

# Ljudmilla Borisjuk

## List of Publications by Year in descending order

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Version: 2024-02-01

92  
papers

7,135  
citations

47006

47  
h-index

60623

81  
g-index

93  
all docs

93  
docs citations

93  
times ranked

7437  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative monitoring of paramagnetic contrast agents and their allocation in plant tissues via DCE-MRI. <i>Plant Methods</i> , 2022, 18, 47.	4.3	1
2	The process of seed maturation is influenced by mechanical constraints. <i>New Phytologist</i> , 2021, 229, 19-23.	7.3	4
3	Trehalose 6-phosphate promotes seed filling by activating auxin biosynthesis. <i>New Phytologist</i> , 2021, 229, 1553-1565.	7.3	67
4	Grain filling in barley relies on developmentally controlled programmed cell death. <i>Communications Biology</i> , 2021, 4, 428.	4.4	15
5	A mechanistic view on lodging resistance in rye and wheat: a multiscale comparative study. <i>Plant Biotechnology Journal</i> , 2021, 19, 2646-2661.	8.3	16
6	The metabolic environment of the developing embryo: A multidisciplinary approach on oilseed rapeseed. <i>Journal of Plant Physiology</i> , 2021, 265, 153505.	3.5	7
7	Genome and time-of-day transcriptome of <i>Wolffia australiana</i> link morphological minimization with gene loss and less growth control. <i>Genome Research</i> , 2021, 31, 225-238.	5.5	56
8	Probing the Metabolic Landscape of Plant Vascular Bundles by Infrared Fingerprint Analysis, Imaging and Mass Spectrometry. <i>Biomolecules</i> , 2021, 11, 1717.	4.0	3
9	Adaptation Strategies of Halophytic Barley <i>Hordeum marinum</i> ssp. <i>marinum</i> to High Salinity and Osmotic Stress. <i>International Journal of Molecular Sciences</i> , 2020, 21, 9019.	4.1	17
10	Cellular Plasticity in Response to Suppression of Storage Proteins in the <i>Brassica napus</i> Embryo. <i>Plant Cell</i> , 2020, 32, 2383-2401.	6.6	19
11	The genome of jojoba ( <i>Simmondsia chinensis</i> ): A taxonomically isolated species that directs wax ester accumulation in its seeds. <i>Science Advances</i> , 2020, 6, eaay3240.	10.3	53
12	Advances in the understanding of barley plant physiology: factors determining grain development, composition, and chemistry. <i>Burleigh Dodds Series in Agricultural Science</i> , 2020, , 53-96.	0.2	2
13	Discovery of key regulators of dark gland development and hypericin biosynthesis in <i>St. John's Wort</i> ( <i>Hypericum perforatum</i> ). <i>Plant Biotechnology Journal</i> , 2019, 17, 2299-2312.	8.3	27
14	The highly divergent <i>Jekyll</i> genes, required for sexual reproduction, are lineage specific for the related grass tribes <i>Triticeae</i> and <i>Bromeae</i> . <i>Plant Journal</i> , 2019, 98, 961-974.	5.7	7
15	Functions of maize genes encoding pyruvate phosphate dikinase in developing endosperm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E24-E33.	7.1	35
16	Vacuolar processing enzyme 4 contributes to maternal control of grain size in barley by executing programmed cell death in the pericarp. <i>New Phytologist</i> , 2018, 218, 1127-1142.	7.3	30
17	Clubroot Disease Stimulates Early Steps of Phloem Differentiation and Recruits SWEET Sucrose Transporters within Developing Galls. <i>Plant Cell</i> , 2018, 30, 3058-3073.	6.6	66
18	The Role of Persulfide Metabolism During <i>Arabidopsis</i> Seed Development Under Light and Dark Conditions. <i>Frontiers in Plant Science</i> , 2018, 9, 1381.	3.6	8

