



# Possible role of apoptotic genes which could open the gate for Hepatitis C virus therapy

Thesis Submitted for M.Sc in Microbiology

By

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Submitted to

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# بِسْم اللهِ الرَّحْمنِ الرَّحِيم

{رَبِّ أَوْزِعْنِي أَنْ أَشْكُرَ نِعْمَتَكَ الَّتِي أَنْعَمْتَ عَمْتَكَ الَّتِي أَنْعَمْتَ عَلَيَ وَعَلَى وَالِدَيَّ وَأَنْ أَعْمَلَ صَالِحاً تَرْضَاهُ وَأَنْ أَعْمَلَ صَالِحاً تَرْضَاهُ وَأَذْ خِلْنِي بِرَحْمَتِكَ فِي عِبَادِكَ الصَّالِحِينَ }

{ سورة النمل- آيه ١٠٩ }

# **ACKNOWLEDGEMENT**

First, and forever, all thanks to Allah by whose grace this work had been completed and by whose grace all my life is arranged in the best way.

I would like to express my deepest respect and sincere gratitude to *Prof. Dr. Saher Ahmed Shoman*, Professor of Microbiology Department, Faculty of Science, Ain Shams University, for her precious supervision. She was the main reviser for my scientific steps to achieve this degree.

I am greatly indebted and would like to express my sincere appreciation toward *Prof. Dr. Abd El Rahman Zekri*, Professor of Molecular Virology &Immunology, Cancer Biology Department, National Cancer Institute, Cairo University. He was the main funded for my project.

I cannot forget the great effort which exerted by *prof. Dr. Hanaaa Mahmoud Alm El-din*, Professor of Molecular virology &Immunology, Cancer Biology Department, National Cancer Institute, Cairo University. She was the first teacher for me in academic writing.

Many thanks are due to Molecular virology & immunology, Cancer Biology Department, National Cancer Institute, Cairo University. Especially *Dr. Nehal Hussien* for teaching; supporting and making me pass the first steps in learning more techniques in Molecular Biology.

## **Dedication**

I dedicate this work with all my love to my mother and my father.

My sisters Nehad and Hasnaa, my brothers Ahmed and Mohammed

Finally Dr. Eman and Roqeia

**Thanks** 

Esraa Sobhy Abd El-hamid

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## List of Abbreviations

**AIF** Apoptosis inducing factor

**APAF1** Apoptotic protease-activating factor 1

**Ape1** Apurinic/apyrimidinic endonuclease

**Asp** Aspartic acid

**ATP** Adenosine triphosphate

**Bad** BCL2-Associated Agonist of Cell Death

**BAG3** BCL2-Associated athanogene 3

**BCL10** B-cell /lymphoma protein 10

**BID** BH3 interacting domain death agonist

BIK BCL2-interacting killer (apoptosis-inducing)

**BIRC3** Baculoviral IAPrepeat containing 3

**BNIP2** BCL2/adenovirus E1B 19 kDa interacting protein 2

**c- FLIP** FLICE-like inhibitory protein

**CAD** Carbamoyl-phosphate synthetase 2, aspartate transcarbamylase,

and dihydroorotase

**CASP6** Caspase 5, apoptosis-related cysteine peptidase

**CCM** Complete culture medium

CD95 Cluster of differentiation 95, TNF receptor superfamily member

**CIDEA** Cell Death-Inducing DFFA-Like Effector A

**CRADD** CASP2 and RIPK1 domain containing adaptor with death domain

CTLs Cytotoxic T lymphocytes

**CYCS** Cytochrome c, somatic

**DAPK1** Death-associated protein kinase 1