**Tumor Treatment Assessment**

Scott Clark

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**Analysis**

1. Continuous reduction in tumor volume was only observed in the Capomulin treatment group

Of the four treatment groups analyzed, Capomulin is distinct in that it was the only treatment group with continuous reduction in tumor volume over the study period of 45 days. The other three treatment groups (Kerapril, Infubinol, placebo) experienced continuous tumor volume growth over the same time period. Kerapril and Infubinol were similar to the placebo group in terms of the rate of tumor volume growth, with overlapping standard error bars. Considering the tumor volume reduction and that the error bars for Capomulin do not overlap with the other treatment groups, including the placebo group, the results for Capomulin may be significant.

1. Capomulin performed best in terms of metastatic response

In terms of the metastatic response to treatment, Capomulin again performed better than the other treatment groups. For the Capomulin group, metastatic sites grew at half the rate of the placebo group and may represent a significant difference. The Infubinol group showed some improvement over the placebo group and may represent a significant difference from the placebo group. Ketpril’s results were similar to the placebo.

1. Capolumin treatment group’s survival rate was approximately double that of the other groups

Capomulin was the again distinct from the other three treatment groups in terms of survival during treatment. Of the mice in Capomulin’s group, 84% survived the treatment period compared to 44% for both Ketapril and the placebo group. Only 36% of the Infubinol group survived.

**Recommended Next Steps**

Capolumin’s impact may be significant in terms of reducing tumor volume and improving metastatic response and survival. Additional statistical tests should be undertaken to assess significance and additional testing could be performed with increased sample sizes and for longer duration.