

Pymaceuticals Inc.

Analysis

- OBSERVED TREND 1
- OBSERVED TREND 2
- OBSERVED TREND 3

In [80]:



Out[80]:

	Mouse ID	Timepoint	Tumor Volume (mm3)	Metastatic Sites	Drug
0	o823	0	45.0	0	Stelasyne
1	n926	0	45.0	0	Propriva
2	i577	0	45.0	0	Propriva
3	o951	0	45.0	0	Propriva
4	u304	0	45.0	0	Naftisol

Tumor Response to Treatment

In [81]:



Out[81]:

		Tumor Volume (mm3)
Drug	Timepoint	
Capomulin	0	45.000000
	5	47.298784
	10	49.180564
	15	51.743320
	20	54.228001
	25	57.063000
	30	60.423591
	35	62.601131
	40	64.943515
	45	68.653148
Ceftamin	0	45.000000
	5	46.879398
	10	49.197858
	15	52.104836
	20	54.744365
	25	56.407884
	30	58.969806
	35	61.791210
	40	65.179592
	45	68.044202
Infubinol	0	45.000000
	5	43.954245
	10	41.439300
	15	39.497476
	20	37.730368
	25	36.649809
	30	35.340477
	35	34.069980
	40	32.579123
	45	31.260132
...
Ramicane	0	45.000000
	5	46.954388
	10	48.537603
	15	50.965921
	20	53.081294
	25	55.945463
	30	58.855565
	35	61.616513
	40	65.195952
	45	69.341035
Stelasyne	0	45.000000
	5	43.318820
	10	41.453580
	15	39.033665
	20	38.613482
	25	36.763534
	30	35.720817
	35	34.360437
	40	32.324381
	45	31.171146
Zoniferol	0	45.000000
	5	46.943024
	10	49.429060
	15	51.575615
	20	54.960902
	25	58.043453
	30	60.406165
	35	64.699783
	40	65.900773
	45	68.620806

100 rows × 1 columns

In [82]:



Out[82]:

		Tumor Volume (mm3)
Drug	Timepoint	
Capomulin	0	0.000000
	5	0.324821
	10	0.463469
	15	0.688188
	20	0.868094

In [83]:



Out[83]:

Drug	Capomulin	Ceftamin	Infubinol	Ketapril	Naftisol	Placebo	Propriva	Ramicane	Stelasyn	Zoniferol
Timepoint										
0	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000
5	47.298784	46.879398	43.954245	47.404664	47.231697	46.849216	47.177008	46.954388	43.318820	46.943024
10	49.180564	49.197858	41.439300	50.152807	49.594220	49.550314	49.038792	48.537603	41.453580	49.429060
15	51.743320	52.104836	39.497476	52.181102	51.957461	52.195613	51.539146	50.965921	39.033665	51.575615
20	54.228001	54.744365	37.730368	55.016953	54.476746	54.333564	54.117186	53.081294	38.613482	54.960902

In [84]:



Metastatic Response to Treatment

In [85]:



Out[85]:

		Metastatic Sites
Drug	Timepoint	
Capomulin	0	0.000000
	5	0.458333
	10	0.666667
	15	0.888889
	20	1.375000

In [86]:



Out[86]:

		Metastatic Sites
Drug	Timepoint	
Capomulin	0	0.000000
	5	0.103895
	10	0.143649
	15	0.178755
	20	0.256174

In [87]:



Out[87]:

Drug	Capomulin	Ceftamin	Infubinol	Ketapril	Naftisol	Placebo	Propriva	Ramicane	Stelasyn	Zoniferol
Timepoint										
0	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000	45.000000
5	47.298784	46.879398	43.954245	47.404664	47.231697	46.849216	47.177008	46.954388	43.318820	46.943024
10	49.180564	49.197858	41.439300	50.152807	49.594220	49.550314	49.038792	48.537603	41.453580	49.429060
15	51.743320	52.104836	39.497476	52.181102	51.957461	52.195613	51.539146	50.965921	39.033665	51.575615
20	54.228001	54.744365	37.730368	55.016953	54.476746	54.333564	54.117186	53.081294	38.613482	54.960902

In [88]:



Survival Rates

In [89]:



Out[89]:

		Mouse Count
Drug	Timepoint	
Capomulin	0	25
	5	24
	10	21
	15	18
	20	16

In [90]:



Out[90]:

Drug	Capomulin	Ceftamin	Infubinol	Ketapril	Naftisol	Placebo	Propriova	Ramicane	Stelasyn	Zoniferol
Timepoint										
0	25	25	25	25	25	25	25	25	25	25
5	24	21	23	23	23	24	22	24	23	21
10	21	19	21	21	23	21	21	23	21	20
15	18	19	20	19	16	21	20	21	15	16
20	16	16	19	18	15	18	20	20	13	15

In [91]:



Summary Bar Graph

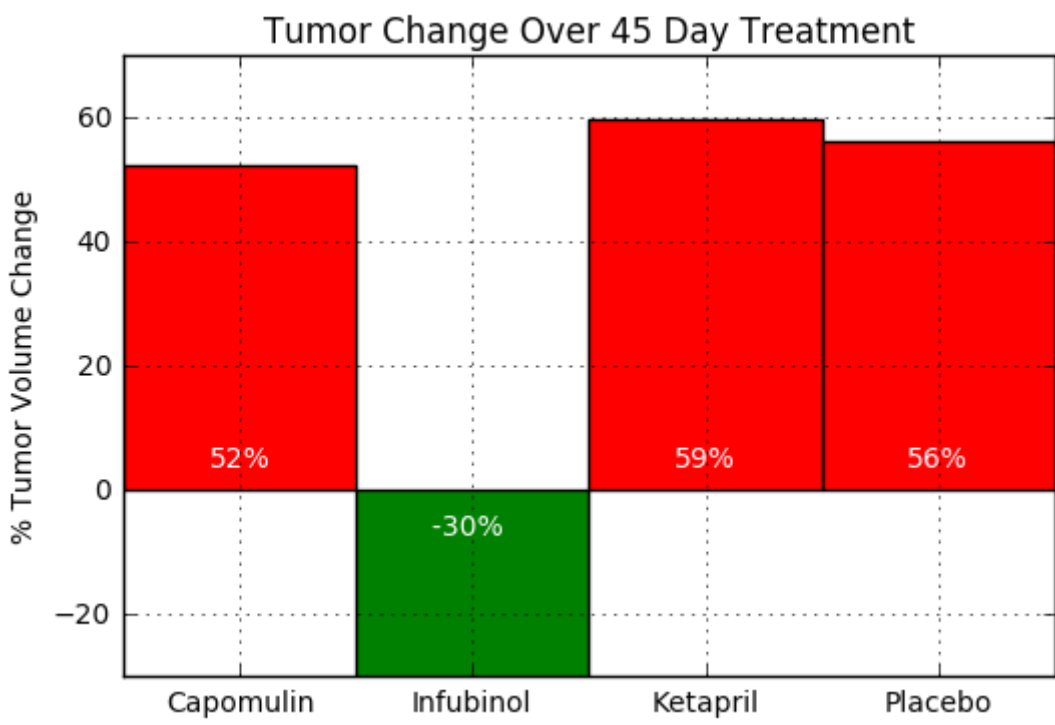
In [92]:



Out[92]:

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Drug
Capomulin    52.562552
Ceftamin     51.209337
Infubinol    -30.533041
Ketapril     59.899270
Naftisol     46.018113
Placebo      56.344665
Propriova    50.963534
Ramicane     54.091189
Stelasyn    -30.730787
Zoniferol    52.490679
dtype: float64
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In [93]:



In []: