

# Jen Sheen

## List of Publications by Citations

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108  
papers

29,678  
citations

69  
h-index

136  
g-index

136  
ext. papers

34,264  
ext. citations

15.5  
avg, IF

7.32  
L-index

| #   | Paper  | IF    | Citations |
|-----|--|-------|-----------|
| 108 | Arabidopsis mesophyll protoplasts: a versatile cell system for transient gene expression analysis. <i>Nature Protocols</i> , <b>2007</b> , 2, 1565-72                                    | 18.8  | 2947      |
| 107 | MAP kinase signalling cascade in Arabidopsis innate immunity. <i>Nature</i> , <b>2002</b> , 415, 977-83  | 50.4  | 1990      |
| 106 | Sugar sensing and signaling in plants: conserved and novel mechanisms. <i>Annual Review of Plant Biology</i> , <b>2006</b> , 57, 675-709   | 30.7  | 1574      |
| 105 | Engineered GFP as a vital reporter in plants. <i>Current Biology</i> , <b>1996</b> , 6, 325-30   | 6.3   | 1226      |
| 104 | Multiplex and homologous recombination-mediated genome editing in Arabidopsis and Nicotiana benthamiana using guide RNA and Cas9. <i>Nature Biotechnology</i> , <b>2013</b> , 31, 688-91 | 44.5  | 1001      |
| 103 | A central integrator of transcription networks in plant stress and energy signalling. <i>Nature</i> , <b>2007</b> , 448, 938-42  | 50.4  | 974       |
| 102 | Mitogen-activated protein kinase cascades in plants: a new nomenclature. <i>Trends in Plant Science</i> , <b>2002</b> , 7, 301-8   | 13.1  | 891       |
| 101 | Role of the Arabidopsis glucose sensor HXK1 in nutrient, light, and hormonal signaling. <i>Science</i> , <b>2003</b> , 300, 332-6  | 33.3  | 874       |
| 100 | In vitro reconstitution of an abscisic acid signalling pathway. <i>Nature</i> , <b>2009</b> , 462, 660-4   | 50.4  | 833       |
| 99  | Sugar sensing and signaling in plants. <i>Plant Cell</i> , <b>2002</b> , 14 Suppl, S185-205  | 11.6  | 794       |
| 98  | Two-component circuitry in Arabidopsis cytokinin signal transduction. <i>Nature</i> , <b>2001</b> , 413, 383-9   | 50.4  | 736       |
| 97  | A unique short-chain dehydrogenase/reductase in Arabidopsis glucose signaling and abscisic acid biosynthesis and functions. <i>Plant Cell</i> , <b>2002</b> , 14, 2723-43                | 11.6  | 653       |
| 96  | Calcium signaling through protein kinases. The Arabidopsis calcium-dependent protein kinase gene family. <i>Plant Physiology</i> , <b>2002</b> , 129, 469-85                             | 6.6   | 630       |
| 95  | Differential innate immune signalling via Ca(2+) sensor protein kinases. <i>Nature</i> , <b>2010</b> , 464, 418-22   | 50.4  | 580       |
| 94  | Signal Transduction in Maize and Arabidopsis Mesophyll Protoplasts. <i>Plant Physiology</i> , <b>2001</b> , 127, 1466-1475   | 14.75 | 515       |
| 93  | Sugar and hormone connections. <i>Trends in Plant Science</i> , <b>2003</b> , 8, 110-6   | 13.1  | 498       |
| 92  | Cytokinin and auxin interaction in root stem-cell specification during early embryogenesis. <i>Nature</i> , <b>2008</b> , 453, 1094-7  | 50.4  | 491       |

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|----|---|----------|
| 91 | Glucose-TOR signalling reprograms the transcriptome and activates meristems. <i>Nature</i> , <b>2013</b> , 496, 181-650.4   | 430      |
| 90 | Convergent energy and stress signaling. <i>Trends in Plant Science</i> , <b>2008</b> , 13, 474-82   | 13.1 419 |
| 89 | Sugars as signaling molecules. <i>Current Opinion in Plant Biology</i> , <b>1999</b> , 2, 410-8   | 9.9 412  |
| 88 | Bacterial effectors target the common signaling partner BAK1 to disrupt multiple MAMP receptor-signaling complexes and impede plant immunity. <i>Cell Host and Microbe</i> , <b>2008</b> , 4, 17-27                     | 23.4 410 |
| 87 | Differential regulation of EIN3 stability by glucose and ethylene signalling in plants. <i>Nature</i> , <b>2003</b> , 425, 521-5  | 50.4 410 |
| 86 | Dual control of nuclear EIN3 by bifurcate MAPK cascades in C2H4 signalling. <i>Nature</i> , <b>2008</b> , 451, 789-95   | 50.4 392 |
| 85 | Plant mitogen-activated protein kinase signaling cascades. <i>Current Opinion in Plant Biology</i> , <b>2001</b> , 4, 392-400   | 400 389  |
| 84 | Ancient signals: comparative genomics of plant MAPK and MAPKK gene families. <i>Trends in Plant Science</i> , <b>2006</b> , 11, 192-8   | 13.1 379 |
| 83 | CDPKs in immune and stress signaling. <i>Trends in Plant Science</i> , <b>2013</b> , 18, 30-40  | 13.1 358 |
| 82 | Green-fluorescent protein as a new vital marker in plant cells. <i>Plant Journal</i> , <b>1995</b> , 8, 777-84  | 6.9 345  |
| 81 | Specific bacterial suppressors of MAMP signaling upstream of MAPKKK in Arabidopsis innate immunity. <i>Cell</i> , <b>2006</b> , 125, 563-75   | 56.2 341 |
| 80 | Cytokinin-mediated control of leaf longevity by AHK3 through phosphorylation of ARR2 in Arabidopsis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 814-9  | 11.5 333 |
| 79 | Regulatory functions of nuclear hexokinase1 complex in glucose signaling. <i>Cell</i> , <b>2006</b> , 127, 579-89   | 56.2 330 |
| 78 | Two-component signal transduction pathways in Arabidopsis. <i>Plant Physiology</i> , <b>2002</b> , 129, 500-15  | 6.6 327  |
| 77 | Protein kinase signaling networks in plant innate immunity. <i>Current Opinion in Plant Biology</i> , <b>2011</b> , 14, 519-29  | 9.9 310  |
| 76 | Fumonisin B1-induced cell death in arabidopsis protoplasts requires jasmonate-, ethylene-, and salicylate-dependent signaling pathways. <i>Plant Cell</i> , <b>2000</b> , 12, 1823-36                                   | 11.6 293 |
| 75 | Feedback control of gene expression. <i>Photosynthesis Research</i> , <b>1994</b> , 39, 427-38  | 3.7 284  |
| 74 | <i>Pseudomonas syringae</i> type III effector AvrRpt2 alters Arabidopsis thaliana auxin physiology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 20131-6 | 11.5 276 |

