

Pham 193607

Item	133	146	180	204	218	247	258	273	284	298	316	342	370	455	529	546
1: Chargerpower_T2	153	176	176	211	211	244	286	286	286	316	316	342		455	490	514
2: Paraseleene_T0 + 9			176	211	211	244	286	286	286	316	316	342		455	490	514
3: Parliament_T0 + 5			176	211	211	244	286	286	286	316	316	342		455	490	514
4: Nerujay_T2 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
5: Mooliy_T2 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
6: Petruccio_T1 + 1			176	211	211	244	286	286	286	316	316	342		455	490	514
7: Altman_T2 + 6			176	211	211	244	286	286	286	316	316	342		455	490	514
8: Ajay_T1 + 5		153	176	211	211	244	286	286	286	316	316	342		455	490	514
9: Kenmech_T4			176	211	211	244	286	286	286	316	316	342		455	490	514
10: Bircsak_T1 + 18		153	176	211	211	244	286	286	286	316	316	342		455	490	514
11: Papez_T3 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
12: Squee_T2			176	211	211	244	286	286	286	316	316	342		455	490	514
13: Euphoria_T1 + 5		153	176	211	211	244	286	286	286	316	316	342		455	490	514
14: Bigfoot_T0 + 2			176	211	211	244	286	286	286	316	316	342		455	490	514
15: BeesKnees_T2			176	211	211	244	286	286	286	316	316	342		455	490	514
16: Michley_T1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
17: Bruns_T0 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
18: Thor_T1 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
19: Pita_T3 + 6		153	176	211	211	244	286	286	286	316	316	342		455	490	514
20: Agallana_T1 + 4			176	211	211	244	286	286	286	316	316	342	370	455	490	514
21: Cueyluss_T1 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
22: Acme_T3 + 8		153	176	211	211	244	286	286	286	316	316	342		455	490	514
23: Jasper_T2 + 7		153	176	211	211	244	286	286	286	316	316	342		455	490	514
24: Corvo_T1 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
25: Rohr_T2 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
26: Dussy_T2 + 3			176	211	211	244	286	286	286	316	316	342		455	490	514
27: iLeeKay_T3 + 3			176	211	211	244	286	286	286	316	316	342		455	490	514
28: Ruotula_T0 + 5		153	176	211	211	244	286	286	286	316	316	342		455	490	514
29: Blue_T1			176	211	211	244	286	286	286	316	316	342		455	490	514
30: BigPaolini_T2 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
31: Seanderson_T2 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
32: Hami_T3			176	211	211	244	286	286	286	316	316	342		455	490	514
33: Barriga_T1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
34: Monet_T3 + 4			176	211	211	244	286	286	286	316	316	342		455	490	514
35: Wilkins_T1			176	211	211	244	286	286	286	316	316	342		455	490	514
36: STLscum_T2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
37: Edinerson_T2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
38: Niza_T3			176	211	211	244	286	286	286	316	316	342		455	490	514
39: Switzer_T2 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
40: Dynamix_T2 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
41: Pelly_T2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
42: PhermisBuelier_T2 + 1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
43: NEHalo_T1		153	176	211	211	244	286	286	286	316	316	342		455	490	514
44: Hermia_T3			176	211	211	244	286	286	286	316	316	342		455	490	514
45: SkipPole_T3 + 2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
46: Magnar_T1			176	211	211	244	286	286	286	316	316	342		455	490	514
47: Kugel_T2		153	176	211	211	244	286	286	286	316	316	342		455	490	514
48: ProMouse_T0		153	176	211	211	244	286	286	286	316	316	342		455	490	514
49: Chanagan_T0			176	211	211	244	286	286	286	316	316	342		455	490	514
50: TheIontiousMonk_T3			176	211	211	244	286	286	286	316	316	342		455	490	514



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r01: Trike_9	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547						
r02: Munch_T2 + 14	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r03: Saiz_T2 + 2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r04: Lucivia_T2 + 3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r05: Fibonacci_T2 + 2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r06: Refuge_T5	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r07: Pharaoh_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r08: Zimmer_T4	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r09: DarthPhader_T3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r10: Steamy_T3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r11: Phiel_8	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r12: Jeeves_T1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r13: Gai_T1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r14: Luchador_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r15: SororFago_T1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r16: Sunhee_T0	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r17: Remus_T4 + 6	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r18: Anon_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r19: MinecraftSteve_T5 +	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r20: Nedarya_T3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r21: PainterBoy_T3 + 2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r22: 40AC_T5	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r23: MyraDee_9	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r24: Kimona_8	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r25: QueenBees_T6/2 + 8	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r26: Tomathan_T3 + 8	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r27: Anseim_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r28: AN3_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r29: EvilGenius_T14 + 2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r30: WideWale_T4 + 2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r31: GaugeLDP_T4 + 1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r32: LadyBird_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r33: Cher_T2_T3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r34: AN18_T5 + 3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r35: Fameo_T2 + 2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r36: IronMan_T4 + 4	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r37: TopsytheT Rex_T1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r38: Trooper_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r39: CRBT_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r40: Herbertwm_T0	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r41: Bradman_T0 + 3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r42: HarryHoudini_T4 + 3	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r43: AbbyPaige_T4 + 8	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r44: NicoleTera_T6	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r45: Power_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r46: AnnaL29_T5	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r47: NaStafalle_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r48: VA6_T2	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r49: Benvolio_T2 + 1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547
r50: WeiHuaDA_T8 + 1	110	126	148	162	176	181	206	217	225	227	227	256	284	320	333	342	383	387	411	420	425	455	478	529	547



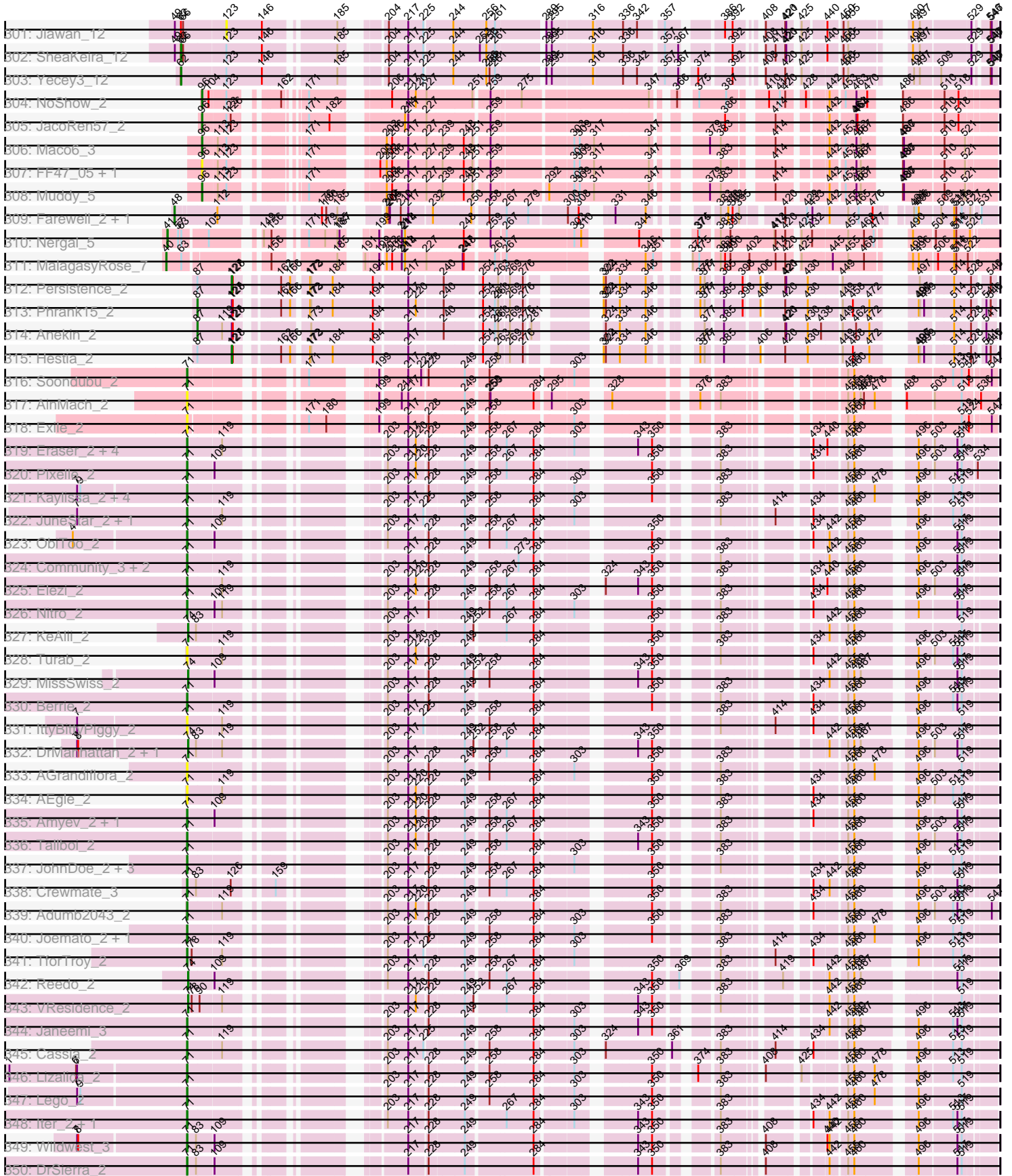






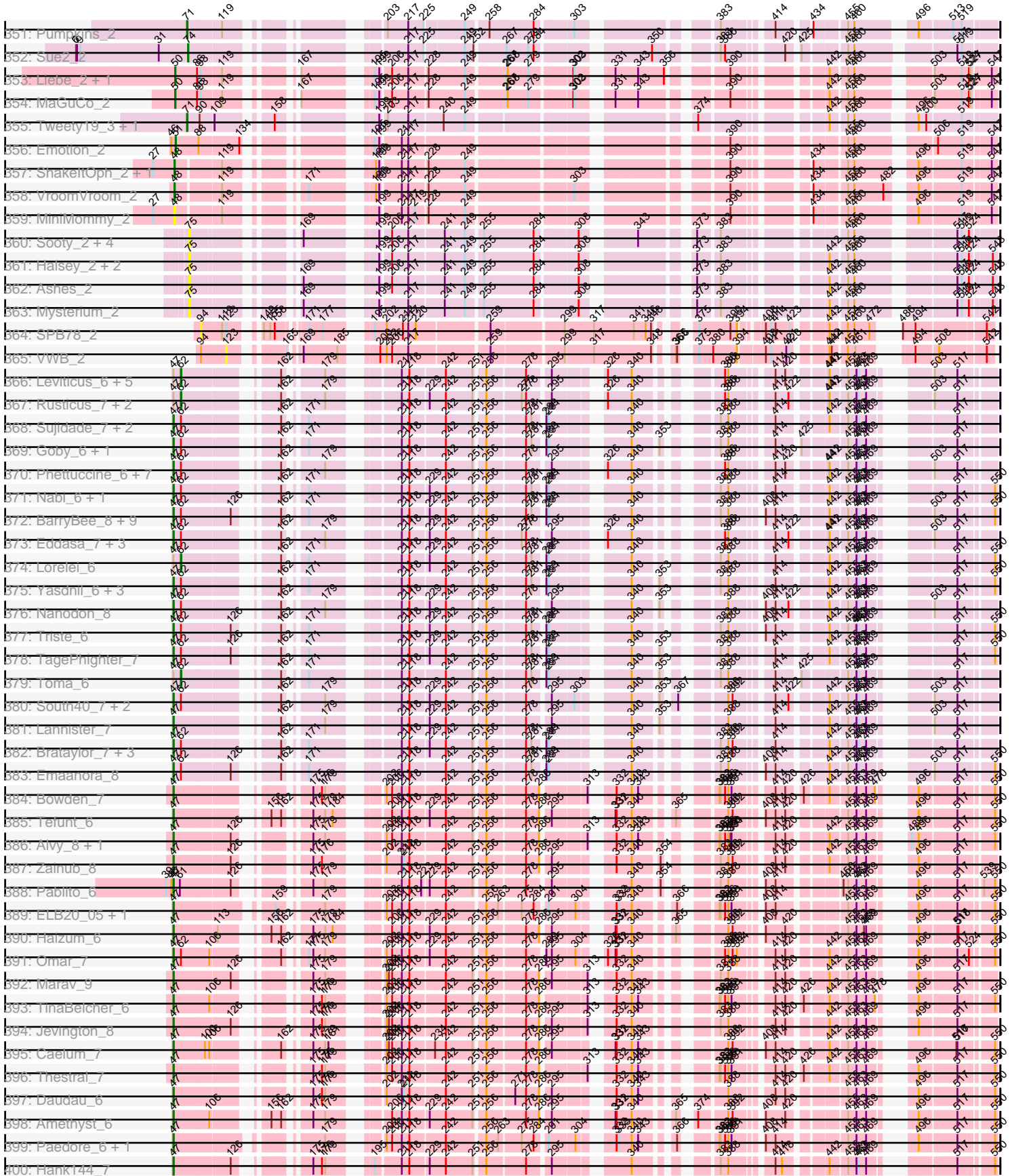


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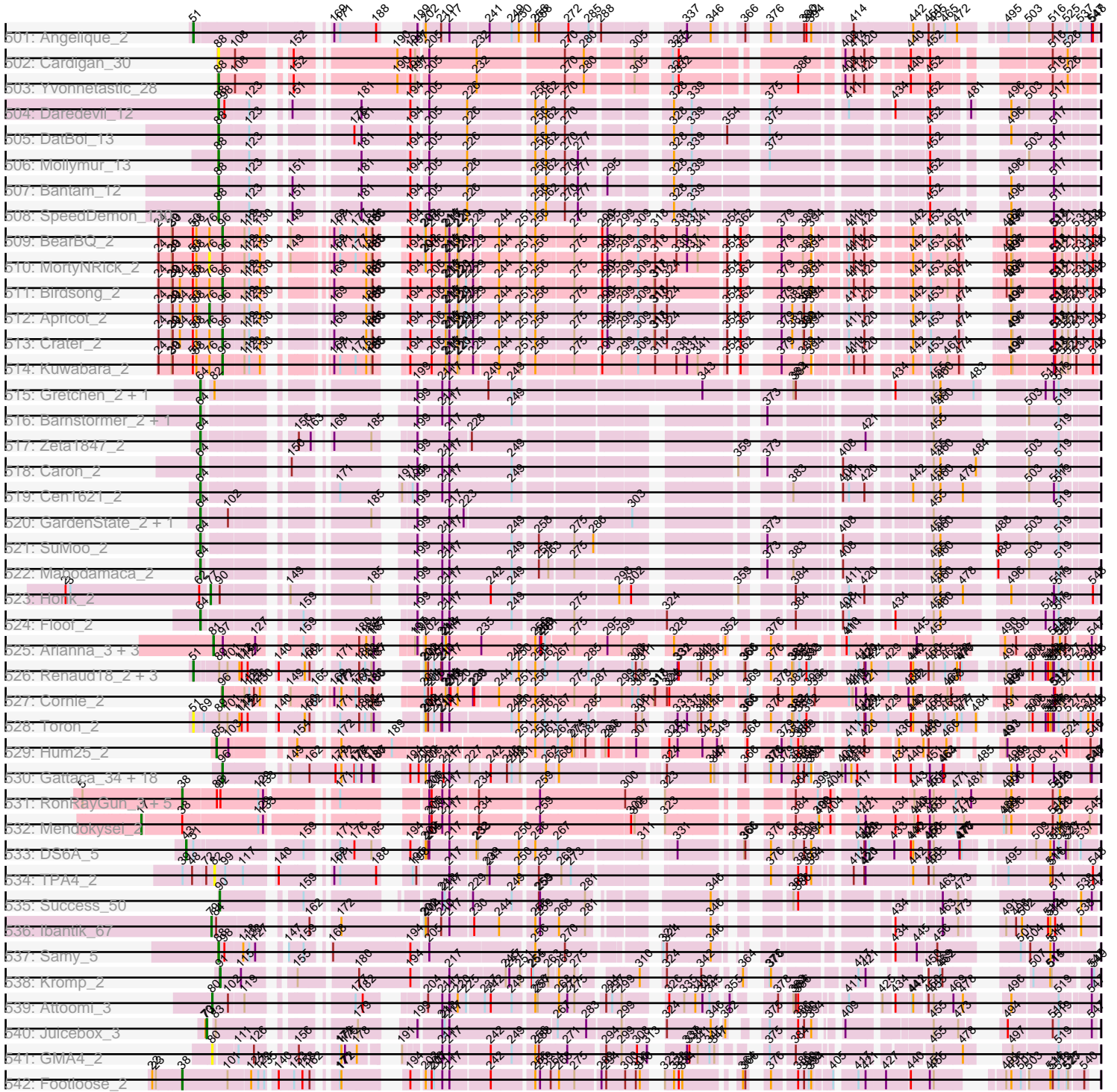
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#01: Andris_6	86			175		202		278		332		388		420		496	
#02: Issmi_7	81			175		202		278		332		388		420		496	516
#03: Superstar_8	81			175		202		278		332		388		420		496	516
#04: Paolo_8	81	108	128	175		202		278		332		388		420		496	516
#05: TrvxScott_5	81		128	175		202		278		332		388		420		496	516
#06: Puginator_8	81			175	185	202		278		332		388		420		496	516
#07: SqueakyClean_7	81			175		202		278		332		388		420		496	516
#08: Animus_7 + 2	81			175		202		278		332		388		420		496	516
#09: Nishikigoi_6	81	108	113	175	185	202		278		332		388		420		496	516
#10: Diane_6	81		128	175		202		278		332		388		420		496	516
#11: Provolone_7	81	93	108	175		202		278		332		388		420		496	516
#12: phiCAM_06	81			175	188	202		278		332		388		420		496	516
#13: Yosii_7	81			175		202		278		332		388		420		496	516
#14: Verse_6 + 1	81			175		202		278		332		388		420		496	516
#15: Kaine_7 + 3	81			175		202		278		332		388		420		496	516
#16: Celery_8	81			175	188	202		278		332		388		420		496	516
#17: Speedwell_8	81	95	95	175	188	202		278		332		388		420		496	516
#18: Saffan_6	81			175		202		278		332		388		420		496	516
#19: Dexters_5	81		108	175		202		278		332		388		420		496	516
#20: Aisaber_7	81	93		175		202		278		332		388		420		496	516
#21: Vanseggeien_9	86			188		218		298		355		405		441		516	521
#22: Verabelle_7	81			188		218		298		355		405		441		516	521
#23: Celia_6 + 2	81	14	141	191	196	218		298		355		405		441		516	521
#24: Urza_6	81	107	114	191	208	218		298		355		405		441		516	521
#25: phiSASD1_22	81	107	114	191	208	218		298		355		405		441		516	521
#26: Dubu_2	51			151		218		298		371		421		457		516	521
#27: Dinger_8 + 1	51			151		218		298		371		421		457		516	521
#28: Lmie_8 + 6	51			151		218		298		371		421		457		516	521
#29: BobbyDazzler_8	51			151		218		298		371		421		457		516	521
#30: Beienaria_8 + 8	51			151		218		298		371		421		457		516	521
#31: AngryOrchard_7 + 1	51			151		218		298		371		421		457		516	521
#32: RER2_1	51			151		218		298		371		421		457		516	521
#33: Bryce_8 + 4	51			151		218		298		371		421		457		516	521
#34: AppleCloud_6	51			151		218		298		371		421		457		516	521
#35: Shuman_8 + 4	51			151		218		298		371		421		457		516	521
#36: Alpacados_7	51			151		218		298		371		421		457		516	521
#37: Jester_8 + 1	51			151		218		298		371		421		457		516	521
#38: PhailiMary_7	81			151		218		298		371		421		457		516	521
#39: Toniann_30 + 7	88	108		160		218		298		371		421		457		516	521
#40: Abscondus_29 + 2	88	108		160		218		298		371		421		457		516	521
#41: Bachita_32 + 2	88	108		160		218		298		371		421		457		516	521
#42: Miskis_32	88	108	132	160	188	218		298		371		421		457		516	521
#43: WilliamBoone_30	88	108	132	160	188	218		298		371		421		457		516	521
#44: BrutonGaster_18	88	108	132	160	188	218		298		371		421		457		516	521
#45: OneUp_24	96	108	128	171	190	221		298		371		421		457		516	521
#46: Flibs_5	96	118	128	171	190	221		298		371		421		457		516	521
#47: Lauer_3	96	118	128	171	190	221		298		371		421		457		516	521
#48: Sopeslian_4 + 2	96	118	128	171	190	221		298		371		421		457		516	521
#49: KayGee_4	96	118	128	171	190	221		298		371		421		457		516	521
#50: Vine_5	96	118	128	171	190	221		298		371		421		457		516	521





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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 193607 Report

This analysis was run 11/02/24 on database version 579.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 193607 has 1223 members, 117 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_12
- Track 2 : Paraselene\_10, Marsha\_11, Sorpresa\_11, StewieG\_10, Smeagol\_12, Ringer\_11, Sandaddy\_10, KyMonks1A\_13, AFIS\_11, Nhonho\_11
- Track 3 : Parliament\_10, Pepe\_12, Arcanine\_12, Rajelicia\_11, Killigrew\_9, Hope4ever\_11
- Track 4 : Nerujay\_12, Arlo\_10, Maroc7\_10
- Track 5 : Molly\_12, BPBiabs31\_12
- Track 6 : Petruccio\_11, Frogopper\_12
- Track 7 : Altman\_12, Solon\_11, Dexes\_12, Sagefire\_12, Traft412\_13, Kanely\_12, Wheeler\_11
- Track 8 : Ajay\_11, Graduation\_13, Payneful\_11, Snazzy\_9, Bones\_11, Marchy\_10
- Track 9 : Kenmech\_14
- Track 10 : Bircsak\_11, Gompeii16\_11, Francis47\_11, Alvin\_12, Magnito\_10, Adahisdi\_12, MPlant7149\_10, HermioneGrange\_12, Carlyle\_13, Aeneas\_13, Pinto\_13, PascalRango\_10, Mule\_11, PhrostyMug\_11, Eyeball\_11, Abrogate\_120, Bob3\_10, Licorice\_13, ConceptII\_11
- Track 11 : Papez\_13, A6\_09, BK1\_09
- Track 12 : Squee\_12
- Track 13 : Euphoria\_11, Scowl\_12, BaconJack\_13, DrFeelGood\_10, Sumter\_10, Marcell\_11
- Track 14 : Bigfoot\_10, CactusRose\_10, Fascinus\_10
- Track 15 : BeesKnees\_12
- Track 16 : Michley\_11
- Track 17 : Bruns\_10, Treddle\_13, Gyzlar\_13
- Track 18 : Thor\_11, SarFire\_11
- Track 19 : Pita2\_13, Tote\_13, Swole\_13, RidgeCB\_11, LilBib\_12, PSullivan\_13, JuliaChild\_13
- Track 20 : Agaliana\_11, PacerPaul\_11, Gandalf20\_12, KBG\_12, Smairt\_12
- Track 21 : Cueylyss\_11, Zeeculate\_10
- Track 22 : Acme\_13, PattyP\_13, Burton\_12, Museum\_13, Pippin\_13, Sibs6\_13, Rubeus\_12, Jerm2\_12, BigMau\_13
- Track 23 : Jasper\_12, Moose\_10, ShortQueendom\_10, Perseus\_12, Dreamboat\_12, Turj99\_10, SwissCheese\_11, Forsytheast\_10

- Track 24 : Corvo\_11, MaryBeth\_11, MetalQZJ\_11
- Track 25 : Rohr\_12, Buttons\_12
- Track 26 : Dussy\_12, Abbyshoes\_12, Zephyr\_11, Zeuska\_12
- Track 27 : ILeeKay\_13, Rhynn\_11, Applejack\_11, Sunshine924\_10
- Track 28 : Ruotula\_10, Doom\_11, Watermelon\_13, Crispicous1\_10, Lesedi\_10, MrGordo\_11
- Track 29 : Blue\_11
- Track 30 : BigPaolini\_12, Alsfro\_15
- Track 31 : Seanderson\_12, JC27\_13, Trouble\_11
- Track 32 : Hami1\_13
- Track 33 : Barriga\_11
- Track 34 : Monet\_13, Fushigi\_12, GageAP\_13, Marge\_12, SpikeBT\_13
- Track 35 : Wilkins\_11
- Track 36 : STLscum\_12
- Track 37 : Edtherson\_12
- Track 38 : Niza\_13
- Track 39 : Switzer\_12, KSSJEB\_11, U2\_11
- Track 40 : Dynamix\_12, McGuire\_12
- Track 41 : Pelly\_12
- Track 42 : PherrisBueller\_12, Jorgensen\_11
- Track 43 : NEHalo\_11
- Track 44 : Hermia\_13
- Track 45 : SkiPole\_13, Topgun\_11, Teodoridan\_9
- Track 46 : Magnar\_11
- Track 47 : Kugel\_12
- Track 48 : ProMouse\_10
- Track 49 : Chanagan\_10
- Track 50 : TheloniousMonk\_13
- Track 51 : Atkinbua\_12
- Track 52 : HanShotFirst\_11, Homines\_11
- Track 53 : DD5\_12, Lockley\_11
- Track 54 : Ciao\_11
- Track 55 : Target\_13, Kykar\_9
- Track 56 : Ohno789\_10
- Track 57 : HarryOW\_12, Slagathor\_12
- Track 58 : Tasp14\_12
- Track 59 : Briton15\_13, Ichabod\_12
- Track 60 : Fajezeel\_13, Greg\_13
- Track 61 : Inyanga\_10
- Track 62 : BillKnuckles\_12
- Track 63 : Paphu\_10
- Track 64 : Mkhuseli\_12
- Track 65 : GrecoEtereo\_12
- Track 66 : JackSparrow\_12
- Track 67 : Sanya\_10
- Track 68 : Rufus\_12
- Track 69 : Rutherford\_13
- Track 70 : DreamCatcher\_14
- Track 71 : Mryolo\_10
- Track 72 : Ashballer\_10
- Track 73 : IgnatiusPatJac\_10, BluSpix\_11
- Track 74 : Pari\_12
- Track 75 : Espresso\_11



- Track 76 : Lamina13\_11
- Track 77 : PinkPlastic\_10
- Track 78 : Dulcie\_10
- Track 79 : Tripl3t\_12
- Track 80 : QTRlifeCrisis\_11
- Track 81 : Seabiscuit\_13
- Track 82 : Norz\_13
- Track 83 : Bxb1\_10
- Track 84 : Manatee\_12
- Track 85 : Oogway\_10
- Track 86 : Gwendoluna\_13
- Track 87 : Peterson\_14
- Track 88 : TwoPeat\_12
- Track 89 : Goose\_11, OKCentral2016\_11
- Track 90 : Eaglepride\_12
- Track 91 : RhynO\_12, Shapes\_14, DustyMartin\_14, Rowdy\_14
- Track 92 : Severus\_10
- Track 93 : Drake94\_10
- Track 94 : Topanga\_11, WalterMcMickey\_11, Edison31\_11, Twister\_11
- Track 95 : Poompha\_10
- Track 96 : KittenMittens\_10
- Track 97 : PeaceMeal1\_10
- Track 98 : Rebeuca\_12, Kristoff\_12
- Track 99 : DontArgue\_10
- Track 100 : Chupacabra\_11
- Track 101 : Trike\_9
- Track 102 : Munch\_12, Petersenfast\_11, MaCh\_12, Orange\_12, TinyTimmy\_12, Et2Brutus\_11, Bowtie\_12, Sham4\_12, Gilberta\_12, Bachome\_12, Ebony\_12, Joselito\_12, Aneem\_12, Bud\_12, Mabel\_12
- Track 103 : Salz\_12, Mulciber\_12, Snape\_12
- Track 104 : Lucivia\_12, Insomnia\_12, Flaverint\_12, Jabith\_12
- Track 105 : Fibonacci\_12, Timothy\_12, Hutc2\_12
- Track 106 : Refuge\_15
- Track 107 : Pharaoh\_12
- Track 108 : Zimmer\_14
- Track 109 : DARTHPhader\_13
- Track 110 : Steamy\_13
- Track 111 : Phlei\_8
- Track 112 : Jeeves\_11
- Track 113 : Gail\_11
- Track 114 : Luchador\_12
- Track 115 : SororFago\_11
- Track 116 : Sunhee\_10
- Track 117 : Remus\_14, JSwag\_14, ShayRa\_15, DekHockey33\_14, Waits\_14, Strosahl\_14, KatherineG\_14
- Track 118 : Anon\_12
- Track 119 : MinecraftSteve\_15, Switzerland\_14, Battleship\_15, LastResort\_14, Rosalind\_14, Soups\_14, Epsocamisio\_14, Oofda\_15, Boohoo\_14, Nebulosus\_14, ReMo\_14, Looper\_15, Anaysia\_14
- Track 120 : Nedarya\_13
- Track 121 : PainterBoy\_13, Lucyedi\_13, EagleEye\_14
- Track 122 : 40AC\_15
- Track 123 : MyraDee\_9

- Track 124 : Kimona\_8
- Track 125 : QueenBeesly\_12, Georgie2\_13, DudeLittle\_12, Retro23\_12, Dalmatian\_12, SnapTap\_12, Crucio\_12, FiringLine\_12, SemperFi\_14
- Track 126 : Tomathan\_15, D29\_13, StarStuff\_15, Travvers\_15, DBQu4n\_15, Duplo\_15, Kerberos\_15, D32\_15, Naji\_15
- Track 127 : Anselm\_12
- Track 128 : AN3\_12
- Track 129 : EvilGenius\_14, ChipMunk\_14
- Track 130 : WideWale\_14, Equemioh13\_14, Updawg\_14
- Track 131 : GaugeLDP\_14, BabyBack\_14
- Track 132 : LadyBird\_12
- Track 133 : Che12\_13
- Track 134 : ANI8\_15, AN9\_15, C3\_10, VC3\_15
- Track 135 : Fameo\_12, Heffalump\_14, QueenB2\_12
- Track 136 : IronMan\_14, Landor\_13, Bactobuster\_13, Phaded\_15, Jaan\_15
- Track 137 : TipsytheTRex\_11
- Track 138 : Trooper\_12
- Track 139 : CRB1\_12
- Track 140 : Herbertwm\_10
- Track 141 : Bradman\_11, Quokka\_10, Serenity\_11, MajorMajor\_11
- Track 142 : HarryHoudini\_14, Flare16\_12, Drake55\_14, Piro94\_13
- Track 143 : AbbyPaige\_14, Whabigail7\_14, Dignity\_14, Buggy\_14, Leviathan\_14, LilTurb\_14, Agape74\_14, Jerm\_14, Turbido\_14
- Track 144 : NicoleTera\_16
- Track 145 : Power\_12
- Track 146 : AnnaL29\_15
- Track 147 : NaSiaTalie\_12
- Track 148 : VA6\_12
- Track 149 : Benvolio\_12, Echild\_12
- Track 150 : WeiHuaDA\_18, Trixie\_15
- Track 151 : EZMoney23\_16
- Track 152 : L5\_13, Koduck\_12
- Track 153 : Smeagan\_14
- Track 154 : Colin\_16
- Track 155 : Journey13\_10, MissWhite\_12
- Track 156 : SwirlSquare\_14
- Track 157 : RedRock\_15
- Track 158 : Miko\_15
- Track 159 : KingCyrus\_14
- Track 160 : SweetiePie\_12
- Track 161 : Acolyte\_12
- Track 162 : Baehexic\_13
- Track 163 : 20ES\_12, First\_0012
- Track 164 : TarsusIV\_12
- Track 165 : Loser\_15
- Track 166 : Caraxes\_11, Superchunk\_11
- Track 167 : Leogania\_14, BiancaTri92\_14
- Track 168 : XianYue\_12
- Track 169 : Iwokeuplikedis\_12
- Track 170 : Jsquared\_11
- Track 171 : Pukovnik\_14
- Track 172 : BengiVuitton\_13
- Track 173 : Changeling\_15

