Fumio Takaiwa

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Improvement of production yield and extraction efficacy of recombinant protein by high endosperm-specific expression along with simultaneous suppression of major seed storage proteins. Plant Science, 2021, 302, 110692.	1.7	6
2	Immunological and Symptomatic Effects of Oral Intake of Transgenic Rice Containing 7 Linked Major T-Cell Epitopes from Japanese Cedar Pollen Allergens. International Archives of Allergy and Immunology, 2021, 182, 109-119.	0.9	8
3	Next-Generation Allergen-Specific Immunotherapy for Japanese Cedar Pollinosis Using Molecular Approaches. ImmunoTargets and Therapy, 2021, Volume 10, 213-224.	2.7	2
4	Long-term oral administration of transgenic rice containing cedar pollen T-cell epitopes potentially improves medication- and allergy-related quality-of-life scores. Allergy and Asthma Proceedings, 2021, 42, 293-300.	1.0	3
5	Prophylactic and Therapeutic Effects of Oral Immunotherapy on Birch Pollen-Induced Allergic Conjunctivitis in Mice with a Rice-Based Edible Vaccine Expressing a Hypoallergenic Birch Pollen Allergen. Cells, 2021, 10, 3361.	1.8	3
6	Transgenic rice seeds expressing altered peptide ligands against the M3 muscarinic acetylcholine receptor suppress experimental sialadenitis-like SjÃ¶grenâ€™s syndrome. Modern Rheumatology, 2020, 30, 884-893.	0.9	2
7	OsERdj7 is an ER-resident J-protein involved in ER quality control in rice endosperm. Journal of Plant Physiology, 2020, 245, 153109.	1.6	8
8	Safety and efficacy of rice seed-based oral allergy vaccine for Japanese cedar pollinosis in Japanese monkeys. Molecular Immunology, 2020, 125, 63-69.	1.0	7
9	Hypotensive Activity of Transgenic Rice Seed Accumulating Multiple Antihypertensive Peptides. Journal of Agricultural and Food Chemistry, 2020, 68, 7162-7168.	2.4	13
10	Tâ€cell activation by transgenic rice seeds expressing the genetically modified Japanese cedar pollen allergens. Immunology, 2019, 158, 94-103.	2.0	2
11	Development of Rice-Seed-Based Oral Allergy Vaccines Containing Hypoallergenic Japanese Cedar Pollen Allergen Derivatives for Immunotherapy. Journal of Agricultural and Food Chemistry, 2019, 67, 13127-13138.	2.4	9
12	Evaluation of basophil activation caused by transgenic rice seeds expressing whole T cell epitopes of the major Japanese cedar pollen allergens. Clinical and Translational Allergy, 2019, 9, 11.	1.4	8
13	Change in subcellular localization of overexpressed vaccine peptide in rice endosperm cell that is caused by suppression of endogenous seed storage proteins. Plant Cell, Tissue and Organ Culture, 2018, 133, 275-287.	1.2	5
14	Transgeneâ€independent heredity of Rd<scp>DM</scp>â€mediated transcriptional gene silencing of endogenous genes in rice. Plant Biotechnology Journal, 2018, 16, 2007-2015.	4.1	13
15	Efficacy of oral immunotherapy with a rice-based edible vaccine containing hypoallergenic Japanese cedar pollen allergens for treatment of established allergic conjunctivitis in mice. Allergology International, 2018, 67, 119-123.	1.4	20
16	Oral Immunotherapy for Allergic Conjunctivitis Using Transgenic Rice Expressing Hypoallergenic Antigens. Cornea, 2018, 37, S67-S73.	0.9	5
17	Specific region affects the difference in accumulation levels between apple food allergen Mal d 1 and birch pollen allergen Bet v 1 which are expressed in vegetative tissues of transgenic rice. Plant Molecular Biology, 2018, 98, 439-454.	2.0	3
18	Compensatory rebalancing of rice prolamins by production of recombinant prolamin/bioactive peptide fusion proteins within ER-derived protein bodies. Plant Cell Reports, 2018, 37, 209-223.	2.8	12