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|----|--|------|-----|
| 73 | Sugar sensing in higher plants. <i>Trends in Plant Science</i> , <b>1997</b> , 2, 208-214  | 13.1 | 273 |
| 72 | The role of hexokinase in plant sugar signal transduction and growth and development. <i>Plant Molecular Biology</i> , <b>2000</b> , 44, 451-61  | 4.6  | 266 |
| 71 | Discovery of nitrate-CPK-NLP signalling in central nutrient-growth networks. <i>Nature</i> , <b>2017</b> , 545, 311-316  | 50.4 | 245 |
| 70 | Involvement of maize Dof zinc finger proteins in tissue-specific and light-regulated gene expression. <i>Plant Cell</i> , <b>1998</b> , 10, 75-89  | 11.6 | 244 |
| 69 | Signal transduction in maize and Arabidopsis mesophyll protoplasts. <i>Plant Physiology</i> , <b>2001</b> , 127, 1466-75   | 5.6  | 243 |
| 68 | Suppression of auxin signal transduction by a MAPK cascade in higher plants. <i>Nature</i> , <b>1998</b> , 395, 716-20   | 50.4 | 235 |
| 67 | Analysis of Arabidopsis glucose insensitive mutants, gin5 and gin6, reveals a central role of the plant hormone ABA in the regulation of plant vegetative development by sugar. <i>Genes and Development</i> , <b>2000</b> , 14, 2085-2096           | 12.6 | 234 |
| 66 | Bifurcation of Arabidopsis NLR immune signaling via Ca <sup>2+</sup> -dependent protein kinases. <i>PLoS Pathogens</i> , <b>2013</b> , 9, e1003127   | 7.6  | 193 |
| 65 | Rapamycin and glucose-target of rapamycin (TOR) protein signaling in plants. <i>Journal of Biological Chemistry</i> , <b>2012</b> , 287, 2836-42   | 5.4  | 181 |
| 64 | C4 GENE EXPRESSION. <i>Annual Review of Plant Biology</i> , <b>1999</b> , 50, 187-217  |      | 178 |
| 63 | Emerging connections in the ethylene signaling network. <i>Trends in Plant Science</i> , <b>2009</b> , 14, 270-9   | 13.1 | 174 |
| 62 | The role of target of rapamycin signaling networks in plant growth and metabolism. <i>Plant Physiology</i> , <b>2014</b> , 164, 499-512  | 6.6  | 152 |
| 61 | Master Regulators in Plant Glucose Signaling Networks. <i>Journal of Plant Biology</i> , <b>2014</b> , 57, 67-79   | 3    | 151 |
| 60 | Dynamic and diverse sugar signaling. <i>Current Opinion in Plant Biology</i> , <b>2016</b> , 33, 116-125   | 9.9  | 146 |
| 59 | Pathogen-secreted proteases activate a novel plant immune pathway. <i>Nature</i> , <b>2015</b> , 521, 213-6  | 50.4 | 138 |
| 58 | Advances in cytokinin signaling. <i>Science</i> , <b>2007</b> , 318, 68-9  | 33.3 | 137 |
| 57 | Elicitation and suppression of microbe-associated molecular pattern-triggered immunity in plant-microbe interactions. <i>Cellular Microbiology</i> , <b>2007</b> , 9, 1385-96  | 3.9  | 136 |
| 56 | Expression of an active tobacco mitogen-activated protein kinase kinase kinase enhances freezing tolerance in transgenic maize. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 3298-303 | 11.5 | 119 |

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|----|--|------|-----|
| 55 | A potent Cas9-derived gene activator for plant and mammalian cells. <i>Nature Plants</i> , <b>2017</b> , 3, 930-936  | 11.5 | 117 |
| 54 | AGROBEST: an efficient Agrobacterium-mediated transient expression method for versatile gene function analyses in Arabidopsis seedlings. <i>Plant Methods</i> , <b>2014</b> , 10, 19                       | 5.8  | 115 |
| 53 | Role of the rice hexokinases OsHXK5 and OsHXK6 as glucose sensors. <i>Plant Physiology</i> , <b>2009</b> , 149, 745-50.6   | 5.6  | 113 |
| 52 | Functional analysis of two maize cDNAs encoding T7-like RNA polymerases. <i>Plant Cell</i> , <b>1999</b> , 11, 911-26  | 11.6 | 112 |
| 51 | Sugar sensing and signaling. <i>The Arabidopsis Book</i> , <b>2008</b> , 6, e0117  | 3    | 109 |
| 50 | Ancient signals: comparative genomics of green plant CDPKs. <i>Trends in Plant Science</i> , <b>2014</b> , 19, 79-89   | 13.1 | 106 |
| 49 | TOR signaling in plants: conservation and innovation. <i>Development (Cambridge)</i> , <b>2018</b> , 145,  | 6.6  | 95  |
| 48 | Comprehensive protein-based artificial microRNA screens for effective gene silencing in plants. <i>Plant Cell</i> , <b>2013</b> , 25, 1507-22  | 11.6 | 94  |
| 47 | Novel links in the plant TOR kinase signaling network. <i>Current Opinion in Plant Biology</i> , <b>2015</b> , 28, 83-91   | 9.9  | 91  |
| 46 | Molecular identification of phenylalanine ammonia-lyase as a substrate of a specific constitutively active Arabidopsis CDPK expressed in maize protoplasts. <i>FEBS Letters</i> , <b>2001</b> , 503, 185-8 | 3.8  | 85  |
| 45 | Expression and evolutionary features of the hexokinase gene family in Arabidopsis. <i>Planta</i> , <b>2008</b> , 228, 411-25   | 4.7  | 84  |
| 44 | The <i>Pseudomonas syringae</i> effector HopF2 suppresses Arabidopsis immunity by targeting BAK1. <i>Plant Journal</i> , <b>2014</b> , 77, 235-45  | 6.9  | 76  |
| 43 | Phosphorelay and transcription control in cytokinin signal transduction. <i>Science</i> , <b>2002</b> , 296, 1650-2  | 33.3 | 75  |
| 42 | The use of protoplasts to study innate immune responses. <i>Methods in Molecular Biology</i> , <b>2007</b> , 354, 1-9  | 1.4  | 72  |
| 41 | Intercepting host MAPK signaling cascades by bacterial type III effectors. <i>Cell Host and Microbe</i> , <b>2007</b> , 1, 167-74  | 23.4 | 70  |
| 40 | The N-terminal region of <i>Pseudomonas</i> type III effector AvrPtoB elicits Pto-dependent immunity and has two distinct virulence determinants. <i>Plant Journal</i> , <b>2007</b> , 52, 595-614         | 6.9  | 69  |
| 39 | Stem-cell-triggered immunity through CLV3p-FLS2 signalling. <i>Nature</i> , <b>2011</b> , 473, 376-9   | 50.4 | 63  |
| 38 | Low glucose uncouples hexokinase1-dependent sugar signaling from stress and defense hormone abscisic acid and C2H4 responses in Arabidopsis. <i>Plant Physiology</i> , <b>2010</b> , 152, 1180-2           | 6.6  | 63  |

