

# Günter Theisen

## List of Publications by Year in descending order

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103  
papers

11,467  
citations

50170

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h-index

43802

91  
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109  
all docs

109  
docs citations

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times ranked

8859  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | The Norway spruce genome sequence and conifer genome evolution. <i>Nature</i> , 2013, 497, 579-584.   | 13.7 | 1,303     |
| 2  | The major clades of MADS-box genes and their role in the development and evolution of flowering plants. <i>Molecular Phylogenetics and Evolution</i> , 2003, 29, 464-489.   | 1.2  | 827       |
| 3  | Floral quartets. <i>Nature</i> , 2001, 409, 469-471.  | 13.7 | 826       |
| 4  | Development of floral organ identity: stories from the MADS house. <i>Current Opinion in Plant Biology</i> , 2001, 4, 75-85.  | 3.5  | 799       |
| 5  | The Selaginella Genome Identifies Genetic Changes Associated with the Evolution of Vascular Plants. <i>Science</i> , 2011, 332, 960-963.  | 6.0  | 794       |
| 6  | MIKC-type MADS-domain proteins: structural modularity, protein interactions and network evolution in land plants. <i>Gene</i> , 2005, 347, 183-198.   | 1.0  | 484       |
| 7  | Classification and phylogeny of the MADS-box multigene family suggest defined roles of MADS-box gene subfamilies in the morphological evolution of eukaryotes. <i>Journal of Molecular Evolution</i> , 1996, 43, 484-516. | 0.8  | 467       |
| 8  | The Chara Genome: Secondary Complexity and Implications for Plant Terrestrialization. <i>Cell</i> , 2018, 174, 448-464.e24.   | 13.5 | 420       |
| 9  | MADS-domain transcription factors and the floral quartet model of flower development: linking plant development and evolution. <i>Development (Cambridge)</i> , 2016, 143, 3259-3271.                                     | 1.2  | 346       |
| 10 | Functional conservation and diversification of class E floral homeotic genes in rice ( <i>Oryza</i> ). <i>Plant Cell</i> , 2007, 19, 382-392.   | 2.8  | 223       |
| 11 | Two Ancient Classes of MIKC-type MADS-box Genes are Present in the Moss <i>Physcomitrella patens</i> . <i>Molecular Biology and Evolution</i> , 2002, 19, 801-814.  | 3.5  | 216       |
| 12 | And then there were many: MADS goes genomic. <i>Trends in Plant Science</i> , 2003, 8, 475-483.   | 4.3  | 179       |
| 13 | Evolution of Class B Floral Homeotic Proteins: Obligate Heterodimerization Originated from Homodimerization. <i>Molecular Biology and Evolution</i> , 2002, 19, 587-596.  | 3.5  | 167       |
| 14 | Molecular mechanisms involved in convergent crop domestication. <i>Trends in Plant Science</i> , 2013, 18, 704-714.   | 4.3  | 150       |
| 15 | MADS-Box Gene Diversity in Seed Plants 300 Million Years Ago. <i>Molecular Biology and Evolution</i> , 2000, 17, 1425-1434.   | 3.5  | 145       |
| 16 | FLOWERING LOCUS C in monocots and the tandem origin of angiosperm-specific MADS-box genes. <i>Nature Communications</i> , 2013, 4, 2280.  | 5.8  | 142       |
| 17 | The class E floral homeotic protein SEPALLATA3 is sufficient to loop DNA in <i>Arabidopsis thaliana</i> floral quartet-like complexes in vitro. <i>Nucleic Acids Research</i> , 2009, 37, 144-157.                        | 6.5  | 141       |
| 18 | MADS about the evolution of orchid flowers. <i>Trends in Plant Science</i> , 2008, 13, 51-59.   | 4.3  | 139       |

