

# Carolina Escobar

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

59  
papers

2,506  
citations

26  
h-index

49  
g-index

63  
ext. papers

2,934  
ext. citations

5.3  
avg, IF

4.89  
L-index

#	Paper	IF	Citations
59	Photosynthetic electron transport regulates the expression of cytosolic ascorbate peroxidase genes in Arabidopsis during excess light stress. <i>Plant Cell</i> , <b>1997</b> , 9, 627-40	11.6	536
58	Early transcriptomic events in microdissected Arabidopsis nematode-induced giant cells. <i>Plant Journal</i> , <b>2010</b> , 61, 698-712	6.9	173
57	Contribution of glutathione to the control of cellular redox homeostasis under toxic metal and metalloids stress. <i>Journal of Experimental Botany</i> , <b>2015</b> , 66, 2901-11	7	170
56	Over-expression of the oat arginine decarboxylase cDNA in transgenic rice ( <i>Oryza sativa</i> L.) affects normal development patterns in vitro and results in putrescine accumulation in transgenic plants. <i>Theoretical and Applied Genetics</i> , <b>1998</b> , 97, 246-254	6	116
55	Are diverse signalling pathways integrated in the regulation of arabidopsis antioxidant defence gene expression in response to excess excitation energy?. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2000</b> , 355, 1531-40	5.8	115
54	Differential alterations of antioxidant defenses as bioindicators of mercury and cadmium toxicity in alfalfa. <i>Chemosphere</i> , <b>2009</b> , 77, 946-54	8.4	99
53	Biological Control of Plant-Parasitic Nematodes by Filamentous Fungi Inducers of Resistance: , Mycorrhizal and Endophytic Fungi. <i>Frontiers in Microbiology</i> , <b>2020</b> , 11, 992	5.7	79
52	Distinct and conserved transcriptomic changes during nematode-induced giant cell development in tomato compared with Arabidopsis: a functional role for gene repression. <i>New Phytologist</i> , <b>2013</b> , 197, 1276-1290	9.8	76
51	Glutathione is a key antioxidant metabolite to cope with mercury and cadmium stress. <i>Plant and Soil</i> , <b>2014</b> , 377, 369-381	4.2	70
50	Early transcriptional responses to mercury: a role for ethylene in mercury-induced stress. <i>New Phytologist</i> , <b>2014</b> , 201, 116-130	9.8	69
49	Differentially expressed small RNAs in Arabidopsis galls formed by <i>Meloidogyne javanica</i> : a functional role for miR390 and its TAS3-derived tasiRNAs. <i>New Phytologist</i> , <b>2016</b> , 209, 1625-40	9.8	63
48	CCS52 and DEL1 genes are key components of the endocycle in nematode-induced feeding sites. <i>Plant Journal</i> , <b>2012</b> , 72, 185-98	6.9	59
47	Two closely related members of Arabidopsis 13-lipoxygenases (13-LOXs), LOX3 and LOX4, reveal distinct functions in response to plant-parasitic nematode infection. <i>Molecular Plant Pathology</i> , <b>2014</b> , 15, 319-32	5.7	58
46	Characterization of microRNAs from Arabidopsis galls highlights a role for miR159 in the plant response to the root-knot nematode <i>Meloidogyne incognita</i> . <i>New Phytologist</i> , <b>2017</b> , 216, 882-896	9.8	46
45	Anatomical Alterations in Plant Tissues Induced by Plant-Parasitic Nematodes. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 1987	6.2	45
44	Role of hydrogen peroxide and the redox state of ascorbate in the induction of antioxidant enzymes in pea leaves under excess light stress. <i>Functional Plant Biology</i> , <b>2004</b> , 31, 359-368	2.7	43
43	Altered sucrose synthase and invertase expression affects the local and systemic sugar metabolism of nematode-infected Arabidopsis thaliana plants. <i>Journal of Experimental Botany</i> , <b>2014</b> , 65, 201-12	7	42

