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Retinoic acid showed a preventive effect on the development of chemically induced mouse skin tumors. Papillomas and carcinomas were induced by topical application of dimethylbenzanthracene and croton oil. Retinoic acid delayed the appearance and reduced the incidence of benign papillomas as well as of malignant squamous cell carcinomas of the skin. (The SC1 indicates that this paper has been cited in over 285 publications, making it this journal's most-cited paper.)

more selective therapeutic activity than the parent physiological substance. Eventually, Hoffmann-La Roche's management decided in favor of the retinoid project.

I believe that the reason my paper on vitamin A acid (1972) and subsequently those on cancer chemoprevention and therapy with an aromatic retinoic acid analog2,3 have been cited so frequently was succinctly expressed in 1976 by M.B. Sporn et al.: "The first successful efforts which have demonstrated that synthetic retinoids can be more potent and less toxic than natural retinoids for prevention of cancer have very recently been made by Bollag."4 In fact, this paper opened up the new concept of chemoprevention of cancer by synthetic retinoids.

At that time, in 1972, we had already synthesized, biologically tested, and patented hundreds of new retinoids, mainly for prevention and therapy of tumors, but also for dermatological diseases.

My dream was to eliminate as many side effects as possible by changing the various building blocks of the vitamin A molecule and by finding compounds with highly selective effects on proliferation, differentiation, prevention and therapy of premalignant and malignant lesions (including organ site affinity), keratinization, sebum production, inflammation, and immune reactions. Parts of my dream have been fulfilled, since each newly discovered retinoid possessed its own unique spectrum of therapeutic properties and side effects. In the field of dermatology, clinically useful compounds have been detected, including isotretinoin for the treatment of severe cystic acne and etretinate for treatment of diseases of keratinization. These retinoids also proved to be active to a certain degree in the prevention and therapy of premalignant and malignant lesions of skin and mucous membranes. New compounds inducing only minor side effects and exerting highly selective activity, for example, in the prevention and therapy of mammary cancer, have been discovered.5 Innumerable publications confirm the enormous interest in basic and applied, experimental and clinical retinoid research with respect to oncology6-7 and to other disciplines of medicine, such as dermatology, rheumatology, and immunology.

Honors received for the discovery and development of synthetic retinoids include a cancer research award (Switzerland, 1971), a cancer research award from the American Academy of Dermatology (1982), a psoriasis research award (US, 1982), the Prix Galien (France, 1984), and an honorary doctorate (Switzerland, 1987).