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|----|---|-----|-----------|
| 19 | Why are orchid flowers so diverse? Reduction of evolutionary constraints by paralogues of class B floral homeotic genes. <i>Annals of Botany</i> , 2009, 104, 583-594.  | 1.4 | 135       |
| 20 | Reconstitution of "floral quartets"™ in vitro involving class B and class E floral homeotic proteins. <i>Nucleic Acids Research</i> , 2009, 37, 2723-2736.  | 6.5 | 133       |
| 21 | Conserved differential expression of paralogous <i>DEFICIENS</i> and <i>GLOBOSA</i> -like MADS-box genes in the flowers of Orchidaceae: refining the "orchid code"™. <i>Plant Journal</i> , 2011, 66, 1008-1019.  | 2.8 | 125       |
| 22 | On the origin of MADS-domain transcription factors. <i>Trends in Genetics</i> , 2010, 26, 149-153.  | 2.9 | 123       |
| 23 | Genomewide Structural Annotation and Evolutionary Analysis of the Type I MADS-Box Genes in Plants. <i>Journal of Molecular Evolution</i> , 2003, 56, 573-586.   | 0.8 | 109       |
| 24 | Characterization of three <i>GLOBOSA</i> -like MADS-box genes from maize: evidence for ancient paralogy in one class of floral homeotic B-function genes of grasses. <i>Gene</i> , 2001, 262, 1-13.   | 1.0 | 108       |
| 25 | Evolutionary game theory: cells as players. <i>Molecular BioSystems</i> , 2014, 10, 3044-3065.  | 2.9 | 108       |
| 26 | Functional Conservation of MIKC*-Type MADS Box Genes in <i>Arabidopsis</i> and Rice Pollen Maturation Å. <i>Plant Cell</i> , 2013, 25, 1288-1303.   | 3.1 | 106       |
| 27 | MADS-box genes active in developing pollen cones of Norway spruce ( <i>Picea abies</i> ) are homologous to the B-class floral homeotic genes in angiosperms. , 1999, 25, 253-266.   |     | 103       |
| 28 | MADS goes genomic in conifers: towards determining the ancestral set of MADS-box genes in seed plants. <i>Annals of Botany</i> , 2014, 114, 1407-1429.  | 1.4 | 101       |
| 29 | Saltational evolution: hopeful monsters are here to stay. <i>Theory in Biosciences</i> , 2009, 128, 43-51.  | 0.6 | 99        |
| 30 | Structural Basis for the Oligomerization of the MADS Domain Transcription Factor SEPALLATA3 in <i>Arabidopsis</i> Å. <i>Plant Cell</i> , 2014, 26, 3603-3615.   | 3.1 | 97        |
| 31 | The proper place of hopeful monsters in evolutionary biology. <i>Theory in Biosciences</i> , 2006, 124, 349-369.  | 0.6 | 96        |
| 32 | Loss of deeply conserved C-class floral homeotic gene function and C- and E-class protein interaction in a double-flowered ranunculid mutant. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E2267-75. | 3.3 | 96        |
| 33 | The naked and the dead: The ABCs of gymnosperm reproduction and the origin of the angiosperm flower. <i>Seminars in Cell and Developmental Biology</i> , 2010, 21, 118-128.   | 2.3 | 93        |
| 34 | ADEF/GLO-like MADS-box gene from a gymnosperm: <i>Pinus radiata</i> contains an ortholog of angiosperm B class floral homeotic genes. , 1999, 25, 245-252.  |     | 87        |
| 35 | On the origin of class B floral homeotic genes: functional substitution and dominant inhibition in <i>Arabidopsis</i> by expression of an orthologue from the gymnosperm <i>Gnetum</i> . <i>Plant Journal</i> , 2002, 31, 457-475.                          | 2.8 | 81        |
| 36 | The <i>ABC</i> s of flower development: mutational analysis of <i>AP1</i> and <i>FUL</i> -like genes in rice provides evidence for a homeotic (A)-function in grasses. <i>Plant Journal</i> , 2017, 89, 310-324.  | 2.8 | 76        |

