# Pymaceuticals Inc.

## Analysis

### Capomulin and Ramicane have the best results for reducing tumor size

Within this study, Capomulin and Ramicane have the best results for reducing tumor size. All mice within the study started with a tumor volume of 45 mm3. Reviewing the statistics of final tumor volumes, only three drug regimens (Capomulin, Infubinol, Ramicane) showed any mice with a decrease in tumor size by the end of the study. Of these three, only Capomulin and Ramicane had an average final tumor size less than the starting tumor size.

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**Table 1**

### Gender does not appear to have a notable impact.

Gender does not appear to have a notable impact. Overall distribution is relatively even (Figure 1). While there are differences across drug regimens (Table 2), they do not appear significant. Looking at boxplots within Capomulin and Ramicane by gender (Figure 2) does not indicate notable differences considering population size.

A blue and orange pie chart

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**Figure 1 Table 2**

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**Figure 2**

### Mouse weight is highly correlated with average final tumor volume

Despite the starting tumor size being consistent, the mouse weight (g) is highly correlated with average final tumor volume (mm3) within both Capomulin (0.84 correlation coefficient) and Ramicane (0.81 correlation coefficient) regimens. The correlation coefficient for the combined regimens is 0.9 (Figure 3).

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**Figure 3**