

**MOLECULAR STUDIES & GENOTYPE PHENOTYPE
CORRELATION IN EGYPTIAN
 β -THALASSEMIA PATIENTS**

Ph . D. THESIS

For The Degree In Paediatrics

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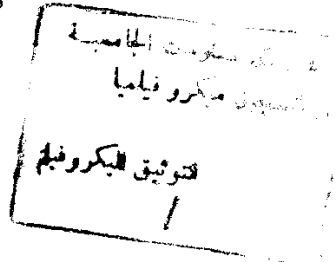
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1997



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MOLECULAR STUDIES & GENOTYPE PHENOTYPE
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my professor , Prof. Dr. Samia A. Temtamy , professor of human genetics , National Research Center . Her invaluable advice , abounding patience & prolific help throughout this work were most valuable .

I like to express my gratitude to Prof. Dr. Amal El Beshlawy professor of pediatrics and hematology , Cairo University , for her kind supervision and perceptive advice .

I am deeply indebted to Prof. Dr. Mostafa El Nashar , professor of ENT , Institute of Childhood studies , Ain Shams University , for his precious guidance and unconditional support .

I wish to express my gratitude to Prof. Dr. Mostafa El Awady, professor of biochemical and molecular genetics , head Department of Human Genetics , National research Center for his kind supervision , advice and reviewing the thesis .

My profound thanks to Dr. Ibtesam Hussein , assistant professor of human genetics , National Research Center , for all the time and technical support she spent all through this work .

A word of thanks to all the staff members of The Human Genetics Department , National Research Center , for their great help and cooperation .

I like to thank the members of the Hematology Clinic , New Childrens Hospital , for their help .

Finally , I like to thank the patients and their family members who participated in this work .

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List of Abbreviations

a.a.	: Amino acid .
A.	: Adenin .
A γ	: Gumma chain with alanine at position 136 of the polypeptide chain .
ARMS	: Amplification refractory mutation system .
ASO	: Allele specific oligonucleotides .
BMT	: Bone marrow transplantation .
BSU36	: Type of a restriction enzyme .
bp	: Base pair .
C	: Cytosine .
CAP	: Catabolite activator protein .
CHABA	: Congenital Heinz bodies hemolytic anemia .
CVS	: Chorionic villus sampling .
DGGE	: Denaturing gradient gel electrophoresis .
DNA	: Deoxyribonucleic acid .
Dnase	: Deoxyribonuclease .
EcoRI	: Type of restriction enzyme .
EPO	: Erythropoietin .
G	: Guanin .
G γ	: Gumma chain with glycin at position 136 of the polypeptide chain .
GVHD	: Graft versus host disease .
HMZ	: Homozygous .
HPFH	: Hereditary persistence of fetal hemoglobin .
HS	: Hypersensitive site .

HSC	: Hematopoietic stem cells .
HTZ	: Heterozygous .
IVS	: Intervening sequence .
Kb	: Kilo base .
LCR	: Locus control region .
MCH	: Mean corpuscular hemoglobin .
MCV	: Mean corpuscular volume .
mRNA	: Messenger ribonucleic acid .
nts	: Nucleotides .
PCR	: Polymerase chain reaction .
PTH	: Parathyroid .
RBC	: Red blood corpuscle .
RDW	: Red cell distribution width .
RE	: Restriction enzyme .
RES	: Reticulo endothelial system .
RFLP	: Restriction fragment length polymorphism .
RNP	: Ribonucleoprotein .
RPI	: Reticulocyte production index .
SSCP	: Single stranded conformation polymorphism .
T	: Thymidine .
T3	: Tri-iodo thyronine .
T4	: Thyroxine .
tRNA	: Transfer ribonucleic acid .
TSH	: Thyroid stimulating hormone .
U	: Uracil .
Unch.	: Uncharacterized .

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