

Classification and prediction of therapeutic compositions of a number of plants

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Abstract: From the past, people believed plants had medical effects and have been used them for medical purposes. In modern ages, many researches proved that plants have important compounds that could serve as medicine. For this purpose, we used five different plants, including *Anthemis tinctoria*[1], *Coriandrum sativum*[2], *Curcuma longa*[3], *Eucalyptus globulus*[4] and *Lavandula angustifolia*[5] to analyse important compounds and look for possible medical candidates. The method we used in this article is searching and find essential oil compounds with considerable concentrations by using different articles and use PubChem databases to find the Canonical smiles form of them and after that using this information as an internal data onto it-mISF to achieve a multi-label classifier to predict the classes of anatomical therapeutic chemicals and find possible ATC classifications. The results prove that each plant has different chemical groups that influence on special receptors and tissue. *Anthemis tinctoria* mainly can make effects on dermatological, cardiovascular system and Alimentary tract and metabolism. *Coriandrum sativum* is fairly same and also can make some effects on Systemic hormonal preparations, excluding sex hormones and insulins and Nervous system. As the results prove, herbs can influence on many organs and group of receptors, thus further researches can help us to find out other aspects and may lead to new cures for diseases by means of plants.[1]

Keywords: phytochemicals; Chemical oil composition; Bioinformatics

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