

## Fermented Foods and Enhancement of Immune System

Rabab M.H.A. Madany

Microbiology & Molecular Biology, College of Science, Alexandria University, Egypt

Corresponding author: dr\_r\_2014@yahoo.com

---

### Abstract

Functional food is known as a food, either natural or formulated, which enhances physiological performance or prevent or treat diseases and disorders. Functional foods include those items developed for health purposes as well as for physical performance. Nowadays, Probiotics and prebiotics, as functional foods, are both pretty big topics in nutrition due to their importance for human health. However, they play different roles. Probiotics are live bacteria found in certain foods or supplements. They can provide numerous health benefits, whereas, prebiotics are the important ingredients for supporting the bacteria growth. Many studies showed that there are many benefits health effect of probiotics: improvement of lactose intolerance phenomenon, cholesterol reduction, antidiarrheal and anticarcinogenic agents. Therefore, research in the probiotic areas has progressed considerably and significant advances have been made in the selection and characterization of specific probiotic cultures and substantiation of health claims relating to their consumption. Fermented dairy products are generally considered to be one of the most suitable vehicles for the administration of an adequate number of probiotic microorganisms. Our related studies to this concern were focused on the therapeutic properties of two different fermented food probiotic products. The first probiotic product was fermented camel milk fortified with dates, while the second one was aged black garlic which is known as a type of fermented garlic. The experiments were carried out on model systems of experiment animals. Results of both studies showed remarkable findings since both fortified fermented camel milk and fermented black garlic had significant effects on enhancement of humoral immune system meanwhile fermented black garlic had more hepatoprotective and antioxidant effects.

**Keywords:** Fermented Foods, Probiotics, humoral immune system

---