

BioBran/MGN-3

(Rice bran Arabinoxylan derivative)

Basic and clinical application to integrative medicine

Editor : Kenji Tazawa

Kenji Tazawa

Honorary Professor of Toyama Medical and Pharmaceutical University

Prof.

- 2005 Honorary Professor of Toyama Medical and Pharmaceutical University (Currently Toyama University)
- 2003 Assistant manager of the Faculty of Medicine, Toyama Medical and Pharmaceutical University
- 1995 Prof. of the Dept. of Nursing Surgery, Faculty of Medicine, Toyama Medical and Pharmaceutical University
- 1989 Studied abroad as a research student of the Ministry of Education (Dept. of Enterology, Cleveland Clinic Foundation, USA)
- 1986 Assistant Professor of the Second Dept. of Surgery, Toyama Medical and Pharmaceutical University
- 1965 Graduated from the Faculty of Medicine, Niigata University
- 1940 Born in Aomori

Major Study Subjects

The pharmaceutical action of skin protective agents and the physiological function of the skin
Mechanism of the prevention of colon cancer (effects of apple pectin, bakuhanseki, and various BRMs)
The development and prevention of liver metastasis following colon cancer surgery
Ultrasensitive intracellular hyperthermia using dextran magnetite
The daily variation in hormone levels and the mechanism of wound healing
Antioxidant function and water, air purification

Specialty

Treatment and prevention of colon cancer and stoma rehabilitation
Mechanism and prevention of cancer metastasis
Active oxygen and antioxidant-containing foods (cancer prevention)

Professional Society

Chief Director of Ayurveda Society in Japan
Director of the Japanese Society for Stoma Rehabilitation
Director of the Japan Society for Biological Therapy
Council Member of the Japanese Cancer Association
Council Member of the Japanese Society of Gastroenterological Surgery
Member of the American Association for Cancer Research

Statement upon publication

Prevention is better than cure. Cancer and a range of lifestyle-related diseases are difficult to cure. Many healthcare professionals have begun to feel that this difficulty and the huge medical cost involved in treating them, and are painfully aware that preventative measures are important, together with improvements in lifestyle habits, and especially diet.

Studies of food functions for the prevention and supplementary treatment of disease have advanced remarkably in recent years. In many scientific journals as well as at academic meetings, there have been numerous reports of searches for food factors, and the their actions and effectiveness with physiological activities such as antioxidant properties and immunomodulation. The Japanese Society for Biological Therapy held its 16th general academic meeting in Toyama in December, 2003, and I was fortunate enough to act as President. There were presentations on studies of six food factors including BioBran/MGN-3 in a symposium entitled "Alternative medicine with a logical mechanism of action: Biological therapy". There was a great deal of active discussion amongst the attendees.

BioBran/MGN-3 is positioned as a polysaccharide (in terms of food ingredients, a type of dietary fibre), which acts as a BRM (Biological Response Modifier), and is derived from hemicellulose in rice bran. Many studies into the food functions of this product have been reported. I feel that food plays an important role in the prevention and treatment of cancer and have been interested in BioBran/MGN-3, since the early development stages of the product. This is because I feel as a colon cancer specialist that the increase in number of colon cancer patients is partly related to advances in rice polishing technology, which have decreased the intake of dietary fibre from rice bran. Another reason is that I was impressed with the approach which Daiwa Pharmaceutical Co., Ltd., the developers of BioBran/MGN-3, took towards research. They first confirmed its safety and isolated and identified the active ingredients. They then evaluated its effectiveness using an established procedure, beginning with *in vitro* testing before conducting *in vivo* studies and then clinical trials, presented the results at many academic meetings and published papers in scientific journals to gain objective reviews.

As one of the researchers taking part in the development of BioBran/MGN-3, I am delighted that these results have now been compiled into this book of collected papers. I believe that this will be a useful textbook for health professionals and food function researchers. I wish to pay my respects to Dr. Mamdooh Ghoneum at Drew University, USA, Dr. Yuzo Endo at the Hamamatsu University School of Medicine, Chiharu Kubo at Kyushu University, and other basic and clinical researchers, all of whom have approached the study of BioBran/MGN-3 in earnest, and with untiring efforts.

I hope that further studies will make the food functions of BioBran/MGN-3 more widely recognized by health professionals.

