

# Marisa S Otegui

## List of Publications by Year in descending order

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116  
papers

7,652  
citations

41344

49  
h-index

56724

83  
g-index

126  
all docs

126  
docs citations

126  
times ranked

10199  
citing authors

#	ARTICLE	IF	CITATIONS
1	Senescence-associated vacuoles with intense proteolytic activity develop in leaves of Arabidopsis and soybean. <i>Plant Journal</i> , 2005, 41, 831-844.	5.7	296
2	A role for the RabA4b effector protein PI-4KÎ²1 in polarized expansion of root hair cells in Arabidopsis thaliana. <i>Journal of Cell Biology</i> , 2006, 172, 991-998.	5.2	274
3	Endocytosis and Endosomal Trafficking in Plants. <i>Annual Review of Plant Biology</i> , 2016, 67, 309-335.	18.7	259
4	A SNARE Complex Unique to Seed Plants Is Required for Protein Storage Vacuole Biogenesis and Seed Development of <i>Arabidopsis thaliana</i> . <i>Plant Cell</i> , 2008, 20, 3006-3021.	6.6	213
5	Autophagic Recycling Plays a Central Role in Maize Nitrogen Remobilization. <i>Plant Cell</i> , 2015, 27, 1389-1408.	6.6	211
6	The Arabidopsis AAA ATPase SKD1 Is Involved in Multivesicular Endosome Function and Interacts with Its Positive Regulator LYST-INTERACTING PROTEIN5. <i>Plant Cell</i> , 2007, 19, 1295-1312.	6.6	195
7	The ESCRT-Related CHMP1A and B Proteins Mediate Multivesicular Body Sorting of Auxin Carriers in <i>Arabidopsis</i> and Are Required for Plant Development. <i>Plant Cell</i> , 2009, 21, 749-766.	6.6	193
8	Nuclear membranes control symbiotic calcium signaling of legumes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14348-14353.	7.1	191
9	The Proteolytic Processing of Seed Storage Proteins in Arabidopsis Embryo Cells Starts in the Multivesicular Bodies. <i>Plant Cell</i> , 2006, 18, 2567-2581.	6.6	188
10	Three-Dimensional Analysis of Syncytial-Type Cell Plates during Endosperm Cellularization Visualized by High Resolution Electron Tomography[W]. <i>Plant Cell</i> , 2001, 13, 2033-2051.	6.6	175
11	Molecular Characterization of Mutant Arabidopsis Plants with Reduced Plasma Membrane Proton Pump Activity. <i>Journal of Biological Chemistry</i> , 2010, 285, 17918-17929.	3.4	161
12	Developing Seeds of Arabidopsis Store Different Minerals in Two Types of Vacuoles and in the Endoplasmic Reticulum. <i>Plant Cell</i> , 2002, 14, 1311-1327.	6.6	160
13	Plant Cytokinesis: Terminology for Structures and Processes. <i>Trends in Cell Biology</i> , 2017, 27, 885-894.	7.9	155
14	Anthocyanin Vacuolar Inclusions Form by a Microautophagy Mechanism. <i>Plant Cell</i> , 2015, 27, 2545-2559.	6.6	153
15	Plant endosomal trafficking pathways. <i>Current Opinion in Plant Biology</i> , 2011, 14, 666-673.	7.1	140
16	A KDEL-tagged monoclonal antibody is efficiently retained in the endoplasmic reticulum in leaves, but is both partially secreted and sorted to protein storage vacuoles in seeds. <i>Plant Biotechnology Journal</i> , 2006, 4, 060606025943002-???	8.3	137
17	Delivery of Prolamins to the Protein Storage Vacuole in Maize Aleurone Cells. <i>Plant Cell</i> , 2011, 23, 769-784.	6.6	137
18	Senescence-associated vacuoles are involved in the degradation of chloroplast proteins in tobacco leaves. <i>Plant Journal</i> , 2008, 56, 196-206.	5.7	133

