**KEY TERMS – DNA & Proteins**

Bases

Nucleotides

Double helix

Hydrogen bond

DNA

RNA (t,r,m, mi, si)

Chromatin

Chromosome

Gene

Genome

Histone

Cytosol / Cytoplasm

Prokaryote

Eukaryote

Semi-conservative

DNA polymerase

DNA helicase

Codon

Anti-codon

Coding strand

Template strand

Introns

Exons

Non-coding DNA

Transcription

RNA Polymerase

Pre-mRNA

Mature mRNA

splicing

Translation

Polypeptide

Amino acid

Primary structure

Secondary structure

Tertiary structure

Quaternary structure

Enzyme

Hormone

Receptor protein

Antibody

Specificity

Active site

Allosteric site

Denature

Substrate

Inhibitor

Reactants

Products

Activation energy

Induced fit model

Phenotype

Genotype

Gene product

Gene expression

Cellular differentiation

Epigenetics

Methylation

Acetylation

Euchromatin

Heterochromatin

Transcription factor

Promotor region

Translation Factor

Cancer

Proto-oncogenes

Tumor suppressor genes

Mutation (types & effects)

Mutagens

Somatic cell

Germ cell (gamete)

PCR

Target DNA

Primers

Taq Polymerase

STR

SNPs

DNA **profiling** (types)

* Gel electrophoresis (banding patterns)
* STR DNA Profile Table
* STR DNA Profile Electropherogram
* SNPs DNA Profile Electropherogram

Electrophoresis (gel and capillary)

Electropherogram (profile and sequence versions)

DNA **sequencing** methods (two)

* Using Gel Electrophoresis and ddNTPs
* Using Capillary gel electrophoresis + ddNTPs… gives you an electropherogram

Chain terminating nucleotides (ddNTPs)

Restriction enzyme

Restriction site

Restriction fragment

Sticky ends

DNA ligase

Vectors

Plasmids

Recombinant DNA

RNA/DNA probes

Microinjection

Transgenic

Bacterial transformation

Electroporation

CRISPR Cas9

Designer proteins