Supplementary Information

TP53 status in a simplified agent-based simulation of astrocytoma, IDH-mutant, CNS WHO grade 4

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This document contains the numerical values plotted in the manuscript figures. Each table corresponds to the data file named in that figure's caption. All quantities come from PhysiCell 1.14.2 simulations with ten seeded replicates per arm. Times are in days, positions in microns and oxygen in mmHg. Values are shown to six significant figures, and agent positions to 0.01 micron.

Population labels: **IDHmut_TP53mut** = IDH1 R132H / TP53-mutant; **IDHmut_TP53wt** = IDH1 R132H / TP53 wild-type. Arms: co_separated, co_mixed and co_swapped are co-culture arms (populations seeded apart, well mixed, and with positions swapped); mono_TP53mut and mono_TP53wt are monoculture arms; label_control contains two identically parameterised populations (label_A, label_B).

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Code: https://github.com/vedant-dave832/glioma_physicell

Table S1. Data for Figure 1

fig1_growth_and_fold_change_data.csv · 46 rows

Population growth and total fold change in the separated co-culture arm (ten seeded replicates).

population: simulated population
time_days: simulation time (days)
mean, std_x, count_x: mean, standard deviation and number of replicates of the live agent count at that time (Figure 1A)
fold_change_mean, std_y, count_y: mean, standard deviation and number of replicates of the total fold change from seeding (Figure 1B; constant per population)

population	time_days	mean	std_x	count_x	fold_change_mean	std_y	count_y
IDHmut_TP53mut	0	100	0	10	3.141	0.315223	10
IDHmut_TP53mut	0.25	106.7	1.63639	10	3.141	0.315223	10
IDHmut_TP53mut	0.5	111.7	1.49443	10	3.141	0.315223	10
IDHmut_TP53mut	0.75	117.8	2.97396	10	3.141	0.315223	10
IDHmut_TP53mut	1	125	4.47214	10	3.141	0.315223	10
IDHmut_TP53mut	1.25	132.3	6.79951	10	3.141	0.315223	10
IDHmut_TP53mut	1.5	138.1	6.96738	10	3.141	0.315223	10
IDHmut_TP53mut	1.75	143.3	7.10321	10	3.141	0.315223	10
IDHmut_TP53mut	2	150.4	7.66232	10	3.141	0.315223	10
IDHmut_TP53mut	2.25	158.6	8.79646	10	3.141	0.315223	10
IDHmut_TP53mut	2.5	166.1	8.88757	10	3.141	0.315223	10
IDHmut_TP53mut	2.75	175.1	11.3671	10	3.141	0.315223	10
IDHmut_TP53mut	3	184.5	11.6643	10	3.141	0.315223	10
IDHmut_TP53mut	3.25	193.8	14.0618	10	3.141	0.315223	10
IDHmut_TP53mut	3.5	204.3	15.6989	10	3.141	0.315223	10
IDHmut_TP53mut	3.75	214.4	17.5449	10	3.141	0.315223	10
IDHmut_TP53mut	4	227.8	19.0776	10	3.141	0.315223	10
IDHmut_TP53mut	4.25	241.2	20.9221	10	3.141	0.315223	10
IDHmut_TP53mut	4.5	254.7	21.271	10	3.141	0.315223	10
IDHmut_TP53mut	4.75	267.5	23.9363	10	3.141	0.315223	10
IDHmut_TP53mut	5	282.2	28.027	10	3.141	0.315223	10
IDHmut_TP53mut	5.25	296.7	30.0557	10	3.141	0.315223	10
IDHmut_TP53mut	5.5	314.1	31.5223	10	3.141	0.315223	10
IDHmut_TP53wt	0	100	0	10	2.126	0.247171	10
IDHmut_TP53wt	0.25	104.1	2.33095	10	2.126	0.247171	10
IDHmut_TP53wt	0.5	107.5	4.71993	10	2.126	0.247171	10
IDHmut_TP53wt	0.75	111.5	4.64878	10	2.126	0.247171	10
IDHmut_TP53wt	1	114.3	4.78539	10	2.126	0.247171	10
IDHmut_TP53wt	1.25	117.9	4.7481	10	2.126	0.247171	10
IDHmut_TP53wt	1.5	123.8	6.47731	10	2.126	0.247171	10
IDHmut_TP53wt	1.75	127	7.80313	10	2.126	0.247171	10
IDHmut_TP53wt	2	131.8	8.36394	10	2.126	0.247171	10
IDHmut_TP53wt	2.25	137.9	10.7647	10	2.126	0.247171	10
IDHmut_TP53wt	2.5	143.5	11.5398	10	2.126	0.247171	10
IDHmut_TP53wt	2.75	148.6	11.787	10	2.126	0.247171	10
IDHmut_TP53wt	3	153.5	12.8863	10	2.126	0.247171	10
IDHmut_TP53wt	3.25	158.6	14.0491	10	2.126	0.247171	10
IDHmut_TP53wt	3.5	163.7	11.2748	10	2.126	0.247171	10
IDHmut_TP53wt	3.75	167.7	11.3044	10	2.126	0.247171	10
IDHmut_TP53wt	4	174.9	14.0194	10	2.126	0.247171	10
IDHmut_TP53wt	4.25	181.5	15.5367	10	2.126	0.247171	10
IDHmut_TP53wt	4.5	188.3	17.2566	10	2.126	0.247171	10
IDHmut_TP53wt	4.75	193.6	19.2712	10	2.126	0.247171	10
IDHmut_TP53wt	5	200.8	20.601	10	2.126	0.247171	10
IDHmut_TP53wt	5.25	206.4	21.9251	10	2.126	0.247171	10

population	time_days	mean	std_x	count_x	fold_ change_ mean	std_y	count_y
IDHmut_TP53wt	5.5	212.6	24.7171	10	2.126	0.247171	10

Table S2. Data for Figure 2

fig2_spatial_agents_data.csv · 1127 rows

Position of every live agent at days 0.0, 3.25 and 5.5 in one representative replicate of the separated co-culture arm (seed 20260907).

x, y: agent position (microns)
population: simulated population
time_days: simulation time (days)

x	y	population	time_days
-159.20	-25.62	IDHmut_TP53wt	0
-190.13	-30.49	IDHmut_TP53wt	0
-199.40	39.08	IDHmut_TP53wt	0
-187.88	-22.28	IDHmut_TP53wt	0
-198.18	17.58	IDHmut_TP53wt	0
-183.29	-11.57	IDHmut_TP53wt	0
-184.01	-41.86	IDHmut_TP53wt	0
-162.47	3.42	IDHmut_TP53wt	0
-208.04	-29.42	IDHmut_TP53wt	0
-204.99	-48.69	IDHmut_TP53wt	0
-183.87	6.35	IDHmut_TP53wt	0
-196.91	2.46	IDHmut_TP53wt	0
-169.90	5.75	IDHmut_TP53wt	0
-220.92	-14.47	IDHmut_TP53wt	0
-191.72	36.41	IDHmut_TP53wt	0
-171.20	-3.47	IDHmut_TP53wt	0
-177.53	6.70	IDHmut_TP53wt	0
-171.35	20.15	IDHmut_TP53wt	0
-196.75	-32.98	IDHmut_TP53wt	0
-204.43	-48.98	IDHmut_TP53wt	0
-176.67	0.64	IDHmut_TP53wt	0
-215.01	21.23	IDHmut_TP53wt	0
-224.55	26.20	IDHmut_TP53wt	0
-215.20	-25.82	IDHmut_TP53wt	0
-246.95	16.96	IDHmut_TP53wt	0
-195.17	-11.77	IDHmut_TP53wt	0
-220.91	-28.44	IDHmut_TP53wt	0
-188.24	17.85	IDHmut_TP53wt	0
-187.71	-15.58	IDHmut_TP53wt	0
-171.47	6.05	IDHmut_TP53wt	0
-193.85	4.70	IDHmut_TP53wt	0
-233.85	-36.58	IDHmut_TP53wt	0
-207.71	-21.35	IDHmut_TP53wt	0
-227.85	-3.67	IDHmut_TP53wt	0
-174.92	-13.17	IDHmut_TP53wt	0
-203.17	13.69	IDHmut_TP53wt	0
-205.18	38.14	IDHmut_TP53wt	0
-182.92	-24.35	IDHmut_TP53wt	0
-223.23	11.58	IDHmut_TP53wt	0
-203.96	4.40	IDHmut_TP53wt	0
-173.26	26.98	IDHmut_TP53wt	0
-224.02	-17.90	IDHmut_TP53wt	0
-222.39	11.37	IDHmut_TP53wt	0
-164.72	1.10	IDHmut_TP53wt	0
-181.18	-10.97	IDHmut_TP53wt	0
-162.53	-25.70	IDHmut_TP53wt	0
-163.26	-3.52	IDHmut_TP53wt	0
-235.10	31.42	IDHmut_TP53wt	0
-183.69	12.30	IDHmut_TP53wt	0
-153.51	-1.38	IDHmut_TP53wt	0
-207.44	-26.18	IDHmut_TP53wt	0
-176.57	-31.45	IDHmut_TP53wt	0
-191.06	-3.91	IDHmut_TP53wt	0
-225.06	-37.84	IDHmut_TP53wt	0
-181.55	-40.76	IDHmut_TP53wt	0
-161.25	15.58	IDHmut_TP53wt	0
-221.10	18.93	IDHmut_TP53wt	0
-222.88	-7.63	IDHmut_TP53wt	0
-197.63	26.82	IDHmut_TP53wt	0
-231.03	-36.69	IDHmut_TP53wt	0
-226.41	-22.63	IDHmut_TP53wt	0
-160.79	-1.33	IDHmut_TP53wt	0
-202.65	-32.58	IDHmut_TP53wt	0
-191.55	17.37	IDHmut_TP53wt	0
-244.38	0.76	IDHmut_TP53wt	0
-215.47	-39.85	IDHmut_TP53wt	0
-186.95	16.16	IDHmut_TP53wt	0
-183.48	28.15	IDHmut_TP53wt	0
-208.00	-47.25	IDHmut_TP53wt	0
-169.65	16.25	IDHmut_TP53wt	0
-169.75	-27.52	IDHmut_TP53wt	0
-199.23	-35.62	IDHmut_TP53wt	0
-185.16	-25.25	IDHmut_TP53wt	0
-170.44	-13.73	IDHmut_TP53wt	0
-164.53	12.74	IDHmut_TP53wt	0
-242.90	6.17	IDHmut_TP53wt	0
-232.41	7.64	IDHmut_TP53wt	0
-232.60	-11.98	IDHmut_TP53wt	0
-159.19	-3.31	IDHmut_TP53wt	0
-219.48	21.77	IDHmut_TP53wt	0
-196.93	-33.47	IDHmut_TP53wt	0
-214.71	-25.17	IDHmut_TP53wt	0
-216.02	-31.69	IDHmut_TP53wt	0
-215.01	-18.14	IDHmut_TP53wt	0
-216.23	-44.81	IDHmut_TP53wt	0
-190.66	-24.12	IDHmut_TP53wt	0
-188.23	-18.51	IDHmut_TP53wt	0
-194.34	31.19	IDHmut_TP53wt	0
-212.19	47.15	IDHmut_TP53wt	0
-206.47	6.13	IDHmut_TP53wt	0
-215.45	5.78	IDHmut_TP53wt	0
-230.52	-18.55	IDHmut_TP53wt	0
-184.86	-1.92	IDHmut_TP53wt	0
-186.68	-2.12	IDHmut_TP53wt	0
-210.72	24.30	IDHmut_TP53wt	0
-219.71	-38.69	IDHmut_TP53wt	0
-214.05	1.49	IDHmut_TP53wt	0
-211.72	46.80	IDHmut_TP53wt	0
-168.66	15.65	IDHmut_TP53wt	0
-196.09	21.82	IDHmut_TP53wt	0
186.69	25.01	IDHmut_TP53mut	0
224.86	27.36	IDHmut_TP53mut	0
229.31	-36.97	IDHmut_TP53mut	0
206.60	24.80	IDHmut_TP53mut	0
195.83	8.47	IDHmut_TP53mut	0
212.24	-0.64	IDHmut_TP53mut	0
195.42	44.15	IDHmut_TP53mut	0
206.86	40.33	IDHmut_TP53mut	0
152.61	-10.27	IDHmut_TP53mut	0
228.59	-8.26	IDHmut_TP53mut	0
204.23	44.43	IDHmut_TP53mut	0
227.98	6.25	IDHmut_TP53mut	0
219.78	2.45	IDHmut_TP53mut	0
154.84	-1.20	IDHmut_TP53mut	0
228.50	2.79	IDHmut_TP53mut	0
210.55	-39.58	IDHmut_TP53mut	0
248.80	-6.90	IDHmut_TP53mut	0
192.72	49.42	IDHmut_TP53mut	0
203.27	-14.89	IDHmut_TP53mut	0
162.74	-31.81	IDHmut_TP53mut	0
166.40	-3.54	IDHmut_TP53mut	0
160.35	-25.37	IDHmut_TP53mut	0
229.61	14.61	IDHmut_TP53mut	0
238.58	-18.04	IDHmut_TP53mut	0
165.76	-18.73	IDHmut_TP53mut	0
201.52	-34.38	IDHmut_TP53mut	0
223.04	-23.01	IDHmut_TP53mut	0
210.21	40.15	IDHmut_TP53mut	0
233.57	-10.83	IDHmut_TP53mut	0

