Pilar S Testillano

List of Publications by Year in Descending Order

119 papers	4,083 citations	35 h-index	58 g-index
126 ext. papers	4,647 ext. citations	4.1 avg, IF	5.2 L-index

#	Paper	IF	Citations
119	Deciphering the Epigenetic Alphabet Involved in Transgenerational Stress Memory in Crops. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	12
118	Suppression of Metacaspase- and Autophagy-Dependent Cell Death Improves Stress-Induced Microspore Embryogenesis in Brassica napus. *Plant and Cell Physiology*, **2021**, 61, 2097-2110	4.9	6
117	Endogenous auxin accumulation/localization during zygotic and somatic embryogenesis of Capsicum chinense Jacq. *Journal of Plant Physiology*, **2021**, 258-259, 153333	3.6	1
116	Epigenetics for Crop Improvement in Times of Global Change. *Biology*, **2021**, 10,	4.9	12
115	Small molecule inhibitors of mammalian GSK-3 promote in vitro plant cell reprogramming and somatic embryogenesis in crop and forest species. *Journal of Experimental Botany*, **2021**, 72, 7808-7825	7	1
114	In Situ/Subcellular Localization of Arabinogalactan Protein Expression by Fluorescent In Situ Hybridization (FISH). *Methods in Molecular Biology*, **2020**, 2149, 403-427	1.4	
113	Advances in Plant Regeneration: Shake, Rattle and Roll. *Plants*, **2020**, 9,	4.5	8
112	Stress-Induced Microspore Embryogenesis Requires Endogenous Auxin Synthesis and Polar Transport in Barley. *Frontiers in Plant Science*, **2019**, 10, 1200	6.2	12
111	Microspore embryogenesis: targeting the determinant factors of stress-induced cell reprogramming for crop improvement. *Journal of Experimental Botany*, **2019**, 70, 2965-2978	7	37
110	Proteases with caspase 3-like activity participate in cell death during stress-induced microspore embryogenesis of Brassica napus. *The EuroBiotech Journal*, **2019**, 3, 152-159	1.5	2
109	Modulation of autophagy and protease activities by small bioactive compounds to reduce cell death and improve stress-induced microspore embryogenesis initiation in rapeseed and barley. *Plant Signaling and Behavior*, **2019**, 14, 1559577	2.5	7
108	Pectin De-methylesterification and AGP Increase Promote Cell Wall Remodeling and Are Required During Somatic Embryogenesis of. *Frontiers in Plant Science*, **2018**, 9, 1915	6.2	21
107	Autophagy-related approaches for improving nutrient use efficiency and crop yield protection. *Journal of Experimental Botany*, **2018**, 69, 1335-1353	7	52
106	Autophagy is activated and involved in cell death with participation of cathepsins during stress-induced microspore embryogenesis in barley. *Journal of Experimental Botany*, **2018**, 69, 1387-1402	7	36
105	The effects of organophosphorus insecticides and heavy metals on DNA damage and programmed cell death in two plant models. *Environmental Pollution*, **2018**, 240, 77-86	9.3	26
104	Somatic Embryogenesis of Quercus suber L. From Immature Zygotic Embryos. *Methods in Molecular Biology*, **2018**, 1815, 247-256	1.4	8
103	Development of the ovule and seed of Habanero chili pepper (Capsicum chinense Jacq.): Anatomical characterization and immunocytochemical patterns of pectin methyl-esterification. *Journal of Plant Physiology*, **2018**, 230, 1-12	3.6	5