- Track 174 : BobSwaget\_15, Lokk\_15
- Track 175 : MiculUcigas\_12
- Track 176 : Pomar16\_15
- Track 177 : JoshKayV\_14
- Track 178 : Kalpine\_15
- Track 179 : Deloris\_13
- Track 180 : Malec\_13
- Track 181 : Ph8s\_13, Adzzy\_13
- Track 182 : Centaur\_14
- Track 183 : ArcherNM\_14
- Track 184 : Odin\_11
- Track 185 : Rachaly\_15
- Track 186 : Larenn\_13
- Track 187 : NothingSpecial\_14
- Track 188 : Anthony\_11
- Track 189 : Kinmap\_11
- Track 190 : Groupthink\_14, Heliosoles\_13, HaveUMetTed\_14, OlanP\_13, Gemma\_13, Kalb97\_14, Kalnoky\_14, PurpleHaze\_13, PhishRPhriends\_12, Manu\_14, Marius\_14, Pawn\_14
- Track 191 : Pocahontas\_12, Popcicle\_12, Noella\_12, ResDef\_12, Veracruz\_11, Texage\_11, Panamaxus\_12, Caviar\_12, Todacoro\_12, QuinnKiro\_11, Hookmount\_12, Norbert\_11, Margo\_12, Lambert1\_12
- Track 192 : Anubis\_15, GingkoMaracino\_13
- Track 193 : Stagni\_13, Rummer\_13, DaHudson\_13, LarryKay\_13, Wooldri\_15, Spike509\_13, P28Green\_13, Hercules11\_13, SoYo\_13, MadMarie\_13, Grub\_13, BuzzBuzz\_12, Methuselah\_13, KADY\_14, HashRod\_14, Sabinator\_13, Bxz2\_13, Misomonster\_15, Ollie\_13, PotatoSplit\_14, StepMih\_13, Farber\_13, PGHhamlin\_15, Microwolf\_13, AgronaGT15\_13, AugsMagnumOpus\_15, Dieselweasel\_13, MuchMore\_15, Colbster\_13, Phoebe\_13, Grum1\_13, LBerry\_13, JHC117\_13, Soshari\_15, GtownJaz\_13, SoilDragon\_13, Grif\_13, Tiffany\_13, Beauxregard13\_13, Penny1\_13, Malinsilva\_15, Mainiac\_13, Pembroke\_13, Phoxy\_13, Aglet\_13, MarQuardt\_13, Watson\_13, Jobu08\_13, Sabia\_13, Lilith\_13, BreSam8\_13, EpicPhail\_13, Snickers\_13
- Track 194 : LugYA\_15, Cullens\_13, MoneyMay\_13, Marie\_13, Fernando\_13, Taurus\_13, JenCasNa\_13
- Track 195 : Chiqui\_10, BabyJohn\_10
- Track 196 : HelDan\_11
- Track 197 : Louie6\_13
- Track 198 : Isca\_11
- Track 199 : Kachowdy\_11, Heathen\_11
- Track 200 : Marchesa\_11, DropBear\_11
- Track 201 : BabyRay\_11
- Track 202 : Rockstar\_11
- Track 203 : Puppy\_12, Bugatti\_11, Idleandcovert\_11, Pistachio\_12, Giroux\_11, SaturnRing\_11, TNguyen7\_11, BlueBird\_12
- Track 204 : ACFishhook\_13
- Track 205 : Phantastic\_11
- Track 206 : Vix\_13
- Track 207 : Daishi\_12
- Track 208 : Reba\_14, Phranny\_14
- Track 209 : Scout\_11, Fred313\_11
- Track 210 : Zetzy\_12
- Track 211 : B1\_09, JF2\_11, MK4\_11, JF4\_11



- Track 212 : JeppNRM\_14
- Track 213 : MA5\_11
- Track 214 : Scamp\_11, Baby16\_11, BubbleTrouble\_11, Spino\_11, Roosevelt\_11, Albee\_11, Taquarus\_11, Pipcraft\_11, Relief\_11, Cocoaberry\_11, Maverick\_11, NorthStar\_11, Commander\_11, Gadost\_11, Ulysses\_10, Chaph\_11, Connomayer\_11, JetBlade\_11, Iceman\_11, Phacado\_11, Peaches\_11, Funston\_11, Citius\_11, Wizard007\_11, Florean\_11, MeeZee\_11, Wander\_11, ICleared\_11, Romney\_11, Medusa\_11, Dhanush\_11, Bartimeaus\_11, NotAPhaseMom\_11, Blackmoor\_11, Bruiser\_11, Happiness\_11, Eros\_11, Burger\_10, Iracema64\_11, Clarenza\_11, KFPoly\_11, Houdini22\_11, Sparxx\_11, Flux\_11, Palestino\_11, TiroTheta9\_11, Pumbaa\_11, Maxo\_11, JoongJeon\_11, Melvin\_11, Koreni\_10, Ruin\_11, Shaka\_11, TygerBlood\_11, PeterPeter\_11, Eapen\_11, Wilbur\_11, Avle17\_11, HamSlice\_10, Annyong\_11, Phelipe\_11, Mazhar510\_11, Sabertooth\_11, Tinybot\_10, Alberto7\_12, Deano\_11, Abdiel\_11, LappelDuVide\_11, Eris\_11, Broseidon\_11, Druantia\_11, Lorenzo\_11, Kratark\_11, Holli\_11, Kingmustik0402\_11, CentreCat\_11, Kampy\_11, TinaFeyge\_11, Jaykayelowell\_11, Phighter1804\_11, Bombshell\_11, DirtyDunning\_11, TroyPia\_11, Thanksgivukkah\_11, Caelakin\_11
- Track 215 : Noelle\_11
- Track 216 : Backyardigan\_11, Xena\_11, Badger\_11, Datway\_11, Bumblebee11\_11, Wile\_11, Cici\_11, Achebe\_11
- Track 217 : Eurydice\_11, BellusTerra\_11, Polymorphads\_11, YoSam321\_11, Ohfah\_11, Nebs\_11
- Track 218 : Kremtemulon\_11
- Track 219 : Millski\_11
- Track 220 : Kyee\_11, Lunsford\_12, Lemur\_11
- Track 221 : Eagle\_10, ChampagnePapi\_11, Rosa24\_10, BangNhom\_10, Cerulean\_11, SheldonCooper\_11
- Track 222 : Miramae\_11
- Track 223 : LHTSCC\_11, Obama12\_11
- Track 224 : LittleGuy\_11, Phontbonne\_11
- Track 225 : Camperdownii\_10
- Track 226 : LeoAvram\_11
- Track 227 : Cindaradix\_10
- Track 228 : Morrow\_11
- Track 229 : Arturo\_10
- Track 230 : PetiteSangsue\_11
- Track 231 : Perplexer\_11, Morpher26\_11
- Track 232 : Katalie136\_11
- Track 233 : OKaNui\_11
- Track 234 : Stasia\_12
- Track 235 : Cintron\_11
- Track 236 : AbbysRanger\_11
- Track 237 : AvatarAhPeg\_11, Stink\_11
- Track 238 : Mundrea\_11
- Track 239 : Nyxis\_11
- Track 240 : Nemo27\_11
- Track 241 : LittleB\_11
- Track 242 : LochMonster\_11
- Track 243 : Skipitt\_11
- Track 244 : Shygu2\_11
- Track 245 : Aragog\_9
- Track 246 : Tiger\_9, Lev2\_9

- Track 247 : AgentM\_9, ForGetIt\_9, Phlorence\_9, Conspiracy\_9, PickleBack\_9, Archetta\_9
- Track 248 : Milcery\_9, Swirley\_9
- Track 249 : Cuco\_9, George\_8
- Track 250 : Discoknowium\_9
- Track 251 : Coog\_9, Midas2\_9
- Track 252 : Airmid\_9
- Track 253 : Benedict\_9, PetterN\_10
- Track 254 : LittleCherry\_9, HuhtaEnerson15\_9
- Track 255 : SydNat\_9, Zolita\_8
- Track 256 : Micasa\_9
- Track 257 : EITiger69\_9
- Track 258 : Bonamassa\_9
- Track 259 : Jabiru\_9
- Track 260 : Chadwick\_10, Scorpio\_10
- Track 261 : Bluefalcon\_8
- Track 262 : Jovo\_9
- Track 263 : Tarynearal\_8
- Track 264 : MarysWell\_8
- Track 265 : UnionJack\_9
- Track 266 : Naca\_9
- Track 267 : Ghoulboy\_9
- Track 268 : Theia\_8, Dublin\_8
- Track 269 : Newrala\_15, Cookiedough\_15, Pmask\_15, Jordennis\_15, Neeharika16\_15
- Track 270 : Rifter\_15, Gladiator\_15, Gruunaga\_15
- Track 271 : Koko\_15, Wiks\_15, Tucker\_15, Hammer\_15, Roksolana\_15, Blue7\_15, Artemis2UCLA\_15, Yokurt\_15, WunderPhul\_15, Helmet\_16, Indra\_15, Hexamo\_15, Zulu\_15, Lilbunny\_15, Zaka\_15, ToneTone\_14, Garak\_16
- Track 272 : Isiphiwo\_15
- Track 273 : McFly\_15, JewelBug\_15, CloudWang3\_15, Hoot\_15, VohminGhazi\_15, Jeffabunny\_15, SmellyB\_15, Dorothea\_15, Chartreuse\_15, DaVinci\_15, Candra\_15, Kipper29\_15, Priamo\_15, Blinn1\_15, Kazan\_15, GreedyLawyer\_15
- Track 274 : BABullseye\_15, EricB\_15, SuperCallie99\_15
- Track 275 : SuperAwesome\_15
- Track 276 : DroogsArmy\_12
- Track 277 : HINdeR\_11
- Track 278 : FlyCatcher\_15, Sheen\_13, Toro\_14
- Track 279 : PP\_21
- Track 280 : Timshel\_12
- Track 281 : Stephig9\_9, Groundhog\_8, Danforth\_8, Astro\_9, Expelliarmus\_8
- Track 282 : Phillis\_9
- Track 283 : Dixon\_9, Smeadley\_9, Roary\_9
- Track 284 : Saintus\_9
- Track 285 : NearlyHeadless\_9
- Track 286 : Lilleskat\_11, Qobbit\_13, Halex\_12, Scherzo\_13, Phonnegut\_13, EmyBug\_13, Hanray\_12, Beemo\_13, RyeScarlet\_14
- Track 287 : Phaeder\_13, ExplosioNervosa\_13, Pioneer\_13, Sachima\_11, EdogawaKiddo\_11, Conquerage\_13, Catalina\_13
- Track 288 : Charm\_12, DreamTeam1\_12
- Track 289 : Keziacharles14\_11
- Track 290 : Darrell\_14
- Track 291 : Onglai\_12

- Track 292 : Priya\_13, Ugenie5\_10, Fayely\_13, Tubs\_13, Eidsmoe\_13, Myxus\_13, HortumSL17\_13, Spouty\_13, Aliter\_13, Alma\_13, PackMan\_13
- Track 293 : LoneWolf\_13
- Track 294 : Vanisoa\_11
- Track 295 : Maminiaina\_13
- Track 296 : Toaka\_11
- Track 297 : BogosyJay\_13
- Track 298 : Rahalelujah\_11
- Track 299 : Elephantoon\_13
- Track 300 : Arissanae\_11
- Track 301 : Jiawan\_12
- Track 302 : SheaKeira\_12
- Track 303 : Yecey3\_12
- Track 304 : NoShow\_2
- Track 305 : JacoRen57\_2
- Track 306 : Maco6\_3
- Track 307 : FF47\_05, 8UZL\_5
- Track 308 : Muddy\_5
- Track 309 : Farewell\_2, Sparky\_2
- Track 310 : Nergal\_5
- Track 311 : MalagasyRose\_7
- Track 312 : Persistence\_2
- Track 313 : Phrank15\_2
- Track 314 : Anekin\_2
- Track 315 : Hestia\_2
- Track 316 : Soondubu\_2
- Track 317 : AinMach\_2
- Track 318 : Exile\_2
- Track 319 : Eraser\_2, Asa16\_2, London\_2, Niobe\_2, Jstan\_2
- Track 320 : Pixelle\_2
- Track 321 : Kaylissa\_2, Powerpuff\_2, Tutumahutu\_2, YesChef\_2, Cyan\_2
- Track 322 : JuneStar\_2, Yang\_2
- Track 323 : ObiToo\_2
- Track 324 : Community\_3, Tuck\_3, Phives\_3
- Track 325 : Elezi\_2
- Track 326 : Nitro\_2
- Track 327 : KeAlii\_2
- Track 328 : Turab\_2
- Track 329 : MissSwiss\_2
- Track 330 : Berrie\_2
- Track 331 : IttyBittyPiggy\_2
- Track 332 : DrManhattan\_2, Adolin\_2
- Track 333 : AGrandiflora\_2
- Track 334 : AEgle\_2
- Track 335 : Amyev\_2, Tian\_2
- Track 336 : Tallboi\_2
- Track 337 : JohnDoe\_2, Mudpuppy\_2, Tbone\_2, Warda\_2
- Track 338 : Crewmate\_3
- Track 339 : Adumb2043\_2
- Track 340 : Joemato\_2, Simpson\_2
- Track 341 : TforTroy\_2
- Track 342 : Reedo\_2
- Track 343 : VResidence\_2

- Track 344 : Janeemi\_3
- Track 345 : Cassia\_2
- Track 346 : Lizalica\_2
- Track 347 : Lego\_2
- Track 348 : Iter\_2, Ascela\_2
- Track 349 : Wildwest\_3
- Track 350 : DrSierra\_2
- Track 351 : Pumpkins\_2
- Track 352 : Sue2\_2
- Track 353 : Liebe\_2, Maureen\_2
- Track 354 : MaGuCo\_2
- Track 355 : Tweety19\_3, Snek\_3
- Track 356 : Emotion\_2
- Track 357 : ShakeltOph\_2, JasmineDragon\_2
- Track 358 : VroomVroom\_2
- Track 359 : MiniMommy\_2
- Track 360 : Sooty\_2, Cappuccino\_2, Gambol\_2, Donkey\_2, Kalimba\_2
- Track 361 : Halsey\_2, SpecialK\_2, Moss\_2
- Track 362 : Ashes\_2
- Track 363 : Mysterium\_2
- Track 364 : SPB78\_2
- Track 365 : VWB\_2
- Track 366 : Leviticus\_6, Unstoppable\_6, Ozzie\_6, BeardedLady\_7, Esperer\_6, SunsetPointe\_6
- Track 367 : Rusticus\_7, Jash\_7, EnochSoames\_7
- Track 368 : Sujidade\_7, Lika\_6, Godpower\_7
- Track 369 : Goby\_6, Dattran\_7
- Track 370 : Phettuccine\_6, Bovely\_6, Aaronocolus\_6, Legacy\_6, Indigo\_6, Hydra\_8, Nerdos\_6, Caliburn\_6
- Track 371 : Nabi\_6, Rana\_6
- Track 372 : BarryBee\_8, SarahRose\_6, Asten\_6, Werner\_6, Whatever\_6, Chucky\_6, Dwayne\_6, OzzyJ\_7, Snorlax\_6, Hippo\_6
- Track 373 : Eddasa\_7, BryanRecycles\_7, Izzy\_7, Oliynyk\_7
- Track 374 : Lorelei\_6
- Track 375 : YasdniI\_6, Maneekul\_6, Ejemplo\_6, TuanPN\_6
- Track 376 : Nanodon\_8
- Track 377 : Triste\_6
- Track 378 : TagePhighter\_7
- Track 379 : Toma\_6
- Track 380 : South40\_7, Katalie\_7, RedBear\_8
- Track 381 : Lannister\_7
- Track 382 : Brataylor\_7, Zemlya\_7, Celeste\_6, Danzina\_7
- Track 383 : Emaanora\_8
- Track 384 : Bowden\_7
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- Track 386 : Alvy\_8, BartholomewSD\_8
- Track 387 : Zainub\_8
- Track 388 : Pablito\_6
- Track 389 : ELB20\_05, R4\_6
- Track 390 : Haizum\_6
- Track 391 : Omar\_7
- Track 392 : Marav\_9
- Track 393 : TinaBelcher\_6

- Track 394 : Jevington\_8
- Track 395 : Caelum\_7
- Track 396 : Thestral\_7
- Track 397 : Daudau\_6
- Track 398 : Amethyst\_6
- Track 399 : Paedore\_6, Loofah\_7
- Track 400 : Hank144\_7
- Track 401 : Andris\_6
- Track 402 : Issmi\_7
- Track 403 : Superstar\_8
- Track 404 : Paolo\_8
- Track 405 : TrvxScott\_5
- Track 406 : Puginator\_8
- Track 407 : SqueakyClean\_7
- Track 408 : Animus\_7, Janus\_7, GirlDinner\_6
- Track 409 : Nishikigoi\_6
- Track 410 : Diane\_6
- Track 411 : Provolone\_7
- Track 412 : phiCAM\_06
- Track 413 : Yosif\_7
- Track 414 : Verse\_6, Amela\_6
- Track 415 : Kaine\_7, Pavo\_8, Conan\_7, ElGato\_7
- Track 416 : Celery\_8
- Track 417 : Speedwell\_8
- Track 418 : Saftant\_6
- Track 419 : Dexers\_5
- Track 420 : Alsaber\_7
- Track 421 : Vanseggelen\_9
- Track 422 : Verabelle\_7
- Track 423 : Celia\_6, Itza\_6, VieEnRose\_6
- Track 424 : Urza\_6
- Track 425 : phiSASD1\_22
- Track 426 : Dubu\_2
- Track 427 : Dinger\_8, Partridge\_8
- Track 428 : Lillie\_8, Bradshaw\_8, Rhodalysa\_8, Swann\_8, CosmicSans\_8, TWAMP\_8, Phrankenstein\_8
- Track 429 : BobbyDazzler\_8
- Track 430 : Belenaria\_8, Naiad\_8, Alatin\_8, Krishelle\_8, Espica\_8, UhSalsa\_8, Nancinator\_8, StCroix\_8, Natosaleda\_8
- Track 431 : AngryOrchard\_7, Takoda\_8
- Track 432 : RER2\_1
- Track 433 : Bryce\_8, Yoncess\_8, Bonanza\_8, Hiro\_8, Yogi\_8
- Track 434 : AppleCloud\_6
- Track 435 : Shuman\_8, Erik\_8, Gollum\_8, Rasputin\_8, RexFury\_8
- Track 436 : Alpacados\_7
- Track 437 : Jester\_8, Harlequin\_8
- Track 438 : PhailMary\_7
- Track 439 : Toniann\_30, Engineer\_31, Lozinak\_30, ClubL\_30, Smoothie\_31, PhinkBoden\_30, Cucurbita\_32, Aphelion\_30
- Track 440 : Abscondus\_29, Culver\_30, Dusty\_28
- Track 441 : Bachita\_32, Norvs\_31, Geeche\_29
- Track 442 : Miskis\_32
- Track 443 : WilliamBoone\_30

- Track 444 : BrutonGaster\_18
- Track 445 : OneUp\_24
- Track 446 : Fribs8\_5
- Track 447 : Lauer\_3
- Track 448 : Sopeopian\_4, Elliott\_4, PsychoKiller\_4
- Track 449 : KayGee\_4
- Track 450 : Vine\_5
- Track 451 : MScarn\_6, Horseradish\_5, Yummy\_5
- Track 452 : Azira\_6
- Track 453 : MunkgeeRoachy\_4
- Track 454 : Agatha\_4
- Track 455 : Carsonalex\_5
- Track 456 : MAnor\_4
- Track 457 : Tolls\_6
- Track 458 : Buttrmilkdreams\_4, Troje\_4, Biskit\_5, SketchMex\_3
- Track 459 : RanchParmCat\_7
- Track 460 : CherryonLim\_5
- Track 461 : Gibbous\_4, Dre3\_4, Cleo\_4
- Track 462 : Amok\_3
- Track 463 : Cozz\_4, Burnsey\_4, Axym\_4
- Track 464 : Elinal\_5
- Track 465 : Button\_5
- Track 466 : Margaret\_7
- Track 467 : SummitAcademy\_3
- Track 468 : AikoCarson\_3
- Track 469 : Orla\_5
- Track 470 : Hexbug\_5
- Track 471 : Jamzy\_7
- Track 472 : GoldHunter\_5, RedBaron\_5
- Track 473 : SteamedHams\_6
- Track 474 : Survivors\_6, MaVan\_6, Nibbles\_6
- Track 475 : Emalyn\_3
- Track 476 : SweatNTears\_6
- Track 477 : Nodigi\_5
- Track 478 : Feastonyeet\_3, BigChungus\_3
- Track 479 : SheckWes\_3
- Track 480 : HippoPololi\_6
- Track 481 : Yakult\_5
- Track 482 : PotPie\_4
- Track 483 : Quasar\_4, Nina\_4
- Track 484 : Mayweather\_5
- Track 485 : GTE2\_02
- Track 486 : AndPeggy\_3, Yarn\_3
- Track 487 : Pons\_4
- Track 488 : Typhonmarchy\_5
- Track 489 : GiKK\_7
- Track 490 : BillDoor\_6
- Track 491 : Zareef\_7
- Track 492 : BeeGee\_2
- Track 493 : Jablanski\_2, Pytheas\_2
- Track 494 : Posh\_2
- Track 495 : LonelyBoi\_2
- Track 496 : Cashline\_2



- Track 497 : Wrigley\_2
- Track 498 : Marteena\_2, EnalisNailo\_2, Floral\_2, EMSquaredA\_2, BritBrat\_2, Lilas\_2, Pollux\_2
- Track 499 : Confidence\_2
- Track 500 : Bradissa\_2
- Track 501 : Angelique\_2
- Track 502 : Cardigan\_30
- Track 503 : Yvonnestic\_28
- Track 504 : Daredevil\_12
- Track 505 : DatBoi\_13
- Track 506 : Mollymur\_13
- Track 507 : Bantam\_12
- Track 508 : SpeedDemon\_130
- Track 509 : BearBQ\_2
- Track 510 : MortyNRick\_2
- Track 511 : Birdsong\_2
- Track 512 : Apricot\_2
- Track 513 : Crater\_2
- Track 514 : Kuwabara\_2
- Track 515 : Gretchen\_2, Percival\_2
- Track 516 : Barnstormer\_2, UtzChips\_2
- Track 517 : Zeta1847\_2
- Track 518 : Caron\_2
- Track 519 : Cen1621\_2
- Track 520 : GardenState\_2, IAmGroot\_2
- Track 521 : SuMoo\_2
- Track 522 : Mabodamaca\_2
- Track 523 : Honk\_2
- Track 524 : Floof\_2
- Track 525 : Arianna\_3, Colleen\_3, Poushou\_3, TouchMeNot\_3
- Track 526 : Renaud18\_2, TChen\_2, LunaStella\_2, ThetaBob\_2
- Track 527 : Cornie\_2
- Track 528 : Toron\_2
- Track 529 : Hum25\_2
- Track 530 : Gattaca\_34, RedRaider77\_35, Huphlepuuff\_37, Raela\_35, Lilbit\_36, Caprice\_32, LittleLaf\_35, Blackbeetle\_35, Corazon\_33, JoieB\_36, Marvin\_33, FeliMaine\_35, Beelzebub\_39, VasuNzinga\_35, Poise\_35, Tesla\_34, Pringar\_35, MosMoris\_33, Clarkson\_36
- Track 531 : RonRayGun\_3, Whitty\_3, Nairb\_3, Ibrahim\_3, Bernal13\_3, ZenTime222\_3
- Track 532 : Mendokysei\_2
- Track 533 : DS6A\_5
- Track 534 : TPA4\_2
- Track 535 : Success\_50
- Track 536 : Ibantik\_67
- Track 537 : Samy\_5
- Track 538 : Kromp\_2
- Track 539 : Attoomi\_3
- Track 540 : Juicebox\_3
- Track 541 : GMA4\_2
- Track 542 : Footloose\_2

**Summary of Final Annotations (See graph section above for start numbers):**

The start number called the most often in the published annotations is 48, it was called in 363 of the 1106 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6\_09, AFIS\_11, AbbysRanger\_11, Abbyshoes\_12, Abdiel\_11, Abrogate\_120, Achebe\_11, Adahisdi\_12, Aeneas\_13, Agaliana\_11, Ajay\_11, Albee\_11, Alberto7\_12, Alsfro\_15, Altman\_12, Alvin\_12, Annyong\_11, Applejack\_11, Arcanine\_12, Arlo\_10, Arturo\_10, Atkinbua\_12, AvatarAhPeg\_11, Avle17\_11, B1\_09, BK1\_09, BPBiabs31\_12, Baby16\_11, BabyJohn\_10, BabyRay\_11, Backyardigan\_11, BaconJack\_13, Badger\_11, BangNhom\_10, Barriga\_11, Bartimeaus\_11, BeesKnees\_12, BellusTerra\_11, BigPaolini\_12, Bigfoot\_10, BillKnuckles\_12, Bircsak\_11, Blackmoor\_11, BluSpix\_11, BlueBird\_12, Blue\_11, Bob3\_10, Bombshell\_11, Bones\_11, Briton15\_13, Broseidon\_11, Bruiser\_11, BubbleTrouble\_11, Bugatti\_11, Bumblebee11\_11, Burger\_10, Buttons\_12, Bxb1\_10, CactusRose\_10, Caelakin\_11, Camperdownii\_10, Carlyle\_13, Caviar\_12, CentreCat\_11, Cerulean\_11, ChampagnePapi\_11, Chanagan\_10, Chaph\_11, Chiqui\_10, Chupacabra\_11, Ciao\_11, Cici\_11, Cindaradix\_10, Cintron\_11, Citius\_11, Clarenza\_11, Cocoaberry\_11, Commander\_11, Conceptll\_11, Connomayer\_11, Corvo\_11, Crispicous1\_10, Cueylyss\_11, DD5\_12, Datway\_11, Deano\_11, Dexes\_12, Dhanush\_11, DirtyDunning\_11, DontArgue\_10, Doom\_11, DrFeelGood\_10, Drake94\_10, Dreamboat\_12, DroogsArmy\_12, DropBear\_11, Druantia\_11, Dulcie\_10, Dussy\_12, DustyMartin\_14, Dynamix\_12, Eagle\_10, Eaglepride\_12, Eapen\_11, Edison31\_11, Edtherson\_12, Eris\_11, Eros\_11, Espresso\_11, Euphoria\_11, Eurydice\_11, Eyeball\_11, Farewell\_2, Fascinus\_10, Florean\_11, Flux\_11, FlyCatcher\_15, Forsytheast\_10, Francis47\_11, Fred313\_11, Froghopper\_12, Funston\_11, Gadost\_11, Gandalf20\_12, Giroux\_11, Gompeii16\_11, Goose\_11, Graduation\_13, GrecoEtereo\_12, Gwendoluna\_13, HINder\_11, HamSlice\_10, Hami1\_13, HanShotFirst\_11, Happiness\_11, HarryOW\_12, Heathen\_11, HelDan\_11, Hermia\_13, HermioneGrange\_12, Holli\_11, Homines\_11, Hookmount\_12, Hope4ever\_11, Houdini22\_11, ICleared\_11, ILeeKay\_13, Iceman\_11, Ichabod\_12, Idleandcovert\_11, IgnatiusPatJac\_10, Inyanga\_10, Iracema64\_11, Isca\_11, JC27\_13, JF2\_11, JF4\_11, JackSparrow\_12, JasmineDragon\_2, Jasper\_12, Jaykayelowell\_11, JetBlade\_11, JoongJeon\_11, Jorgensen\_11, JuliaChild\_13, KBG\_12, KFPoly\_11, KSSJEB\_11, Kachowdy\_11, Kamy\_11, Kanely\_12, Katalie136\_11, Killigrew\_9, Kimona\_8, Kingmustik0402\_11, KittenMittens\_10, Koreni\_10, Kratark\_11, Kremtemulon\_11, Kristoff\_12, Kugel\_12, KyMonks1A\_13, Kyee\_11, Kykar\_9, LHTSCC\_11, Lambert1\_12, Lamina13\_11, LappelDuVide\_11, Lemur\_11, Lesedi\_10, Licorice\_13, LilBib\_12, LittleB\_11, LittleGuy\_11, LochMonster\_11, Lockley\_11, Lorenzo\_11, Lunsford\_12, MA5\_11, MK4\_11, MPlant7149\_10, Magnar\_11, Magnito\_10, Manatee\_12, Marcell\_11, Marchesa\_11, Marchy\_10, Margo\_12, Maroc7\_10, Marsha\_11, MaryBeth\_11, Maverick\_11, Maxo\_11, Mazhar510\_11, McGuire\_12, Medusa\_11, MeeZee\_11, Melvin\_11, MetalQZJ\_11, Michley\_11, MiniMommy\_2, Miramae\_11, Molly\_12, Moose\_10, Morpher26\_11, MrGordo\_11, Mryolo\_10, Mule\_11, Mundrea\_11, NEHalo\_11, Nebs\_11, Nerujay\_12, Nhonho\_11, Noella\_12, Noelle\_11, Norbert\_11, NorthStar\_11, Norz\_13, NotAPhaseMom\_11, Nyxis\_11, OKCentral2016\_11, OKaNui\_11, Obama12\_11, Ohfah\_11, Ohno789\_10, Oogway\_10, PP\_21, PSullivan\_13, PacerPaul\_11, Palestino\_11, Panamaxus\_12, Papez\_13, Paphu\_10, Paraselene\_10, Pari\_12, Parliament\_10, PascalRango\_10, Payneful\_11, PeaceMeal1\_10, Peaches\_11, Pelly\_12, Pepe\_12, Perplexer\_11, Perseus\_12,

PeterPeter\_11, Peterson\_14, PetiteSangsue\_11, Petruchio\_11, Phacado\_11, Phantastic\_11, Phelipe\_11, PherrisBueller\_12, Phighter1804\_11, Phontbonne\_11, PhrostyMug\_11, PinkPlastic\_10, Pinto\_13, Pipcraft\_11, Pistachio\_12, Pita2\_13, Pocahontas\_12, Polymorphads\_11, Poompha\_10, Popcicle\_12, ProMouse\_10, Pumbaa\_11, Puppy\_12, QTRlifeCrisis\_11, QuinnKiro\_11, Rajelicia\_11, Rebeuca\_12, Relief\_11, ResDef\_12, RhynO\_12, Rhynn\_11, RidgeCB\_11, Ringer\_11, Rockstar\_11, Rohr\_12, Romney\_11, Roosevelt\_11, Rosa24\_10, Rowdy\_14, Ruin\_11, Ruotula\_10, STLscum\_12, Sabertooth\_11, Saftant\_6, Sagefire\_12, Sandaddy\_10, Sanya\_10, SarFire\_11, SaturnRing\_11, Scamp\_11, Scout\_11, Scowl\_12, Seabiscuit\_13, Seanderson\_12, Severus\_10, Shaka\_11, ShakeltOph\_2, Shapes\_14, Sheen\_13, SheldonCooper\_11, ShortQueendom\_10, Shygu2\_11, SkiPole\_13, Slagathor\_12, Smairt\_12, Smeagol\_12, Snazzy\_9, Solon\_11, Sorpresa\_11, Sparky\_2, Sparxx\_11, Spino\_11, Squee\_12, Stasia\_12, StewieG\_10, Stink\_11, Sumter\_10, Sunshine924\_10, SwissCheese\_11, Switzer\_12, Swole\_13, TNguyen7\_11, Taquarus\_11, Target\_13, Tasp14\_12, Teodoridan\_9, Texage\_11, Thanksgivukkah\_11, TheloniousMonk\_13, Thor\_11, Timshel\_12, TinaFeyge\_11, Tinybot\_10, TiroTheta9\_11, Todacoro\_12, Topanga\_11, Topgun\_11, Toro\_14, Tote\_13, Trafft412\_13, Trike\_9, Tripl3t\_12, Trouble\_11, TroyPia\_11, Turj99\_10, Twister\_11, TwoPeat\_12, TygerBlood\_11, U2\_11, Ulysses\_10, Veracruz\_11, VroomVroom\_2, WalterMcMickey\_11, Wander\_11, Watermelon\_13, Wheeler\_11, Wilbur\_11, Wile\_11, Wilkins\_11, Wizard007\_11, Xena\_11, YoSam321\_11, Zeeculate\_10, Zephyr\_11, Zeuska\_12,

Genes that have the "Most Annotated" start but do not call it:

- Alsaber\_7, Amela\_6, Celery\_8, Conan\_7, Dexers\_5, ElGato\_7, Kaine\_7, LeoAvram\_11, Nemo27\_11, Pavo\_8, Provolone\_7, Skipitt\_11, Speedwell\_8, TPA4\_2, Vanseggelen\_9, Verse\_6, Yosif\_7, phiCAM\_06,

Genes that do not have the "Most Annotated" start:

- 20ES\_12, 40AC\_15, 8UZL\_5, ACFishhook\_13, AEgle\_2, AGrandiflora\_2, AN3\_12, AN9\_15, ANI8\_15, Aaronocolus\_6, AbbyPaige\_14, Abscondus\_29, Acme\_13, Acolyte\_12, Adolin\_2, Adumb2043\_2, Adzzy\_13, Agape74\_14, Agatha\_4, AgentM\_9, Aglet\_13, AgronaGT15\_13, AikoCarson\_3, AinMach\_2, Airmid\_9, Alatin\_8, Aliter\_13, Alma\_13, Alpacados\_7, Alvy\_8, Amethyst\_6, Amok\_3, Amyev\_2, Anaysia\_14, AndPeggy\_3, Andris\_6, Aneem\_12, Anekin\_2, Angelique\_2, AngryOrchard\_7, Animus\_7, AnnaL29\_15, Anon\_12, Anselm\_12, Anthony\_11, Anubis\_15, Aphelion\_30, AppleCloud\_6, Apricot\_2, Aragog\_9, ArcherNM\_14, Archetta\_9, Arianna\_3, Arissanae\_11, Artemis2UCLA\_15, Asa16\_2, Ascela\_2, Ashballer\_10, Ashes\_2, Asten\_6, Astro\_9, Attoomi\_3, AugsMagnumOpus\_15, Axym\_4, Azira\_6, BABullseye\_15, BabyBack\_14, Bachita\_32, Bachome\_12, Bactobuster\_13, Baehexic\_13, Bantam\_12, Barnstormer\_2, BarryBee\_8, BartholomewSD\_8, Battleship\_15, BearBQ\_2, BeardedLady\_7, Beauxregard13\_13, BeeGee\_2, Beelzebub\_39, Beemo\_13, Belenaria\_8, Benedict\_9, BengiVuitton\_13, Benvolio\_12, Bernal13\_3, Berrie\_2, BiancaTri92\_14, BigChungus\_3, BigMau\_13, BillDoor\_6, Birdsong\_2, Biskit\_5, Blackbeetle\_35, Blinn1\_15, Blue7\_15, Bluefalcon\_8, BobSwaget\_15, BobbyDazzler\_8, BogosyJay\_13, Bonamassa\_9, Bonanza\_8, Boohoo\_14, Bovely\_6, Bowden\_7, Bowtie\_12, Bradissa\_2, Bradman\_11, Bradshaw\_8, Brataylor\_7, BreSam8\_13, BritBrat\_2, Bruns\_10, BrutonGaster\_18, BryanRecycles\_7, Bryce\_8, Bud\_12, Buggy\_14, Burnsey\_4, Burton\_12, Button\_5, Buttrmlkdreams\_4, BuzzBuzz\_12, Bxz2\_13, C3\_10, CRB1\_12, Caelum\_7, Caliburn\_6, Candra\_15, Cappuccino\_2, Caprice\_32, Caraxes\_11, Cardigan\_30, Caron\_2, Carsonalex\_5, Cashline\_2, Cassia\_2, Catalina\_13, Celeste\_6, Celia\_6, Cen1621\_2, Centaur\_14, Chadwick\_10, Changeling\_15, Chargerpower\_12,

Charm\_12, Chartreuse\_15, Che12\_13, CherryonLim\_5, ChipMunk\_14, Chucky\_6, Clarkson\_36, Cleo\_4, CloudWang3\_15, ClubL\_30, Colbster\_13, Colin\_16, Colleen\_3, Community\_3, Confidence\_2, Conquerage\_13, Conspiracy\_9, Coog\_9, Cookiedough\_15, Corazon\_33, Cornie\_2, CosmicSans\_8, Cozz\_4, Crater\_2, Crewmate\_3, Crucio\_12, Cuco\_9, Cucurbita\_32, Cullens\_13, Culver\_30, Cyan\_2, D29\_13, D32\_15, DBQu4n\_15, DS6A\_5, DaHudson\_13, DaVinci\_15, Daishi\_12, Dalmatian\_12, Danforth\_8, Danzina\_7, Daredevil\_12, Darrell\_14, DarthPhader\_13, DatBoi\_13, Dattran\_7, Daudau\_6, DekHockey33\_14, Deloris\_13, Diane\_6, Dieselweasel\_13, Dignity\_14, Dinger\_8, Discoknowium\_9, Dixon\_9, Donkey\_2, Dorothea\_15, DrManhattan\_2, DrSierra\_2, Drake55\_14, Dre3\_4, DreamCatcher\_14, DreamTeam1\_12, Dublin\_8, Dubu\_2, DudeLittle\_12, Duplo\_15, Dusty\_28, Dwayne\_6, ELB20\_05, EMSquaredA\_2, EZMoney23\_16, EagleEye\_14, Ebony\_12, Echild\_12, Eddasa\_7, EdogawaKiddo\_11, Eidsmoe\_13, Ejemplo\_6, EITiger69\_9, Elephantoon\_13, Elezi\_2, Elinal\_5, Elliott\_4, Emaanora\_8, Emalyn\_3, Emotion\_2, EmyBug\_13, EnalisNailo\_2, Engineer\_31, EnochSoames\_7, EpicPhail\_13, Epsocamisio\_14, Equemioh13\_14, Eraser\_2, EricB\_15, Erik\_8, Esperer\_6, Espica\_8, Et2Brutus\_11, EvilGenius\_14, Exile\_2, Expelliarmus\_8, ExplosioNervosa\_13, FF47\_05, Fajezeel\_13, Fameo\_12, Farber\_13, Fayely\_13, Feastonyeet\_3, FeliMaine\_35, Fernando\_13, Fibonacci\_12, FiringLine\_12, First\_0012, Flare16\_12, Flaverint\_12, Floof\_2, Floral\_2, Footloose\_2, ForGetIt\_9, Fribs8\_5, Fushigi\_12, GMA4\_2, GTE2\_02, GageAP\_13, Gail\_11, Gambol\_2, Garak\_16, GardenState\_2, Gattaca\_34, GaugeLDP\_14, Geeche\_29, Gemma\_13, George\_8, Georgie2\_13, Ghoulboy\_9, GiKK\_7, Gibbous\_4, Gilberta\_12, GingkoMaracino\_13, GirlDinner\_6, Gladiator\_15, Goby\_6, Godpower\_7, GoldHunter\_5, Gollum\_8, GreedyLawyer\_15, Greg\_13, Gretchen\_2, Grif\_13, Groundhog\_8, Groupthink\_14, Grub\_13, Grum1\_13, Gruunaga\_15, GtownJaz\_13, Gyzlar\_13, Haizum\_6, Halsey\_2, Hammer\_15, Hank144\_7, Hanray\_12, Harlequin\_8, HarryHoudini\_14, HashRod\_14, HaveUMetTed\_14, Heffalump\_14, Heliosoles\_13, Helmet\_16, Herbertwm\_10, Hercules11\_13, Hestia\_2, Hexamo\_15, Hexbug\_5, HippoPololi\_6, Hippo\_6, Hiro\_8, Horex\_12, Honk\_2, Hoot\_15, Horseradish\_5, HortumSL17\_13, HuhtaEnerson15\_9, Hum25\_2, Huphlepuuff\_37, Hutc2\_12, Hydra\_8, IAmGroot\_2, Ibantik\_67, Ibrahim\_3, Indigo\_6, Indra\_15, Insomnia\_12, IronMan\_14, Isiphiwo\_15, Issmi\_7, Iter\_2, IttyBittyPiggy\_2, Itza\_6, Iwokeuplikedis\_12, Izzy\_7, JHC117\_13, JSwag\_14, Jaan\_15, Jabiru\_9, Jabith\_12, Jablanski\_2, JacoRen57\_2, Jamzy\_7, Janeemi\_3, Janus\_7, Jash\_7, Jeeves\_11, Jeffabunny\_15, JenCasNa\_13, JeppNRM\_14, Jerm2\_12, Jerm\_14, Jester\_8, Jevington\_8, JewelBug\_15, Jiawan\_12, Jobu08\_13, Joemato\_2, JohnDoe\_2, JoieB\_36, Jordennis\_15, Joselito\_12, JoshKayV\_14, Journey13\_10, Jovo\_9, Jsquared\_11, Jstan\_2, Juicebox\_3, JuneStar\_2, KADY\_14, Kalb97\_14, Kalimba\_2, Kalnoky\_14, Kalpine\_15, Katalie\_7, KatherineG\_14, KayGee\_4, Kaylissa\_2, Kazan\_15, KeAlii\_2, Kenmech\_14, Kerberos\_15, Keziacharles14\_11, KingCyrus\_14, Kinmap\_11, Kipper29\_15, Koduck\_12, Koko\_15, Krishelle\_8, Kromp\_2, Kuwabara\_2, L5\_13, LBerry\_13, LadyBird\_12, Landor\_13, Lannister\_7, Larenn\_13, LarryKay\_13, LastResort\_14, Lauer\_3, Legacy\_6, Lego\_2, Leogania\_14, Lev2\_9, Leviathan\_14, Leviticus\_6, Liebe\_2, Lika\_6, LiITurb\_14, Lilas\_2, Lilbit\_36, Lilbunny\_15, Lilith\_13, Lilleskat\_11, Lillie\_8, LittleCherry\_9, LittleLaf\_35, Lizalica\_2, Lokk\_15, London\_2, LoneWolf\_13, LonelyBoi\_2, Loofah\_7, Looper\_15, Lorelei\_6, Loser\_15, Louie6\_13, Lozinak\_30, Luchador\_12, Lucivia\_12, Lucyedi\_13, LugYA\_15, LunaStella\_2, MAnor\_4, MScarn\_6, MaCh\_12, MaGuCo\_2, MaVan\_6, Mabel\_12, Mabodamaca\_2, Maco6\_3, MadMarie\_13, Mainiac\_13, MajorMajor\_11, MalagasyRose\_7, Malec\_13, Malinsilva\_15, Maminiaina\_13, Maneekul\_6, Manu\_14, MarQuardt\_13, Marav\_9, Margaret\_7, Marge\_12, Marie\_13, Marius\_14, Marteena\_2, Marvin\_33, MarysWell\_8, Maureen\_2, Mayweather\_5, McFly\_15, Mendokysej\_2, Methuselah\_13, Micasa\_9, Microwolf\_13, MiculUcigas\_12,

Midas2\_9, Miko\_15, Milcery\_9, Millski\_11, MinecraftSteve\_15, Miskis\_32, Misomonster\_15, MissSwiss\_2, MissWhite\_12, Mkhusei\_12, Mollymur\_13, Monet\_13, MoneyMay\_13, Morrow\_11, MortyNRick\_2, MosMoris\_33, Moss\_2, MuchMore\_15, Muddy\_5, Mudpuppy\_2, Mulciber\_12, Munch\_12, MunkgeeRoachy\_4, Museum\_13, MyraDee\_9, Mysterium\_2, Myxus\_13, NaSiaTalie\_12, Nabi\_6, Naca\_9, Naiad\_8, Nairb\_3, Naji\_15, Nancinator\_8, Nanodon\_8, Natosaleda\_8, NearlyHeadless\_9, Nebulosus\_14, Nedarya\_13, Neeharika16\_15, Nerdos\_6, Nergal\_5, Newrala\_15, Nibbles\_6, NicoleTera\_16, Nina\_4, Niobe\_2, Nishikigoi\_6, Nitro\_2, Niza\_13, NoShow\_2, Nodigi\_5, Norvs\_31, NothingSpecial\_14, ObiToo\_2, Odin\_11, OlanP\_13, Oliynyk\_7, Ollie\_13, Omar\_7, OneUp\_24, Onglai\_12, Oofda\_15, Orange\_12, Orla\_5, Ozzie\_6, OzzyJ\_7, P28Green\_13, PGHhamlin\_15, Pablito\_6, PackMan\_13, Paedore\_6, PainterBoy\_13, Paolo\_8, Partridge\_8, PattyP\_13, Pawn\_14, Pembroke\_13, Penny1\_13, Percival\_2, Persistence\_2, Petersenfast\_11, PetterN\_10, Ph8s\_13, Phaded\_15, Phaeder\_13, PhailMary\_7, Pharaoh\_12, Phettuccine\_6, Phillis\_9, PhinkBoden\_30, PhishRPhriends\_12, Phives\_3, Phlei\_8, Phlorence\_9, Phoebe\_13, Phonnegut\_13, Phoxy\_13, Phrank15\_2, Phrankenstein\_8, Phranny\_14, PickleBack\_9, Pioneer\_13, Pippin\_13, Piro94\_13, Pixelle\_2, Pmask\_15, Poise\_35, Pollux\_2, Pomar16\_15, Pons\_4, Posh\_2, PotPie\_4, PotatoSplit\_14, Poushou\_3, Power\_12, Powerpuff\_2, Priamo\_15, Pringar\_35, Priya\_13, PsychoKiller\_4, Puginator\_8, Pukovnik\_14, Pumpkins\_2, PurpleHaze\_13, Pytheas\_2, Qobbit\_13, Quasar\_4, QueenB2\_12, QueenBeesly\_12, Quokka\_10, R4\_6, RER2\_1, Rachaly\_15, Raela\_35, Rahalelujah\_11, Rana\_6, RanchParmCat\_7, Rasputin\_8, ReMo\_14, Reba\_14, RedBaron\_5, RedBear\_8, RedRaider77\_35, RedRock\_15, Reedo\_2, Refuge\_15, Remus\_14, Renaud18\_2, Retro23\_12, RexFury\_8, Rhodalysa\_8, Rifter\_15, Roary\_9, Roksolana\_15, RonRayGun\_3, Rosalind\_14, Rubeus\_12, Rufus\_12, Rummer\_13, Rusticus\_7, Rutherford\_13, RyeScarlet\_14, SPB78\_2, Sabia\_13, Sabinator\_13, Sachima\_11, Saintus\_9, Salz\_12, Samy\_5, SarahRose\_6, Scherzo\_13, Scorpia\_10, SemperFi\_14, Serenity\_11, Sham4\_12, ShayRa\_15, SheaKeira\_12, SheckWes\_3, Shuman\_8, Sibs6\_13, Simpson\_2, SketchMex\_3, Smeadley\_9, Smeagan\_14, SmellyB\_15, Smoothie\_31, SnapTap\_12, Snape\_12, Snek\_3, Snickers\_13, Snorlax\_6, SoYo\_13, SoilDragon\_13, Soondubu\_2, Sooty\_2, Sopespian\_4, SororFago\_11, Soshari\_15, Soups\_14, South40\_7, SpecialK\_2, SpeedDemon\_130, Spike509\_13, SpikeBT\_13, Spouty\_13, SqueakyClean\_7, StCroix\_8, Stagni\_13, StarStuff\_15, SteamedHams\_6, Steamy\_13, StepMih\_13, StepHig9\_9, Strosahl\_14, SuMoo\_2, Success\_50, Sue2\_2, Sujidade\_7, SummitAcademy\_3, Sunhee\_10, SunsetPointe\_6, SuperAwesome\_15, SuperCallie99\_15, Superchunk\_11, Superstar\_8, Survivors\_6, Swann\_8, SweatNTears\_6, SweetiePie\_12, SwirlSquare\_14, Swirley\_9, Switzerland\_14, SydNat\_9, TChen\_2, TWAMP\_8, TAgePhighter\_7, Takoda\_8, Tallboi\_2, TarsusIV\_12, Tarynearal\_8, Taurus\_13, Tbone\_2, Tefunt\_6, Tesla\_34, TforTroy\_2, Theia\_8, Thestral\_7, ThetaBob\_2, Tian\_2, Tiffany\_13, Tiger\_9, Timothy\_12, TinaBelcher\_6, TinyTimmy\_12, TipsytheTRex\_11, Toaka\_11, Tolls\_6, Toma\_6, Tomathan\_15, ToneTone\_14, Toniann\_30, Toron\_2, TouchMeNot\_3, Travvers\_15, Treddle\_13, Triste\_6, Trixie\_15, Troje\_4, Trooper\_12, TrvxScott\_5, TuanPN\_6, Tubs\_13, Tuck\_3, Tucker\_15, Turab\_2, Turbido\_14, Tutumahutu\_2, Tweety19\_3, Typhonomachy\_5, Ugenie5\_10, UhSalsa\_8, UnionJack\_9, Unstoppable\_6, Updawg\_14, Urza\_6, UtzChips\_2, VA6\_12, VC3\_15, VResidence\_2, VWB\_2, Vanisoa\_11, VasuNzinga\_35, Verabelle\_7, VieEnRose\_6, Vine\_5, Vix\_13, VohminGhazi\_15, Waits\_14, Warda\_2, Watson\_13, WeiHuaDA\_18, Werner\_6, Whabigail7\_14, Whatever\_6, Whitty\_3, WideWale\_14, Wiks\_15, Wildwest\_3, WilliamBoone\_30, Wooldri\_15, Wrigley\_2, WunderPhul\_15, XianYue\_12, Yakult\_5, Yang\_2, Yarn\_3, Yasdnil\_6, Yecy3\_12, YesChef\_2, Yogi\_8, Yokurt\_15, Yoncess\_8, Yummy\_5, Yvonnetastic\_28, Zainub\_8, Zaka\_15, Zareef\_7,

Zemlya\_7, ZenTime222\_3, Zeta1847\_2, Zetzy\_12, Zimmer\_14, Zolita\_8, Zulu\_15, phiSASD1\_22,

### Summary by start number:

#### Start 17:

- Found in 15 of 1223 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Mendokysei\_2 (T),

#### Start 26:

- Found in 38 of 1223 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 19 of 1106
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AgentM\_9 (A5), Archetta\_9 (A5), Bluefalcon\_8 (A5), Conspiracy\_9 (A5), Cuco\_9 (A5), Discoknowium\_9 (A5), Dublin\_8 (A5), EITiger69\_9 (A5), ForGetIt\_9 (A5), George\_8 (A5), Ghouboy\_9 (A5), Milcery\_9 (A5), Naca\_9 (A5), Phlorence\_9 (A5), PickleBack\_9 (A5), Swirley\_9 (A5), Tarynearal\_8 (A5), Theia\_8 (A5), UnionJack\_9 (A5),

#### Start 28:

- Found in 49 of 1223 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 30 of 1106
- Called 61.2% of time when present
- Phage (with cluster) where this start called: Airmid\_9 (A5), Aragog\_9 (A5), Astro\_9 (A8), Benedict\_9 (A5), Bonamassa\_9 (A5), Chadwick\_10 (A5), Coog\_9 (A5), Danforth\_8 (A8), Dixon\_9 (A8), Expelliarmus\_8 (A8), Groundhog\_8 (A8), HuhtaEnerson15\_9 (A5), Jabiru\_9 (A5), Jovo\_9 (A5), Lev2\_9 (A5), LittleCherry\_9 (A5), MarysWell\_8 (A5), Micasa\_9 (A5), Midas2\_9 (A5), NearlyHeadless\_9 (A8), PetterN\_10 (A5), Phillis\_9 (A8), Roary\_9 (A8), Saintus\_9 (A8), Scorpia\_10 (A5), Smeadley\_9 (A8), StepHig9\_9 (A8), SydNat\_9 (A5), Tiger\_9 (A5), Zolita\_8 (A5),

#### Start 38:

- Found in 8 of 1223 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 7 of 1106
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Bernal13\_3 (T), Footloose\_2 (singleton), Ibrahim\_3 (T), Nairb\_3 (T), RonRayGun\_3 (T), Whitty\_3 (T), ZenTime222\_3 (T),

#### Start 40:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose\_7 (AG),

#### Start 41:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nergal\_5 (AG),

#### Start 43:



- Found in 2 of 1223 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DS6A\_5 (singleton),

#### Start 45:

- Found in 14 of 1223 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Provolone\_7 (BD3),

#### Start 47:

- Found in 109 of 1223 ( 8.9% ) of genes in pham
- Manual Annotations of this start: 87 of 1106
- Called 87.2% of time when present
- Phage (with cluster) where this start called: Aaronocolus\_6 (BD1), Alsaber\_7 (BD3), Alvy\_8 (BD2), Amela\_6 (BD3), Amethyst\_6 (BD2), Andris\_6 (BD2), Animus\_7 (BD2), Asten\_6 (BD1), BarryBee\_8 (BD1), BartholomewSD\_8 (BD2), Bovely\_6 (BD1), Bowden\_7 (BD2), Brataylor\_7 (BD1), BryanRecycles\_7 (BD1), Caelum\_7 (BD2), Caliburn\_6 (BD1), Celery\_8 (BD3), Celeste\_6 (BD1), Celia\_6 (BD6), Chucky\_6 (BD1), Conan\_7 (BD3), Danzina\_7 (BD1), Dattran\_7 (BD1), Daudau\_6 (BD2), Dexters\_5 (BD3), Diane\_6 (BD2), Dwayne\_6 (BD1), ELB20\_05 (BD2), Eddasa\_7 (BD1), Ejemplo\_6 (BD1), ElGato\_7 (BD3), Emaanora\_8 (BD1), GirlDinner\_6 (BD2), Goby\_6 (BD1), Godpower\_7 (BD1), Haizum\_6 (BD2), Hank144\_7 (BD2), Hippo\_6 (BD1), Hydra\_8 (BD1), Indigo\_6 (BD1), Issmi\_7 (BD2), Itza\_6 (BD6), Izzy\_7 (BD1), Janus\_7 (BD2), Jevington\_8 (BD2), Kaine\_7 (BD3), Katalie\_7 (BD1), Lannister\_7 (BD1), Legacy\_6 (BD1), Lika\_6 (BD1), Loofah\_7 (BD2), Maneekul\_6 (BD1), Marav\_9 (BD2), Nabi\_6 (BD1), Nanodon\_8 (BD1), Nerdos\_6 (BD1), Nishikigoi\_6 (BD2), Oliynyk\_7 (BD1), Omar\_7 (BD2), OzzyJ\_7 (BD1), Pablito\_6 (BD2), Paedore\_6 (BD2), Paolo\_8 (BD2), Pavo\_8 (BD3), Phettuccine\_6 (BD1), Puginator\_8 (BD2), R4\_6 (BD2), Rana\_6 (BD1), RedBear\_8 (BD1), SarahRose\_6 (BD1), Snorlax\_6 (BD1), South40\_7 (BD1), Speedwell\_8 (BD3), SqueakyClean\_7 (BD2), Sujidade\_7 (BD1), Superstar\_8 (BD2), TagePhighter\_7 (BD1), Tefunt\_6 (BD2), Thestral\_7 (BD2), TinaBelcher\_6 (BD2), Triste\_6 (BD1), TrvxScott\_5 (BD2), TuanPN\_6 (BD1), Urza\_6 (BD6), Vanseggelen\_9 (BD3), Verabelle\_7 (BD3), Verse\_6 (BD3), VieEnRose\_6 (BD6), Werner\_6 (BD1), Whatever\_6 (BD1), Yasdnil\_6 (BD1), Yosif\_7 (BD3), Zainub\_8 (BD2), Zemlya\_7 (BD1), phiCAM\_06 (BD3),

#### Start 48:

- Found in 407 of 1223 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 363 of 1106
- Called 95.6% of time when present
- Phage (with cluster) where this start called: A6\_09 (A1), AFIS\_11 (A1), AbbysRanger\_11 (A4), Abbyshoes\_12 (A1), Abdiel\_11 (A4), Abrogate\_120 (A1), Achebe\_11 (A4), Adahisdi\_12 (A1), Aeneas\_13 (A1), Agaliana\_11 (A1), Ajay\_11 (A1), Albee\_11 (A4), Alberto7\_12 (A4), Alsfro\_15 (A1), Altman\_12 (A1), Alvin\_12 (A1), Annyong\_11 (A4), Applejack\_11 (A1), Arcanine\_12 (A1), Arlo\_10 (A1), Arturo\_10 (A4), Atkinbua\_12 (A1), AvatarAhPeg\_11 (A4), Avie17\_11 (A4), B1\_09 (A3), BK1\_09 (A1), BPBiebs31\_12 (A1), Baby16\_11 (A4), BabyJohn\_10 (A3), BabyRay\_11 (A3), Backyardigan\_11 (A4), BaconJack\_13 (A1), Badger\_11 (A4), BangNhom\_10 (A4), Barriga\_11 (A1), Bartimeaus\_11 (A4), BeesKnees\_12 (A1), BellusTerra\_11 (A4), BigPaolini\_12 (A1), Bigfoot\_10 (A1), BillKnuckles\_12 (A1), Bircsak\_11 (A1), Blackmoor\_11 (A4), BluSpix\_11 (A1), BlueBird\_12 (A3), Blue\_11

(A1), Bob3\_10 (A1), Bombshell\_11 (A4), Bones\_11 (A1), Briton15\_13 (A1), Broseidon\_11 (A4), Bruiser\_11 (A4), BubbleTrouble\_11 (A4), Bugatti\_11 (A3), Bumblebee11\_11 (A4), Burger\_10 (A4), Buttons\_12 (A1), Bxb1\_10 (A1), CactusRose\_10 (A1), Caelakin\_11 (A4), Camperdownii\_10 (A4), Carlyle\_13 (A1), Caviar\_12 (A3), CentreCat\_11 (A4), Cerulean\_11 (A4), ChampagnePapi\_11 (A4), Chanagan\_10 (A1), Chaph\_11 (A4), Chiqui\_10 (A3), Chupacabra\_11 (A10), Ciao\_11 (A1), Cici\_11 (A4), Cindaradix\_10 (A4), Cintron\_11 (A4), Citius\_11 (A4), Clarenza\_11 (A4), Cocoaberry\_11 (A4), Commander\_11 (A4), ConceptII\_11 (A1), Connomayer\_11 (A4), Corvo\_11 (A1), Crispicous1\_10 (A1), Cueyllyss\_11 (A1), DD5\_12 (A1), Datway\_11 (A4), Deano\_11 (A4), Dexes\_12 (A1), Dhanush\_11 (A4), DirtyDunning\_11 (A4), DontArgue\_10 (A10), Doom\_11 (A1), DrFeelGood\_10 (A1), Drake94\_10 (A10), Dreamboat\_12 (A1), DroogsArmy\_12 (A7), DropBear\_11 (A3), Druantia\_11 (A4), Dulcie\_10 (A1), Dussy\_12 (A1), DustyMartin\_14 (A10), Dynamix\_12 (A1), Eagle\_10 (A4), Eaglepride\_12 (A10), Eapen\_11 (A4), Edison31\_11 (A10), Edtherson\_12 (A1), Eris\_11 (A4), Eros\_11 (A4), Espresso\_11 (A1), Euphoria\_11 (A1), Eurydice\_11 (A4), Eyeball\_11 (A1), Farewell\_2 (AF), Fascinus\_10 (A1), Floean\_11 (A4), Flux\_11 (A4), FlyCatcher\_15 (A7), Forsytheast\_10 (A1), Francis47\_11 (A1), Fred313\_11 (A3), FrogHopper\_12 (A1), Funston\_11 (A4), Gadost\_11 (A4), Gandalf20\_12 (A1), Giroux\_11 (A3), Gompeii16\_11 (A1), Goose\_11 (A10), Graduation\_13 (A1), GrecoEtereo\_12 (A1), Gwendoluna\_13 (A1), HINdeR\_11 (A7), HamSlice\_10 (A4), Hami1\_13 (A1), HanShotFirst\_11 (A1), Happiness\_11 (A4), HarryOW\_12 (A1), Heathen\_11 (A3), HelDan\_11 (A3), Hermia\_13 (A1), HermioneGrange\_12 (A1), Holli\_11 (A4), Homines\_11 (A1), Hookmount\_12 (A3), Hope4ever\_11 (A1), Houdini22\_11 (A4), ICleared\_11 (A4), ILeeKay\_13 (A1), Iceman\_11 (A4), Ichabod\_12 (A1), Idleandcovert\_11 (A3), IgnatiusPatJac\_10 (A1), Inyanga\_10 (A1), Iracema64\_11 (A4), Isca\_11 (A3), JC27\_13 (A1), JF2\_11 (A3), JF4\_11 (A3), JackSparrow\_12 (A1), JasmineDragon\_2 (AZ4), Jasper\_12 (A1), Jaykayelowell\_11 (A4), JetBlade\_11 (A4), JoongJeon\_11 (A4), Jorgensen\_11 (A1), JuliaChild\_13 (A1), KBG\_12 (A1), KFPoly\_11 (A4), KSSJEB\_11 (A1), Kachowdy\_11 (A3), Kampy\_11 (A4), Kanely\_12 (A1), Katalie136\_11 (A4), Killigrew\_9 (A1), Kimona\_8 (A19), Kingmustik0402\_11 (A4), KittenMittens\_10 (A10), Koreni\_10 (A4), Kratak\_11 (A4), Kremtemulon\_11 (A4), Kristoff\_12 (A10), Kugel\_12 (A1), KyMonks1A\_13 (A1), Kyee\_11 (A4), Kykar\_9 (A1), LHTSCC\_11 (A4), Lambert1\_12 (A3), Lamina13\_11 (A1), LappelDuVide\_11 (A4), Lemur\_11 (A4), Lesedi\_10 (A1), Licorice\_13 (A1), LilBib\_12 (A1), LittleB\_11 (A4), LittleGuy\_11 (A4), LochMonster\_11 (A4), Lockley\_11 (A1), Lorenzo\_11 (A4), Lunsford\_12 (A4), MA5\_11 (A3), MK4\_11 (A3), MPlant7149\_10 (A1), Magnar\_11 (A1), Magnito\_10 (A1), Manatee\_12 (A1), Marcell\_11 (A1), Marchesa\_11 (A3), Marchy\_10 (A1), Margo\_12 (A3), Maroc7\_10 (A1), Marsha\_11 (A1), MaryBeth\_11 (A1), Maverick\_11 (A4), Maxo\_11 (A4), Mazhar510\_11 (A4), McGuire\_12 (A1), Medusa\_11 (A4), MeeZee\_11 (A4), Melvin\_11 (A4), MetalQZJ\_11 (A1), Michley\_11 (A1), MiniMommy\_2 (AZ4), Miramae\_11 (A4), Molly\_12 (A1), Moose\_10 (A1), Morpher26\_11 (A4), MrGordo\_11 (A1), Mryolo\_10 (A1), Mule\_11 (A1), Mundrea\_11 (A4), NEHalo\_11 (A1), Nebs\_11 (A4), Nerujay\_12 (A1), Nhonho\_11 (A1), Noella\_12 (A3), Noelle\_11 (A4), Norbert\_11 (A3), NorthStar\_11 (A4), Norz\_13 (A1), NotAPhaseMom\_11 (A4), Nyxis\_11 (A4), OKCentral2016\_11 (A10), OKaNui\_11 (A4), Obama12\_11 (A4), Ohfah\_11 (A4), Ohno789\_10 (A1), Oogway\_10 (A1), PP\_21 (A7), PSullivan\_13 (A1), PacerPaul\_11 (A1), Palestino\_11 (A4), Panamaxus\_12 (A3), Papez\_13 (A1), Paphu\_10 (A1), Paraselene\_10 (A1), Pari\_12 (A1), Parliament\_10 (A1), PascalRango\_10 (A1), Payneful\_11 (A1), PeaceMeal1\_10 (A10), Peaches\_11 (A4), Pelly\_12 (A1), Pepe\_12 (A1), Perplexer\_11 (A4), Perseus\_12 (A1), PeterPeter\_11 (A4), Peterson\_14 (A1), PetiteSangsue\_11 (A4), Petruccio\_11 (A1), Phacado\_11 (A4), Phantastic\_11 (A3), Phelipe\_11 (A4), PherrisBueller\_12 (A1),

