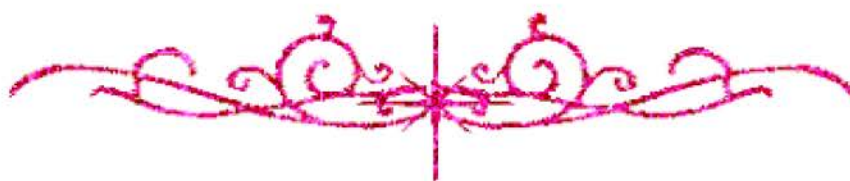


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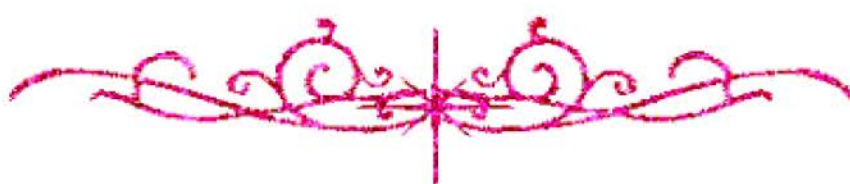
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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





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# جامعة عين شمس

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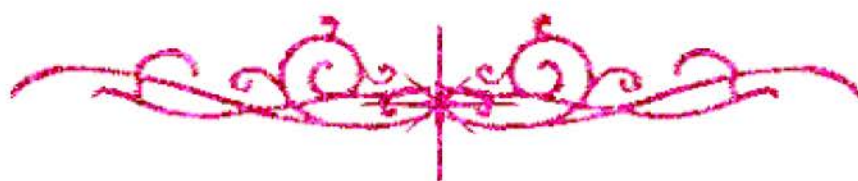
## قسم

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



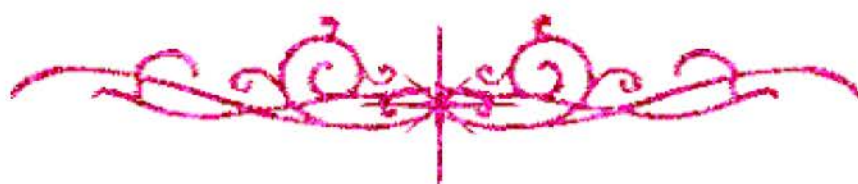
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# بعض الوثائق الأصلية تالفة





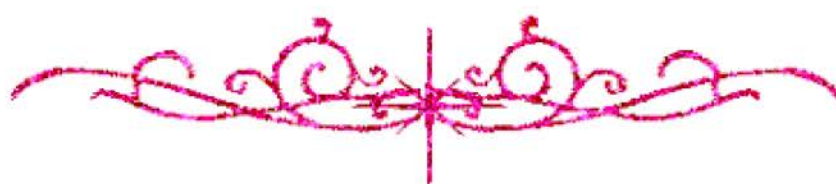
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بالرسالة صفحات  
لم ترد بالأصل



# HCV GENOTYPES IN PATIENTS WITH CHRONIC LIVER DISEASE

**THESIS**

SUBMITTED FOR PARTIAL FULFILLMENT  
OF M.D. DEGREE IN MICROBIOLOGY AND IMMUNOLOGY

By

**Tawfik M. Abdel-Moteleb Mohammed**  
(M.B., B.Ch. - M. Sc., Microbiology)

*Supervised by*

**Prof. Dr. HASSAN EL-BANNA YOUNNIS**

Professor and Head of Microbiology & Immunology Dept.,  
Faculty of Medicine, Menoufiya University

**Prof. Dr. MOHAMED SAYED MOSTAFA**

Professor and Head of Clinical Pathology Department,  
National Liver Institute, Menoufiya University

**Dr. NAIRA AHMED EISSA**

Assistant Professor of Microbiology and Immunology,  
Faculty of Medicine, Menoufiya University