102	Quercus Ilex L.. *Forestry Sciences*, **2018**, 135-147		1
101	Stress-Induced Microspore Embryogenesis in Crop Plants: Cell Totipotency Acquisition and Embryo Development. *Progress in Botany Fortschritte Der Botanik*, **2018**, 227-241	0.6	3
100	Effect of in vitro morphogenesis on the production of podophyllotoxin derivatives in callus cultures of Linum album. *Journal of Plant Physiology*, **2018**, 228, 47-58	3.6	7
99	Stress-Induced Microspore Embryogenesis by Anther Culture of Quercus suber L.. *Forestry Sciences*, **2018**, 93-105		6
98	Initiation of leaf somatic embryogenesis involves high pectin esterification, auxin accumulation and DNA demethylation in Quercus alba. *Journal of Plant Physiology*, **2017**, 213, 42-54	3.6	30
97	Inhibition of Histone H3K9 Methylation by BIX-01294 Promotes Stress-Induced Microspore Totipotency and Enhances Embryogenesis Initiation. *Frontiers in Plant Science*, **2017**, 8, 1161	6.2	31
96	Detection of Epigenetic Modifications During Microspore Embryogenesis: Analysis of DNA Methylation Patterns Dynamics. *Methods in Molecular Biology*, **2016**, 1359, 491-502	1.4	4
95	BnPME is progressively induced after microspore reprogramming to embryogenesis, correlating with pectin de-esterification and cell differentiation in Brassica napus. *BMC Plant Biology*, **2016**, 16, 176	5.3	18
94	Auxin Biosynthesis, Accumulation, Action and Transport are Involved in Stress-Induced Microspore Embryogenesis Initiation and Progression in Brassica napus. *Plant and Cell Physiology*, **2015**, 56, 1401-17	4.9	34
93	Early embryo achievement through isolated microspore culture in Citrus clementina Hort. ex Tan., cvs. TMonreal RossoTand TNulesT *Frontiers in Plant Science*, **2015**, 6, 413	6.2	21
92	5-azacytidine promotes microspore embryogenesis initiation by decreasing global DNA methylation, but prevents subsequent embryo development in rapeseed and barley. *Frontiers in Plant Science*, **2015**, 6, 472	6.2	53
91	Quantum dot and superparamagnetic nanoparticle interaction with pathogenic fungi: internalization and toxicity profile. *ACS Applied Materials & Interfaces*, **2014**, 6, 9100-10	9.5	61
90	Early markers are present in both embryogenesis pathways from microspores and immature zygotic embryos in cork oak, Quercus suber L. *BMC Plant Biology*, **2014**, 14, 224	5.3	41
89	Differential expression patterns of arabinogalactan proteins in Arabidopsis thaliana reproductive tissues. *Journal of Experimental Botany*, **2014**, 65, 5459-71	7	44
88	Epigenetic changes accompany developmental programmed cell death in tapetum cells. *Plant and Cell Physiology*, **2014**, 55, 16-29	4.9	29
87	Changes in DNA methylation levels and nuclear distribution patterns after microspore reprogramming to embryogenesis in barley. *Cytogenetic and Genome Research*, **2014**, 143, 200-8	1.9	33
86	Changes in histone methylation and acetylation during microspore reprogramming to embryogenesis occur concomitantly with Bn HKMT and Bn HAT expression and are associated with cell totipotency, proliferation, and differentiation in Brassica napus. *Cytogenetic and Genome Research*, **2014**, 143, 209-18	1.9	34
85	The 5-methyl-deoxy-cytidine (5mdC) localization to reveal in situ the dynamics of DNA methylation chromatin pattern in a variety of plant organ and tissue cells during development. *Physiologia Plantarum*, **2013**, 149, 104-13	4.6	20

84	Arabinogalactan protein profiles and distribution patterns during microspore embryogenesis and pollen development in Brassica napus. *Plant Reproduction*, **2013**, 26, 231-43	3.9	42
83	DNA methylation dynamics and MET1a-like gene expression changes during stress-induced pollen reprogramming to embryogenesis. *Journal of Experimental Botany*, **2012**, 63, 6431-44	7	59
82	NO, ROS, and cell death associated with caspase-like activity increase in stress-induced microspore embryogenesis of barley. *Journal of Experimental Botany*, **2012**, 63, 2007-24	7	87
81	A new microspore embryogenesis system under low temperature which mimics zygotic embryogenesis initials, expresses auxin and efficiently regenerates doubled-haploid plants in Brassica napus. *BMC Plant Biology*, **2012**, 12, 127	5.3	69
80	GintAMT2, a new member of the ammonium transporter family in the arbuscular mycorrhizal fungus Glomus intraradices. *Fungal Genetics and Biology*, **2011**, 48, 1044-55	3.9	114
79	A change of developmental program induces the remodeling of the interchromatin domain during microspore embryogenesis in Brassica napus L. *Journal of Plant Physiology*, **2011**, 168, 746-57	3.6	24
78	First stages of microspore reprogramming to embryogenesis through anther culture in Prunus armeniaca L.. *Environmental and Experimental Botany*, **2011**, 71, 152-157	5.9	16
77	Dual targeting to mitochondria and plastids of AtBT1 and ZmBT1, two members of the mitochondrial carrier family. *Plant and Cell Physiology*, **2011**, 52, 597-609	4.9	26
76	FIRST STAGES OF MICROSPORE REPROGRAMMING TO EMBRYOGENESIS THROUGH ISOLATED MICROSPORE CULTURE IN LOQUAT. *Acta Horticulturae*, **2011**, 285-290	0.3	4
75	Cell wall components and pectin esterification levels as markers of proliferation and differentiation events during pollen development and pollen embryogenesis in Capsicum annuum L. *Journal of Experimental Botany*, **2010**, 61, 1159-75	7	53
74	Microspore reprogramming to embryogenesis induces changes in cell wall and starch accumulation dynamics associated with proliferation and differentiation events. *Plant Signaling and Behavior*, **2010**, 5, 341-5	2.5	11
73	Carbon-iron magnetic nanoparticles for agronomic use in plants: promising but still a long way to go. *Plant Signaling and Behavior*, **2010**, 5, 1295-7	2.5	10
72	Efficient plant regeneration through somatic embryogenesis from anthers and ovaries of six autochthonous grapevine cultivars from Galicia (Spain). *Scientia Horticulturae*, **2010**, 125, 342-352	4.1	19
71	In situ detection of Esr proteins secretion during maize microspore embryogenesis and their secretion blockage show effects on the culture progression. *Functional Plant Biology*, **2010**, 37, 985	2.7	8
70	Changes in Cell/Tissue Organization and Peroxidase Activity as Markers for Early Detection of Graft Incompatibility in Peach/Plum Combinations. *Journal of the American Society for Horticultural Science*, **2010**, 135, 9-17	2.3	37
69	Tracking Gene and Protein Expression During Microspore Embryogenesis by Confocal Laser Scanning Microscopy **2009**, 339-347		14
68	Pollen development in Annona cherimola Mill. (Annonaceae). Implications for the evolution of aggregated pollen. *BMC Plant Biology*, **2009**, 9, 129	5.3	31
67	Nanoparticle penetration and transport in living pumpkin plants: in situ subcellular identification. *BMC Plant Biology*, **2009**, 9, 45	5.3	270