Phighter1804\_11 (A4), Phontbonne\_11 (A4), PhrostyMug\_11 (A1), PinkPlastic\_10 (A1), Pinto\_13 (A1), Pipcraft\_11 (A4), Pistachio\_12 (A3), Pita2\_13 (A1), Pocahontas\_12 (A3), Polymorphads\_11 (A4), Poompha\_10 (A10), Popcicle\_12 (A3), ProMouse\_10 (A1), Pumbaa\_11 (A4), Puppy\_12 (A3), QTRlifeCrisis\_11 (A1), QuinnKiro\_11 (A3), Rajelicia\_11 (A1), Rebeuca\_12 (A10), Relief\_11 (A4), ResDef\_12 (A3), RhynO\_12 (A10), Rhynn\_11 (A1), RidgeCB\_11 (A1), Ringer\_11 (A1), Rockstar\_11 (A3), Rohr\_12 (A1), Romney\_11 (A4), Roosevelt\_11 (A4), Rosa24\_10 (A4), Rowdy\_14 (A10), Ruin\_11 (A4), Ruotula\_10 (A1), STLscum\_12 (A1), Sabertooth\_11 (A4), Saftant\_6 (BD3), Sagefire\_12 (A1), Sandaddy\_10 (A1), Sanya\_10 (A1), SarFire\_11 (A1), SaturnRing\_11 (A3), Scamp\_11 (A4), Scout\_11 (A3), Scowl\_12 (A1), Seabiscuit\_13 (A1), Seanderson\_12 (A1), Severus\_10 (A10), Shaka\_11 (A4), ShakeltOph\_2 (AZ4), Shapes\_14 (A10), Sheen\_13 (A7), SheldonCooper\_11 (A4), ShortQueendom\_10 (A1), Shygu2\_11 (A4), SkiPole\_13 (A1), Slagathor\_12 (A1), Smairt\_12 (A1), Smeagol\_12 (A1), Snazzy\_9 (A1), Solon\_11 (A1), Sorpresa\_11 (A1), Sparky\_2 (AF), Sparxx\_11 (A4), Spino\_11 (A4), Squee\_12 (A1), Stasia\_12 (A4), StewieG\_10 (A1), Stink\_11 (A4), Sumter\_10 (A1), Sunshine924\_10 (A1), SwissCheese\_11 (A1), Switzer\_12 (A1), Swole\_13 (A1), TNguyen7\_11 (A3), Taquarus\_11 (A4), Target\_13 (A1), Tasp14\_12 (A1), Teodoridan\_9 (A1), Texage\_11 (A3), Thanksgivukkah\_11 (A4), TheloniousMonk\_13 (A1), Thor\_11 (A1), Timshel\_12 (A7), TinaFeyge\_11 (A4), Tinybot\_10 (A4), TiroTheta9\_11 (A4), Todacoro\_12 (A3), Topanga\_11 (A10), Topgun\_11 (A1), Toro\_14 (A7), Tote\_13 (A1), Traft412\_13 (A1), Trike\_9 (A10), Trip3t\_12 (A1), Trouble\_11 (A1), TroyPia\_11 (A4), Turj99\_10 (A1), Twister\_11 (A10), TwoPeat\_12 (A1), TygerBlood\_11 (A4), U2\_11 (A1), Ulysses\_10 (A4), Veracruz\_11 (A3), VroomVroom\_2 (AZ4), WalterMcMickey\_11 (A10), Wander\_11 (A4), Watermelon\_13 (A1), Wheeler\_11 (A1), Wilbur\_11 (A4), Wile\_11 (A4), Wilkins\_11 (A1), Wizard007\_11 (A4), Xena\_11 (A4), YoSam321\_11 (A4), Zeeculate\_10 (A1), Zephyr\_11 (A1), Zeuska\_12 (A1),

#### Start 49:

- Found in 266 of 1223 ( 21.7% ) of genes in pham
- Manual Annotations of this start: 222 of 1106
- Called 91.4% of time when present
- Phage (with cluster) where this start called: 20ES\_12 (A2), 40AC\_15 (A17), AN3\_12 (A2), AN9\_15 (A2), ANI8\_15 (A2), AbbyPaige\_14 (A2), Acolyte\_12 (A2), Adzzy\_13 (A2), Agape74\_14 (A2), Aliter\_13 (A9), Alma\_13 (A9), Anaysia\_14 (A15), Aneem\_12 (A11), AnnaL29\_15 (A2), Anon\_12 (A15), Anselm\_12 (A2), ArcherNM\_14 (A2), Arissanae\_11 (A9), Artemis2UCLA\_15 (A6), BABullseye\_15 (A6), BabyBack\_14 (A2), Bachome\_12 (A11), Bactobuster\_13 (A2), Baehexic\_13 (A2), Battleship\_15 (A15), BengiVuitton\_13 (A2), Benvolio\_12 (A2), BiancaTri92\_14 (A2), Blinn1\_15 (A6), Blue7\_15 (A6), BobSwaget\_15 (A2), BogosyJay\_13 (A9), Boohoo\_14 (A15), Bowtie\_12 (A11), Bradman\_11 (A2), Bud\_12 (A11), Buggy\_14 (A2), C3\_10 (A2), CRB1\_12 (A2), Candra\_15 (A6), Caraxes\_11 (A2), Centaur\_14 (A2), Changeling\_15 (A2), Chargerpower\_12 (A), Chartreuse\_15 (A6), Che12\_13 (A2), ChipMunk\_14 (A2), CloudWang3\_15 (A6), Colin\_16 (A2), Cookiedough\_15 (A6), Crucio\_12 (A2), D29\_13 (A2), D32\_15 (A2), DBQu4n\_15 (A2), DaVinci\_15 (A6), Dalmatian\_12 (A2), Darrell\_14 (A9), DarthPhader\_13 (A12), DekHockey33\_14 (A15), Deloris\_13 (A2), Dignity\_14 (A2), Dorothea\_15 (A6), Drake55\_14 (A2), DudeLittle\_12 (A2), Duplo\_15 (A2), EZMoney23\_16 (A2), EagleEye\_14 (A16), Ebony\_12 (A11), Echild\_12 (A2), Eidsmoe\_13 (A9), Elephantoon\_13 (A9), Epsocamasio\_14 (A15), Equemioh13\_14 (A2), EricB\_15 (A6), Et2Brutus\_11 (A11), EvilGenius\_14 (A2), Fameo\_12 (A2), Fayely\_13 (A9), Fibonacci\_12 (A11), FiringLine\_12 (A2), First\_0012 (A2), Flare16\_12 (A2), Flaverint\_12 (A11), Gail\_11 (A14), Garak\_16 (A6), GaugeLDP\_14 (A2),

Georgie2\_13 (A2), Gilberta\_12 (A11), Gladiator\_15 (A6), GreedyLawyer\_15 (A6), Gruunaga\_15 (A6), Hammer\_15 (A6), HarryHoudini\_14 (A2), Heffalump\_14 (A2), Helmet\_16 (A6), Herbertwm\_10 (A2), Hexamo\_15 (A6), Hoot\_15 (A6), HortumSL17\_13 (A9), Hutc2\_12 (A11), Indra\_15 (A6), Insomnia\_12 (A11), IronMan\_14 (A2), Isiphiwo\_15 (A6), Iwokeuplikedis\_12 (A2), JSwag\_14 (A15), Jaan\_15 (A2), Jabith\_12 (A11), Jeeves\_11 (A14), Jeffabunny\_15 (A6), Jerm\_14 (A2), JewelBug\_15 (A6), Jordennis\_15 (A6), Joselito\_12 (A11), JoshKayV\_14 (A2), Journey13\_10 (A2), Jsquared\_11 (A2), Kalpine\_15 (A2), KatherineG\_14 (A15), Kazan\_15 (A6), Kerberos\_15 (A2), Keziacharles14\_11 (A9), KingCyrus\_14 (A2), Kipper29\_15 (A6), Koduck\_12 (A2), Koko\_15 (A6), L5\_13 (A2), LadyBird\_12 (A2), Landor\_13 (A2), Larenn\_13 (A2), LastResort\_14 (A15), Leogania\_14 (A2), Leviathan\_14 (A2), LilTurb\_14 (A2), Lilbunny\_15 (A6), Lokk\_15 (A2), Looper\_15 (A15), Loser\_15 (A2), Luchador\_12 (A14), Lucivia\_12 (A11), Lucyedi\_13 (A16), MaCh\_12 (A11), Mabel\_12 (A11), MajorMajor\_11 (A2), Malec\_13 (A2), Maminiaina\_13 (A9), McFly\_15 (A6), MiculUcigas\_12 (A2), Miko\_15 (A2), MinecraftSteve\_15 (A15), MissWhite\_12 (A2), Mulciber\_12 (A11), Munch\_12 (A11), Myxus\_13 (A9), NaSiaTalie\_12 (A2), Naji\_15 (A2), Nebulosus\_14 (A15), Nedarya\_13 (A15), Neeharika16\_15 (A6), Newrala\_15 (A6), NicoleTera\_16 (A2), NothingSpecial\_14 (A2), Odin\_11 (A2), Oofda\_15 (A15), Orange\_12 (A11), PackMan\_13 (A9), PainterBoy\_13 (A16), Petersenfast\_11 (A11), Ph8s\_13 (A2), Phaded\_15 (A2), Pharaoh\_12 (A12), Piro94\_13 (A2), Pmask\_15 (A6), Pomar16\_15 (A2), Power\_12 (A2), Priamo\_15 (A6), Priya\_13 (A9), Pukovnik\_14 (A2), QueenB2\_12 (A2), QueenBeesly\_12 (A2), Quokka\_10 (A2), Rachaly\_15 (A2), Rahalelujah\_11 (A9), ReMo\_14 (A15), RedRock\_15 (A2), Refuge\_15 (A12), Remus\_14 (A15), Retro23\_12 (A2), Rifter\_15 (A6), Roksolana\_15 (A6), Rosalind\_14 (A15), Salz\_12 (A11), SemperFi\_14 (A2), Serenity\_11 (A2), Sham4\_12 (A11), ShayRa\_15 (A15), Smeagan\_14 (A2), SmellyB\_15 (A6), SnapTap\_12 (A2), Snape\_12 (A11), SororFago\_11 (A14), Soups\_14 (A15), Spouty\_13 (A9), StarStuff\_15 (A2), Steamy\_13 (A12), Strosahl\_14 (A15), Sunhee\_10 (A14), SuperAwesome\_15 (A6), SuperCallie99\_15 (A6), Superchunk\_11 (A2), SweetiePie\_12 (A2), SwirlSquare\_14 (A2), Switzerland\_14 (A15), TarsusIV\_12 (A2), Timothy\_12 (A11), TinyTimmy\_12 (A11), TipsytheTRex\_11 (A2), Toaka\_11 (A9), Tomathan\_15 (A2), ToneTone\_14 (A6), Travvers\_15 (A2), Trixie\_15 (A2), Trooper\_12 (A2), Tubs\_13 (A9), Tucker\_15 (A6), Turbido\_14 (A2), Ugenie5\_10 (A9), Updawg\_14 (A2), VA6\_12 (A2), VC3\_15 (A2), Vanisoa\_11 (A9), VohminGhazi\_15 (A6), Waits\_14 (A15), WeiHuaDA\_18 (A2), Whabigail7\_14 (A2), WideWale\_14 (A2), Wiks\_15 (A6), WunderPhul\_15 (A6), XianYue\_12 (A2), Yokurt\_15 (A6), Zaka\_15 (A6), Zimmer\_14 (A12), Zulu\_15 (A6),

Start 50:

- Found in 9 of 1223 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 3 of 1106
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Liebe\_2 (AZ2), MaGuCo\_2 (AZ2), Maureen\_2 (AZ2),

Start 51:

- Found in 145 of 1223 ( 11.9% ) of genes in pham
- Manual Annotations of this start: 139 of 1106
- Called 98.6% of time when present
- Phage (with cluster) where this start called: ACFishhook\_13 (A3), Aglet\_13 (A3), AgronaGT15\_13 (A3), Alatin\_8 (CA), Alpacados\_7 (CA), Angelique\_2 (CY1), AngryOrchard\_7 (CA), Anubis\_15 (A3), AppleCloud\_6 (CA), AugsMagnumOpus\_15



(A3), Beauxregard13\_13 (A3), BeeGee\_2 (CY), Belenaria\_8 (CA), Bonanza\_8 (CA), Bradissa\_2 (CY1), Bradshaw\_8 (CA), BreSam8\_13 (A3), BritBrat\_2 (CY2), Bryce\_8 (CA), BuzzBuzz\_12 (A3), Bxz2\_13 (A3), Cashline\_2 (CY), Colbster\_13 (A3), Confidence\_2 (CY1), CosmicSans\_8 (CA), Cullens\_13 (A3), DaHudson\_13 (A3), Daishi\_12 (A3), Dieselweasel\_13 (A3), Dinger\_8 (CA), EMSquaredA\_2 (CY1), Emotion\_2 (AZ4), EnalisNailo\_2 (CY1), EpicPhail\_13 (A3), Erik\_8 (CA), Espica\_8 (CA), Farber\_13 (A3), Fernando\_13 (A3), Floral\_2 (CY1), Gemma\_13 (A3), GingkoMaracino\_13 (A3), Gollum\_8 (CA), Grif\_13 (A3), Groupthink\_14 (A3), Grub\_13 (A3), Grum1\_13 (A3), GtownJaz\_13 (A3), Harlequin\_8 (CA), HashRod\_14 (A3), HaveUMetTed\_14 (A3), Heliosoles\_13 (A3), Hercules11\_13 (A3), Hiro\_8 (CA), JHC117\_13 (A3), Jablanski\_2 (CY), JenCasNa\_13 (A3), JeppNRM\_14 (A3), Jester\_8 (CA), Jobu08\_13 (A3), KADY\_14 (A3), Kalb97\_14 (A3), Kalnoky\_14 (A3), Krishelle\_8 (CA), LBerry\_13 (A3), LarryKay\_13 (A3), Lilas\_2 (CY1), Lilith\_13 (A3), Lillie\_8 (CA), LonelyBoi\_2 (CY), Louie6\_13 (A3), LugYA\_15 (A3), LunaStella\_2 (F4), MadMarie\_13 (A3), Mainiac\_13 (A3), Malinsilva\_15 (A3), Manu\_14 (A3), MarQuardt\_13 (A3), Marie\_13 (A3), Marius\_14 (A3), Martena\_2 (CY1), Methuselah\_13 (A3), Microwolf\_13 (A3), Millski\_11 (A4), Misomonster\_15 (A3), MoneyMay\_13 (A3), Morrow\_11 (A4), MuchMore\_15 (A3), Naiad\_8 (CA), Nancinator\_8 (CA), Natosaleda\_8 (CA), OlanP\_13 (A3), Ollie\_13 (A3), P28Green\_13 (A3), PGHhamlin\_15 (A3), Partridge\_8 (CA), Pawn\_14 (A3), Pembroke\_13 (A3), Penny1\_13 (A3), PhailMary\_7 (CA), PhishRPhriends\_12 (A3), Phoebe\_13 (A3), Phoxy\_13 (A3), Phrankenstein\_8 (CA), Phranny\_14 (A3), Pollux\_2 (CY1), Posh\_2 (CY), PotatoSplit\_14 (A3), PurpleHaze\_13 (A3), Pytheas\_2 (CY), RER2\_1 (CA), Rasputin\_8 (CA), Reba\_14 (A3), Renaud18\_2 (F4), RexFury\_8 (CA), Rhodalysa\_8 (CA), Rummer\_13 (A3), Sabia\_13 (A3), Sabinator\_13 (A3), Shuman\_8 (CA), Snickers\_13 (A3), SoYo\_13 (A3), SoilDragon\_13 (A3), Soshari\_15 (A3), Spike509\_13 (A3), StCroix\_8 (CA), Stagni\_13 (A3), StepMih\_13 (A3), Swann\_8 (CA), TChen\_2 (F4), TWAMP\_8 (CA), Takoda\_8 (CA), Taurus\_13 (A3), ThetaBob\_2 (F4), Tiffany\_13 (A3), Toron\_2 (F6), UhSalsa\_8 (CA), Vix\_13 (A3), Watson\_13 (A3), Wooldri\_15 (A3), Wrigley\_2 (CY), Yogi\_8 (CA), Yoncess\_8 (CA), Zetzy\_12 (A3),

#### Start 53:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony\_11 (A20),

#### Start 54:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kinmap\_11 (A21),

#### Start 55:

- Found in 26 of 1223 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 24 of 1106
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Acme\_13 (A1), BigMau\_13 (A1), Bruns\_10 (A1), Burton\_12 (A1), DreamCatcher\_14 (A1), Fajezeel\_13 (A1), Fushigi\_12 (A1), GageAP\_13 (A1), Greg\_13 (A1), Gyzlar\_13 (A1), Jerm2\_12 (A1), Kenmech\_14 (A1), Marge\_12 (A1), Monet\_13 (A1), Museum\_13 (A1), Niza\_13 (A1), PattyP\_13 (A1), Pippin\_13 (A1), Rubeus\_12 (A1), Rufus\_12 (A1), Rutherford\_13 (A1), Sibs6\_13 (A1), SpikeBT\_13 (A1), Treddle\_13 (A1),

Start 56:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee\_9 (A18),

Start 62:

- Found in 114 of 1223 ( 9.3% ) of genes in pham
- Manual Annotations of this start: 20 of 1106
- Called 21.1% of time when present
- Phage (with cluster) where this start called: BeardedLady\_7 (BD1), Catalina\_13 (A9), Charm\_12 (A9), Conquerage\_13 (A9), DreamTeam1\_12 (A9), EdogawaKiddo\_11 (A9), EnochSoames\_7 (BD1), Esperer\_6 (BD1), ExplosioNervosa\_13 (A9), Jash\_7 (BD1), Leviticus\_6 (BD1), LoneWolf\_13 (A9), Lorelei\_6 (BD1), Onglai\_12 (A9), Ozzie\_6 (BD1), Phaeder\_13 (A9), Pioneer\_13 (A9), Rusticus\_7 (BD1), Sachima\_11 (A9), SheaKeira\_12 (A9), SunsetPointe\_6 (BD1), Toma\_6 (BD1), Unstoppable\_6 (BD1), Yecy3\_12 (A9),

Start 64:

- Found in 13 of 1223 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 12 of 1106
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Barnstormer\_2 (EH), Caron\_2 (EH), Cen1621\_2 (EH), Floof\_2 (EH), GardenState\_2 (EH), Gretchen\_2 (EH), IAmGroot\_2 (EH), Mabodamaca\_2 (EH), Percival\_2 (EH), SuMoo\_2 (EH), UtzChips\_2 (EH), Zeta1847\_2 (EH),

Start 66:

- Found in 68 of 1223 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 5 of 1106
- Called 13.2% of time when present
- Phage (with cluster) where this start called: Beemo\_13 (A9), EmyBug\_13 (A9), Hanray\_12 (A9), Holes\_12 (A9), Lilleskat\_11 (A9), Phonnegut\_13 (A9), Qobbit\_13 (A9), RyeScarlet\_14 (A9), Scherzo\_13 (A9),

Start 68:

- Found in 177 of 1223 ( 14.5% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Nemo27\_11 (A4),

Start 71:

- Found in 50 of 1223 ( 4.1% ) of genes in pham
- Manual Annotations of this start: 40 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle\_2 (AZ1), AGrandiflora\_2 (AZ1), Adumb2043\_2 (AZ1), AinMach\_2 (AZ), Amyev\_2 (AZ1), Asa16\_2 (AZ1), Ascela\_2 (AZ1), Berrie\_2 (AZ1), Cassia\_2 (AZ1), Community\_3 (AZ1), Crewmate\_3 (AZ1), Cyan\_2 (AZ1), DrSierra\_2 (AZ1), Elezi\_2 (AZ1), Eraser\_2 (AZ1), Exile\_2 (AZ), Iter\_2 (AZ1), IttyBittyPiggy\_2 (AZ1), Janeemi\_3 (AZ1), Joemato\_2 (AZ1), JohnDoe\_2 (AZ1), Jstan\_2 (AZ1), JuneStar\_2 (AZ1), Kaylissa\_2 (AZ1), Lego\_2 (AZ1), Lizalica\_2 (AZ1), London\_2 (AZ1), Mudpuppy\_2 (AZ1), Niobe\_2 (AZ1), Nitro\_2 (AZ1), ObiToo\_2 (AZ1),

Phives\_3 (AZ1), Pixelle\_2 (AZ1), Powerpuff\_2 (AZ1), Pumpkins\_2 (AZ1), Simpson\_2 (AZ1), Snek\_3 (AZ3), Soondubu\_2 (AZ), Tallboi\_2 (AZ1), Tbone\_2 (AZ1), TforTroy\_2 (AZ1), Tian\_2 (AZ1), Tuck\_3 (AZ1), Turab\_2 (AZ1), Tutumahutu\_2 (AZ1), Tweety19\_3 (AZ3), Warda\_2 (AZ1), Wildwest\_3 (AZ1), Yang\_2 (AZ1), YesChef\_2 (AZ1),

Start 73:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Juicebox\_3 (singleton),

Start 74:

- Found in 7 of 1223 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 7 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin\_2 (AZ1), DrManhattan\_2 (AZ1), KeAlii\_2 (AZ1), MissSwiss\_2 (AZ1), Reedo\_2 (AZ1), Sue2\_2 (AZ1), VResidence\_2 (AZ1),

Start 75:

- Found in 10 of 1223 ( 0.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashes\_2 (AZ5), Cappuccino\_2 (AZ5), Donkey\_2 (AZ5), Gambol\_2 (AZ5), Halsey\_2 (AZ5), Kalimba\_2 (AZ5), Moss\_2 (AZ5), Mysterium\_2 (AZ5), Sooty\_2 (AZ5), SpecialK\_2 (AZ5),

Start 76:

- Found in 6 of 1223 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Apricot\_2 (DN3), MortyNRick\_2 (DN),

Start 77:

- Found in 2 of 1223 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Honk\_2 (EH),

Start 79:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik\_67 (singleton),

Start 80:

- Found in 2 of 1223 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Attoomi\_3 (singleton), GMA4\_2 (singleton),

Start 81:

- Found in 86 of 1223 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 4 of 1106
- Called 4.7% of time when present
- Phage (with cluster) where this start called: Arianna\_3 (EO), Colleen\_3 (EO), Poushou\_3 (EO), TouchMeNot\_3 (EO),

Start 82:

- Found in 24 of 1223 ( 2.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Phlei\_8 (A13), TPA4\_2 (singleton),

Start 85:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25\_2 (FQ),

Start 87:

- Found in 4 of 1223 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 1106
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Anekin\_2 (AY), Phrank15\_2 (AY),

Start 88:

- Found in 32 of 1223 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 21 of 1106
- Called 81.2% of time when present
- Phage (with cluster) where this start called: Abscondus\_29 (CQ1), Aphelion\_30 (CQ1), Bachita\_32 (CQ1), Bantam\_12 (DL), BrutonGaster\_18 (CQ2), Cardigan\_30 (DD), ClubL\_30 (CQ1), Cucurbita\_32 (CQ1), Culver\_30 (CQ1), Daredevil\_12 (DL), DatBoi\_13 (DL), Dusty\_28 (CQ1), Engineer\_31 (CQ1), Geeche\_29 (CQ1), Lozinak\_30 (CQ1), Miskis\_32 (CQ1), Mollymur\_13 (DL), Norvs\_31 (CQ1), OneUp\_24 (CQ2), PhinkBoden\_30 (CQ1), Samy\_5 (singleton), Smoothie\_31 (CQ1), SpeedDemon\_130 (DL), Toniann\_30 (CQ1), WilliamBoone\_30 (CQ1), Yvonnestic\_28 (DD),

Start 90:

- Found in 5 of 1223 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Success\_50 (singleton),

Start 91:

- Found in 1 of 1223 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kromp\_2 (singleton),

Start 94:

- Found in 11 of 1223 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 8 of 1106



- Called 90.9% of time when present
- Phage (with cluster) where this start called: Button\_5 (CT), GiKK\_7 (CT), Hexbug\_5 (CT), Jamzy\_7 (CT), Margaret\_7 (CT), Nodigi\_5 (CT), Orla\_5 (CT), RanchParmCat\_7 (CT), SPB78\_2 (BA), Yakult\_5 (CT),

#### Start 96:

- Found in 86 of 1223 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 69 of 1106
- Called 95.3% of time when present
- Phage (with cluster) where this start called: 8UZL\_5 (AB), Agatha\_4 (CT), AikoCarson\_3 (CT), Amok\_3 (CT), AndPeggy\_3 (CT), Axym\_4 (CT), Azira\_6 (CT), BearBQ\_2 (DN), Beelzebub\_39 (S), BigChungus\_3 (CT), BillDoor\_6 (CT), Birdsong\_2 (DN), Biskit\_5 (CT), Blackbeetle\_35 (S), Burnsey\_4 (CT), Buttrmlkdreams\_4 (CT), Caprice\_32 (S), Carsonalex\_5 (CT), CherryonLim\_5 (CT), Clarkson\_36 (S), Cleo\_4 (CT), Corazon\_33 (S), Cornie\_2 (F5), Cozz\_4 (CT), Crater\_2 (DN3), Dre3\_4 (CT), Elinal\_5 (CT), Elliott\_4 (CT), Emalyn\_3 (CT), FF47\_05 (AB), Feastonyeet\_3 (CT), FeliMaine\_35 (S), Fribs8\_5 (CT), GTE2\_02 (CT), Gattaca\_34 (S), Gibbous\_4 (CT), GoldHunter\_5 (CT), HippoPololi\_6 (CT), Horseradish\_5 (CT), Huphlepuuff\_37 (S), JacoRen57\_2 (AB), JoieB\_36 (S), KayGee\_4 (CT), Kuwabara\_2 (DN4), Lauer\_3 (CT), Lilbit\_36 (S), LittleLaf\_35 (S), MAnor\_4 (CT), MScarn\_6 (CT), MaVan\_6 (CT), Maco6\_3 (AB), Marvin\_33 (S), Mayweather\_5 (CT), MosMoris\_33 (S), Muddy\_5 (AB), MunkgeeRoachy\_4 (CT), Nibbles\_6 (CT), Nina\_4 (CT), NoShow\_2 (AB), Poise\_35 (S), Pons\_4 (CT), PotPie\_4 (CT), Pringar\_35 (S), PsychoKiller\_4 (CT), Quasar\_4 (CT), Raela\_35 (S), RedBaron\_5 (CT), RedRaider77\_35 (S), SketchMex\_3 (CT), Sopespian\_4 (CT), SteamedHams\_6 (CT), SummitAcademy\_3 (CT), Survivors\_6 (CT), SweatNTears\_6 (CT), Tesla\_34 (S), Tolls\_6 (CT), Troje\_4 (CT), Typhonomachy\_5 (CT), VasuNzinga\_35 (S), Vine\_5 (CT), Yarn\_3 (CT), Yummy\_5 (CT),

#### Start 105:

- Found in 3 of 1223 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Dubu\_2 (BJ), phiSASD1\_22 (BJ),

#### Start 109:

- Found in 21 of 1223 ( 1.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Zareef\_7 (CT),

#### Start 119:

- Found in 109 of 1223 ( 8.9% ) of genes in pham
- Manual Annotations of this start: 1 of 1106
- Called 0.9% of time when present
- Phage (with cluster) where this start called: SheckWes\_3 (CT),

#### Start 123:

- Found in 167 of 1223 ( 13.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.2% of time when present
- Phage (with cluster) where this start called: Jiawan\_12 (A9), VWB\_2 (BA),

Start 126:

- Found in 199 of 1223 ( 16.3% ) of genes in pham
- Manual Annotations of this start: 2 of 1106
- Called 1.0% of time when present
- Phage (with cluster) where this start called: LeoAvram\_11 (A4), Skipitt\_11 (A4),

Start 127:

- Found in 9 of 1223 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 1106
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Hestia\_2 (AY), Persistence\_2 (AY),

Start 153:

- Found in 152 of 1223 ( 12.4% ) of genes in pham
- Manual Annotations of this start: 2 of 1106
- Called 1.3% of time when present
- Phage (with cluster) where this start called: Ashballer\_10 (A1), BobbyDazzler\_8 (CA),

Start 175:

- Found in 481 of 1223 ( 39.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.2% of time when present
- Phage (with cluster) where this start called: Mkhuseleli\_12 (A1),

**Summary by clusters:**

There are 59 clusters represented in this pham: DN, FQ, singleton, BA, DD, DL, BJ, A18, DN3, A7, A15, A14, A17, A16, A11, A10, A13, A12, A19, EO, A1, DN4, A3, A2, BD1, A4, BD3, BD2, A9, A8, CQ1, A, CY2, CY1, AB, EH, AG, AF, CA, A6, S, T, CQ2, AY, A5, CT, A20, A21, F4, F5, F6, CY, AZ, BD6, AZ1, AZ2, AZ3, AZ4, AZ5,

Info for manual annotations of cluster A:

- Start number 49 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A1:

- Start number 48 was manually annotated 171 times for cluster A1.
- Start number 55 was manually annotated 24 times for cluster A1.
- Start number 153 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A10:

- Start number 48 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 49 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 49 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 49 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 49 was manually annotated 21 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 49 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 56 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 48 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 49 was manually annotated 102 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 53 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 48 was manually annotated 32 times for cluster A3.
- Start number 51 was manually annotated 80 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 48 was manually annotated 132 times for cluster A4.
- Start number 51 was manually annotated 2 times for cluster A4.
- Start number 68 was manually annotated 1 time for cluster A4.
- Start number 126 was manually annotated 2 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 26 was manually annotated 19 times for cluster A5.
- Start number 28 was manually annotated 19 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 49 was manually annotated 42 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 48 was manually annotated 5 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 28 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 49 was manually annotated 20 times for cluster A9.
- Start number 62 was manually annotated 10 times for cluster A9.
- Start number 66 was manually annotated 5 times for cluster A9.

Info for manual annotations of cluster AB:

- Start number 96 was manually annotated 4 times for cluster AB.

Info for manual annotations of cluster AF:

- Start number 48 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AG:

- Start number 40 was manually annotated 1 time for cluster AG.
- Start number 41 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AY:

- Start number 87 was manually annotated 2 times for cluster AY.
- Start number 127 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster AZ:

- Start number 71 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 71 was manually annotated 37 times for cluster AZ1.
- Start number 74 was manually annotated 7 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 50 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 71 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 48 was manually annotated 2 times for cluster AZ4.
- Start number 51 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster BD1:

- Start number 47 was manually annotated 45 times for cluster BD1.
- Start number 62 was manually annotated 10 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 47 was manually annotated 31 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 45 was manually annotated 1 time for cluster BD3.
- Start number 47 was manually annotated 7 times for cluster BD3.
- Start number 48 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD6:

- Start number 47 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster BJ:

- Start number 105 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster CA:

- Start number 51 was manually annotated 35 times for cluster CA.
- Start number 153 was manually annotated 1 time for cluster CA.

Info for manual annotations of cluster CQ1:

- Start number 88 was manually annotated 12 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 88 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CT:

- Start number 94 was manually annotated 8 times for cluster CT.
- Start number 96 was manually annotated 44 times for cluster CT.
- Start number 119 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY:

- Start number 51 was manually annotated 7 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 51 was manually annotated 9 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 51 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DD:

- Start number 88 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DL:

- Start number 88 was manually annotated 5 times for cluster DL.

Info for manual annotations of cluster DN:

- Start number 96 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN3:

- Start number 76 was manually annotated 1 time for cluster DN3.
- Start number 96 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 96 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster EH:

- Start number 64 was manually annotated 12 times for cluster EH.
- Start number 77 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster EO:

- Start number 81 was manually annotated 4 times for cluster EO.

Info for manual annotations of cluster F4:

- Start number 51 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 96 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster FQ:

- Start number 85 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster S:

- Start number 96 was manually annotated 16 times for cluster S.

Info for manual annotations of cluster T:

- Start number 17 was manually annotated 1 time for cluster T.
- Start number 38 was manually annotated 6 times for cluster T.

