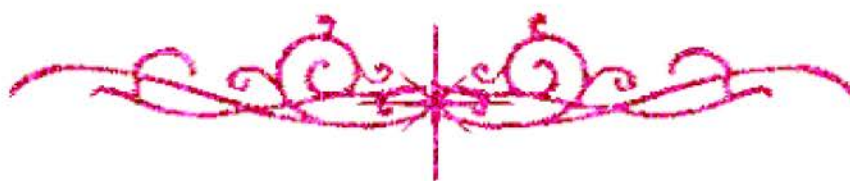


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شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



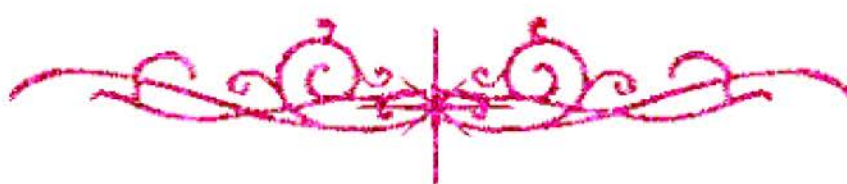
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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



سامية محمد مصطفى



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

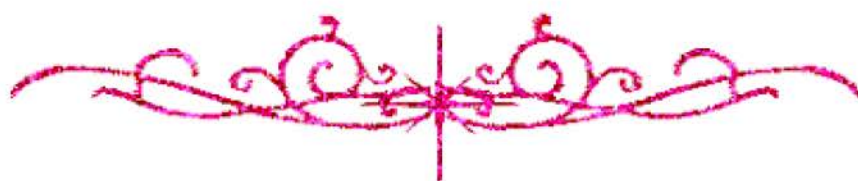
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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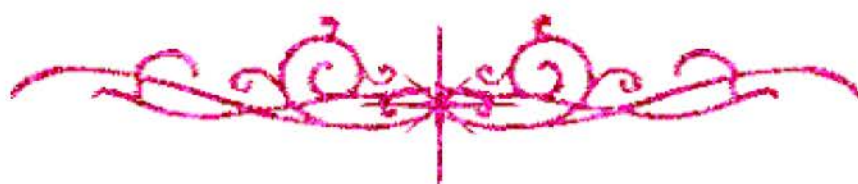
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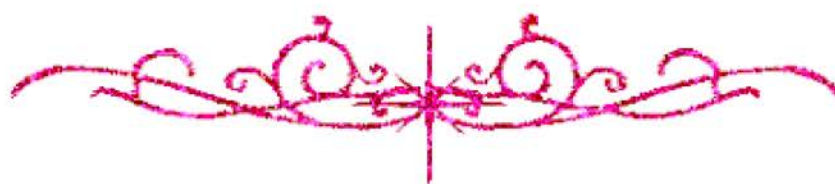
سامية محمد مصطفى



شبكة المعلومات الجامعية



بالرسالة صفحات لم ترد بالأصل



**QUANTIFICATION OF SERUM IL-6 AND IL-12 LEVELS
AMONG BREAST CANCER PATIENTS**

*Thesis Submitted in the partial fulfillment of the requirements
of master degree in Microbiology*

