Immunomodulating Activity of Agaricus brasiliensis KA21 in Mice and in Human Volunteers

Ying Liu 1, Yasushi Fukuwatari1, Ko Okumura2, Kazuyoshi Takeda2, Ken-ichi Ishibashi3, Mai Furukawa3, Naohito Ohno3, Kazu Mori4, Ming Gao4 and Masuro Motoi5

1Mibyou Medical Research Center, Institute of Preventive Medicine, Tokyo, Japan, 2Department of Immunology, School of Medicine, Juntendo University School of Medicine, Tokyo, Japan, 3Laboratory for Immunopharmacology of Microbial Products, School of Pharmacy, Tokyo University of Pharmacy and Life Science, Tokyo, Japan, 4Department of Acupuncture and Moxibustion, Suzuki University of Medical Science and Mie, Japan, and 5Toei Pharmaceutical Co., Ltd., Tokyo, Japan

We performed studies on murine models and human volunteers to examine the immunoenhancing effects of the naturally outdoor-cultivated fruit body of Agaricus brasiliensis KA21 (i.e. Agaricus blazei). Antitumor, leukocyte-enhancing, hepatopathy-alleviating and endotoxin shock-alleviating effects were found in mice. In the human study, percentage body fat, percentage visceral fat, blood cholesterol level and blood glucose level were decreased, and natural killer cell activity was increased. Taken together, the results strongly suggest that the Agaricus brasiliensis fruit body is useful as a health-promoting food.