Anca Macovei

List of Publications by Year
in descending order

68 papers	2,426 citations	201674 27 h-index	214800 47 g-index
71 all docs	71 docs citations	71 times ranked	2596 citing authors

#	Article	IF	Citations
1	Novel alleles of rice <i>eIF4G</i> generated by CRISPR/Cas9â€targeted mutagenesis confer resistance to <i>Rice tungro spherical virus</i>. Plant Biotechnology Journal, 2018, 16, 1918-1927.	8.3	307
2	Importance of nitric oxide in cadmium stress tolerance in crop plants. Plant Physiology and Biochemistry, 2013, 63, 254-261.	5.8	228
3	Understanding the molecular pathways associated with seed vigor. Plant Physiology and Biochemistry, 2012, 60, 196-206.	5.8	142
4	Knights in Action: Lectin Receptor-Like Kinases in Plant Development and Stress Responses. Molecular Plant, 2013, 6, 1405-1418.	8.3	132
5	microRNAs targeting DEAD-box helicases are involved in salinity stress response in rice (Oryza sativa) Tj ETQq1 1 0.784314 rgBT /Overlo	3.6	96
6	A new DEAD-box helicase ATP-binding protein (OsABP) from rice is responsive to abiotic stress. Plant Signaling and Behavior, 2012, 7, 1138-1143.	2.4	95
7	Seed imbibition in Medicago truncatula Gaertn.: Expression profiles of DNA repair genes in relation to PEG-mediated stress. Journal of Plant Physiology, 2011, 168, 706-713.	3.5	90
8	Inoculation with <i>Bacillus amyloliquefaciens</i> and mycorrhiza confers tolerance to drought stress and improve seed yield and quality of soybean plant. Physiologia Plantarum, 2021, 172, 2153-2169.	5.2	87
9	Genotoxic stress and DNA repair in plants: emerging functions and tools for improving crop productivity. Plant Cell Reports, 2011, 30, 287-295.	5.6	83
10	The tyrosyl-DNA phosphodiesterase gene family in Medicago truncatula Gaertn.: bioinformatic investigation and expression profiles in response to copper- and PEG-mediated stress. Planta, 2010, 232, 393-407.	3.2	82
11	New insights on the barrel medic MtOGG1 and MtFPG functions in relation to oxidative stress response in planta and during seed imbibition. Plant Physiology and Biochemistry, 2011, 49, 1040-1050.	5.8	69
12	DNA profiling, telomere analysis and antioxidant properties as tools for monitoring ex situ seed longevity. Annals of Botany, 2013, 111, 987-998.	2.9	55
13	Synergistic Exposure of Rice Seeds to Different Doses of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mrow><mml:mi mathvariant="bold-italic">Î³</mml:mi></mml:mrow></mml:math>-Ray and Salinity Stress Resulted in Increased Antioxidant Enzyme Activities and Gene-Specific Modulation of TC-NER Pathway. BioMed Research International, 2014, 2014, 1-15.	1.9	55
14	Single Cell Gel Electrophoresis (Comet) assay with plants: Research on DNA repair and ecogenotoxicity testing. Chemosphere, 2013, 92, 1-9.	8.2	50
15	Systems biology and genome-wide approaches to unveil the molecular players involved in the pre-germinative metabolism: implications on seed technology traits. Plant Cell Reports, 2017, 36, 669-688.	5.6	45
16	Hydropriming and Biopriming Improve Medicago truncatula Seed Germination and Upregulate DNA Repair and Antioxidant Genes. Genes, 2020, 11, 242.	2.4	43
17	The Seed Repair Response during Germination: Disclosing Correlations between DNA Repair, Antioxidant Response, and Chromatin Remodeling in Medicago truncatula. Frontiers in Plant Science, 2017, 8, 1972.	3.6	40
18	Copper-mediated genotoxic stress is attenuated by the overexpression of the DNA repair gene MtTdp2Î± (tyrosyl-DNA phosphodiesterase 2) in Medicago truncatula plants. Plant Cell Reports, 2014, 33, 1071-1080.	5.6	38