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19	Not all anthocyanins are born equal: distinct patterns induced by stress in Arabidopsis. <i>Planta</i> , 2014, 240, 931-940.	3.2	129
20	Cytokinesis in flowering plants: more than one way to divide a cell. <i>Current Opinion in Plant Biology</i> , 2000, 3, 493-502.	7.1	127
21	pH Regulation by NHX-Type Antiporters Is Required for Receptor-Mediated Protein Trafficking to the Vacuole in Arabidopsis. <i>Plant Cell</i> , 2015, 27, 1200-1217.	6.6	126
22	Syncytial-Type Cell Plates: A Novel Kind of Cell Plate Involved in Endosperm Cellularization of Arabidopsis. <i>Plant Cell</i> , 2000, 12, 933-947.	6.6	124
23	Maize multi-omics reveal roles for autophagic recycling in proteome remodelling and lipid turnover. <i>Nature Plants</i> , 2018, 4, 1056-1070.	9.3	124
24	INCREASED SIZE EXCLUSION LIMIT2 Encodes a Putative DEVH Box RNA Helicase Involved in Plasmodesmata Function during Arabidopsis Embryogenesis. <i>Plant Cell</i> , 2007, 19, 1885-1897.	6.6	122
25	Methylation of a Phosphatase Specifies Dephosphorylation and Degradation of Activated Brassinosteroid Receptors. <i>Science Signaling</i> , 2011, 4, ra29.	3.6	121
26	Insights into the Localization and Function of the Membrane Trafficking Regulator GNOM ARF-GEF at the Golgi Apparatus in Arabidopsis. <i>Plant Cell</i> , 2014, 26, 3062-3076.	6.6	121
27	Subcellular Localization and Functional Domain Studies of DEFECTIVE KERNEL1 in Maize and Arabidopsis Suggest a Model for Aleurone Cell Fate Specification Involving CRINKLY4 and SUPERNUMERARY ALEURONE LAYER1. <i>Plant Cell</i> , 2007, 19, 3127-3145.	6.6	120
28	The Secretory System of Arabidopsis. <i>The Arabidopsis Book</i> , 2008, 6, e0116.	0.5	118
29	Abiotic stresses induce different localizations of anthocyanins in Arabidopsis. <i>Plant Signaling and Behavior</i> , 2015, 10, e1027850.	2.4	118
30	Midbodies and phragmoplasts: analogous structures involved in cytokinesis. <i>Trends in Cell Biology</i> , 2005, 15, 404-413.	7.9	117
31	The Maize <i>Floury1</i> Gene Encodes a Novel Endoplasmic Reticulum Protein Involved in Zein Protein Body Formation. <i>Plant Cell</i> , 2007, 19, 2569-2582.	6.6	116
32	Structural analysis and modeling reveals new mechanisms governing ESCRT-III spiral filament assembly. <i>Journal of Cell Biology</i> , 2014, 206, 763-777.	5.2	115
33	The Endosomal Protein CHARGED MULTIVESICULAR BODY PROTEIN1 Regulates the Autophagic Turnover of Plastids in Arabidopsis. <i>Plant Cell</i> , 2015, 27, 391-402.	6.6	112
34	Endosomal Functions in Plants. <i>Traffic</i> , 2008, 9, 1589-1598.	2.7	110
35	Electron tomographic analysis of post-meiotic cytokinesis during pollen development in Arabidopsis thaliana. <i>Planta</i> , 2004, 218, 501-515.	3.2	107
36	The <i>Medicago truncatula</i> DMI1 Protein Modulates Cytosolic Calcium Signaling. <i>Plant Physiology</i> , 2007, 145, 192-203.	4.8	99