x	y	population	time_days
194.55	-34.45	IDHmut_TP53mut	0
246.19	15.04	IDHmut_TP53mut	0
160.72	18.47	IDHmut_TP53mut	0
196.43	42.28	IDHmut_TP53mut	0
186.91	12.68	IDHmut_TP53mut	0
197.21	27.32	IDHmut_TP53mut	0
236.19	-19.75	IDHmut_TP53mut	0
213.53	40.26	IDHmut_TP53mut	0
229.25	-14.52	IDHmut_TP53mut	0
211.88	-8.51	IDHmut_TP53mut	0
221.96	11.01	IDHmut_TP53mut	0
181.75	-27.85	IDHmut_TP53mut	0
200.26	-9.32	IDHmut_TP53mut	0
172.29	-15.63	IDHmut_TP53mut	0
158.48	-16.81	IDHmut_TP53mut	0
166.62	24.21	IDHmut_TP53mut	0
179.73	5.17	IDHmut_TP53mut	0
244.26	20.01	IDHmut_TP53mut	0
177.54	1.99	IDHmut_TP53mut	0
205.94	25.06	IDHmut_TP53mut	0
189.11	-2.67	IDHmut_TP53mut	0
177.75	-44.47	IDHmut_TP53mut	0
216.78	-43.07	IDHmut_TP53mut	0
179.53	31.98	IDHmut_TP53mut	0
191.85	-22.21	IDHmut_TP53mut	0
234.69	3.02	IDHmut_TP53mut	0
177.67	30.67	IDHmut_TP53mut	0
220.81	-38.53	IDHmut_TP53mut	0
173.90	1.63	IDHmut_TP53mut	0
212.31	-46.19	IDHmut_TP53mut	0
242.29	6.86	IDHmut_TP53mut	0
176.96	36.75	IDHmut_TP53mut	0
215.85	25.20	IDHmut_TP53mut	0
192.70	-47.10	IDHmut_TP53mut	0
203.32	29.96	IDHmut_TP53mut	0
192.44	33.44	IDHmut_TP53mut	0
219.64	-34.54	IDHmut_TP53mut	0
212.37	15.76	IDHmut_TP53mut	0
170.00	-28.04	IDHmut_TP53mut	0
230.78	-35.04	IDHmut_TP53mut	0
209.27	15.46	IDHmut_TP53mut	0
197.62	-13.83	IDHmut_TP53mut	0
218.05	-42.46	IDHmut_TP53mut	0
204.98	24.77	IDHmut_TP53mut	0
223.62	-1.63	IDHmut_TP53mut	0
186.96	-47.54	IDHmut_TP53mut	0
205.62	35.45	IDHmut_TP53mut	0
195.20	-34.49	IDHmut_TP53mut	0
183.12	12.85	IDHmut_TP53mut	0
245.70	14.08	IDHmut_TP53mut	0
233.35	0.63	IDHmut_TP53mut	0
228.89	24.39	IDHmut_TP53mut	0
236.10	-24.21	IDHmut_TP53mut	0
173.16	-38.80	IDHmut_TP53mut	0
218.81	45.96	IDHmut_TP53mut	0
211.19	17.68	IDHmut_TP53mut	0
228.06	-8.84	IDHmut_TP53mut	0
204.17	-14.94	IDHmut_TP53mut	0
196.24	-5.58	IDHmut_TP53mut	0
215.97	-46.54	IDHmut_TP53mut	0
214.91	29.71	IDHmut_TP53mut	0
228.82	-35.06	IDHmut_TP53mut	0
169.18	-1.17	IDHmut_TP53mut	0
191.06	45.49	IDHmut_TP53mut	0
189.58	-10.34	IDHmut_TP53mut	0
189.60	-0.83	IDHmut_TP53mut	0
224.75	7.71	IDHmut_TP53mut	0
197.23	34.88	IDHmut_TP53mut	0
154.73	0.63	IDHmut_TP53mut	0
215.17	16.99	IDHmut_TP53mut	0
211.21	23.27	IDHmut_TP53mut	0
-141.80	77.83	IDHmut_TP53wt	3.25
-163.73	-99.29	IDHmut_TP53wt	3.25
-190.95	86.80	IDHmut_TP53wt	3.25
-167.30	-57.17	IDHmut_TP53wt	3.25
-208.45	72.51	IDHmut_TP53wt	3.25
-170.00	-84.80	IDHmut_TP53wt	3.25
-113.40	17.63	IDHmut_TP53wt	3.25
-215.51	-53.44	IDHmut_TP53wt	3.25
-215.64	-108.81	IDHmut_TP53wt	3.25
208.06	-54.93	IDHmut_TP53mut	3.25
-170.80	20.40	IDHmut_TP53wt	3.25
101.60	-55.13	IDHmut_TP53mut	3.25
-258.42	-15.58	IDHmut_TP53wt	3.25
-202.10	-81.32	IDHmut_TP53wt	3.25
-132.13	-7.04	IDHmut_TP53wt	3.25
-230.28	-104.32	IDHmut_TP53wt	3.25
-151.21	56.46	IDHmut_TP53wt	3.25
-176.45	-70.43	IDHmut_TP53wt	3.25
-184.21	-112.64	IDHmut_TP53wt	3.25
-147.38	-2.82	IDHmut_TP53wt	3.25
-233.58	48.32	IDHmut_TP53wt	3.25
-275.89	76.70	IDHmut_TP53wt	3.25
236.55	112.00	IDHmut_TP53mut	3.25
-218.06	-78.31	IDHmut_TP53wt	3.25
-210.73	-34.58	IDHmut_TP53wt	3.25
-113.50	-49.01	IDHmut_TP53wt	3.25
-186.25	18.56	IDHmut_TP53wt	3.25
-183.62	-20.34	IDHmut_TP53wt	3.25
-159.41	31.20	IDHmut_TP53wt	3.25
-189.71	33.04	IDHmut_TP53wt	3.25
-280.97	-69.07	IDHmut_TP53wt	3.25
-224.75	-41.07	IDHmut_TP53wt	3.25
-109.53	2.25	IDHmut_TP53wt	3.25
-124.37	-37.61	IDHmut_TP53wt	3.25
-218.69	43.04	IDHmut_TP53wt	3.25
-224.34	74.03	IDHmut_TP53wt	3.25
-145.45	-73.56	IDHmut_TP53wt	3.25
-271.49	26.36	IDHmut_TP53wt	3.25
-206.86	-0.90	IDHmut_TP53wt	3.25
-163.32	79.34	IDHmut_TP53wt	3.25
-274.47	-35.05	IDHmut_TP53wt	3.25
-245.35	38.16	IDHmut_TP53wt	3.25
-128.71	21.95	IDHmut_TP53wt	3.25
-128.15	-22.27	IDHmut_TP53wt	3.25
-220.04	113.82	IDHmut_TP53wt	3.25
118.71	-49.66	IDHmut_TP53mut	3.25
-273.08	52.65	IDHmut_TP53wt	3.25
-194.62	-10.63	IDHmut_TP53wt	3.25
-98.12	-8.64	IDHmut_TP53wt	3.25
-197.15	-56.74	IDHmut_TP53wt	3.25
-98.09	13.65	IDHmut_TP53wt	3.25
-202.10	17.64	IDHmut_TP53wt	3.25
-262.60	-89.85	IDHmut_TP53wt	3.25
-144.83	-102.41	IDHmut_TP53wt	3.25
-105.59	43.76	IDHmut_TP53wt	3.25
-261.58	77.05	IDHmut_TP53wt	3.25
-252.77	86.66	IDHmut_TP53wt	3.25
-287.25	27.36	IDHmut_TP53wt	3.25
-277.64	-84.55	IDHmut_TP53wt	3.25
-265.64	-47.16	IDHmut_TP53wt	3.25
-129.96	-75.88	IDHmut_TP53wt	3.25
-207.61	-66.74	IDHmut_TP53wt	3.25
-174.61	35.82	IDHmut_TP53wt	3.25
-307.19	-5.14	IDHmut_TP53wt	3.25
-234.26	-78.60	IDHmut_TP53wt	3.25
-163.47	46.86	IDHmut_TP53wt	3.25
-143.44	-18.08	IDHmut_TP53wt	3.25
-227.84	-119.21	IDHmut_TP53wt	3.25
-147.71	41.52	IDHmut_TP53wt	3.25
-135.74	-60.85	IDHmut_TP53wt	3.25
-211.40	-93.60	IDHmut_TP53wt	3.25
-151.50	-58.74	IDHmut_TP53wt	3.25
-104.12	-61.87	IDHmut_TP53wt	3.25
-120.86	48.36	IDHmut_TP53wt	3.25
-302.50	30.55	IDHmut_TP53wt	3.25
-293.88	1.34	IDHmut_TP53wt	3.25
134.67	43.03	IDHmut_TP53mut	3.25
-115.34	-12.65	IDHmut_TP53wt	3.25
-236.36	63.63	IDHmut_TP53wt	3.25
-185.90	-83.47	IDHmut_TP53wt	3.25
-236.17	-51.66	IDHmut_TP53wt	3.25
-226.84	-64.65	IDHmut_TP53wt	3.25
-245.12	-6.99	IDHmut_TP53wt	3.25
-244.76	-108.52	IDHmut_TP53wt	3.25
228.88	14.85	IDHmut_TP53mut	3.25
-189.09	-42.04	IDHmut_TP53wt	3.25
-175.55	88.83	IDHmut_TP53wt	3.25
-241.23	94.83	IDHmut_TP53wt	3.25
-215.57	26.87	IDHmut_TP53wt	3.25
-230.22	32.83	IDHmut_TP53wt	3.25
-262.19	50.92	IDHmut_TP53wt	3.25
-169.77	-25.13	IDHmut_TP53wt	3.25
-173.78	-9.22	IDHmut_TP53wt	3.25
-221.50	58.60	IDHmut_TP53wt	3.25
-240.94	-93.04	IDHmut_TP53wt	3.25
-216.48	11.14	IDHmut_TP53wt	3.25
-221.81	89.44	IDHmut_TP53wt	3.25

x	y	population	time_days
-131.51	67.73	IDHmut_TP53wt	3.25
-182.11	73.75	IDHmut_TP53wt	3.25
165.13	71.42	IDHmut_TP53mut	3.25
268.63	91.43	IDHmut_TP53mut	3.25
260.92	-65.83	IDHmut_TP53mut	3.25
218.24	58.98	IDHmut_TP53mut	3.25
193.97	-4.44	IDHmut_TP53mut	3.25
206.85	-13.48	IDHmut_TP53mut	3.25
184.68	96.31	IDHmut_TP53mut	3.25
205.11	85.96	IDHmut_TP53mut	3.25
109.89	-6.30	IDHmut_TP53mut	3.25
250.34	-27.06	IDHmut_TP53mut	3.25
208.60	116.81	IDHmut_TP53mut	3.25
260.66	13.14	IDHmut_TP53mut	3.25
206.91	2.40	IDHmut_TP53mut	3.25
124.13	-2.39	IDHmut_TP53mut	3.25
259.34	-14.18	IDHmut_TP53mut	3.25
206.32	-91.60	IDHmut_TP53mut	3.25
299.96	-1.21	IDHmut_TP53mut	3.25
177.50	110.56	IDHmut_TP53mut	3.25
197.19	-43.66	IDHmut_TP53mut	3.25
126.16	-75.74	IDHmut_TP53mut	3.25
139.31	0.99	IDHmut_TP53mut	3.25
106.60	-39.95	IDHmut_TP53mut	3.25
260.62	28.94	IDHmut_TP53mut	3.25
300.83	-26.40	IDHmut_TP53mut	3.25
121.75	-33.98	IDHmut_TP53mut	3.25
196.52	-65.29	IDHmut_TP53mut	3.25
223.09	-51.50	IDHmut_TP53mut	3.25
220.08	90.00	IDHmut_TP53mut	3.25
265.96	-28.42	IDHmut_TP53mut	3.25
168.04	-77.58	IDHmut_TP53mut	3.25
289.96	27.71	IDHmut_TP53mut	3.25
104.12	38.90	IDHmut_TP53mut	3.25
180.54	69.59	IDHmut_TP53mut	3.25
179.07	22.57	IDHmut_TP53mut	3.25
188.08	35.69	IDHmut_TP53mut	3.25
285.61	-28.00	IDHmut_TP53mut	3.25
253.34	86.34	IDHmut_TP53mut	3.25
229.73	-39.16	IDHmut_TP53mut	3.25
227.59	-12.34	IDHmut_TP53mut	3.25
244.90	14.43	IDHmut_TP53mut	3.25
148.97	-40.24	IDHmut_TP53mut	3.25
201.64	-28.46	IDHmut_TP53mut	3.25
152.09	-25.18	IDHmut_TP53mut	3.25
90.44	-28.22	IDHmut_TP53mut	3.25
108.63	54.70	IDHmut_TP53mut	3.25
138.13	16.52	IDHmut_TP53mut	3.25
289.32	43.45	IDHmut_TP53mut	3.25
164.04	-9.41	IDHmut_TP53mut	3.25
200.22	46.28	IDHmut_TP53mut	3.25
173.77	-21.97	IDHmut_TP53mut	3.25
162.58	-94.54	IDHmut_TP53mut	3.25
233.44	-92.22	IDHmut_TP53mut	3.25
133.49	74.80	IDHmut_TP53mut	3.25
174.79	-45.25	IDHmut_TP53mut	3.25
149.08	-10.71	IDHmut_TP53mut	3.25
146.99	52.21	IDHmut_TP53mut	3.25
249.15	-55.48	IDHmut_TP53mut	3.25
111.92	24.72	IDHmut_TP53mut	3.25
215.65	-114.85	IDHmut_TP53mut	3.25
304.83	20.81	IDHmut_TP53mut	3.25
141.03	89.36	IDHmut_TP53mut	3.25
280.69	72.21	IDHmut_TP53mut	3.25
192.89	-85.33	IDHmut_TP53mut	3.25
194.26	60.65	IDHmut_TP53mut	3.25
173.83	84.72	IDHmut_TP53mut	3.25
206.51	-76.74	IDHmut_TP53mut	3.25
221.16	28.67	IDHmut_TP53mut	3.25
114.46	-64.86	IDHmut_TP53mut	3.25
275.67	-70.88	IDHmut_TP53mut	3.25
210.57	17.11	IDHmut_TP53mut	3.25
185.02	-33.68	IDHmut_TP53mut	3.25
258.54	-110.60	IDHmut_TP53mut	3.25
185.42	8.32	IDHmut_TP53mut	3.25
243.41	-13.16	IDHmut_TP53mut	3.25
200.95	-121.75	IDHmut_TP53mut	3.25
208.64	70.92	IDHmut_TP53mut	3.25
172.17	-61.69	IDHmut_TP53mut	3.25
163.43	55.03	IDHmut_TP53mut	3.25
275.41	35.42	IDHmut_TP53mut	3.25
268.10	-1.17	IDHmut_TP53mut	3.25
262.14	44.71	IDHmut_TP53mut	3.25
301.79	-55.42	IDHmut_TP53mut	3.25
152.93	-82.04	IDHmut_TP53mut	3.25
223.83	121.89	IDHmut_TP53mut	3.25
205.68	31.87	IDHmut_TP53mut	3.25
234.44	-26.22	IDHmut_TP53mut	3.25
212.66	-39.72	IDHmut_TP53mut	3.25
189.18	-18.83	IDHmut_TP53mut	3.25
229.90	-107.23	IDHmut_TP53mut	3.25
238.43	80.76	IDHmut_TP53mut	3.25
271.55	-54.94	IDHmut_TP53mut	3.25
122.98	13.42	IDHmut_TP53mut	3.25
160.58	88.46	IDHmut_TP53mut	3.25
163.96	-34.68	IDHmut_TP53mut	3.25
178.92	-6.41	IDHmut_TP53mut	3.25
252.27	-0.03	IDHmut_TP53mut	3.25
179.91	53.97	IDHmut_TP53mut	3.25
96.63	19.74	IDHmut_TP53mut	3.25
236.75	28.17	IDHmut_TP53mut	3.25
248.70	54.29	IDHmut_TP53mut	3.25
160.54	-50.86	IDHmut_TP53mut	3.25
247.85	38.65	IDHmut_TP53mut	3.25
218.83	-66.66	IDHmut_TP53mut	3.25
245.13	-102.18	IDHmut_TP53mut	3.25
-132.44	37.29	IDHmut_TP53wt	3.25
105.29	-24.36	IDHmut_TP53mut	3.25
156.91	-66.45	IDHmut_TP53mut	3.25
-180.15	58.02	IDHmut_TP53wt	3.25
-139.63	-33.56	IDHmut_TP53wt	3.25
156.85	40.36	IDHmut_TP53mut	3.25
-288.45	-42.80	IDHmut_TP53wt	3.25
172.61	40.37	IDHmut_TP53mut	3.25
177.85	-89.96	IDHmut_TP53mut	3.25
127.75	28.77	IDHmut_TP53mut	3.25
-253.85	-30.43	IDHmut_TP53wt	3.25
-196.45	101.66	IDHmut_TP53wt	3.25
-267.04	90.28	IDHmut_TP53wt	3.25
151.53	78.92	IDHmut_TP53mut	3.25
-223.05	-25.43	IDHmut_TP53wt	3.25
206.78	101.25	IDHmut_TP53mut	3.25
303.53	36.56	IDHmut_TP53mut	3.25
-273.73	-19.46	IDHmut_TP53wt	3.25
-154.70	-29.06	IDHmut_TP53wt	3.25
291.05	-43.58	IDHmut_TP53mut	3.25
-239.14	-35.79	IDHmut_TP53wt	3.25
-294.13	44.32	IDHmut_TP53wt	3.25
313.47	7.31	IDHmut_TP53mut	3.25
-279.60	62.75	IDHmut_TP53wt	3.25
119.27	42.85	IDHmut_TP53mut	3.25
251.45	117.56	IDHmut_TP53mut	3.25
137.71	-86.70	IDHmut_TP53mut	3.25
-140.15	11.02	IDHmut_TP53wt	3.25
221.72	106.10	IDHmut_TP53mut	3.25
260.43	-43.60	IDHmut_TP53mut	3.25
233.95	60.27	IDHmut_TP53mut	3.25
-152.25	-88.10	IDHmut_TP53wt	3.25
-195.68	-95.63	IDHmut_TP53wt	3.25
160.51	-113.51	IDHmut_TP53mut	3.25
133.74	-44.89	IDHmut_TP53mut	3.25
141.58	-71.16	IDHmut_TP53mut	3.25
-237.70	-20.34	IDHmut_TP53wt	3.25
-287.44	-11.64	IDHmut_TP53wt	3.25
162.12	107.57	IDHmut_TP53mut	3.25
-268.20	10.93	IDHmut_TP53wt	3.25
286.53	-59.04	IDHmut_TP53mut	3.25
82.23	-15.07	IDHmut_TP53mut	3.25
234.57	-77.77	IDHmut_TP53mut	3.25
306.57	-40.41	IDHmut_TP53mut	3.25
118.96	67.31	IDHmut_TP53mut	3.25
144.23	30.82	IDHmut_TP53mut	3.25
276.05	51.48	IDHmut_TP53mut	3.25
-165.38	63.34	IDHmut_TP53wt	3.25
-192.54	4.76	IDHmut_TP53wt	3.25
108.03	8.79	IDHmut_TP53mut	3.25
-256.90	21.00	IDHmut_TP53wt	3.25
262.89	-80.93	IDHmut_TP53mut	3.25
-116.25	63.63	IDHmut_TP53wt	3.25
-117.19	32.93	IDHmut_TP53wt	3.25
193.48	109.89	IDHmut_TP53mut	3.25
-265.46	-74.14	IDHmut_TP53wt	3.25
-212.34	102.16	IDHmut_TP53wt	3.25
-160.91	-71.70	IDHmut_TP53wt	3.25
-293.20	-58.11	IDHmut_TP53wt	3.25
275.45	-15.52	IDHmut_TP53mut	3.25
-158.20	-44.31	IDHmut_TP53wt	3.25
216.25	43.55	IDHmut_TP53mut	3.25

