Seminar by

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Friday, December 19, 2014

Time : 10:30 - 12:00
Location : Center Bldg, Level B, B503
Title : Discovery of useful bioactive compounds from microorganisms

Our research group has focused on discovery of new bioactive compounds from microorganisms. Particularly, I have been interested in inhibitors of lipid metabolism which is closely linked to various diseases.

In the seminar, our experience about fungal pyripyropene A study will be presented.

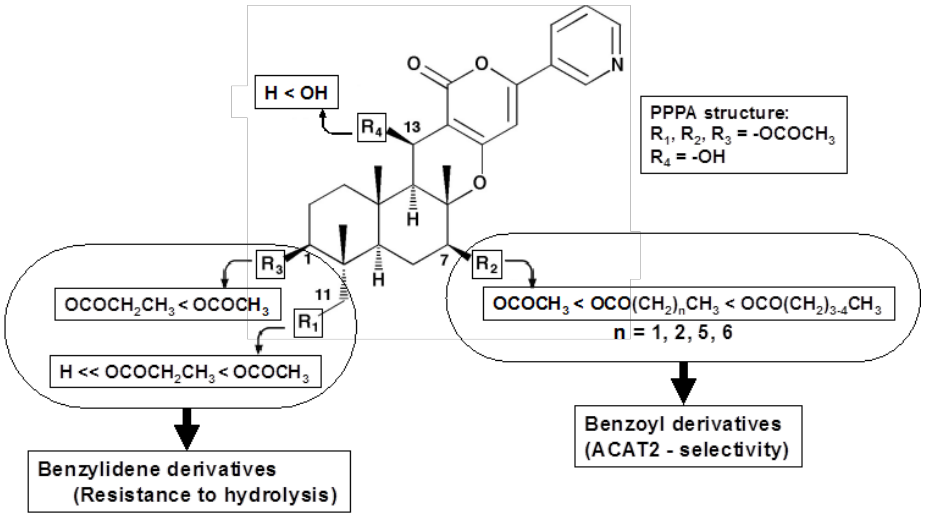
Story about pyripyropene A (PPPA)

(1) PPPA was originally isolated as a potent inhibitor of acyl-CoA:cholesterol acyltransferase(ACAT) from a culture broth of Aspergillus fumigatus FO-1289.

(2) Two ACAT isozymes, ACAT1 and ACAT2, were identified and have a distinct function in mammals. PPPA was found to be the first ACAT2-selective inhibitor.

(3) PPPA proved orally active in atherogenic mouse models.

(4) PPPA derivatives with more potent and more ACAT2-selective inhibitory activity were discovered. They showed more effective than PPPA in the mouse models. We believe the PPPA derivatives are promising as a post-statin drug.



SAR for development of PPPA derivatives

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