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|----|---|------|-----------|
| 37 | Live and Let Die - The Bsister MADS-Box Gene OsMADS29 Controls the Degeneration of Cells in Maternal Tissues during Seed Development of Rice ( <i>Oryza sativa</i> ). PLoS ONE, 2012, 7, e51435.  | 1.1  | 73        |
| 38 | Evidence that an evolutionary transition from dehiscent to indehiscent fruits in <i>Lepidium</i> ( <i>Brassicaceae</i> ) was caused by a change in the control of valve margin identity genes. Plant Journal, 2013, 73, 824-835.        | 2.8  | 71        |
| 39 | Phylogenomics of MADS-Box Genes in Plants â€” Two Opposing Life Styles in One Gene Family. Biology, 2013, 2, 1150-1164.   | 1.3  | 70        |
| 40 | Phylogenomics reveals surprising sets of essential and dispensable clades of MIKC <sup>c</sup> MADSâ€‘box genes in flowering plants. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2015, 324, 353-362. | 0.6  | 69        |
| 41 | Molecular interactions of orthologues of floral homeotic proteins from the gymnosperm <i>Gnetum gnemon</i> provide a clue to the evolutionary origin of â€‘floral quartetsâ€™™. Plant Journal, 2010, 64, 177-190.                       | 2.8  | 68        |
| 42 | <i>Arabidopsis</i> SEPALLATA proteins differ in cooperative DNA-binding during the formation of floral quartet-like complexes. Nucleic Acids Research, 2014, 42, 10927-10942.   | 6.5  | 68        |
| 43 | Orthology: Secret life of genes. Nature, 2002, 415, 741-741.  | 13.7 | 66        |
| 44 | <i>Lepidium</i> as a model system for studying the evolution of fruit development in Brassicaceae. Journal of Experimental Botany, 2009, 60, 1503-1513.   | 2.4  | 64        |
| 45 | Developmental Control and Plasticity of Fruit and Seed Dimorphism in <i>Aethionema arabicum</i> . Plant Physiology, 2016, 172, 1691-1707.   | 2.3  | 59        |
| 46 | Gymnosperm Orthologues of Class B Floral Homeotic Genes and Their Impact on Understanding Flower Origin. Critical Reviews in Plant Sciences, 2004, 23, 129-148.   | 2.7  | 58        |
| 47 | Petaloidy and petal identity MADSâ€‘box genes in the balsaminoid genera <i>Impatiens</i> and <i>Marcgravia</i> . Plant Journal, 2006, 47, 501-518.  | 2.8  | 54        |
| 48 | The <i>seirena</i> B Class Floral Homeotic Mutant of California Poppy ( <i>Eschscholzia</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (ca MADS Domain Protein Complexes Â Â. Plant Cell, 2013, 25, 438-453.                         | 3.1  | 52        |
| 49 | GORDITA (AGL63) is a young paralog of the <i>Arabidopsis thaliana</i> Bsister MADS box gene ABS (TT16) that has undergone neofunctionalization. Plant Journal, 2010, 63, 914-924.   | 2.8  | 49        |
| 50 | DEF- and GLO-like proteins may have lost most of their interaction partners during angiosperm evolution. Annals of Botany, 2014, 114, 1431-1443.  | 1.4  | 49        |
| 51 | Molecular genetic basis of pod corn ( <i>Tunicate</i> maize). Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7115-7120.  | 3.3  | 48        |
| 52 | Classification and Phylogeny of the MADS-Box Multigene Family Suggest Defined Roles of MADS-Box Gene Subfamilies in the Morphological Evolution of Eukaryotes. Journal of Molecular Evolution, 1996, 43, 484-516.                       | 0.8  | 47        |
| 53 | Positive selection and ancient duplications in the evolution of class B floral homeotic genes of orchids and grasses. BMC Evolutionary Biology, 2009, 9, 81.  | 3.2  | 43        |
| 54 | Conservation of fruit dehiscence pathways between <i>Lepidium campestre</i> and <i>Arabidopsis thaliana</i> sheds light on the regulation of INDEHISCENT. Plant Journal, 2013, 76, 545-556.   | 2.8  | 42        |

