Ben Scheres

List of Publications by Year
in descending order

141 papers	24,832 citations	8159 76 h-index	8599 146 g-index
158 all docs	158 docs citations	158 times ranked	12747 citing authors

#	Article	IF	Citations
1	A reflux-and-growth mechanism explains oscillatory patterning of lateral root branching sites. Developmental Cell, 2021, 56, 2176-2191.e10.	3.1	35
2	Cell-by-cell dissection of phloem development links a maturation gradient to cell specialization. Science, 2021, 374, eaba5531.	6.0	60
3	Geometric cues forecast the switch from twoâ€to threeâ€dimensional growth in Physcomitrella patens. New Phytologist, 2020, 225, 1945-1955.	3.5	16
4	A coherent feed forward loop drives vascular regeneration in damaged aerial organs growing in normal developmental-context. Development (Cambridge), 2020, 147, .	1.2	24
5	ErbB-3 BINDING PROTEIN 1 Regulates Translation and Counteracts RETINOBLASTOMA RELATED to Maintain the Root Meristem. Plant Physiology, 2020, 182, 919-932.	2.3	10
6	Gradient Expression of Transcription Factor Imposes a Boundary on Organ Regeneration Potential in Plants. Cell Reports, 2019, 29, 453-463.e3.	2.9	33
7	Topology of regulatory networks that guide plant meristem activity: similarities and differences. Current Opinion in Plant Biology, 2019, 51, 74-80.	3.5	15
8	A Jasmonate Signaling Network Activates Root Stem Cells and Promotes Regeneration. Cell, 2019, 177, 942-956.e14.	13.5	233
9	Lateral root formation and the multiple roles of auxin. Journal of Experimental Botany, 2018, 69, 155-167.	2.4	291
10	Coordination of growth in root and shoot apices by AIL/PLT transcription factors. Current Opinion in Plant Biology, 2018, 41, 95-101.	3.5	34
11	A Plausible Microtubule-Based Mechanism for Cell Division Orientation in Plant Embryogenesis. Current Biology, 2018, 28, 3031-3043.e2.	1.8	57
12	Mediator subunit MED31 is required for radial patterning of <i>Arabidopsis</i> roots. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5624-E5633.	3.3	26
13	Optimizing FRET-FLIM Labeling Conditions to Detect Nuclear Protein Interactions at Native Expression Levels in Living Arabidopsis Roots. Frontiers in Plant Science, 2018, 9, 639.	1.7	21
14	Root stem cell niche organizer specification by molecular convergence of PLETHORA and SCARECROW transcription factor modules. Genes and Development, 2018, 32, 1085-1100.	2.7	100
15	Tuning Division and Differentiation in Stomata: How to Silence a MUTE. Developmental Cell, 2018, 45, 282-283.	3.1	1
16	A computational framework for cortical microtubule dynamics in realistically shaped plant cells. PLoS Computational Biology, 2018, 14, e1005959.	1.5	39
17	Analysis of a Plant Transcriptional Regulatory Network Using Transient Expression Systems. Methods in Molecular Biology, 2017, 1629, 83-103.	0.4	8
18	<i>Arabidopsis</i> RETINOBLASTOMA RELATED directly regulates DNA damage responses through functions beyond cell cycle control. EMBO Journal, 2017, 36, 1261-1278.	3.5	83

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19	The plant perceptron connects environment to development. Nature, 2017, 543, 337-345.	13.7	120
20	In vivo FRETâ€“FLIM reveals cell-type-specific protein interactions in Arabidopsis roots. Nature, 2017, 548, 97-102.	13.7	128
21	PLETHORA transcription factors orchestrate de novo organ patterning during <i>Arabidopsis</i> lateral root outgrowth. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11709-11714.	3.3	99
