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*A Model Study of Drug Intake*

This experiment is testing whether cell size (measured in w0 size) affects how Chelidamic Acid enters a membrane. The dependent variable is the absorbance of Chelidamic Acid. The hypothesis developed stated that there should not be a change in the absorbance of the probe when the w0 size (proportional to cell size) changes. The UV-Visible Spectrometer tests absorbance and is what has been used in this experiment. In the experiment there will be eight different w0 sizes being tested: 1, 3, 5, 7, 10, 15, 20, and 30. To ensure that the changes weren't because of some other variable, there were also aqueous controls. The aqueous controls had their pH checked to ensure that pH differences did not influence the results. The results show that there is definitely a difference between the w0 sizes and controls and just the different w0 sizes, so the hypothesis is proved incorrect. This hints that the Chelidamic Acid is in different environments in different w0 sizes. This observation suggests, assuming that the model system acts the same way as a cell, that cell size will affect drug penetration. This conclusion is supported by the data presented, but this experiment should be repeated for confirmation.