

# ***Application and Evaluation of DNA in Forensic Medicine***

## **Essay**

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والحمد لله  
المبدى السعة لبرقه وقصور  
رستة في الفاضل  
الأستاذ الدكتور علي حسين المحترم  
مع فائقه شكر  
ومعجزة الله تعالى مقبولاتكم ورعاكم

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿أَيَحْسَبُ الْإِنْسَانُ أَلَّنْ نَجْمَعَ  
عِظَامَهُ (٣) بَلَى قَادِرِينَ عَلَى  
أَنْ نُسَوِّيَ بَنَانَهُ (٤)﴾

صدق الله العظيم

سورة القيامة : الآية ٣-٤



*To Syria  
and Egypt,  
the proudful history  
and promising future*



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## ***List of Abbreviations***

ATP	Adenosine triphosphate
A, T, C, G, U	Adenine, Thymine, Cytosine, Guanine, Uracil
AMG	Amelogenin encoding gene
bp	Base-pair
DNA	Deoxyribonucleic acid
dNTP	Deoxynucleotide triphosphate
ELISA	Enzyme-linked immunosorbent assay
FISH	Flourescence in situ hybridization
H-bond	Hydrogen bond
HLA	Human Leucocyte Antigen
Kbp	Kilo base-pair
LSPs	Locus Specific Probes
MHC	Major Histocompatibility Complex
MLPs	Multilocus probes
mRNA	Messenger Ribonucleic Acid
mtDNA	Mitochondrial ribonucleic acid
MW	Molecular weight
PCR	Polymerase Chain Reaction
P chromosome	The short arm of the chromosome
q chromosome	The long arm of the chromosome
R.E	Restriction endonuclease
RFLPs	Restriction Fragment Length Polymorphisms
RNA	Ribonucleic Acid
SLPs	Single Locus Probes

## ***List of Abbreviations***

SR Y	Sex-determinating region
SSOPs	Sequence Specific Oligonucleotide probes
STRPs	Short tandems repeat polymorphisms
Taq	Thermophilus aquaticus
T <sub>m</sub>	Melting temperature
tRNA	Transfer ribonucleic acid
VNTR	Variable Number Tandem Repeat

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