

Investigation on active compounds of hair growth from forest bioresources

Ryuichiro Kondo

Laboratory of Systematic Forest and Forest Products Sciences, Faculty of Agriculture, Kyushu University

The investigation of bioactive natural products has, in recent years, assumed a greater sense of urgency in response to the expanding human population and its subsequent demands for food, cosmetics, good health, and increasing areas of land on which to live. It has so far been known a lot of hair regrowth promoters of that the efficacies are mainly the stimulation of blood circulation and the vasodilatation. Recently the basic researches for hair growth and hair follicle cycle have been rapidly improved by the progress of cell culture technique and genetic engineering. In general the following factors have been mentioned as probable causes on hair loss: the hormonal effect of androgen, the inactivation of hair matrix cells, the reduction of blood circulation around hair follicle and so on. The purpose of this investigation is to identify extracts or components from plants having proliferating effects on mouse hair epithelial cells.

The proliferation activity of 49 samples prepared from extract of heartwood was examined. The extracts from *Cercidiphyllum japonicum* showed proliferation activity on hair epithelial cells by [³H] thymidine uptake assay. Structure- activity investigation suggested that catechol structure is important for expressing ability of proliferation activity on hair epithelial cells.