017, 1497, 99-123.	0.9	7
59	Transcripts Expressed during Germination Sensu Stricto Are Associated with Vigor in Soybean Seeds. Plants, 2022, 11, 1310.	3.5	7
60	Smoothed particle hydrodynamics for root growth mechanics. Engineering Analysis With Boundary Elements, 2019, 105, 20-30.	3.7	6
61	Î±-Galactosidase is synthesized in tomato seeds during development and is localized in the protein storage vacuoles. Canadian Journal of Botany, 2001, 79, 1417-1424.	1.1	6
62	Gene Expression Analyses for Elucidating Mechanisms of Hormonal Action in Plants. Methods in Molecular Biology, 2009, 495, 21-37.	0.9	4
63	Low temperature stimulates spatial molecular reprogramming of the Arabidopsis seed germination programme. Seed Science Research, 2020, 30, 2-12.	1.7	4
64	Fluorescein Transport Assay to Assess Bulk Flow of Molecules Through the Hypocotyl in Arabidopsis thaliana. Bio-protocol, 2018, 8, e2791.	0.4	2
65	Seed Bioinformatics. Methods in Molecular Biology, 2011, 773, 403-419.	0.9	1
66	Information Processing in Plants: Hormones as Integrators of External Cues into Plant Development. , 2021, , 289-302.		0
67	Measuring Intercellular Interface Area in Plant Tissues Using Quantitative 3D Image Analysis. Methods in Molecular Biology, 2022, 2457, 457-464.	0.9	0