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19	An overview on the strategies to exploit rice endosperm as production platform for biopharmaceuticals. Plant Science, 2017, 263, 201-209.	1.7	33
20	Suppression of glucose-6-phosphate-isomerase induced arthritis by oral administration of transgenic rice seeds expressing altered peptide ligands of glucose-6-phosphate-isomerase. Modern Rheumatology, 2017, 27, 457-465.	0.9	9
21	Characterization of <scp>IRE</scp>1 ribonucleaseâ€mediated <scp>mRNA</scp> decay in plants using transient expression analyses in rice protoplasts. New Phytologist, 2016, 210, 1259-1268.	3.5	24
22	Deposition mode of transforming growth factor-Î² expressed in transgenic rice seed. Plant Cell Reports, 2016, 35, 2461-2473.	2.8	8
23	Expression and Purification of Recombinant Mouse Interleukin-4 and -6 from Transgenic Rice Seeds. Molecular Biotechnology, 2016, 58, 223-231.	1.3	10
24	Transgenic rice seed expressing flavonoid biosynthetic genes accumulate glycosylated and/or acylated flavonoids in protein bodies. Journal of Experimental Botany, 2016, 67, 95-106.	2.4	24
25	Analysis of Recombinant Proteins in Transgenic Rice Seeds: Identity, Localization, Tolerance to Digestion, and Plant Stress Response. Methods in Molecular Biology, 2016, 1385, 223-247.	0.4	0
26	Rice seed for delivery of vaccines to gut mucosal immune tissues. Plant Biotechnology Journal, 2015, 13, 1041-1055.	4.1	47
27	Concentrated Protein Body Product Derived from Rice Endosperm as an Oral Tolerogen for Allergen-Specific Immunotherapyâ€"A New Mucosal Vaccine Formulation against Japanese Cedar Pollen Allergy. PLoS ONE, 2015, 10, e0120209.	1.1	17
28	Prevention of allergic conjunctivitis in mice by a rice-based edible vaccine containing modified Japanese cedar pollen allergens. British Journal of Ophthalmology, 2015, 99, 705-709.	2.1	20
29	OsHrd3 is necessary for maintaining the quality of endoplasmic reticulum-derived protein bodies in rice endosperm. Journal of Experimental Botany, 2015, 66, 4585-4593.	2.4	19
30	Efficacy of transgenic rice containing human interleukin-10 in experimental mouse models of colitis and pollen allergy. Plant Biotechnology, 2015, 32, 329-332.	0.5	2
31	Emerging features of ER resident J-proteins in plants. Plant Signaling and Behavior, 2014, 9, e28194.	1.2	26
32	RNA silencing is induced by the expression of foreign recombinant products in transgenic rice. Plant Science, 2014, 225, 138-146.	1.7	3
33	Generation mechanism of novel, huge protein bodies containing wild type or hypoallergenic derivatives of birch pollen allergen Bet v 1 in rice endosperm. Plant Molecular Biology, 2014, 86, 111-123.	2.0	15
34	Generation of transgenic rice with reduced content of major and novel high molecular weight allergens. Rice, 2014, 7, 19.	1.7	18
35	Suppression of collagenâ€induced arthritis by oral administration of transgenic rice seeds expressing altered peptide ligands of type II collagen. Plant Biotechnology Journal, 2014, 12, 1143-1152.	4.1	28
36	Development of a rice-based peptide vaccine for Japanese cedar and cypress pollen allergies. Transgenic Research, 2014, 23, 573-584.	1.3	15

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37	Development of a novel transgenic rice with hypocholesterolemic activity via high-level accumulation of the Î±â€² subunit of soybean Î²-conglycinin. Transgenic Research, 2014, 23, 609-620.	1.3	14
