日本語

日本栄養大学大学院
日本栄養大学
日本栄養大学短期大学部

Faculty Members

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(Last updated : 2026-07-24 17:01:00)

Ken-ichi Ishibashi

Faculty of Nutrition
Professor

■ Education

1.	～2005/03	〔Doctoral course〕, Graduate School, Division of Pharmaceutical Sciences, Tokyo University of Pharmacy and Life Sciences, Completed,

■ Career

1.	2020/04～2025/03	Kagawa Nutrition University Faculty of Nutrition Associate Professor
2.	2025/04～	Kagawa Nutrition University Faculty of Nutrition Professor

■ Courses Previously Taught

1. Immunology（Kagawa Nutrition University）
2. Microbiology（Kagawa Nutrition University）
3. Overview of Clinical Medicine (including Infectious Diseases)（Kagawa Nutrition University）
4. Practicums on Infection Control（Kagawa Nutrition University）
5. Practicums and Experiments on Food Hygiene（Kagawa Nutrition University）
6. Experiments in Nutritional Biochemistry（Kagawa Nutrition University）
7. Advanced Lectures on Immunology（Kagawa Nutrition University）

5件表示

■ Research Interests/Keywords

Bacteriology, Pharmaceutical hygiene and biochemistry, Bacteriology, Immunology, Nutrition science and health science (Key Word : Food sciences, Mycology, Immunology, Pharmaceutical hygiene and biochemistry, Polysaccharide structure/activity)

■ Publications

1.	Journal Articles	Raman Spectroscopic Algorithms for Assessing Virulence in Oral Candidiasis: The Fight-or-Flight Response（Collaboration） 2024
2.	Journal Articles	Effect of Royal Sun Medicinal Mushroom *Agaricus brasiliensis* KA21 (Agaricomycetes) Cultivated Outdoors on Wound Healing and Maintaining Skin Elasticity（Collaboration） 2024
3.	Journal Articles	Effects of Outdoor-Grown Royal Sun Medicinal Mushroom *Agaricus brasiliensis* KA21 (Agaricomycetes) Fruiting Body on Canine Malassezia Dermatitis.（Collaboration） 2024
4.	Journal Articles	High-parameter immune profiling and subjective health assessment of the immunomodulatory effects of paramylon-rich Euglena gracilis EOD-1: A randomized, double-blind, placebo-controlled, parallel-group study（Collaboration） 2023
5.	Journal Articles	Dectin-1 Reactivity to Paramylon Derived from *Euglena gracilis* EOD-1.（Collaboration） 2022
6.	Journal Articles	Development of a Highly Sensitive β-Glucan Detection System Using Scanning Single-Molecule Counting Method.（Collaboration） 2021
7.	Journal Articles	Possibility of Japanese Cedar Pollen Causing False Positives in the Deep Mycosis Test.（Collaboration） 2021