22	XYLEM NAC DOMAIN1, an angiosperm NAC transcription factor, inhibits xylem differentiation through conserved motifs that interact with RETINOBLASTOMAâ€RELATED. New Phytologist, 2017, 216, 76-89.	3.5	33
23	The PLETHORA Gene Regulatory Network Guides Growth and Cell Differentiation in Arabidopsis Roots. Plant Cell, 2016, 28, 2937-2951.	3.1	127
24	Lateral root emergence in <i>Arabidopsis</i> is dependent on transcription factor LBD29 regulating auxin influx carrier <i>LAX3</i>. Development (Cambridge), 2016, 143, 3340-9.	1.2	111
25	MultiSite Gateway-Compatible Cell Type-Specific Gene-Inducible System for Plants. Plant Physiology, 2016, 170, 627-641.	2.3	119
26	Root patterning: it takes two to tangle. Journal of Experimental Botany, 2016, 67, 1201-1203.	2.4	8
27	<scp>SCARECROW</scp>â€<scp>LIKE</scp>23 and <scp>SCARECROW</scp> jointly specify endodermal cell fate but distinctly control <scp>SHORT</scp>â€<scp>ROOT</scp> movement. Plant Journal, 2015, 84, 773-784.	2.8	52
28	The logic of communication: roles for mobile transcription factors in plants. Journal of Experimental Botany, 2015, 66, 1133-1144.	2.4	19
29	A plant U-box protein, PUB4, regulates asymmetric cell division and cell proliferation in the root meristem. Development (Cambridge), 2015, 142, 444-453.	1.2	61
30	PLETHORA Genes Control Regeneration by a Two-Step Mechanism. Current Biology, 2015, 25, 1017-1030.	1.8	240
31	Arabidopsis BIRD Zinc Finger Proteins Jointly Stabilize Tissue Boundaries by Confining the Cell Fate Regulator SHORT-ROOT and Contributing to Fate Specification. Plant Cell, 2015, 27, 1185-1199.	3.1	121
32	Transcriptional control of tissue formation throughout root development. Science, 2015, 350, 426-430.	6.0	128
33	Root developmental programs shape the<i>Medicago truncatula</i>nodule meristem. Development (Cambridge), 2015, 142, 2941-50.	1.2	78
34	PLETHORA gradient formation mechanism separates auxin responses. Nature, 2014, 515, 125-129.	13.7	329
35	Nutrient computation for root architecture. Science, 2014, 346, 300-301.	6.0	36
36	Precise control of plant stem cell activity through parallel regulatory inputs. Development (Cambridge), 2014, 141, 4055-4064.	1.2	59

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37	Irreversible fate commitment in the Arabidopsis stomatal lineage requires a FAMA and RETINOBLASTOMA-RELATED module. ELife, 2014, 3, .	2.8	86
38	RETINOBLASTOMA-RELATED Protein Stimulates Cell Differentiation in the<i>Arabidopsis</i>Root Meristem by Interacting with Cytokinin Signaling. Plant Cell, 2013, 25, 4469-4478.	3.1	46
39	Local auxin biosynthesis regulation by PLETHORA transcription factors controls phyllotaxis in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1107-1112.	3.3	146
40	Phyllotaxis and Rhizotaxis in Arabidopsis Are Modified by Three PLETHORA Transcription Factors. Current Biology, 2013, 23, 956-962.	1.8	105
41	Arabidopsis as a Model for Systems Biology. , 2013, , 391-406.		2
42	Rooting plant development. Development (Cambridge), 2013, 140, 939-941.	1.2	4
43	CLASP-mediated cortical microtubule organization guides PIN polarization axis. Nature, 2013, 495, 529-533.	13.7	29
44	Polar auxin transport: models and mechanisms. Development (Cambridge), 2013, 140, 2253-2268.	1.2	105
