Metadichol®: A novel ICAM-1 inhibitor

Metadichol (US patent 8,722,093) is a Nano emulsion of long-chain alcohols found in many foods. It is commonly called Policosanol and is present in foods such as rice, sugar cane, wheat, peanuts. Metadichol acts on Nuclear Vitamin D receptors (VDR) (US patent 9,006,292) that are present in cells throughout the body to stimulate the immune system and inhibit a variety of disease processes, resulting from viral infections. Studies with Zucker diabetic rats showed it was an effective ICAM-1 and TNF alpha and NFKB-1 inhibitor. ICAM-1 is the same receptor molecule used by the vast majority of viruses that cause the common cold. We tested for antiviral activity of Metadichol in Vero and MDCK cells infected with Influenza A, H1N1, Human Respiratory Syncytial viruses. Metadichol showed no cytotoxicity and strongly inhibited cell death caused by each of the viruses tested. Metadichol is a safe and effective inhibitor of enveloped viruses in humans. Since it is known to bind to the vitamin D receptor (VDR) (US patent 9,006,292), its mechanism of action likely involves the competitive displacement of virus particles from VDRs on host cell membranes. Because it consists of natural components of common foods and has no known negative side effects, Metadichol has the potential to serve as a safe and novel, broad-spectrum antiviral treatment for enveloped viruses.

Biography

Palayakotai Raghavan is the CEO and Founder of Nanorx Inc., USA. He has completed his PhD in Organic Chemistry from Oregon State University in 1979 and MS in Chemistry in 1972 from IIT Mumbai, India. He has worked on drug discovery for over 25 years at Columbia University, Max-Planck Institute, Germany, Ciba-Geigy (now Novartis) and Boehringer Ingelheim. He has over 12 patents and another 15 pending patent applications.

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