66	Epigenetic characterization of the vegetative and floral stages of azalea buds: dynamics of DNA methylation and histone H4 acetylation. *Journal of Plant Physiology*, **2009**, 166, 1624-36	3.6	31
65	Cellular response of pea plants to cadmium toxicity: cross talk between reactive oxygen species, nitric oxide, and calcium. *Plant Physiology*, **2009**, 150, 229-43	6.6	458
64	Nanoparticles as smart treatment-delivery systems in plants: assessment of different techniques of microscopy for their visualization in plant tissues. *Annals of Botany*, **2008**, 101, 187-95	4.1	255
63	Asymmetrical distribution of the transcriptionally competent NORs in mitosis. *Journal of Structural Biology*, **2008**, 163, 40-4	3.4	4
62	Early markers of in vitro microspore reprogramming to embryogenesis in olive (Olea europaea L.). *Plant Science*, **2008**, 174, 597-605	5.3	41
61	In situ molecular identification of the Ntf4 MAPK expression sites in maturing and germinating pollen. *Biology of the Cell*, **2007**, 99, 209-21	3.5	11
60	Resistance to broomrape (Orobanche crenata) in faba bean (Vicia faba): cell wall changes associated with prehaustorial defensive mechanisms. *Annals of Applied Biology*, **2007**, 151, 89-98	2.6	45
59	In situ molecular identification of the plastid omega3 fatty acid desaturase FAD7 from soybean: evidence of thylakoid membrane localization. *Plant Physiology*, **2007**, 145, 1336-44	6.6	26
58	Identification and subcellular localization of the soybean copper P1B-ATPase GmHMA8 transporter. *Journal of Structural Biology*, **2007**, 158, 46-58	3.4	33
57	Biosynthesis of ascorbic acid in legume root nodules. *Plant Physiology*, **2006**, 141, 1068-77	6.6	51
56	Development of multicellular pollen of Eriobotrya japonica Lindl. through anther culture. *Plant Science*, **2006**, 171, 718-725	5.3	17
55	Excess copper induces structural changes in cultured photosynthetic soybean cells. *Functional Plant Biology*, **2006**, 33, 1001-1012	2.7	21
54	Nuclear bodies domain changes with microspore reprogramming to embryogenesis. *European Journal of Histochemistry*, **2006**, 50, 35-44	2.1	22
53	Microspore-derived embryogenesis in pepper (Capsicum annuum L.): subcellular rearrangements through development. *Biology of the Cell*, **2005**, 97, 709-22	3.5	55
52	Differentiating plant cells switched to proliferation remodel the functional organization of nuclear domains. *Cytogenetic and Genome Research*, **2005**, 109, 166-74	1.9	40
51	Multicellular structures developing during maize microspore culture express endosperm and embryo-specific genes and show different embryogenic potentialities. *European Journal of Cell Biology*, **2005**, 84, 663-75	6.1	27
50	Mitogen-activated protein kinases are developmentally regulated during stress-induced microspore embryogenesis in Brassica napus L. *Histochemistry and Cell Biology*, **2005**, 123, 541-51	2.4	34
49	Three dimensional confocal and electron microscopy imaging define the dynamics and mechanisms of diploidisation at early stages of barley microspore-derived embryogenesis. *Planta*, **2005**, 222, 47-57	4.7	51