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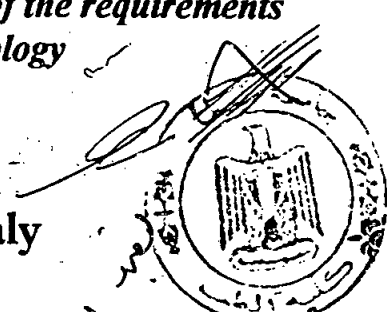
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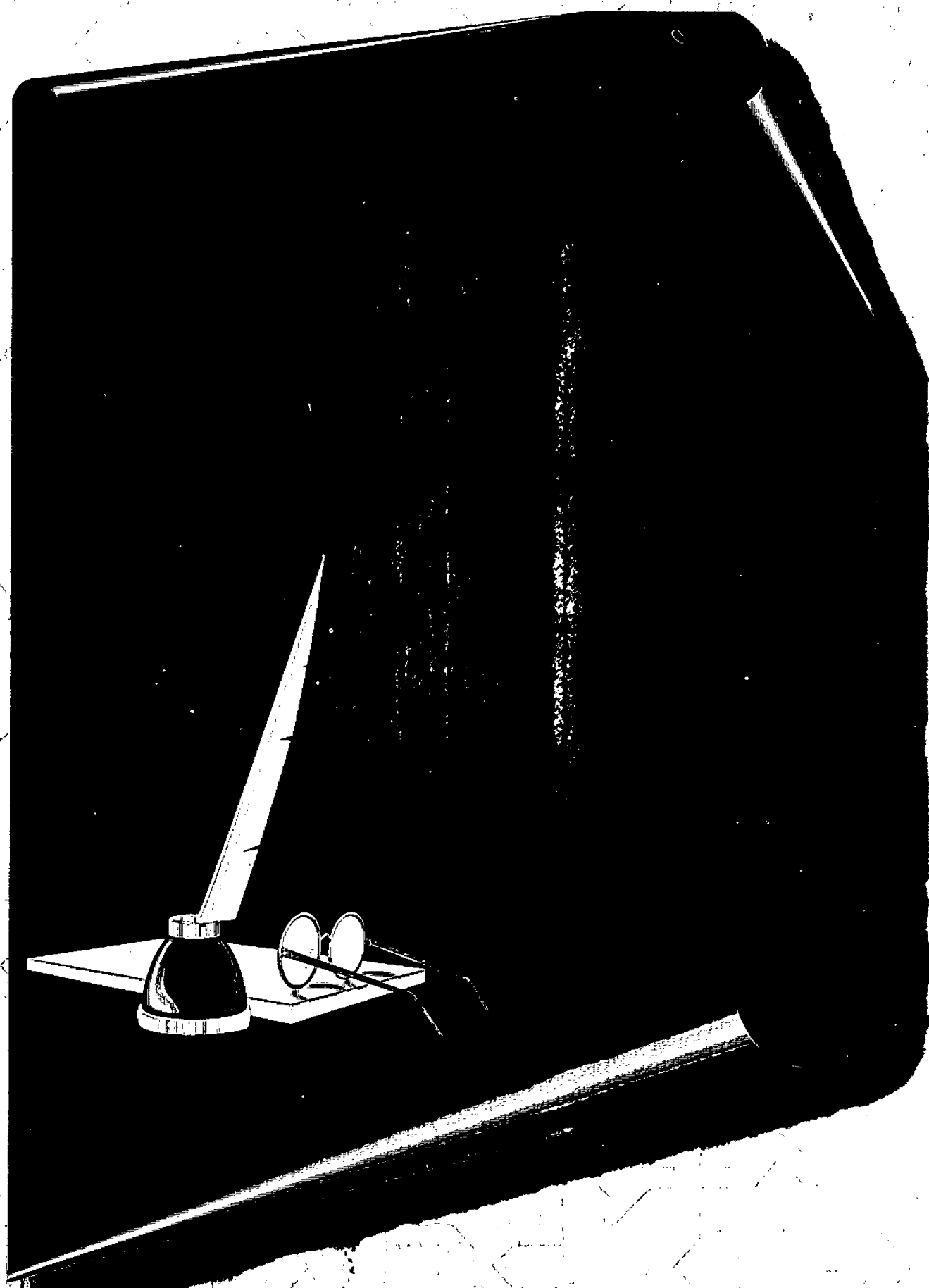


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S.A. Salem

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا بِمَا عَلَّمْتَنَا
إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ*

صدق الله العظيم

البقرة الآية (٣٣)