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19	Micro Imaging Displays the Sucrose Landscape within and along Its Allocation Pathways. <i>Plant Physiology</i> , 2018, 178, 1448-1460.	4.8	23
20	Spatial and Temporal Mapping of Key Lipid Species in <i>Brassica napus</i> Seeds. <i>Plant Physiology</i> , 2017, 173, 1998-2009.	4.8	72
21	A chromosome conformation capture ordered sequence of the barley genome. <i>Nature</i> , 2017, 544, 427-433.	27.8	1,365
22	MultiSense: A Multimodal Sensor Tool Enabling the High-Throughput Analysis of Respiration. <i>Methods in Molecular Biology</i> , 2017, 1670, 47-56.	0.9	4
23	A functional imaging study of germinating oilseed rape seed. <i>New Phytologist</i> , 2017, 216, 1181-1190.	7.3	49
24	The homeodomain transcription factor Ta HDZ1 from wheat regulates frost tolerance, flowering time and spike development in transgenic barley. <i>New Phytologist</i> , 2016, 211, 671-687.	7.3	26
25	The potential of nuclear magnetic resonance to track lipids in planta. <i>Biochimie</i> , 2016, 130, 97-108.	2.6	22
26	Metabolic architecture of the cereal grain and its relevance to maximize carbon use efficiency. <i>Plant Physiology</i> , 2015, 169, pp.00981.2015.	4.8	22
27	Tracking metabolite dynamics in plants via indirect <sup>13</sup> C chemical shift imaging with an interleaved variable density acquisition weighted sampling pattern. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2015, 28, 127-134.	2.0	2
28	Quantitative Multilevel Analysis of Central Metabolism in Developing Oilseeds of Oilseed Rape during in Vitro Culture. <i>Plant Physiology</i> , 2015, 168, 828-848.	4.8	71
29	A novel noninvasive procedure for high-throughput screening of major seed traits. <i>Plant Biotechnology Journal</i> , 2015, 13, 188-199.	8.3	29
30	Transcript abundance on its own cannot be used to infer fluxes in central metabolism. <i>Frontiers in Plant Science</i> , 2014, 5, 668.	3.6	53
31	Physical, metabolic and developmental functions of the seed coat. <i>Frontiers in Plant Science</i> , 2014, 5, 510.	3.6	125
32	Nuclear magnetic resonance imaging of lipid in living plants. <i>Progress in Lipid Research</i> , 2013, 52, 465-487.	11.6	37
33	Imaging heterogeneity of membrane and storage lipids in transgenic <i>Camelina sativa</i> seeds with altered fatty acid profiles. <i>Plant Journal</i> , 2013, 76, 138-150.	5.7	84
34	A Noninvasive Platform for Imaging and Quantifying Oil Storage in Submillimeter Tobacco Seed. <i>Plant Physiology</i> , 2013, 161, 583-593.	4.8	33
35	Seed Architecture Shapes Embryo Metabolism in Oilseed Rape. <i>Plant Cell</i> , 2013, 25, 1625-1640.	6.6	109
36	Void space inside the developing seed of <i>Brassica napus</i> and the modelling of its function. <i>New Phytologist</i> , 2013, 199, 936-947.	7.3	48

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37	Spatial Mapping of Lipids at Cellular Resolution in Embryos of Cotton. <i>Plant Cell</i> , 2012, 24, 622-636.	6.6	114
38	An imaging method for oxygen distribution, respiration and photosynthesis at a microscopic level of resolution. <i>New Phytologist</i> , 2012, 196, 926-936.	7.3	60
39	Fertility in barley flowers depends on <i>Jekyll</i> functions in male and female sporophytes. <i>New Phytologist</i> , 2012, 194, 142-157.	7.3	9
40	Surveying the plant's world by magnetic resonance imaging. <i>Plant Journal</i> , 2012, 70, 129-146.	5.7	149
41	Low and High Field Magnetic Resonance for in Vivo Analysis of Seeds. <i>Materials</i> , 2011, 4, 1426-1439.	2.9	19
42	Dynamic <sup>13</sup> C/ <sup>1</sup> H NMR imaging uncovers sugar allocation in the living seed. <i>Plant Biotechnology Journal</i> , 2011, 9, 1022-1037.	8.3	69
43	Cofactome analyses reveal enhanced flux of carbon into oil for potential biofuel production. <i>Plant Journal</i> , 2011, 67, 1018-1028.	5.7	28
44	Seed-specific elevation of non-symbiotic hemoglobin AtHb1: beneficial effects and underlying molecular networks in <i>Arabidopsis thaliana</i> . <i>BMC Plant Biology</i> , 2011, 11, 48.	3.6	53
45	A novel procedure for the quantitative analysis of metabolites, storage products and transcripts of laser microdissected seed tissues of <i>Brassica napus</i> . <i>Plant Methods</i> , 2011, 7, 19.	4.3	23
46	Gradients of seed photosynthesis and its role for oxygen balancing. <i>BioSystems</i> , 2011, 103, 302-308.	2.0	65
47	Subtissue-Specific Evaluation of Promoter Efficiency by Quantitative Fluorometric Assay in Laser Microdissected Tissues of Rapeseed. <i>Plant Physiology</i> , 2011, 157, 563-573.	4.8	9
48	Combined Noninvasive Imaging and Modeling Approaches Reveal Metabolic Compartmentation in the Barley Endosperm. <i>Plant Cell</i> , 2011, 23, 3041-3054.	6.6	70
49	De-regulation of abscisic acid contents causes abnormal endosperm development in the barley mutant <i>seg8</i> . <i>Plant Journal</i> , 2010, 64, 589-603.	5.7	59
50	Barley Grain Development. <i>International Review of Cell and Molecular Biology</i> , 2010, 281, 49-89.	3.2	75
51	The Metabolic Role of the Legume Endosperm: A Noninvasive Imaging Study. <i>Plant Physiology</i> , 2009, 151, 1139-1154.	4.8	56
52	Methodology and Significance of Microsensor-based Oxygen Mapping in Plant Seeds – an Overview. <i>Sensors</i> , 2009, 9, 3218-3227.	3.8	36
53	The oxygen status of the developing seed. <i>New Phytologist</i> , 2009, 182, 17-30.	7.3	225
54	Non-invasive Mapping of Lipids in Plant Tissue Using Magnetic Resonance Imaging. <i>Methods in Molecular Biology</i> , 2009, 579, 485-496.	0.9	23

