BioBran/MGN-3

(Rice bran Arabinoxylan derivative)

Basic and clinical application to integrative medicine

Editor : Kenji Tazawa

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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
Ultraselective intracellular hyperthermia using dextran magnetite
The daily variation in hormone levels and the mechanism of wound healing
Antioxdant 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

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Ⅲ. The clinical studies of BioBran