x	y	population	time_days
-273.82	-3.70	IDHmut_TP53wt	3.25
164.75	27.35	IDHmut_TP53mut	3.25
-303.95	-46.01	IDHmut_TP53wt	3.25
232.51	43.84	IDHmut_TP53mut	3.25
183.03	-73.22	IDHmut_TP53mut	3.25
-206.82	53.44	IDHmut_TP53wt	3.25
234.44	96.23	IDHmut_TP53mut	3.25
321.30	-6.68	IDHmut_TP53mut	3.25
236.70	0.95	IDHmut_TP53mut	3.25
-100.88	-39.27	IDHmut_TP53wt	3.25
-182.87	-56.22	IDHmut_TP53wt	3.25
-162.34	1.59	IDHmut_TP53wt	3.25
-228.72	103.31	IDHmut_TP53wt	3.25
-293.80	60.39	IDHmut_TP53wt	3.25
-103.51	-23.52	IDHmut_TP53wt	3.25
291.79	12.03	IDHmut_TP53mut	3.25
283.93	-1.87	IDHmut_TP53mut	3.25
-87.70	-20.67	IDHmut_TP53wt	3.25
-155.58	15.68	IDHmut_TP53wt	3.25
154.85	3.38	IDHmut_TP53mut	3.25
-288.07	-27.13	IDHmut_TP53wt	3.25
-85.27	22.24	IDHmut_TP53wt	3.25
-242.16	23.30	IDHmut_TP53wt	3.25
-239.68	79.10	IDHmut_TP53wt	3.25
145.37	-55.68	IDHmut_TP53mut	3.25
286.74	-82.20	IDHmut_TP53mut	3.25
263.19	60.48	IDHmut_TP53mut	3.25
-204.18	37.68	IDHmut_TP53wt	3.25
-120.02	-63.52	IDHmut_TP53wt	3.25
-206.99	-19.89	IDHmut_TP53wt	3.25
-248.93	53.19	IDHmut_TP53wt	3.25
-250.78	-46.03	IDHmut_TP53wt	3.25
-194.99	64.02	IDHmut_TP53wt	3.25
217.93	-24.89	IDHmut_TP53mut	3.25
-278.53	40.51	IDHmut_TP53wt	3.25
-260.96	37.72	IDHmut_TP53wt	3.25
247.95	-86.34	IDHmut_TP53mut	3.25
174.64	-121.14	IDHmut_TP53mut	3.25
-158.73	-13.77	IDHmut_TP53wt	3.25
137.18	-29.59	IDHmut_TP53mut	3.25
276.26	12.34	IDHmut_TP53mut	3.25
119.54	-18.02	IDHmut_TP53mut	3.25
202.27	-106.02	IDHmut_TP53mut	3.25
234.27	-62.76	IDHmut_TP53mut	3.25
-136.07	52.63	IDHmut_TP53wt	3.25
231.15	-122.81	IDHmut_TP53mut	3.25
-144.02	26.33	IDHmut_TP53wt	3.25
-191.98	-69.49	IDHmut_TP53wt	3.25
250.42	70.24	IDHmut_TP53mut	3.25
-243.08	-65.71	IDHmut_TP53wt	3.25
-100.98	59.00	IDHmut_TP53wt	3.25
130.10	-60.39	IDHmut_TP53mut	3.25
224.20	73.70	IDHmut_TP53mut	3.25
-192.20	48.18	IDHmut_TP53wt	3.25
-257.85	-60.25	IDHmut_TP53wt	3.25
-218.84	-10.58	IDHmut_TP53wt	3.25
132.37	58.77	IDHmut_TP53mut	3.25
134.48	-14.18	IDHmut_TP53mut	3.25
317.33	-52.00	IDHmut_TP53mut	3.25
174.06	-105.32	IDHmut_TP53mut	3.25
194.75	20.88	IDHmut_TP53mut	3.25
-230.86	-1.64	IDHmut_TP53wt	3.25
265.29	76.00	IDHmut_TP53mut	3.25
170.00	6.89	IDHmut_TP53mut	3.25
-231.35	13.27	IDHmut_TP53wt	3.25
249.16	101.85	IDHmut_TP53mut	3.25
-124.79	6.69	IDHmut_TP53wt	3.25
-179.63	-97.64	IDHmut_TP53wt	3.25
-86.74	2.46	IDHmut_TP53wt	3.25
-250.23	-79.91	IDHmut_TP53wt	3.25
-177.10	6.10	IDHmut_TP53wt	3.25
275.90	-40.20	IDHmut_TP53mut	3.25
297.30	-70.59	IDHmut_TP53mut	3.25
187.95	-112.52	IDHmut_TP53mut	3.25
-258.52	-0.30	IDHmut_TP53wt	3.25
-115.57	-82.19	IDHmut_TP53wt	3.25
-199.87	-110.59	IDHmut_TP53wt	3.25
-219.22	126.17	IDHmut_TP53wt	3.25
-206.24	87.95	IDHmut_TP53wt	3.25
289.59	59.20	IDHmut_TP53mut	3.25
221.52	1.56	IDHmut_TP53mut	3.25
-255.69	100.95	IDHmut_TP53wt	3.25
-265.45	63.54	IDHmut_TP53wt	3.25
186.11	-54.58	IDHmut_TP53mut	3.25
-246.07	8.54	IDHmut_TP53wt	3.25
194.23	75.81	IDHmut_TP53mut	3.25
-250.80	68.24	IDHmut_TP53wt	3.25
153.22	18.36	IDHmut_TP53mut	3.25
274.14	-90.58	IDHmut_TP53mut	3.25
220.65	-82.06	IDHmut_TP53mut	3.25
307.93	-13.81	IDHmut_TP53mut	3.25
260.26	-95.49	IDHmut_TP53mut	3.25
247.13	-70.92	IDHmut_TP53mut	3.25
-278.37	-54.15	IDHmut_TP53wt	3.25
292.50	-14.39	IDHmut_TP53mut	3.25
-97.66	30.48	IDHmut_TP53wt	3.25
91.58	-43.16	IDHmut_TP53mut	3.25
219.48	-96.63	IDHmut_TP53mut	3.25
96.85	-11.83	IDHmut_TP53mut	3.25
-225.97	-90.90	IDHmut_TP53wt	3.25
-195.08	-28.53	IDHmut_TP53wt	3.25
246.03	-40.78	IDHmut_TP53mut	3.25
152.07	65.40	IDHmut_TP53mut	3.25
-291.33	13.68	IDHmut_TP53wt	3.25
236.67	-49.29	IDHmut_TP53mut	3.25
-152.46	70.37	IDHmut_TP53wt	3.25
-203.08	-45.84	IDHmut_TP53wt	3.25
-280.26	15.83	IDHmut_TP53wt	3.25
152.48	97.78	IDHmut_TP53mut	3.25
280.91	-50.63	IDHmut_TP53mut	5.5
-163.25	-107.61	IDHmut_TP53wt	5.5
-188.40	82.87	IDHmut_TP53wt	5.5
-163.63	-71.01	IDHmut_TP53wt	5.5
-210.06	82.76	IDHmut_TP53wt	5.5
255.64	-34.60	IDHmut_TP53mut	5.5
-170.34	-93.18	IDHmut_TP53wt	5.5
-103.44	7.87	IDHmut_TP53wt	5.5
-216.73	-62.65	IDHmut_TP53wt	5.5
-230.96	6.36	IDHmut_TP53wt	5.5
198.20	-56.14	IDHmut_TP53mut	5.5
-170.67	35.39	IDHmut_TP53wt	5.5
76.74	-61.80	IDHmut_TP53mut	5.5
157.79	108.00	IDHmut_TP53mut	5.5
-202.22	-91.43	IDHmut_TP53wt	5.5
-122.40	-17.59	IDHmut_TP53wt	5.5
-227.64	-119.91	IDHmut_TP53wt	5.5
-144.10	65.36	IDHmut_TP53wt	5.5
-177.63	-78.77	IDHmut_TP53wt	5.5
-179.88	-122.62	IDHmut_TP53wt	5.5
-138.30	-13.52	IDHmut_TP53wt	5.5
-243.87	52.20	IDHmut_TP53wt	5.5
-291.13	90.49	IDHmut_TP53wt	5.5
246.71	129.44	IDHmut_TP53mut	5.5
-217.99	-90.55	IDHmut_TP53wt	5.5
-218.69	-34.66	IDHmut_TP53wt	5.5
-86.30	-59.48	IDHmut_TP53wt	5.5
-185.02	10.50	IDHmut_TP53wt	5.5
-180.04	-16.68	IDHmut_TP53wt	5.5
-155.39	38.05	IDHmut_TP53wt	5.5
-186.17	35.68	IDHmut_TP53wt	5.5
-290.03	-81.36	IDHmut_TP53wt	5.5
-224.93	-49.14	IDHmut_TP53wt	5.5
217.12	164.71	IDHmut_TP53mut	5.5
-116.17	-49.62	IDHmut_TP53wt	5.5
172.18	68.62	IDHmut_TP53mut	5.5
121.55	129.43	IDHmut_TP53mut	5.5
-140.74	-85.52	IDHmut_TP53wt	5.5
-220.54	-5.16	IDHmut_TP53wt	5.5
-158.34	86.03	IDHmut_TP53wt	5.5
-308.18	-31.62	IDHmut_TP53wt	5.5
-259.33	49.86	IDHmut_TP53wt	5.5
-100.81	23.42	IDHmut_TP53wt	5.5
-118.97	-33.63	IDHmut_TP53wt	5.5
-206.36	143.87	IDHmut_TP53wt	5.5
92.17	-57.93	IDHmut_TP53mut	5.5
-296.20	69.21	IDHmut_TP53wt	5.5
-189.34	-3.78	IDHmut_TP53wt	5.5
-236.71	157.19	IDHmut_TP53wt	5.5
-201.05	-63.30	IDHmut_TP53wt	5.5
-73.69	18.63	IDHmut_TP53wt	5.5
-199.24	28.17	IDHmut_TP53wt	5.5
-272.52	-114.31	IDHmut_TP53wt	5.5
-155.84	-121.79	IDHmut_TP53wt	5.5
-80.53	47.30	IDHmut_TP53wt	5.5
-241.88	141.88	IDHmut_TP53wt	5.5
-269.05	94.99	IDHmut_TP53wt	5.5
-322.93	36.52	IDHmut_TP53wt	5.5
-285.06	-96.51	IDHmut_TP53wt	5.5