Kenji Tazawa,
Professor Emeritus, Toyama Medical and Pharmaceutical University

Contents

Statement upon publication	Kenji TAZAWA	I
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I . The summary of BioBran

I-1	Overview of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Hiroaki MAEDA	3
I-2	Production of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Hiroaki MAEDA	6
I-3	Chemical Structure of the component Involved in Immunoregulation	Tomisato MIURA et al.	9
I-4	The Safety of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Hiroaki MAEDA	18

II . The basic studies of BioBran

II-review-1	Immunomodulation and Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Chiharu KUBO	25
II-review-2	BioBran Beneficial for Our Health Defense System	Yuzo ENDO	27
II-1-1	Enhancement of Human Natural Killer Cell Activity by Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	M. GHONEUM	31
II-1-2	Augmentation of Macrophage Phagocytosis by Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	M. GHONEUM et al.	45
II-1-3	Immunostimulation and Cancer Prevention	Mamdooh GHONEUM	59
II-1-4	Production of Tumor Necrosis Factor- α and Interferon- γ from Human Peripheral Blood Lymphocytes by a Modified Arabinoxylan from Rice Bran (BioBran/MGN-3), and Its Synergy with Interleukin-2 <i>In Vitro</i>	M. GHONEUM et al.	61
II-1-5	Effect of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) on NK Cell Activity of Human Peripheral Blood Lymphocytes	Chizuru SHIMOMURA et al.	73
II-1-6	Enhancement of Natural Killer Cell Activity of Aged Mice by Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Mamdooh GHONEUM et al.	80
II-2-1	Anti-HIV Activity <i>In Vitro</i> of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Mamdooh GHONEUM	92
II-3-1	A Study of a Cancer-Cell Growth Inhibiting Ingredient in Modified Arabinoxylan from Rice Bran (BioBran /MGN-3)	Fumitaka MIYAZAKI et al.	100

II-4-1	Scavenging Activity of Modified Arabinoxylane from Rice Bran (BioBran/MGN-3) with Natural Killer Cell Activity on Free Radicals	Kenji TAZAWA et al.	107
II-4-2	A Basic Study of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) on the Activation of Vital Defence	Nobuyuki SUDO et al.	111
II-4-3	Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) Beneficial for Weight Loss of Mice as a Major and Acute Adverse Effect of Cisplatin	Yuzo ENDO et al.	117
II-4-4	The Effect of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) on Cisplatin and Doxorubicin Induced Toxicity in the Rat	Henry I. JACOBY et al.	124
II-4-5	Effect of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) on Experimental Liver Dysfunction in Rats	T. YAMADA et al.	131
II-4-6	A Study Report on the Protective Activity of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3)	Teruo KIRIKAE	139
II-4-7	The Protective effects of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) against cisplatin	H. I. JACOBY et al.	143
II-5-1	Evaluation of the Effects of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) in Preventing Asthma and Relieving Symptoms in a Mouse Model of Asthma	Hiroshi KANBAYASH et al.	148
II-5-2	Inhibitory Effects of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) on the Progression of Atopic Dermatitis in NC Mice	Shigeaki NONOYAMA et al.	152
II-6-1	Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) Sensitizes Human T Cell Leukemia Cells to Death Receptor (CD95)-Induced Apoptosis	Mamdooh GHONEUM et al.	155
II-6-2	Modified Arabinoxylan Rice Bran BioBran/MGN-3 Enhances Yeast-induced Apoptosis in Human Breast Cancer Cells <i>In Vitro</i>	Mamdooh GHONEUM et al.	165
II-7-1	Effects of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) on Serum Lipids and Taste Preference in Streptozotocin-induced Diabetic Rats	Ikuo OHARA et al.	182
II-7-2	Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) Improves Glucose Tolerance in NIDDM Adult Rats Given Streptozotocin as Neonates	Ikuo OHARA et al.	189

III. The clinical studies of BioBran

III-review	Application of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) to the Prevention and Supplementary Treatment of Diseases	Kenji TAZAWA	199
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III-1-1	Life Prolongation and QOL Improvement Effect of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) for Progressive Cancer	Kihachiro TAKAHARA et al.	201
III-1-2	NK Immunorestitution of Cancer Patients by BioBran /MGN-3, A Modified Arabinoxylan Rice Bran (Study of 32 Patients Followed for up to 4 Years)	Mamdooh GHONEUM et al.	207
III-1-3	Effect of Long-term Administration of Immunomodulatory Food on Cancer Patients Completing Conventional Treatments	Hiroshi TSUNEKAWA	216
III-1-4	A Case Where an Immunomodulatory Food was Effective in Conservative Therapy for Progressive Terminal Pancreatic Cancer	Kazutoshi KAKETANI	225
III-1-5	A Case of a Patient with Umbilical Metastasis of Recurrental Cancer (Sister Mary Joseph's Nodule, SMJN) Who has Survived for a Long Time under Immunomodulatory Supplement Therapy	Tomonori KAWAI	232
III-1-6	The Clinical Significance of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) in Immunotherapy for Cancer	Yasushi OKAMURA	240
III-2-1	The Oral Administration of the Modified Arabinoxylan from Rice Bran (HRB) Prevents a Common Cold Syndrome in Elderly People Based on Immunomodulatory Function	Kenji TAZAWA et al.	246
III-2-2	Experience with Administration of Modified Arabinoxylan from Rice Bran (BioBran/MGN-3) in Patients with Rheumatoid Arthritis	Kenichi ICHIHASHI	259
Postscript		Hiroaki MAEDA	264