**Pymaceuticals Analysis**

The purpose of this paper is to draw conclusions based on the Drug Regimens used in the Pymaceuticals data. The paper will focus on the three following topics: drug , specific mice treatment over time on the drug Capomulin, and correlation of the drug Capomulin on weight v average tumor volume in all mice.

For my first conclusion, is that the drug Capomulin appears to have to be the drug used the most in the trials (fig 1a). This drug also appears to be pretty effective as it appears to have the smallest range of standard deviations (fig 1b). Because of this, I’ve choosen to focus more on its effects within the next two conclusions.

Chart, bar chart

Description automatically generated

Fig 1a

Chart, box and whisker chart

Description automatically generated

Fig 1b

For my second conclusion, when choosing a random mouse (in this instance Mouse ID: r944, or as we loving call Barry), we can see that initially her treatment regimen with the drug Capomulin resulted in an increase of tumor volume. However, overtime we can see that the tumor vol decreases with the volume stabilizing around 25 days on.

Chart, line chart

Description automatically generated

Fig 2a

We also can see a similar downward trend (fig 2b) over time with Mouse ID: b128 (aka mousey-mouse).

Chart, line chart

Description automatically generated

Fig 2b

For my final conclusion, as per the fig 3, there is a strong correlation between the mouse’s weight and the average tumor volume while on the drug regimen of Capomulin; where the correlation coefficient is .834.

Chart, scatter chart

Description automatically generated

Fig 3