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Effects of active compounds from *Turpinia formosana* on osteoblast cellsMei-Hsien Lee, Yi-Fiang Wang and Zuha Imtiyaz
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Turpinia formosana belongs to Staphyleaceae family; it is endemic to Taiwan and is found in the hilly areas. The plant is a small evergreen shrub. The following study starts with the extraction, which was done by using 95% ethanol from the leaves of the plant and later the fractionation was done using various solvents n-hexane, ethyl acetate (EtOAc) and n-butanol (n-BuOH). The isolated compounds were identified by using different physical and spectroscopic properties. Six compounds including one new ellagic acid derivative from EtOAc layer and five known compounds classified as hydrolysable tannins from n-BuOH layer were obtained. Effects of isolated compounds were determined on the human osteoblast (HOb) cells and the compounds giving the viability more than 80% were taken into positive consideration. Further, ALP activity and mineralization ability of the CP-1 (new compound) and CP-2 was evaluated in order to elucidate their effect and efficacy on HOb cells. And we observed that the new compound which is an ellagic acid derivative (CP-1) showed more ALP activity as well as mineralization which was found to be 119.58% and 128.99%, respectively. Because of all these properties which prove to be more promising in CP-1, it seems that CP-1 can be the potential therapeutic target for further research and can prove to be another milestone in the treatment of osteoporosis.

Biography

Mei-Hsien Lee is a Professor in Graduate Institute of Pharmacognosy in Taipei Medical University, Taiwan. Her research interest are Chinese herbal medicine Translational Research, Pharmacognosy, Chinese herbal medicine, Chinese medicine chemical, Active natural products chemistry, Functional cosmetic raw materials and active R & D. She was appreciated by various awards.

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