45	A SCARECROW-RETINOBLASTOMA Protein Network Controls Protective Quiescence in the Arabidopsis Root Stem Cell Organizer. PLoS Biology, 2013, 11, e1001724.	2.6	137
46	Quantitative Phosphoproteomics after Auxin-stimulated Lateral Root Induction Identifies an SNX1 Protein Phosphorylation Site Required for Growth. Molecular and Cellular Proteomics, 2013, 12, 1158-1169.	2.5	95
47	ROP GTPase-Dependent Actin Microfilaments Promote PIN1 Polarization by Localized Inhibition of Clathrin-Dependent Endocytosis. PLoS Biology, 2012, 10, e1001299.	2.6	186
48	A Bistable Circuit Involving SCARECROW-RETINOBLASTOMA Integrates Cues to Inform Asymmetric Stem Cell Division. Cell, 2012, 150, 1002-1015.	13.5	273
49	COP1 mediates the coordination of root and shoot growth by light through modulation of PIN1- and PIN2-dependent auxin transport in <i>Arabidopsis</i>. Development (Cambridge), 2012, 139, 3402-3412.	1.2	167
50	<i>Arabidopsis</i>E2FA stimulates proliferation and endocycle separately through RBR-bound and RBR-free complexes. EMBO Journal, 2012, 31, 1480-1493.	3.5	142
51	A ROP GTPase-Dependent Auxin Signaling Pathway Regulates the Subcellular Distribution of PIN2 in Arabidopsis Roots. Current Biology, 2012, 22, 1319-1325.	1.8	177
52	Morphogengineering roots: comparing mechanisms of morphogen gradient formation. BMC Systems Biology, 2012, 6, 37.	3.0	45
53	A PHABULOSA/Cytokinin Feedback Loop Controls Root Growth in Arabidopsis. Current Biology, 2012, 22, 1699-1704.	1.8	112
54	Callose Biosynthesis Regulates Symplastic Trafficking during Root Development. Developmental Cell, 2011, 21, 1144-1155.	3.1	394

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55	Joining forces: feedback and integration in plant development. Current Opinion in Genetics and Development, 2011, 21, 799-805.	1.5	6
56	A Mutually Inhibitory Interaction between Auxin and Cytokinin Specifies Vascular Pattern in Roots. Current Biology, 2011, 21, 917-926.	1.8	359
57	Phloem-Transported Cytokinin Regulates Polar Auxin Transport and Maintains Vascular Pattern in the Root Meristem. Current Biology, 2011, 21, 927-932.	1.8	231
58	Arabidopsis PLETHORA Transcription Factors Control Phyllotaxis. Current Biology, 2011, 21, 1123-1128.	1.8	124
59	Probing the roles of LRR RLK genes in Arabidopsis thaliana roots using a custom T-DNA insertion set. Plant Molecular Biology, 2011, 76, 69-83.	2.0	90
60	Identification of factors required for meristem function in Arabidopsis using a novel next generation sequencing fast forward genetics approach. BMC Genomics, 2011, 12, 256.	1.2	45
61	Distinct Cell-Autonomous Functions of <i>RETINOBLASTOMA-RELATED</i> in <i>Arabidopsis</i> Stem Cells Revealed by the Brother of Brainbow Clonal Analysis System. Plant Cell, 2011, 23, 2581-2591.	3.1	49
62	Phosphorylation switch modulates the interdigitated pattern of PIN1 localization and cell expansion in Arabidopsis leaf epidermis. Cell Research, 2011, 21, 970-978.	5.7	62
63	SCHIZORIZA Encodes a Nuclear Factor Regulating Asymmetry of Stem Cell Divisions in the Arabidopsis Root. Current Biology, 2010, 20, 452-457.	1.8	79
64	Roots respond to an inner calling. Nature, 2010, 465, 299-300.	13.7	6
65	SOMBRERO, BEARSKIN1, and BEARSKIN2 Regulate Root Cap Maturation in<i>Arabidopsis</i>Â Â. Plant Cell, 2010, 22, 640-654.	3.1	163
66	JACKDAW controls epidermal patterning in the <i>Arabidopsis</i> root meristem through a non-cell-autonomous mechanism. Development (Cambridge), 2010, 137, 1523-1529.	1.2	119
