

**SERUM YKL-40 IN RHEUMATOID ARTHRITIS
AND ITS CORRELATION WITH DISEASE
ACTIVITY**

Thesis submitted in Partial Fulfillment of the
requirements
for the Master Degree in
Physical medicine, Rheumatology and Rehabilitation

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَمَا أُوتِيتُمْ مِّنَ الْعِلْمِ إِلَّا قَلِيلًا

صدق الله العظيم

سورة الإسراء

آية (85)

A decorative border surrounds the text, featuring yellow flowers, green leaves, and red and blue ribbons.

**I would like to dedicate
this work**

**to my parents
because I want to make
them happy**

and

to my little daughter

Farida

**because I want her to be
proud
of her mother**

Thank You

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**Dina
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Ain Shams University Strategic Plan

Vision and Mission

Vision:

Ain Shams University seeks to accomplish excellence in the field of higher education and scientific research on the national, regional, and international levels in an environment of independence, freedom, democracy, and equality; hence, contribute to community service and sustainable development.

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- Merging the culture of total quality and continuous improvement into the educational and research process.
 - Enriching the theoretical and practical knowledge according to
-

ethical, social and cultural standards of the community.

- Disseminating ethics and culture of research.
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 - Supporting continuous learning and distance learning.
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- Activating the role of the specialized centers and units to provide research and consultation services to the community.
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List of abbreviations

ACR	American College of Rheumatology
AFA	Antifilaggrin
AKA	Antikeratin Antibodies
anti-CCP	Antibodies to Cyclic Citrullinated Peptides
APF	Antiperinuclear Factor
ASK-1	Apoptosis Signal regulating Kinase-1
BM	Buccal mucosa
CBC	Complete Blood Count
CHI3-L	Chitinase 3-Like
CLPs	Chitinase – Like Proteins
CRP	C-Reactive Protein
DAS.28	Modified Disease Activity Score
DMARDs	Disease Modifying Antirheumatic Drugs
ESR	Erythrocyte Sedimentation Rate
Filaggrin	Filament – aggregating protein

GM-CSF	Granulocyte Macrophage – Colony Stimulating Factor
HA	Hyaluronic Acid
HC gp-39	Human Cartilage glycoprotein-39
Hgb	Haemoglobin
HS	Highly Significant
IFN	Interferon
IGF-1	Insulin like Growth Factor-1
IL	Interleukin
IL-1RAcP	Interleukin-1 Receptor Accessory Protein
IL-1RI	Interleukin-1 Receptor type I
MAPK	Mitogen Activated Protein Kinase
MCP	Monocyte Chemotactic Protein
MHC	Major Histocompatibility Complex
MMPs	Matrix Metalloproteinases
mRNA	Messenger RNA
NO	Nitric Oxide

NOS	Nitric Oxide Synthase
NS	Non Significant
OA	Osteoarthritis
OD	Optical Density
OPG	Osteoprotegerin
OPG-L	Osteoprotegerin – Ligand
PAD	Peptidylarginine Deiminase enzyme
PBMC	Peripheral Blood Mononuclear Cells
PDF	Platellet – activating Drived Factor
PDGF	Platellet Derived Growth Factor
PG	Prostaglandins
PGA	Patient's Global Assessment
PI3-K	Phosphoinositide 3-kinase
PLT	Platelllets
RA	Rheumatoid Arthritis
RAI	Ritchie Articular Index
RBCs	Red Blood Cells
RF	Rheumatoid Factor
S	Significant

SGOT	Serum Glutamate Oxaloacetate Transaminase
SGPT	Serum Glutamate Pyruvate Transaminase
sTNFRs	Soluble Tumor Necrosis Factor Receptors
TGF- β	Transforming Growth Factor-beta
TLC	Total Leucocytic Count
TNF- α	Tumor Necrosis Factor - alpha
