



**BIOCHEMICAL STUDIES ON THE EFFECT OF FRUIT
BODIES, MYCELIA AND ISOLATED POLYSACCHARIDES
FROM EDIBLE MUSHROOM ON TUMOURS
TRANSPLANTED IN MICE**

Thesis Submitted By :

Ayman Sami Daba

(B. Sc. Biochemistry, 1990)

In Partial Fulfillment of the Degree of Master of Science
In Biochemistry

59260

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*I dedicate this thesis to my beloved parents , sister
and fiance whom I honor and cherish. Their overwhelming joy
undoubtedly greatly exceeds my own in attaining my M.Sc
degree .*

To them, I owe everything

Thank you .

I declare that this thesis has been composed by myself
and the work of which it is a record has been done by myself.
It has not been submitted for a degree at this or any other
University .

Ayman Sami Daba

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LIST OF ABBREVIATIONS

ALP	: Alkaline phosphatase
ALS	: Antilymphocyte serum
APPIF	: Acute phase protein inducing factor
BRM	: Biological response modifier
B.W	: Body weight
CTL	: Cytotoxic T lymphocyte
CSF	: Colony stimulating factor
EAC	: Ehrlich ascites carcinoma
FER	: Food efficiency ratio
HDP	: Host defense potentiator
IL	: Interleukin
ILS	: Increase in life span
i.p.	: Intraperitoneal
IR	: Infrared
i.v.	: Intravenous
K Cal	: Kilo calorie
KD	: Kilo Daltons
LD50	: Acute median lethal dose
MAF	: Macrophage - activating factor
MST	: Mean survival time
NK	: Natural killer
NMR	: Nuclear magnetic resonance
PBS	: Phosphate buffered saline
PDA	: Potato dextrose agar
PER	: Protein efficiency ratio
P. ostreatus	: Pleurotus ostreatus
PSP	: Polysaccharopeptide
T / C	: Tumor growth rate in treated tumored group compared to the control group

ABSTRACT

BIOCHEMICAL STUDIES ON THE EFFECT OF FRUIT BODIES, MYCELIA AND ISOLATED POLYSACCHARIDES FROM EDIBLE MUSHROOM ON TUMOURS TRANSPLANTED IN MICE

Ayman Sami Daba

Pleurotus ostreatus NRLL 0366 mushroom fruit bodies and mycelia were cultivated on semi solid and liquid medium of date and mango wastes. Extraction and purification of polysaccharides from fruit bodies and mycelia were performed. The amount of purified polysaccharide was 5.1 and 3.7g from each kg of fresh fruit bodies and mycelia, respectively. The physicochemical properties of the extracted polysaccharides were extensively investigated. The antitumor activity of mushroom fruit bodies and the isolated polysaccharides against Ehrlich solid carcinoma and biochemical studies were carried out.

Key words.: Mushroom fruit bodies, mycelia, polysaccharide, date wastes, carcinoma.