48	Cell architecture during gametophytic and embryogenic microspore development in Brassica napus L.. *Acta Physiologiae Plantarum*, **2005**, 27, 665-674	2.6	30
47	Isolation and functional characterisation of two new bZIP maize regulators of the ABA responsive gene rab28. *Plant Molecular Biology*, **2005**, 58, 899-914	4.6	56
46	Thyroid hormone regulates tubulin expression in mammalian liver. Effects of deleting thyroid hormone receptor-alpha or -beta. *American Journal of Physiology - Endocrinology and Metabolism*, **2005**, 289, E87-94	6	6
45	Expression of allene oxide cyclase and accumulation of jasmonates during organogenic nodule formation from hop (Humulus lupulus var. Nugget) internodes. *Plant and Cell Physiology*, **2005**, 46, 1713-23	4.9	10
44	Changes in extranucleolar transcription during actinomycin D-induced apoptosis. *Histology and Histopathology*, **2005**, 20, 107-17	1.4	21
43	Expression of lipoxygenase during organogenic nodule formation from hop internodes. *Journal of Histochemistry and Cytochemistry*, **2004**, 52, 227-41	3.4	12
42	Changes in pectins and MAPKs related to cell development during early microspore embryogenesis in Quercus suber L. *European Journal of Cell Biology*, **2004**, 83, 213-25	6.1	21
41	Differential expression and cellular localization of ERKs during organogenic nodule formation from internodes of Humulus lupulus var. Nugget. *European Journal of Cell Biology*, **2004**, 83, 425-33	6.1	8
40	Spontaneous chromosome doubling results from nuclear fusion during in vitro maize induced microspore embryogenesis. *Chromosoma*, **2004**, 112, 342-9	2.8	53
39	The MAP kinase kinase NtMEK2 is involved in tobacco pollen germination. *FEBS Letters*, **2004**, 560, 86-90	3.8	18
38	Visualization of transcription sites at the electron microscope. *European Journal of Histochemistry*, **2003**, 47, 195-200	2.1	22
37	Changes in Tomato Leaves Induced by NaCl Stress: Leaf Organization and Cell Ultrastructure. *Biologia Plantarum*, **2003**, 46, 361-366	2.1	27
36	Developmental cooperation of leukemia inhibitory factor and insulin-like growth factor I in mice is tissue-specific and essential for lung maturation involving the transcription factors Sp3 and TTF-1. *Mechanisms of Development*, **2003**, 120, 349-61	1.7	28
35	Microspore-derived embryos from Quercus suber anthers mimic zygotic embryos and maintain haploidy in long-term anther culture. *Journal of Plant Physiology*, **2003**, 160, 953-60	3.6	35
34	Hsp70 and Hsp90 change their expression and subcellular localization after microspore embryogenesis induction in Brassica napus L. *Journal of Structural Biology*, **2003**, 142, 379-91	3.4	64
33	Studies on callose and cutin during the expression of competence and determination for organogenic nodule formation from internodes of Humulus lupulus var. Nugget. *Physiologia Plantarum*, **2002**, 116, 113-120	4.6	23
32	MAPKs entry into the nucleus at specific interchromatin domains in plant differentiation and proliferation processes. *Journal of Structural Biology*, **2002**, 140, 200-13	3.4	37
31	Young microspore-derived maize embryos show two domains with defined features also present in zygotic embryogenesis. *International Journal of Developmental Biology*, **2002**, 46, 1035-47	1.9	40

