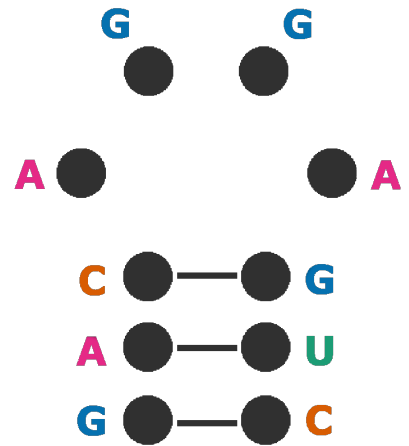


Context-free grammar  
for stem:

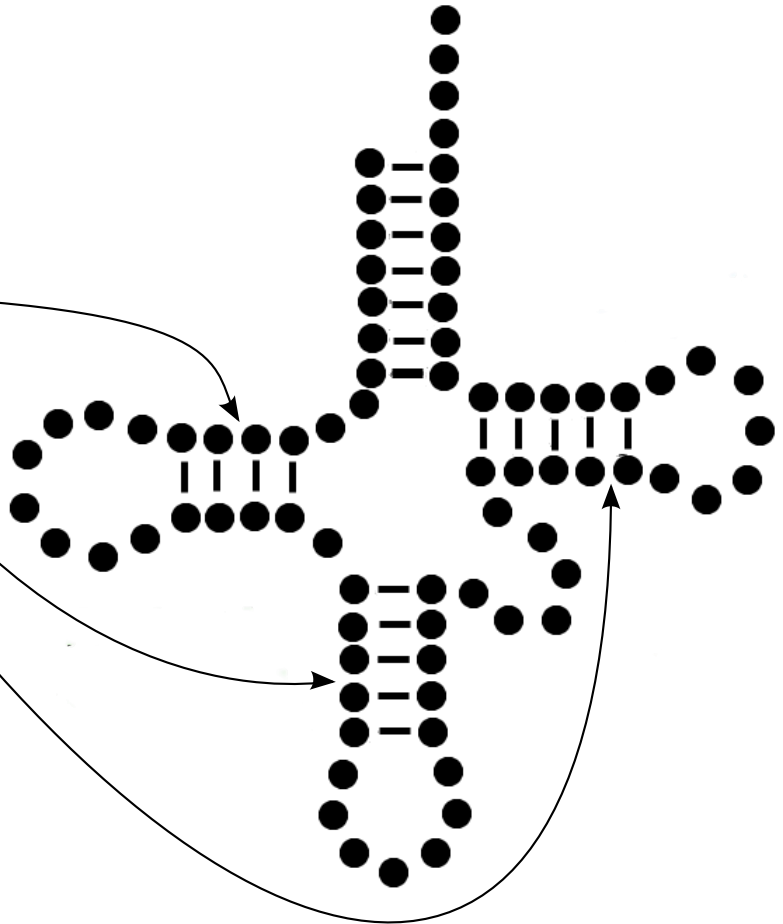
$stem<s> \rightarrow$

$A\ stem<s>\ U$   
 $| U\ stem<s>\ A$   
 $| G\ stem<s>\ C$   
 $| C\ stem<s>\ G$   
 $| s$

$stem<(A\ G\ G\ A)>$



$stem<($   
 $any^*[i1..j1]$   
 $stem<any^*[i2..j2]>$   
 $any^*[i3..j3]$   
 $stem<any^*[i3..j3]>$   
 $any^*[i3..j3]$   
 $stem<any^*[i3..j3]>$   
 $any^*[i3..j3]$   
 $)>$



Metagenomic assembly is a directed graph:

