[0008a] An aspect of the present disclosure provides a method, comprising: acquiring experimental data corresponding to an immunoassay experiment, wherein the experimental data is based on an analyte of interest; analyzing, by a machine learning process trained to determine a degree that a band of the analyte shifts in immunoassays, the experimental data; and determining, based on the analyzing, the degree of shift for a band in the immunoassay experiment, wherein the band comprises the analyte of interest

[0008b] Another aspect of the present disclosure provides a system, comprising: at least one processor; and a memory coupled to the at least one processor, the memory having instructions stored thereon that, when executed by the processor, cause the processor to perform operations comprising: acquiring experimental data, wherein the experimental data comprises an identifier of an analyte and an immunoassay image; analyzing the immunoassay image to mark features of the immunoassay image, wherein the features comprises at least one band; determining, by a machine learning process, a degree of shift for a band on the immunoassay image, wherein the band comprises an analyte of interest that corresponds to the identifier; and displaying the degree of shift for the band on the immunoassay image