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55	Quantitative imaging of oil storage in developing crop seeds. <i>Plant Biotechnology Journal</i> , 2008, 6, 31-45.	8.3	60
56	Nitriteâ€“nitric oxide control of mitochondrial respiration at the frontier of anoxia. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008, 1777, 1268-1275.	1.0	121
57	Nitric oxide is a versatile sensor of low oxygen stress in plants. <i>Plant Signaling and Behavior</i> , 2008, 3, 391-393.	2.4	16
58	Temperature-dependent endogenous oxygen concentration regulates microsomal oleate desaturase in developing sunflower seeds. <i>Journal of Experimental Botany</i> , 2007, 58, 3171-3181.	4.8	87
59	Antisense inhibition of the plastidial glucose-6-phosphate/phosphate translocator in <i>Vicia</i> seeds shifts cellular differentiation and promotes protein storage. <i>Plant Journal</i> , 2007, 51, 468-484.	5.7	42
60	Low oxygen sensing and balancing in plant seeds: a role for nitric oxide. <i>New Phytologist</i> , 2007, 176, 813-823.	7.3	103
61	Systematic identification of factors involved in post-transcriptional processes in wheat grain. <i>Plant Molecular Biology</i> , 2006, 62, 637-653.	3.9	17
62	Jekyll Encodes a Novel Protein Involved in the Sexual Reproduction of Barley. <i>Plant Cell</i> , 2006, 18, 1652-1666.	6.6	69
63	Repressing the Expression of the SUCROSE NONFERMENTING-1-RELATED PROTEIN KINASE Gene in Pea Embryo Causes Pleiotropic Defects of Maturation Similar to an Abscisic Acid-Insensitive Phenotype. <i>Plant Physiology</i> , 2006, 140, 263-278.	4.8	121
64	Evidence of a key role for photosynthetic oxygen release in oil storage in developing soybean seeds. <i>New Phytologist</i> , 2005, 167, 777-786.	7.3	93
65	Gradients of lipid storage, photosynthesis and plastid differentiation in developing soybean seeds. <i>New Phytologist</i> , 2005, 167, 761-776.	7.3	109
66	Positional cues for the starch/lipid balance in maize kernels and resource partitioning to the embryo. <i>Plant Journal</i> , 2005, 42, 69-83.	5.7	97
67	MOLECULAR PHYSIOLOGY OF LEGUME SEED DEVELOPMENT. <i>Annual Review of Plant Biology</i> , 2005, 56, 253-279.	18.7	446
68	Ectopic Expression of an Amino Acid Transporter (VfAAP1) in Seeds of <i>Vicia narbonensis</i> and Pea Increases Storage Proteins. <i>Plant Physiology</i> , 2005, 137, 1236-1249.	4.8	145
69	Energy state and its control on seed development: starch accumulation is associated with high ATP and steep oxygen gradients within barley grains. <i>Journal of Experimental Botany</i> , 2004, 55, 1351-1359.	4.8	138
70	Seed-specific expression of a bacterial phosphoenolpyruvate carboxylase in <i>Vicia narbonensis</i> increases protein content and improves carbon economy. <i>Plant Biotechnology Journal</i> , 2004, 2, 211-219.	8.3	67
71	Energy status and its control on embryogenesis of legumes: ATP distribution within <i>Vicia faba</i> embryos is developmentally regulated and correlated with photosynthetic capacity. <i>Plant Journal</i> , 2003, 36, 318-329.	5.7	67
72	Differentiation of legume cotyledons as related to metabolic gradients and assimilate transport into seeds. <i>Journal of Experimental Botany</i> , 2003, 54, 503-512.	4.8	98

