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EFFECTS OF ANTIRETROVIRAL DRUGS ON THE ABSORBANCE CHARACTERISTICS OF BLOOD COMPONENTS INFECTED WITH HIV

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There is a growing need to achieve a more reliable research result through a synergy between engineers and biological researchers in the twenty first century research works. The peak absorbance data for various interacting systems involving antiretroviral drugs and HIV-infected blood cells were measured. These were used to show that the antiretroviral drug has the effect of increasing the peak absorbance values of both the uninfected and infected blood components, i.e., the drugs are made able to increase the light absorption capacity of the blood cells. The drug effect on lymphocytes was increased by about 38% for patients that had been on antiretroviral drug treatment for drug 2 that contains three antiretroviral drugs including efavirenz. Mathematical expressions were proposed and used in determining the coating effectiveness of antiretroviral drugs in the presence and absence of HIV. The use of the findings of this work in drug design by pharmaceutical industries may help in the search for more effective antiretroviral drugs for the treatment of HIV patients.