**Gene Information:**

Gene: 20ES\_12 Start: 7443, Stop: 9233, Start Num: 49

Candidate Starts for 20ES\_12:

(12, 7269), (Start: 49 @7443 has 222 MA's), (110, 7551), (120, 7572), (146, 7680), (216, 7965), (217, 7968), (244, 8076), (256, 8166), (261, 8190), (289, 8307), (295, 8322), (362, 8622), (414, 8808), (420, 8835), (425, 8856), (455, 8952), (529, 9189), (546, 9216), (547, 9219),

Gene: 40AC\_15 Start: 9493, Stop: 11244, Start Num: 49

Candidate Starts for 40AC\_15:

(Start: 49 @9493 has 222 MA's), (Start: 64 @9511 has 12 MA's), (123, 9622), (139, 9688), (146, 9721), (148, 9724), (217, 10006), (225, 10045), (244, 10114), (247, 10138), (248, 10141), (256, 10204), (261, 10228), (284, 10327), (294, 10357), (295, 10360), (332, 10528), (337, 10546), (383, 10720), (389, 10744), (411, 10807), (425, 10867), (455, 10963), (490, 11053), (517, 11167), (518, 11170), (529, 11200), (546, 11227), (547, 11230),

Gene: 8UZL\_5 Start: 1795, Stop: 3459, Start Num: 96

Candidate Starts for 8UZL\_5:

(Start: 96 @1795 has 69 MA's), (113, 1834), (123, 1858), (171, 1987), (200, 2119), (202, 2134), (206, 2149), (217, 2194), (227, 2242), (239, 2278), (248, 2335), (251, 2359), (259, 2395), (303, 2593), (309, 2608), (317, 2647), (347, 2794), (383, 2914), (414, 3019), (442, 3127), (453, 3157), (463, 3184), (467, 3196), (486, 3232), (487, 3235), (510, 3328), (521, 3385),

Gene: A6\_09 Start: 6581, Stop: 8269, Start Num: 48

Candidate Starts for A6\_09:

(Start: 48 @6581 has 363 MA's), (Start: 153 @6761 has 2 MA's), (175, 6845), (180, 6881), (185, 6908), (217, 7031), (223, 7064), (244, 7139), (256, 7229), (261, 7253), (268, 7280), (277, 7328), (315, 7484), (329, 7544), (393, 7778), (395, 7790), (411, 7832), (416, 7853), (423, 7880), (455, 7988), (490, 8078), (514, 8183),

Gene: ACFishhook\_13 Start: 7110, Stop: 8810, Start Num: 51

Candidate Starts for ACFishhook\_13:

(Start: 51 @7110 has 139 MA's), (Start: 81 @7158 has 4 MA's), (149, 7293), (217, 7572), (256, 7770), (275, 7860), (294, 7923), (299, 7962), (329, 8085), (383, 8283), (389, 8307), (390, 8310), (411, 8373), (414, 8385), (416, 8394), (425, 8433), (455, 8529), (472, 8583), (490, 8619), (529, 8766), (547, 8796), (548, 8799),

Gene: AEgle\_2 Start: 537, Stop: 2243, Start Num: 71

Candidate Starts for AEgle\_2:

(Start: 71 @537 has 40 MA's), (Start: 119 @624 has 1 MA's), (203, 909), (217, 966), (220, 987), (228, 1014), (249, 1104), (284, 1278), (350, 1530), (383, 1653), (434, 1833), (455, 1908), (460, 1923), (496, 2058), (503, 2094), (513, 2142), (519, 2166),

Gene: AFIS\_11 Start: 6918, Stop: 8606, Start Num: 48

Candidate Starts for AFIS\_11:

(Start: 48 @6918 has 363 MA's), (Start: 153 @7098 has 2 MA's), (175, 7182), (180, 7218), (185, 7245), (217, 7368), (244, 7476), (256, 7566), (261, 7590), (268, 7617), (277, 7665), (315, 7821), (329,



7881), (390, 8106), (393, 8115), (395, 8127), (411, 8169), (416, 8190), (423, 8217), (455, 8325), (490, 8415), (514, 8520),

Gene: AGrandiflora\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for AGrandiflora\_2:

(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (478, 1973), (496, 2054), (519, 2162),

Gene: AN3\_12 Start: 7428, Stop: 9218, Start Num: 49

Candidate Starts for AN3\_12:

(Start: 49 @7428 has 222 MA's), (110, 7536), (120, 7557), (146, 7665), (217, 7953), (244, 8061), (256, 8151), (261, 8175), (289, 8292), (295, 8307), (362, 8607), (414, 8793), (420, 8820), (425, 8841), (455, 8937), (529, 9174), (546, 9201), (547, 9204),

Gene: AN9\_15 Start: 7374, Stop: 9164, Start Num: 49

Candidate Starts for AN9\_15:

(25, 7296), (36, 7347), (Start: 49 @7374 has 222 MA's), (110, 7482), (120, 7503), (137, 7569), (146, 7611), (156, 7635), (185, 7773), (216, 7893), (217, 7896), (244, 8007), (256, 8097), (261, 8121), (275, 8187), (285, 8223), (294, 8250), (295, 8253), (362, 8553), (383, 8640), (392, 8673), (414, 8739), (420, 8766), (425, 8787), (450, 8871), (455, 8883), (491, 8976), (497, 8991), (529, 9120), (546, 9147), (547, 9150),

Gene: ANI8\_15 Start: 7374, Stop: 9164, Start Num: 49

Candidate Starts for ANI8\_15:

(25, 7296), (36, 7347), (Start: 49 @7374 has 222 MA's), (110, 7482), (120, 7503), (137, 7569), (146, 7611), (156, 7635), (185, 7773), (216, 7893), (217, 7896), (244, 8007), (256, 8097), (261, 8121), (275, 8187), (285, 8223), (294, 8250), (295, 8253), (362, 8553), (383, 8640), (392, 8673), (414, 8739), (420, 8766), (425, 8787), (450, 8871), (455, 8883), (491, 8976), (497, 8991), (529, 9120), (546, 9147), (547, 9150),

Gene: Aaronocolus\_6 Start: 2402, Stop: 4048, Start Num: 47

Candidate Starts for Aaronocolus\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: AbbyPaige\_14 Start: 7888, Stop: 9675, Start Num: 49

Candidate Starts for AbbyPaige\_14:

(Start: 49 @7888 has 222 MA's), (110, 7996), (120, 8017), (137, 8083), (138, 8089), (146, 8125), (156, 8149), (171, 8212), (216, 8407), (217, 8410), (244, 8518), (256, 8608), (261, 8632), (277, 8707), (289, 8749), (295, 8764), (362, 9064), (414, 9250), (420, 9277), (425, 9298), (455, 9394), (529, 9631), (547, 9661),

Gene: AbbysRanger\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for AbbysRanger\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (195, 7268), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (337, 7889), (342, 7922), (374, 8015), (383, 8063), (389, 8087), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: Abbysshoes\_12 Start: 7007, Stop: 8695, Start Num: 48

Candidate Starts for Abbyshoes\_12:

(Start: 48 @7007 has 363 MA's), (Start: 153 @7187 has 2 MA's), (175, 7271), (180, 7307), (185, 7334), (217, 7457), (244, 7565), (256, 7655), (261, 7679), (268, 7706), (277, 7754), (297, 7823), (315, 7910), (329, 7970), (390, 8195), (393, 8204), (395, 8216), (411, 8258), (416, 8279), (423, 8306), (455, 8414), (490, 8504), (514, 8609),

Gene: Abdiel\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Abdiel\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Abrogate\_120 Start: 7663, Stop: 9351, Start Num: 48

Candidate Starts for Abrogate\_120:

(Start: 48 @7663 has 363 MA's), (175, 7927), (176, 7951), (217, 8113), (223, 8146), (244, 8221), (256, 8311), (261, 8335), (268, 8362), (277, 8410), (315, 8566), (329, 8626), (390, 8851), (393, 8860), (395, 8872), (411, 8914), (416, 8935), (423, 8962), (455, 9070), (490, 9160), (514, 9265),

Gene: Abscondus\_29 Start: 8433, Stop: 10181, Start Num: 88

Candidate Starts for Abscondus\_29:

(Start: 88 @8433 has 21 MA's), (106, 8463), (159, 8589), (160, 8592), (184, 8706), (190, 8778), (197, 8817), (205, 8841), (216, 8889), (221, 8916), (267, 9138), (270, 9156), (310, 9318), (327, 9366), (332, 9381), (373, 9564), (375, 9570), (389, 9654), (413, 9741), (421, 9774), (452, 9888), (465, 9924), (472, 9948), (481, 9963), (533, 10137), (535, 10143),

Gene: Achebe\_11 Start: 6881, Stop: 8578, Start Num: 48

Candidate Starts for Achebe\_11:

(Start: 48 @6881 has 363 MA's), (Start: 68 @6905 has 1 MA's), (175, 7151), (195, 7256), (216, 7334), (217, 7337), (225, 7376), (244, 7445), (247, 7469), (256, 7535), (275, 7625), (315, 7790), (326, 7835), (337, 7877), (342, 7910), (365, 7976), (382, 8048), (383, 8051), (389, 8075), (411, 8141), (420, 8180), (425, 8201), (455, 8297), (527, 8531), (529, 8534), (547, 8564), (548, 8567),

Gene: Acme\_13 Start: 7354, Stop: 9042, Start Num: 55

Candidate Starts for Acme\_13:

(Start: 55 @7354 has 24 MA's), (149, 7525), (Start: 153 @7534 has 2 MA's), (175, 7618), (177, 7645), (180, 7654), (217, 7804), (223, 7837), (244, 7912), (256, 8002), (261, 8026), (268, 8053), (277, 8101), (315, 8257), (329, 8317), (390, 8542), (393, 8551), (395, 8563), (411, 8605), (416, 8626), (423, 8653), (455, 8761), (490, 8851), (514, 8956),

Gene: Acolyte\_12 Start: 7615, Stop: 9396, Start Num: 49

Candidate Starts for Acolyte\_12:

(Start: 49 @7615 has 222 MA's), (123, 7747), (137, 7804), (146, 7846), (185, 8008), (204, 8077), (216, 8128), (217, 8131), (225, 8170), (244, 8239), (256, 8329), (261, 8353), (284, 8452), (295, 8485), (414, 8971), (420, 8998), (425, 9019), (455, 9115), (529, 9352), (546, 9379), (547, 9382),

Gene: Adahisdi\_12 Start: 7246, Stop: 8934, Start Num: 48

Candidate Starts for Adahisdi\_12:

(Start: 48 @7246 has 363 MA's), (175, 7510), (176, 7534), (217, 7696), (223, 7729), (244, 7804), (256, 7894), (261, 7918), (268, 7945), (277, 7993), (315, 8149), (329, 8209), (390, 8434), (393, 8443), (395, 8455), (411, 8497), (416, 8518), (423, 8545), (455, 8653), (490, 8743), (514, 8848),

Gene: Adolin\_2 Start: 534, Stop: 2240, Start Num: 74

Candidate Starts for Adolin\_2:

(7, 240), (8, 243), (Start: 74 @534 has 7 MA's), (83, 555), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (249, 1101), (252, 1125), (258, 1155), (267, 1200), (284, 1275), (343, 1488), (350, 1527), (442, 1869), (455, 1905), (460, 1920), (467, 1938), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: Adumb2043\_2 Start: 537, Stop: 2243, Start Num: 71

Candidate Starts for Adumb2043\_2:

(Start: 71 @537 has 40 MA's), (Start: 119 @624 has 1 MA's), (203, 909), (217, 966), (220, 987), (228, 1014), (249, 1104), (284, 1278), (350, 1530), (383, 1653), (434, 1833), (455, 1908), (460, 1923), (496, 2058), (503, 2094), (513, 2142), (517, 2154), (519, 2166), (547, 2229),

Gene: Adzzy\_13 Start: 6261, Stop: 8045, Start Num: 49

Candidate Starts for Adzzy\_13:

(Start: 49 @6261 has 222 MA's), (146, 6492), (171, 6579), (206, 6732), (216, 6774), (217, 6777), (244, 6888), (247, 6912), (248, 6915), (256, 6978), (261, 7002), (295, 7134), (420, 7647), (425, 7668), (450, 7752), (455, 7764), (491, 7857), (497, 7872), (529, 8001), (546, 8028), (547, 8031),

Gene: Aeneas\_13 Start: 7341, Stop: 9029, Start Num: 48

Candidate Starts for Aeneas\_13:

(Start: 48 @7341 has 363 MA's), (175, 7605), (176, 7629), (217, 7791), (223, 7824), (244, 7899), (256, 7989), (261, 8013), (268, 8040), (277, 8088), (315, 8244), (329, 8304), (390, 8529), (393, 8538), (395, 8550), (411, 8592), (416, 8613), (423, 8640), (455, 8748), (490, 8838), (514, 8943),

Gene: Agaliana\_11 Start: 7055, Stop: 8743, Start Num: 48

Candidate Starts for Agaliana\_11:

(Start: 48 @7055 has 363 MA's), (Start: 153 @7235 has 2 MA's), (175, 7319), (180, 7355), (185, 7382), (217, 7505), (244, 7613), (256, 7703), (261, 7727), (277, 7802), (315, 7958), (329, 8018), (390, 8243), (393, 8252), (395, 8264), (411, 8306), (416, 8327), (423, 8354), (455, 8462), (490, 8552), (514, 8657),

Gene: Agape74\_14 Start: 7888, Stop: 9675, Start Num: 49

Candidate Starts for Agape74\_14:

(Start: 49 @7888 has 222 MA's), (110, 7996), (120, 8017), (137, 8083), (138, 8089), (146, 8125), (156, 8149), (171, 8212), (216, 8407), (217, 8410), (244, 8518), (256, 8608), (261, 8632), (277, 8707), (289, 8749), (295, 8764), (362, 9064), (414, 9250), (420, 9277), (425, 9298), (455, 9394), (529, 9631), (547, 9661),

Gene: Agatha\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Agatha\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (416, 2358), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: AgentM\_9 Start: 6239, Stop: 8017, Start Num: 26

Candidate Starts for AgentM\_9:

(Start: 26 @6239 has 19 MA's), (Start: 28 @6266 has 30 MA's), (60, 6335), (82, 6374), (121, 6449), (123, 6455), (171, 6587), (185, 6662), (186, 6665), (219, 6800), (231, 6839), (238, 6863), (256, 6971), (266, 7016), (281, 7094), (284, 7100), (322, 7265), (331, 7298), (337, 7319), (383, 7493), (389, 7517), (390, 7520), (411, 7580), (414, 7592), (420, 7619), (425, 7640), (450, 7724), (455, 7736), (529, 7973), (548, 8006), (550, 8012),

Gene: Aglet\_13 Start: 6958, Stop: 8658, Start Num: 51

Candidate Starts for Aglet\_13:

(Start: 51 @6958 has 139 MA's), (Start: 81 @7006 has 4 MA's), (149, 7141), (194, 7333), (217, 7420), (256, 7618), (275, 7708), (294, 7771), (329, 7933), (383, 8131), (389, 8155), (390, 8158), (411, 8221), (416, 8242), (425, 8281), (455, 8377), (472, 8431), (490, 8467), (529, 8614), (547, 8644), (548, 8647),

Gene: AgronaGT15\_13 Start: 6865, Stop: 8565, Start Num: 51

Candidate Starts for AgronaGT15\_13:

(Start: 51 @6865 has 139 MA's), (Start: 81 @6913 has 4 MA's), (149, 7048), (194, 7240), (217, 7327), (256, 7525), (275, 7615), (294, 7678), (329, 7840), (383, 8038), (389, 8062), (390, 8065), (411, 8128), (416, 8149), (425, 8188), (455, 8284), (472, 8338), (490, 8374), (529, 8521), (547, 8551), (548, 8554),

Gene: AikoCarson\_3 Start: 805, Stop: 2487, Start Num: 96

Candidate Starts for AikoCarson\_3:

(Start: 96 @805 has 69 MA's), (Start: 119 @856 has 1 MA's), (125, 877), (Start: 126 @880 has 2 MA's), (171, 1003), (177, 1042), (179, 1048), (184, 1069), (206, 1165), (214, 1201), (217, 1210), (227, 1261), (232, 1279), (249, 1360), (251, 1381), (258, 1414), (267, 1450), (299, 1594), (309, 1630), (317, 1669), (324, 1702), (337, 1750), (342, 1783), (346, 1807), (362, 1840), (382, 1930), (383, 1933), (384, 1939), (410, 2023), (411, 2029), (420, 2068), (434, 2110), (505, 2329), (523, 2410), (547, 2473), (548, 2476),

Gene: AinMach\_2 Start: 571, Stop: 2274, Start Num: 71

Candidate Starts for AinMach\_2:

(Start: 71 @571 has 40 MA's), (199, 928), (211, 979), (217, 997), (249, 1138), (258, 1192), (259, 1195), (284, 1312), (295, 1345), (328, 1459), (376, 1645), (383, 1687), (455, 1942), (460, 1957), (467, 1975), (468, 1984), (478, 2011), (488, 2059), (503, 2125), (519, 2197), (536, 2230),

Gene: Airmid\_9 Start: 6013, Stop: 7764, Start Num: 28

Candidate Starts for Airmid\_9:

(Start: 26 @5986 has 19 MA's), (Start: 28 @6013 has 30 MA's), (52, 6073), (60, 6082), (82, 6121), (121, 6196), (123, 6202), (185, 6409), (186, 6412), (231, 6586), (256, 6718), (266, 6763), (281, 6841), (284, 6847), (322, 7012), (331, 7045), (337, 7066), (383, 7240), (389, 7264), (420, 7366), (425, 7387), (440, 7441), (450, 7471), (455, 7483), (472, 7537), (527, 7717), (529, 7720), (548, 7753), (550, 7759),

Gene: Ajay\_11 Start: 7051, Stop: 8739, Start Num: 48

Candidate Starts for Ajay\_11:

(Start: 48 @7051 has 363 MA's), (175, 7315), (176, 7339), (217, 7501), (223, 7534), (244, 7609), (256, 7699), (261, 7723), (277, 7798), (315, 7954), (316, 7963), (328, 8011), (329, 8014), (390, 8239), (393, 8248), (395, 8260), (411, 8302), (416, 8323), (423, 8350), (455, 8458), (490, 8548), (514, 8653),

Gene: Alatin\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Alatin\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Albee\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Albee\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389,

8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Alberto7\_12 Start: 7189, Stop: 8886, Start Num: 48

Candidate Starts for Alberto7\_12:

(Start: 48 @7189 has 363 MA's), (Start: 68 @7213 has 1 MA's), (Start: 126 @7336 has 2 MA's), (167, 7426), (175, 7459), (194, 7558), (216, 7642), (217, 7645), (225, 7684), (244, 7753), (247, 7777), (256, 7843), (275, 7933), (315, 8098), (337, 8185), (342, 8218), (365, 8284), (382, 8356), (383, 8359), (389, 8383), (408, 8434), (411, 8449), (420, 8488), (425, 8509), (455, 8605), (529, 8842), (547, 8872), (548, 8875),

Gene: Aliter\_13 Start: 8037, Stop: 9824, Start Num: 49

Candidate Starts for Aliter\_13:

(Start: 49 @8037 has 222 MA's), (Start: 62 @8052 has 20 MA's), (Start: 66 @8058 has 5 MA's), (123, 8169), (146, 8268), (185, 8430), (204, 8502), (217, 8556), (225, 8595), (244, 8667), (256, 8757), (261, 8781), (289, 8898), (295, 8913), (316, 9021), (336, 9096), (342, 9132), (357, 9192), (386, 9312), (392, 9333), (408, 9372), (420, 9426), (421, 9429), (425, 9447), (440, 9501), (450, 9531), (455, 9543), (490, 9633), (497, 9651), (529, 9780), (546, 9807), (547, 9810),

Gene: Alma\_13 Start: 8116, Stop: 9903, Start Num: 49

Candidate Starts for Alma\_13:

(Start: 49 @8116 has 222 MA's), (Start: 62 @8131 has 20 MA's), (Start: 66 @8137 has 5 MA's), (123, 8248), (146, 8347), (185, 8509), (204, 8581), (217, 8635), (225, 8674), (244, 8746), (256, 8836), (261, 8860), (289, 8977), (295, 8992), (316, 9100), (336, 9175), (342, 9211), (357, 9271), (386, 9391), (392, 9412), (408, 9451), (420, 9505), (421, 9508), (425, 9526), (440, 9580), (450, 9610), (455, 9622), (490, 9712), (497, 9730), (529, 9859), (546, 9886), (547, 9889),

Gene: Alpacados\_7 Start: 3118, Stop: 4800, Start Num: 51

Candidate Starts for Alpacados\_7:

(Start: 51 @3118 has 139 MA's), (Start: 153 @3304 has 2 MA's), (171, 3376), (175, 3388), (176, 3412), (180, 3424), (219, 3592), (238, 3652), (247, 3709), (248, 3712), (256, 3760), (313, 4015), (319, 4033), (331, 4087), (376, 4231), (383, 4273), (392, 4306), (411, 4363), (414, 4375), (455, 4519), (469, 4564), (496, 4624), (517, 4723), (529, 4756), (546, 4783), (547, 4786), (548, 4789),

Gene: Alsaber\_7 Start: 2515, Stop: 4161, Start Num: 47

Candidate Starts for Alsaber\_7:

(Start: 45 @2506 has 1 MA's), (Start: 47 @2515 has 87 MA's), (Start: 48 @2518 has 363 MA's), (Start: 62 @2533 has 20 MA's), (162, 2737), (171, 2773), (179, 2818), (202, 2911), (206, 2926), (211, 2953), (214, 2962), (218, 2974), (242, 3061), (248, 3109), (256, 3157), (278, 3256), (289, 3295), (326, 3409), (331, 3430), (340, 3469), (365, 3550), (383, 3619), (384, 3625), (388, 3640), (408, 3703), (441, 3835), (455, 3877), (465, 3904), (469, 3922), (517, 4078),

Gene: Alsfro\_15 Start: 7794, Stop: 9482, Start Num: 48

Candidate Starts for Alsfro\_15:

(Start: 48 @7794 has 363 MA's), (175, 8058), (176, 8082), (217, 8244), (223, 8277), (244, 8352), (256, 8442), (261, 8466), (268, 8493), (277, 8541), (297, 8610), (315, 8697), (316, 8706), (328, 8754), (329, 8757), (393, 8991), (395, 9003), (411, 9045), (416, 9066), (423, 9093), (455, 9201), (490, 9291), (514, 9396),

Gene: Altman\_12 Start: 7589, Stop: 9277, Start Num: 48

Candidate Starts for Altman\_12:

(Start: 48 @7589 has 363 MA's), (175, 7853), (176, 7877), (217, 8039), (223, 8072), (244, 8147), (256, 8237), (261, 8261), (268, 8288), (277, 8336), (315, 8492), (329, 8552), (393, 8786), (395, 8798), (411,

8840), (416, 8861), (423, 8888), (455, 8996), (490, 9086), (514, 9191),

Gene: Alvin\_12 Start: 7262, Stop: 8950, Start Num: 48

Candidate Starts for Alvin\_12:

(Start: 48 @7262 has 363 MA's), (175, 7526), (176, 7550), (217, 7712), (223, 7745), (244, 7820), (256, 7910), (261, 7934), (268, 7961), (277, 8009), (315, 8165), (329, 8225), (390, 8450), (393, 8459), (395, 8471), (411, 8513), (416, 8534), (423, 8561), (455, 8669), (490, 8759), (514, 8864),

Gene: Alvy\_8 Start: 2347, Stop: 3993, Start Num: 47

Candidate Starts for Alvy\_8:

(Start: 47 @2347 has 87 MA's), (Start: 126 @2497 has 2 MA's), (175, 2617), (179, 2650), (202, 2743), (206, 2758), (211, 2785), (218, 2806), (242, 2893), (251, 2965), (256, 2989), (278, 3088), (286, 3124), (313, 3229), (332, 3265), (340, 3301), (343, 3319), (382, 3448), (383, 3451), (386, 3463), (388, 3472), (390, 3478), (391, 3481), (414, 3562), (420, 3589), (442, 3670), (455, 3709), (463, 3730), (469, 3754), (489, 3796), (496, 3814), (517, 3910), (550, 3988),

Gene: Amela\_6 Start: 2575, Stop: 4221, Start Num: 47

Candidate Starts for Amela\_6:

(Start: 45 @2566 has 1 MA's), (Start: 47 @2575 has 87 MA's), (Start: 48 @2578 has 363 MA's), (Start: 62 @2593 has 20 MA's), (93, 2647), (106, 2671), (162, 2797), (179, 2878), (202, 2971), (206, 2986), (211, 3013), (214, 3022), (218, 3034), (242, 3121), (248, 3169), (256, 3217), (278, 3316), (289, 3355), (326, 3469), (331, 3490), (340, 3529), (383, 3679), (384, 3685), (388, 3700), (392, 3712), (408, 3763), (420, 3817), (441, 3895), (442, 3898), (455, 3937), (465, 3964), (469, 3982), (517, 4138),

Gene: Amethyst\_6 Start: 2142, Stop: 3791, Start Num: 47

Candidate Starts for Amethyst\_6:

(Start: 47 @2142 has 87 MA's), (106, 2241), (156, 2340), (162, 2367), (175, 2415), (179, 2448), (206, 2556), (211, 2583), (218, 2604), (229, 2649), (242, 2691), (251, 2763), (256, 2787), (278, 2886), (286, 2922), (295, 2940), (331, 3060), (332, 3063), (340, 3099), (365, 3180), (374, 3201), (388, 3270), (392, 3282), (408, 3333), (420, 3387), (455, 3507), (463, 3528), (469, 3552), (496, 3612), (517, 3708), (550, 3786),

Gene: Amok\_3 Start: 806, Stop: 2488, Start Num: 96

Candidate Starts for Amok\_3:

(Start: 96 @806 has 69 MA's), (Start: 119 @857 has 1 MA's), (125, 878), (Start: 126 @881 has 2 MA's), (179, 1049), (185, 1079), (202, 1151), (206, 1166), (214, 1202), (217, 1211), (218, 1214), (227, 1262), (244, 1331), (249, 1361), (251, 1382), (259, 1418), (267, 1451), (292, 1556), (299, 1595), (309, 1631), (317, 1670), (324, 1703), (337, 1751), (342, 1784), (346, 1808), (362, 1841), (384, 1940), (386, 1946), (410, 2024), (420, 2069), (434, 2111), (463, 2207), (505, 2330), (523, 2411), (547, 2474), (548, 2477),

Gene: Amyev\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Amyev\_2:

(Start: 71 @533 has 40 MA's), (109, 599), (203, 905), (217, 962), (220, 983), (228, 1010), (249, 1100), (258, 1154), (267, 1199), (284, 1274), (350, 1526), (383, 1649), (434, 1829), (455, 1904), (460, 1919), (496, 2054), (517, 2150), (519, 2162),

Gene: Anaysia\_14 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for Anaysia\_14:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496, 8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: AndPeggy\_3 Start: 1120, Stop: 2799, Start Num: 96

Candidate Starts for AndPeggy\_3:

(Start: 96 @1120 has 69 MA's), (Start: 119 @1171 has 1 MA's), (125, 1192), (Start: 126 @1195 has 2 MA's), (150, 1237), (169, 1303), (179, 1363), (184, 1384), (185, 1393), (206, 1480), (214, 1516), (217, 1525), (227, 1576), (249, 1675), (251, 1696), (258, 1729), (267, 1765), (299, 1909), (309, 1945), (317, 1984), (347, 2131), (362, 2155), (384, 2254), (410, 2338), (434, 2425), (463, 2521), (486, 2569), (492, 2593), (505, 2644), (523, 2725), (547, 2785), (548, 2788),

Gene: Andris\_6 Start: 2176, Stop: 3822, Start Num: 47

Candidate Starts for Andris\_6:

(Start: 47 @2176 has 87 MA's), (59, 2188), (175, 2446), (179, 2479), (202, 2572), (211, 2614), (218, 2635), (242, 2722), (251, 2794), (256, 2818), (278, 2917), (286, 2953), (295, 2971), (332, 3094), (340, 3130), (386, 3292), (388, 3301), (420, 3418), (442, 3499), (455, 3538), (463, 3559), (469, 3583), (496, 3643), (516, 3736), (517, 3739),

Gene: Aneem\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Aneem\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Anekin\_2 Start: 597, Stop: 2330, Start Num: 87

Candidate Starts for Anekin\_2:

(Start: 87 @597 has 2 MA's), (Start: 119 @663 has 1 MA's), (Start: 127 @690 has 2 MA's), (128, 693), (173, 846), (194, 1014), (217, 1101), (240, 1188), (254, 1278), (261, 1311), (263, 1320), (269, 1341), (276, 1377), (281, 1389), (324, 1518), (334, 1557), (346, 1626), (377, 1704), (385, 1740), (420, 1881), (421, 1884), (430, 1944), (438, 1980), (449, 2028), (462, 2061), (472, 2094), (514, 2235), (528, 2277), (541, 2304),

Gene: Angelique\_2 Start: 485, Stop: 2281, Start Num: 51

Candidate Starts for Angelique\_2:

(Start: 51 @485 has 139 MA's), (169, 779), (171, 794), (188, 878), (199, 920), (202, 929), (210, 968), (217, 989), (241, 1073), (249, 1127), (250, 1145), (256, 1172), (258, 1181), (272, 1256), (285, 1307), (288, 1328), (337, 1487), (346, 1544), (366, 1589), (376, 1613), (390, 1682), (392, 1688), (394, 1697), (414, 1766), (442, 1904), (450, 1940), (455, 1952), (465, 1976), (472, 2003), (495, 2090), (503, 2132), (516, 2189), (525, 2219), (537, 2243), (547, 2267), (548, 2270),

Gene: AngryOrchard\_7 Start: 3101, Stop: 4783, Start Num: 51

Candidate Starts for AngryOrchard\_7:

(Start: 51 @3101 has 139 MA's), (Start: 153 @3287 has 2 MA's), (171, 3359), (175, 3371), (176, 3395), (180, 3407), (219, 3575), (238, 3635), (256, 3743), (313, 3998), (331, 4070), (332, 4073), (376, 4214), (383, 4256), (392, 4289), (411, 4346), (414, 4358), (455, 4502), (469, 4547), (496, 4607), (517, 4706), (529, 4739), (546, 4766), (547, 4769), (548, 4772),

Gene: Animus\_7 Start: 2523, Stop: 4169, Start Num: 47

Candidate Starts for Animus\_7:

(Start: 47 @2523 has 87 MA's), (169, 2766), (171, 2781), (175, 2793), (202, 2919), (211, 2961), (213, 2967), (218, 2982), (242, 3069), (251, 3141), (256, 3165), (278, 3264), (286, 3300), (295, 3318), (332, 3441), (340, 3477), (386, 3639), (388, 3648), (408, 3711), (420, 3765), (442, 3846), (455, 3885), (463, 3906), (469, 3930), (516, 4083), (517, 4086),



Gene: AnnaL29\_15 Start: 9319, Stop: 11079, Start Num: 49

Candidate Starts for AnnaL29\_15:

(24, 9235), (Start: 49 @9319 has 222 MA's), (110, 9427), (120, 9448), (140, 9532), (146, 9556), (171, 9643), (181, 9697), (204, 9787), (217, 9841), (244, 9949), (256, 10039), (261, 10063), (295, 10195), (326, 10339), (362, 10471), (383, 10555), (408, 10627), (411, 10642), (420, 10681), (421, 10684), (425, 10702), (455, 10798), (478, 10867), (529, 11035), (546, 11062), (547, 11065), (548, 11068), (549, 11071),

Gene: Annyong\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Annyong\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Anon\_12 Start: 7031, Stop: 8731, Start Num: 49

Candidate Starts for Anon\_12:

(Start: 49 @7031 has 222 MA's), (65, 7049), (159, 7241), (185, 7367), (206, 7448), (217, 7493), (244, 7601), (247, 7625), (256, 7691), (261, 7715), (319, 7958), (389, 8231), (390, 8234), (455, 8450), (490, 8540), (491, 8543), (529, 8687), (546, 8714), (547, 8717), (548, 8720),

Gene: Anselm\_12 Start: 7545, Stop: 9335, Start Num: 49

Candidate Starts for Anselm\_12:

(Start: 49 @7545 has 222 MA's), (110, 7653), (120, 7674), (146, 7782), (162, 7833), (217, 8070), (244, 8178), (256, 8268), (261, 8292), (289, 8409), (295, 8424), (362, 8724), (414, 8910), (420, 8937), (425, 8958), (455, 9054), (529, 9291), (547, 9321),

Gene: Anthony\_11 Start: 5672, Stop: 7372, Start Num: 53

Candidate Starts for Anthony\_11:

(Start: 53 @5672 has 1 MA's), (Start: 126 @5813 has 2 MA's), (149, 5852), (216, 6128), (217, 6131), (236, 6203), (244, 6242), (253, 6314), (256, 6332), (284, 6455), (291, 6479), (294, 6485), (313, 6581), (342, 6707), (365, 6773), (376, 6806), (389, 6872), (420, 6974), (425, 6995), (440, 7049), (455, 7091), (465, 7118), (472, 7145), (527, 7325), (529, 7328), (548, 7361),

Gene: Anubis\_15 Start: 6843, Stop: 8543, Start Num: 51

Candidate Starts for Anubis\_15:

(Start: 51 @6843 has 139 MA's), (Start: 81 @6891 has 4 MA's), (Start: 119 @6963 has 1 MA's), (149, 7026), (194, 7218), (217, 7305), (256, 7503), (275, 7593), (294, 7656), (329, 7818), (383, 8016), (389, 8040), (390, 8043), (411, 8106), (416, 8127), (425, 8166), (455, 8262), (472, 8316), (490, 8352), (529, 8499), (547, 8529), (548, 8532),

Gene: Aphelion\_30 Start: 8680, Stop: 10428, Start Num: 88

Candidate Starts for Aphelion\_30:

(Start: 88 @8680 has 21 MA's), (106, 8710), (160, 8839), (190, 9025), (197, 9064), (205, 9088), (210, 9118), (216, 9136), (221, 9163), (228, 9193), (267, 9385), (270, 9403), (310, 9565), (327, 9613), (332, 9628), (373, 9811), (375, 9817), (389, 9901), (413, 9988), (421, 10021), (452, 10135), (465, 10171), (472, 10195), (481, 10210), (533, 10384), (535, 10390),

Gene: AppleCloud\_6 Start: 2865, Stop: 4547, Start Num: 51

Candidate Starts for AppleCloud\_6:

(Start: 51 @2865 has 139 MA's), (Start: 153 @3051 has 2 MA's), (171, 3123), (175, 3135), (176, 3159), (180, 3171), (219, 3339), (238, 3399), (256, 3507), (313, 3762), (331, 3834), (376, 3978), (382,

4017), (383, 4020), (392, 4053), (414, 4122), (455, 4266), (469, 4311), (496, 4371), (529, 4503), (546, 4530), (547, 4533), (548, 4536),

Gene: Applejack\_11 Start: 6989, Stop: 8677, Start Num: 48

Candidate Starts for Applejack\_11:

(Start: 48 @6989 has 363 MA's), (175, 7253), (176, 7277), (217, 7439), (223, 7472), (244, 7547), (252, 7601), (256, 7637), (261, 7661), (268, 7688), (277, 7736), (297, 7805), (315, 7892), (329, 7952), (393, 8186), (395, 8198), (411, 8240), (416, 8261), (423, 8288), (455, 8396), (490, 8486), (514, 8591),

Gene: Apricot\_2 Start: 453, Stop: 2147, Start Num: 76

Candidate Starts for Apricot\_2:

(24, 324), (29, 357), (30, 360), (34, 378), (Start: 50 @411 has 3 MA's), (58, 420), (Start: 76 @453 has 1 MA's), (Start: 96 @486 has 69 MA's), (Start: 119 @537 has 1 MA's), (123, 549), (130, 576), (169, 666), (184, 747), (185, 756), (186, 759), (194, 792), (206, 843), (214, 879), (215, 882), (217, 888), (220, 903), (221, 906), (225, 924), (229, 942), (244, 996), (251, 1047), (256, 1071), (275, 1158), (290, 1218), (295, 1227), (299, 1263), (309, 1299), (317, 1338), (318, 1341), (324, 1371), (354, 1503), (362, 1509), (379, 1572), (382, 1599), (389, 1626), (390, 1629), (394, 1644), (411, 1701), (420, 1740), (442, 1821), (453, 1851), (474, 1914), (496, 1962), (497, 1965), (517, 2058), (518, 2061), (521, 2079), (527, 2088), (534, 2100), (548, 2136),

Gene: Aragog\_9 Start: 6296, Stop: 8047, Start Num: 28

Candidate Starts for Aragog\_9:

(Start: 26 @6269 has 19 MA's), (Start: 28 @6296 has 30 MA's), (60, 6365), (121, 6479), (123, 6485), (171, 6617), (185, 6692), (186, 6695), (231, 6869), (238, 6893), (256, 7001), (266, 7046), (281, 7124), (284, 7130), (285, 7133), (322, 7295), (324, 7301), (331, 7328), (337, 7349), (383, 7523), (389, 7547), (390, 7550), (411, 7610), (414, 7622), (420, 7649), (425, 7670), (440, 7724), (450, 7754), (455, 7766), (529, 8003), (548, 8036), (550, 8042),

Gene: Arcanine\_12 Start: 6925, Stop: 8613, Start Num: 48

Candidate Starts for Arcanine\_12:

(Start: 48 @6925 has 363 MA's), (175, 7189), (176, 7213), (217, 7375), (223, 7408), (244, 7483), (256, 7573), (261, 7597), (268, 7624), (277, 7672), (312, 7816), (315, 7828), (329, 7888), (390, 8113), (393, 8122), (395, 8134), (411, 8176), (416, 8197), (423, 8224), (455, 8332), (490, 8422), (514, 8527),

Gene: ArcherNM\_14 Start: 9227, Stop: 11014, Start Num: 49

Candidate Starts for ArcherNM\_14:

(19, 9107), (Start: 49 @9227 has 222 MA's), (110, 9335), (120, 9356), (146, 9464), (162, 9515), (171, 9551), (181, 9605), (216, 9746), (217, 9749), (225, 9788), (244, 9857), (256, 9947), (261, 9971), (295, 10103), (383, 10490), (414, 10589), (420, 10616), (425, 10637), (450, 10721), (455, 10733), (529, 10970), (546, 10997), (547, 11000), (548, 11003), (549, 11006),

Gene: Archetta\_9 Start: 5978, Stop: 7756, Start Num: 26

Candidate Starts for Archetta\_9:

(Start: 26 @5978 has 19 MA's), (Start: 28 @6005 has 30 MA's), (60, 6074), (82, 6113), (121, 6188), (123, 6194), (171, 6326), (185, 6401), (186, 6404), (219, 6539), (231, 6578), (238, 6602), (256, 6710), (266, 6755), (281, 6833), (284, 6839), (322, 7004), (331, 7037), (337, 7058), (383, 7232), (389, 7256), (390, 7259), (411, 7319), (414, 7331), (420, 7358), (425, 7379), (450, 7463), (455, 7475), (529, 7712), (548, 7745), (550, 7751),

Gene: Arianna\_3 Start: 1236, Stop: 2873, Start Num: 81

Candidate Starts for Arianna\_3:

(Start: 81 @1236 has 4 MA's), (97, 1260), (Start: 127 @1338 has 2 MA's), (159, 1404), (180, 1503), (184, 1521), (185, 1530), (187, 1536), (197, 1584), (199, 1590), (202, 1599), (211, 1641), (213, 1647),

(214, 1650), (217, 1659), (235, 1737), (256, 1854), (259, 1866), (260, 1869), (261, 1878), (275, 1941), (295, 2013), (299, 2046), (328, 2124), (352, 2235), (376, 2280), (410, 2412), (411, 2418), (445, 2550), (455, 2589), (490, 2679), (498, 2706), (516, 2787), (519, 2802), (520, 2805), (522, 2814), (547, 2862),

Gene: Arissanae\_11 Start: 6238, Stop: 8028, Start Num: 49

Candidate Starts for Arissanae\_11:

(Start: 49 @6238 has 222 MA's), (Start: 62 @6253 has 20 MA's), (123, 6370), (146, 6469), (185, 6631), (204, 6703), (217, 6757), (225, 6796), (244, 6868), (256, 6958), (261, 6982), (295, 7114), (316, 7222), (336, 7297), (342, 7333), (357, 7393), (367, 7429), (386, 7513), (392, 7534), (420, 7630), (421, 7633), (425, 7651), (440, 7705), (450, 7735), (455, 7747), (490, 7837), (497, 7855), (509, 7906), (529, 7984), (546, 8011), (547, 8014),

Gene: Arlo\_10 Start: 6614, Stop: 8302, Start Num: 48

Candidate Starts for Arlo\_10:

(Start: 48 @6614 has 363 MA's), (175, 6878), (176, 6902), (217, 7064), (223, 7097), (244, 7172), (256, 7262), (261, 7286), (268, 7313), (277, 7361), (297, 7430), (312, 7505), (315, 7517), (329, 7577), (393, 7811), (395, 7823), (411, 7865), (416, 7886), (423, 7913), (455, 8021), (490, 8111), (514, 8216),

Gene: Artemis2UCLA\_15 Start: 7416, Stop: 9170, Start Num: 49

Candidate Starts for Artemis2UCLA\_15:

(Start: 49 @7416 has 222 MA's), (123, 7548), (146, 7647), (156, 7671), (162, 7698), (171, 7734), (185, 7809), (217, 7932), (219, 7947), (225, 7971), (244, 8040), (247, 8064), (248, 8067), (256, 8130), (261, 8154), (294, 8283), (295, 8286), (319, 8397), (360, 8559), (383, 8646), (386, 8658), (389, 8670), (408, 8718), (411, 8733), (420, 8772), (425, 8793), (450, 8877), (455, 8889), (529, 9126), (546, 9153), (547, 9156),

Gene: Arturo\_10 Start: 6995, Stop: 8692, Start Num: 48

Candidate Starts for Arturo\_10:

(Start: 48 @6995 has 363 MA's), (Start: 68 @7019 has 1 MA's), (Start: 126 @7142 has 2 MA's), (167, 7232), (175, 7265), (194, 7364), (216, 7448), (217, 7451), (225, 7490), (244, 7559), (247, 7583), (256, 7649), (275, 7739), (315, 7904), (337, 7991), (342, 8024), (365, 8090), (383, 8165), (389, 8189), (411, 8255), (420, 8294), (425, 8315), (455, 8411), (527, 8645), (529, 8648), (547, 8678), (548, 8681),

Gene: Asa16\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Asa16\_2:

(Start: 71 @533 has 40 MA's), (Start: 119 @620 has 1 MA's), (203, 905), (217, 962), (220, 983), (228, 1010), (249, 1100), (258, 1154), (267, 1199), (284, 1274), (303, 1364), (343, 1487), (350, 1526), (383, 1649), (434, 1829), (440, 1862), (455, 1904), (460, 1919), (496, 2054), (503, 2090), (517, 2150), (519, 2162),

Gene: Ascela\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Ascela\_2:

(Start: 71 @534 has 40 MA's), (203, 906), (217, 963), (228, 1011), (249, 1101), (267, 1200), (284, 1275), (303, 1365), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (442, 1869), (455, 1905), (460, 1920), (496, 2055), (513, 2139), (517, 2151), (519, 2163),

Gene: Ashballer\_10 Start: 7174, Stop: 8682, Start Num: 153

Candidate Starts for Ashballer\_10:

(Start: 55 @6994 has 24 MA's), (Start: 153 @7174 has 2 MA's), (175, 7258), (177, 7285), (180, 7294), (217, 7444), (244, 7552), (256, 7642), (261, 7666), (268, 7693), (277, 7741), (312, 7885), (315, 7897), (316, 7906), (329, 7957), (393, 8191), (395, 8203), (411, 8245), (416, 8266), (423, 8293), (455, 8401), (490, 8491), (514, 8596),

Gene: Ashes\_2 Start: 594, Stop: 2282, Start Num: 75

Candidate Starts for Ashes\_2:

(75, 594), (169, 795), (199, 939), (206, 963), (217, 1008), (241, 1095), (249, 1149), (255, 1188), (284, 1323), (308, 1425), (373, 1647), (383, 1698), (442, 1917), (455, 1953), (460, 1968), (517, 2193), (519, 2205), (524, 2220), (548, 2271),

Gene: Asten\_6 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for Asten\_6:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (408, 3564), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (503, 3879), (517, 3939), (550, 4017),

Gene: Astro\_9 Start: 5704, Stop: 7458, Start Num: 28

Candidate Starts for Astro\_9:

(Start: 28 @5704 has 30 MA's), (44, 5746), (67, 5785), (123, 5893), (185, 6100), (238, 6301), (256, 6409), (284, 6538), (322, 6703), (331, 6736), (366, 6856), (383, 6931), (416, 7042), (420, 7060), (425, 7081), (440, 7135), (455, 7177), (496, 7282), (517, 7381), (529, 7414), (548, 7447), (550, 7453),

Gene: Atkinbua\_12 Start: 6969, Stop: 8657, Start Num: 48

Candidate Starts for Atkinbua\_12:

(Start: 48 @6969 has 363 MA's), (175, 7233), (176, 7257), (217, 7419), (223, 7452), (244, 7527), (256, 7617), (261, 7641), (268, 7668), (277, 7716), (297, 7785), (315, 7872), (316, 7881), (329, 7932), (393, 8166), (395, 8178), (411, 8220), (416, 8241), (423, 8268), (455, 8376), (490, 8466), (514, 8571),

Gene: Attoomi\_3 Start: 881, Stop: 2503, Start Num: 80

Candidate Starts for Attoomi\_3:

(Start: 80 @881 has 1 MA's), (102, 920), (Start: 119 @953 has 1 MA's), (177, 1136), (182, 1154), (204, 1241), (211, 1277), (217, 1295), (220, 1313), (225, 1334), (237, 1370), (242, 1382), (249, 1433), (256, 1478), (257, 1484), (268, 1535), (271, 1556), (275, 1574), (294, 1637), (297, 1652), (299, 1673), (326, 1739), (335, 1775), (340, 1799), (343, 1817), (345, 1835), (355, 1868), (378, 1922), (383, 1946), (384, 1952), (386, 1958), (411, 2045), (425, 2105), (434, 2126), (441, 2162), (442, 2165), (450, 2189), (455, 2201), (469, 2246), (478, 2270), (496, 2321), (519, 2429), (547, 2489),

Gene: AugsMagnumOpus\_15 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for AugsMagnumOpus\_15:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: AvatarAhPeg\_11 Start: 6848, Stop: 8545, Start Num: 48

Candidate Starts for AvatarAhPeg\_11:

(Start: 48 @6848 has 363 MA's), (Start: 68 @6872 has 1 MA's), (Start: 153 @7034 has 2 MA's), (175, 7118), (216, 7301), (217, 7304), (225, 7343), (244, 7412), (247, 7436), (252, 7466), (256, 7502), (275, 7592), (315, 7757), (326, 7802), (337, 7844), (342, 7877), (365, 7943), (383, 8018), (389, 8042), (411, 8108), (420, 8147), (425, 8168), (455, 8264), (529, 8501), (547, 8531), (548, 8534),

Gene: Avle17\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Avle17\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389,

8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Axym\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Axym\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (416, 2358), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Azira\_6 Start: 1989, Stop: 3689, Start Num: 96

Candidate Starts for Azira\_6:

(Start: 96 @1989 has 69 MA's), (109, 2019), (125, 2061), (171, 2199), (180, 2247), (186, 2277), (194, 2310), (206, 2361), (208, 2376), (217, 2406), (227, 2457), (249, 2556), (251, 2577), (267, 2646), (275, 2688), (283, 2718), (317, 2865), (328, 2916), (342, 2979), (346, 3003), (374, 3069), (379, 3102), (381, 3126), (382, 3129), (384, 3138), (390, 3159), (401, 3186), (411, 3231), (414, 3243), (415, 3249), (420, 3270), (431, 3309), (463, 3408), (474, 3444), (505, 3531), (523, 3612), (527, 3618), (547, 3675), (548, 3678),

Gene: B1\_09 Start: 6133, Stop: 7830, Start Num: 48

Candidate Starts for B1\_09:

(Start: 48 @6133 has 363 MA's), (95, 6205), (175, 6403), (185, 6466), (213, 6577), (217, 6589), (225, 6628), (230, 6640), (244, 6697), (247, 6721), (252, 6751), (256, 6787), (258, 6796), (275, 6877), (281, 6904), (315, 7042), (331, 7108), (337, 7129), (342, 7162), (365, 7228), (383, 7303), (389, 7327), (390, 7330), (392, 7336), (394, 7345), (411, 7393), (420, 7432), (421, 7435), (425, 7453), (455, 7549), (472, 7603), (518, 7756), (529, 7786), (547, 7816), (548, 7819),

Gene: BABullseye\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for BABullseye\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (284, 8360), (285, 8363), (294, 8390), (295, 8393), (365, 8678), (386, 8765), (389, 8777), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: BK1\_09 Start: 6581, Stop: 8269, Start Num: 48

Candidate Starts for BK1\_09:

(Start: 48 @6581 has 363 MA's), (Start: 153 @6761 has 2 MA's), (175, 6845), (180, 6881), (185, 6908), (217, 7031), (223, 7064), (244, 7139), (256, 7229), (261, 7253), (268, 7280), (277, 7328), (315, 7484), (329, 7544), (393, 7778), (395, 7790), (411, 7832), (416, 7853), (423, 7880), (455, 7988), (490, 8078), (514, 8183),

Gene: BPBiebs31\_12 Start: 7253, Stop: 8941, Start Num: 48

Candidate Starts for BPBiebs31\_12:

(Start: 48 @7253 has 363 MA's), (Start: 153 @7433 has 2 MA's), (175, 7517), (180, 7553), (185, 7580), (209, 7676), (217, 7703), (223, 7736), (244, 7811), (256, 7901), (261, 7925), (268, 7952), (277, 8000), (297, 8069), (315, 8156), (329, 8216), (390, 8441), (393, 8450), (395, 8462), (411, 8504), (416, 8525), (423, 8552), (455, 8660), (490, 8750), (514, 8855),

Gene: Baby16\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Baby16\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (Start: 126 @7040 has 2 MA's), (167, 7130), (175, 7163), (194, 7262), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (337, 7889), (342, 7922), (365, 7988), (382, 8060), (383, 8063), (389, 8087), (408, 8138), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (529, 8546), (547, 8576), (548, 8579),

Gene: BabyBack\_14 Start: 9110, Stop: 10870, Start Num: 49

Candidate Starts for BabyBack\_14:

(Start: 49 @9110 has 222 MA's), (110, 9218), (120, 9239), (143, 9329), (146, 9347), (216, 9629), (217, 9632), (225, 9671), (244, 9740), (256, 9830), (261, 9854), (284, 9953), (294, 9983), (295, 9986), (365, 10271), (383, 10346), (386, 10358), (389, 10370), (414, 10445), (421, 10475), (425, 10493), (450, 10577), (455, 10589), (478, 10658), (529, 10826), (546, 10853), (547, 10856),

Gene: BabyJohn\_10 Start: 6717, Stop: 8414, Start Num: 48

Candidate Starts for BabyJohn\_10:

(Start: 48 @6717 has 363 MA's), (95, 6789), (175, 6987), (185, 7050), (213, 7161), (217, 7173), (225, 7212), (230, 7224), (244, 7281), (247, 7305), (256, 7371), (258, 7380), (275, 7461), (281, 7488), (315, 7626), (331, 7692), (337, 7713), (342, 7746), (365, 7812), (383, 7887), (389, 7911), (390, 7914), (392, 7920), (394, 7929), (411, 7977), (420, 8016), (425, 8037), (455, 8133), (469, 8178), (472, 8187), (518, 8340), (529, 8370), (547, 8400), (548, 8403),

Gene: BabyRay\_11 Start: 6733, Stop: 8430, Start Num: 48

Candidate Starts for BabyRay\_11:

(Start: 48 @6733 has 363 MA's), (Start: 68 @6757 has 1 MA's), (159, 6940), (175, 7003), (185, 7066), (213, 7177), (217, 7189), (225, 7228), (244, 7297), (247, 7321), (256, 7387), (258, 7396), (275, 7477), (315, 7642), (331, 7708), (337, 7729), (342, 7762), (365, 7828), (389, 7927), (390, 7930), (392, 7936), (394, 7945), (408, 7978), (411, 7993), (425, 8053), (455, 8149), (469, 8194), (472, 8203), (478, 8218), (518, 8356), (529, 8386), (547, 8416), (548, 8419),

Gene: Bachita\_32 Start: 9113, Stop: 10861, Start Num: 88

Candidate Starts for Bachita\_32:

(Start: 88 @9113 has 21 MA's), (106, 9143), (160, 9272), (190, 9458), (197, 9497), (205, 9521), (216, 9569), (221, 9596), (228, 9626), (267, 9818), (270, 9836), (310, 9998), (327, 10046), (332, 10061), (373, 10244), (375, 10250), (389, 10334), (413, 10421), (421, 10454), (452, 10568), (465, 10604), (472, 10628), (481, 10643), (533, 10817), (535, 10823),

Gene: Bachome\_12 Start: 8021, Stop: 9784, Start Num: 49

Candidate Starts for Bachome\_12:

(Start: 49 @8021 has 222 MA's), (Start: 66 @8042 has 5 MA's), (110, 8129), (146, 8258), (156, 8282), (171, 8345), (204, 8489), (216, 8540), (217, 8543), (244, 8654), (247, 8678), (248, 8681), (256, 8744), (258, 8753), (261, 8768), (289, 8885), (295, 8900), (304, 8960), (326, 9044), (386, 9272), (389, 9284), (408, 9332), (411, 9347), (420, 9386), (425, 9407), (437, 9446), (450, 9491), (455, 9503), (529, 9740), (546, 9767),

Gene: Backyardigan\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Backyardigan\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (195, 7268), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (326, 7847), (337, 7889), (342, 7922), (365, 7988), (382, 8060), (383, 8063), (389, 8087), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: BaconJack\_13 Start: 7032, Stop: 8720, Start Num: 48

Candidate Starts for BaconJack\_13:

(Start: 48 @7032 has 363 MA's), (175, 7296), (176, 7320), (217, 7482), (223, 7515), (244, 7590), (256, 7680), (261, 7704), (268, 7731), (277, 7779), (297, 7848), (315, 7935), (329, 7995), (390, 8220), (393, 8229), (395, 8241), (411, 8283), (416, 8304), (423, 8331), (455, 8439), (490, 8529), (514, 8634),

Gene: Bactobuster\_13 Start: 9196, Stop: 10974, Start Num: 49

Candidate Starts for Bactobuster\_13:

(Start: 49 @9196 has 222 MA's), (Start: 66 @9214 has 5 MA's), (123, 9325), (Start: 126 @9337 has 2 MA's), (136, 9379), (139, 9391), (140, 9400), (146, 9424), (171, 9511), (216, 9706), (217, 9709), (225, 9748), (244, 9817), (256, 9907), (261, 9931), (284, 10030), (295, 10063), (362, 10363), (383, 10450), (414, 10549), (420, 10576), (425, 10597), (455, 10693), (529, 10930), (546, 10957), (547, 10960),

Gene: Badger\_11 Start: 6882, Stop: 8579, Start Num: 48

Candidate Starts for Badger\_11:

(Start: 48 @6882 has 363 MA's), (Start: 68 @6906 has 1 MA's), (175, 7152), (195, 7257), (216, 7335), (217, 7338), (225, 7377), (244, 7446), (247, 7470), (256, 7536), (275, 7626), (315, 7791), (326, 7836), (337, 7878), (342, 7911), (365, 7977), (382, 8049), (383, 8052), (389, 8076), (411, 8142), (420, 8181), (425, 8202), (455, 8298), (527, 8532), (529, 8535), (547, 8565), (548, 8568),

Gene: Baehexic\_13 Start: 7944, Stop: 9731, Start Num: 49

Candidate Starts for Baehexic\_13:

(24, 7860), (Start: 49 @7944 has 222 MA's), (110, 8052), (120, 8073), (146, 8181), (217, 8466), (244, 8574), (256, 8664), (261, 8688), (289, 8805), (295, 8820), (383, 9207), (420, 9333), (425, 9354), (455, 9450), (529, 9687), (546, 9714), (547, 9717), (548, 9720), (549, 9723),

Gene: BangNhom\_10 Start: 6861, Stop: 8558, Start Num: 48

Candidate Starts for BangNhom\_10:

(Start: 48 @6861 has 363 MA's), (Start: 68 @6885 has 1 MA's), (Start: 126 @7008 has 2 MA's), (167, 7098), (175, 7131), (216, 7314), (217, 7317), (225, 7356), (244, 7425), (247, 7449), (256, 7515), (275, 7605), (315, 7770), (337, 7857), (342, 7890), (365, 7956), (382, 8028), (383, 8031), (389, 8055), (408, 8106), (411, 8121), (420, 8160), (425, 8181), (455, 8277), (529, 8514), (547, 8544), (548, 8547),

Gene: Bantam\_12 Start: 6089, Stop: 7825, Start Num: 88

Candidate Starts for Bantam\_12:

(Start: 88 @6089 has 21 MA's), (123, 6161), (151, 6218), (181, 6350), (194, 6461), (205, 6497), (226, 6593), (256, 6737), (262, 6764), (270, 6812), (277, 6845), (295, 6902), (328, 7019), (339, 7064), (452, 7535), (496, 7643), (517, 7739),

Gene: Barnstormer\_2 Start: 634, Stop: 2352, Start Num: 64

Candidate Starts for Barnstormer\_2:

(Start: 64 @634 has 12 MA's), (199, 1006), (211, 1057), (217, 1075), (249, 1225), (373, 1720), (455, 2026), (460, 2041), (503, 2206), (519, 2278),

Gene: Barriga\_11 Start: 6857, Stop: 8545, Start Num: 48

Candidate Starts for Barriga\_11:

(Start: 48 @6857 has 363 MA's), (175, 7121), (176, 7145), (217, 7307), (223, 7340), (244, 7415), (256, 7505), (261, 7529), (268, 7556), (277, 7604), (285, 7631), (315, 7760), (316, 7769), (329, 7820), (390, 8045), (393, 8054), (395, 8066), (411, 8108), (416, 8129), (423, 8156), (455, 8264), (490, 8354), (514, 8459),

Gene: BarryBee\_8 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for BarryBee\_8:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278,



3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (408, 3564), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (503, 3879), (517, 3939), (550, 4017),

Gene: BartholomewSD\_8 Start: 2347, Stop: 3993, Start Num: 47

Candidate Starts for BartholomewSD\_8:

(Start: 47 @2347 has 87 MA's), (Start: 126 @2497 has 2 MA's), (175, 2617), (179, 2650), (202, 2743), (206, 2758), (211, 2785), (218, 2806), (242, 2893), (251, 2965), (256, 2989), (278, 3088), (286, 3124), (313, 3229), (332, 3265), (340, 3301), (343, 3319), (382, 3448), (383, 3451), (386, 3463), (388, 3472), (390, 3478), (391, 3481), (414, 3562), (420, 3589), (442, 3670), (455, 3709), (463, 3730), (469, 3754), (489, 3796), (496, 3814), (517, 3910), (550, 3988),

Gene: Bartimeaus\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Bartimeaus\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Battleship\_15 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for Battleship\_15:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (185, 7144), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: BearBQ\_2 Start: 486, Stop: 2147, Start Num: 96

Candidate Starts for BearBQ\_2:

(24, 324), (29, 357), (30, 360), (Start: 50 @411 has 3 MA's), (58, 420), (Start: 76 @453 has 1 MA's), (Start: 96 @486 has 69 MA's), (Start: 119 @537 has 1 MA's), (123, 549), (130, 576), (149, 597), (169, 666), (171, 681), (177, 720), (184, 747), (185, 756), (186, 759), (194, 792), (201, 825), (202, 828), (206, 843), (214, 879), (215, 882), (217, 888), (220, 903), (221, 906), (229, 942), (244, 996), (251, 1047), (256, 1071), (275, 1158), (290, 1218), (295, 1227), (299, 1263), (309, 1299), (318, 1341), (330, 1395), (337, 1419), (341, 1443), (354, 1503), (362, 1509), (379, 1572), (389, 1626), (394, 1644), (411, 1701), (414, 1713), (420, 1740), (442, 1821), (453, 1851), (467, 1890), (474, 1914), (492, 1950), (496, 1962), (497, 1965), (517, 2058), (518, 2061), (521, 2079), (534, 2100), (543, 2121), (548, 2136),

Gene: BeardedLady\_7 Start: 2667, Stop: 4295, Start Num: 62

Candidate Starts for BeardedLady\_7:

(Start: 47 @2649 has 87 MA's), (Start: 62 @2667 has 20 MA's), (162, 2871), (179, 2952), (211, 3087), (218, 3108), (242, 3195), (251, 3267), (256, 3291), (278, 3390), (295, 3444), (326, 3543), (340, 3603), (386, 3765), (388, 3774), (414, 3864), (420, 3891), (441, 3969), (442, 3972), (455, 4011), (463, 4032), (465, 4038), (469, 4056), (503, 4152), (517, 4212),

Gene: Beauxregard13\_13 Start: 6957, Stop: 8657, Start Num: 51

Candidate Starts for Beauxregard13\_13:

(Start: 51 @6957 has 139 MA's), (Start: 81 @7005 has 4 MA's), (149, 7140), (194, 7332), (217, 7419), (256, 7617), (275, 7707), (294, 7770), (329, 7932), (383, 8130), (389, 8154), (390, 8157), (411, 8220), (416, 8241), (425, 8280), (455, 8376), (472, 8430), (490, 8466), (529, 8613), (547, 8643), (548, 8646),

Gene: BeeGee\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for BeeGee\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (547, 2270), (548, 2273),

Gene: Beelzebub\_39 Start: 11419, Stop: 13161, Start Num: 96

Candidate Starts for Beelzebub\_39:

(Start: 96 @11419 has 69 MA's), (149, 11536), (162, 11581), (170, 11647), (172, 11662), (176, 11695), (177, 11698), (181, 11713), (186, 11737), (187, 11740), (194, 11770), (200, 11791), (202, 11809), (205, 11818), (212, 11854), (217, 11869), (227, 11914), (242, 11956), (246, 11995), (249, 12007), (251, 12028), (262, 12079), (268, 12100), (324, 12322), (346, 12427), (347, 12436), (366, 12469), (375, 12490), (376, 12493), (379, 12520), (383, 12550), (386, 12562), (390, 12577), (393, 12586), (394, 12592), (407, 12634), (409, 12643), (412, 12658), (416, 12673), (434, 12733), (440, 12772), (451, 12805), (463, 12835), (464, 12838), (485, 12922), (496, 12976), (499, 12991), (506, 13018), (517, 13072), (546, 13144), (547, 13147),

Gene: Beemo\_13 Start: 8164, Stop: 9930, Start Num: 66

Candidate Starts for Beemo\_13:

(Start: 49 @8143 has 222 MA's), (Start: 62 @8158 has 20 MA's), (Start: 66 @8164 has 5 MA's), (123, 8275), (146, 8374), (185, 8536), (204, 8608), (217, 8662), (225, 8701), (244, 8773), (256, 8863), (261, 8887), (289, 9004), (295, 9019), (316, 9127), (336, 9202), (342, 9238), (357, 9298), (386, 9418), (392, 9439), (408, 9478), (420, 9532), (421, 9535), (425, 9553), (440, 9607), (450, 9637), (455, 9649), (490, 9739), (497, 9757), (529, 9886), (546, 9913), (547, 9916),

Gene: BeesKnees\_12 Start: 7055, Stop: 8743, Start Num: 48

Candidate Starts for BeesKnees\_12:

(Start: 48 @7055 has 363 MA's), (175, 7319), (176, 7343), (217, 7505), (223, 7538), (244, 7613), (256, 7703), (261, 7727), (268, 7754), (277, 7802), (297, 7871), (315, 7958), (316, 7967), (329, 8018), (390, 8243), (393, 8252), (395, 8264), (411, 8306), (416, 8327), (423, 8354), (455, 8462), (490, 8552), (514, 8657),

Gene: Belenaria\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Belenaria\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: BellusTerra\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for BellusTerra\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Benedict\_9 Start: 6015, Stop: 7766, Start Num: 28

Candidate Starts for Benedict\_9:

(Start: 26 @5988 has 19 MA's), (Start: 28 @6015 has 30 MA's), (52, 6075), (60, 6084), (82, 6123), (121, 6198), (123, 6204), (171, 6336), (185, 6411), (186, 6414), (231, 6588), (256, 6720), (266, 6765), (281, 6843), (284, 6849), (322, 7014), (331, 7047), (337, 7068), (383, 7242), (389, 7266), (420, 7368),

