A.

B. Imatinib Dose Response for BCR-ABL Variants

C.

Mutant	Frequency	IC$_{50}$	Mutation Probability
T315I	0.153	8711	0.183
G250E	0.133	3022	0.133
M351T	0.092	1022	0.055
E255K	0.088	1874	0.133
Y253H	0.072	6298	0.055
M244V	0.068	530	0.038
E355G	0.052	1170	0.038
F317L	0.048	927	0.077
E255V	0.044	8433	0.005
F359V	0.044	1018	0.009
F359C	0.032	1382	0.009
Q252H	0.040	1730	0.023
Y253F	0.024	2181	0.005
H396R	0.024	1037	0.038
E459K	0.024	803	0.133
F359I	0.020	826	0.003
L248V	0.016	1439	0.012
D276G	0.016	673	0.038
H396P	0.008	1734	0.011

D. Statistical Model: Substitution Bias and Drug Growth Rate Our Clinical Meta-Analysis

r = 0.76

E. Statistical Model: Growth Rates With and Without Drug **No** Substitution Bias

r = 0.27

F. Statistical Model: Substitution Bias and Drug Growth Rate Sanger Institute Data Set

r = 0.71