8.	Journal Articles	Binding Specificity of a New Artificial β-Glucan Recognition Protein and Its Application to β-Glucan Detection in Mushroom Extracts. (Collaboration) 2021
9.	Journal Articles	Open-Label Study of the Influence of Food Containing the Royal Sun Mushroom, Agaricus brasiliensis KA21 (Agaricomycetes), on β-Glucan-Specific Antibody Production in Healthy Human Volunteers. (Collaboration) 2021
10.	Journal Articles	Latent 1,3-β-D-glucan acts as an adjuvant for allergen-specific IgE production induced by Japanese cedar pollen exposure. (Collaboration) 2021
11.	Journal Articles	Coronary Vasculitis Induced in Mice by the Cell Wall Mannoprotein of *Candida krusei.* (Collaboration) 2020
12.	Journal Articles	Quantification of Mushroom-Derived Soluble β-1,6-Glucan Using the Function-Modified Recombinant β-1,6-Glucanase. (Collaboration) 2020
13.	Journal Articles	Coronary Vasculitis Induced in Mice by Cell Wall Mannoprotein Fractions of Clinically Isolated *Candida* Species. (Collaboration) 2020
14.	Journal Articles	Quantification of β-Glucan from Culinary-Medicinal Mushrooms Using Novel Artificial β-Glucan Recognition Protein. (Collaboration) 2020
15.	Journal Articles	Outdoor-Cultivated Royal Sun Medicinal Mushroom *Agaricus brasiliensis* KA21 (Agaricomycetes) Reduces Anticancer Medicine Side Effects. (Collaboration) 2020
16.	Journal Articles	N-Terminal (1-3)-β-d-Glucan Recognition Proteins from Insects Recognize the Difference in Ultra-Structures of (1-3)-β-d-Glucan (Collaboration) 2019
17.	Journal Articles	Effects of *Euglena gracilis* EOD-1 Ingestion on Salivary IgA Reactivity and Health-Related Quality of Life in Humans. (Collaboration) 2019
18.	Journal Articles	Recognition of alpha-mannan by dectin 2 is essential for onset of Kawasaki disease-like murine vasculitis induced by Candida albicans cell-wall polysaccharide. (Collaboration) 2019
19.	Journal Articles	Solubilized melanin suppresses macrophage function. (Collaboration) 2019
20.	Journal Articles	Immunochemical Similarities in Polysaccharide Components of the Royal Sun Culinary-Medicinal Mushroom, Agaricus brasiliensis (Agaricomycetes), and Clinically Isolated Candida spp. (Collaboration) 2019
21.	Journal Articles	Production of low-molecular weight soluble yeast β-glucan by an acid degradation method. (Collaboration) 2018
22.	Journal Articles	Protection against Gut Inflammation and Sepsis in Mice by the Autodigested Product of the Lingzhi Medicinal Mushroom, *Ganoderma lingzhi* (Agaricomycetes). (Collaboration) 2018
23.	Journal Articles	The ATP Transporter VNUT Mediates Induction of Dectin-1-Triggered Candida Nociception. (Collaboration) 2018
24.	Journal Articles	Modulation of an innate immune response by soluble yeast β-glucan prepared by a heat degradation method. (Collaboration) 2017
25.	Journal Articles	Preparation and Biological Characterization of Limulus Factor G-activating Substance of *Aspergillus* spp. (Collaboration) 2017
26.	Journal Articles	Genetic Phagocyte NADPH Oxidase Deficiency Enhances Nonviable Candida albicans-Induced Inflammation in Mouse Lungs. (Collaboration) 2017
27.	Journal Articles	Resistance of Aspergillus fumigatus to Micafungin is Increased by Exogenous β-glucan. (Collaboration) 2017
28.	Journal Articles	Enhanced Release of Immunostimulating β-1,3- Glucan by Autodigestion of the Lingzhi Medicinal Mushroom, Ganoderma lingzhi (Agaricomycetes). (Collaboration) 2017
29.	Journal Articles	Effects of Natural and Chemically Defined Nutrients on Candida albicans Water-soluble Fraction (CAWS) Vasculitis in Mice. (Collaboration) 2017
30.	Journal Articles	Nociceptors Boost the Resolution of Fungal Osteoinflammation via the TRP Channel-CGRP-Jdp2 Axis. (Collaboration) 2017
31.	Journal Articles	Activation of macrophages by a laccase-polymerized polyphenol is dependent on phosphorylation of Rac1 (Collaboration) 2017
32.	Journal Articles	Species difference in reactivity to lignin-like enzymatically polymerized polyphenols on interferon-γ synthesis and involvement of interleukin-2 production in mice. (Collaboration) 2016
33.	Journal Articles	Immunochemical Cross-Reactivity of β-Glucan in the Medicinal Plant, Sasa veitchii (Japanese Folk Medicine Kumazasa), and Medicinal Mushrooms. (Collaboration) 2016

