特別講演「香粧品科学における毒性学の展望」

1. Recent Developments in the Science of Toxicology: Role of Receptors in Chemical Toxicity to the Skin

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Abstract

Some classes of chemicals produce toxic effects in mammal skin as a result of their affecting the concentration of receptors in the skin or the biological events controlled by these receptors. Foremost among these are the chlorinated aromatic compounds typified by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and its isostereomers and the diterpene phorbol esters. TCDD and its analogs bind to the Ah receptor, and other sites, in skin and promote the commitment of proliferating cells to terminal differentiation. The major effect seen is a skin condition called chloracne. TCDD and its analogs as well as the phorbol esters also act as promoters of cancer in mouse skin. The phorbol esters appear to exert their effects, at least in part, by binding to the diacylglycerol binding site on protein kinase C.