67	Plasma membrane-bound AGC3 kinases phosphorylate PIN auxin carriers at TPRXS(N/S) motifs to direct apical PIN recycling. Development (Cambridge), 2010, 137, 3245-3255.	1.2	201
68	Root Developmentâ€”Two Meristems for the Price of One?. Current Topics in Developmental Biology, 2010, 91, 67-102.	1.0	134
69	Shootward and rootward: peak terminology for plant polarity. Trends in Plant Science, 2010, 15, 593-594.	4.3	39
70	Members of the GCN5 Histone Acetyltransferase Complex Regulate PLETHORA-Mediated Root Stem Cell Niche Maintenance and Transit Amplifying Cell Proliferation in<i>Arabidopsis</i>Â. Plant Cell, 2009, 21, 1070-1079.	3.1	168
71	Arabidopsis CULLIN3 Genes Regulate Primary Root Growth and Patterning by Ethylene-Dependent and -Independent Mechanisms. PLoS Genetics, 2009, 5, e1000328.	1.5	88
72	Back to the future: evolution of computational models in plant morphogenesis. Current Opinion in Plant Biology, 2009, 12, 606-614.	3.5	33

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73	Repression of Apical Homeobox Genes Is Required for Embryonic Root Development in Arabidopsis. Current Biology, 2009, 19, 1485-1490.	1.8	97
74	Plant Asymmetric Cell Division, Vive la DiffÃ©rence!. Cell, 2009, 137, 1189-1192.	13.5	18
75	The AUXIN BINDING PROTEIN 1 Is Required for Differential Auxin Responses Mediating Root Growth. PLoS ONE, 2009, 4, e6648.	1.1	124
76	Generation of cell polarity in plants links endocytosis, auxin distribution and cell fate decisions. Nature, 2008, 456, 962-966.	13.7	228
77	Specialization of CDC27 function in the <i>Arabidopsis thaliana</i> anaphaseâ€promoting complex (APC/C). Plant Journal, 2008, 53, 78-89.	2.8	74
78	Auxin: The Looping Star in Plant Development. Annual Review of Plant Biology, 2008, 59, 443-465.	8.6	503
79	The NAC Domain Transcription Factors FEZ and SOMBRERO Control the Orientation of Cell Division Plane in Arabidopsis Root Stem Cells. Developmental Cell, 2008, 15, 913-922.	3.1	229
80	Root System Architecture from Coupling Cell Shape to Auxin Transport. PLoS Biology, 2008, 6, e307.	2.6	353
81	<i>Arabidopsis</i> JACKDAW and MAGPIE zinc finger proteins delimit asymmetric cell division and stabilize tissue boundaries by restricting SHORT-ROOT action. Genes and Development, 2007, 21, 2196-2204.	2.7	245
82	Plant neurobiology: no brain, no gain?. Trends in Plant Science, 2007, 12, 135-136.	4.3	146
83	The force from without. Nature, 2007, 446, 151-152.	13.7	6
84	An Evolutionarily Conserved Mechanism Delimiting SHR Movement Defines a Single Layer of Endodermis in Plants. Science, 2007, 316, 421-425.	6.0	522
85	Stem-cell niches: nursery rhymes across kingdoms. Nature Reviews Molecular Cell Biology, 2007, 8, 345-354.	16.1	323
86	Conserved factors regulate signalling in ArabidopsisÂthaliana shoot and root stem cell organizers. Nature, 2007, 446, 811-814.	13.7	943
87	PLETHORA proteins as dose-dependent master regulators of Arabidopsis root development. Nature, 2007, 449, 1053-1057.	13.7	743
88	Auxin transport is sufficient to generate a maximum and gradient guiding root growth. Nature, 2007, 449, 1008-1013.	13.7	761
89	Plant cell biologyâ€"get your networks together. Current Opinion in Plant Biology, 2007, 10, 546-548.	3.5	2
90	A Molecular Framework for Plant Regeneration. Science, 2006, 311, 385-388.	6.0	312