34.	Journal Articles	Specificity of the Immunomodulating Activity of Sasa veitchii (Japanese Folk Medicine Kumazasa) to Fungal Polysaccharides. (Collaboration) 2015
35.	Journal Articles	The transcription factor ATF7 mediates lipopolysaccharide-induced epigenetic changes in macrophages involved in innate immunological memory. (Collaboration) 2015
36.	Journal Articles	Diagnostic potential of antibody titers against Candida cell wall β-glucan in Kawasaki disease. (Collaboration) 2014
37.	Journal Articles	An ITAM-Syk-CARD9 signalling axis triggers contact hypersensitivity by stimulating IL-1 production in dendritic cells. (Collaboration) 2014
38.	Journal Articles	Presence of Candida cell wall derived polysaccharides in the sera of intensive care unit patients: relation with candidaemia and Candida colonisation. (Collaboration) 2014
39.	Journal Articles	Analysis of the titer and reactivity of antibody against fungal cell wall β-glucans in human sera. (Collaboration) 2013
40.	Journal Articles	β-mannosyl linkages inhibit CAWS arteritis by negatively regulating dectin-2-dependent signaling in spleen and dendritic cells. (Collaboration) 2013
41.	Journal Articles	Modulation of interferon-γ synthesis by the effects of lignin-like enzymatically polymerized polyphenols on antigen-presenting cell activation and the subsequent cell-to-cell interactions. (Collaboration) 2013
42.	Journal Articles	Oral administration of soluble β-glucan preparation from the cauliflower mushroom, Sparassis crispa (Higher Basidiomycetes) modulated cytokine production in mice. (Collaboration) 2013
43.	Journal Articles	A model of left ventricular dysfunction complicated by CAWS arteritis in DBA/2 mice. (Collaboration) 2012
44.	Journal Articles	Agaricus brasiliensis-derived β-glucans exert immunoenhancing effects via a dectin-1-dependent pathway. Agaricus brasiliensis-derived β-glucans exert immunoenhancing effects via a dectin-1-dependent pathway. (Collaboration) 2012
45.	Journal Articles	Disruption of Actin Cytoskeleton Enhanced Cytokine Synthesis of Splenocytes Stimulated with Beta-Glucan from the Cauliflower Medicinal Mushroom, Sparassis crispa Wulf.:Fr. (Higher Basidiomycetes) in Vitro. (Collaboration) 2012
46.	Journal Articles	The effect of enzymatically polymerised polyphenols on CD4 binding and cytokine production in murine splenocytes. (Collaboration) 2012
47.	Journal Articles	Vasculitis and anaphylactoid shock in mice induced by the polysaccharide fraction secreted into culture supernatants by the fungus Candida metapsilosis. (Collaboration) 2011
48.	Journal Articles	Induction of IFN-γ by a highly branched 1,3-β-d-glucan from Aureobasidium pullulans in mouse-derived splenocytes via dectin-1-independent pathways. (Collaboration) 2011
49.	Journal Articles	Granulocyte macrophage colony-stimulating factor is required for cytokine induction by a highly 6-branched 1,3-β-D-glucan from Aureobasidium pullulans in mouse-derived splenocytes. (Collaboration) 2011
50.	Journal Articles	Characterization of blood beta-1,3-glucan and anti-beta-glucan antibody in hemodialysis patients using culinary-medicinal Royal Sun Agaricus, Agaricus brasiliensis S. Wasser et al. (Agaricomycetideae). (Collaboration) 2011
51.	Journal Articles	Comparison of anti-beta-glucan antibody titer in human volunteer and patients. (Collaboration) 2010
52.	Journal Articles	Gene expression in murine splenocytes induced by soluble beta-glucan. (Collaboration) 2010
53.	Journal Articles	Anti-fungal cell wall beta-glucan antibody in animal sera. (Collaboration) 2010
54.	Journal Articles	The influence of β-glucan on the growth and cell wall architecture of Aspergillus spp. (Collaboration) 2010
55.	Journal Articles	Cytokine induction by a linear 1,3-glucan, curdlan-oligo, in mouse leukocytes in vitro. (Collaboration) 2009
56.	Journal Articles	An unambiguous structural elucidation of a 1,3-beta-D-glucan obtained from liquid-cultured Grifola frondosa by solution NMR experiments. (Collaboration) 2009
57.	Journal Articles	Rapid decrease of anti-beta-glucan antibody as an indicator for early diagnosis of carinii pneumonitis and deep mycotic infections following immunosuppressive therapy in antineutrophil cytoplasmic antibody-associated vasculitis. (Collaboration) 2009

