

## Effect of edible mushroom on melanoma cells

**Reiko Nagasaka**

*Food Chemistry and Functional Nutrition, Department of Food Science and Technology, Graduate School of Marine Science and Technology*

Commercial mushrooms processing can produce about 100 kg of trimmings waste in Japan daily. Make use of such materials for applications could alleviate concerns on agricultural waste disposal. We already revealed that edible mushroom (*Flammulina velutipes*) extract inhibited melanosis in commercially raw fish, shellfish, and meat. We conducted to find the whitening activity compounds in edible mushrooms used for skin-whitening purpose and considered their mechanisms in melanin biosynthesis. In humans, skin pigmentation results from the synthesis and distribution of melanin, besides tyrosinase is a key enzyme for melanin biosynthesis. These days many cosmetics of skin-whitening are popular among women. This study demonstrated that melanin synthesis and tyrosinase content of B16/BL6 melanoma cells suppressed by mushroom extract. These results suggested that mushroom extract could be considered an alternative therapeutic agent for treating hyperpigmentation and an effective component in whitening cosmetics.