

**P55 Antitumor compounds from fruiting bodies of cultivated fungus
of *Paecilomyces japonica***

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As part of our continuing attempts to evaluate biologically active compounds from fruiting bodies of cultivated fungus of *Paecilomyces japonicus* Yasuda, we conducted series of experiments on various fractions and compounds isolated by systematic fractionations. Our main efforts were concentrated on searching for compounds showing antitumor activities, which were tested on mice carrying Sarcoma-180 ascitic tumor. The antitumor activity was assessed by the life spans after these mice were administered i.p. with test compounds for consecutive 20 days. One of two pure compounds, which we have isolated to date, demonstrated significant prolongation of life span. (Mean Survival Time: 30.3 days compared to that of control: 23.6 days). Structural analysis showed that this compound corresponds to D-mannitol. On the other hand, Ergosterol, another isolated pure compound didn't show efficient antitumor activity. We also obtained water-soluble fractions containing protein-bound polysaccharides and n-butanol fractions, which showed strong antitumor activities, 35.4(150%) and 32.1(136.0%) days of MST, respectively. In SRB assay, however, the test materials didn't show any toxic effects, but the level of acid phosphatase increased significantly when they were applied in cultured macrophage in vitro. Therefore, we concluded that antitumour activities might be attributed to immunostimulating rather than cytotoxic effects. Further experiments are underway to purify and structurally characterize new antitumour compounds from the active fractions.