Title: Study of gene expression profiling in pathological scarring tissues

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Pathological scars, namely, hypertrophic scars (HSs) and keloids are characterized by excessive proliferation of dermal fibroblasts and overproduction of extraceullar matrix in aberrant wound healing process. Excessive scarring casuses pain, pruritus, and contractures, and significantly affects the patient's quality of life. The molecular pathogenesis of pathological scars is unclear. In this study, the scar tissues and normal tissues were collceted from patients with scar excision surgery. Histopathological and immunohistochemical analysis demonstrated thickness of epidermis, proliferation of dermal myofirbroblasts and overproduction of collagens. The gene expression profiles from normal skin tissues and scar tissues were detected using a microarray technique. The differentially expressed gene data were analyzed by Ingenuity Pathway Analysis (IPA). These differentially expressed genes were associated with the molecular functions such as proliferation of connective tissue cells, differentiation of epidermal cells, and skin formation.

Biography

Ming Han Li graduated from Department of Microbiology and Immunology of National Cheng Kung University in 2008. He worked in Botanical Drug Technology Division, Biomedical Technology and Device Research Laboratories, Industrial Technology Research Institute of Taiwan from 2009 to 2019. His working experiences involved in molecular cell biology, immunology, and development of Chinese herbal medicine.

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