

MUTATION: HOW IT AFFECTS PROTEIN SYNTHESIS

Transcription is already done. **TRANSLATE** the original sequence and then each of the mutation strands to see the effect (The mutations are underlined)

Normal Strand: AUG UGU UUC AGG UCA UUG A
 (MET) (CYS) (SER) (GLY) (HIS) (STOP)

Mutation #1: A U G U G U U C G G G U C A U U G A
 (MET) (CYS) (SER) (GLY) (HIS) (STOP)

Type point mutation: <i>Substitution</i> <i>Silent</i>	Effect on polypeptide chain: <i>NONE</i>
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Mutation #2: A U G U G U U A A G G U C A U U G A
 (") (") (STOP) () () ()

Type point mutation: <i>Non sense</i> <i>Sub.</i>	Effect on polypeptide chain: <i>early Ter.</i>
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Mutation #3: A U G U U U C A G G U C A U U G A —
 (") (PHE) (GLU) (VAL) (ISO) (—)

Type point mutation: <i>Deletion</i> <i>F.S.</i>	Effect on polypeptide chain: <i>After mut. → all different AA</i>
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Mutation #4: A U G U C G U U C A G G U C A U U G A —
 (") (SER) (PHE) (ARG) (SER) (LEU)

Type point mutation: <i>INS</i> <i>F.S.</i>	Effect on polypeptide chain:
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Mutation #5: A U G U G U U C A G G U C A G U G A
 (MET) (CYS) (SER) (GLY) (GLU) (STOP)

Type point mutation: <i>Sub.</i> <i>Missense</i>	Effect on polypeptide chain: <i>1 AA diff</i>
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