# Immunoglobulin GM and KM Allotypes Influence on the Outcome of Hepatitis C Virus Treatment

#### Thesis

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#### Вy

Sarah Abd El Kader Ali El Nakeep M.B.B.Ch, M.Sc.

## Supervisors

### Prof. Dr. Mohsen Mostafa Maher

Professor of Internal Medicine Faculty of Medicine- Ain Shams University

## Prof. Dr. Sayed Mohamed Shalaby

Professor of Internal Medicine Faculty of Medicine- Ain Shams University

#### Prof. Dr. Mohamed Abd El Adl Al-Sawey

Professor of Pediatrics and Head of Genetics department Faculty of Medicine- Ain Shams University

## Prof. Dr. Manal Zaghloul Maharan

Professor of Clinical Pathology Faculty of Medicine- Ain Shams University

#### Prof. Dr. Wesam Ahmed Ibrahim

Assistant Professor of Internal Medicine Faculty of Medicine- Ain Shams University

> Faculty of Medicine Ain Shams University 2012

# تأثير الجلوبيولين المناعي ذو الأنماط الأليلية جاما و كابا على نتيجة المعالجة لفيروس

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## مقدمة من

طبيبة/ سارة عبد القادر علي النقيب ماجستير أمراض الباطنة تحت إشراف

أد/ محسن مصطفى ماهر

أستاذ أمراض الباطنة العامة كلية الطب- جامعة عين شمس

أد/ سيد محمد شلبي

أستاذ أمراض الباطنة العامة كلية الطب- جامعة عين شمس

أ.د/ محمد عبد العدل الصاوي

-أستاذ طب الأطفال ورئيس وحدة الوراثة كلية الطب- جامعة عين شمس

أد/ منال زغلول مهران

أستاذ الباثولوجيا الإكلنيكية كلية الطب- جامعة عين شمس

أم د/ وسام أحمد إبراهيم أستاذ مساعد أمراض الباطنة العامة

كلية الطب- جامعة عين شمس

كلية الطب جامعة عين شمس ٢٠١٢



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| + ss HCV RNA            | Positive sense single-stranded HCV RNA.              |
|-------------------------|--|
| A                       | Adenosine.   |
| AA                      | African Americans.                                   |
| AccI restriction enzyme | Restriction enzyme from Acinetobacter calcoaceticus. |
| ADAR1                   | Adenosine deaminase.                                 |
| ADCC                    | Antibody-dependent cell-mediated cytotoxicity.       |
| AHC                     | Acute hepatitis C.                                   |
| Alb-IFN                 | Albeinterferon.                                      |
| ALT                     | Alanine AminoTransferase.                            |
| ANA                     | Antinuclear antibody.                                |
| anti-AChR               | Anti acetyl choline receptors.                       |
| anti-MUC1               | Anti mucin 1   |
| APC                     | Antigen presenting cells.                            |
| APRI                    | AST-platelet ratio index.                            |
| AST                     | Aspartate AminoTransferase                           |
| BMI                     | Body mass index.                                     |
| bp                      | Base pairs.  |
| BSA                     | Bovine serum albumin.                                |
| C. jejuni               | Campylobacter jejuni.                                |
| C                       | Core.  |
| CA                      | Caucasian Americans.                                 |
| СВС                     | Complete blood count.                                |

|           | 1   |
|-----------|---|
| CD        | Cluster of differentiation.                       |
| cDNA      | Cloned deoxy ribonucleic acid.                    |
| СНС       | Chronic hepatitis C.                              |
| CHF       | Congestive heart failure.                         |
| CI        | Confidence interval.                              |
| COPD      | Chronic obstructive airway disease.               |
| DCs       | Denderitic cells.                                 |
| DEP       | Clinical level of depression.                     |
| DM        | Diabetes mellitus.                                |
| DQA1*0103 | HLA-DQ alpha gene.                                |
| DR1       | Down-regulator of transcription 1.                |
| ds-RNA    | Double stranded ribonucleic acid.                 |
| E         | Envelope.   |
| EBV       | Epstein barr virus.                               |
| EDHS      | Egypt demographic and health survey.              |
| ER        | Endoplasmic reticulum.                            |
| ESRD      | End-stage renal disease.                          |
| ETR       | End of treatment response.                        |
| EVR       | Early virological response.                       |
| F         | Fibrosis.   |
| Fcγ       | Fragment crystallizable region (Fc region) gamma. |
| FDA       | Food and drug administration.                     |
| FM        | Fibrometer.                                       |
| FT        | Fibrotest.  |
| G         | Guanosine.  |