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| 55 | The pleiotropic SEPALLATA -like gene Os MADS 34 reveals that the -empty glumes-™ of rice ( <i>Oryza sativa</i> ) spikelets are in fact rudimentary lemmas. <i>New Phytologist</i> , 2014, 202, 689-702.          | 3.5  | 42        |
| 56 | Why don't mosses flower?. <i>New Phytologist</i> , 2001, 150, 1-5.   | 3.5  | 41        |
| 57 | The golden decade of molecular floral development (1990-1999): A cheerful obituary. , 1999, 25, 181-193.   |      | 40        |
| 58 | Evolutionary developmental genetics of floral symmetry: The revealing power of Linnaeus' monstrous flower. <i>BioEssays</i> , 2000, 22, 209-213.   | 1.2  | 40        |
| 59 | Evolutionary game theory: molecules as players. <i>Molecular BioSystems</i> , 2014, 10, 3066-3074.   | 2.9  | 39        |
| 60 | Array of MADS-Box Genes: Facilitator for Rapid Adaptation?. <i>Trends in Plant Science</i> , 2018, 23, 563-576.  | 4.3  | 35        |
| 61 | Cooperation and cheating in microbial exoenzyme production - Theoretical analysis for biotechnological applications. <i>Biotechnology Journal</i> , 2010, 5, 751-758.  | 1.8  | 31        |
| 62 | Selaginella Genome Analysis - Entering the -Homoplasmy Heaven- of the MADS World. <i>Frontiers in Plant Science</i> , 2012, 3, 214.  | 1.7  | 31        |
| 63 | Structure and Evolution of Plant MADS Domain Transcription Factors. , 2016, , 127-138.   |      | 30        |
| 64 | Developmental Robustness by Obligate Interaction of Class B Floral Homeotic Genes and Proteins. <i>PLoS Computational Biology</i> , 2009, 5, e1000264.   | 1.5  | 29        |
| 65 | Did Convergent Protein Evolution Enable Phytoplasmas to Generate -Zombie Plants-™?. <i>Trends in Plant Science</i> , 2015, 20, 798-806.  | 4.3  | 28        |
| 66 | The significance of developmental robustness for species diversity. <i>Annals of Botany</i> , 2016, 117, 725-732.  | 1.4  | 25        |
| 67 | A conserved leucine zipper-like motif accounts for strong tetramerization capabilities of SEPALLATA-like MADS-domain transcription factors. <i>Journal of Experimental Botany</i> , 2018, 69, 1943-1954.         | 2.4  | 24        |
| 68 | Shattering developments. <i>Nature</i> , 2000, 404, 711-713.   | 13.7 | 21        |
| 69 | When the BRANCHED network bears fruit: how carpic dominance causes fruit dimorphism in <i>Aethionema</i> . <i>Plant Journal</i> , 2018, 94, 352-371.   | 2.8  | 20        |
| 70 | <i>Aethionema arabicum</i> genome annotation using PacBio full-length transcripts provides a valuable resource for seed dormancy and Brassicaceae evolution research. <i>Plant Journal</i> , 2021, 106, 275-293. | 2.8  | 20        |
| 71 | Birth, life and death of developmental control genes: New challenges for the homology concept. <i>Theory in Biosciences</i> , 2005, 124, 199-212.  | 0.6  | 18        |
| 72 | OsMADS14 and NF-YB1 cooperate in the direct activation of <i>OsAGPL2</i> and <i>Waxy</i> during starch synthesis in rice endosperm. <i>New Phytologist</i> , 2022, 234, 77-92.                                   | 3.5  | 18        |