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List of abbreviations

Abbreviation	Meaning
ADCC	Antibody - Dependent Cell Cytotoxicity
AIDS	Acquired Immune Deficiency Syndrome
AML	Acute Myeloid Leukemia
APC	Antigen - Presenting Cells
BC	Before Christ
CAF	Cyclophosphamide And 5 Flurouracil
CEA	Carcino Embryonic Antigen
CLMF	Cytotoxic Lymphocyte Mutation Factor
CMF	Cyclophosphamide, Methotrexate and 5 Flurouracil
CNTF	Ciliary Neutrophic Factor
CT	Computed Tomography
CTLs	Cytotoxic T Lymphocytes
CTMB	Chromogen tetra-methyl benzidine
EBV	Epstein Barr Virus
ELISA	Enzyme Linked Immunosorbant Assay
ER	Estrogen receptor
ER(-)	Estrogen Receptor negative
ER(+)	Estrogen Receptor positive
FNAB	Fine Needle Aspiration Biopsy
GM-CSF	Granulocyte Monocyte- Colony Stimulating Factor
HIV	Human Immunodeficiency Virus
HRP	Horseradish peroxidase
HTLV	Human T cell Leukemia Viruses
IFN	Interferon
IFN γ	Interferon- γ

Ig	Immunoglobulin
IL-12	Interleukin -12
IL-12 RB1	Interleukin-12 receptor B1
IL-12 RB2	Interleukin-12 receptor B2
IL-6	Interleukin -6
IL-6 sR	IL-6 soluble Receptor
IRMA	Immunoradiometric assay
LIF	Leukemia Inhibitory Factor
LN	Lymph Node
LPs	Lipopolysaccharide
MAPK	Mitogen-Activated Protein Kinase
MHC	Major Histocompatibility Complex
NK	Natural Killer
NKSF	Natural Killer Stimulating Factor
NSABP	National Surgical Adjuvant Breast Project
OSM	Oncostatin M
PI-3K	Phosphatidylinositol-3 Kinase
PR	Progesteron receptor
SV40	Simian vacuolating virus 40
TC	T cells
TGF	Transforming Growth Factor
TGF β	Tumor Growth Factor β
Th	T helper
TLa	Thymus- Leukemia antigen
TNF	Tumor Necrosis Factor
TNM	Tumor, Node and Metastasis
Ts	T suppressor
TSA	Tumor Specific Antigens
α - FP	Alpha - Fetoprotein



Introduction



INTRODUCTION

Breast cancer is one of the most fatal and common diseases affecting women in developing countries. [Montagna et al, 1996]

Multifunctional cytokines play an important but only partially defined role in mammary tumor development and regression.

Transformation of mammary epithelial cells different oncogenes is frequently associated with alteration of cytokines production and responsiveness. [Fontanini et al, 1991]

Interleukin-6 a multifunctional regulator of immune response, hematopoiesis, and acute phase reactions has also been shown to regulate cancer cell proliferation. [Hirano, 1998]

Studies has shown that Interleukin-6 cytokine induces activation of RAS/MAPK pathway in some instances, dependant on cross link with ErbB receptors tyrosine kinases. Aberrant expression of members of the ErbB receptors kinase family, which is observed in a variety of human tumors, has been linked to abnormal growth and transformation. [Hynes and Stern, 1994] and [Salmon et al, 1995]

Interleukin -6 cytokine has divers action on breast cancer cell lines, including changes in morphology, decrease cell-cell association, and inhibition of cell proliferation. [Douglas et al, 1997]

Although little is known about IL-6induced signal transudation in breast cancer, observation suggests that this cytokine might be in regulating the growth of these cancer cells. [Badache and Hynes, 2001]

The cytokine IL-12 is known to be a key cytokine for regulating immune response, but it is also known to provide some other biological function including inhibition of angiogenesis. [Toi et al, 1999]

IL-12 plays a key component in numerous immune functions including stimulation of T cells and NK cells and regulation of several cell adhesion molecules. [Rabinowich et al, 1993]

IL-12 directly up regulates the expression of Fas (CD95-APO-1), a cell surface molecule capable of inducing ligand-mediated apoptosis on breast cancer cell. [Nagata, 1997]

Fas mediated apoptosis has been implicated as a potential regulator of tumor development, outgrowth and metastasis. [Lafleur et al, 2001]