38	ER stress response induced by the production of human IL-7 in rice endosperm cells. Plant Molecular Biology, 2013, 81, 461-475.	2.0	28
39	High-level production of lactostatin, a hypocholesterolemic peptide, in transgenic rice using soybean A1aB1b as carrier. Transgenic Research, 2013, 22, 621-629.	1.3	27
40	The use of rice seeds to produce human pharmaceuticals for oral therapy. Biotechnology Journal, 2013, 8, 1133-1143.	1.8	42
41	Oral immunotherapy with transgenic rice seed containing destructed <scp>J</scp>apanese cedar pollen allergens, <scp>C</scp>ry j 1 and <scp>C</scp>ry j 2, against <scp>J</scp>apanese cedar pollinosis. Plant Biotechnology Journal, 2013, 11, 66-76.	4.1	59
42	Identification of a <i>cis</i>â€element that mediates multiple pathways of the endoplasmic reticulum stress response in rice. Plant Journal, 2013, 74, 248-257.	2.8	42
43	Transgenic rice seed synthesizing diverse flavonoids at high levels: a new platform for flavonoid production with associated health benefits. Plant Biotechnology Journal, 2013, 11, 734-746.	4.1	82
44	Transgenic Rice Seeds Accumulating Recombinant Hypoallergenic Birch Pollen Allergen Bet v 1 Generate Giant Protein Bodies. Plant and Cell Physiology, 2013, 54, 917-933.	1.5	37
45	Recent Advances in Understanding the Control of Secretory Proteins by the Unfolded Protein Response in Plants. International Journal of Molecular Sciences, 2013, 14, 9396-9407.	1.8	7
46	Update on the use of transgenic rice seeds in oral immunotherapy. Immunotherapy, 2013, 5, 301-312.	1.0	35
47	Analysis of rice ER-resident J-proteins reveals diversity and functional differentiation of the ER-resident Hsp70 system in plants. Journal of Experimental Botany, 2013, 64, 5429-5441.	2.4	27
48	Increasing the production yield of recombinant protein in transgenic seeds by expanding the deposition space within the intracellular compartment. Bioengineered, 2013, 4, 136-139.	1.4	22
49	A Rice Transmembrane bZIP Transcription Factor, OsbZIP39, Regulates the Endoplasmic Reticulum Stress Response. Plant and Cell Physiology, 2012, 53, 144-153.	1.5	70
50	Expression of hypoallergenic Der f 2 derivatives with altered intramolecular disulphide bonds induces the formation of novel ER-derived protein bodies in transgenic rice seeds. Journal of Experimental Botany, 2012, 63, 2947-2959.	2.4	37
51	RNA Silencing Induced by an Artificial Sequence That Prevents Proper Transcription Termination in Rice Â. Plant Physiology, 2012, 160, 601-612.	2.3	6
52	Recombinant protein yield in rice seed is enhanced by specific suppression of endogenous seed proteins at the same deposit site. Plant Biotechnology Journal, 2012, 10, 1035-1045.	4.1	44
53	Expression of OsBiP4 and OsBiP5 is highly correlated with the endoplasmic reticulum stress response in rice. Planta, 2012, 236, 1519-1527.	1.6	47
54	Transgenic rice accumulating modified cedar pollen allergen Cry j 2 derivatives. Journal of Bioscience and Bioengineering, 2012, 113, 249-251.	1.1	11

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55	Signal transduction by IRE1â€mediated splicing of <i>bZIP50</i> and other stress sensors in the endoplasmic reticulum stress response of rice. Plant Journal, 2012, 69, 946-956.	2.8	123
56	The Hypocholesterolemic Activity of Transgenic Rice Seed Accumulating Lactostatin, a Bioactive Peptide Derived from Bovine Milk Î²-Lactoglobulin. Journal of Agricultural and Food Chemistry, 2011, 59, 3845-3850.	2.4	33
57	Antihypertensive activity of transgenic rice seed containing an 18â€repeat novokinin peptide localized in the nucleolus of endosperm cells. Plant Biotechnology Journal, 2011, 9, 729-735.	4.1	32
