



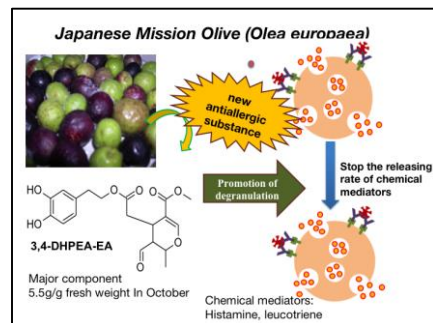
Rapid isolation and purification method for investigation of functional food components in foods.

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Key Words : Flavor chemistry, Supramolecular technique, anti-allergy, Antioxidants, anti-tumor promotion, anti-obesity

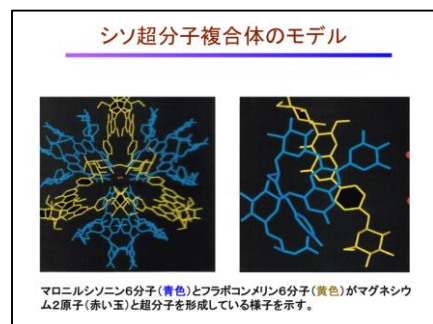
1. Physiological function of foods materials

Objectives of my research are to focus on development of new technology for isolation and evaluation of physiologically important food ingredients which are produced in local regions in Japan and other countries. Traditional foods bearing physiological functions are our target materials and then collect database and provide the nutraceutical benefits to the local industries. Currently, we succeeded in isolation of antitumor promotion activity, anti-allergic activity, anti-obesity in local products, specially wasting materials from olive, grape, *Perilla* leaves, yacon leaves and so on



2. Supramolecular Food Chemistry for isolation of polyphenols.

Supramolecules are defined as molecule associated with van der Waals force, ionic bond hydrogen bonding and so on without covalent bonding. This self-association molecular can be applied in food chemistry and isolation of polyphenols without any sophisticated instruments. We succeeded in isolation of *Perilla* extracts and important food components by this method.



3 . Flavor analysis

Aroma is one of essential food functions. Flavor is composed of thousands of trace amounts of compounds and form the characteristic aroma and tastes. Sensation of aroma and tastes has different the impacts on individual judgments. So, scientific approach was difficult. By means of Limited odor unit (Lod) concept, we succeeded in the characterization of citrus, vanilla, coriander and other food aromas. Lod gives just us the information on aroma intensity of each components.



Main research papers

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