58.	Journal Articles	Involvement of branched units at position 6 in the reactivity of a unique variety of beta-D-glucan from Aureobasidium pullulans to antibodies in human sera. (Collaboration) 2009
59.	Journal Articles	Barley-derived beta-D-glucan induces immunostimulation via a dectin-1-mediated pathway. (Collaboration) 2009
60.	Journal Articles	Effect of oral administration of dried royal sun Agaricus, Agaricus brasiliensis S. Wasser et al. (Agaricomycetideae), fruit bodies on anti-β-glucan antibody titers in humans. (Collaboration) 2009
61.	Journal Articles	Pulmonary exposure to soluble cell wall beta-(1, 3)-glucan of aspergillus induces proinflammatory response in mice. (Collaboration) 2009
62.	Journal Articles	Effect of GM-CSF on cytokine induction by soluble beta-glucan SCG in vitro in beta-glucan-treated mice. (Collaboration) 2009
63.	Journal Articles	Candida soluble cell wall beta-glucan facilitates ovalbumin-induced allergic airway inflammation in mice: Possible role of antigen-presenting cells. (Collaboration) 2009
64.	Journal Articles	Binding capacity of a barley beta-D-glucan to the beta-glucan recognition molecule dectin-1. (Collaboration) 2008
65.	Journal Articles	Structural characterisation and biological activities of a unique type beta-D-glucan obtained from Aureobasidium pullulans (Collaboration) 2008
66.	Journal Articles	Immunomodulating Activity of Agaricus brasiliensis KA21 in Mice and in Human Volunteers. (Collaboration) 2008
67.	Journal Articles	Safety of tablets containing Agaricus brasiliensis fruits-body originated in King Agaricus 21 strain of spore and naturally cultivated in Brazil (Collaboration) 2007
68.	Journal Articles	Candida soluble cell wall beta-d-glucan induces lung inflammation in mice. (Collaboration) 2007
69.	Journal Articles	Histopathological examination and analysis of mortality in DBA/2 mouse vasculitis induced with CAWS, a water-soluble extracellular polysaccharide fraction obtained from Candida albicans (Collaboration) 2006
70.	Journal Articles	Beta-mannosyl linkages negatively regulate anaphylaxis and vasculitis in mice, induced by CAWS, fungal PAMPS composed of mannoprotein-beta-glucan complex secreted by Candida albicans (Collaboration) 2006
71.	Journal Articles	Role of anti-beta-glucan antibody in host defense against fungi (Collaboration) 2005
72.	Journal Articles	Activation of toll-like receptor-mediated NF-kappa beta by zymosan-derived water-soluble fraction: possible contribution of endotoxin-like substances (Collaboration) 2005
73.	Journal Articles	Anti-β-glucan antibody in bovine sera (Collaboration) 2005
74.	Journal Articles	Anti β-glucan antibody in cancer patients (Collaboration) 2004
75.	Journal Articles	DNA array analysis of altered gene expression in human leukocytes stimulated with soluble and particulate forms of Candida cell wall beta-glucan (Collaboration) 2004
76.	Journal Articles	The solubilization and biological activities of Aspergillus beta-(1 --> 3)-D-glucan (Collaboration) 2004
77.	Journal Articles	Solubilized Candida cell wall β-glucan, CSBG, is an epitope of natural human antibody (Collaboration) 2003
78.	Journal Articles	Relationship between the physical properties of Candida albicans cell wall beta-glucan and activation of leukocytes in vitro (Collaboration) 2002
79.	Journal Articles	Relationship between solubility of grifolan, a fungal 1,3-beta-D-glucan, and production of tumor necrosis factor by macrophages in vitro (Collaboration) 2001
80.	Book/Book Chapter	Particle and soluble β-glucans from Candida albicans modulate cytokine release from human leukocytes. (Collaboration) 2005

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■ Grants

1.	2010	PAMPs sensing in pathogenic fungi induce changes in cell wall polysaccharide structure and its relationship to pathogenicity (Key Word : Glucan, Pathogenic fungi, Polysaccharide structure)
2.	2015～2016	Novel PAMPs in the pathogenesis of pulmonary mycosis and their activation mechanisms.

3.	2018～2023	Drug Resistance and Pathogenicity of Infectious Drug Exposed Aspergillus
4.	2022～	Investigation of respiratory mucosal adjuvant activity by functional dietary fiber

■ Memberships

1.	2001～	The Japanese Society for Medical Mycology
2.	2005～	The Pharmaceutical Society of Japan
3.	2017～	Japan Society for Bioscience, Biotechnology, and Agrochemistry
4.	2017～	Japan Society of Nutrition and Food Science