58	Prevention of allergic asthma by vaccination with transgenic rice seed expressing mite allergen: induction of allergenâ€specific oral tolerance without bystander suppression. Plant Biotechnology Journal, 2011, 9, 982-990.	4.1	77
59	Expression of ER quality controlâ€related genes in response to changes in BiP1 levels in developing rice endosperm. Plant Journal, 2011, 65, 675-689.	2.8	121
60	Seed-based oral vaccines as allergen-specific immunotherapies. Hum Vaccin, 2011, 7, 357-366.	2.4	36
61	Generation of Transgenic Rice Lines with Reduced Contents of Multiple Potential Allergens Using a Null Mutant in Combination with an RNA Silencing Method. Plant and Cell Physiology, 2011, 52, 2190-2199.	1.5	41
62	Analysis of ER stress in developing rice endosperm accumulating Î²â€amyloid peptide. Plant Biotechnology Journal, 2010, 8, 691-718.	4.1	84
63	Cereal seed storage protein synthesis: fundamental processes for recombinant protein production in cereal grains. Plant Biotechnology Journal, 2010, 8, 939-953.	4.1	111
64	Reducing Rice Seed Storage Protein Accumulation Leads to Changes in Nutrient Quality and Storage Organelle Formation Â Â. Plant Physiology, 2010, 154, 1842-1854.	2.3	149
65	Extraction and purification of human interleukin-10 from transgenic rice seeds. Protein Expression and Purification, 2010, 72, 125-130.	0.6	44
66	Rice seed ER-derived protein body as an efficient delivery vehicle for oral tolerogenic peptides. Peptides, 2010, 31, 1421-1425.	1.2	57
67	Overexpression of BiP has Inhibitory Effects on the Accumulation of Seed Storage Proteins in Endosperm Cells of Rice. Plant and Cell Physiology, 2009, 50, 1532-1543.	1.5	91
68	Higher-level accumulation of foreign gene products in transgenic rice seeds by the callus-specific selection system. Journal of Bioscience and Bioengineering, 2009, 107, 78-83.	1.1	11
69	Deposition of a recombinant peptide in ER-derived protein bodies by retention with cysteine-rich prolamins in transgenic rice seed. Planta, 2009, 229, 1147-1158.	1.6	58
70	The 3â€²-untranslated region of rice glutelin GluB-1 affects accumulation of heterologous protein in transgenic rice. Biotechnology Letters, 2009, 31, 1625-1631.	1.1	32
71	Compensation and interaction between RISBZ1 and RPBF during grain filling in rice. Plant Journal, 2009, 59, 908-920.	2.8	156
72	Efficient induction of oral tolerance by fusing cholera toxin B subunit with allergen-specific T-cell epitopes accumulated in rice seed. Vaccine, 2008, 26, 6027-6030.	1.7	41

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73	Health-promoting Transgenic Rice: Application of Rice Seeds as a Direct Delivery System for Bioactive Peptides in Human Health. Biotechnology in Agriculture and Forestry, 2008, , 357-373.	0.2	7
74	Characterization of a new rice glutelin gene GluD-1 expressed in the starchy endosperm. Journal of Experimental Botany, 2008, 59, 4233-4245.	2.4	149
75	Biopharming to Increase Bioactive Peptides in Rice Seed. Journal of AOAC INTERNATIONAL, 2008, 91, 957-964.	0.7	33
76	Rice-based mucosal vaccine as a global strategy for cold-chain- and needle-free vaccination. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10986-10991.	3.3	317
77	Endosperm tissue is good production platform for artificial recombinant proteins in transgenic rice. Plant Biotechnology Journal, 2007, 5, 84-92.	4.1	103
78	Development of transgenic rice seed accumulating a major Japanese cedar pollen allergen (Cry j 1) structurally disrupted for oral immunotherapy. Plant Biotechnology Journal, 2007, 5, 815-826.	4.1	54
