

S15-3 Search for anti-diabetic constituents from medicinal foods

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Many foods are known to have not only nutritive and taste values but also medicinal effects. In traditional Chinese medicine, the treatment using medicinal foods have been recommended highly. During the course of our characterization studies on the bioactive constituents from natural medicine, the

constituents of several medicinal foods were found to show anti-diabetic effects. In this time, we focus on the anti-diabetic effects (including structure-activity relationships and mode of action) of (1) acylated saponins [ex. floratheasaponin A (3)] from the flower buds of *C. sinensis*, which is used as a food garnish in Japanese-style dishes: e.g. “botebotecha” in Shimane prefecture, (2) salacinol and its derivatives from *Salacia* species, which is widely distributed in tropical regions as India, Sri Lanka, Thailand, (3) amide constituents [ex. retrofractamide A (1)] from fruit of *Piper chaba* (syn. *P. retrofractum*, Piperaceae), (4) coumalin constituents [ex. hydrangenol (2)] from the processed leaves of *Hydrangea macrophylla* var. *thunbergii* (Hydrangeae Dulcis Folium), which is listed in Japanese Pharmacopoeia XV and used as a sweetening agent for diabetic patients.

