Serum MicroRNA-21(miR-21) as a Diagnostic Biomarker in human ovarian cancer and its relation with Programmed Cell Death 4(PDCD4) protein.

Thesis submitted for partial fulfillment of
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استخدام مصل الحمض الريبونيوكليك متناهي الصغر 21 كدلالة تشخيصية في سرطان المبيض وعلاقته ببروتين موت الخلية المبرمج 4.

رسالة توطئة للحصول على درجة الماجستير في الباثولوجيا الإكلينيكية و الكيميائية

مقدمة من

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3'UTR	3' –untranslated region
Ago	Argonaute
ALP	Alkaline Phosphatase
ALT	Alanine Transaminase
AMO	Oligodeoxyribonucleotide
AP-1	activator protein 1
AR	androgen receptor
ara-C	arabinosyl cytosine
AST	Aspartate Transaminase
ATF2	Activating Transcription Factor 2
AUC	Area under the curve
Bcl-2	B-cell lymphoma 2
B-CLL	B-cell chronic lymphocytic leukemia
BMP4	Bone Morphogenetic Protein 4
BRCA1	Breast cancer type 1
BRCA2	Breast cancer type 2
Btg2	B-cell translocation gene 2
C/EBPα	CCAAT-enhancer-binding proteins
CA	serous cystadenoma
CA II	carbonic anhydrase type II
CA125	Cancer Antigen 125
CBC	Complete blood count
CDK12	Cyclin-dependant kinase 12
CEBPA	CCAAT/enhancer-binding protein alpha
COX-2	cyclo-oxygenase-2
CT	computed tomography
CT	Computed Tomography
DGCR8	DiGeorge syndrome critical region gene 8
DNA	Deoxyribonucleic acid
E2	Estrogen
EBV	Epstein–Barr virus
eIF	eukaryotic translation initiation factor
ELISA	enzyme-linked immunosorbent assay
EOC	Epithelial ovarian carcinoma
EREs	estrogen response elements

Erα	estrogen receptor alpha
Erβ	estrogen receptor beta
ES	Embryonic stem
FDR	First degree reatives
FIGO	International Federation of Gynecology and Obstetrics
FNA	Fine-needle aspiration
FSH	Follicle-stimulating hormone
Gfi1	Growth factor independent-1
GI	Gastrointestinal
HE4	Human Epididymis Protein 4
HEK	human embryonic kidney
IL-12a or IL-12p35	Interleukin-12p35
LH	Luteinizing hormone
LLD	Lower Limit of Detection
LMP	Low Malignant Potential
LNA	locked nucleic acids
MCF7	Michigan Cancer Foundation-7
M-CSF	macrophage colony-stimulating factor
miR-21	MicroRNA-21
miRNA	MicroRNA
MMPs	Matrix metalloproteinases
MRI	magnetic resonance imaging
mRNA	messenger ribonucleic acid
MyC	myelocytomatosis protein
NCI	National cancer Institute
NF1	Neurofibromin 1 gene
NFE2L1	nuclear factor erythroid-2-like 1
NFE2L2	Nuclear Factor, Erythroid 2 Like 2
NFI	nuclear factor I
NFIB	Nuclear Factor I B
NLS	nuclear localization sites
NOS	Not otherwise specified
NPM1	Nucleophosmin
NPV	negative predictive value

Nt	Nucleotides
O.D.	optical density
OSC	ovarian serous carcinomas
OVCAR3	ovarian papillary adenocarcinoma cell lines
OVX1	Ovarian Cancer Antigen X1
P53	protein 53
PAZ domain	named after the proteins Piwi, Argonaut and Zwille
P-bodies	processing bodies
PDCD4	Programmed Cell Death 4
PET	Positron emission tomography
PI3K	phosphoinositide 3 kinase
PIWI domain	P-element induced wimpy testis
PMA	para-Methoxyamphetamine
PPARγ	peroxisome proliferator-activated receptor γ
PPV	positive predictive values
pre-miRNA	Precursor microRNA
pri-miRNAs	primary miRNA
PTEN	Phosphatase and tensin homologe
qPCR	Quantitative Polymerase chain reaction
RAR	retinoic acid receptor
RISC	RNA-induced silencing complex
RNA	ribonucleic acid
RNase	Ribonuclease
ROC	The Receiver Operating Characteristic
RT	reverse transcription
SE	Standard error
Sp1	specificity protein 1
SPRY2	Sprouty2
Stat3	Signal transducer and activator of transcription 3
STAT4	Signal Transducer And Activator Of Transcription 4
TAG 72	tumor-associated glycoprotein 72

TGFBR2	TGFβ receptor 2
TGF-β1	Transforming growth factor beta 1
TMB	Tetramethylbenzidine
TNM	Tumor Node Metastases
TPA	tetradecanoylphorbol-13-acetate
TPM1	Tropomyosin 1
TRBP	transactivating response RNA binding protein
UICC	The international Union against cancer
uPAR	urokinase receptor
UTR	untranslated region
YY1	Yin Yang 1
β-hCG	β-human chorionic gonadotropin