

Study of Intracellular Hepatitis C Virus Replication in Vitro

A Thesis Submitted in Fulfillment of the Requirements for the Master Degree in Science

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Declaration

This is to certify that to the best of my knowledge; the content of this thesis is my own work. This thesis has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged.

Mariam Mounir Kamel Mosaad



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Dedication

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List of Abbreviations:

bDNA: branched DNA assay

DMEM: Dulbecco's modified eagle medium

EIA: Enzyme Immuno Assay

ELISA: Enzyme Linked Immunosorbent Assay

HAV: Hepatitis A Virus **HBV:** Hepatitis B Virus

HCC: Hepatocellular carcinoma **HCV cc:** Cell Culture derived HCV **HCV pp:** HCV Pseudo-Particles

HCV: Hepatitis C Virus

HCV-RNA: Hepatitis C Virus Ribonucleic Acid

HepG2: Hepatoma G2 cells **HuH 7:** Human Hepatoma cells **IgC:** Immuno Globuling G

IgG: Immuno-Globulins G **IRES:** Internal Ribosome Entry Site

ISDR: IFN Sensitivity-Determining Region

JFH-1: Japanese Fulminant Hepatitis 1

LIPA Assay: Line Probe Assay designed to identify Hepatitis C

virus (HCV) genotypes 1 to 6 in human serum

NANBH: Non A Non B Hepatitis **NS2-5:** Non Structural protein2-5

ORF: Open-Reading Frame **P7:** ion channel Protein 7

PCR: Polymerase Chain Reaction

Q-PCR: Quantitative PCR

RdRp: RNA-dependent RNA Polymerase