

Assessment of Potential Roles of Some Molecular Markers in The Diagnosis and Prognosis of Diabetic Nephropathy

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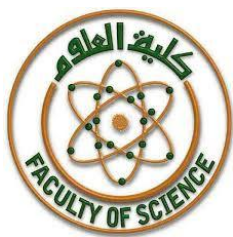
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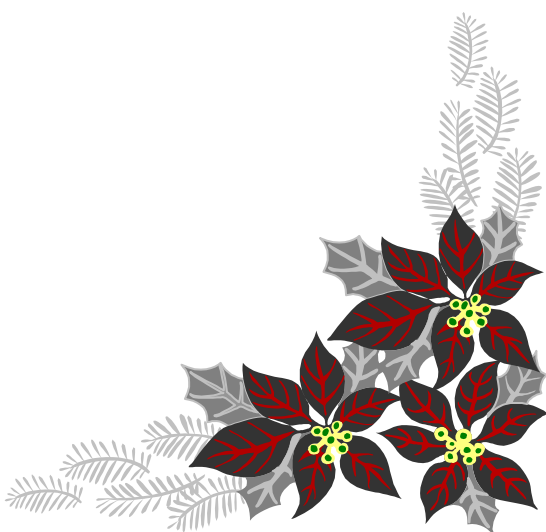


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا
مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ
الْحَكِيمُ"

صدق الله العظيم

(سورة البقرة: ٣٢)



Dedication

*This work is dedicated with all respect and appreciation to
my parents, my brothers and my friends*

Noura M. Darwish

Declaration

I am here to declare that this thesis is my own original work and has not been previously submitted for any degree at this or any other university. I did not make use of another student's previous work and presented it as my own.

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LIST OF ABBREVIATIONS

%	Percentage
μl	Microliter
μM	Micromolar
4-AP	4- aminophenazone
ACR	Albumin creatinine ratio
ADA	American Diabetes Association
ADP	Adenosine-5-diphosphate
AGE	Advanced glycation end products
ANOVA	Analysis of variance
BCG	Bromo cresol green
BMI	Body Mass Index
BP	Blood pressure
DBP	Diastolic blood pressure
SBP	Systolic blood pressure
CHE	Cholesterol esterase
CHOD	Cholesterol oxidase
CKD	Chronic Kidney Disease
CRP	C-reactive protein
Ct	Threshold cycle
DAP	Dihydroxyacetone phosphate
dL	deciliter
DM	Diabetes Mellitus
DN	Diabetic nephropathy
DNA	Deoxyribonucleic acid
ECM	Extracellular matrix
EDTA	Ethylenediaminetetraacetic acid disodium salt
EMT	Epithelial-mesenchymal transition
ESRD	End stage renal disease
EtBr	Ethidium bromide
g	Gram
G3P	Glycerol-3-phosphate
GBM	Glomerular basement membrane
GDM	Gestational diabetes mellitus
GFR	Glomerular Filtration Rate

GOD	Glucose oxidase
GPO	Glycerol phosphate dehydrogenase
H₂O₂	Hydrogen peroxide
Hb	Haemoglobin
HbA1c	Glycated hemoglobin
IDDM	Insulin dependent diabetes mellitus
IDF	International Diabetes Federation
IGT	Impaired glucose tolerance
IL-18	Interleukin-18
Kg	Kilogram
LDL	Low Density Lipoprotein
LPL	Lipoprotein lipase
m	Meter
MDRD	Modification of diet in renal disease
ml	Millilitre
mM	Millimolar
mmHg	Millimetres of mercury
MODY	Maturity onset diabetes of the young
mRNA	Messenger ribonucleic acid
ng/dl	Nano-gram per deciliter
NIDDM	Non-insulin dependent diabetes mellitus
nm	nanometer
°C	Degree celsius
OGTT	Oral glucose tolerance test
PCR	Polymerase chain reaction
POD	Peroxidase
PPARG	Peroxisome proliferator-activated receptor gamma
QPCR	Quantitative real-time PCR
RAS	Renin–angiotensin system
RBC	Red blood cell
RT-PCR	Real time polymerase chain reaction
SCr	Serum creatinine
SD	Standard deviation
SDS	Sodium lauryl sulphate
SEM	Standard Error of Mean
SPSS	Statistical Package for Social Program
T2DM	Type 2 diabetes mellitus