BIOCHEMESTRY

DR. HEBA TUTORING

STARTING DATE: _____ **RATING:** ☆☆☆☆☆

HIGH YIELD TOPICS:

- ☐ _____
- ☐ _____
- ☐ _____

PART 1: MOLECULAR BIOCHEMISTRY

- ☐ CELL CYCLE PHASES
- ☐ NUCLEOTIDE STRUCTURE
- ☐ DNA STRUCTURE
- ☐ DNA REPLICATION
- ☐ MUTATIONS IN DNA
- ☐ DNA REPAIR
- ☐ RNA TRANSCRIPTION
- ☐ REGULATION OF GENE EXPRESSION
- ☐ TRNA
- ☐ PROTEIN TRANSLATION
- ☐ PROTEASOMES AND UBIQUITIN
- ☐ ROUGH ENDOPLASMIC RETICULUM

PART 1: MOLECULAR BIOCHEMISTRY

- ☐ CELL TRAFFICKING
- ☐ I-CELL DISEASE
- ☐ COLLAGEN SYNTHESIS
- ☐ OSTEOGENESIS IMPERFECTA
- ☐ EHLERS-DANLOS SYNDROME
- ☐ MENKES DISEASE
- ☐ ELASTIN
- ☐ MARFAN SYNDROME
- ☐ MICROTUBULE
- ☐ CILIA STRUCTURE
- ☐ KARTAGENER SYNDROME
- ☐ _____

REVIEW AGAIN:

BIOCHEMESTRY

DR. HEBA
TUTORING

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- ☐ _____
- ☐ _____
- ☐ _____

PART 2: GENATICS

- ☐ GENETIC TERMS
- ☐ AUTOSOMAL DOMINANT
- ☐ AUTOSOMAL RECESSIVE
- ☐ X-LINKED RECESSIVE
- ☐ X-LINKED DOMINANT
- ☐ MITOCHONDRIAL INHERITANCE
- ☐ X INACTIVATION
- ☐ VARIABLE EXPRESSIVITY
- ☐ INCOMPLETE PENETRANCE
- ☐ LOSS OF HETEROZYGOSITY
- ☐ PLEIOTROPY
- ☐ ANTICIPATION

PART 2: GENATICS

- ☐ DOMINANT NEGATIVE MUTATION
- ☐ LOCUS HETEROGENEITY
- ☐ ALLELIC HETEROGENEITY
- ☐ HETEROPLASMY
- ☐ IMPRINTING
- ☐ UNIPARENTAL DISOMY
- ☐ MOSAICISM
- ☐ LINKAGE DISEQUILIBRIUM
- ☐ AUTOSOMAL DOMINANT DISEASES
- ☐ AUTOSOMAL RECESSIVE DISEASES
- ☐ CYSTIC FIBROSIS
- ☐ X-LINKED RECESSIVE DISORDERS

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PART 2: GENATICS

- ☐ DUCHENNE MUSCULAR DYSTROPHY
- ☐ BECKER MUSCULAR DYSTROPHY
- ☐ MYOTONIC TYPE 1
- ☐ FRAGILE X SYNDROME
- ☐ TRINUCLEOTIDE REPEAT EXPANSION
- ☐ NUMERICAL CHROMOSOME ABN.
- ☐ DOWN SYNDROME (TRISOMY 21)
- ☐ EDWARDS SYNDROME (TRISOMY 18)
- ☐ PATAU SYNDROME (TRISOMY 13)
- ☐ STRUCTURAL CHROMOSOME ABN.
- ☐ TRANSLOCATION
- ☐ DELETIONS

PART 2: GENATICS

- ☐ CRI-DU-CHAT SYNDROME
- ☐ WILLIAMS SYNDROME
- ☐ 22Q11 DELETION SYNDROMES
- ☐ HARDY-WEINBERG POPULATION
- ☐ GENETIC DIAGNOSIS
- ☐ GEL ELECTROPHORESIS OF PCR
- ☐ ALLEL-SPECIFIC OLIGONUCLEOTIDE
- ☐ RFLP ANALYSIS OF PCR PRODUCTS
- ☐ RFLP DIAGNOSIS OF MD
- ☐ INDIRECT GENETIC DIAGNOSIS USING STRS
- ☐ INDIRECT TESTING USING RFLPS
- ☐ RFLP ANALYSIS FOR X-LINKED GENE

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HIGH YIELD TOPICS:

- ☐ _____
- ☐ _____
- ☐ _____

PART 2: GENATICS

- ☐ PATERNITY TESTING
- ☐ PRACTISING ON GENETICS
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

PART 3: LABORATORY TECHNIQUES

- ☐ RESTRICTION ENDONUCLEASES
- ☐ BLOTTING TECHNIQUES
- ☐ POLYMERASE CHAIN REACTION
- ☐ MOLECULAR CLONING
- ☐ FLOW CYTOMETRY
- ☐ CRISPR/CAS9
- ☐ MICROARRAYS
- ☐ KARYOTYPING
- ☐ A FLUORESCENCE IN SITU
- ☐ ENZYME-LINKED IMMUNOSORBENT ASSAY
- ☐ GENE EXPRESSION MODIFICATIONS