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91	Apicalâ€"basal polarity: why plant cells don't standon their heads. Trends in Plant Science, 2006, 11, 12-14.	4.3	37
92	In situ hybridization technique for mRNA detection in whole mount Arabidopsis samples. Nature Protocols, 2006, 1, 1939-1946.	5.5	141
93	Time-lapse analysis of stem-cell divisions in theArabidopsis thalianaroot meristem. Plant Journal, 2006, 48, 619-627.	2.8	100
94	Polar PIN Localization Directs Auxin Flow in Plants. Science, 2006, 312, 883-883.	6.0	754
95	Vectorial Information for Arabidopsis Planar Polarity Is Mediated by Combined AUX1, EIN2, and GNOM Activity. Current Biology, 2006, 16, 2143-2149.	1.8	141
96	Non-cell-autonomous rescue of anaphase-promoting complex function revealed by mosaic analysis of HOBBIT, an Arabidopsis CDC27 homolog. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13250-13255.	3.3	62
97	Polar auxin transport and patterning: grow with the flow. Genes and Development, 2006, 20, 922-926.	2.7	41
98	Whole-Genome Analysis of the SHORT-ROOT Developmental Pathway in Arabidopsis. PLoS Biology, 2006, 4, e143.	2.6	283
99	The PIN auxin efflux facilitator network controls growth and patterning in Arabidopsis roots. Nature, 2005, 433, 39-44.	13.7	1,789
100	Cell polarity: ROPing the ends together. Current Opinion in Plant Biology, 2005, 8, 613-618.	3.5	51
101	Dissection of Arabidopsis ADP-RIBOSYLATION FACTOR 1 Function in Epidermal Cell Polarity. Plant Cell, 2005, 17, 525-536.	3.1	422
102	The RETINOBLASTOMA-RELATED Gene Regulates Stem Cell Maintenance in Arabidopsis Roots. Cell, 2005, 123, 1337-1349.	13.5	336
103	Mosaic analyses using marked activation and deletion clones dissect Arabidopsis SCARECROW action in asymmetric cell division. Genes and Development, 2004, 18, 1964-1969.	2.7	271
104	Mechanisms of Pattern Formation in Plant Embryogenesis. Annual Review of Genetics, 2004, 38, 587-614.	3.2	81
105	Root genomics: towards digital in situ hybridization. Genome Biology, 2004, 5, 227.	13.9	7
106	The PLETHORA Genes Mediate Patterning of the Arabidopsis Root Stem Cell Niche. Cell, 2004, 119, 109-120.	13.5	1,022
107	Root-Specific CLE19 Overexpression and the sol1/2 Suppressors Implicate a CLV-like Pathway in the Control of Arabidopsis Root Meristem Maintenance. Current Biology, 2003, 13, 1435-1441.	1.8	269
108	Arabidopsis Sterol Endocytosis Involves Actin-Mediated Trafficking via ARA6-Positive Early Endosomes. Current Biology, 2003, 13, 1378-1387.	1.8	390

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109	Cell Polarity and PIN Protein Positioning in Arabidopsis Require STEROL METHYLTRANSFERASE1 Function. Plant Cell, 2003, 15, 612-625.	3.1	260
110	The Arabidopsis Anaphase-Promoting Complex or Cyclosome: Molecular and Genetic Characterization of the APC2 Subunit. Plant Cell, 2003, 15, 2370-2382.	3.1	117
111	SCARECROW is involved in positioning the stem cell niche in the Arabidopsis root meristem. Genes and Development, 2003, 17, 354-358.	2.7	622
112	The Arabidopsis HOBBIT gene encodes a CDC27 homolog that links the plant cell cycle to progression of cell differentiation. Genes and Development, 2002, 16, 2566-2575.	2.7	166
113	Root Development. The Arabidopsis Book, 2002, 1, e0101.	0.5	146
114	AtPIN4 Mediates Sink-Driven Auxin Gradients and Root Patterning in Arabidopsis. Cell, 2002, 108, 661-673.	13.5	763