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37	A prion-like protein regulator of seed germination undergoes hydration-dependent phase separation. <i>Cell</i> , 2021, 184, 4284-4298.e27.	28.9	99
38	The ER-Localized TWD1 Immunophilin Is Necessary for Localization of Multidrug Resistance-Like Proteins Required for Polar Auxin Transport in <i>Arabidopsis</i> Roots. <i>Plant Cell</i> , 2010, 22, 3295-3304.	6.6	98
39	Genetic Analyses of the <i>Arabidopsis</i> ATG1 Kinase Complex Reveal Both Kinase-Dependent and Independent Autophagic Routes during Fixed-Carbon Starvation. <i>Plant Cell</i> , 2019, 31, 2973-2995.	6.6	97
40	<sc>TFG</sc> clusters <sc>COPII</sc>-coated transport carriers and promotes early secretory pathway organization. <i>EMBO Journal</i> , 2015, 34, 811-827.	7.8	92
41	Cryo-electron tomography reveals novel features of a viral RNA replication compartment. <i>ELife</i> , 2017, 6, .	6.0	89
42	A Role for the TOC Complex in <i>Arabidopsis</i> Root Gravitropism. <i>Plant Physiology</i> , 2009, 149, 1896-1905.	4.8	79
43	Vacuolar degradation of chloroplast components: autophagy and beyond. <i>Journal of Experimental Botany</i> , 2018, 69, 741-750.	4.8	72
44	Complex Regulation of Prolyl-4-Hydroxylases Impacts Root Hair Expansion. <i>Molecular Plant</i> , 2015, 8, 734-746.	8.3	70
45	The Ubiquitin-Specific Protease Subfamily UBP3/UBP4 Is Essential for Pollen Development and Transmission in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2007, 145, 801-813.	4.8	61
46	Role of SKD1 Regulators LIP5 and IST1-LIKE1 in Endosomal Sorting and Plant Development. <i>Plant Physiology</i> , 2016, 171, 251-264.	4.8	61
47	MTV1 and MTV4 Encode Plant-Specific ENTH and ARF GAP Proteins That Mediate Clathrin-Dependent Trafficking of Vacuolar Cargo from the Trans-Golgi Network. <i>Plant Cell</i> , 2013, 25, 2217-2235.	6.6	60
48	AtU2<sc>AF</sc>65b functions in abscisic acid mediated flowering via regulating the precursor messenger <sc>RNA</sc> splicing of <i><sc>ABI</sc>5</i> and <i><sc>FLC</sc></i> in <i>Arabidopsis</i>. <i>New Phytologist</i> , 2019, 223, 277-292.	7.3	59
49	Control of Anther Cell Differentiation by the Small Protein Ligand TPD1 and Its Receptor EMS1 in <i>Arabidopsis</i> . <i>PLoS Genetics</i> , 2016, 12, e1006147.	3.5	58
50	<i>Arabidopsis</i> ALIX is required for the endosomal localization of the deubiquitinating enzyme AMSH3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5543-51.	7.1	56
51	Manganese co-localizes with calcium and phosphorus in <i>Chlamydomonas</i> acidocalcisomes and is mobilized in manganese-deficient conditions. <i>Journal of Biological Chemistry</i> , 2019, 294, 17626-17641.	3.4	53
52	Autophagy Plays Prominent Roles in Amino Acid, Nucleotide, and Carbohydrate Metabolism during Fixed-Carbon Starvation in Maize. <i>Plant Cell</i> , 2020, 32, 2699-2724.	6.6	53
53	Reticulon proteins modulate autophagy of the endoplasmic reticulum in maize endosperm. <i>ELife</i> , 2020, 9, .	6.0	53
54	Mutation of the Membrane-Associated M1 Protease APM1 Results in Distinct Embryonic and Seedling Developmental Defects in <i>Arabidopsis</i>. <i>Plant Cell</i> , 2009, 21, 1693-1721.	6.6	51

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55	ESCRT-mediated vesicle concatenation in plant endosomes. <i>Journal of Cell Biology</i> , 2017, 216, 2167-2177.	5.2	51
56	Plant autophagy: new flavors on the menu. <i>Current Opinion in Plant Biology</i> , 2018, 46, 113-121.	7.1	47
57	A Novel Endosomal Sorting Complex Required for Transport (ESCRT) Component in <i>Arabidopsis thaliana</i> Controls Cell Expansion and Development. <i>Journal of Biological Chemistry</i> , 2014, 289, 4980-4988.	3.4	42
58	ER network homeostasis is critical for plant endosome streaming and endocytosis. <i>Cell Discovery</i> , 2015, 1, 15033.	6.7	39
59	The protein kinase genes <i>MAP3K É 1</i> and <i>MAP3K É 2</i> are required for pollen viability in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2006, 48, 193-205.	5.7	38
60	<i>Agrobacterium tumefaciens</i> -Mediated Transformation of Maize Endosperm as a Tool to Study Endosperm Cell Biology. <i>Plant Physiology</i> , 2010, 153, 624-631.	4.8	35
61	Vacuolar Trafficking Protein VPS38 Is Dispensable for Autophagy. <i>Plant Physiology</i> , 2018, 176, 1559-1572.	4.8	34
62	Vision, challenges and opportunities for a Plant Cell Atlas. <i>ELife</i> , 2021, 10, .	6.0	31
63	The VASCULATURE COMPLEXITY AND CONNECTIVITY Gene Encodes a Plant-Specific Protein Required for Embryo Provasculature Development. <i>Plant Physiology</i> , 2014, 166, 889-902.	4.8	28
64	The catalytic domain CysPc of the <i>DEK1</i> calpain is functionally conserved in land plants. <i>Plant Journal</i> , 2013, 75, 742-754.	5.7	27
65	Fifteen compelling open questions in plant cell biology. <i>Plant Cell</i> , 2022, 34, 72-102.	6.6	27
66	A glossary of plant cell structures: Current insights and future questions. <i>Plant Cell</i> , 2022, 34, 10-52.	6.6	27
67	ESCRT-mediated sorting and intraluminal vesicle concatenation in plants. <i>Biochemical Society Transactions</i> , 2018, 46, 537-545.	3.4	23
68	<i>AtBUD13</i> affects pre-mRNA splicing and is essential for embryo development in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2019, 98, 714-726.	5.7	22
69	Electron tomography in plant cell biology. <i>Microscopy (Oxford, England)</i> , 2019, 68, 69-79.	1.5	22
70	Distribution of Endogenous NO Regulates Early Gravitropic Response and PIN2 Localization in <i>Arabidopsis</i> Roots. <i>Frontiers in Plant Science</i> , 2018, 9, 495.	3.6	21
71	Flower morphology and biology of <i>Myrsine laetevirens</i> , structural and evolutionary implications of anemophily in Myrsinaceae. <i>Nordic Journal of Botany</i> , 1999, 19, 71-85.	0.5	20
72	A plant-unique ESCRT component, FYVE4, regulates multivesicular endosome biogenesis and plant growth. <i>New Phytologist</i> , 2021, 231, 193-209.	7.3	20