x	y	population	time_days
-282.28	-41.38	IDHmut_TP53wt	5.5
-115.19	-73.87	IDHmut_TP53wt	5.5
-209.30	-76.99	IDHmut_TP53wt	5.5
-172.04	50.90	IDHmut_TP53wt	5.5
-326.84	-5.82	IDHmut_TP53wt	5.5
-233.62	-89.25	IDHmut_TP53wt	5.5
-157.64	57.21	IDHmut_TP53wt	5.5
-134.17	-28.65	IDHmut_TP53wt	5.5
-220.54	-134.21	IDHmut_TP53wt	5.5
-129.52	43.61	IDHmut_TP53wt	5.5
-131.60	-72.39	IDHmut_TP53wt	5.5
-211.20	-104.87	IDHmut_TP53wt	5.5
-141.34	-57.72	IDHmut_TP53wt	5.5
-99.78	-68.52	IDHmut_TP53wt	5.5
-95.52	42.04	IDHmut_TP53wt	5.5
-330.88	22.58	IDHmut_TP53wt	5.5
-311.25	-2.19	IDHmut_TP53wt	5.5
125.69	62.80	IDHmut_TP53mut	5.5
-106.19	-24.25	IDHmut_TP53wt	5.5
-233.04	64.27	IDHmut_TP53wt	5.5
-186.31	-92.28	IDHmut_TP53wt	5.5
238.05	82.84	IDHmut_TP53mut	5.5
-124.05	58.39	IDHmut_TP53wt	5.5
280.33	4.05	IDHmut_TP53mut	5.5
-257.55	-109.34	IDHmut_TP53wt	5.5
234.47	26.37	IDHmut_TP53mut	5.5
-187.38	-31.38	IDHmut_TP53wt	5.5
-177.62	96.83	IDHmut_TP53wt	5.5
-246.38	126.30	IDHmut_TP53wt	5.5
-211.25	20.81	IDHmut_TP53wt	5.5
-234.47	34.69	IDHmut_TP53wt	5.5
-274.30	53.28	IDHmut_TP53wt	5.5
-161.87	-40.48	IDHmut_TP53wt	5.5
-172.58	-29.87	IDHmut_TP53wt	5.5
-217.84	68.97	IDHmut_TP53wt	5.5
-246.94	-97.44	IDHmut_TP53wt	5.5
-214.81	7.46	IDHmut_TP53wt	5.5
-236.32	113.36	IDHmut_TP53wt	5.5
-119.60	84.76	IDHmut_TP53wt	5.5
-172.80	81.90	IDHmut_TP53wt	5.5
162.24	80.93	IDHmut_TP53mut	5.5
289.56	97.23	IDHmut_TP53mut	5.5
281.35	-76.97	IDHmut_TP53mut	5.5
216.20	69.11	IDHmut_TP53mut	5.5
197.68	-14.04	IDHmut_TP53mut	5.5
212.60	-8.84	IDHmut_TP53mut	5.5
189.28	113.12	IDHmut_TP53mut	5.5
198.83	100.45	IDHmut_TP53mut	5.5
89.83	-7.47	IDHmut_TP53mut	5.5
270.80	-38.14	IDHmut_TP53mut	5.5
210.37	133.65	IDHmut_TP53mut	5.5
266.33	7.92	IDHmut_TP53mut	5.5
201.04	1.08	IDHmut_TP53mut	5.5
104.57	-2.63	IDHmut_TP53mut	5.5
274.49	-23.55	IDHmut_TP53mut	5.5
200.03	-106.31	IDHmut_TP53mut	5.5
320.47	2.55	IDHmut_TP53mut	5.5
201.40	-42.12	IDHmut_TP53mut	5.5
95.86	-92.10	IDHmut_TP53mut	5.5
119.28	2.27	IDHmut_TP53mut	5.5
81.22	-46.36	IDHmut_TP53mut	5.5
271.06	33.44	IDHmut_TP53mut	5.5
317.08	-33.47	IDHmut_TP53mut	5.5
97.36	-42.95	IDHmut_TP53mut	5.5
213.57	-79.83	IDHmut_TP53mut	5.5
164.55	-73.74	IDHmut_TP53mut	5.5
228.78	109.32	IDHmut_TP53mut	5.5
285.97	-36.21	IDHmut_TP53mut	5.5
154.70	-103.97	IDHmut_TP53mut	5.5
286.51	35.61	IDHmut_TP53mut	5.5
72.84	45.61	IDHmut_TP53mut	5.5
177.95	83.25	IDHmut_TP53mut	5.5
189.57	11.26	IDHmut_TP53mut	5.5
192.23	27.24	IDHmut_TP53mut	5.5
301.45	-34.86	IDHmut_TP53mut	5.5
273.95	123.76	IDHmut_TP53mut	5.5
241.42	-40.16	IDHmut_TP53mut	5.5
227.67	-3.83	IDHmut_TP53mut	5.5
252.74	0.92	IDHmut_TP53mut	5.5
140.92	-58.24	IDHmut_TP53mut	5.5
209.26	-24.08	IDHmut_TP53mut	5.5
136.09	-34.38	IDHmut_TP53mut	5.5
71.46	-31.63	IDHmut_TP53mut	5.5
98.72	61.50	IDHmut_TP53mut	5.5
107.99	13.46	IDHmut_TP53mut	5.5
305.55	55.91	IDHmut_TP53mut	5.5
156.29	-14.20	IDHmut_TP53mut	5.5
194.96	43.01	IDHmut_TP53mut	5.5
167.96	-24.50	IDHmut_TP53mut	5.5
144.84	-116.56	IDHmut_TP53mut	5.5
241.74	-107.36	IDHmut_TP53mut	5.5
124.84	101.99	IDHmut_TP53mut	5.5
178.04	-66.27	IDHmut_TP53mut	5.5
141.08	-19.51	IDHmut_TP53mut	5.5
140.12	65.59	IDHmut_TP53mut	5.5
252.29	-66.33	IDHmut_TP53mut	5.5
84.06	34.28	IDHmut_TP53mut	5.5
207.08	-120.19	IDHmut_TP53mut	5.5
323.83	17.82	IDHmut_TP53mut	5.5
108.78	100.53	IDHmut_TP53mut	5.5
296.21	82.24	IDHmut_TP53mut	5.5
198.27	-84.00	IDHmut_TP53mut	5.5
187.80	70.30	IDHmut_TP53mut	5.5
167.85	95.70	IDHmut_TP53mut	5.5
209.56	-94.60	IDHmut_TP53mut	5.5
226.87	53.10	IDHmut_TP53mut	5.5
87.87	-73.30	IDHmut_TP53mut	5.5
295.38	-83.39	IDHmut_TP53mut	5.5
219.53	21.58	IDHmut_TP53mut	5.5
179.55	-34.73	IDHmut_TP53mut	5.5
279.34	-125.62	IDHmut_TP53mut	5.5
186.14	-4.06	IDHmut_TP53mut	5.5
257.95	-19.59	IDHmut_TP53mut	5.5
204.12	-135.28	IDHmut_TP53mut	5.5
203.04	73.75	IDHmut_TP53mut	5.5
182.50	-81.08	IDHmut_TP53mut	5.5
156.32	65.99	IDHmut_TP53mut	5.5
302.05	40.34	IDHmut_TP53mut	5.5
282.10	-10.43	IDHmut_TP53mut	5.5
267.46	47.28	IDHmut_TP53mut	5.5
321.81	-65.23	IDHmut_TP53mut	5.5
138.69	-101.76	IDHmut_TP53mut	5.5
225.74	138.86	IDHmut_TP53mut	5.5
207.20	30.75	IDHmut_TP53mut	5.5
241.87	-9.94	IDHmut_TP53mut	5.5
213.00	-52.91	IDHmut_TP53mut	5.5
194.23	-29.05	IDHmut_TP53mut	5.5
219.61	-130.21	IDHmut_TP53mut	5.5
240.84	98.39	IDHmut_TP53mut	5.5
293.75	-66.96	IDHmut_TP53mut	5.5
92.91	7.91	IDHmut_TP53mut	5.5
163.27	122.75	IDHmut_TP53mut	5.5
153.31	-28.87	IDHmut_TP53mut	5.5
182.66	-19.28	IDHmut_TP53mut	5.5
266.87	-7.29	IDHmut_TP53mut	5.5
183.40	54.42	IDHmut_TP53mut	5.5
80.13	18.81	IDHmut_TP53mut	5.5
249.00	30.97	IDHmut_TP53mut	5.5
260.24	60.51	IDHmut_TP53mut	5.5
152.36	-49.17	IDHmut_TP53mut	5.5
253.57	45.52	IDHmut_TP53mut	5.5
245.75	-81.05	IDHmut_TP53mut	5.5
263.62	-123.53	IDHmut_TP53mut	5.5
-121.51	31.43	IDHmut_TP53wt	5.5
86.95	-32.01	IDHmut_TP53mut	5.5
127.55	-86.32	IDHmut_TP53mut	5.5
-170.40	66.50	IDHmut_TP53wt	5.5
-130.94	-44.09	IDHmut_TP53wt	5.5
167.41	53.87	IDHmut_TP53mut	5.5
-298.08	-44.12	IDHmut_TP53wt	5.5
180.38	38.39	IDHmut_TP53mut	5.5
191.85	-125.05	IDHmut_TP53mut	5.5
127.47	33.22	IDHmut_TP53mut	5.5
95.30	23.11	IDHmut_TP53mut	5.5
-266.44	-38.66	IDHmut_TP53wt	5.5
-184.28	111.27	IDHmut_TP53wt	5.5
-282.15	103.69	IDHmut_TP53wt	5.5
136.37	91.12	IDHmut_TP53mut	5.5
-235.10	-37.43	IDHmut_TP53wt	5.5
332.24	49.06	IDHmut_TP53mut	5.5
-276.50	-26.56	IDHmut_TP53wt	5.5
-146.58	-43.95	IDHmut_TP53wt	5.5
307.59	-58.84	IDHmut_TP53mut	5.5
-250.63	-36.76	IDHmut_TP53wt	5.5
-319.08	52.37	IDHmut_TP53wt	5.5
334.57	-4.65	IDHmut_TP53mut	5.5
-305.00	82.46	IDHmut_TP53wt	5.5
94.01	46.60	IDHmut_TP53mut	5.5

x	y	population	time_days
261.87	134.42	IDHmut_TP53mut	5.5
122.54	-100.94	IDHmut_TP53mut	5.5
-142.84	2.91	IDHmut_TP53wt	5.5
231.68	124.43	IDHmut_TP53mut	5.5
135.02	-128.92	IDHmut_TP53mut	5.5
249.14	71.93	IDHmut_TP53mut	5.5
-126.28	-113.87	IDHmut_TP53wt	5.5
-195.17	-105.72	IDHmut_TP53wt	5.5
150.26	-131.80	IDHmut_TP53mut	5.5
111.94	-48.73	IDHmut_TP53mut	5.5
113.12	-88.23	IDHmut_TP53mut	5.5
-230.21	-25.99	IDHmut_TP53wt	5.5
-302.53	-16.35	IDHmut_TP53wt	5.5
168.80	137.44	IDHmut_TP53mut	5.5
-285.69	14.66	IDHmut_TP53wt	5.5
308.23	-74.34	IDHmut_TP53mut	5.5
56.42	-17.46	IDHmut_TP53mut	5.5
251.85	-95.37	IDHmut_TP53mut	5.5
320.00	-49.10	IDHmut_TP53mut	5.5
90.64	74.78	IDHmut_TP53mut	5.5
131.34	48.83	IDHmut_TP53mut	5.5
293.23	66.42	IDHmut_TP53mut	5.5
-205.02	-5.65	IDHmut_TP53wt	5.5
77.93	3.21	IDHmut_TP53mut	5.5
-269.89	17.84	IDHmut_TP53wt	5.5
282.36	-92.74	IDHmut_TP53mut	5.5
-108.55	96.25	IDHmut_TP53wt	5.5
142.85	-86.37	IDHmut_TP53mut	5.5
195.24	127.97	IDHmut_TP53mut	5.5
-274.54	-84.31	IDHmut_TP53wt	5.5
-199.92	111.42	IDHmut_TP53wt	5.5
-156.56	-84.91	IDHmut_TP53wt	5.5
-298.38	-68.12	IDHmut_TP53wt	5.5
291.94	-22.12	IDHmut_TP53mut	5.5
-155.82	-56.93	IDHmut_TP53wt	5.5
210.10	44.98	IDHmut_TP53mut	5.5
-295.47	-1.81	IDHmut_TP53wt	5.5
157.70	41.68	IDHmut_TP53mut	5.5
-318.45	-43.95	IDHmut_TP53wt	5.5
243.96	57.30	IDHmut_TP53mut	5.5
172.88	-92.74	IDHmut_TP53mut	5.5
339.24	21.31	IDHmut_TP53mut	5.5
243.76	113.91	IDHmut_TP53mut	5.5
110.52	72.64	IDHmut_TP53mut	5.5
112.82	57.42	IDHmut_TP53mut	5.5
-87.45	-43.36	IDHmut_TP53wt	5.5
-185.37	-64.51	IDHmut_TP53wt	5.5
-158.48	6.61	IDHmut_TP53wt	5.5
-231.65	130.10	IDHmut_TP53wt	5.5
-312.52	68.29	IDHmut_TP53wt	5.5
-79.59	-29.28	IDHmut_TP53wt	5.5
305.96	9.43	IDHmut_TP53mut	5.5
294.15	-1.31	IDHmut_TP53mut	5.5
-76.03	-13.40	IDHmut_TP53wt	5.5
130.43	-8.54	IDHmut_TP53mut	5.5
134.35	6.75	IDHmut_TP53mut	5.5
-70.93	34.45	IDHmut_TP53wt	5.5
-249.84	37.27	IDHmut_TP53wt	5.5
-225.83	86.39	IDHmut_TP53wt	5.5
148.79	-72.29	IDHmut_TP53mut	5.5
309.69	-90.21	IDHmut_TP53mut	5.5
277.64	69.46	IDHmut_TP53mut	5.5
-201.66	43.77	IDHmut_TP53wt	5.5
321.34	-13.33	IDHmut_TP53mut	5.5
-211.62	-20.28	IDHmut_TP53wt	5.5
-248.54	67.27	IDHmut_TP53wt	5.5
-248.18	-64.26	IDHmut_TP53wt	5.5
-108.69	35.70	IDHmut_TP53wt	5.5
-186.12	66.95	IDHmut_TP53wt	5.5
224.21	-18.72	IDHmut_TP53mut	5.5
-308.05	41.06	IDHmut_TP53wt	5.5
-295.86	31.33	IDHmut_TP53wt	5.5
267.33	-96.85	IDHmut_TP53mut	5.5
139.80	-143.89	IDHmut_TP53mut	5.5
-153.27	-8.52	IDHmut_TP53wt	5.5
125.21	-25.16	IDHmut_TP53mut	5.5
291.22	12.93	IDHmut_TP53mut	5.5
101.02	-18.96	IDHmut_TP53mut	5.5
236.80	-69.29	IDHmut_TP53mut	5.5
-110.27	50.24	IDHmut_TP53wt	5.5
247.05	-143.84	IDHmut_TP53mut	5.5
-135.99	28.91	IDHmut_TP53wt	5.5
-193.58	-77.97	IDHmut_TP53wt	5.5
267.36	92.65	IDHmut_TP53mut	5.5
-246.16	-79.69	IDHmut_TP53wt	5.5
-312.86	-93.65	IDHmut_TP53wt	5.5
102.74	-78.07	IDHmut_TP53mut	5.5
213.80	103.96	IDHmut_TP53mut	5.5
-200.20	60.33	IDHmut_TP53wt	5.5
-261.79	-72.41	IDHmut_TP53wt	5.5
-108.97	-88.78	IDHmut_TP53wt	5.5
129.68	77.17	IDHmut_TP53mut	5.5
115.70	-13.44	IDHmut_TP53mut	5.5
334.52	-55.60	IDHmut_TP53mut	5.5
160.23	-119.61	IDHmut_TP53mut	5.5
204.17	16.15	IDHmut_TP53mut	5.5
-236.90	-8.26	IDHmut_TP53wt	5.5
280.52	84.47	IDHmut_TP53mut	5.5
178.23	21.11	IDHmut_TP53mut	5.5
-239.40	19.56	IDHmut_TP53wt	5.5
258.77	118.84	IDHmut_TP53mut	5.5
-128.00	-1.94	IDHmut_TP53wt	5.5
-179.20	-106.60	IDHmut_TP53wt	5.5
-76.63	2.72	IDHmut_TP53wt	5.5
-259.37	-88.02	IDHmut_TP53wt	5.5
-206.02	124.80	IDHmut_TP53wt	5.5
295.88	-49.14	IDHmut_TP53mut	5.5
322.66	-81.07	IDHmut_TP53mut	5.5
175.84	-122.70	IDHmut_TP53mut	5.5
-264.03	2.87	IDHmut_TP53wt	5.5
270.67	108.17	IDHmut_TP53mut	5.5
-211.74	-120.83	IDHmut_TP53wt	5.5
-226.40	145.35	IDHmut_TP53wt	5.5
-208.69	98.48	IDHmut_TP53wt	5.5
308.31	71.51	IDHmut_TP53mut	5.5
216.07	6.36	IDHmut_TP53mut	5.5
-262.10	124.93	IDHmut_TP53wt	5.5
-257.54	80.27	IDHmut_TP53wt	5.5
185.59	-48.83	IDHmut_TP53mut	5.5
-252.94	-8.86	IDHmut_TP53wt	5.5
183.38	98.19	IDHmut_TP53mut	5.5
-241.30	81.45	IDHmut_TP53wt	5.5
123.43	17.44	IDHmut_TP53mut	5.5
296.73	-99.30	IDHmut_TP53mut	5.5
224.04	-95.57	IDHmut_TP53mut	5.5
331.00	-25.93	IDHmut_TP53mut	5.5
289.58	-113.45	IDHmut_TP53mut	5.5
260.75	-83.15	IDHmut_TP53mut	5.5
-287.82	-56.40	IDHmut_TP53wt	5.5
307.55	-20.76	IDHmut_TP53mut	5.5
-85.94	29.10	IDHmut_TP53wt	5.5
65.12	-46.09	IDHmut_TP53mut	5.5
230.05	-117.94	IDHmut_TP53mut	5.5
68.41	-9.17	IDHmut_TP53mut	5.5
-227.35	-103.90	IDHmut_TP53wt	5.5
-202.86	-33.55	IDHmut_TP53wt	5.5
252.43	-48.70	IDHmut_TP53mut	5.5
146.67	79.20	IDHmut_TP53mut	5.5
-318.82	11.98	IDHmut_TP53wt	5.5
240.30	-55.26	IDHmut_TP53mut	5.5
-137.70	109.06	IDHmut_TP53wt	5.5
-208.71	-48.63	IDHmut_TP53wt	5.5
-302.79	12.07	IDHmut_TP53wt	5.5
147.49	120.01	IDHmut_TP53mut	5.5
231.59	-148.09	IDHmut_TP53mut	5.5
-241.42	-50.46	IDHmut_TP53wt	5.5
-88.60	13.26	IDHmut_TP53wt	5.5
255.66	103.28	IDHmut_TP53mut	5.5
213.78	149.15	IDHmut_TP53mut	5.5
158.23	-88.17	IDHmut_TP53mut	5.5
-115.86	17.83	IDHmut_TP53wt	5.5
115.54	42.86	IDHmut_TP53mut	5.5
317.11	44.78	IDHmut_TP53mut	5.5
217.21	-108.56	IDHmut_TP53mut	5.5
-265.21	34.11	IDHmut_TP53wt	5.5
192.73	-69.68	IDHmut_TP53mut	5.5
328.55	33.33	IDHmut_TP53mut	5.5
-133.76	-99.83	IDHmut_TP53wt	5.5
223.18	80.16	IDHmut_TP53mut	5.5
101.81	86.13	IDHmut_TP53mut	5.5
221.98	-65.94	IDHmut_TP53mut	5.5
277.32	19.17	IDHmut_TP53mut	5.5
-272.26	-53.65	IDHmut_TP53wt	5.5
-237.85	97.03	IDHmut_TP53wt	5.5
171.18	-9.23	IDHmut_TP53mut	5.5
215.77	-145.91	IDHmut_TP53mut	5.5
147.37	52.57	IDHmut_TP53mut	5.5
169.08	-150.17	IDHmut_TP53mut	5.5