42	A role for LATERAL ORGAN BOUNDARIES-DOMAIN 16 during the interaction Arabidopsis-Meloidogyne spp. provides a molecular link between lateral root and root-knot nematode feeding site development. <i>New Phytologist</i> , <b>2014</b> , 203, 632-645	9.8	40
41	Overview of Root-Knot Nematodes and Giant Cells. <i>Advances in Botanical Research</i> , <b>2015</b> , 73, 1-32	2.2	35
40	Specific stress responses to cadmium, arsenic and mercury appear in the metallophyte <i>Silene vulgaris</i> when grown hydroponically. <i>RSC Advances</i> , <b>2013</b> , 3, 4736	3.7	33
39	Isolation of RNA from laser-capture-microdissected giant cells at early differentiation stages suitable for differential transcriptome analysis. <i>Molecular Plant Pathology</i> , <b>2009</b> , 10, 523-35	5.7	33
38	Isolation of the LEMMI9 gene and promoter analysis during a compatible plant-nematode interaction. <i>Molecular Plant-Microbe Interactions</i> , <b>1999</b> , 12, 440-9	3.6	30
37	Induction of the Hahsp17.7G4 promoter by root-knot nematodes: involvement of heat-shock elements in promoter activity in giant cells. <i>Molecular Plant-Microbe Interactions</i> , <b>2003</b> , 16, 1062-8	3.6	29
36	The role of glutathione in mercury tolerance resembles its function under cadmium stress in Arabidopsis. <i>Metallomics</i> , <b>2014</b> , 6, 356-66	4.5	28
35	Distinct heat-shock element arrangements that mediate the heat shock, but not the late-embryogenesis induction of small heat-shock proteins, correlate with promoter activation in root-knot nematode feeding cells. <i>Plant Molecular Biology</i> , <b>2008</b> , 66, 151-64	4.6	28
34	Evaluation of different RNA extraction methods for small quantities of plant tissue: Combined effects of reagent type and homogenization procedure on RNA quality-integrity and yield. <i>Physiologia Plantarum</i> , <b>2006</b> , 128, 1-7	4.6	28
33	Phenotyping nematode feeding sites: three-dimensional reconstruction and volumetric measurements of giant cells induced by root-knot nematodes in Arabidopsis. <i>New Phytologist</i> , <b>2015</b> , 206, 868-80	9.8	25
32	NEMATIC: a simple and versatile tool for the in silico analysis of plant-nematode interactions. <i>Molecular Plant Pathology</i> , <b>2014</b> , 15, 627-36	5.7	24
31	Transcriptomic signatures of transfer cells in early developing nematode feeding cells of Arabidopsis focused on auxin and ethylene signaling. <i>Frontiers in Plant Science</i> , <b>2014</b> , 5, 107	6.2	24
30	A role for the gene regulatory module microRNA172/TARGET OF EARLY ACTIVATION TAGGED 1/FLOWERING LOCUS T (miRNA172/TOE1/FT) in the feeding sites induced by <i>Meloidogyne javanica</i> in Arabidopsis thaliana. <i>New Phytologist</i> , <b>2018</b> , 217, 813-827	9.8	24
29	Root-Knot and Cyst Nematodes Activate Procambium-Associated Genes in Roots. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 1195	6.2	21
28	Are plant endogenous factors like ethylene modulators of the early oxidative stress induced by mercury?. <i>Frontiers in Environmental Science</i> , <b>2014</b> , 2,	4.8	21
27	Arabidopsis HIP27 is a host susceptibility gene for the beet cyst nematode <i>Heterodera schachtii</i> . <i>Molecular Plant Pathology</i> , <b>2018</b> , 19, 1917	5.7	20
26	Antioxidant enzyme induction in pea plants under high irradiance. <i>Biologia Plantarum</i> , <b>2006</b> , 50, 395-399	2.1	19
25	Transcriptomic and Proteomic Analysis of the Plant Response to Nematode Infection <b>2011</b> , 157-173		17

