By Guy Devin, PhD

The words “mushroom/fungi” seem to conger up all sorts of different images and feelings for most people. Some experience “myco-phobia,” the irrational fear of fungi. This is mainly due to a limited understanding of the incredible benefits that the fungal kingdom produces—not only for our forests, but equally as important, for the human body.

Mushrooms are incredible beings that have allowed life to exist on Earth for time and eternity. Their immune systems have evolved and adapted through hundreds of thousands of years.

There are 55 trillion plus cells in the body and over 200 trillion microorganisms performing all types of functions—some good and some not so good. The key to medicinal mushrooms is that they provide a cellular connection to those microorganisms to manage, sustain and keep the body in an optimal state of health.

Beyond not only the medicinal qualities, this category is mushrooming (pun intended) into a highly profitable and saleable category leader for human nutrition. In my opinion, medicinal mushrooms are one category of the essential core nutrients we all must take to create year-long immunity.

I love the following quote from mycologist Paul Stamets, considered to be one of the world’s leading experts in this field:

“We live not only in a biosphere, but also within a mycosphere, aided by often invisible fungal allies who protect and nurture us. Life is based upon symbiosis and mutualism. Fungi produce the mycelia networks that connect us all. Fungi create soils, the cradle of life. Since human and ecological health’s are interdependent, the wise use of fungi can protect biodiversity, the lives of our descendants and the planet that hosts us.”

Medical Attention to Mushrooms

Although most health care professionals skilled in the art of botanical medicine are aware of the immune-enhancing properties of certain mushrooms, few may realize that mushrooms are rich sources of natural antibiotics. The cell wall glucans are well known for their immunomodulatory properties. However, few medical practitioners are aware that many of the externalized secondary metabolites—extra cellular secretions by the mycelium—combat bacteria and viruses. Additionally, the exudates from mushroom mycelia are active against protozoa such as the parasite that causes malaria, Plasmodium falciparum and other microorganisms.

What I find fascinating is that some mushrooms and their constituents are target-specific in their antibiotic properties, while still others have far more reaching effects. Today, there is increasing evidence that a number of bacteria are developing a resistance to
commercial antibiotics due to the overuse in our food supply as well as being the drug of choice during cold and flu season. Take MSRA (methicillin-resistant S. aureus), for instance. Extracts from mushrooms hold significant promise for novel medicines in modern times against such a virus.

The scientific community has increasingly substantiated that mushrooms, especially polypores, provide a protective immunological shield, if you will, against a host of infectious diseases. One such mushroom, Turkey Tail (Trametes versicolor), from Fungi Perfecti’s Host Defense® Line was used in a seven-year, $2 million dollar NIH-funded clinical study, jointly conducted by Bastyr University and the University of Minnesota. In that study it showed that freeze-dried turkey tail mushroom mycelium supported immune function when administered to women with stage I-III breast cancer. Immunity was enhanced with daily oral doses. Immune response was dose-dependant, with none of the test patients showing adverse effects.

“I have long recommended Turkey Tail and other medicinal mushrooms to persons with cancer. They are nontoxic, do not interfere with conventional therapies and strengthen the body’s defenses,” affirmed Andrew Weil, MD, founder and director, professor of medicine and public health at the Arizona Center for Integrative Medicine, University of Arizona.

Clearing Up Mushroom Confusion
One of the questions I often hear is, “If I have a yeast infection, should I be taking mushrooms?” The answer is ‘yes’ and here is why: The scientific literature abounds with references showing that the metabolites of medicinal mushrooms produce natural antibiotics that fight Candida Albicans. (Tsukagoshi et al. 1984; Sakagami et al. 1991). Suay et al. (1998) found that the protein-bound polysaccharides from Gandoderma lucidum (Reishi) activated macrophage activity, enhancing the elimination of Candida Albicans.

A mushrooming population is that of the Baby Boomers who are extremely passionate about finding ways to stay mentally sharp and active. These groups are searching for ways to deal with several autoimmune related issues in the areas of inflammation, breast health, prostate health, respiratory health and liver support, and the aging process may have an adverse effect those issues. This can stop us from keeping our immune system functioning in the normal range. These incredible fungi are the answer to many of these issues.

The important key is that medicinal mushrooms have the ability to manage cellular communication between the immune system and that of mutating cells. This mechanism of action is the job of NK—killer cells—that secrete an enzyme called apoptin that will trigger apoptosis (natural cell suicide). This is a function coming from several constituents that exist within the mushroom mycelia and some fruiting bodies. These structures, such as beta glucans 1-3, 1-4, 1-6 and alpha glucans, polysaccharides and D-Fraction—just to name a few—are the keys to assisting and maintaining an immune
response in the normal range.

One of my favorite mushrooms is Lion’s Mane, which research has shown to be of great benefit to mental function, mental acuity, supporting the body during Parkinson’s, MS and some neuropathies. Lion’s Mane is crucial for the aging client wanting to maintain memory recall as well as protecting the blood brain barrier from viral attack.

A few of the new kids on the block are Chaga and Agarikon. Chaga is currently recognized for its excellent antioxidant and anti-inflammatory qualities. In addition, a recent study was performed in the UK, using the Host Defense® Chaga, which documented Chaga’s great promise as a major player in supporting digestion in the normal range by affecting various inflammatory bowel issues. Today, so many of our clients/customers are being affected by these issues which can be a result of lifestyle choices and environmental toxicity.

Agarikon was known during the time of ancient Greece as the “elixir of long life.” By keeping our hormone functions operating in the normal range, it has been shown in science to extend our life cycle, thus allowing us to age more gracefully. The real power of Agarikon lies in its ability to act as a potent anti-viral. Current research is showing its ability to eliminate tuberculosis (which during ancient Greek times was referred to as consumption). In turn, this mushroom requires us to be good stewards of its use as it is becoming extremely rare and is critical to life in precious Old Growth Forests. Because of this, you might even say it is critical to our natural immune defense (as well as national defense).

We are at a critical stage on this blue globe of ours, in that we are now more exposed to multiple life-threatening and unhealthy toxins in our air, water and food. We must remain vigilant by supporting that delicate dance of our cellular being all year long and medicinal mushrooms are some of the strongest allies we have.

References


