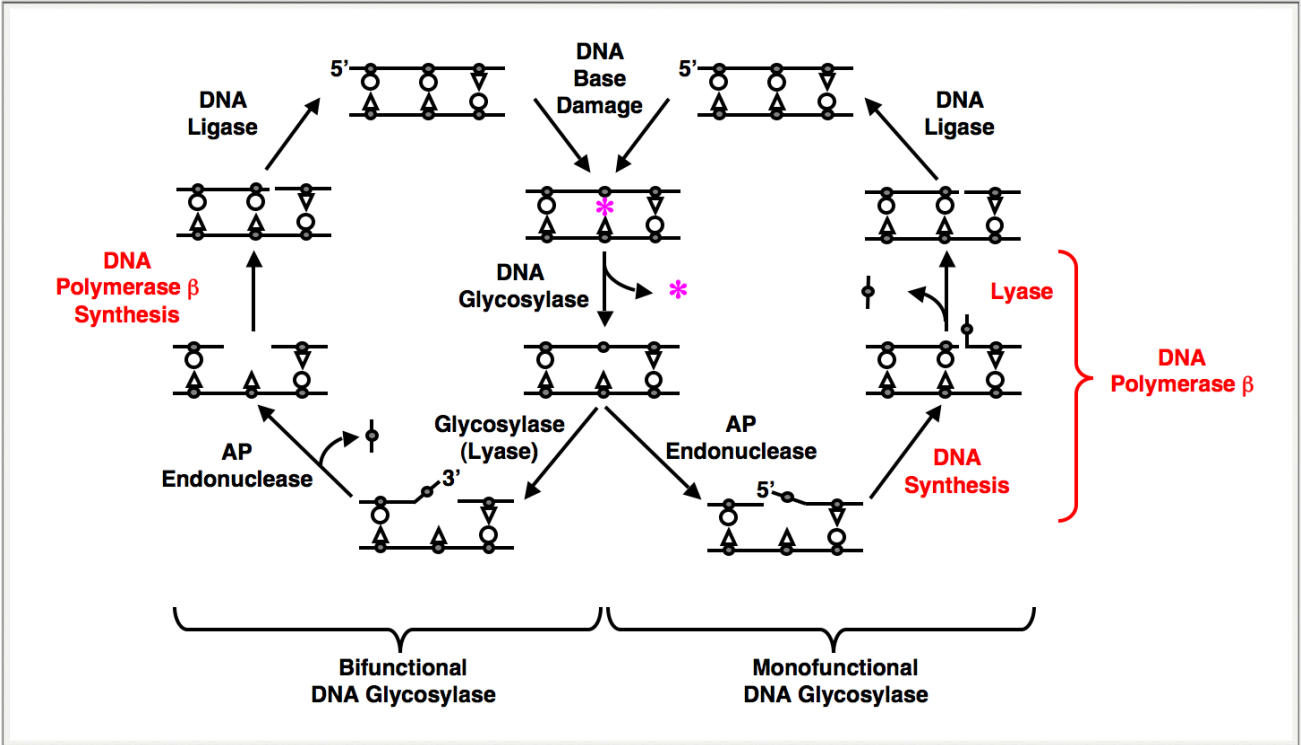


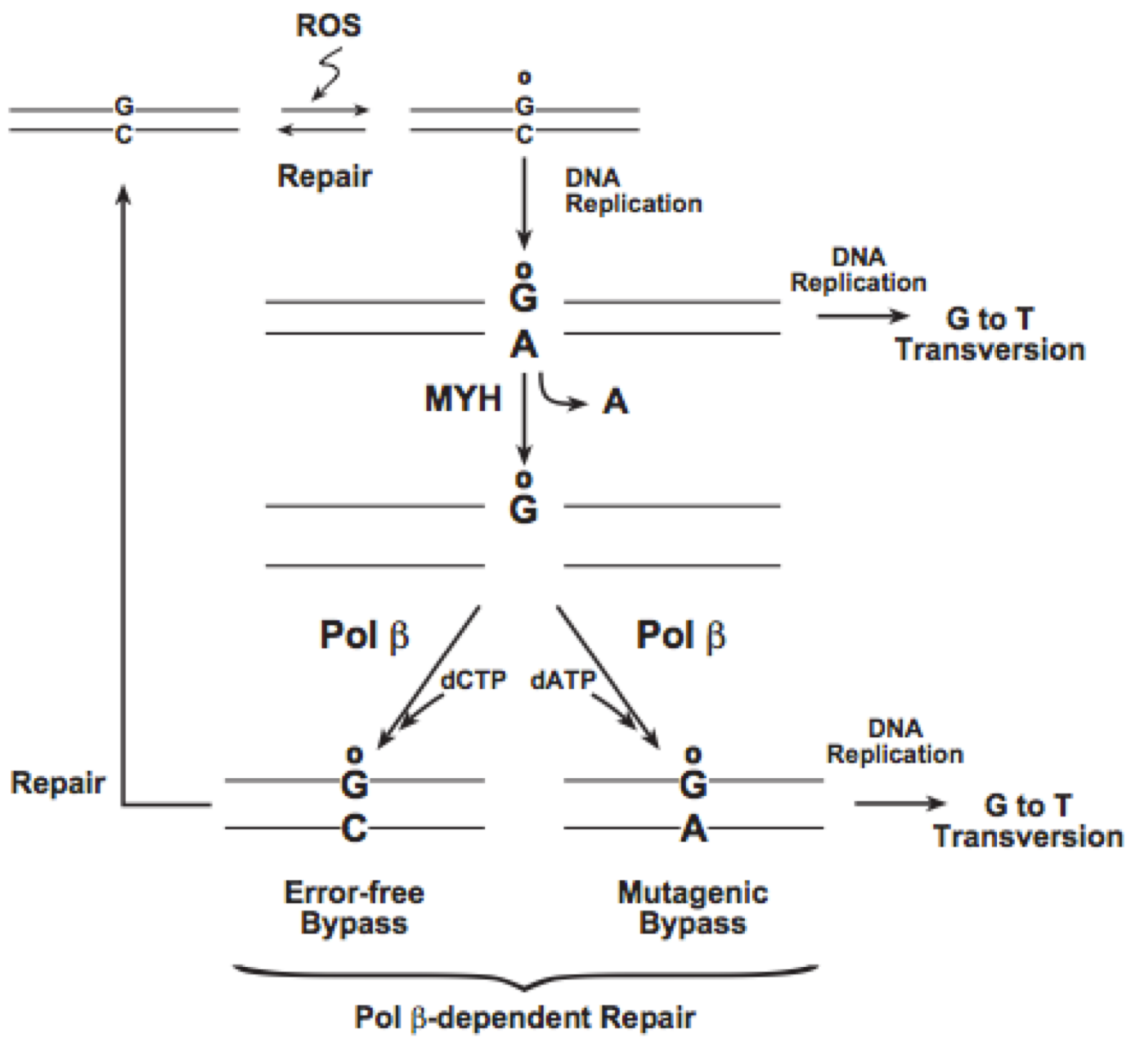
Supplementary Figures

Supplementary Figure 1

a



b

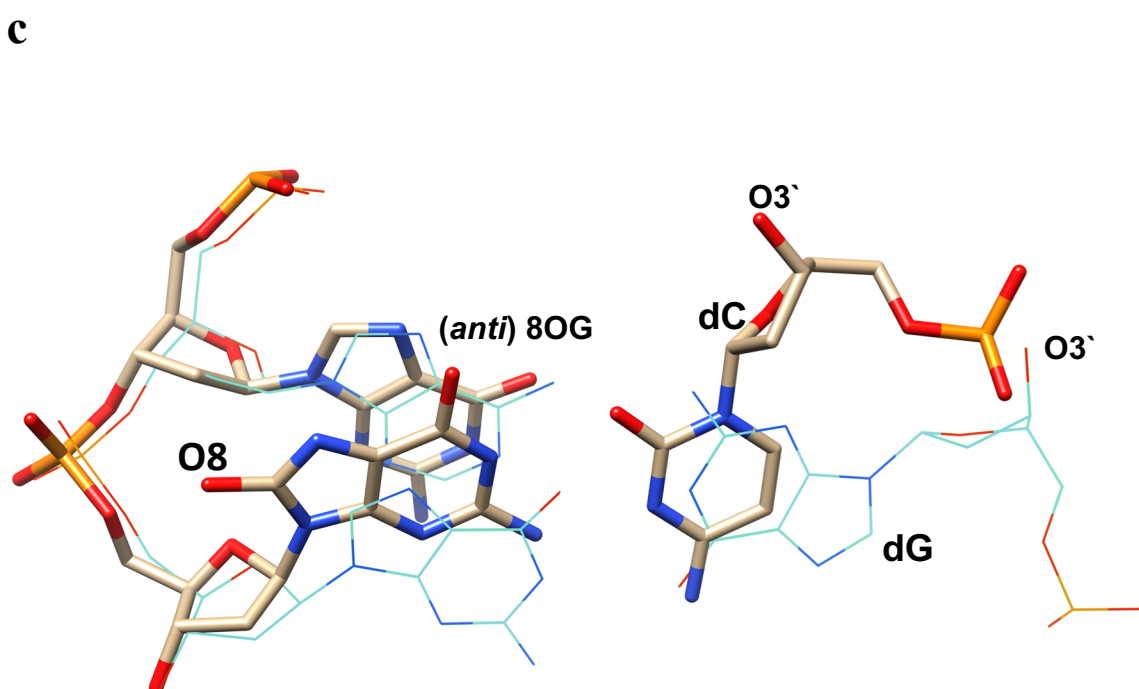