x	y	population	time_days
-177.84	-43.77	IDHmut_TP53wt	5.5
-243.93	-22.43	IDHmut_TP53wt	5.5
142.39	37.75	IDHmut_TP53mut	5.5
-280.95	119.68	IDHmut_TP53wt	5.5
247.56	-121.88	IDHmut_TP53mut	5.5
-253.48	95.67	IDHmut_TP53wt	5.5
231.28	11.12	IDHmut_TP53mut	5.5
-149.65	-99.12	IDHmut_TP53wt	5.5
-223.61	103.33	IDHmut_TP53wt	5.5
207.26	-66.79	IDHmut_TP53mut	5.5
240.86	144.27	IDHmut_TP53mut	5.5
164.43	-39.74	IDHmut_TP53mut	5.5
184.69	-152.81	IDHmut_TP53mut	5.5
-96.31	57.95	IDHmut_TP53wt	5.5
-124.76	-86.72	IDHmut_TP53wt	5.5
-204.56	-135.11	IDHmut_TP53wt	5.5
165.80	-134.70	IDHmut_TP53mut	5.5
-298.00	105.02	IDHmut_TP53wt	5.5
-252.43	111.68	IDHmut_TP53wt	5.5
320.64	60.43	IDHmut_TP53mut	5.5
159.96	0.98	IDHmut_TP53mut	5.5
273.72	-110.84	IDHmut_TP53mut	5.5
-113.36	-104.28	IDHmut_TP53wt	5.5
-214.05	53.42	IDHmut_TP53wt	5.5
-243.07	-155.67	IDHmut_TP53wt	5.5
-241.37	-128.21	IDHmut_TP53wt	5.5
263.97	76.79	IDHmut_TP53mut	5.5
179.23	125.50	IDHmut_TP53mut	5.5
-286.54	-14.55	IDHmut_TP53wt	5.5
-144.12	49.24	IDHmut_TP53wt	5.5
198.75	58.45	IDHmut_TP53mut	5.5
-280.08	68.17	IDHmut_TP53wt	5.5
-310.85	25.80	IDHmut_TP53wt	5.5
-217.78	37.36	IDHmut_TP53wt	5.5
149.08	11.42	IDHmut_TP53mut	5.5
-100.58	-52.52	IDHmut_TP53wt	5.5
270.51	-58.16	IDHmut_TP53mut	5.5
117.90	-74.03	IDHmut_TP53mut	5.5
235.63	-132.68	IDHmut_TP53mut	5.5
-130.25	73.02	IDHmut_TP53wt	5.5
181.65	-137.37	IDHmut_TP53mut	5.5
-192.54	-49.86	IDHmut_TP53wt	5.5
-148.10	97.11	IDHmut_TP53wt	5.5
213.14	57.66	IDHmut_TP53mut	5.5
-241.54	-112.23	IDHmut_TP53wt	5.5
323.53	76.12	IDHmut_TP53mut	5.5
-104.15	80.83	IDHmut_TP53wt	5.5
137.21	131.91	IDHmut_TP53mut	5.5
138.20	22.25	IDHmut_TP53mut	5.5
-143.74	81.56	IDHmut_TP53wt	5.5
152.25	93.49	IDHmut_TP53mut	5.5
157.59	-60.39	IDHmut_TP53mut	5.5
-173.57	0.85	IDHmut_TP53wt	5.5
174.72	5.98	IDHmut_TP53mut	5.5
201.85	159.64	IDHmut_TP53mut	5.5
-147.72	-71.06	IDHmut_TP53wt	5.5
124.15	-140.11	IDHmut_TP53mut	5.5
-153.35	112.00	IDHmut_TP53wt	5.5
238.19	42.24	IDHmut_TP53mut	5.5
123.91	-59.44	IDHmut_TP53mut	5.5
-199.69	9.42	IDHmut_TP53wt	5.5
170.14	-107.73	IDHmut_TP53mut	5.5
173.50	110.60	IDHmut_TP53mut	5.5
-113.78	-2.38	IDHmut_TP53wt	5.5
68.70	30.08	IDHmut_TP53mut	5.5
223.28	37.14	IDHmut_TP53mut	5.5
142.09	105.42	IDHmut_TP53mut	5.5
227.56	-47.43	IDHmut_TP53mut	5.5
-248.56	6.66	IDHmut_TP53wt	5.5
252.63	87.61	IDHmut_TP53mut	5.5
-91.09	-18.55	IDHmut_TP53wt	5.5
115.60	114.80	IDHmut_TP53mut	5.5
290.87	50.74	IDHmut_TP53mut	5.5
313.30	29.34	IDHmut_TP53mut	5.5
113.74	27.79	IDHmut_TP53mut	5.5
-132.82	93.56	IDHmut_TP53wt	5.5
-256.89	-51.19	IDHmut_TP53wt	5.5
117.68	87.35	IDHmut_TP53mut	5.5
-264.25	65.50	IDHmut_TP53wt	5.5
-131.25	13.67	IDHmut_TP53wt	5.5
246.37	15.44	IDHmut_TP53mut	5.5
-292.49	-29.15	IDHmut_TP53wt	5.5
-150.34	-28.48	IDHmut_TP53wt	5.5
-232.46	-62.93	IDHmut_TP53wt	5.5
261.03	21.83	IDHmut_TP53mut	5.5
-277.48	-68.71	IDHmut_TP53wt	5.5
83.21	57.88	IDHmut_TP53mut	5.5
-110.15	66.09	IDHmut_TP53wt	5.5
285.81	112.83	IDHmut_TP53mut	5.5
194.66	-165.10	IDHmut_TP53mut	5.5
-228.71	49.04	IDHmut_TP53wt	5.5
215.94	-37.63	IDHmut_TP53mut	5.5
193.42	85.76	IDHmut_TP53mut	5.5
-195.96	-18.47	IDHmut_TP53wt	5.5
-161.21	22.66	IDHmut_TP53wt	5.5
-318.25	-19.26	IDHmut_TP53wt	5.5
-280.30	29.68	IDHmut_TP53wt	5.5
-195.83	-121.70	IDHmut_TP53wt	5.5
-279.63	-0.20	IDHmut_TP53wt	5.5
-254.75	22.00	IDHmut_TP53wt	5.5
122.38	-39.21	IDHmut_TP53mut	5.5
-171.40	-57.64	IDHmut_TP53wt	5.5
185.39	-110.67	IDHmut_TP53mut	5.5
131.41	116.86	IDHmut_TP53mut	5.5
225.95	94.48	IDHmut_TP53mut	5.5
209.53	88.45	IDHmut_TP53mut	5.5
-142.33	-113.30	IDHmut_TP53wt	5.5
267.61	-70.35	IDHmut_TP53mut	5.5
109.88	-32.59	IDHmut_TP53mut	5.5
-234.21	-142.46	IDHmut_TP53wt	5.5
152.94	26.63	IDHmut_TP53mut	5.5
163.65	16.04	IDHmut_TP53mut	5.5
-187.65	51.19	IDHmut_TP53wt	5.5
-289.06	55.46	IDHmut_TP53wt	5.5
216.49	119.22	IDHmut_TP53mut	5.5
-217.36	133.40	IDHmut_TP53wt	5.5
298.35	25.48	IDHmut_TP53mut	5.5
200.32	-150.38	IDHmut_TP53mut	5.5
161.60	151.40	IDHmut_TP53mut	5.5
-224.88	-76.30	IDHmut_TP53wt	5.5
228.56	-81.59	IDHmut_TP53mut	5.5
-308.43	-56.18	IDHmut_TP53wt	5.5
243.27	-25.16	IDHmut_TP53mut	5.5
257.66	-109.38	IDHmut_TP53mut	5.5
105.88	127.21	IDHmut_TP53mut	5.5
-191.85	130.27	IDHmut_TP53wt	5.5
145.25	-3.92	IDHmut_TP53mut	5.5
-193.04	97.75	IDHmut_TP53wt	5.5
133.50	-72.03	IDHmut_TP53mut	5.5
-168.83	114.09	IDHmut_TP53wt	5.5
232.91	67.90	IDHmut_TP53mut	5.5
188.13	-95.61	IDHmut_TP53mut	5.5
129.40	-114.71	IDHmut_TP53mut	5.5
-268.09	110.51	IDHmut_TP53wt	5.5
170.99	-53.25	IDHmut_TP53mut	5.5
106.78	-63.31	IDHmut_TP53mut	5.5
167.39	30.72	IDHmut_TP53mut	5.5
-303.87	55.56	IDHmut_TP53wt	5.5
-221.27	118.75	IDHmut_TP53wt	5.5
-269.77	-99.36	IDHmut_TP53wt	5.5
229.74	-32.18	IDHmut_TP53mut	5.5
80.11	-18.97	IDHmut_TP53mut	5.5
307.96	-5.79	IDHmut_TP53mut	5.5
-162.95	-19.62	IDHmut_TP53wt	5.5
-162.89	100.16	IDHmut_TP53wt	5.5
-224.97	23.36	IDHmut_TP53wt	5.5
237.54	-93.15	IDHmut_TP53mut	5.5
-178.13	22.67	IDHmut_TP53wt	5.5
102.84	35.41	IDHmut_TP53mut	5.5
277.57	55.40	IDHmut_TP53mut	5.5
-102.67	-9.83	IDHmut_TP53wt	5.5
107.81	-100.89	IDHmut_TP53mut	5.5
56.72	-31.08	IDHmut_TP53mut	5.5
-128.03	-58.30	IDHmut_TP53wt	5.5
264.27	-49.20	IDHmut_TP53mut	5.5
131.53	-47.64	IDHmut_TP53mut	5.5
-225.05	-16.46	IDHmut_TP53wt	5.5
147.01	-39.98	IDHmut_TP53mut	5.5

Table S3. Data for Figure 3

fig3_fraction_and_doubling_data.csv · 46 rows

Population fraction over time and population doubling time in the separated co-culture arm. The fraction is computed within each replicate and then averaged across replicates.