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19	microRNAs as promising tools for improving stress tolerance in rice. Plant Signaling and Behavior, 2012, 7, 1296-1301.	2.4	36
20	Gamma irradiation with different dose rates induces different DNA damage responses in Petunia x hybrida cells. Journal of Plant Physiology, 2013, 170, 780-787.	3.5	36
21	Metabolic and gene expression hallmarks of seed germination uncovered by sodium butyrate in <scp><i>Medicago truncatula</i></scp>. Plant, Cell and Environment, 2019, 42, 259-269.	5.7	36
22	The TFIIS and TFIIS-like genes from Medicago truncatula are involved in oxidative stress response. Gene, 2011, 470, 20-30.	2.2	34
23	RNA-Seq analysis discloses early senescence and nucleolar dysfunction triggered by Tdp1Î± depletion in Medicago truncatula. Journal of Experimental Botany, 2013, 64, 1941-1951.	4.8	32
24	Enhanced osmotic stress tolerance in Medicago truncatula plants overexpressing the DNA repair gene MtTdp2Î± (tyrosyl-DNA phosphodiesterase 2). Plant Cell, Tissue and Organ Culture, 2014, 116, 187-203.	2.3	32
25	Different expression of miRNAs targeting helicases in rice in response to low and high dose rate Î³-ray treatments. Plant Signaling and Behavior, 2013, 8, e25128.	2.4	30
26	Integrating plant and animal biology for the search of novel DNA damage biomarkers. Mutation Research - Reviews in Mutation Research, 2018, 775, 21-38.	5.5	30
27	Plant miRNA Cross-Kingdom Transfer Targeting Parasitic and Mutualistic Organisms as a Tool to Advance Modern Agriculture. Frontiers in Plant Science, 2020, 11, 930.	3.6	30
28	CdSe/ZnS Quantum Dots trigger DNA repair and antioxidant enzyme systems in Medicago sativacells in suspension culture. BMC Biotechnology, 2013, 13, 111.	3.3	27
29	Redox Balance-DDR-miRNA Triangle: Relevance in Genome Stability and Stress Responses in Plants. Frontiers in Plant Science, 2019, 10, 989.	3.6	27
30	Cell death induction and nitric oxide biosynthesis in white poplar (<i>Populus alba</i>) suspension cultures exposed to alfalfa saponins. Physiologia Plantarum, 2011, 141, 227-238.	5.2	26
31	Molecular dynamics of pre-germinative metabolism in primed eggplant (Solanum melongena L.) seeds. Horticulture Research, 2020, 7, 87.	6.3	24
32	How Does the Seed Pre-Germinative Metabolism Fight Against Imbibition Damage? Emerging Roles of Fatty Acid Cohort and Antioxidant Defence. Frontiers in Plant Science, 2019, 10, 1505.	3.6	20
33	Plant hormone signaling and modulation of DNA repair under stressful conditions. Plant Cell Reports, 2013, 32, 1043-1052.	5.6	18
34	Prolonged Cold Storage Affects Pollen Viability and Germination along with Hydrogen Peroxide and Nitric Oxide Content in <i>Rosa hybrida</i>. Notulae Botanicae Horti Agrobotanici Cluj-Napoca, 2016, 44, 6-10.	1.1	18
35	Metabolic signatures of germination triggered by kinetin in Medicago truncatula. Scientific Reports, 2019, 9, 10466.	3.3	16
36	MtTdp2Î±-overexpression boosts the growth phase of Medicago truncatula cell suspension and increases the expression of key genes involved in the antioxidant response and genome stability. Plant Cell, Tissue and Organ Culture, 2016, 127, 675-680.	2.3	15