24	Root-knot nematodes induce gall formation by recruiting developmental pathways of post-embryonic organogenesis and regeneration to promote transient pluripotency. <i>New Phytologist</i> , <b>2020</b> , 227, 200-215	9.8	15
23	A Phenotyping Method of Giant Cells from Root-Knot Nematode Feeding Sites by Confocal Microscopy Highlights a Role for CHITINASE-LIKE 1 in Arabidopsis. <i>International Journal of Molecular Sciences</i> , <b>2018</b> , 19,	6.3	14
22	Developmental Pathways Mediated by Hormones in Nematode Feeding Sites. <i>Advances in Botanical Research</i> , <b>2015</b> , 73, 167-188	2.2	13
21	Silenced retrotransposons are major rasiRNAs targets in Arabidopsis galls induced by <i>Meloidogyne javanica</i> . <i>Molecular Plant Pathology</i> , <b>2018</b> , 19, 2431-2445	5.7	13
20	Molecular Transducers from Roots Are Triggered in Arabidopsis Leaves by Root-Knot Nematodes for Successful Feeding Site Formation: A Conserved Post-Embryogenic Organogenesis Program?. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 875	6.2	13
19	Laser microdissection of cells and isolation of high-quality RNA after cryosectioning. <i>Methods in Molecular Biology</i> , <b>2012</b> , 883, 87-95	1.4	13
18	Long-Term In Vitro System for Maintenance and Amplification of Root-Knot Nematodes in <i>Cucumis sativus</i> Roots. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 124	6.2	13
17	Genes co-regulated with LBD16 in nematode feeding sites inferred from in silico analysis show similarities to regulatory circuits mediated by the auxin/cytokinin balance in Arabidopsis. <i>Plant Signaling and Behavior</i> , <b>2015</b> , 10, e990825	2.5	12
16	Transient expression of Arabidopsis thaliana ascorbate peroxidase 3 in <i>Nicotiana benthamiana</i> plants infected with recombinant potato virus X. <i>Plant Cell Reports</i> , <b>2003</b> , 21, 699-704	5.1	10
15	A Standardized Method to Assess Infection Rates of Root-Knot and Cyst Nematodes in Arabidopsis thaliana Mutants with Alterations in Root Development Related to Auxin and Cytokinin Signaling. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1569, 73-81	1.4	7
14	A Reliable Protocol for In situ microRNAs Detection in Feeding Sites Induced by Root-Knot Nematodes. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 966	6.2	7
13	The Role of Programmed Cell Death Regulator in Nematode-Induced Syncytium Formation. <i>Frontiers in Plant Science</i> , <b>2018</b> , 9, 314	6.2	6
12	Heavy Metal Perception in a Microscale Environment: A Model System Using High Doses of Pollutants <b>2012</b> , 23-39		6
11	The Power of Omics to Identify Plant Susceptibility Factors and to Study Resistance to Root-knot Nematodes. <i>Current Issues in Molecular Biology</i> , <b>2016</b> , 19, 53-72	2.9	6
10	Novel expression patterns of phosphatidylinositol 3-hydroxy kinase in nodulated <i>Medicago</i> spp. plants. <i>Journal of Experimental Botany</i> , <b>2004</b> , 55, 957-9	7	5
9	Activation of geminivirus V-sense promoters in roots is restricted to nematode feeding sites. <i>Molecular Plant Pathology</i> , <b>2010</b> , 11, 409-17	5.7	4
8	Non-coding RNAs in the interaction between rice and <i>Meloidogyne graminicola</i> . <i>BMC Genomics</i> , <b>2021</b> , 22, 560	4.5	3
7	A role for ALF4 during gall and giant cell development in the biotic interaction between Arabidopsis and <i>Meloidogyne</i> spp. <i>Physiologia Plantarum</i> , <b>2019</b> , 165, 17-28	4.6	2

6	The Use of Biochar for Plant Pathogen Control. <i>Phytopathology</i> , <b>2021</b> , PHYTO06200248RVW	3.8	2
5	Glucosinolates as an effective tool in plant-parasitic nematodes control: Exploiting natural plant defenses. <i>Applied Soil Ecology</i> , <b>2022</b> , 176, 104497	5	2
4	sRNAs involved in the regulation of plant developmental processes are altered during the root-knot nematode interaction for feeding site formation. <i>European Journal of Plant Pathology</i> , <b>2018</b> , 152, 945-955	2.1	1
3	Belowground Defence Strategies Against Sedentary Nematodes. <i>Signaling and Communication in Plants</i> , <b>2016</b> , 221-251	1	1
2	Laser Microdissection of Cells and Isolation of High-Quality RNA After Cryosectioning. <i>Methods in Molecular Biology</i> , <b>2021</b> , 2170, 35-43	1.4	0
1	Compatible interactions between plants and endoparasitic nematodes – a follow-up of ABR volume 73: Plant nematode interactions – a view on compatible interrelationships. <i>Advances in Botanical Research</i> , <b>2021</b> , 237-248	2.2	0