Abstract: Studies into the interactions between Palladium (II) Complexes and DNA are extremely important for drug discovery. The effect may be due to strong bonds of palladium with DNA which interact with it. In this study, we selected three structurally related Palladium (II) complexes of formula [Pd(Phen)(R-gly)]NO$_3$ (where Phen is phenantroline and R-gly is methyl, propyl and amyl-glycine). The interaction of ct-DNA with different concentration of these palladium (II) complexes were studied by ultraviolet-visible and voltametric measurements at 27 and 37°C. These complexes have been interacted with DNA in Tris-HCl buffer solution containing 10 mM sodium chloride (pH=7.4) at 27 and 37°C, the experimental results suggested that these complexes cooperatively bind to DNA presumably via intercalation. Moreover, the tendency of these Pd(II) complexes to interact with DNA was more in higher concentrations and temperatures than lower cases. 

Palladium (II) complexes, ct-DNA, Ultraviolet-visible, Voltumetric, Amino acid.

Presentation: Poster