30	MAP kinase signaling during pollen development. *Sexual Plant Reproduction*, **2001**, 14, 15-19		15
29	The protein kinases AtMAP3Kepsilon1 and BnMAP3Kepsilon1 are functional homologues of S. pombe cdc7p and may be involved in cell division. *Plant Journal*, **2001**, 26, 637-49	6.9	28
28	Genes encoding chitinase-antifreeze proteins are regulated by cold and expressed by all cell types in winter rye shoots. *Physiologia Plantarum*, **2001**, 112, 359-371	4.6	24
27	Genes normally expressed in the endosperm are expressed at early stages of microspore embryogenesis in maize. *Plant Molecular Biology*, **2000**, 44, 559-74	4.6	58
26	Immunoelectron microscopy of PCNA as an efficient marker for studying replication times and sites during pollen development. *Chromosoma*, **2000**, 109, 397-409	2.8	15
25	Defined nuclear changes accompany the reprogramming of the microspore to embryogenesis. *Journal of Structural Biology*, **2000**, 129, 223-32	3.4	46
24	Ultrastructural distribution of a MAP kinase and transcripts in quiescent and cycling plant cells and pollen grains. *Journal of Cell Science*, **1999**, 112 (Pt 7), 1065-76	5.3	9
23	Histones and DNA ultrastructural distribution in plant cell nucleus: a combination of immunogold and cytochemical methods. *Experimental Cell Research*, **1998**, 242, 45-59	4.2	19
22	New in situ approaches to study the induction of pollen embryogenesis in Capsicum annuum L. *European Journal of Cell Biology*, **1996**, 69, 373-86	6.1	19
21	Cellular characterization of key developmental stages for pollen embryogenesis induction. *International Journal of Developmental Biology*, **1996**, Suppl 1, 127S-128S	1.9	1
20	In situ characterization of the late vacuolate microspore as a convenient stage to induce embryogenesis inCapsicum. *Protoplasma*, **1995**, 187, 60-71	3.4	32
19	Ultrastructural localization of the polysaccharidic component during the sporoderm ontogeny of the pollen grain of Scilla peruviana (Lilliaceae) and Capsicum annuum (Solanaceae). *Review of Palaeobotany and Palynology*, **1995**, 85, 53-62	1.7	5
18	The immunolocalization of nuclear antigens during the pollen developmental program and the induction of pollen embryogenesis. *Experimental Cell Research*, **1995**, 221, 41-54	4.2	40
17	The methylation-acetylation method: an ultrastructural cytochemistry for nucleic acids compatible with immunogold studies. *Journal of Structural Biology*, **1995**, 114, 123-39	3.4	25
16	A new approach to map transcription sites at the ultrastructural level. *Journal of Histochemistry and Cytochemistry*, **1994**, 42, 1-10	3.4	46
15	Effects of cycloheximide on the structural organization of the nucleolus and the coiled body in normal and stimulated supraoptic neurons of the rat. *Journal of Neurocytology*, **1994**, 23, 500-13		9
14	Cytochemistry and immunocytochemistry of nucleolar chromatin in plants. *Micron*, **1994**, 25, 331-60	2.3	31
13	Immunoelectron microscopy of RNA combined with nucleic acid cytochemistry in plant nucleoli. *Experimental Cell Research*, **1994**, 212, 393-408	4.2	15

12	Tendances évolutives de la structure exinique dans les genres Ulex, Stauracanthus et Genista (Genisteae, Papilionoideae: Leguminosae). *Acta Botanica Gallica*, **1994**, 141, 195-205		1
11	Mechanisms of polyamine action during senescence responses induced by osmotic stress. *Journal of Experimental Botany*, **1994**, 45, 1789-1800	7	100
10	Ultrastructural rRNA localization in plant cell nucleoli. RNA/RNA in situ hybridization, autoradiography and cytochemistry. *Journal of Cell Science*, **1993**, 106 (Pt 4), 1333-46	5.3	3
9	Characterization of the interchromatin region as the nuclear domain containing snRNPs in plant cells. A cytochemical and immunoelectron microscopy study. *European Journal of Cell Biology*, **1993**, 61, 349-61	6.1	20
8	Immunolocalization of nuclear antigens and ultrastructural cytochemistry on tapetal cells of Scilla peruviana and Capsicum annuum. *Plant Systematics and Evolution Supplementum = Entwicklungsgeschichte Und Systematik Der Pflanzen Supplementum*, **1993**, 75-90		4
7	Distribution of B-36 nucleolar protein in relation to transcriptional activity in plant cells. *Chromosoma*, **1992**, 102, 41-49	2.8	14
6	A specific ultrastructural method to reveal DNA: the NAMA-Ur. *Journal of Histochemistry and Cytochemistry*, **1991**, 39, 1427-38	3.4	50
5	Selective Staining of DNA at the Ultrastructural Level After Alkaline Hydrolysis **1990**, 477-481		1
4	Fluorescence of plastic embedded tissue sections after curcumin staining. *Biotechnic & Histochemistry*, **1989**, 64, 207-9		5
3	Tungsten and molybdenum heteropolyacids as staining and contrasting agents: reactivity with epoxyresin-embedded cell and tissue structures. *Acta Histochemica*, **1989**, 86, 151-8	2	9
2	Variations of Nucleolar Ultrastructure in Relation to Transcriptional Activity During G1 S, and G2 Periods of Microspore Interphase **1988**, 9-14		7
1	Evolution of Nuclear Interchromatin Structures During Microspore Interphase Periods **1988**, 151-156		4