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HIGH YIELD TOPICS:

- ☐ _____
- ☐ _____
- ☐ _____

PART 4: METABOLISM

- ☐ GLYCOLYSIS
- ☐ GALACTOSE METABOLISM
- ☐ GALACTOKINASE DEFICIENCY
- ☐ CLASSIC GALACTOSEMIA
- ☐ SORBITOL
- ☐ FRUCTOSE METABOLISM
- ☐ ESSENTIAL FRUCTOSURIA
- ☐ HEREDITARY FRUCTOSE INTOLERANCE
- ☐ PYRUVATE DEHYDROGENASE
- ☐ PDH COMPLEX DEFICIENCY
- ☐ PYRUVATE METABOLISM
- ☐ CITRIC ACID CYCLE

PART 4: METABOLISM

- ☐ ELECTRON TRANSPORT CHAIN
- ☐ OXIDATIVE PHOSPHORYLATION
- ☐ CYANIDE
- ☐ CARBON MONOXIDE
- ☐ GLUCONEOGENESIS
- ☐ GLYCOGEN METABOLISM
- ☐ GLYCOGENESIS
- ☐ GLYCOGENOLYSIS
- ☐ VON GIERKE DISEASE (TYPE I)
- ☐ POMPE DISEASE (TYPE II)
- ☐ CORI DISEASE (TYPE III)
- ☐ MCARDLE DISEASE (TYPE V)

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HIGH YIELD TOPICS:

- ☐ _____
- ☐ _____
- ☐ _____

PART 4: METABOLISM

- ☐ HEXOSE MONOPHOSPHATE SHUNT
- ☐ G6PD
- ☐ ATP PRODUCTION
- ☐ UNIVERSAL ELECTRON ACCEPTORS
- ☐ FATTY ACID SYNTHESIS
- ☐ TRIGLYCERIDE SYNTHESIS
- ☐ LIPID MOBILISATION
- ☐ ENZYMES IN LIPID TRANSPORT
- ☐ LIPOPROTEIN FUNCTIONS
- ☐ ABETALIPOPROTEINEMIA
- ☐ HYPERCHYLOMICRONEMIA
- ☐ FAMILIAL HYPERCHOLESTEROLEMIA

PART 4: METABOLISM

- ☐ DYSBETALIPOPROTEINEMIA
- ☐ HYPERTRIGLYCERIDEMIA
- ☐ FATTY ACID OXIDATION
- ☐ SYSTEMIC PRIMARY CARNITINE DEFICIENCY
- ☐ MCAD DEFICIENCY
- ☐ PROPIONIC ACID PATHWAY:
- ☐ ZELLWEGER SYNDROME
- ☐ REFSUM DISEASE
- ☐ ADRENOLEUKODYSTROPHY
- ☐ KETONE BODIES METABOLISM
- ☐ SPHINGOLIPIDS
- ☐ TAY-SACHS DISEASE

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HIGH YIELD TOPICS:

- ☐ _____
- ☐ _____
- ☐ _____

PART 4: METABOLISM

- ☐ NIEMANN-PICK DISEASE
- ☐ GAUCHER DISEASE
- ☐ METACHROMATIC LEUKODYSTROPHY
- ☐ FABRY DISEASE
- ☐ KRABBE DISEAS
- ☐ HURLER SYNDROME
- ☐ HUNTER SYNDROME
- ☐ AMINO ACID METABOLISM
- ☐ UREA CYCLE
- ☐ HYPERAMMONEMIA
- ☐ ORNITHINE TRANSCARBAMYLASE
- ☐ AMINO ACIDS

PART 4: METABOLISM

- ☐ PROTEIN STRUCTURE
- ☐ AMINO ACID DERIVATIVES
- ☐ CATECHOLAMINE SYNTHESIS
- ☐ PHENYLKETONURIA
- ☐ MAPLE SYRUP URINE DISEASE
- ☐ ALKAPTONURIA
- ☐ HOMOCYSTINURIA
- ☐ METABOLIC FUEL USE
- ☐ PYRIMIDINE SYNTHESIS
- ☐ OROTIC ACIDURIA
- ☐ PURINE SYNTHESIS
- ☐ PURINE SALVAGE PATHWAY

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HIGH YIELD TOPICS:

- ☐ _____
- ☐ _____
- ☐ _____

PART 4: METABOLISM

- ☐ ADENOSINE DEAMINASE DEFICIENCY
- ☐ LESCH-NYHAN SYNDROME
- ☐ VITAMIN B1
- ☐ VITAMIN B2
- ☐ VITAMIN B3
- ☐ VITAMIN B5
- ☐ VITAMIN B6
- ☐ VITAMIN B7
- ☐ VITAMIN B9
- ☐ VITAMIN B12
- ☐ VITAMIN C
- ☐ VITAMIN A

PART 4: METABOLISM

- ☐ VITAMIN D
- ☐ VITAMIN E
- ☐ VITAMIN K
- ☐ ZINC
- ☐ KWASHIORKOR
- ☐ MARASMUS
- ☐ ETHANOL METABOLISM
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

REVIEW AGAIN: