AIDS


Bishop, GA, Haxhinasto, SA, Stunz, LL, Hostager, BS. Antigen-specific B-lymphocyte activation. Critical Reviews in Immunology 23(3):159-197 (2003). B cells have the exclusive ability to produce and secrete immunoglobulins of various types. They also function in antigen presentation and the production of cytokines and chemokines.

Boldogh, I, Liebenthal, D, Hughes, TK, Juelich, TL, Georgiades, JA, Kruzel, ML, Stanton, GJ. Modulation of 4HNE-mediated signaling by proline-rich peptides from ovine colostrum. Journal of Molecular Neuroscience 20(2):125-134 (2003). PRP, also known as colostrinin, induces mitogenic stimulation as well as a variety of cytokines in peripheral leukocytes. It also possess antioxidant activity in pheochromocytoma (P12) cells, a cancer cell line used for in vitro studies. PRP was shown to reduce the amount of 4HNE-protein adducts, reduce intracellular levels of reactive oxygen species, inhibit 4HNE-mediated glutathione depletion, and inhibit 4HNE-induced activation of the molecular signal cascade which results in the production of c-Jun N-terminal kinase (JNK) in P12 cells. This shows that PRP acts as both an antioxidant and a molecular signaling device.


Effects of Oral Dietary Supplementation with Ai/E¹º® Upon Natural Killer (NK) Cell Activity in a Healthy Human Population. Quantum Research, Inc., Scottsdale, Arizona (2001). Dialyzable Leukocyte Extract (DLE) was administered to 12 healthy male and female subjects aged 24-63. Natural Killer (NK) cell activity was prior to initiation of the study and after completion of the study. NK cell activity averaged 30 lytic units (LU) prior to the study and 101 LU following the study for an average increase of 207%. An Examination of Immune Response Modulation in Humans by Ai/E¹º® Utilizing A Double Blind Study. Immune Consultants, Inc., Tucson, Arizona (2001). 20 subjects, 10 men and 10 women, ranging in age from 32-61 participated in a double blind study in which 10 received DLE and the other 10 received placebo. 7 of the 10 receiving the DLE had a significant increase in three major immune markers: NK cell activity, TNF-a levels, and phagocytic index (PI), an indicator of macrophage activity. Those receiving placebo had mixed results.

Eggena, MP, Barugahare, B, Jones, N, Okello, M, Mutalya, S, Kityo, C, Mugyenyi, P, Cao, H. Depletion of regulatory T cells in HIV infection is associated with immune activation. Journal of Immunology 174(7):4407-4414 (2005). Immune activation during chronic HIV infection is a strong clinical predictor of death and may mediate helper CD4+ T cell depletion. Regulatory T cells actively down-regulate immune responses. In a study using 81 Ugandan volunteers, it was found that depletion of regulatory T cells occurs at different rates than other CD4+ T cells, resulting in an increased regulator to helper ratio in many patients with advanced disease. This skewing may contribute to T cell effector dysfunction.
Floren, CH, Chinenye, S, Elfstrand, L, Hagman, C, Ihse, I. ColoPlus, a new product based on bovine colostrum, alleviates HIV-associated diarrhea. Scandinavian Journal of Gastroenterology 41(6):682-686 (2006). HIV-associated diarrhea is common in AIDS patients in developing countries particularly. It is a major contributory factor in the decrease in the helper CD4+ T-cell population. ColoPlus is a product derived from bovine colostrum which is rich in immunoglobulins, growth factors, antibacterial peptides and nutrients. It is specially designed for slow passage through the gastrointestinal tract and high nutritional value. The study was undertaken to see if oral doses of ColoPlus could influence HIV-associated diarrhea. The study was done in Nigeria and included 30 patients with HIV-associated diarrhea. The patients were treated for 4 weeks in an open-labeled, non-randomized trial. Results of the study showed a marked reduction in stool evacuations per day from 7+2.7 to 1.3+0.5, a decrease in self-estimated fatigue of 81%, an increase in body weight of 7.3 kg per patient, and a 125% increase in CD4+ count.


Janusz, M, Staroscik, K, Zimecki, M, Wieczorek, Z, Lisowski, J. A proline-rich polypeptide (PRP) with immunoregulatory properties isolated from ovine colostrum. Murine thymocytes have on their surface a receptor specific for PRP. Archivum immunologiae et therapiae experimentalis (Warszawa) 34(4):427-436 (1986). PRP has immunoregulatory properties. It induces the maturation of thymocytes into mature helper or suppressor T cells.


Pizza, G, Chiodo, F, Colangeli, V, Gritti, F, Raise, E, Fudenberg, HH, De Vinci, C, Viza, D. Preliminary observations using HIV-specific transfer factor in AIDS. Biotherapy 9(1-3):4-47 (1996). 25 HIV infected patients at various stages (CDC stages II-IV) were treated with HIV-specific transfer factor (PRP) for periods of 60-1870 days. All patients were receiving antiviral treatment as well. Clinical improvement or a stabilized clinical condition was observed in 20 of the 25, and 12 of 14 anergic patients showed restored delayed hypersensitivity reactions to recall antigens within 60 days. Treatment was well-tolerated and appears beneficial to AIDS patients.


cryptosporidiosis in AIDS. Department of Infectious Diseases, Hospital for Sick Children, London.


Zimecki, M, Staroscik, K, Janusz, M, Lisowski, J, Wieczorek, Z. The inhibitory activity of a proline-rich polypeptide (PRP) on the immune response to polyvinylpyrrolidone (PVP). Archivum immunologiae et therapiae experimentalis (Warszawa) 31(6):895-903 (1983). PRP administered to a test animal before immunization with PVP inhibits the immune response to this antigen. PRP did this by increasing the activity of suppressor T cells and by increasing the generation of new suppressor T cells.

"Reducing viral levels in the body and stimulating natural immune capabilities holds the most promise in helping our immune systems contain the HIV virus," according to Dr. Nowa and Dr. McMichael in Scientific American.