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IMMUNOCHEMOTHERAPY OF MURINE AND HUMAN TUMORS WITH ADRIAMYCIN AND POLYSACCHARIDES ISOLATED FROM *PHELLINUS LINTEUS*.

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It was previously reported that polysaccharide (Mesima) isolated from *Phellinus linteus* stimulated cell mediated and humoral immunity. This study was undertaken to investigate the immunochemo-therapeutic activity of Mesima against tumor growth and metastasis. Mesima alone prolonged the survival rate of B16F10-implanted mice inhibited tumor growth in NCI-H23-implanted nude mice, and reduced the frequency of pulmonary metastasis of B16F10 melanoma. Adriamycin inhibited tumor growth, but only slightly inhibited metastasis. In immunochemotherapy with Mesima and adriamycin tumor growth was inhibited in a synergistic manner, but antimetastatic potency was antagonized by adriamycin. Adriamycin showed strong direct cytotoxicity against cancer cells, but Mesima dose not show cytotoxicity. Mesima might be of use in immunochemotherapy of cancer because of its effective therapeutic activities on tumor growth and metastasis through the immunopotentiation of the patients without toxicity

S6-4

ISOLATION AND CHARACTERIZATION OF FIBRINOLYTIC ENZYME FROM KOREAN MUSHROOMS

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A fibrinolytic enzyme has been isolated and purified from the edible honey mushroom, *Armillariella mellea*. The apparent molecular mass of purified enzyme was estimated to be 19800Da by SDS-polyacrylamide electrophoresis and 19900Da by gel filtration, indicating that it is a monomer. N-terminal amino acid sequence, X-X-T-N-G-X-T-X-S-R-Q-T-T-L-V, do not match any known protein or open reading frame, α chain of human fibrinogen was degraded faster than β and γ chain. The fibrinolytic activity was highly inhibited by the metalloprotease inhibitors EDTA and 1,10-phenanthroline, indicating that the enzyme is a metalloenzyme. The enzyme include Zn^{+2} as determined by ICP/MS. It has a pH optimum at pH 7, suggesting that the purified enzyme was a neutral proteinase. It shows the maximum fibrinolytic activity at 55℃, completely inactivated above 65℃, and still shows 40% of activity at 37℃.