(425, 7389), (440, 7443), (450, 7473), (455, 7485), (472, 7539), (527, 7719), (529, 7722), (548, 7755), (550, 7761),

Gene: BengiVuitton\_13 Start: 7865, Stop: 9655, Start Num: 49

Candidate Starts for BengiVuitton\_13:

(12, 7691), (Start: 49 @7865 has 222 MA's), (110, 7973), (120, 7994), (143, 8084), (146, 8102), (156, 8126), (217, 8390), (244, 8498), (256, 8588), (261, 8612), (289, 8729), (295, 8744), (362, 9044), (414, 9230), (420, 9257), (455, 9374), (529, 9611), (546, 9638), (547, 9641),

Gene: Benvolio\_12 Start: 7541, Stop: 9328, Start Num: 49

Candidate Starts for Benvolio\_12:

(12, 7367), (Start: 49 @7541 has 222 MA's), (110, 7649), (120, 7670), (146, 7778), (171, 7865), (216, 8060), (217, 8063), (244, 8171), (256, 8261), (261, 8285), (289, 8402), (295, 8417), (362, 8717), (414, 8903), (420, 8930), (425, 8951), (455, 9047), (529, 9284), (546, 9311), (547, 9314),

Gene: Bernal13\_3 Start: 724, Stop: 2607, Start Num: 38

Candidate Starts for Bernal13\_3:

(5, 475), (Start: 38 @724 has 7 MA's), (86, 805), (92, 814), (129, 910), (133, 922), (171, 1054), (205, 1201), (206, 1207), (211, 1234), (217, 1252), (234, 1315), (259, 1450), (300, 1651), (323, 1708), (384, 1927), (399, 1978), (404, 2002), (417, 2053), (443, 2182), (451, 2221), (455, 2230), (471, 2281), (481, 2320), (491, 2407), (496, 2419), (516, 2512), (519, 2527), (520, 2530),

Gene: Berrie\_2 Start: 532, Stop: 2238, Start Num: 71

Candidate Starts for Berrie\_2:

(Start: 71 @532 has 40 MA's), (203, 904), (217, 961), (228, 1009), (249, 1099), (284, 1273), (350, 1525), (383, 1648), (434, 1828), (455, 1903), (460, 1918), (496, 2053), (513, 2137), (517, 2149), (519, 2161),

Gene: BiancaTri92\_14 Start: 9218, Stop: 11005, Start Num: 49

Candidate Starts for BiancaTri92\_14:

(Start: 49 @9218 has 222 MA's), (110, 9326), (120, 9347), (146, 9455), (171, 9542), (181, 9596), (216, 9737), (217, 9740), (225, 9779), (244, 9848), (256, 9938), (261, 9962), (289, 10079), (295, 10094), (362, 10394), (383, 10481), (414, 10580), (420, 10607), (425, 10628), (455, 10724), (529, 10961), (546, 10988), (547, 10991),

Gene: BigChungus\_3 Start: 928, Stop: 2604, Start Num: 96

Candidate Starts for BigChungus\_3:

(Start: 96 @928 has 69 MA's), (Start: 119 @979 has 1 MA's), (125, 1000), (150, 1045), (162, 1087), (171, 1123), (184, 1189), (206, 1285), (214, 1321), (217, 1330), (218, 1333), (227, 1381), (230, 1393), (249, 1480), (286, 1660), (299, 1714), (341, 1894), (346, 1927), (375, 1993), (384, 2059), (386, 2065), (411, 2149), (434, 2230), (440, 2263), (465, 2332), (496, 2410), (506, 2452), (518, 2509), (523, 2530), (527, 2536), (547, 2590), (548, 2593),

Gene: BigMau\_13 Start: 7221, Stop: 8909, Start Num: 55

Candidate Starts for BigMau\_13:

(Start: 55 @7221 has 24 MA's), (149, 7392), (Start: 153 @7401 has 2 MA's), (175, 7485), (177, 7512), (180, 7521), (217, 7671), (223, 7704), (244, 7779), (256, 7869), (261, 7893), (268, 7920), (277, 7968), (315, 8124), (329, 8184), (390, 8409), (393, 8418), (395, 8430), (411, 8472), (416, 8493), (423, 8520), (455, 8628), (490, 8718), (514, 8823),

Gene: BigPaolini\_12 Start: 7646, Stop: 9334, Start Num: 48

Candidate Starts for BigPaolini\_12:

(Start: 48 @7646 has 363 MA's), (175, 7910), (176, 7934), (217, 8096), (223, 8129), (244, 8204), (256, 8294), (261, 8318), (268, 8345), (277, 8393), (297, 8462), (315, 8549), (316, 8558), (328, 8606), (329, 8609), (393, 8843), (395, 8855), (411, 8897), (416, 8918), (423, 8945), (455, 9053), (490, 9143), (514, 9248),

Gene: Bigfoot\_10 Start: 6745, Stop: 8433, Start Num: 48

Candidate Starts for Bigfoot\_10:

(Start: 48 @6745 has 363 MA's), (Start: 153 @6925 has 2 MA's), (175, 7009), (180, 7045), (185, 7072), (217, 7195), (244, 7303), (256, 7393), (261, 7417), (277, 7492), (297, 7561), (315, 7648), (329, 7708), (390, 7933), (393, 7942), (395, 7954), (411, 7996), (416, 8017), (423, 8044), (455, 8152), (490, 8242), (514, 8347),

Gene: BillDoor\_6 Start: 1115, Stop: 2794, Start Num: 96

Candidate Starts for BillDoor\_6:

(Start: 96 @1115 has 69 MA's), (Start: 119 @1166 has 1 MA's), (125, 1187), (Start: 126 @1190 has 2 MA's), (150, 1232), (169, 1298), (179, 1358), (184, 1379), (185, 1388), (206, 1475), (214, 1511), (217, 1520), (227, 1571), (249, 1670), (258, 1724), (267, 1760), (299, 1904), (309, 1940), (317, 1979), (347, 2126), (362, 2150), (384, 2249), (410, 2333), (434, 2420), (463, 2516), (486, 2564), (492, 2588), (505, 2639), (523, 2720), (547, 2780), (548, 2783),

Gene: BillKnuckles\_12 Start: 7662, Stop: 9350, Start Num: 48

Candidate Starts for BillKnuckles\_12:

(Start: 48 @7662 has 363 MA's), (Start: 153 @7842 has 2 MA's), (175, 7926), (180, 7962), (217, 8112), (223, 8145), (244, 8220), (256, 8310), (261, 8334), (268, 8361), (299, 8502), (329, 8625), (383, 8823), (390, 8850), (413, 8922), (416, 8934), (421, 8955), (437, 9012), (455, 9069), (490, 9159), (491, 9162), (517, 9273), (518, 9276), (529, 9306), (547, 9336), (548, 9339),

Gene: Bircsak\_11 Start: 7206, Stop: 8894, Start Num: 48

Candidate Starts for Bircsak\_11:

(Start: 48 @7206 has 363 MA's), (175, 7470), (176, 7494), (217, 7656), (223, 7689), (244, 7764), (256, 7854), (261, 7878), (268, 7905), (277, 7953), (315, 8109), (329, 8169), (390, 8394), (393, 8403), (395, 8415), (411, 8457), (416, 8478), (423, 8505), (455, 8613), (490, 8703), (514, 8808),

Gene: Birdsong\_2 Start: 486, Stop: 2147, Start Num: 96

Candidate Starts for Birdsong\_2:

(24, 324), (29, 357), (30, 360), (34, 378), (Start: 50 @411 has 3 MA's), (58, 420), (Start: 76 @453 has 1 MA's), (Start: 96 @486 has 69 MA's), (Start: 119 @537 has 1 MA's), (123, 549), (130, 576), (169, 666), (184, 747), (185, 756), (186, 759), (194, 792), (206, 843), (214, 879), (215, 882), (217, 888), (220, 903), (221, 906), (225, 924), (229, 942), (244, 996), (251, 1047), (256, 1071), (275, 1158), (290, 1218), (295, 1227), (299, 1263), (309, 1299), (317, 1338), (318, 1341), (324, 1371), (354, 1503), (362, 1509), (379, 1572), (389, 1626), (394, 1644), (411, 1701), (414, 1713), (420, 1740), (442, 1821), (453, 1851), (467, 1890), (474, 1914), (492, 1950), (496, 1962), (497, 1965), (517, 2058), (518, 2061), (521, 2079), (534, 2100), (543, 2121), (548, 2136),

Gene: Biskit\_5 Start: 1110, Stop: 2789, Start Num: 96

Candidate Starts for Biskit\_5:

(Start: 96 @1110 has 69 MA's), (Start: 119 @1161 has 1 MA's), (125, 1182), (148, 1221), (171, 1308), (179, 1353), (184, 1374), (185, 1383), (202, 1455), (214, 1506), (217, 1515), (227, 1566), (249, 1665), (251, 1686), (258, 1719), (267, 1755), (299, 1899), (309, 1935), (317, 1974), (324, 2007), (337, 2055), (346, 2112), (362, 2145), (375, 2178), (384, 2244), (386, 2250), (407, 2316), (410, 2328), (434, 2415), (463, 2511), (486, 2559), (505, 2634), (523, 2715), (547, 2775), (548, 2778),

Gene: Blackbeetle\_35 Start: 10438, Stop: 12180, Start Num: 96

Candidate Starts for Blackbeetle\_35:

(Start: 96 @10438 has 69 MA's), (149, 10555), (162, 10600), (170, 10666), (172, 10681), (176, 10714), (177, 10717), (181, 10732), (186, 10756), (187, 10759), (194, 10789), (200, 10810), (202, 10828), (205, 10837), (212, 10873), (217, 10888), (227, 10933), (242, 10975), (246, 11014), (249, 11026), (251, 11047), (262, 11098), (268, 11119), (324, 11341), (346, 11446), (347, 11455), (366, 11488), (375, 11509), (376, 11512), (379, 11539), (383, 11569), (386, 11581), (390, 11596), (393, 11605), (394, 11611), (407, 11653), (409, 11662), (412, 11677), (416, 11692), (434, 11752), (440, 11791), (451, 11824), (463, 11854), (464, 11857), (485, 11941), (496, 11995), (499, 12010), (506, 12037), (517, 12091), (546, 12163), (547, 12166),

Gene: Blackmoor\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Blackmoor\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Blinn1\_15 Start: 7566, Stop: 9320, Start Num: 49

Candidate Starts for Blinn1\_15:

(Start: 49 @7566 has 222 MA's), (146, 7797), (162, 7848), (171, 7884), (185, 7959), (217, 8082), (225, 8121), (244, 8190), (247, 8214), (248, 8217), (256, 8280), (261, 8304), (284, 8403), (285, 8406), (294, 8433), (295, 8436), (365, 8721), (386, 8808), (389, 8820), (411, 8883), (420, 8922), (425, 8943), (450, 9027), (455, 9039), (529, 9276), (546, 9303), (547, 9306),

Gene: BluSpix\_11 Start: 7005, Stop: 8693, Start Num: 48

Candidate Starts for BluSpix\_11:

(Start: 48 @7005 has 363 MA's), (Start: 153 @7185 has 2 MA's), (175, 7269), (176, 7293), (217, 7455), (223, 7488), (244, 7563), (256, 7653), (261, 7677), (268, 7704), (277, 7752), (315, 7908), (329, 7968), (390, 8193), (393, 8202), (395, 8214), (411, 8256), (416, 8277), (423, 8304), (455, 8412), (490, 8502), (514, 8607),

Gene: Blue\_11 Start: 7112, Stop: 8800, Start Num: 48

Candidate Starts for Blue\_11:

(Start: 48 @7112 has 363 MA's), (69, 7133), (Start: 153 @7292 has 2 MA's), (175, 7376), (180, 7412), (185, 7439), (217, 7562), (223, 7595), (244, 7670), (256, 7760), (261, 7784), (268, 7811), (277, 7859), (297, 7928), (312, 8003), (315, 8015), (329, 8075), (390, 8300), (393, 8309), (395, 8321), (411, 8363), (416, 8384), (423, 8411), (455, 8519), (490, 8609), (514, 8714),

Gene: Blue7\_15 Start: 7507, Stop: 9261, Start Num: 49

Candidate Starts for Blue7\_15:

(Start: 49 @7507 has 222 MA's), (123, 7639), (146, 7738), (156, 7762), (162, 7789), (171, 7825), (185, 7900), (217, 8023), (219, 8038), (225, 8062), (244, 8131), (247, 8155), (248, 8158), (256, 8221), (261, 8245), (294, 8374), (295, 8377), (319, 8488), (360, 8650), (383, 8737), (386, 8749), (389, 8761), (408, 8809), (411, 8824), (420, 8863), (425, 8884), (450, 8968), (455, 8980), (529, 9217), (546, 9244), (547, 9247),

Gene: BlueBird\_12 Start: 6496, Stop: 8193, Start Num: 48

Candidate Starts for BlueBird\_12:

(Start: 48 @6496 has 363 MA's), (Start: 68 @6520 has 1 MA's), (95, 6568), (175, 6766), (185, 6829), (213, 6940), (217, 6952), (225, 6991), (230, 7003), (244, 7060), (247, 7084), (256, 7150), (258, 7159), (275, 7240), (281, 7267), (315, 7405), (337, 7492), (342, 7525), (365, 7591), (383, 7666), (389, 7690), (390, 7693), (392, 7699), (394, 7708), (408, 7741), (411, 7756), (425, 7816), (455, 7912), (469, 7957),

(472, 7966), (518, 8119), (529, 8149), (547, 8179), (548, 8182),

Gene: Bluefalcon\_8 Start: 6239, Stop: 8017, Start Num: 26

Candidate Starts for Bluefalcon\_8:

(Start: 26 @6239 has 19 MA's), (Start: 28 @6266 has 30 MA's), (60, 6335), (121, 6449), (123, 6455), (171, 6587), (185, 6662), (186, 6665), (231, 6839), (238, 6863), (256, 6971), (266, 7016), (281, 7094), (284, 7100), (285, 7103), (322, 7265), (324, 7271), (331, 7298), (337, 7319), (383, 7493), (389, 7517), (390, 7520), (392, 7526), (411, 7580), (414, 7592), (420, 7619), (425, 7640), (440, 7694), (450, 7724), (455, 7736), (529, 7973), (548, 8006), (550, 8012),

Gene: Bob3\_10 Start: 6561, Stop: 8249, Start Num: 48

Candidate Starts for Bob3\_10:

(Start: 48 @6561 has 363 MA's), (175, 6825), (176, 6849), (217, 7011), (223, 7044), (244, 7119), (256, 7209), (261, 7233), (268, 7260), (277, 7308), (315, 7464), (329, 7524), (390, 7749), (393, 7758), (395, 7770), (411, 7812), (416, 7833), (423, 7860), (455, 7968), (490, 8058), (514, 8163),

Gene: BobSwaget\_15 Start: 9121, Stop: 10902, Start Num: 49

Candidate Starts for BobSwaget\_15:

(18, 9001), (35, 9094), (Start: 49 @9121 has 222 MA's), (123, 9253), (140, 9328), (146, 9352), (162, 9403), (216, 9634), (217, 9637), (225, 9676), (244, 9745), (256, 9835), (261, 9859), (284, 9958), (294, 9988), (295, 9991), (408, 10450), (411, 10465), (414, 10477), (420, 10504), (425, 10525), (455, 10621), (529, 10858), (546, 10885), (547, 10888),

Gene: BobbyDazzler\_8 Start: 3413, Stop: 4909, Start Num: 153

Candidate Starts for BobbyDazzler\_8:

(Start: 51 @3227 has 139 MA's), (Start: 153 @3413 has 2 MA's), (171, 3485), (175, 3497), (176, 3521), (180, 3533), (219, 3701), (238, 3761), (247, 3818), (248, 3821), (256, 3869), (313, 4124), (319, 4142), (331, 4196), (376, 4340), (383, 4382), (392, 4415), (414, 4484), (455, 4628), (469, 4673), (496, 4733), (517, 4832), (529, 4865), (546, 4892), (547, 4895), (548, 4898),

Gene: BogosyJay\_13 Start: 7900, Stop: 9687, Start Num: 49

Candidate Starts for BogosyJay\_13:

(Start: 49 @7900 has 222 MA's), (Start: 62 @7915 has 20 MA's), (123, 8032), (146, 8131), (185, 8293), (204, 8365), (217, 8419), (225, 8458), (244, 8530), (256, 8620), (261, 8644), (289, 8761), (295, 8776), (316, 8884), (336, 8959), (357, 9055), (367, 9091), (386, 9175), (392, 9196), (408, 9235), (420, 9289), (425, 9310), (450, 9394), (455, 9406), (491, 9499), (497, 9514), (529, 9643), (546, 9670), (547, 9673),

Gene: Bombshell\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Bombshell\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Bonamassa\_9 Start: 6188, Stop: 7939, Start Num: 28

Candidate Starts for Bonamassa\_9:

(Start: 26 @6161 has 19 MA's), (Start: 28 @6188 has 30 MA's), (60, 6257), (121, 6371), (123, 6377), (171, 6509), (185, 6584), (186, 6587), (194, 6620), (204, 6653), (231, 6761), (238, 6785), (244, 6818), (256, 6893), (266, 6938), (281, 7016), (284, 7022), (331, 7220), (337, 7241), (383, 7415), (389, 7439), (390, 7442), (411, 7502), (414, 7514), (420, 7541), (425, 7562), (450, 7646), (455, 7658), (529, 7895), (548, 7928), (550, 7934),

Gene: Bonanza\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Bonanza\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (247, 3747), (248, 3750), (256, 3798), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Bones\_11 Start: 6756, Stop: 8444, Start Num: 48

Candidate Starts for Bones\_11:

(Start: 48 @6756 has 363 MA's), (175, 7020), (176, 7044), (217, 7206), (223, 7239), (244, 7314), (256, 7404), (261, 7428), (277, 7503), (315, 7659), (316, 7668), (328, 7716), (329, 7719), (390, 7944), (393, 7953), (395, 7965), (411, 8007), (416, 8028), (423, 8055), (455, 8163), (490, 8253), (514, 8358),

Gene: Boohoo\_14 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for Boohoo\_14:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496, 8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: Bovely\_6 Start: 2408, Stop: 4054, Start Num: 47

Candidate Starts for Bovely\_6:

(Start: 47 @2408 has 87 MA's), (Start: 62 @2426 has 20 MA's), (162, 2630), (179, 2711), (211, 2846), (218, 2867), (242, 2954), (251, 3026), (256, 3050), (278, 3149), (295, 3203), (326, 3302), (340, 3362), (386, 3524), (388, 3533), (414, 3623), (420, 3650), (441, 3728), (442, 3731), (455, 3770), (463, 3791), (465, 3797), (469, 3815), (503, 3911), (517, 3971),

Gene: Bowden\_7 Start: 2249, Stop: 3895, Start Num: 47

Candidate Starts for Bowden\_7:

(Start: 47 @2249 has 87 MA's), (175, 2519), (176, 2543), (179, 2552), (202, 2645), (206, 2660), (211, 2687), (218, 2708), (242, 2795), (251, 2867), (256, 2891), (278, 2990), (286, 3026), (313, 3131), (332, 3167), (340, 3203), (343, 3221), (382, 3350), (383, 3353), (386, 3365), (388, 3374), (391, 3383), (414, 3464), (420, 3491), (426, 3518), (442, 3572), (455, 3611), (463, 3632), (469, 3656), (478, 3680), (496, 3716), (517, 3812), (550, 3890),

Gene: Bowtie\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Bowtie\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Bradissa\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Bradissa\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (201, 929), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (256, 1175), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (299, 1382), (308, 1415), (337, 1490), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Bradman\_11 Start: 6379, Stop: 8160, Start Num: 49



Candidate Starts for Bradman\_11:

(Start: 49 @6379 has 222 MA's), (Start: 126 @6523 has 2 MA's), (137, 6568), (146, 6610), (156, 6634), (171, 6697), (181, 6751), (216, 6892), (217, 6895), (225, 6934), (244, 7003), (256, 7093), (261, 7117), (294, 7246), (295, 7249), (355, 7522), (420, 7762), (425, 7783), (450, 7867), (455, 7879), (529, 8116), (546, 8143), (547, 8146), (548, 8149),

Gene: Bradshaw\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Bradshaw\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Brataylor\_7 Start: 2379, Stop: 4025, Start Num: 47

Candidate Starts for Brataylor\_7:

(Start: 47 @2379 has 87 MA's), (Start: 62 @2397 has 20 MA's), (162, 2601), (171, 2637), (211, 2817), (218, 2838), (229, 2883), (242, 2925), (251, 2997), (256, 3021), (278, 3120), (281, 3135), (289, 3159), (291, 3165), (340, 3333), (383, 3483), (388, 3504), (392, 3516), (414, 3594), (442, 3702), (455, 3741), (463, 3762), (465, 3768), (469, 3786), (517, 3942),

Gene: BreSam8\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for BreSam8\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: BritBrat\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for BritBrat\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Briton15\_13 Start: 7067, Stop: 8755, Start Num: 48

Candidate Starts for Briton15\_13:

(Start: 48 @7067 has 363 MA's), (175, 7331), (176, 7355), (217, 7517), (223, 7550), (244, 7625), (256, 7715), (261, 7739), (277, 7814), (297, 7883), (315, 7970), (316, 7979), (329, 8030), (393, 8264), (395, 8276), (411, 8318), (416, 8339), (423, 8366), (455, 8474), (490, 8564), (514, 8669),

Gene: Broseidon\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Broseidon\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Bruiser\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Bruiser\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256,

7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Bruns\_10 Start: 6924, Stop: 8612, Start Num: 55

Candidate Starts for Bruns\_10:

(Start: 55 @6924 has 24 MA's), (Start: 153 @7104 has 2 MA's), (175, 7188), (177, 7215), (180, 7224), (217, 7374), (223, 7407), (244, 7482), (256, 7572), (261, 7596), (268, 7623), (277, 7671), (315, 7827), (329, 7887), (393, 8121), (395, 8133), (411, 8175), (416, 8196), (423, 8223), (455, 8331), (490, 8421), (514, 8526),

Gene: BrutonGaster\_18 Start: 5409, Stop: 7157, Start Num: 88

Candidate Starts for BrutonGaster\_18:

(Start: 88 @5409 has 21 MA's), (106, 5439), (147, 5529), (160, 5568), (197, 5793), (202, 5808), (205, 5817), (216, 5865), (221, 5892), (267, 6114), (270, 6132), (305, 6282), (327, 6342), (328, 6345), (332, 6357), (383, 6606), (384, 6612), (413, 6717), (414, 6720), (420, 6747), (434, 6789), (452, 6864), (465, 6900), (472, 6924), (533, 7113), (535, 7119),

Gene: BryanRecycles\_7 Start: 2562, Stop: 4208, Start Num: 47

Candidate Starts for BryanRecycles\_7:

(Start: 47 @2562 has 87 MA's), (Start: 62 @2580 has 20 MA's), (162, 2784), (179, 2865), (211, 3000), (218, 3021), (229, 3066), (242, 3108), (251, 3180), (256, 3204), (275, 3291), (278, 3303), (295, 3357), (326, 3456), (340, 3516), (386, 3678), (388, 3687), (414, 3777), (422, 3810), (441, 3882), (442, 3885), (455, 3924), (463, 3945), (465, 3951), (469, 3969), (503, 4065), (517, 4125),

Gene: Bryce\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Bryce\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (247, 3747), (248, 3750), (256, 3798), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: BubbleTrouble\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for BubbleTrouble\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Bud\_12 Start: 8030, Stop: 9793, Start Num: 49

Candidate Starts for Bud\_12:

(Start: 49 @8030 has 222 MA's), (Start: 66 @8051 has 5 MA's), (110, 8138), (146, 8267), (156, 8291), (171, 8354), (204, 8498), (216, 8549), (217, 8552), (244, 8663), (247, 8687), (248, 8690), (256, 8753), (258, 8762), (261, 8777), (289, 8894), (295, 8909), (304, 8969), (326, 9053), (386, 9281), (389, 9293), (408, 9341), (411, 9356), (420, 9395), (425, 9416), (437, 9455), (450, 9500), (455, 9512), (529, 9749), (546, 9776),

Gene: Bugatti\_11 Start: 6496, Stop: 8193, Start Num: 48

Candidate Starts for Bugatti\_11:

(Start: 48 @6496 has 363 MA's), (Start: 68 @6520 has 1 MA's), (95, 6568), (175, 6766), (185, 6829), (213, 6940), (217, 6952), (225, 6991), (230, 7003), (244, 7060), (247, 7084), (256, 7150), (258, 7159), (275, 7240), (281, 7267), (315, 7405), (337, 7492), (342, 7525), (365, 7591), (383, 7666), (389, 7690),

(390, 7693), (392, 7699), (394, 7708), (408, 7741), (411, 7756), (425, 7816), (455, 7912), (469, 7957), (472, 7966), (518, 8119), (529, 8149), (547, 8179), (548, 8182),

Gene: Buggy\_14 Start: 7887, Stop: 9674, Start Num: 49

Candidate Starts for Buggy\_14:

(Start: 49 @7887 has 222 MA's), (110, 7995), (120, 8016), (137, 8082), (138, 8088), (146, 8124), (156, 8148), (171, 8211), (216, 8406), (217, 8409), (244, 8517), (256, 8607), (261, 8631), (277, 8706), (289, 8748), (295, 8763), (362, 9063), (414, 9249), (420, 9276), (425, 9297), (455, 9393), (529, 9630), (547, 9660),

Gene: Bumblebee11\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Bumblebee11\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (195, 7268), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (326, 7847), (337, 7889), (342, 7922), (365, 7988), (382, 8060), (383, 8063), (389, 8087), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: Burger\_10 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Burger\_10:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Burnsey\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Burnsey\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (416, 2358), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Burton\_12 Start: 7124, Stop: 8812, Start Num: 55

Candidate Starts for Burton\_12:

(Start: 55 @7124 has 24 MA's), (149, 7295), (Start: 153 @7304 has 2 MA's), (175, 7388), (177, 7415), (180, 7424), (217, 7574), (223, 7607), (244, 7682), (256, 7772), (261, 7796), (268, 7823), (277, 7871), (315, 8027), (329, 8087), (390, 8312), (393, 8321), (395, 8333), (411, 8375), (416, 8396), (423, 8423), (455, 8531), (490, 8621), (514, 8726),

Gene: Button\_5 Start: 1178, Stop: 2878, Start Num: 94

Candidate Starts for Button\_5:

(Start: 94 @1178 has 8 MA's), (Start: 119 @1232 has 1 MA's), (125, 1253), (134, 1280), (165, 1355), (171, 1391), (186, 1469), (206, 1553), (208, 1568), (217, 1598), (227, 1649), (249, 1748), (267, 1838), (286, 1928), (299, 1982), (317, 2057), (342, 2171), (346, 2195), (375, 2261), (382, 2318), (383, 2321), (384, 2327), (386, 2333), (407, 2399), (411, 2417), (434, 2498), (435, 2504), (442, 2537), (463, 2594), (486, 2642), (516, 2771), (517, 2774), (547, 2864), (548, 2867),

Gene: Buttons\_12 Start: 7194, Stop: 8882, Start Num: 48

Candidate Starts for Buttons\_12:

(Start: 48 @7194 has 363 MA's), (Start: 153 @7374 has 2 MA's), (175, 7458), (180, 7494), (185, 7521), (217, 7644), (223, 7677), (244, 7752), (256, 7842), (261, 7866), (268, 7893), (277, 7941), (315,

8097), (329, 8157), (390, 8382), (393, 8391), (395, 8403), (411, 8445), (416, 8466), (423, 8493), (455, 8601), (490, 8691), (514, 8796),

Gene: Buttrmlkdreams\_4 Start: 1111, Stop: 2790, Start Num: 96

Candidate Starts for Buttrmlkdreams\_4:

(Start: 96 @1111 has 69 MA's), (Start: 119 @1162 has 1 MA's), (125, 1183), (148, 1222), (171, 1309), (179, 1354), (184, 1375), (185, 1384), (202, 1456), (214, 1507), (217, 1516), (227, 1567), (249, 1666), (251, 1687), (258, 1720), (267, 1756), (299, 1900), (309, 1936), (317, 1975), (324, 2008), (337, 2056), (346, 2113), (362, 2146), (375, 2179), (384, 2245), (386, 2251), (407, 2317), (410, 2329), (434, 2416), (463, 2512), (486, 2560), (505, 2635), (523, 2716), (547, 2776), (548, 2779),

Gene: BuzzBuzz\_12 Start: 7041, Stop: 8741, Start Num: 51

Candidate Starts for BuzzBuzz\_12:

(Start: 51 @7041 has 139 MA's), (Start: 81 @7089 has 4 MA's), (149, 7224), (194, 7416), (217, 7503), (256, 7701), (275, 7791), (294, 7854), (329, 8016), (383, 8214), (389, 8238), (390, 8241), (411, 8304), (416, 8325), (425, 8364), (455, 8460), (472, 8514), (490, 8550), (529, 8697), (547, 8727), (548, 8730),

Gene: Bxb1\_10 Start: 7031, Stop: 8719, Start Num: 48

Candidate Starts for Bxb1\_10:

(Start: 48 @7031 has 363 MA's), (175, 7295), (176, 7319), (217, 7481), (223, 7514), (244, 7589), (256, 7679), (261, 7703), (299, 7871), (328, 7991), (329, 7994), (383, 8192), (390, 8219), (413, 8291), (416, 8303), (421, 8324), (437, 8381), (455, 8438), (490, 8528), (491, 8531), (517, 8642), (518, 8645), (529, 8675), (547, 8705), (548, 8708),

Gene: Bxz2\_13 Start: 7051, Stop: 8751, Start Num: 51

Candidate Starts for Bxz2\_13:

(Start: 51 @7051 has 139 MA's), (Start: 81 @7099 has 4 MA's), (149, 7234), (194, 7426), (217, 7513), (256, 7711), (275, 7801), (294, 7864), (329, 8026), (383, 8224), (389, 8248), (390, 8251), (411, 8314), (416, 8335), (425, 8374), (455, 8470), (472, 8524), (490, 8560), (529, 8707), (547, 8737), (548, 8740),

Gene: C3\_10 Start: 7374, Stop: 9164, Start Num: 49

Candidate Starts for C3\_10:

(25, 7296), (36, 7347), (Start: 49 @7374 has 222 MA's), (110, 7482), (120, 7503), (137, 7569), (146, 7611), (156, 7635), (185, 7773), (216, 7893), (217, 7896), (244, 8007), (256, 8097), (261, 8121), (275, 8187), (285, 8223), (294, 8250), (295, 8253), (362, 8553), (383, 8640), (392, 8673), (414, 8739), (420, 8766), (425, 8787), (450, 8871), (455, 8883), (491, 8976), (497, 8991), (529, 9120), (546, 9147), (547, 9150),

Gene: CRB1\_12 Start: 7407, Stop: 9194, Start Num: 49

Candidate Starts for CRB1\_12:

(Start: 49 @7407 has 222 MA's), (110, 7515), (120, 7536), (143, 7626), (146, 7644), (171, 7731), (181, 7785), (204, 7875), (216, 7926), (217, 7929), (244, 8037), (256, 8127), (261, 8151), (289, 8268), (295, 8283), (362, 8583), (414, 8769), (420, 8796), (425, 8817), (455, 8913), (529, 9150), (547, 9180),

Gene: CactusRose\_10 Start: 6744, Stop: 8432, Start Num: 48

Candidate Starts for CactusRose\_10:

(Start: 48 @6744 has 363 MA's), (Start: 153 @6924 has 2 MA's), (175, 7008), (180, 7044), (185, 7071), (217, 7194), (244, 7302), (256, 7392), (261, 7416), (277, 7491), (297, 7560), (315, 7647), (329, 7707), (390, 7932), (393, 7941), (395, 7953), (411, 7995), (416, 8016), (423, 8043), (455, 8151), (490, 8241), (514, 8346),

Gene: Caelakin\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Caelakin\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Caelum\_7 Start: 2093, Stop: 3742, Start Num: 47

Candidate Starts for Caelum\_7:

