

Galectins-1,-3 and -7 are expressed in human epidermis. Galectin-1 and his binding sites are expressed there in the nuclei of cells which are closely related to or are identical with the stem cell population. Expression pattern of galectin-3 is differentiation-dependent in tissue as well as in vitro. Binding sites for this galectin are present in the similar manner. Expression of galectin-7 is not observed in differentiation-dependent manner. Binding sites for this member of galectins family were never observed in the epidermis. Galectin-2 is expressed in the nuclei of fibroblast under stress conditions.

Expression of observed galectins and their binding sites in basal cell carcinoma and in psoriatic plaque refers to the differentiation level. We emphasize the lack of galectin-7 and binding sites for galectin-3 in basal cell carcinoma epithelium. Highly typical is abundant presence of galectin-1 in the stroma of basal cell carcinoma and in dermis of psoriatic plaque. We have also observed the dependence of galectin-7 expression on differentiation of squamous cell carcinoma. This relationship has no correlation to the survival of patients.

The biological activity of stromal fibroblast toward to normal keratinocytes resulting in induction of „cancer-like“ phenotype is the highlight of this study.