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|----|--|------|----|
| 37 | Introduction of plasmid DNA into cells. <i>Current Protocols in Molecular Biology</i> , <b>2001</b> , Chapter 1, Unit1.8   | 2.9  | 63 |
| 36 | Sugar Sensing in Higher Plants. <i>Plant Cell</i> , <b>1994</b> , 6, 1665  | 11.6 | 63 |
| 35 | Protocol: a rapid and economical procedure for purification of plasmid or plant DNA with diverse applications in plant biology. <i>Plant Methods</i> , <b>2010</b> , 6, 1  | 5.8  | 60 |
| 34 | The hybrid four-CBS-domain KIN $\beta$ subunit functions as the canonical $\beta$ subunit of the plant energy sensor SnRK1. <i>Plant Journal</i> , <b>2013</b> , 75, 11-25   | 6.9  | 59 |
| 33 | Maize C4 photosynthesis involves differential regulation of phosphoenolpyruvate carboxylase genes. <i>Plant Journal</i> , <b>1992</b> , 2, 221-32  | 6.9  | 59 |
| 32 | Integration of nutrient, energy, light, and hormone signalling via TOR in plants. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 2227-2238  | 7    | 54 |
| 31 | Arabidopsis cytokinin signaling pathway. <i>Sciencers STKE: Signal Transduction Knowledge Environment</i> , <b>2007</b> , 2007, cm5  |      | 54 |
| 30 | TOR and RPS6 transmit light signals to enhance protein translation in deetioliating seedlings. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 12823-12828 <sup>11.5</sup> |      | 45 |
| 29 | Default Activation and Nuclear Translocation of the Plant Cellular Energy Sensor SnRK1 Regulate Metabolic Stress Responses and Development. <i>Plant Cell</i> , <b>2019</b> , 31, 1614-1632  | 11.6 | 43 |
| 28 | Epitope-tagged protein-based artificial miRNA screens for optimized gene silencing in plants. <i>Nature Protocols</i> , <b>2014</b> , 9, 939-49  | 18.8 | 41 |
| 27 | Dissection of abscisic acid signal transduction pathways in barley aleurone layers. <i>Plant Molecular Biology</i> , <b>2001</b> , 47, 437-48  | 4.6  | 41 |
| 26 | Mesophyll-specific, light and metabolic regulation of the C4 PPCZm1 promoter in transgenic maize. <i>Plant Molecular Biology</i> , <b>2001</b> , 45, 1-15  | 4.6  | 40 |
| 25 | Cas9-based genome editing in Arabidopsis and tobacco. <i>Methods in Enzymology</i> , <b>2014</b> , 546, 459-72   | 1.7  | 34 |
| 24 | Plant sugar sensing and signaling - a complex reality. <i>Trends in Plant Science</i> , <b>1999</b> , 4, 250   | 13.1 | 33 |
| 23 | Maize C4 photosynthesis involves differential regulation of phosphoenolpyruvate carboxylase genes. <i>Plant Journal</i> , <b>1992</b> , 2, 221-232   | 6.9  | 31 |
| 22 | Noncanonical ATG8-ABS3 interaction controls senescence in plants. <i>Nature Plants</i> , <b>2019</b> , 5, 212-224  | 11.5 | 30 |
| 21 | Mitogen-activated protein kinases MPK3 and MPK6 are required for stem cell maintenance in the Arabidopsis shoot apical meristem. <i>Plant Cell Reports</i> , <b>2019</b> , 38, 311-319   | 5.1  | 20 |
| 20 | Phosphorylation of D-allose by hexokinase involved in regulation of OsABF1 expression for growth inhibition in <i>Oryza sativa</i> L. <i>Planta</i> , <b>2013</b> , 237, 1379-91   | 4.7  | 19 |