population: simulated population
time_days: simulation time (days)
mean, std, count: mean, standard deviation and number of replicates of the fraction of live agents (Figure 3A)
observed_doubling_days, _std, _n: observed population doubling time (days): mean, standard deviation, replicates (Figure 3B)
implied_doubling_days: doubling time implied by the entered parameters (days)

population	time_days	mean	std	count	observed_doubling_days	observed_doubling_std	observed_doubling_n	implied_doubling_days
IDHmut_TP53mut	0	0.5	0	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	0.25	0.506197	0.00705526	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	0.5	0.50978	0.0110597	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	0.75	0.513858	0.0122432	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	1	0.522393	0.0144046	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	1.25	0.528642	0.017229	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	1.5	0.527307	0.0182396	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	1.75	0.530281	0.0189813	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	2	0.533097	0.0179492	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	2.25	0.535231	0.0216185	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	2.5	0.536897	0.0197275	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	2.75	0.541113	0.021566	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	3	0.546116	0.024159	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	3.25	0.550112	0.0267498	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	3.5	0.554908	0.025831	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	3.75	0.560711	0.0263475	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	4	0.565439	0.0271167	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	4.25	0.570406	0.0266367	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	4.5	0.574944	0.024152	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	4.75	0.580114	0.0284513	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	5	0.584005	0.0329106	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	5.25	0.589507	0.032175	10	3.43456	0.387133	10	3.29501
IDHmut_TP53mut	5.5	0.596352	0.0334943	10	3.43456	0.387133	10	3.29501
IDHmut_TP53wt	0	0.5	0	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	0.25	0.493803	0.00705526	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	0.5	0.49022	0.0110597	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	0.75	0.486142	0.0122432	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	1	0.477607	0.0144046	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	1.25	0.471358	0.017229	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	1.5	0.472693	0.0182396	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	1.75	0.469719	0.0189813	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	2	0.466903	0.0179492	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	2.25	0.464769	0.0216185	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	2.5	0.463103	0.0197275	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	2.75	0.458887	0.021566	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	3	0.453884	0.024159	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	3.25	0.449888	0.0267498	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	3.5	0.445092	0.025831	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	3.75	0.439289	0.0263475	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	4	0.434561	0.0271167	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	4.25	0.429594	0.0266367	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	4.5	0.425056	0.024152	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	4.75	0.419886	0.0284513	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	5	0.415995	0.0329106	10	5.12416	0.736141	10	4.9

population	time_days	mean	std	count	observed_doubling_days	observed_doubling_std	observed_doubling_n	implied_doubling_days
IDHmut_TP53wt	5.25	0.410493	0.032175	10	5.12416	0.736141	10	4.9
IDHmut_TP53wt	5.5	0.403648	0.0334943	10	5.12416	0.736141	10	4.9

Table S4. Data for Figure 4

fig4_replicate_distributions_data.csv · 100 rows

Endpoint outcome of every individual simulation run, by arm and population.

arm: simulation arm
seed: random seed of the run
population: simulated population
n_end: live agents at the endpoint (Figure 4A)
log_growth_rate_per_min: fitted log growth rate (1/min), the outcome used for the paired effect sizes (Figure 4B)

arm	seed	population	n_end	log_ growth_ rate_ per_ min
co_mixed	20260907	IDHmut_TP53mut	370	0.000171072
co_mixed	20260907	IDHmut_TP53wt	206	9.63928e-05
co_mixed	20260908	IDHmut_TP53mut	292	0.000130246
co_mixed	20260908	IDHmut_TP53wt	258	0.00010894
co_mixed	20260909	IDHmut_TP53mut	308	0.000148973
co_mixed	20260909	IDHmut_TP53wt	216	9.11224e-05
co_mixed	20260910	IDHmut_TP53mut	337	0.00015625
co_mixed	20260910	IDHmut_TP53wt	228	0.000110335
co_mixed	20260911	IDHmut_TP53mut	315	0.000143516
co_mixed	20260911	IDHmut_TP53wt	193	8.74976e-05
co_mixed	20260912	IDHmut_TP53mut	305	0.000143405
co_mixed	20260912	IDHmut_TP53wt	208	8.51198e-05
co_mixed	20260913	IDHmut_TP53mut	357	0.000158779
co_mixed	20260913	IDHmut_TP53wt	210	8.37484e-05
co_mixed	20260914	IDHmut_TP53mut	327	0.000147485
co_mixed	20260914	IDHmut_TP53wt	216	9.78762e-05
co_mixed	20260915	IDHmut_TP53mut	329	0.000153786
co_mixed	20260915	IDHmut_TP53wt	231	0.000103992
co_mixed	20260916	IDHmut_TP53mut	314	0.000143302
co_mixed	20260916	IDHmut_TP53wt	228	0.000105218
co_separated	20260907	IDHmut_TP53mut	309	0.000144034
co_separated	20260907	IDHmut_TP53wt	244	0.000120201
co_separated	20260908	IDHmut_TP53mut	346	0.000159137
co_separated	20260908	IDHmut_TP53wt	218	9.80862e-05
co_separated	20260909	IDHmut_TP53mut	258	0.000113783
co_separated	20260909	IDHmut_TP53wt	171	7.84398e-05
co_separated	20260910	IDHmut_TP53mut	312	0.000143667
co_separated	20260910	IDHmut_TP53wt	243	0.000108168
co_separated	20260911	IDHmut_TP53mut	305	0.000130576
co_separated	20260911	IDHmut_TP53wt	227	0.000105042
co_separated	20260912	IDHmut_TP53mut	304	0.000133643
co_separated	20260912	IDHmut_TP53wt	187	8.59475e-05
co_separated	20260913	IDHmut_TP53mut	300	0.000137567
co_separated	20260913	IDHmut_TP53wt	224	9.72513e-05
co_separated	20260914	IDHmut_TP53mut	294	0.00013281
co_separated	20260914	IDHmut_TP53wt	221	0.000100306
co_separated	20260915	IDHmut_TP53mut	343	0.000156987
co_separated	20260915	IDHmut_TP53wt	186	7.71838e-05
co_separated	20260916	IDHmut_TP53mut	370	0.000164837
co_separated	20260916	IDHmut_TP53wt	205	8.63387e-05
co_swapped	20260907	IDHmut_TP53mut	338	0.000152398
co_swapped	20260907	IDHmut_TP53wt	216	0.00010572
co_swapped	20260908	IDHmut_TP53mut	281	0.000127075

arm	seed	population	n_end	log_ growth_ rate_ per_ min
co_swapped	20260908	IDHmut_TP53wt	238	0.000111704
co_swapped	20260909	IDHmut_TP53mut	318	0.000148293
co_swapped	20260909	IDHmut_TP53wt	246	0.000116645
co_swapped	20260910	IDHmut_TP53mut	302	0.000134707
co_swapped	20260910	IDHmut_TP53wt	221	9.71146e-05
co_swapped	20260911	IDHmut_TP53mut	352	0.000161022
co_swapped	20260911	IDHmut_TP53wt	258	0.000116918
co_swapped	20260912	IDHmut_TP53mut	285	0.000133964
co_swapped	20260912	IDHmut_TP53wt	204	9.18679e-05
co_swapped	20260913	IDHmut_TP53mut	342	0.000159624
co_swapped	20260913	IDHmut_TP53wt	238	0.000114891
co_swapped	20260914	IDHmut_TP53mut	347	0.000164107
co_swapped	20260914	IDHmut_TP53wt	210	9.88876e-05
co_swapped	20260915	IDHmut_TP53mut	346	0.000150853
co_swapped	20260915	IDHmut_TP53wt	172	7.21179e-05
co_swapped	20260916	IDHmut_TP53mut	350	0.000160056
co_swapped	20260916	IDHmut_TP53wt	237	0.000109656
label_control	20260907	label_A	186	6.93463e-05
label_control	20260907	label_B	216	9.44664e-05
label_control	20260908	label_A	200	9.49876e-05
label_control	20260908	label_B	192	8.59868e-05
label_control	20260909	label_A	236	0.000117185
label_control	20260909	label_B	199	8.59705e-05
label_control	20260910	label_A	274	0.000125511
label_control	20260910	label_B	253	0.000115732
label_control	20260911	label_A	224	9.71891e-05
label_control	20260911	label_B	227	9.66995e-05
label_control	20260912	label_A	208	9.0882e-05
label_control	20260912	label_B	225	0.000101838
label_control	20260913	label_A	244	0.000100495
label_control	20260913	label_B	197	8.03235e-05
label_control	20260914	label_A	266	0.000128448
label_control	20260914	label_B	257	0.000120184
label_control	20260915	label_A	200	8.82794e-05
label_control	20260915	label_B	218	0.000103069
label_control	20260916	label_A	212	9.82867e-05
label_control	20260916	label_B	228	0.000101334
mono_TP53mut	20260907	IDHmut_TP53mut	337	0.000146947
mono_TP53mut	20260908	IDHmut_TP53mut	305	0.000146675
mono_TP53mut	20260909	IDHmut_TP53mut	282	0.000128329
mono_TP53mut	20260910	IDHmut_TP53mut	323	0.000145368
mono_TP53mut	20260911	IDHmut_TP53mut	285	0.000129684
mono_TP53mut	20260912	IDHmut_TP53mut	331	0.000157911
mono_TP53mut	20260913	IDHmut_TP53mut	338	0.000152883
mono_TP53mut	20260914	IDHmut_TP53mut	304	0.000135572
mono_TP53mut	20260915	IDHmut_TP53mut	273	0.000128678
mono_TP53mut	20260916	IDHmut_TP53mut	334	0.000148296
mono_TP53wt	20260907	IDHmut_TP53wt	240	0.000115281
mono_TP53wt	20260908	IDHmut_TP53wt	170	6.51259e-05
mono_TP53wt	20260909	IDHmut_TP53wt	190	8.03661e-05
mono_TP53wt	20260910	IDHmut_TP53wt	213	9.72537e-05
mono_TP53wt	20260911	IDHmut_TP53wt	175	6.99124e-05
mono_TP53wt	20260912	IDHmut_TP53wt	196	8.62821e-05
mono_TP53wt	20260913	IDHmut_TP53wt	208	8.90336e-05

arm	seed	population	n_end	log_ growth_ rate_ per_ min
mono_TP53wt	20260914	IDHmut_TP53wt	214	9.39384e-05
mono_TP53wt	20260915	IDHmut_TP53wt	232	0.000106998
mono_TP53wt	20260916	IDHmut_TP53wt	248	0.000114729

Table S5. Data for Figure 5

fig5_diversity_and_counts_data.csv · 69 rows

Shannon diversity index and absolute live counts over time in the separated co-culture arm.

quantity: shannon = Shannon diversity index H (Figure 5A); n_live = live agent count (Figure 5B)
time_days: simulation time (days)
mean, sem: mean across replicates and its standard error
population, std, count: for n_live rows: population, standard deviation and number of replicates

time_days	mean	sem	quantity	population	std	count
0	0.693147	0	shannon			
0.25	0.692981	6.07328e-05	shannon			
0.5	0.692735	0.000254926	shannon			
0.75	0.692493	0.000274295	shannon			
1	0.69177	0.00046076	shannon			
1.25	0.69097	0.000589902	shannon			
1.5	0.691054	0.000587668	shannon			
1.75	0.690661	0.000728875	shannon			
2	0.690372	0.000697026	shannon			
2.25	0.689817	0.000951675	shannon			
2.5	0.689718	0.000890858	shannon			
2.75	0.68892	0.00112126	shannon			
3	0.687827	0.00154028	shannon			
3.25	0.686812	0.00196133	shannon			
3.5	0.685884	0.00218086	shannon			
3.75	0.684484	0.00238279	shannon			
4	0.683206	0.00260831	shannon			
4.25	0.681893	0.00263557	shannon			
4.5	0.680795	0.00245713	shannon			
4.75	0.678756	0.00309119	shannon			
5	0.676949	0.00393725	shannon			
5.25	0.675103	0.00400584	shannon			
5.5	0.672356	0.00445055	shannon			
0	100			IDHmut_TP53mut	0	10
0.25	106.7			IDHmut_TP53mut	1.63639	10
0.5	111.7			IDHmut_TP53mut	1.49443	10
0.75	117.8			IDHmut_TP53mut	2.97396	10
1	125			IDHmut_TP53mut	4.47214	10
1.25	132.3			IDHmut_TP53mut	6.79951	10
1.5	138.1			IDHmut_TP53mut	6.96738	10
1.75	143.3			IDHmut_TP53mut	7.10321	10
2	150.4			IDHmut_TP53mut	7.66232	10
2.25	158.6			IDHmut_TP53mut	8.79646	10
2.5	166.1			IDHmut_TP53mut	8.88757	10
2.75	175.1			IDHmut_TP53mut	11.3671	10
3	184.5			IDHmut_TP53mut	11.6643	10
3.25	193.8			IDHmut_TP53mut	14.0618	10
3.5	204.3			IDHmut_TP53mut	15.6989	10
3.75	214.4			IDHmut_TP53mut	17.5449	10
4	227.8			IDHmut_TP53mut	19.0776	10
4.25	241.2			IDHmut_TP53mut	20.9221	10
4.5	254.7			IDHmut_TP53mut	21.271	10
4.75	267.5			IDHmut_TP53mut	23.9363	10
5	282.2			IDHmut_TP53mut	28.027	10
5.25	296.7			IDHmut_TP53mut	30.0557	10
5.5	314.1			IDHmut_TP53mut	31.5223	10
0	100			IDHmut_TP53wt	0	10

time_days	mean	sem	quantity	population	std	count
0.25	104.1			IDHmut_TP53wt	2.33095	10
0.5	107.5			IDHmut_TP53wt	4.71993	10
0.75	111.5			IDHmut_TP53wt	4.64878	10
1	114.3			IDHmut_TP53wt	4.78539	10
1.25	117.9			IDHmut_TP53wt	4.7481	10
1.5	123.8			IDHmut_TP53wt	6.47731	10
1.75	127			IDHmut_TP53wt	7.80313	10
2	131.8			IDHmut_TP53wt	8.36394	10
2.25	137.9			IDHmut_TP53wt	10.7647	10
2.5	143.5			IDHmut_TP53wt	11.5398	10
2.75	148.6			IDHmut_TP53wt	11.787	10
3	153.5			IDHmut_TP53wt	12.8863	10
3.25	158.6			IDHmut_TP53wt	14.0491	10
3.5	163.7			IDHmut_TP53wt	11.2748	10
3.75	167.7			IDHmut_TP53wt	11.3044	10
4	174.9			IDHmut_TP53wt	14.0194	10
4.25	181.5			IDHmut_TP53wt	15.5367	10
4.5	188.3			IDHmut_TP53wt	17.2566	10
4.75	193.6			IDHmut_TP53wt	19.2712	10
5	200.8			IDHmut_TP53wt	20.601	10
5.25	206.4			IDHmut_TP53wt	21.9251	10
5.5	212.6			IDHmut_TP53wt	24.7171	10

Table S6. Data for Figure 6

fig6_oxygen_over_time_data.csv · 23 rows

Oxygen concentration across the simulation domain over time.

