The medicinal mushroom *Agaricus blazei* Murill from the Brazilian rain forest has been used in traditional medicine and as health food for the prevention of a range of diseases, including infection, allergy, and cancer. Other scientists and we have examined whether there is scientific evidence behind such postulations. *Agaricus blazei* M is rich in the immunomodulating polysaccharides, β-glucans, and has been shown to have antitumor, anti-infection, and antiallergic/asthmatic properties in mouse models, in addition to anti-inflammatory effects in inflammatory bowel disease patients. These effects are mediated through the mushroom’s stimulation of innate immune cells, such as monocytes, NK cells, and dendritic cells, and the amelioration of a skewed Th1/Th2 balance and inflammation.