| GBS        | Guillan Barre Syndrome.            |
|------------|------------------------------------|
| GDP        | Guanosine Diphosphate.             |
| gp70       | Glycoprotein 70.                   |
| GTP        | Guanosine Triphosphate.            |
| GWAS       | Genomewide association studies.    |
| НарМар     | Haplotype map of the human genome. |
| HBsAg      | Hepatitis B surface antigen.       |
| HBV        | Hepatitis B virus.                 |
| нсс        | Hepato-cellular carcinoma.         |
| HCV        | Hepatitis C virus.                 |
| HCVab      | Hepatitis C antibody.              |
| HCW        | Health care workers.               |
| HD         | haemodialysis.                     |
| HGB        | Haemoglobin.                       |
| HIV        | Human immunodeficiency virus.      |
| HLA        | Human leukocyte antigen.           |
| HRQOL      | Health-related quality of life.    |
| HS         | Hepascore.                         |
| HSP 92     | Nla III restriction enzyme.        |
| HTN        | Hypertension.                      |
| Huh7 cells | Human hepatoma cell line.          |
| HVR        | Hypervariable regions.             |
| ID users   | Injection drug users.              |
| IDU        | Injection drug use.                |
| IFN        | Interferon.                        |

| IFN-α     | Interferon alpha.                          |
|-----------|--|
| IFN-γ     | Interferon gamma.                          |
| IFN-λ     | Interferon lambda.                         |
| IFN-ω     | Interferon omega.                          |
| IgG       | Immunoglobulin gamma.                      |
| IGHG      | Immunoglobulin heavy constant gamma gene.  |
| IHD       | Ischemic heart disease.                    |
| IL-28B    | Interleukin 28 B.                          |
| IMDC      | Immature dentritic cells.                  |
| IP-10     | Induced protein 10.                        |
| IR        | Insulin resistance.                        |
| IRES      | Internal ribosome entry site.              |
| IRF9      | IFN-regulatory factor 9.                   |
| IRFs      | IFN regulatory factors.                    |
| ISDR      | Interferon sensitivity determining region. |
| ISDR      | Interferon sensitivity-determining region. |
| ISGs      | Interferon stimulated genes.               |
| ISREs     | IFN-stimulated response elements.          |
| IVCT      | In vivo cryotechnique.                     |
| KC        | Kupfer cells.                              |
| KIRs      | Killer cell immunoglobulin-like receptors. |
| LB buffer | Lysis buffer.                              |
| LPS       | Lipopolysaccharides.                       |
| LSEC      | Liver sinusoidal endothelial cells.        |

|             | 1  |
|-------------|--|
| ML tree     | Maximum likelihood (ML) method with Tamura-Nei substitution model. |
| MC          | Mixed cryoglobulinemia.  |
| МНС         | Major histo-compatibility complex.                                 |
| MIP-1       | Macrophage inflammatory protein.                                   |
| MSM         | Men who have sex with men.   |
| MxA         | Interferon induced protein related to murine protein Mx1.          |
| NA          | Not amplified  |
| NAFLD       | Non-alcoholic fatty liver disease                                  |
| NK cells    | Natural killer cells   |
| NNI         | Non-nucleoside inhibitors  |
| NO          | Nitric oxide   |
| NOS2        | Nitric oxide synthetase 2.   |
| NR          | Non responder.   |
| NS proteins | Nonstructural protein.   |
| NS          | Non significant (statistically).                                   |
| NT          | Not typed by this method.  |
| NTRs        | Non-translated regions.  |
| NTZ         | Nitazoxanide.  |
| O. volvulus | Onchocerca volvulus.   |
| OAS         | Oligoadenylate synthetase.   |
| OPN         | Osteopontin.   |
| ORF         | Open reading frame   |
| PEG-IFN     | Pegylated interferon   |
| PK solution | Proteinase K.  |

| PKR    | protein kinase RNA activated                       |
|--------|--|
| PLT    | Platelet   |
| RBV    | Ribavirin  |
| RdRp   | RNA dependent RNA polymerase                       |
| RFLP   | Restriction fragment length polymorphism           |
| RNA    | Ribonucleic acid                                   |
| RT-PCR | Reverse transcription polymerase chain reaction    |
| RVR    | Rapid virological response.                        |
| S      | Significant (statistically).                       |
| SC     | Stellate or Ito cells                              |
| SD     | Standard deviation                                 |
| SE     | Shared epitope                                     |
| SLE    | Systemic lupus erythematosus                       |
| SNPs   | Single nucleotide polymorphisms                    |
| SOC    | Standard of care                                   |
| STAT-C | Signal Transducer and Activator of Transcription C |
| SVR    | Sustained virological response                     |
| T.Bil  | Total bilirubin                                    |
| Th1    | T helper cells type 1                              |
| TIZ    | Tizoxanide   |
| TLRs   | Toll-like receptors                                |
| TNF-α  | Tumor necrosis factor alpha                        |
| TSH    | Thyroid stimulating hormone                        |
| UTR    | Untranslated region                                |

| V region | Variable region           |
|----------|---------------------------|
| VR       | Virological response      |
| WB       | Washing buffer            |
| WBC      | White blood cells         |
| WHO      | World health organization |
| αFP      | Alpha feto protein        |
| γ chain  | Gamma chain               |
| κ chain  | Kappa chain               |

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