115	Cell Polarity Signaling in Arabidopsis Involves a BFA-Sensitive Auxin Influx Pathway. Current Biology, 2002, 12, 329-334.	1.8	131
116	Plant Patterning: TRY to Inhibit Your Neighbors. Current Biology, 2002, 12, R804-R806.	1.8	18
117	Cell axiality and polarity in plants â€" adding pieces to the puzzle. Current Opinion in Plant Biology, 2001, 4, 520-526.	3.5	19
118	Plant Cell Identity. The Role of Position and Lineage: Fig. 1.. Plant Physiology, 2001, 125, 112-114.	2.3	84
119	Playing with Arabidopsis. Plant Physiology, 2001, 126, 468-470.	2.3	0
120	Non-linear signaling for pattern formation?. Current Opinion in Plant Biology, 2000, 3, 412-417.	3.5	23
121	Root development. Current Biology, 2000, 10, R813-R815.	1.8	138
122	An Auxin-Dependent Distal Organizer of Pattern and Polarity in the Arabidopsis Root. Cell, 1999, 99, 463-472.	13.5	1,233
123	ASYMMETRIC CELL DIVISION IN PLANTS. Annual Review of Plant Biology, 1999, 50, 505-537.	14.2	117
124	5 Digging out Roots: Pattern Formation, Cell Division, and Morphogenesis in Plants. Current Topics in Developmental Biology, 1999, 45, 207-247.	1.0	18
125	A LEAFY link from outer space. Nature, 1998, 395, 545-547.	13.7	6
126	Root development: New meanings for root canals?. Current Opinion in Plant Biology, 1998, 1, 32-36.	3.5	17

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127	Cell fate and cell differentiation status in the Arabidopsis root. Planta, 1998, 205, 483-491.	1.6	50
128	The Arabidopsis root as a model to study plant development. Plant Physiology and Biochemistry, 1998, 36, 21-32.	2.8	41
129	Root pattern: Shooting in the dark?. Seminars in Cell and Developmental Biology, 1998, 9, 201-206.	2.3	18
130	Cell signaling in root development. Current Opinion in Genetics and Development, 1997, 7, 501-506.	1.5	16
131	Short-range control of cell differentiation in the Arabidopsis root meristem. Nature, 1997, 390, 287-289.	13.7	659
132	Embryo-patterning genes and reinforcement cues determine cell fate in theArabidopsis thalianaroot. Seminars in Cell and Developmental Biology, 1996, 7, 857-865.	2.3	3
133	Experimental and genetic analysis of root development inArabidopsis thaliana. Plant and Soil, 1996, 187, 97-105.	1.8	31
134	Isolation and characterization of an auxin-inducible glutathione S-transferase gene of Arabidopsis thaliana. Plant Molecular Biology, 1996, 30, 839-844.	2.0	31
135	The pea early nodulin gene PsENOD7 maps in the region of linkage group I containing sym2 and leghaemoglobin. Plant Molecular Biology, 1996, 31, 149-156.	2.0	20
136	Cell fate in the Arabidopsis root meristem determined by directional signalling. Nature, 1995, 378, 62-65.	13.7	535
137	The PsENOD12 Gene Is Expressed at Two Different Sites in Afghanistan Pea Pseudonodules Induced by Auxin Transport Inhibitors. Plant Physiology, 1992, 100, 1649-1655.	2.3	68
138	Early Nodulins in Pea and Soybean Nodule Development. Current Plant Science and Biotechnology in Agriculture, 1991, , 300-303.	0.0	5
139	Sequential Induction of Nodulin Gene Expression in the Developing Pea Nodule. Plant Cell, 1990, 2, 687.	3.1	44
140	The ENOD12 gene product is involved in the infection process during the pea-rhizobium interaction. Cell, 1990, 60, 281-294.	13.5	293
141	Gradient Expression of Transcription Factor Imposes a Boundary on Organ Regenerative Potential in Plant. SSRN Electronic Journal, 0, , .	0.4	1