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73	Using fluorescence lifetime microscopy to study the subcellular localization of anthocyanins. <i>Plant Journal</i> , 2016, 88, 895-903.	5.7	19
74	ESCRT components ISTL1 and LIP5 are required for tapetal function and pollen viability. <i>Plant Cell</i> , 2021, 33, 2850-2868.	6.6	19
75	FYVE2, a phosphatidylinositol 3-phosphate effector, interacts with the COPII machinery to control autophagosome formation in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2022, 34, 351-373.	6.6	19
76	Plant Cytokinesis – Insights Gained from Electron Tomography Studies. <i>Plant Cell Monographs</i> , 2007, , 251-287.	0.4	18
77	Synergy between the anthocyanin and RDR6/SGS3/DCL4 siRNA pathways expose hidden features of <i>Arabidopsis</i> carbon metabolism. <i>Nature Communications</i> , 2020, 11, 2456.	12.8	17
78	Electron microscopy for imaging organelles in plants and algae. <i>Plant Physiology</i> , 2022, 188, 713-725.	4.8	17
79	Endosperm Cell Walls: Formation, Composition, and Functions. , 2007, , 159-177.		16
80	Nonselective Chemical Inhibition of Sec7 Domain-Containing ARF GTPase Exchange Factors. <i>Plant Cell</i> , 2018, 30, 2573-2593.	6.6	16
81	Histological and Chemical Characterization of <i>Myrsine laetevirens</i> Seed. <i>International Journal of Plant Sciences</i> , 1998, 159, 762-772.	1.3	15
82	Class III Peroxidases PRX01, PRX44, and PRX73 Control Root Hair Growth in <i>Arabidopsis thaliana</i> . <i>International Journal of Molecular Sciences</i> , 2022, 23, 5375.	4.1	15
83	Visualization of Membrane – Cytoskeletal Interactions During Plant Cytokinesis. <i>Methods in Cell Biology</i> , 2007, 79, 221-240.	1.1	14
84	Microautophagy Mediates Vacuolar Delivery of Storage Proteins in Maize Aleurone Cells. <i>Frontiers in Plant Science</i> , 2022, 13, 833612.	3.6	11
85	Plant endosomes as protein sorting hubs. <i>FEBS Letters</i> , 2022, 596, 2288-2304.	2.8	11
86	Imaging Plant Cells by High-Pressure Freezing and Serial block-face scanning electron microscopy. <i>Methods in Molecular Biology</i> , 2020, 2177, 69-81.	0.9	10
87	Endomembrane Mediated-Trafficking Of Seed Storage Proteins: From <i>Arabidopsis</i> To Cereal Crops. <i>Journal of Experimental Botany</i> , 2021, , .	4.8	10
88	Development of the Endosperm of <i>Myrsine laetevirens</i> (Myrsinaceae). I. Cellularization and Deposition of Cell – Wall Storage Carbohydrates. <i>International Journal of Plant Sciences</i> , 1999, 160, 491-500.	1.3	9
89	<i>Arabidopsis</i> vascular complexity and connectivity controls PIN-FORMED1 dynamics and lateral vein patterning during embryogenesis. <i>Development (Cambridge)</i> , 2021, 148, .	2.5	9
90	<i>Arabidopsis</i> MATE 45 antagonizes local abscisic acid signaling to mediate development and abiotic stress responses. <i>Plant Direct</i> , 2018, 2, e00087.	1.9	8

