

Guide RNAs are the RNAs that guide the insertion or deletion of uridine residues into mitochondrial mRNAs

Addition of U leads to change in the coding frame, completely altering the meaning

**ACG AGG ACU GCA UAC CA...**

Thr Arg Thr Ala Tyr

Normal Translation

**A CGA GGA CUG CAU ACC A...**

Arg Gly Leu His Thr

+1 Frameshifted Translation

**AC GAG GAC UGC AUA CCA...**

Glu Asp Cys Ile Pro

-1 Frameshifted Translation