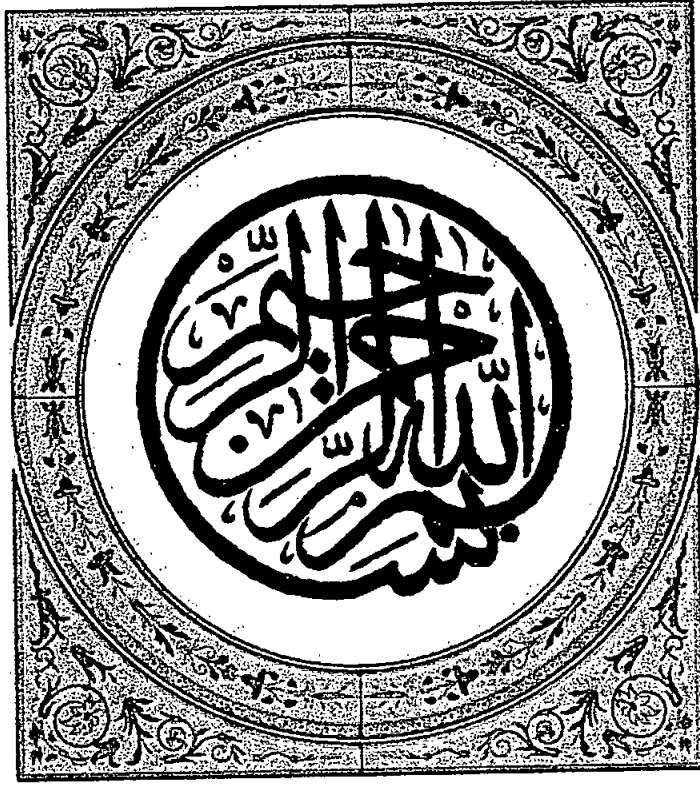
**Dr. MABROUK MAHMOUD GHONEIM**

Assistant Professor of Microbiology and Immunology,  
Faculty of Medicine, Menoufiya University

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FACULTY OF MEDICINE  
MENOUEFIYA UNIVERSITY

2002





رَبِّ اشرح لي صدري وَيَسِّرْ لي اَمْرِي  
وَاحْلِكْ عُقْدَةً مِنْ لِسَانِي يَفْقَهُوا قَوْلِي

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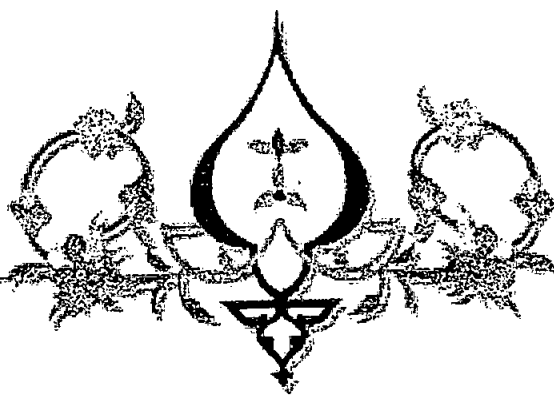
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***To my  
Beloved family  
and to my  
little kids***

***Heba &  
Ahmed***







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## ***LIST OF ABBREVIATIONS***

|                            |                                                          |
|----------------------------|----------------------------------------------------------|
| ADCC                       | Antibody-dependent cellular cytotoxicity                 |
| ALP                        | Alkaline phosphatase                                     |
| ALT                        | Alanine aminotransferase Anti                            |
| HBc                        | Antibody against hepatitis B core antigen                |
| Anti-HCV                   | Antibody against HCV                                     |
| AST                        | Aspartate aminotransferase                               |
| C-100-3                    | Recombinant antigen for first generation ELISA           |
| C33                        | Non-structural antigen of HCV                            |
| cDNA                       | Complementary deoxyribonucleic acid                      |
| CHC                        | Chronic hepatitis C                                      |
| CTL                        | Cytotoxic T lymphocyte                                   |
| Cys 282 Tyr and His 63 ASP | Cystine 282, tyrosine PEG and histidine<br>63 asparagine |
| DDB                        | Dimethyl dimethoxy biphenyl dicarboxylate                |
| DM                         | Diabetes mellitus                                        |
| E1                         | Nucieocapsid 1                                           |
| E2                         | Nucleocapsid 2                                           |
| EM                         | Electron microscopy                                      |
| ELISA                      | Enzyme linked immunosorbent assay                        |
| GGT                        | Gamma-glutamic transpeptidase                            |
| HBeAg                      | Hepatitis B e antigen                                    |
| HBsAb                      | Hepatitis B surface antibody                             |
| HBsAg                      | Hepatitis B surface antigen                              |
| HBV                        | Hepatitis B virus                                        |
| HCC                        | Hepatocellular carcinoma                                 |

|               |                                                 |
|---------------|-------------------------------------------------|
| HCV           | Hepatitis C virus                               |
| HVR1          | Hypervariable region 1                          |
| IDDM          | Insulin dependent diabetes mellitus             |
| IFN- $\alpha$ | Interferon alpha                                |
| IGF-1         | Insulin-like growth factor 1                    |
| IRES          | Internal ribosomal entry site                   |
| ISDR          | Interferon sensitive determining region         |
| KD            | Kilo dalton                                     |
| LC            | Liver cirrhosis                                 |
| LDL           | Low density lipoprotein                         |
| LFT           | Liver function tests                            |
| LTBR          | Lymphotoxin B receptor                          |
| NCR           | Non-coding region                               |
| NIDDM         | Non-insulin dependent diabetes mellitus         |
| NS            | Non-structural protein                          |
| ORF           | Open reading frame                              |
| PC            | Prothrombin concentration                       |
| PCR           | Polymerase chain reaction                       |
| REs           | Restriction enzymes                             |
| RFLP          | Restriction fragment length polymorphism        |
| RIBA          | Recombinant immunoblot assay                    |
| RNA           | Ribonucleic acid                                |
| RT-PCR        | Reverse transcription polymerase chain reaction |
| UTR           | Untranslated region                             |

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