1. Run the Glutamyl-tRNA Synthetase Pymol script.  
   Use Pymol to analyze to make an image to help you describe how glutamyl tRNA synthetase recognizes the tRNAglutamic acid. To do this turn off all the objects except the last three, like this:  
   A screenshot of a computer

   Description automatically generated

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| INSERT HERE |

1. Run the ribosome pymol script.  
   Turn everything off except ribosomal protein L27.  
   Zoom in to ribosomal protein L27.  
   Describe the fold of this protein. Is it a-helical or b-sheet? How many helices or strands?

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| INSERT HERE |

1. Draw a topology diagram of L27.

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1. Using the ribosome Pymol script make images of each base pair between the codon of the mRNA and the anticodon of the tRNA in the P-site (there are three base pairs). The ribosome has an A site, a P site and an E site.  
   A site: the tRNA with an amino acid.  
   P site: the tRNA with the nascent polypeptide.  
   E site: the tRNA that is uncharged (no longer has an amino acid).  
   The P site is in the middle.

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