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91	Secretory tissues of the flower of <i>Sanango racemosum</i> (Gesneriaceae). I. Light microscopy. <i>Acta Botanica Neerlandica</i> , 1997, 46, 413-420.	0.9	7
92	Electron Tomography in Plant Cell Biology. <i>Journal of Integrative Plant Biology</i> , 2007, 49, 1091-1099.	8.5	7
93	Electron Tomography and Immunogold Labelling as Tools to Analyse De Novo Assembly of Plant Cell Walls. <i>Methods in Molecular Biology</i> , 2011, 715, 123-140.	0.9	7
94	The Plant Cell Atlas: focusing new technologies on the kingdom that nourishes the planet. <i>Plant Physiology</i> , 2022, 188, 675-679.	4.8	7
95	Defects in autophagy lead to selective in vivo changes in turnover of cytosolic and organelle proteins in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2022, 34, 3936-3960.	6.6	7
96	Occurrence of Perforated Ray Cells and Ray Splitting in <i>Rapanea Laetevirens</i> and <i>R. Lorentziana</i> (Myrsinaceae). <i>IAWA Journal</i> , 1994, 15, 257-263.	2.7	6
97	Development of the Endosperm of <i>Myrsine laetevirens</i> (Myrsinaceae). II. Formation of Protein and Lipid Bodies. <i>International Journal of Plant Sciences</i> , 1999, 160, 501-509.	1.3	6
98	High-Pressure Freezing and Freeze Substitution for Transmission Electron Microscopy Imaging and Immunogold-Labeling. <i>Methods in Molecular Biology</i> , 2021, 2200, 337-347.	0.9	5
99	An <i>Arabidopsis</i> Retention and Splicing complex regulates root and embryo development through pre-mRNA splicing. <i>Plant Physiology</i> , 2022, 190, 621-639.	4.8	4
100	Imaging Vacuolar Anthocyanins with Fluorescence Lifetime Microscopy (FLIM). <i>Methods in Molecular Biology</i> , 2018, 1789, 131-141.	0.9	3
101	Electron tomography and immunogold labeling of plant cells. <i>Methods in Cell Biology</i> , 2020, 160, 21-36.	1.1	3
102	Transient expression of fluorescently tagged proteins in developing maize aleurone cells. <i>MethodsX</i> , 2021, 8, 101446.	1.6	2
103	Hyperdimensional Imaging Contrast Using an Optical Fiber. <i>Sensors</i> , 2021, 21, 1201.	3.8	2
104	Immunogold Labeling and Electron Tomography of Plant Endosomes. <i>Methods in Molecular Biology</i> , 2014, 1209, 63-80.	0.9	2
105	Sunflower storage proteins are transported in dense vesicles that contain proteins homologous to the pumpkin vacuolar sorting receptor PV 72. <i>Electronic Journal of Biotechnology</i> , 2006, 9, 0-0.	2.2	2
106	Electron Tomography and Immunogold Labeling as Tools to Analyze De Novo Assembly of Plant Cell Walls. <i>Methods in Molecular Biology</i> , 2020, 2149, 365-382.	0.9	2
107	Syncytial-Type Cell Plates: A Novel Kind of Cell Plate Involved in Endosperm Cellularization of <i>Arabidopsis</i> . <i>Plant Cell</i> , 2000, 12, 933.	6.6	1
108	Fabrication approaches for the creation of physical models from microscopy data. <i>3D Printing in Medicine</i> , 2017, 3, 2.	3.1	1

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109	For <i>Microscopy</i> special issue on "Plant Science"™. Microscopy (Oxford, England), 2019, 68, 3-3.	1.5	1
110	Electron Tomography of Plant Cells. , 2014, , 1-14.		1
111	Three-Dimensional Analysis of Syncytial-Type Cell Plates during Endosperm Cellularization Visualized by High Resolution Electron Tomography. Plant Cell, 2001, 13, 2033.	6.6	0
112	Reply: Internal Membranes in Maize Aleurone Protein Storage Vacuoles: Beyond Autophagy. Plant Cell, 2011, 23, 4171-4172.	6.6	0
113	Purification of Plant ESCRT Proteins for Polyclonal Antibody Production. Methods in Molecular Biology, 2019, 1998, 227-238.	0.9	0
114	Electron Tomography to Analyze Vesiculation in Plant Endosomes. Microscopy and Microanalysis, 2020, 26, 144-145.	0.4	0
115	ESCRT-Dependent Sorting in Late Endosomes. , 2012, , 249-270.		0
116	Cell-Free Protein Translation System for Expression of Lipid-Binding Proteins Tagged with Small epitopes and Their Use in Protein-Lipid Overlay Assays. Methods in Molecular Biology, 2020, 2177, 143-152.	0.9	0