time_days: simulation time (days)
mean: domain-mean oxygen (mmHg)
lo, hi: minimum and maximum voxel oxygen across the domain and runs (mmHg)

time_days	mean	lo	hi
0	38	38	38
0.25	32.9117	17.3532	38
0.5	32.8137	17.036	38
0.75	32.7166	16.7978	38
1	32.602	16.6054	38
1.25	32.4874	16.3468	38
1.5	32.3703	15.9816	38
1.75	32.2563	15.7261	38
2	32.1589	15.7026	38
2.25	32.035	15.3396	38
2.5	31.907	14.8251	38
2.75	31.7667	14.2782	38
3	31.6338	13.9938	38
3.25	31.4836	13.6638	38
3.5	31.3392	13.4649	38
3.75	31.2057	13.2929	38
4	31.0487	12.9144	38
4.25	30.8889	12.574	38
4.5	30.7142	12.2013	38
4.75	30.5539	12.1108	38
5	30.402	11.6764	38
5.25	30.239	11.1798	38
5.5	30.0675	10.7749	38

Table S7. Data for Figure 8

fig8_density_kde_data.csv · 553 rows

Position of every live agent at day 5.5 used for the kernel density estimates (same replicate as Figure 2).

population: simulated population
x, y: agent position (microns)

population	x	y
IDHmut_TP53mut	280.91	-50.63
IDHmut_TP53mut	255.64	-34.60
IDHmut_TP53mut	198.20	-56.14
IDHmut_TP53mut	76.74	-61.80
IDHmut_TP53mut	157.79	108.00
IDHmut_TP53mut	246.71	129.44
IDHmut_TP53mut	217.12	164.71
IDHmut_TP53mut	172.18	68.62
IDHmut_TP53mut	121.55	129.43
IDHmut_TP53mut	92.17	-57.93
IDHmut_TP53mut	125.69	62.80
IDHmut_TP53mut	238.05	82.84
IDHmut_TP53mut	280.33	4.05
IDHmut_TP53mut	234.47	26.37
IDHmut_TP53mut	162.24	80.93
IDHmut_TP53mut	289.56	97.23
IDHmut_TP53mut	281.35	-76.97
IDHmut_TP53mut	216.20	69.11
IDHmut_TP53mut	197.68	-14.04
IDHmut_TP53mut	212.60	-8.84
IDHmut_TP53mut	189.28	113.12
IDHmut_TP53mut	198.83	100.45
IDHmut_TP53mut	89.83	-7.47
IDHmut_TP53mut	270.80	-38.14
IDHmut_TP53mut	210.37	133.65
IDHmut_TP53mut	266.33	7.92
IDHmut_TP53mut	201.04	1.08
IDHmut_TP53mut	104.57	-2.63
IDHmut_TP53mut	274.49	-23.55
IDHmut_TP53mut	200.03	-106.31
IDHmut_TP53mut	320.47	2.55
IDHmut_TP53mut	201.40	-42.12
IDHmut_TP53mut	95.86	-92.10
IDHmut_TP53mut	119.28	2.27
IDHmut_TP53mut	81.22	-46.36
IDHmut_TP53mut	271.06	33.44
IDHmut_TP53mut	317.08	-33.47
IDHmut_TP53mut	97.36	-42.95
IDHmut_TP53mut	213.57	-79.83
IDHmut_TP53mut	164.55	-73.74
IDHmut_TP53mut	228.78	109.32
IDHmut_TP53mut	285.97	-36.21
IDHmut_TP53mut	154.70	-103.97
IDHmut_TP53mut	286.51	35.61
IDHmut_TP53mut	72.84	45.61
IDHmut_TP53mut	177.95	83.25
IDHmut_TP53mut	189.57	11.26
IDHmut_TP53mut	192.23	27.24
IDHmut_TP53mut	301.45	-34.86
IDHmut_TP53mut	273.95	123.76
IDHmut_TP53mut	241.42	-40.16
IDHmut_TP53mut	227.67	-3.83
IDHmut_TP53mut	252.74	0.92
IDHmut_TP53mut	140.92	-58.24
IDHmut_TP53mut	209.26	-24.08
IDHmut_TP53mut	136.09	-34.38
IDHmut_TP53mut	71.46	-31.63
IDHmut_TP53mut	98.72	61.50
IDHmut_TP53mut	107.99	13.46
IDHmut_TP53mut	305.55	55.91
IDHmut_TP53mut	156.29	-14.20
IDHmut_TP53mut	194.96	43.01
IDHmut_TP53mut	167.96	-24.50
IDHmut_TP53mut	144.84	-116.56
IDHmut_TP53mut	241.74	-107.36
IDHmut_TP53mut	124.84	101.99
IDHmut_TP53mut	178.04	-66.27
IDHmut_TP53mut	141.08	-19.51
IDHmut_TP53mut	140.12	65.59
IDHmut_TP53mut	252.29	-66.33
IDHmut_TP53mut	84.06	34.28
IDHmut_TP53mut	207.08	-120.19
IDHmut_TP53mut	323.83	17.82
IDHmut_TP53mut	108.78	100.53
IDHmut_TP53mut	296.21	82.24
IDHmut_TP53mut	198.27	-84.00
IDHmut_TP53mut	187.80	70.30
IDHmut_TP53mut	167.85	95.70
IDHmut_TP53mut	209.56	-94.60
IDHmut_TP53mut	226.87	53.10
IDHmut_TP53mut	87.87	-73.30
IDHmut_TP53mut	295.38	-83.39
IDHmut_TP53mut	219.53	21.58
IDHmut_TP53mut	179.55	-34.73
IDHmut_TP53mut	279.34	-125.62
IDHmut_TP53mut	186.14	-4.06
IDHmut_TP53mut	257.95	-19.59
IDHmut_TP53mut	204.12	-135.28
IDHmut_TP53mut	203.04	73.75
IDHmut_TP53mut	182.50	-81.08
IDHmut_TP53mut	156.32	65.99
IDHmut_TP53mut	302.05	40.34
IDHmut_TP53mut	282.10	-10.43
IDHmut_TP53mut	267.46	47.28
IDHmut_TP53mut	321.81	-65.23
IDHmut_TP53mut	138.69	-101.76
IDHmut_TP53mut	225.74	138.86
IDHmut_TP53mut	207.20	30.75
IDHmut_TP53mut	241.87	-9.94
IDHmut_TP53mut	213.00	-52.91
IDHmut_TP53mut	194.23	-29.05
IDHmut_TP53mut	219.61	-130.21
IDHmut_TP53mut	240.84	98.39
IDHmut_TP53mut	293.75	-66.96
IDHmut_TP53mut	92.91	7.91
IDHmut_TP53mut	163.27	122.75
IDHmut_TP53mut	153.31	-28.87
IDHmut_TP53mut	182.66	-19.28
IDHmut_TP53mut	266.87	-7.29
IDHmut_TP53mut	183.40	54.42
IDHmut_TP53mut	80.13	18.81
IDHmut_TP53mut	249.00	30.97
IDHmut_TP53mut	260.24	60.51
IDHmut_TP53mut	152.36	-49.17
IDHmut_TP53mut	253.57	45.52
IDHmut_TP53mut	245.75	-81.05
IDHmut_TP53mut	263.62	-123.53
IDHmut_TP53mut	86.95	-32.01
IDHmut_TP53mut	127.55	-86.32
IDHmut_TP53mut	167.41	53.87
IDHmut_TP53mut	180.38	38.39
IDHmut_TP53mut	191.85	-125.05
IDHmut_TP53mut	127.47	33.22
IDHmut_TP53mut	95.30	23.11
IDHmut_TP53mut	136.37	91.12
IDHmut_TP53mut	332.24	49.06
IDHmut_TP53mut	307.59	-58.84
IDHmut_TP53mut	334.57	-4.65
IDHmut_TP53mut	94.01	46.60
IDHmut_TP53mut	261.87	134.42
IDHmut_TP53mut	122.54	-100.94
IDHmut_TP53mut	231.68	124.43

population	x	y
IDHmut_TP53mut	135.02	-128.92
IDHmut_TP53mut	249.14	71.93
IDHmut_TP53mut	150.26	-131.80
IDHmut_TP53mut	111.94	-48.73
IDHmut_TP53mut	113.12	-88.23
IDHmut_TP53mut	168.80	137.44
IDHmut_TP53mut	308.23	-74.34
IDHmut_TP53mut	56.42	-17.46
IDHmut_TP53mut	251.85	-95.37
IDHmut_TP53mut	320.00	-49.10
IDHmut_TP53mut	90.64	74.78
IDHmut_TP53mut	131.34	48.83
IDHmut_TP53mut	293.23	66.42
IDHmut_TP53mut	77.93	3.21
IDHmut_TP53mut	282.36	-92.74
IDHmut_TP53mut	142.85	-86.37
IDHmut_TP53mut	195.24	127.97
IDHmut_TP53mut	291.94	-22.12
IDHmut_TP53mut	210.10	44.98
IDHmut_TP53mut	157.70	41.68
IDHmut_TP53mut	243.96	57.30
IDHmut_TP53mut	172.88	-92.74
IDHmut_TP53mut	339.24	21.31
IDHmut_TP53mut	243.76	113.91
IDHmut_TP53mut	110.52	72.64
IDHmut_TP53mut	112.82	57.42
IDHmut_TP53mut	305.96	9.43
IDHmut_TP53mut	294.15	-1.31
IDHmut_TP53mut	130.43	-8.54
IDHmut_TP53mut	134.35	6.75
IDHmut_TP53mut	148.79	-72.29
IDHmut_TP53mut	309.69	-90.21
IDHmut_TP53mut	277.64	69.46
IDHmut_TP53mut	321.34	-13.33
IDHmut_TP53mut	224.21	-18.72
IDHmut_TP53mut	267.33	-96.85
IDHmut_TP53mut	139.80	-143.89
IDHmut_TP53mut	125.21	-25.16
IDHmut_TP53mut	291.22	12.93
IDHmut_TP53mut	101.02	-18.96
IDHmut_TP53mut	236.80	-69.29
IDHmut_TP53mut	247.05	-143.84
IDHmut_TP53mut	267.36	92.65
IDHmut_TP53mut	102.74	-78.07
IDHmut_TP53mut	213.80	103.96
IDHmut_TP53mut	129.68	77.17
IDHmut_TP53mut	115.70	-13.44
IDHmut_TP53mut	334.52	-55.60
IDHmut_TP53mut	160.23	-119.61
IDHmut_TP53mut	204.17	16.15
IDHmut_TP53mut	280.52	84.47
IDHmut_TP53mut	178.23	21.11
IDHmut_TP53mut	258.77	118.84
IDHmut_TP53mut	295.88	-49.14
IDHmut_TP53mut	322.66	-81.07
IDHmut_TP53mut	175.84	-122.70
IDHmut_TP53mut	270.67	108.17
IDHmut_TP53mut	308.31	71.51
IDHmut_TP53mut	216.07	6.36
IDHmut_TP53mut	185.59	-48.83
IDHmut_TP53mut	183.38	98.19
IDHmut_TP53mut	123.43	17.44
IDHmut_TP53mut	296.73	-99.30
IDHmut_TP53mut	224.04	-95.57
IDHmut_TP53mut	331.00	-25.93
IDHmut_TP53mut	289.58	-113.45
IDHmut_TP53mut	260.75	-83.15
IDHmut_TP53mut	307.55	-20.76
IDHmut_TP53mut	65.12	-46.09
IDHmut_TP53mut	230.05	-117.94
IDHmut_TP53mut	68.41	-9.17
IDHmut_TP53mut	252.43	-48.70
IDHmut_TP53mut	146.67	79.20
IDHmut_TP53mut	240.30	-55.26
IDHmut_TP53mut	147.49	120.01
IDHmut_TP53mut	231.59	-148.09
IDHmut_TP53mut	255.66	103.28
IDHmut_TP53mut	213.78	149.15
IDHmut_TP53mut	158.23	-88.17
IDHmut_TP53mut	115.54	42.86
IDHmut_TP53mut	317.11	44.78
IDHmut_TP53mut	217.21	-108.56
IDHmut_TP53mut	192.73	-69.68
IDHmut_TP53mut	328.55	33.33
IDHmut_TP53mut	223.18	80.16
IDHmut_TP53mut	101.81	86.13
IDHmut_TP53mut	221.98	-65.94
IDHmut_TP53mut	277.32	19.17
IDHmut_TP53mut	171.18	-9.23
IDHmut_TP53mut	215.77	-145.91
IDHmut_TP53mut	147.37	52.57
IDHmut_TP53mut	169.08	-150.17
IDHmut_TP53mut	142.39	37.75
IDHmut_TP53mut	247.56	-121.88
IDHmut_TP53mut	231.28	11.12
IDHmut_TP53mut	207.26	-66.79
IDHmut_TP53mut	240.86	144.27
IDHmut_TP53mut	164.43	-39.74
IDHmut_TP53mut	184.69	-152.81
IDHmut_TP53mut	165.80	-134.70
IDHmut_TP53mut	320.64	60.43
IDHmut_TP53mut	159.96	0.98
IDHmut_TP53mut	273.72	-110.84
IDHmut_TP53mut	263.97	76.79
IDHmut_TP53mut	179.23	125.50
IDHmut_TP53mut	198.75	58.45
IDHmut_TP53mut	149.08	11.42
IDHmut_TP53mut	270.51	-58.16
IDHmut_TP53mut	117.90	-74.03
IDHmut_TP53mut	235.63	-132.68
IDHmut_TP53mut	181.65	-137.37
IDHmut_TP53mut	213.14	57.66
IDHmut_TP53mut	323.53	76.12
IDHmut_TP53mut	137.21	131.91
IDHmut_TP53mut	138.20	22.25
IDHmut_TP53mut	152.25	93.49
IDHmut_TP53mut	157.59	-60.39
IDHmut_TP53mut	174.72	5.98
IDHmut_TP53mut	201.85	159.64
IDHmut_TP53mut	124.15	-140.11
IDHmut_TP53mut	238.19	42.24
IDHmut_TP53mut	123.91	-59.44
IDHmut_TP53mut	170.14	-107.73
IDHmut_TP53mut	173.50	110.60
IDHmut_TP53mut	68.70	30.08
IDHmut_TP53mut	223.28	37.14
IDHmut_TP53mut	142.09	105.42
IDHmut_TP53mut	227.56	-47.43
IDHmut_TP53mut	252.63	87.61
IDHmut_TP53mut	115.60	114.80
IDHmut_TP53mut	290.87	50.74
IDHmut_TP53mut	313.30	29.34
IDHmut_TP53mut	113.74	27.79
IDHmut_TP53mut	117.68	87.35
IDHmut_TP53mut	246.37	15.44
IDHmut_TP53mut	261.03	21.83
IDHmut_TP53mut	83.21	57.88
IDHmut_TP53mut	285.81	112.83
IDHmut_TP53mut	194.66	-165.10
IDHmut_TP53mut	215.94	-37.63
IDHmut_TP53mut	193.42	85.76
IDHmut_TP53mut	122.38	-39.21
IDHmut_TP53mut	185.39	-110.67
IDHmut_TP53mut	131.41	116.86
IDHmut_TP53mut	225.95	94.48
IDHmut_TP53mut	209.53	88.45
IDHmut_TP53mut	267.61	-70.35
IDHmut_TP53mut	109.88	-32.59
IDHmut_TP53mut	152.94	26.63
IDHmut_TP53mut	163.65	16.04
IDHmut_TP53mut	216.49	119.22
IDHmut_TP53mut	298.35	25.48
IDHmut_TP53mut	200.32	-150.38
IDHmut_TP53mut	161.60	151.40
IDHmut_TP53mut	228.56	-81.59
IDHmut_TP53mut	243.27	-25.16
IDHmut_TP53mut	257.66	-109.38
IDHmut_TP53mut	105.88	127.21
IDHmut_TP53mut	145.25	-3.92
IDHmut_TP53mut	133.50	-72.03
IDHmut_TP53mut	232.91	67.90
IDHmut_TP53mut	188.13	-95.61
IDHmut_TP53mut	129.40	-114.71
IDHmut_TP53mut	170.99	-53.25
IDHmut_TP53mut	106.78	-63.31
IDHmut_TP53mut	167.39	30.72
IDHmut_TP53mut	229.74	-32.18
IDHmut_TP53mut	80.11	-18.97
IDHmut_TP53mut	307.96	-5.79
IDHmut_TP53mut	237.54	-93.15
IDHmut_TP53mut	102.84	35.41

