**Piwi Matters**

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**Part 3: Molecular Basis of the YK mutant Phenotype**

In the Piwi mutant studies the Y551L and K555E mutant could not rescue the morphological changes caused by the piwi-null mutation. Explore the Piwi-piRNA structure in iCn3D to locate the amino acid residues Y551 and K555 in Piwi. Select these amino acids and display the neighboring residues using steps described in Part 2.

Q1. Where are these residues located in the Piwi-piRNA structure?

Q2. Describe the interactions of the residues Y551 and K555, as seen in the structure you are exploring. Support your answer with suitable images.

Q3. Explain what would happen if Y551 and K555 were mutated to L and E, respectively.