



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



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# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

### قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



### يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**MONA MAGHRABY**

# **Effect of Direct Acting Anti-Viral Drugs on Insulin Resistance and sensitivity Among Egyptian Chronic HCV Infected Patients**

Thesis

Submitted for Partial Fulfillment of Medical Doctorate Degree  
*in Internal Medicine*

By

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بسم الله الرحمن الرحيم

(وقل ربي زدني  
علما)



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## List of Abbreviations

<b>AIDS</b>	Acquired immune deficiency syndrome
<b>AKT</b>	Activated protein kinase
<b>ALT</b>	Alanine amino transferase
<b>AST</b>	Aspartate amino transferase
<b>ATP</b>	Adenosine triphosphate.
<b>AUC</b>	Area under the curve
<b>BCRP</b>	Breast cancer resistance protein
<b>BMI</b>	Body Mass Index
<b>CHC</b>	Chronic Hepatitis C
<b>CLD</b>	Chronic Liver Disease
<b>CYP3A4</b>	Cytochrome P450 3A4
<b>DAA</b>	Direct-acting anti-viral drugs
<b>DAC</b>	Daclatasvir
<b>DNA</b>	Double-stranded nucleic acid
<b>EASL</b>	The European Association for the Study of the Liver
<b>ECG</b>	Electrocardiogram
<b>ECM</b>	Extra-Cellular Matrix
<b>EC50</b>	Effective concentration
<b>EHIS</b>	Egypt Health Issue Survey
<b>EHM</b>	Extra Hepatic Manifestations



<b>EMA</b>	European medicines agency
<b>FDA</b>	Food and Drug Administration
<b>FFAs</b>	Free fatty acids
<b>FoxO1</b>	Fork head transcription factor
<b>FPI</b>	Fasting plasma insulin
<b>FPG</b>	Fasting plasma glucose
<b>GFR</b>	Glomerular filtration rate
<b>GLUT-4</b>	Glucose Transporter -4
<b>G6P</b>	Glucose 6 phosphate
<b>HAV</b>	Hepatitis A virus
<b>HBsAg</b>	Hepatitis B surface Antigen
<b>HBV</b>	Hepatitis B Virus
<b>HCC</b>	Hepatocellular Carcinoma
<b>HCV</b>	Hepatitis C Virus
<b>HIV</b>	Human Immunodeficiency Virus
<b>HOMA-IR</b>	Homeostatic model assessment of insulin resistance
<b>IFN<math>\alpha</math></b>	Pegylated interferon alpha
<b>IL28B</b>	Interleukin 28B
<b>INR</b>	International Normalized Ratio
<b>IR</b>	Insulin receptor
<b>IRS-1/IRS-2</b>	Insulin receptor substrate 1 and 2
<b>JNK</b>	Jun N-terminal kinase

<b>LS</b>	Liver Stiffness
<b>LED</b>	Ledipasvir
<b>MMPs</b>	Matrix Metalloproteinase
<b>MELD</b>	Model for end-stage liver disease
<b>MoHP</b>	Ministry of health and population
<b>MTP</b>	Microsomal triglyceride transfer protein
<b>NAFLD</b>	non-alcoholic fatty liver disease
<b>NASH</b>	Non Alcoholic Steatohepatitis
<b>NAT</b>	Nucleic acid test
<b>NCCVH</b>	National Committee for Control of Viral Hepatitis
<b>NS3-4A</b>	Nonstructural protein 3A-4A
<b>NS5A</b>	Non-structural protein 5A
<b>NS5B</b>	Non-structural protein 5B
<b>NPV</b>	Negative Predictive Value
<b>OATP</b>	Organic-anion transporting protein
<b>OXS</b>	Oxidative stress
<b>OGIS</b>	Oral glucose insulin sensitivity
<b>OGTT</b>	Oral glucose tolerance test
<b>PCK2</b>	Phosphoenolpyruvate carboxykinase 2
<b>PCR</b>	Polymerized Chain Reaction
<b>PGA</b>	Prothrombin $\gamma$ glutamyltransferase
<b>PKC</b>	Protein kinase
<b>PPAR- <math>\alpha</math></b>	Peroxisome proliferator-activated receptor alpha

<b>PPV</b>	Positive Predictive Value
<b>PT</b>	Prothrombin Time
<b>PTT</b>	Partial Thromboplastin Time
<b>QUICKI</b>	Quantitative insulin sensitivity check index
<b>RAS</b>	Resistance associated substitutions
<b>RBV</b>	Ribavirin
<b>RNA</b>	Ribonucleic Acid
<b>ROC</b>	Receiver Operator Curve
<b>ROS</b>	Receptor oxygen species
<b>SIM</b>	Simprevir
<b>SVR</b>	Sustained virological response
<b>SOC</b>	Suppressor of cytokine signaling
<b>SOF</b>	Sofosbuvir
<b>TE</b>	Transient Elastography
<b>TIMPs</b>	Tissue Inhibitor of Metalloprotenase
<b>T2DM</b>	Type 2 Diabetes Mellitus
<b>TNF</b>	Tumor necrosis factor
<b>VLDL</b>	Very low density lipoprotein

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