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37	Unraveling the response of plant cells to cytotoxic saponins. Plant Signaling and Behavior, 2011, 6, 516-519.	2.4	14
38	Pollen Grain Preservation and Fertility in Valuable Commercial Rose Cultivars. Plants, 2017, 6, 17.	3.5	13
39	Hydropriming Applied on Fast Germinating Solanum villosum Miller Seeds: Impact on Pre-germinative Metabolism. Frontiers in Plant Science, 2021, 12, 639336.	3.6	13
40	Dose-Dependent Reactive Species Accumulation and Preferential Double-Strand Breaks Repair are Featured in the Î³-ray Response in Medicago truncatula Cells. Plant Molecular Biology Reporter, 2014, 32, 129-141.	1.8	12
41	Changes in genotoxic stress response, ribogenesis and PAP (3â€²â€phosphoadenosine 5â€²â€phosphate) levels are associated with loss of desiccation tolerance in overprimed <i>Medicago truncatula</i> seeds. Plant, Cell and Environment, 2022, 45, 1457-1473.	5.7	11
42	Cell wall integrity, genotoxic injury and PCD dynamics in alfalfa saponin-treated white poplar cells highlight a complex link between molecule structure and activity. Phytochemistry, 2015, 111, 114-123.	2.9	10
43	A Snapshot of the Trehalose Pathway During Seed Imbibition in Medicago truncatula Reveals Temporal- and Stress-Dependent Shifts in Gene Expression Patterns Associated With Metabolite Changes. Frontiers in Plant Science, 2019, 10, 1590.	3.6	10
44	ROS Accumulation as a Hallmark of Dehydration Stress in Primed and Overprimed Medicago truncatula Seeds. Agronomy, 2022, 12, 268.	3.0	10
45	Seed-Specific Expression of AINTEGUMENTA in Medicago truncatula Led to the Production of Larger Seeds and Improved Seed Germination. Plant Molecular Biology Reporter, 2014, 32, 957-970.	1.8	9
46	A Bioinformatics Approach to Explore MicroRNAs as Tools to Bridge Pathways Between Plants and Animals. Is DNA Damage Response (DDR) a Potential Target Process?. Frontiers in Plant Science, 2019, 10, 1535.	3.6	9
47	Overexpression of PDH45 or SUV3 helicases in rice leads to delayed leaf senescence-associated events. Protoplasma, 2017, 254, 1103-1113.	2.1	8
48	The polyphenol/saponin-rich Rhus tripartita extract has an apoptotic effect on THP-1 cells through the PI3K/AKT/mTOR signaling pathway. BMC Complementary Medicine and Therapies, 2021, 21, 153.	2.7	8
49	Physiological and molecular aspects of seed longevity: exploring intraâ€species variation in eight <i>Pisum sativum</i> L. accessions. Physiologia Plantarum, 2022, 174, e13698.	5.2	8
50	Genotoxic effects due to in vitro culture and H2O2 treatments in PetuniaÂÃ—Âhybrida cells monitored through DNA diffusion assay, FPG-SCGE and gene expression profile analyses. Acta Physiologiae Plantarum, 2014, 36, 331-341.	2.1	7
51	The Tyrosyl-DNA Phosphodiesterase 1Î² (Tdp1Î²) Gene Discloses an Early Response to Abiotic Stresses. Genes, 2017, 8, 305.	2.4	7
52	Ultrastructural and Molecular Analyses Reveal Enhanced Nucleolar Activity in Medicago truncatula Cells Overexpressing the MtTdp2Î± Gene. Frontiers in Plant Science, 2018, 9, 596.	3.6	7
53	The Human Tyrosyl-DNA Phosphodiesterase 1 (hTdp1) Inhibitor NSC120686 as an Exploratory Tool to Investigate Plant Tdp1 Genes. Genes, 2018, 9, 186.	2.4	6
54	Backbone-free transformation of barrel medic (Medicago truncatula) with a Medicago-derived transfer DNA. Plant Cell Reports, 2010, 29, 1013-1021.	5.6	4

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55	Editorial: Maintenance of Genome Integrity: DNA Damage Sensing, Signaling, Repair, and Replication in Plants. Frontiers in Plant Science, 2016, 7, 64.	3.6	4
56	DNA Diffusion Assay Applied to Plant Cells. Methods in Molecular Biology, 2018, 1743, 107-115.	0.9	4
57	Exploring microRNA Signatures of DNA Damage Response Using an Innovative System of Genotoxic Stress in Medicago truncatula Seedlings. Frontiers in Plant Science, 2021, 12, 645323.	3.6	4
58	Identification and Characterization of SOG1 (Suppressor of Gamma Response 1) Homologues in Plants Using Data Mining Resources and Gene Expression Profiling. Genes, 2022, 13, 667.	2.4	4
59	The Influence of Phosphate Deficiency on Legume Symbiotic N2 Fixation. , 2017, , 41-75.		3
60	Sodium butyrate induces genotoxic stress in function of photoperiod variations and differentially modulates the expression of genes involved in chromatin modification and DNA repair in Petunia hybrida seedlings. Planta, 2020, 251, 102.	3.2	3
61	Genotoxic Stress, DNA Repair, and Crop Productivity. , 2013, , 153-169.		2
62	Plant TDP1 (Tyrosyl-DNA Phosphodiesterase 1): A Phylogenetic Perspective and Gene Expression Data Mining. Genes, 2020, 11, 1465.	2.4	2
63	Molecular aspects of seed priming as a means of progress in crop improvement. , 2020, , 89-100.		2
64	Comparative genomic analysis reveals evolutionary and structural attributes of MCM gene family in Arabidopsis thaliana and Oryza sativa. Journal of Biotechnology, 2021, 327, 117-132.	3.8	2
65	Editorial: MicroRNA Signatures in Plant Genome Stability and Genotoxic Stress. Frontiers in Plant Science, 2021, 12, 683302.	3.6	1
66	Transcriptomics View over the Germination Landscape in Biofortified Rice. Genes, 2021, 12, 2013.	2.4	1
67	Genome editing in the context of seed research: How these novel biotechnology tools can change the future face of agricultural crop development. , 2020, , 77-88.		0
68	Oxidative Stress and Antioxidant Defence in Fabaceae Plants Under Abiotic Stresses. , 2020, , 483-502.		0