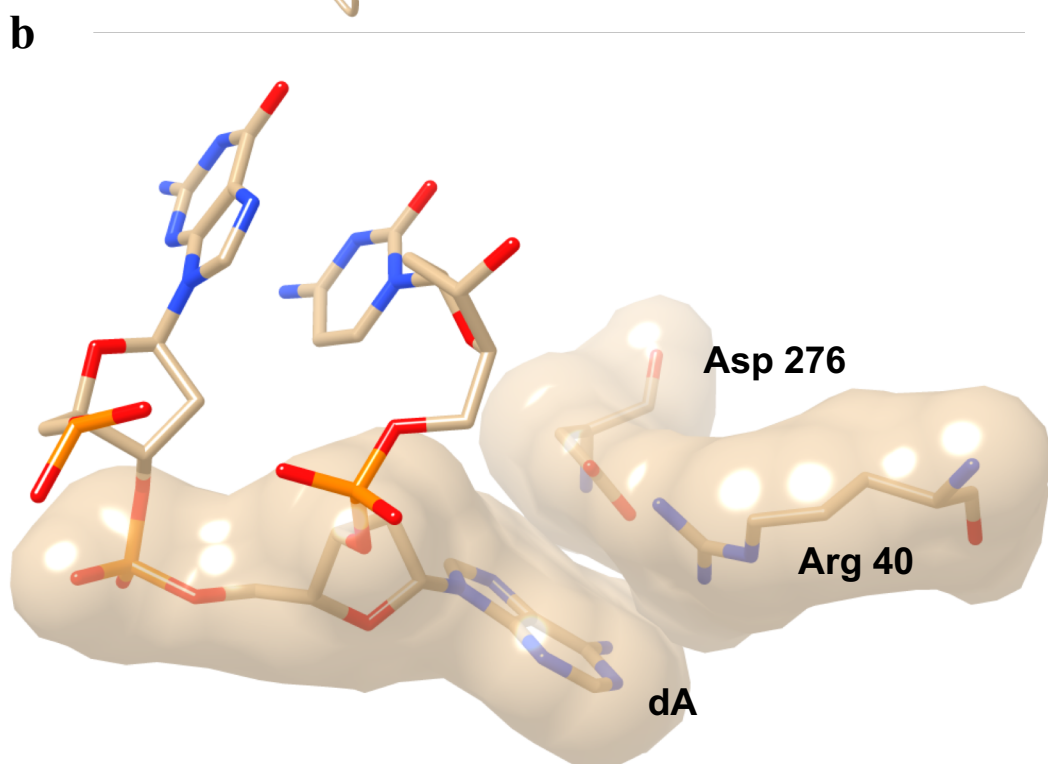
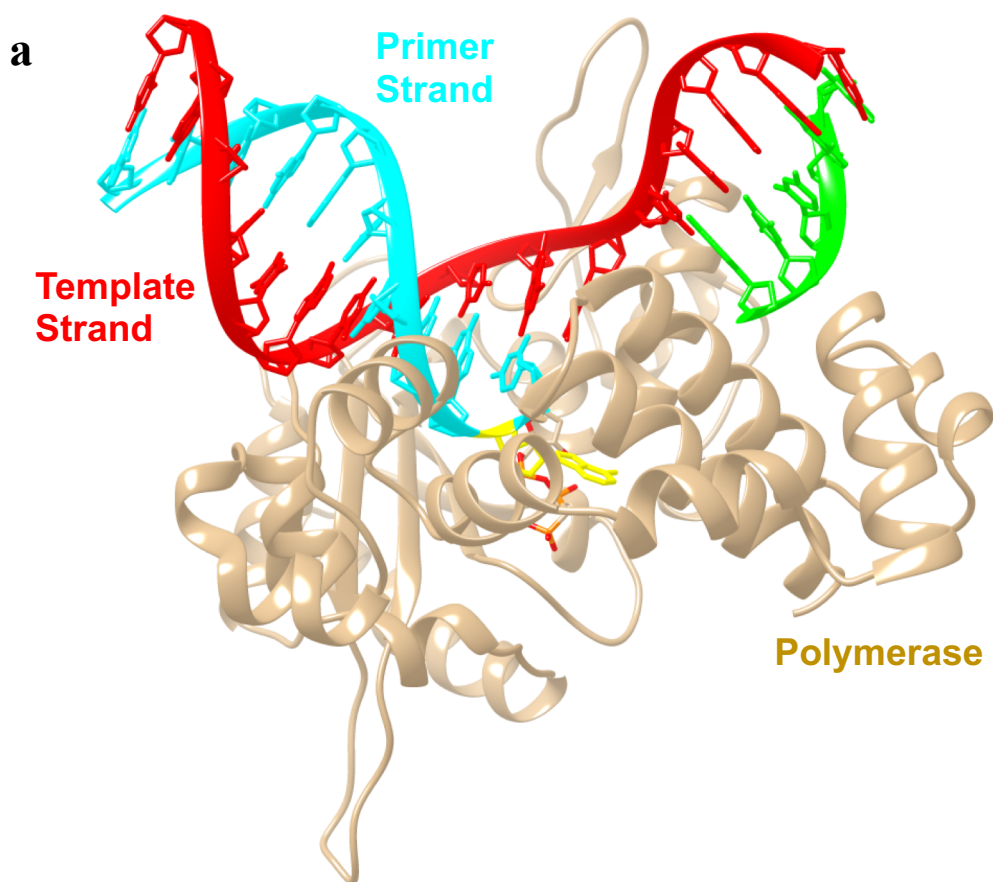


Supplementary Figure 1.

a. Schematics of OGG1 mediated base-excision repair (BER) pathway for the removal of oxidized guanosine (8OG).

b. Schematics of MUTYH mediated base-excision repair (BER) pathway for the removal of dA.

Supplementary Figure 2



Supplementary Figure 2.

- a. Closed polymerase conformation
- b. Stabilization of the extra-helical dA base by Arg40 and Asp276
- c. Altered polarities of the 8OG: dC and G: G mismatch at the primer terminus