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73	Energy Status and Its Control on Embryogenesis of Legumes. Embryo Photosynthesis Contributes to Oxygen Supply and Is Coupled to Biosynthetic Fluxes. <i>Plant Physiology</i> , 2003, 132, 1196-1206.	4.8	106
74	Peptide and Amino Acid Transporters Are Differentially Regulated during Seed Development and Germination in Faba Bean. <i>Plant Physiology</i> , 2003, 132, 1950-1960.	4.8	57
75	Legume embryos develop in a hypoxic environment. <i>Journal of Experimental Botany</i> , 2002, 53, 1099-1107.	4.8	135
76	Spatial analysis of plant metabolism: Sucrose imaging within <i>Vicia faba</i> cotyledons reveals specific developmental patterns. <i>Plant Journal</i> , 2002, 29, 521-530.	5.7	112
77	A pea seed mutant affected in the differentiation of the embryonic epidermis is impaired in embryo growth and seed maturation. <i>Development (Cambridge)</i> , 2002, 129, 1595-1607.	2.5	40
78	A pea seed mutant affected in the differentiation of the embryonic epidermis is impaired in embryo growth and seed maturation. <i>Development (Cambridge)</i> , 2002, 129, 1595-607.	2.5	16
79	Amino acid permeases in developing seeds of <i>Vicia faba</i> L.: expression precedes storage protein synthesis and is regulated by amino acid supply. <i>Plant Journal</i> , 2001, 28, 61-71.	5.7	107
80	Expression patterns and subcellular localization of a 52 kDa sucrose-binding protein homologue of <i>Vicia faba</i> (VfSBPL) suggest different functions during development. <i>Plant Molecular Biology</i> , 2001, 47, 461-474.	3.9	21
81	High-resolution histographical mapping of glucose concentrations in developing cotyledons of <i>Vicia faba</i> in relation to mitotic activity and storage processes: glucose as a possible developmental trigger. <i>Plant Journal</i> , 1998, 15, 583-591.	5.7	135
82	Expression of a yeast-derived invertase in developing cotyledons of <i>Vicia narbonensis</i> alters the carbohydrate state and affects storage functions. <i>Plant Journal</i> , 1998, 16, 163-172.	5.7	94
83	Integration of carbohydrate and nitrogen metabolism during legume seed development: Implications for storage product synthesis. <i>Journal of Plant Physiology</i> , 1998, 152, 641-648.	3.5	22
84	Assimilate uptake and the regulation of seed development. <i>Seed Science Research</i> , 1998, 8, 331-346.	1.7	80
85	Controlling seed development and seed size in <i>Vicia faba</i> : a role for seed coat-associated invertases and carbohydrate state. <i>Plant Journal</i> , 1996, 10, 823-834.	5.7	200
86	Sucrose metabolism during cotyledon development of <i>Vicia faba</i> L. is controlled by the concerted action of both sucrose-phosphate synthase and sucrose synthase: expression patterns, metabolic regulation and implications for seed development. <i>Plant Journal</i> , 1996, 9, 841-850.	5.7	108
87	Glucan phosphorylases in <i>Vicia faba</i> L.: cloning, structural analysis and expression patterns of cytosolic and plastidic forms in relation to starch. <i>Planta</i> , 1996, 199, 64-73.	3.2	26
88	Transient expression of storage-protein genes during early embryogenesis of <i>Vicia faba</i> : synthesis and metabolization of vicilin and legumin in the embryo, suspensor and endosperm. <i>Planta</i> , 1995, 196, 765-774.	3.2	27
89	Cell-type specific, coordinate expression of two ADP-glucose pyrophosphorylase genes in relation to starch biosynthesis during seed development of <i>Vicia faba</i> L. <i>Planta</i> , 1995, 195, 352-61.	3.2	95
90	Seed Coat: Associated Invertases of Fava Bean Control Both Unloading and Storage Functions: Cloning of cDNAs and Cell Type: Specific Expression. <i>Plant Cell</i> , 1995, 7, 1835.	6.6	3

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91	Embryogenesis of <i>Vicia faba</i> L.: Histodifferentiation in Relation to Starch and Storage Protein Synthesis. <i>Journal of Plant Physiology</i> , 1995, 147, 203-218.	3.5	90
92	Planar Oxygen Sensors for Non Invasive Imaging in Experimental Biology. , 0, , .		13