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|----|--|------|----|
| 19 | Molecular Mechanisms Underlying the Differential Expression of Maize Pyruvate, Orthophosphate Dikinase Genes. <i>Plant Cell</i> , <b>1991</b> , 3, 225                 | 11.6 | 16 |
| 18 | Primary nitrate responses mediated by calcium signalling and diverse protein phosphorylation. <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 4428-4441      | 7    | 15 |
| 17 | Transient expression assays for quantifying signaling output. <i>Methods in Molecular Biology</i> , <b>2012</b> , 876, 195-206   | 1.4  | 15 |
| 16 | Discover and connect cellular signaling. <i>Plant Physiology</i> , <b>2010</b> , 154, 562-6  | 6.6  | 15 |
| 15 | Endless Hide-and-Seek: Dynamic Co-evolution in Plant-Bacterium Warfare. <i>Journal of Integrative Plant Biology</i> , <b>2007</b> , 49, 105-111                        | 8.3  | 14 |
| 14 | Glucose signaling through nuclear hexokinase1 complex in Arabidopsis. <i>Plant Signaling and Behavior</i> , <b>2007</b> , 2, 123-4                                     | 2.5  | 14 |
| 13 | Nuclear actions in innate immune signaling. <i>Cell</i> , <b>2007</b> , 128, 821-3   | 56.2 | 11 |
| 12 | Model-driven discovery of calcium-related protein-phosphatase inhibition in plant guard cell signaling. <i>PLoS Computational Biology</i> , <b>2019</b> , 15, e1007429 | 5    | 10 |
| 11 | Complexity in differential peptide-receptor signaling: response to Segonzac et Al. and Mueller et Al. commentaries. <i>Plant Cell</i> , <b>2012</b> , 24, 3177-85      | 11.6 | 10 |
| 10 | Dual CLAVATA3 Peptides in Arabidopsis Shoot Stem Cell Signaling. <i>Journal of Plant Biology</i> , <b>2017</b> , 60, 506-512   | 3    | 9  |
| 9  | Dynamic Nutrient Signaling Networks in Plants. <i>Annual Review of Cell and Developmental Biology</i> , <b>2021</b> , 37, 341-367                                      | 12.6 | 8  |
| 8  | DNA-free CRISPR-Cas9 gene editing of wild tetraploid tomato <i>Solanum peruvianum</i> using protoplast regeneration.. <i>Plant Physiology</i> , <b>2022</b> ,          | 6.6  | 5  |
| 7  | Maize rbcS Promoter Activity Depends on Sequence Elements Not Found in Dicot rbcS Promoters. <i>Plant Cell</i> , <b>1991</b> , 3, 997                                  | 11.6 | 4  |
| 6  | Efficient and Economical Targeted Insertion in Plant Genomes via Protoplast Regeneration. <i>CRISPR Journal</i> , <b>2021</b> , 4, 752-760                             | 2.5  | 3  |
| 5  | MAPK Assays in Arabidopsis MAMP-PRR Signal Transduction. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1578, 155-166   | 1.4  | 2  |
| 4  | Involvement of Maize Dof Zinc Finger Proteins in Tissue-Specific and Light-Regulated Gene Expression. <i>Plant Cell</i> , <b>1998</b> , 10, 75                         | 11.6 | 2  |
| 3  | A Versatile and Efficient Plant Protoplast Platform for Genome Editing by Cas9 RNPs.. <i>Frontiers in Genome Editing</i> , <b>2021</b> , 3, 719190                     | 2.5  | 2  |
| 2  | The cytokinin side chain commands shooting. <i>Developmental Cell</i> , <b>2013</b> , 27, 371-2  | 10.2 | 1  |

1 Functional Analysis of Two Maize cDNAs Encoding T7-Like RNA Polymerases. *Plant Cell*, **1999**, 11, 911 11.6 1