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|----|--|-----|-----------|
| 73 | The floral homeotic protein <i>SEPALLATA3</i> recognizes target DNA sequences by shape readout involving a conserved arginine residue in the MADS domain. <i>Plant Journal</i> , 2018, 95, 341-357.                          | 2.8 | 17        |
| 74 | Non-canonical structure, function and phylogeny of the B sister MADS box gene OsMADS30 of rice ( <i>Oryza sativa</i> ). <i>Journal of Experimental Botany</i> , 2019, 70, 2615-2622.   | 2.8 | 16        |
| 75 | Floral visitation and reproductive traits of Stamenoid petals, a naturally occurring floral homeotic variant of <i>Capsella bursa-pastoris</i> (Brassicaceae). <i>Planta</i> , 2009, 230, 1239-1249.                         | 1.6 | 15        |
| 76 | MADS and More: Transcription Factors That Shape the Plant. <i>Methods in Molecular Biology</i> , 2011, 754, 3-18.  | 0.4 | 15        |
| 77 | A double-flowered variety of lesser periwinkle ( <i>Vinca minor</i> fl. pl.) that has persisted in the wild for more than 160 years. <i>Annals of Botany</i> , 2011, 107, 1445-1452.   | 1.4 | 15        |
| 78 | SplamiR prediction of spliced miRNAs in plants. <i>Bioinformatics</i> , 2011, 27, 1215-1223.   | 1.8 | 15        |
| 79 | Missing Links: DNA Binding and Target Gene Specificity of Floral Homeotic Proteins. <i>Advances in Botanical Research</i> , 2006, , 209-236.   | 0.5 | 14        |
| 80 | Reconstructing the ancestral flower of extant angiosperms: the war of the whorls is heating up. <i>Journal of Experimental Botany</i> , 2019, 70, 2615-2622.   | 2.4 | 14        |
| 81 | Molecular Architects of Plant Body Plans. <i>Progress in Botany Fortschritte Der Botanik</i> , 1998, , 227-256.  | 0.1 | 14        |
| 82 | Mapping a floral trait in Shepherds purse "Stamenoid petals" in natural populations of <i>Capsella bursa-pastoris</i> (L.) Medik. <i>Flora: Morphology, Distribution, Functional Ecology of Plants</i> , 2013, 208, 641-647. | 0.6 | 13        |
| 83 | A Dead Gene Walking: Convergent Degeneration of a Clade of MADS-Box Genes in Crucifers. <i>Molecular Biology and Evolution</i> , 2018, 35, 2618-2638.  | 3.5 | 10        |
| 84 | Structural Requirements of the Phytoplasma Effector Protein SAP54 for Causing Homeotic Transformation of Floral Organs. <i>Molecular Plant-Microbe Interactions</i> , 2020, 33, 1129-1141.                                   | 1.4 | 9         |
| 85 | Extending the Toolkit for Beauty: Differential Co-Expression of DROOPING LEAF-Like and Class B MADS-Box Genes during Phalaenopsis Flower Development. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7025.   | 1.8 | 9         |
| 86 | A tale of two morphs: developmental patterns and mechanisms of seed coat differentiation in the dimorphic diaspore model <i>Aethionema arabicum</i> (Brassicaceae). <i>Plant Journal</i> , 2021, 107, 166-181.               | 2.8 | 8         |
| 87 | DNA-binding properties of the MADS-domain transcription factor <i>SEPALLATA3</i> and mutant variants characterized by SELEX-seq. <i>Plant Molecular Biology</i> , 2021, 105, 543-557.  | 2.0 | 8         |
| 88 | Independent origin of MIRNA genes controlling homologous target genes by partial inverted duplication of antisense-transcribed sequences. <i>Plant Journal</i> , 2020, 101, 401-419.   | 2.8 | 7         |
| 89 | Plant Breeding: FLO-Like Meristem Identity Genes: from Basic Science to Crop Plant Design. <i>Progress in Botany Fortschritte Der Botanik</i> , 2000, , 167-183.   | 0.1 | 6         |
| 90 | Evolution of Floral Organ Identity. , 2018, , 1-17.  |     | 5         |

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|-----|---|-----|-----------|
| 91  | Key Genes of Crop Domestication and Breeding: Molecular Analyses. Progress in Botany Fortschritte Der Botanik, 2002, , 189-203.   | 0.1 | 4         |
| 92  | BiodiversitÄtsmessung bei Pflanzen anhand molekularer Daten: Ein Beitrag zur wissenschaftlichen Definition von BiodiversitÄt. Wissenschaftsethik Und Technikfolgenbeurteilung, 2001, , 181-234. | 0.8 | 4         |
| 93  | The golden decade of molecular floral development(1990â€“1999): A cheerful obituary. Genesis, 1999, 25, 181-193.  | 3.1 | 3         |
| 94  | Combinatorial Control of Floral Organ Identity by MADS-domain Transcription Factors. , 0, , 253-265.  |     | 3         |
| 95  | Morphologically and physiologically diverse fruits of two Lepidium species differ in allocation of glucosinolates into immature and mature seed and pericarp. PLoS ONE, 2020, 15, e0227528.     | 1.1 | 3         |
| 96  | Plant Breeding: The ABCs of Flower Development in Arabidopsis and Rice. Progress in Botany Fortschritte Der Botanik, 2004, , 193-215.   | 0.1 | 3         |
| 97  | Comparative transcriptomics identifies candidate genes involved in the evolutionary transition from dehiscent to indehiscent fruits in Lepidium (Brassicaceae). BMC Plant Biology, 2022, 22, .  | 1.6 | 3         |
| 98  | Evolution of Floral Organ Identity. , 2021, , 697-713.  |     | 2         |
| 99  | The Genetics of Capsella. , 2011, , 373-387.  |     | 2         |
| 100 | Plant Breeding: MADS ways of memorizing winter: vernalization in weed and wheat. , 2006, , 162-177.   |     | 1         |
| 101 | Stranger than Fiction: Loss of MADS-Box Genes During Evolutionary Miniaturization of the Duckweed Body Plan. Compendium of Plant Genomes, 2020, , 91-101.                                       | 0.3 | 1         |
| 102 | My favourite flowering image: a cob of pod corn. Journal of Experimental Botany, 2014, 65, 6751-6754.   | 2.4 | 0         |
| 103 | Mechanismen der Evolution. , 2019, , 127-134.   |     | 0         |