Metadichol®: A novel VDR inverse agonist and applications in skin diseases

Metadichol (US patents 8,722,093 and 9,043,383) is a nano emulsion of long-chain alcohols found in many foods that is present in foods such as rice, sugar cane, wheat, peanuts. The skin is unique in being not only the source of vitamin D for the body but also capable of responding to the active metabolite of vitamin D, 1,25(OH)2D. Both 1,25(OH)2D and its receptor (VDR) play essential roles in the skin. The unique relationship that entangles vitamin D to dermatology. On one hand, our skin is one source for this important vitamin and on the other hand all available data point to its important impact on the health of our skin and the involvement of its deficiency in the pathway of many dermatological diseases. Metadichol acts as inverse/Protean agonist on Nuclear Vitamin D receptors (VDR) that are present in cells throughout the body to stimulate the immune system. VDR signaling has been shown to be important in the immune system as well as the skin, particularly in keratinocytes, regarding skin Homeostasis and epidermal barrier function. Metadichol also shows cross reactivity against other nuclear receptors and how this leads to mitigation of skin infections including gene expression analysis and human clinical case studies will be presented.

Biography

P R Raghavan is the CEO of Nanorx Inc. He has completed his PhD in Organic Chemistry from Oregon State University (1979) and an MS in Chemistry (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 15 US and international patents and another 15 pending patent applications.

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