79	Biochemical Safety Evaluation of Transgenic Rice Seeds Expressing T Cell Epitopes of Japanese Cedar Pollen Allergens. Journal of Agricultural and Food Chemistry, 2006, 54, 9901-9905.	2.4	51
80	A transgenic rice seed accumulating an anti-hypertensive peptide reduces the blood pressure of spontaneously hypertensive rats. FEBS Letters, 2006, 580, 3315-3320.	1.3	59
81	Peptide immunotherapy for allergic diseases using a rice-based edible vaccine. Current Opinion in Allergy and Clinical Immunology, 2006, 6, 455-460.	1.1	15
82	High accumulation of bioactive peptide in transgenic rice seeds by expression of introduced multiple genes. Plant Biotechnology Journal, 2006, 4, 060606025943005-???.	4.1	75
83	The Correlation between Expression and Localization of a Foreign Gene Product in Rice Endosperm. Plant and Cell Physiology, 2006, 47, 756-763.	1.5	48
84	Oral immunotherapy against a pollen allergy using a seed-based peptide vaccine. Plant Biotechnology Journal, 2005, 3, 521-533.	4.1	107
85	Expression of the Small Peptide GLP-1 in Transgenic Plants. Transgenic Research, 2005, 14, 677-684.	1.3	65
86	The Critical Role of Disulfide Bond Formation in Protein Sorting in the Endosperm of Rice. Plant Cell, 2005, 17, 1141-1153.	3.1	96
87	From The Cover: A rice-based edible vaccine expressing multiple T cell epitopes induces oral tolerance for inhibition of Th2-mediated IgE responses. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17525-17530.	3.3	205
88	Genetically modified rice seeds accumulating GLP-1 analogue stimulate insulin secretion from a mouse pancreatic beta-cell line. FEBS Letters, 2005, 579, 1085-1088.	1.3	28
89	Evaluation of tissue specificity and expression strength of rice seed component gene promoters in transgenic rice. Plant Biotechnology Journal, 2004, 2, 113-125.	4.1	219
90	A Nucleotide Sequence Linked to the Vrs1 Locus for Studies of Differentiation in Cultivated Barley (Hovdeum Vulgare L.). Hereditas, 2004, 130, 77-82.	0.5	22

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91	Foreign gene products can be enhanced by introduction into low storage protein mutants. Plant Biotechnology Journal, 2003, 1, 411-422.	4.1	91
92	Genetic Improvement of Iron Content and Stress Adaptation in Plants Using Ferritin Gene. Biotechnology and Genetic Engineering Reviews, 2001, 18, 351-371.	2.4	10
93	Quantitative nature of the Prolamin-box, ACGT and AACA motifs in a rice glutelin gene promoter: minimalcis-element requirements for endosperm-specific gene expression. Plant Journal, 2000, 23, 415-421.	2.8	168
94	Iron fortification of rice seed by the soybean ferritin gene. Nature Biotechnology, 1999, 17, 282-286.	9.4	727
95	Molecular characterization of a gene for alanine aminotransferase from rice (Oryza sativa). Plant Molecular Biology, 1999, 39, 149-159.	2.0	36
96	Identification of cis-regulatory elements required for endosperm expression of the rice storage protein glutelin gene GluB-1. Plant Molecular Biology, 1999, 40, 1-12.	2.0	146
97	Rice Glutelins. , 1999, , 401-425.		38
98	The GCN4 motif in a rice glutelin gene is essential for endosperm-specific gene expression and is activated by Opaque-2 in transgenic rice plants. Plant Journal, 1998, 14, 673-683.	2.8	148
99	Promoters of Rice Seed Storage Protein Genes Direct Endosperm-Specific Gene Expression in Transgenic Rice. Plant and Cell Physiology, 1998, 39, 885-889.	1.5	70
100	A rice glutelin gene family â€" a major type of glutelin mRNAs can be divided into two classes. Molecular Genetics and Genomics, 1987, 208, 15-22.	2.4	126