population	x	y
IDHmut_TP53mut	277.57	55.40
IDHmut_TP53mut	107.81	-100.89
IDHmut_TP53mut	56.72	-31.08
IDHmut_TP53mut	264.27	-49.20
IDHmut_TP53mut	131.53	-47.64
IDHmut_TP53mut	147.01	-39.98
IDHmut_TP53wt	-163.25	-107.61
IDHmut_TP53wt	-188.40	82.87
IDHmut_TP53wt	-163.63	-71.01
IDHmut_TP53wt	-210.06	82.76
IDHmut_TP53wt	-170.34	-93.18
IDHmut_TP53wt	-103.44	7.87
IDHmut_TP53wt	-216.73	-62.65
IDHmut_TP53wt	-230.96	6.36
IDHmut_TP53wt	-170.67	35.39
IDHmut_TP53wt	-202.22	-91.43
IDHmut_TP53wt	-122.40	-17.59
IDHmut_TP53wt	-227.64	-119.91
IDHmut_TP53wt	-144.10	65.36
IDHmut_TP53wt	-177.63	-78.77
IDHmut_TP53wt	-179.88	-122.62
IDHmut_TP53wt	-138.30	-13.52
IDHmut_TP53wt	-243.87	52.20
IDHmut_TP53wt	-291.13	90.49
IDHmut_TP53wt	-217.99	-90.55
IDHmut_TP53wt	-218.69	-34.66
IDHmut_TP53wt	-86.30	-59.48
IDHmut_TP53wt	-185.02	10.50
IDHmut_TP53wt	-180.04	-16.68
IDHmut_TP53wt	-155.39	38.05
IDHmut_TP53wt	-186.17	35.68
IDHmut_TP53wt	-290.03	-81.36
IDHmut_TP53wt	-224.93	-49.14
IDHmut_TP53wt	-116.17	-49.62
IDHmut_TP53wt	-140.74	-85.52
IDHmut_TP53wt	-220.54	-5.16
IDHmut_TP53wt	-158.34	86.03
IDHmut_TP53wt	-308.18	-31.62
IDHmut_TP53wt	-259.33	49.86
IDHmut_TP53wt	-100.81	23.42
IDHmut_TP53wt	-118.97	-33.63
IDHmut_TP53wt	-206.36	143.87
IDHmut_TP53wt	-296.20	69.21
IDHmut_TP53wt	-189.34	-3.78
IDHmut_TP53wt	-236.71	157.19
IDHmut_TP53wt	-201.05	-63.30
IDHmut_TP53wt	-73.69	18.63
IDHmut_TP53wt	-199.24	28.17
IDHmut_TP53wt	-272.52	-114.31
IDHmut_TP53wt	-155.84	-121.79
IDHmut_TP53wt	-80.53	47.30
IDHmut_TP53wt	-241.88	141.88
IDHmut_TP53wt	-269.05	94.99
IDHmut_TP53wt	-322.93	36.52
IDHmut_TP53wt	-285.06	-96.51
IDHmut_TP53wt	-282.28	-41.38
IDHmut_TP53wt	-115.19	-73.87

population	x	y
IDHmut_TP53wt	-209.30	-76.99
IDHmut_TP53wt	-172.04	50.90
IDHmut_TP53wt	-326.84	-5.82
IDHmut_TP53wt	-233.62	-89.25
IDHmut_TP53wt	-157.64	57.21
IDHmut_TP53wt	-134.17	-28.65
IDHmut_TP53wt	-220.54	-134.21
IDHmut_TP53wt	-129.52	43.61
IDHmut_TP53wt	-131.60	-72.39
IDHmut_TP53wt	-211.20	-104.87
IDHmut_TP53wt	-141.34	-57.72
IDHmut_TP53wt	-99.78	-68.52
IDHmut_TP53wt	-95.52	42.04
IDHmut_TP53wt	-330.88	22.58
IDHmut_TP53wt	-311.25	-2.19
IDHmut_TP53wt	-106.19	-24.25
IDHmut_TP53wt	-233.04	64.27
IDHmut_TP53wt	-186.31	-92.28
IDHmut_TP53wt	-124.05	58.39
IDHmut_TP53wt	-257.55	-109.34
IDHmut_TP53wt	-187.38	-31.38
IDHmut_TP53wt	-177.62	96.83
IDHmut_TP53wt	-246.38	126.30
IDHmut_TP53wt	-211.25	20.81
IDHmut_TP53wt	-234.47	34.69
IDHmut_TP53wt	-274.30	53.28
IDHmut_TP53wt	-161.87	-40.48
IDHmut_TP53wt	-172.58	-29.87
IDHmut_TP53wt	-217.84	68.97
IDHmut_TP53wt	-246.94	-97.44
IDHmut_TP53wt	-214.81	7.46
IDHmut_TP53wt	-236.32	113.36
IDHmut_TP53wt	-119.60	84.76
IDHmut_TP53wt	-172.80	81.90
IDHmut_TP53wt	-121.51	31.43
IDHmut_TP53wt	-170.40	66.50
IDHmut_TP53wt	-130.94	-44.09
IDHmut_TP53wt	-298.08	-44.12
IDHmut_TP53wt	-266.44	-38.66
IDHmut_TP53wt	-184.28	111.27
IDHmut_TP53wt	-282.15	103.69
IDHmut_TP53wt	-235.10	-37.43
IDHmut_TP53wt	-276.50	-26.56
IDHmut_TP53wt	-146.58	-43.95
IDHmut_TP53wt	-250.63	-36.76
IDHmut_TP53wt	-319.08	52.37
IDHmut_TP53wt	-305.00	82.46
IDHmut_TP53wt	-142.84	2.91
IDHmut_TP53wt	-126.28	-113.87
IDHmut_TP53wt	-195.17	-105.72
IDHmut_TP53wt	-230.21	-25.99
IDHmut_TP53wt	-302.53	-16.35
IDHmut_TP53wt	-285.69	14.66
IDHmut_TP53wt	-205.02	-5.65
IDHmut_TP53wt	-269.89	17.84
IDHmut_TP53wt	-108.55	96.25
IDHmut_TP53wt	-274.54	-84.31

population	x	y
IDHmut_TP53wt	-199.92	111.42
IDHmut_TP53wt	-156.56	-84.91
IDHmut_TP53wt	-298.38	-68.12
IDHmut_TP53wt	-155.82	-56.93
IDHmut_TP53wt	-295.47	-1.81
IDHmut_TP53wt	-318.45	-43.95
IDHmut_TP53wt	-87.45	-43.36
IDHmut_TP53wt	-185.37	-64.51
IDHmut_TP53wt	-158.48	6.61
IDHmut_TP53wt	-231.65	130.10
IDHmut_TP53wt	-312.52	68.29
IDHmut_TP53wt	-79.59	-29.28
IDHmut_TP53wt	-76.03	-13.40
IDHmut_TP53wt	-70.93	34.45
IDHmut_TP53wt	-249.84	37.27
IDHmut_TP53wt	-225.83	86.39
IDHmut_TP53wt	-201.66	43.77
IDHmut_TP53wt	-211.62	-20.28
IDHmut_TP53wt	-248.54	67.27
IDHmut_TP53wt	-248.18	-64.26
IDHmut_TP53wt	-108.69	35.70
IDHmut_TP53wt	-186.12	66.95
IDHmut_TP53wt	-308.05	41.06
IDHmut_TP53wt	-295.86	31.33
IDHmut_TP53wt	-153.27	-8.52
IDHmut_TP53wt	-110.27	50.24
IDHmut_TP53wt	-135.99	28.91
IDHmut_TP53wt	-193.58	-77.97
IDHmut_TP53wt	-246.16	-79.69
IDHmut_TP53wt	-312.86	-93.65
IDHmut_TP53wt	-200.20	60.33
IDHmut_TP53wt	-261.79	-72.41
IDHmut_TP53wt	-108.97	-88.78
IDHmut_TP53wt	-236.90	-8.26
IDHmut_TP53wt	-239.40	19.56
IDHmut_TP53wt	-128.00	-1.94
IDHmut_TP53wt	-179.20	-106.60
IDHmut_TP53wt	-76.63	2.72
IDHmut_TP53wt	-259.37	-88.02
IDHmut_TP53wt	-206.02	124.80
IDHmut_TP53wt	-264.03	2.87
IDHmut_TP53wt	-211.74	-120.83
IDHmut_TP53wt	-226.40	145.35
IDHmut_TP53wt	-208.69	98.48
IDHmut_TP53wt	-262.10	124.93
IDHmut_TP53wt	-257.54	80.27
IDHmut_TP53wt	-252.94	-8.86
IDHmut_TP53wt	-241.30	81.45
IDHmut_TP53wt	-287.82	-56.40
IDHmut_TP53wt	-85.94	29.10
IDHmut_TP53wt	-227.35	-103.90
IDHmut_TP53wt	-202.86	-33.55
IDHmut_TP53wt	-318.82	11.98
IDHmut_TP53wt	-137.70	109.06
IDHmut_TP53wt	-208.71	-48.63
IDHmut_TP53wt	-302.79	12.07
IDHmut_TP53wt	-241.42	-50.46

population	x	y
IDHmut_TP53wt	-88.60	13.26
IDHmut_TP53wt	-115.86	17.83
IDHmut_TP53wt	-265.21	34.11
IDHmut_TP53wt	-133.76	-99.83
IDHmut_TP53wt	-272.26	-53.65
IDHmut_TP53wt	-237.85	97.03
IDHmut_TP53wt	-177.84	-43.77
IDHmut_TP53wt	-243.93	-22.43
IDHmut_TP53wt	-280.95	119.68
IDHmut_TP53wt	-253.48	95.67
IDHmut_TP53wt	-149.65	-99.12
IDHmut_TP53wt	-223.61	103.33
IDHmut_TP53wt	-96.31	57.95
IDHmut_TP53wt	-124.76	-86.72
IDHmut_TP53wt	-204.56	-135.11
IDHmut_TP53wt	-298.00	105.02
IDHmut_TP53wt	-252.43	111.68
IDHmut_TP53wt	-113.36	-104.28
IDHmut_TP53wt	-214.05	53.42
IDHmut_TP53wt	-243.07	-155.67
IDHmut_TP53wt	-241.37	-128.21
IDHmut_TP53wt	-286.54	-14.55
IDHmut_TP53wt	-144.12	49.24
IDHmut_TP53wt	-280.08	68.17
IDHmut_TP53wt	-310.85	25.80
IDHmut_TP53wt	-217.78	37.36
IDHmut_TP53wt	-100.58	-52.52
IDHmut_TP53wt	-130.25	73.02
IDHmut_TP53wt	-192.54	-49.86
IDHmut_TP53wt	-148.10	97.11
IDHmut_TP53wt	-241.54	-112.23
IDHmut_TP53wt	-104.15	80.83
IDHmut_TP53wt	-143.74	81.56
IDHmut_TP53wt	-173.57	0.85
IDHmut_TP53wt	-147.72	-71.06
IDHmut_TP53wt	-153.35	112.00
IDHmut_TP53wt	-199.69	9.42
IDHmut_TP53wt	-113.78	-2.38
IDHmut_TP53wt	-248.56	6.66
IDHmut_TP53wt	-91.09	-18.55
IDHmut_TP53wt	-132.82	93.56
IDHmut_TP53wt	-256.89	-51.19
IDHmut_TP53wt	-264.25	65.50
IDHmut_TP53wt	-131.25	13.67
IDHmut_TP53wt	-292.49	-29.15
IDHmut_TP53wt	-150.34	-28.48
IDHmut_TP53wt	-232.46	-62.93
IDHmut_TP53wt	-277.48	-68.71
IDHmut_TP53wt	-110.15	66.09
IDHmut_TP53wt	-228.71	49.04
IDHmut_TP53wt	-195.96	-18.47
IDHmut_TP53wt	-161.21	22.66
IDHmut_TP53wt	-318.25	-19.26
IDHmut_TP53wt	-280.30	29.68
IDHmut_TP53wt	-195.83	-121.70
IDHmut_TP53wt	-279.63	-0.20
IDHmut_TP53wt	-254.75	22.00

population	x	y
IDHmut_TP53wt	-171.40	-57.64
IDHmut_TP53wt	-142.33	-113.30
IDHmut_TP53wt	-234.21	-142.46
IDHmut_TP53wt	-187.65	51.19
IDHmut_TP53wt	-289.06	55.46
IDHmut_TP53wt	-217.36	133.40
IDHmut_TP53wt	-224.88	-76.30
IDHmut_TP53wt	-308.43	-56.18
IDHmut_TP53wt	-191.85	130.27
IDHmut_TP53wt	-193.04	97.75
IDHmut_TP53wt	-168.83	114.09
IDHmut_TP53wt	-268.09	110.51
IDHmut_TP53wt	-303.87	55.56
IDHmut_TP53wt	-221.27	118.75
IDHmut_TP53wt	-269.77	-99.36
IDHmut_TP53wt	-162.95	-19.62
IDHmut_TP53wt	-162.89	100.16
IDHmut_TP53wt	-224.97	23.36
IDHmut_TP53wt	-178.13	22.67
IDHmut_TP53wt	-102.67	-9.83
IDHmut_TP53wt	-128.03	-58.30
IDHmut_TP53wt	-225.05	-16.46