(Start: 47 @2093 has 87 MA's), (100, 2180), (106, 2192), (162, 2318), (175, 2366), (179, 2399), (181, 2408), (202, 2492), (204, 2498), (206, 2507), (211, 2534), (218, 2555), (234, 2615), (242, 2642), (251, 2714), (256, 2738), (278, 2837), (286, 2873), (295, 2891), (331, 3011), (332, 3014), (340, 3050), (343, 3068), (388, 3221), (392, 3233), (408, 3284), (414, 3311), (442, 3419), (455, 3458), (463, 3479), (469, 3503), (516, 3656), (517, 3659), (550, 3737),

Gene: Caliburn\_6 Start: 2382, Stop: 4028, Start Num: 47

Candidate Starts for Caliburn\_6:

(Start: 47 @2382 has 87 MA's), (Start: 62 @2400 has 20 MA's), (162, 2604), (179, 2685), (211, 2820), (218, 2841), (242, 2928), (251, 3000), (256, 3024), (278, 3123), (295, 3177), (326, 3276), (340, 3336), (386, 3498), (388, 3507), (414, 3597), (420, 3624), (441, 3702), (442, 3705), (455, 3744), (463, 3765), (465, 3771), (469, 3789), (503, 3885), (517, 3945),

Gene: Camperdownii\_10 Start: 6501, Stop: 8198, Start Num: 48

Candidate Starts for Camperdownii\_10:

(Start: 48 @6501 has 363 MA's), (Start: 68 @6525 has 1 MA's), (Start: 126 @6648 has 2 MA's), (167, 6738), (175, 6771), (194, 6870), (216, 6954), (217, 6957), (225, 6996), (244, 7065), (247, 7089), (256, 7155), (275, 7245), (315, 7410), (337, 7497), (342, 7530), (365, 7596), (382, 7668), (383, 7671), (389, 7695), (408, 7746), (411, 7761), (425, 7821), (455, 7917), (478, 7986), (527, 8151), (529, 8154), (547, 8184), (548, 8187),

Gene: Candra\_15 Start: 7566, Stop: 9320, Start Num: 49

Candidate Starts for Candra\_15:

(Start: 49 @7566 has 222 MA's), (146, 7797), (162, 7848), (171, 7884), (185, 7959), (217, 8082), (225, 8121), (244, 8190), (247, 8214), (248, 8217), (256, 8280), (261, 8304), (284, 8403), (285, 8406), (294, 8433), (295, 8436), (365, 8721), (386, 8808), (389, 8820), (411, 8883), (420, 8922), (425, 8943), (450, 9027), (455, 9039), (529, 9276), (546, 9303), (547, 9306),

Gene: Cappuccino\_2 Start: 593, Stop: 2281, Start Num: 75

Candidate Starts for Cappuccino\_2:

(75, 593), (169, 794), (199, 938), (206, 962), (217, 1007), (241, 1094), (249, 1148), (255, 1187), (284, 1322), (308, 1424), (343, 1535), (373, 1646), (383, 1697), (455, 1952), (460, 1967), (517, 2192), (519, 2204), (524, 2219),

Gene: Caprice\_32 Start: 10508, Stop: 12250, Start Num: 96

Candidate Starts for Caprice\_32:

(Start: 96 @10508 has 69 MA's), (149, 10625), (162, 10670), (170, 10736), (172, 10751), (176, 10784), (177, 10787), (181, 10802), (186, 10826), (187, 10829), (194, 10859), (200, 10880), (202, 10898), (205, 10907), (212, 10943), (217, 10958), (227, 11003), (242, 11045), (246, 11084), (249, 11096), (251, 11117), (262, 11168), (268, 11189), (324, 11411), (346, 11516), (347, 11525), (366, 11558), (375, 11579), (376, 11582), (379, 11609), (383, 11639), (386, 11651), (390, 11666), (393, 11675), (394, 11681), (407, 11723), (409, 11732), (412, 11747), (416, 11762), (434, 11822), (440, 11861), (451, 11894), (463, 11924), (464, 11927), (485, 12011), (496, 12065), (499, 12080), (506, 12107), (517, 12161), (546, 12233), (547, 12236),

Gene: Caraxes\_11 Start: 6158, Stop: 7942, Start Num: 49

Candidate Starts for Caraxes\_11:

(Start: 49 @6158 has 222 MA's), (146, 6389), (171, 6476), (206, 6629), (216, 6671), (217, 6674), (244, 6785), (247, 6809), (248, 6812), (256, 6875), (261, 6899), (295, 7031), (392, 7451), (420, 7544), (425, 7565), (450, 7649), (455, 7661), (497, 7769), (529, 7898), (546, 7925), (547, 7928),

Gene: Cardigan\_30 Start: 10698, Stop: 12416, Start Num: 88

Candidate Starts for Cardigan\_30:

(Start: 88 @10698 has 21 MA's), (108, 10734), (152, 10830), (190, 11043), (194, 11070), (197, 11082), (205, 11106), (232, 11220), (270, 11415), (280, 11463), (305, 11565), (327, 11625), (332, 11640), (409, 11964), (414, 11985), (420, 12012), (440, 12087), (452, 12129), (516, 12330), (526, 12363),

Gene: Carlyle\_13 Start: 7592, Stop: 9280, Start Num: 48

Candidate Starts for Carlyle\_13:

(Start: 48 @7592 has 363 MA's), (175, 7856), (176, 7880), (217, 8042), (223, 8075), (244, 8150), (256, 8240), (261, 8264), (268, 8291), (277, 8339), (315, 8495), (329, 8555), (390, 8780), (393, 8789), (395, 8801), (411, 8843), (416, 8864), (423, 8891), (455, 8999), (490, 9089), (514, 9194),

Gene: Caron\_2 Start: 631, Stop: 2349, Start Num: 64

Candidate Starts for Caron\_2:

(Start: 64 @631 has 12 MA's), (150, 781), (199, 1003), (211, 1054), (217, 1072), (249, 1222), (359, 1678), (373, 1717), (408, 1852), (455, 2023), (460, 2038), (484, 2125), (503, 2203), (519, 2275),

Gene: Carsonalex\_5 Start: 1170, Stop: 2849, Start Num: 96

Candidate Starts for Carsonalex\_5:

(Start: 96 @1170 has 69 MA's), (Start: 119 @1221 has 1 MA's), (125, 1242), (150, 1287), (171, 1368), (184, 1434), (185, 1443), (202, 1515), (206, 1530), (214, 1566), (217, 1575), (227, 1626), (249, 1725), (258, 1779), (267, 1815), (299, 1959), (309, 1995), (317, 2034), (324, 2067), (342, 2148), (346, 2172), (362, 2205), (375, 2238), (382, 2295), (384, 2304), (410, 2388), (434, 2475), (463, 2571), (492, 2643), (496, 2655), (523, 2775), (547, 2835), (548, 2838),

Gene: Cashline\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Cashline\_2:

(Start: 51 @485 has 139 MA's), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (547, 2270), (548, 2273),

Gene: Cassia\_2 Start: 547, Stop: 2244, Start Num: 71

Candidate Starts for Cassia\_2:

(Start: 71 @547 has 40 MA's), (Start: 119 @634 has 1 MA's), (203, 919), (217, 976), (225, 1018), (249, 1114), (258, 1168), (284, 1288), (303, 1378), (324, 1417), (361, 1576), (383, 1663), (414, 1774), (434, 1843), (455, 1918), (460, 1933), (496, 2059), (513, 2143), (519, 2167),

Gene: Catalina\_13 Start: 8125, Stop: 9897, Start Num: 62

Candidate Starts for Catalina\_13:

(Start: 49 @8110 has 222 MA's), (Start: 62 @8125 has 20 MA's), (Start: 66 @8131 has 5 MA's), (123, 8242), (146, 8341), (185, 8503), (204, 8575), (217, 8629), (225, 8668), (244, 8740), (256, 8830), (261, 8854), (289, 8971), (295, 8986), (316, 9094), (336, 9169), (342, 9205), (357, 9265), (386, 9385), (392, 9406), (408, 9445), (420, 9499), (421, 9502), (425, 9520), (440, 9574), (450, 9604), (455, 9616), (490, 9706), (497, 9724), (529, 9853), (546, 9880), (547, 9883),

Gene: Caviar\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Caviar\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Celery\_8 Start: 2487, Stop: 4133, Start Num: 47

Candidate Starts for Celery\_8:

(Start: 45 @2478 has 1 MA's), (Start: 47 @2487 has 87 MA's), (Start: 48 @2490 has 363 MA's), (Start: 62 @2505 has 20 MA's), (162, 2709), (179, 2790), (202, 2883), (206, 2898), (211, 2925), (214, 2934), (218, 2946), (242, 3033), (256, 3129), (278, 3228), (326, 3381), (331, 3402), (340, 3441), (383, 3591), (384, 3597), (388, 3612), (408, 3675), (420, 3729), (421, 3732), (455, 3849), (465, 3876), (469, 3894), (489, 3936), (517, 4050),

Gene: Celeste\_6 Start: 2378, Stop: 4024, Start Num: 47

Candidate Starts for Celeste\_6:

(Start: 47 @2378 has 87 MA's), (Start: 62 @2396 has 20 MA's), (162, 2600), (171, 2636), (211, 2816), (218, 2837), (229, 2882), (242, 2924), (251, 2996), (256, 3020), (278, 3119), (281, 3134), (289, 3158), (291, 3164), (340, 3332), (383, 3482), (388, 3503), (392, 3515), (414, 3593), (442, 3701), (455, 3740), (463, 3761), (465, 3767), (469, 3785), (517, 3941),

Gene: Celia\_6 Start: 2655, Stop: 4316, Start Num: 47

Candidate Starts for Celia\_6:

(Start: 47 @2655 has 87 MA's), (141, 2838), (158, 2874), (195, 3045), (211, 3108), (225, 3165), (242, 3216), (251, 3288), (256, 3312), (263, 3345), (271, 3381), (278, 3411), (284, 3432), (304, 3525), (326, 3564), (332, 3588), (340, 3624), (353, 3684), (383, 3774), (388, 3795), (394, 3816), (421, 3915), (455, 4032), (469, 4077),

Gene: Cen1621\_2 Start: 604, Stop: 2328, Start Num: 64

Candidate Starts for Cen1621\_2:

(Start: 64 @604 has 12 MA's), (171, 841), (191, 943), (195, 964), (199, 976), (211, 1027), (217, 1045), (249, 1195), (383, 1744), (408, 1828), (411, 1843), (420, 1882), (442, 1963), (455, 1999), (460, 2014), (478, 2068), (503, 2179), (517, 2239), (519, 2251),

Gene: Centaur\_14 Start: 7923, Stop: 9710, Start Num: 49

Candidate Starts for Centaur\_14:

(10, 7737), (24, 7839), (Start: 49 @7923 has 222 MA's), (110, 8031), (120, 8052), (146, 8160), (204, 8391), (216, 8442), (217, 8445), (244, 8553), (256, 8643), (261, 8667), (295, 8799), (383, 9186), (420, 9312), (425, 9333), (450, 9417), (455, 9429), (529, 9666), (546, 9693), (547, 9696), (548, 9699), (549, 9702),

Gene: CentreCat\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for CentreCat\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Cerulean\_11 Start: 6862, Stop: 8559, Start Num: 48



Candidate Starts for Cerulean\_11:

(Start: 48 @6862 has 363 MA's), (Start: 68 @6886 has 1 MA's), (Start: 126 @7009 has 2 MA's), (167, 7099), (175, 7132), (216, 7315), (217, 7318), (225, 7357), (244, 7426), (247, 7450), (256, 7516), (275, 7606), (315, 7771), (337, 7858), (342, 7891), (365, 7957), (382, 8029), (383, 8032), (389, 8056), (408, 8107), (411, 8122), (420, 8161), (425, 8182), (455, 8278), (529, 8515), (547, 8545), (548, 8548),

Gene: Chadwick\_10 Start: 5983, Stop: 7734, Start Num: 28

Candidate Starts for Chadwick\_10:

(Start: 26 @5956 has 19 MA's), (Start: 28 @5983 has 30 MA's), (52, 6043), (60, 6052), (82, 6091), (123, 6172), (171, 6304), (185, 6379), (186, 6382), (231, 6556), (256, 6688), (266, 6733), (281, 6811), (284, 6817), (322, 6982), (331, 7015), (337, 7036), (383, 7210), (389, 7234), (420, 7336), (425, 7357), (440, 7411), (450, 7441), (455, 7453), (472, 7507), (527, 7687), (529, 7690), (548, 7723), (550, 7729),

Gene: ChampagnePapi\_11 Start: 6861, Stop: 8558, Start Num: 48

Candidate Starts for ChampagnePapi\_11:

(Start: 48 @6861 has 363 MA's), (Start: 68 @6885 has 1 MA's), (Start: 126 @7008 has 2 MA's), (167, 7098), (175, 7131), (216, 7314), (217, 7317), (225, 7356), (244, 7425), (247, 7449), (256, 7515), (275, 7605), (315, 7770), (337, 7857), (342, 7890), (365, 7956), (382, 8028), (383, 8031), (389, 8055), (408, 8106), (411, 8121), (420, 8160), (425, 8181), (455, 8277), (529, 8514), (547, 8544), (548, 8547),

Gene: Chanagan\_10 Start: 6588, Stop: 8276, Start Num: 48

Candidate Starts for Chanagan\_10:

(Start: 48 @6588 has 363 MA's), (Start: 153 @6768 has 2 MA's), (175, 6852), (180, 6888), (185, 6915), (217, 7038), (223, 7071), (244, 7146), (256, 7236), (261, 7260), (268, 7287), (277, 7335), (297, 7404), (312, 7479), (315, 7491), (329, 7551), (390, 7776), (393, 7785), (395, 7797), (411, 7839), (416, 7860), (423, 7887), (455, 7995), (490, 8085), (514, 8190),

Gene: Changeling\_15 Start: 9284, Stop: 11071, Start Num: 49

Candidate Starts for Changeling\_15:

(12, 9110), (24, 9200), (Start: 49 @9284 has 222 MA's), (110, 9392), (120, 9413), (146, 9521), (156, 9545), (162, 9572), (171, 9608), (216, 9803), (217, 9806), (225, 9845), (244, 9914), (256, 10004), (261, 10028), (295, 10160), (383, 10547), (414, 10646), (420, 10673), (425, 10694), (450, 10778), (455, 10790), (529, 11027), (546, 11054), (547, 11057), (548, 11060), (549, 11063),

Gene: Chaph\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Chaph\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (Start: 126 @7040 has 2 MA's), (167, 7130), (175, 7163), (194, 7262), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (337, 7889), (342, 7922), (365, 7988), (382, 8060), (383, 8063), (389, 8087), (408, 8138), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (529, 8546), (547, 8576), (548, 8579),

Gene: Chargerpower\_12 Start: 6588, Stop: 8372, Start Num: 49

Candidate Starts for Chargerpower\_12:

(Start: 49 @6588 has 222 MA's), (113, 6696), (123, 6720), (136, 6774), (139, 6786), (140, 6795), (146, 6819), (180, 6954), (204, 7050), (216, 7101), (217, 7104), (244, 7215), (247, 7239), (256, 7305), (261, 7329), (275, 7395), (284, 7428), (289, 7446), (295, 7461), (316, 7569), (342, 7680), (408, 7920), (411, 7935), (414, 7947), (420, 7974), (455, 8091), (529, 8328), (546, 8355), (547, 8358),

Gene: Charm\_12 Start: 6308, Stop: 8080, Start Num: 62

Candidate Starts for Charm\_12:

(Start: 49 @6296 has 222 MA's), (Start: 62 @6308 has 20 MA's), (123, 6425), (146, 6524), (183, 6674), (185, 6686), (204, 6758), (217, 6812), (225, 6851), (244, 6923), (253, 6995), (256, 7013), (261,

7037), (289, 7154), (295, 7169), (316, 7277), (336, 7352), (357, 7448), (392, 7589), (408, 7628), (420, 7682), (421, 7685), (425, 7703), (440, 7757), (450, 7787), (455, 7799), (490, 7889), (497, 7907), (529, 8036), (546, 8063), (547, 8066),

Gene: Chartreuse\_15 Start: 7480, Stop: 9234, Start Num: 49

Candidate Starts for Chartreuse\_15:

(Start: 49 @7480 has 222 MA's), (146, 7711), (162, 7762), (171, 7798), (185, 7873), (217, 7996), (225, 8035), (244, 8104), (247, 8128), (248, 8131), (256, 8194), (261, 8218), (284, 8317), (285, 8320), (294, 8347), (295, 8350), (365, 8635), (386, 8722), (389, 8734), (411, 8797), (420, 8836), (425, 8857), (450, 8941), (455, 8953), (529, 9190), (546, 9217), (547, 9220),

Gene: Che12\_13 Start: 6255, Stop: 8039, Start Num: 49

Candidate Starts for Che12\_13:

(Start: 49 @6255 has 222 MA's), (146, 6486), (171, 6573), (206, 6726), (216, 6768), (217, 6771), (244, 6882), (247, 6906), (248, 6909), (256, 6972), (261, 6996), (420, 7641), (425, 7662), (450, 7746), (455, 7758), (497, 7866), (529, 7995), (546, 8022), (547, 8025),

Gene: CherryonLim\_5 Start: 1648, Stop: 3324, Start Num: 96

Candidate Starts for CherryonLim\_5:

(Start: 96 @1648 has 69 MA's), (Start: 119 @1699 has 1 MA's), (125, 1720), (150, 1765), (171, 1843), (184, 1909), (199, 1972), (206, 2005), (214, 2041), (217, 2050), (218, 2053), (223, 2086), (227, 2101), (232, 2119), (249, 2200), (251, 2221), (259, 2257), (263, 2278), (271, 2314), (286, 2380), (299, 2434), (341, 2614), (346, 2647), (375, 2713), (376, 2716), (384, 2779), (386, 2785), (434, 2950), (440, 2983), (465, 3052), (496, 3130), (497, 3133), (516, 3223), (518, 3229), (523, 3250), (547, 3310), (548, 3313),

Gene: ChipMunk\_14 Start: 7824, Stop: 9611, Start Num: 49

Candidate Starts for ChipMunk\_14:

(Start: 49 @7824 has 222 MA's), (110, 7932), (120, 7953), (146, 8061), (171, 8148), (204, 8292), (216, 8343), (217, 8346), (244, 8454), (256, 8544), (261, 8568), (289, 8685), (295, 8700), (362, 9000), (414, 9186), (420, 9213), (425, 9234), (455, 9330), (529, 9567), (547, 9597),

Gene: Chiqui\_10 Start: 6717, Stop: 8414, Start Num: 48

Candidate Starts for Chiqui\_10:

(Start: 48 @6717 has 363 MA's), (95, 6789), (175, 6987), (185, 7050), (213, 7161), (217, 7173), (225, 7212), (230, 7224), (244, 7281), (247, 7305), (256, 7371), (258, 7380), (275, 7461), (281, 7488), (315, 7626), (331, 7692), (337, 7713), (342, 7746), (365, 7812), (383, 7887), (389, 7911), (390, 7914), (392, 7920), (394, 7929), (411, 7977), (420, 8016), (425, 8037), (455, 8133), (469, 8178), (472, 8187), (518, 8340), (529, 8370), (547, 8400), (548, 8403),

Gene: Chucky\_6 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Chucky\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (Start: 126 @2527 has 2 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (229, 2881), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (383, 3481), (388, 3502), (408, 3565), (414, 3592), (442, 3700), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (503, 3880), (517, 3940), (550, 4018),

Gene: Chupacabra\_11 Start: 6706, Stop: 8379, Start Num: 48

Candidate Starts for Chupacabra\_11:

(Start: 48 @6706 has 363 MA's), (Start: 126 @6835 has 2 MA's), (158, 6901), (175, 6967), (182, 7012), (194, 7066), (206, 7108), (217, 7153), (225, 7192), (242, 7240), (244, 7261), (247, 7285), (256, 7336), (284, 7459), (289, 7477), (299, 7528), (320, 7606), (333, 7666), (342, 7711), (365, 7777), (382, 7849), (383, 7852), (389, 7876), (411, 7942), (420, 7981), (421, 7984), (425, 8002), (455, 8098), (478,

8167), (529, 8335), (547, 8365), (548, 8368),

Gene: Ciao\_11 Start: 6974, Stop: 8662, Start Num: 48

Candidate Starts for Ciao\_11:

(Start: 48 @6974 has 363 MA's), (Start: 153 @7154 has 2 MA's), (175, 7238), (180, 7274), (185, 7301), (209, 7397), (217, 7424), (223, 7457), (244, 7532), (256, 7622), (261, 7646), (277, 7721), (297, 7790), (315, 7877), (329, 7937), (393, 8171), (395, 8183), (411, 8225), (416, 8246), (423, 8273), (455, 8381), (490, 8471), (514, 8576),

Gene: Cici\_11 Start: 6881, Stop: 8578, Start Num: 48

Candidate Starts for Cici\_11:

(Start: 48 @6881 has 363 MA's), (Start: 68 @6905 has 1 MA's), (175, 7151), (195, 7256), (216, 7334), (217, 7337), (225, 7376), (244, 7445), (247, 7469), (256, 7535), (275, 7625), (315, 7790), (326, 7835), (337, 7877), (342, 7910), (365, 7976), (382, 8048), (383, 8051), (389, 8075), (411, 8141), (420, 8180), (425, 8201), (455, 8297), (527, 8531), (529, 8534), (547, 8564), (548, 8567),

Gene: Cindaradix\_10 Start: 6590, Stop: 8287, Start Num: 48

Candidate Starts for Cindaradix\_10:

(Start: 48 @6590 has 363 MA's), (Start: 68 @6614 has 1 MA's), (175, 6860), (216, 7043), (217, 7046), (225, 7085), (244, 7154), (247, 7178), (256, 7244), (258, 7253), (275, 7334), (284, 7367), (314, 7496), (315, 7499), (326, 7544), (337, 7586), (342, 7619), (383, 7760), (389, 7784), (390, 7787), (411, 7850), (420, 7889), (425, 7910), (455, 8006), (478, 8075), (497, 8114), (527, 8240), (529, 8243), (547, 8273), (548, 8276),

Gene: Cintron\_11 Start: 6929, Stop: 8626, Start Num: 48

Candidate Starts for Cintron\_11:

(Start: 48 @6929 has 363 MA's), (Start: 68 @6953 has 1 MA's), (Start: 126 @7076 has 2 MA's), (167, 7166), (175, 7199), (194, 7298), (216, 7382), (217, 7385), (225, 7424), (244, 7493), (247, 7517), (256, 7583), (275, 7673), (315, 7838), (337, 7925), (342, 7958), (382, 8096), (383, 8099), (389, 8123), (411, 8189), (420, 8228), (425, 8249), (455, 8345), (527, 8579), (529, 8582), (547, 8612), (548, 8615),

Gene: Citius\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Citius\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Clarenza\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Clarenza\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Clarkson\_36 Start: 11120, Stop: 12862, Start Num: 96

Candidate Starts for Clarkson\_36:

(Start: 96 @11120 has 69 MA's), (149, 11237), (162, 11282), (170, 11348), (172, 11363), (176, 11396), (177, 11399), (181, 11414), (186, 11438), (187, 11441), (194, 11471), (200, 11492), (202, 11510), (205, 11519), (212, 11555), (217, 11570), (227, 11615), (242, 11657), (246, 11696), (249, 11708), (251, 11729), (262, 11780), (268, 11801), (324, 12023), (346, 12128), (347, 12137), (366,

12170), (375, 12191), (376, 12194), (379, 12221), (383, 12251), (386, 12263), (390, 12278), (393, 12287), (394, 12293), (407, 12335), (409, 12344), (412, 12359), (416, 12374), (434, 12434), (440, 12473), (451, 12506), (463, 12536), (464, 12539), (485, 12623), (496, 12677), (499, 12692), (506, 12719), (517, 12773), (546, 12845), (547, 12848),

Gene: Cleo\_4 Start: 1285, Stop: 2979, Start Num: 96

Candidate Starts for Cleo\_4:

(Start: 96 @1285 has 69 MA's), (109, 1315), (123, 1348), (125, 1357), (171, 1495), (206, 1657), (208, 1672), (217, 1702), (220, 1723), (227, 1753), (244, 1822), (246, 1840), (249, 1852), (251, 1873), (267, 1942), (275, 1984), (317, 2161), (328, 2212), (342, 2275), (346, 2299), (362, 2332), (374, 2365), (384, 2434), (407, 2509), (409, 2518), (411, 2527), (414, 2539), (415, 2545), (420, 2566), (463, 2704), (505, 2827), (523, 2908), (547, 2965), (548, 2968),

Gene: CloudWang3\_15 Start: 7511, Stop: 9265, Start Num: 49

Candidate Starts for CloudWang3\_15:

(Start: 49 @7511 has 222 MA's), (146, 7742), (162, 7793), (171, 7829), (185, 7904), (217, 8027), (225, 8066), (244, 8135), (247, 8159), (248, 8162), (256, 8225), (261, 8249), (284, 8348), (285, 8351), (294, 8378), (295, 8381), (365, 8666), (386, 8753), (389, 8765), (411, 8828), (420, 8867), (425, 8888), (450, 8972), (455, 8984), (529, 9221), (546, 9248), (547, 9251),

Gene: ClubL\_30 Start: 8614, Stop: 10362, Start Num: 88

Candidate Starts for ClubL\_30:

(Start: 88 @8614 has 21 MA's), (106, 8644), (160, 8773), (190, 8959), (197, 8998), (205, 9022), (210, 9052), (216, 9070), (221, 9097), (228, 9127), (267, 9319), (270, 9337), (310, 9499), (327, 9547), (332, 9562), (373, 9745), (375, 9751), (389, 9835), (413, 9922), (421, 9955), (452, 10069), (465, 10105), (472, 10129), (481, 10144), (533, 10318), (535, 10324),

Gene: Cocoaberry\_11 Start: 6888, Stop: 8585, Start Num: 48

Candidate Starts for Cocoaberry\_11:

(Start: 48 @6888 has 363 MA's), (Start: 68 @6912 has 1 MA's), (Start: 126 @7035 has 2 MA's), (167, 7125), (175, 7158), (194, 7257), (216, 7341), (217, 7344), (225, 7383), (244, 7452), (247, 7476), (256, 7542), (275, 7632), (315, 7797), (337, 7884), (342, 7917), (365, 7983), (382, 8055), (383, 8058), (389, 8082), (408, 8133), (411, 8148), (420, 8187), (425, 8208), (455, 8304), (529, 8541), (547, 8571), (548, 8574),

Gene: Colbster\_13 Start: 6957, Stop: 8657, Start Num: 51

Candidate Starts for Colbster\_13:

(Start: 51 @6957 has 139 MA's), (Start: 81 @7005 has 4 MA's), (149, 7140), (194, 7332), (217, 7419), (256, 7617), (275, 7707), (294, 7770), (329, 7932), (383, 8130), (389, 8154), (390, 8157), (411, 8220), (416, 8241), (425, 8280), (455, 8376), (472, 8430), (490, 8466), (529, 8613), (547, 8643), (548, 8646),

Gene: Colin\_16 Start: 9101, Stop: 10888, Start Num: 49

Candidate Starts for Colin\_16:

(Start: 49 @9101 has 222 MA's), (110, 9209), (120, 9230), (146, 9338), (162, 9389), (171, 9425), (185, 9500), (216, 9620), (217, 9623), (244, 9731), (248, 9758), (256, 9821), (261, 9845), (295, 9977), (383, 10364), (414, 10463), (420, 10490), (421, 10493), (425, 10511), (455, 10607), (529, 10844), (546, 10871), (547, 10874), (548, 10877), (549, 10880),

Gene: Colleen\_3 Start: 1236, Stop: 2873, Start Num: 81

Candidate Starts for Colleen\_3:

(Start: 81 @1236 has 4 MA's), (97, 1260), (Start: 127 @1338 has 2 MA's), (159, 1404), (180, 1503), (184, 1521), (185, 1530), (187, 1536), (197, 1584), (199, 1590), (202, 1599), (211, 1641), (213, 1647), (214, 1650), (217, 1659), (235, 1737), (256, 1854), (259, 1866), (260, 1869), (261, 1878), (275, 1941),

(295, 2013), (299, 2046), (328, 2124), (352, 2235), (376, 2280), (410, 2412), (411, 2418), (445, 2550), (455, 2589), (490, 2679), (498, 2706), (516, 2787), (519, 2802), (520, 2805), (522, 2814), (547, 2862),

Gene: Commander\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Commander\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Community\_3 Start: 1606, Stop: 3312, Start Num: 71

Candidate Starts for Community\_3:

(Start: 71 @1606 has 40 MA's), (217, 2035), (228, 2083), (249, 2173), (273, 2305), (284, 2347), (350, 2599), (383, 2722), (442, 2941), (455, 2977), (460, 2992), (496, 3127), (517, 3223), (519, 3235),

Gene: Conan\_7 Start: 2225, Stop: 3871, Start Num: 47

Candidate Starts for Conan\_7:

(Start: 45 @2216 has 1 MA's), (Start: 47 @2225 has 87 MA's), (Start: 48 @2228 has 363 MA's), (Start: 62 @2243 has 20 MA's), (162, 2447), (171, 2483), (179, 2528), (202, 2621), (206, 2636), (211, 2663), (214, 2672), (218, 2684), (242, 2771), (248, 2819), (256, 2867), (278, 2966), (289, 3005), (326, 3119), (331, 3140), (340, 3179), (365, 3260), (383, 3329), (384, 3335), (388, 3350), (408, 3413), (441, 3545), (455, 3587), (465, 3614), (469, 3632), (491, 3680), (517, 3788),

Gene: Conceptll\_11 Start: 7225, Stop: 8913, Start Num: 48

Candidate Starts for Conceptll\_11:

(Start: 48 @7225 has 363 MA's), (175, 7489), (176, 7513), (217, 7675), (223, 7708), (244, 7783), (256, 7873), (261, 7897), (268, 7924), (277, 7972), (315, 8128), (329, 8188), (390, 8413), (393, 8422), (395, 8434), (411, 8476), (416, 8497), (423, 8524), (455, 8632), (490, 8722), (514, 8827),

Gene: Confidence\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Confidence\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (299, 1382), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (547, 2270), (548, 2273),

Gene: Connomayer\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Connomayer\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Conquerage\_13 Start: 8154, Stop: 9926, Start Num: 62

Candidate Starts for Conquerage\_13:

(Start: 49 @8139 has 222 MA's), (Start: 62 @8154 has 20 MA's), (Start: 66 @8160 has 5 MA's), (123, 8271), (146, 8370), (185, 8532), (204, 8604), (217, 8658), (225, 8697), (244, 8769), (256, 8859), (261, 8883), (289, 9000), (295, 9015), (316, 9123), (336, 9198), (342, 9234), (357, 9294), (386, 9414), (392, 9435), (408, 9474), (420, 9528), (421, 9531), (425, 9549), (440, 9603), (450, 9633), (455, 9645), (490, 9735), (497, 9753), (529, 9882), (546, 9909), (547, 9912),

Gene: Conspiracy\_9 Start: 5979, Stop: 7757, Start Num: 26

Candidate Starts for Conspiracy\_9:

(Start: 26 @5979 has 19 MA's), (Start: 28 @6006 has 30 MA's), (60, 6075), (82, 6114), (121, 6189), (123, 6195), (171, 6327), (185, 6402), (186, 6405), (219, 6540), (231, 6579), (238, 6603), (256, 6711), (266, 6756), (281, 6834), (284, 6840), (322, 7005), (331, 7038), (337, 7059), (383, 7233), (389, 7257), (390, 7260), (411, 7320), (414, 7332), (420, 7359), (425, 7380), (450, 7464), (455, 7476), (529, 7713), (548, 7746), (550, 7752),

Gene: Coog\_9 Start: 6156, Stop: 7907, Start Num: 28

Candidate Starts for Coog\_9:

(Start: 26 @6129 has 19 MA's), (Start: 28 @6156 has 30 MA's), (60, 6225), (121, 6339), (123, 6345), (171, 6477), (185, 6552), (186, 6555), (194, 6588), (204, 6621), (231, 6729), (238, 6753), (244, 6786), (256, 6861), (266, 6906), (281, 6984), (284, 6990), (322, 7155), (331, 7188), (337, 7209), (383, 7383), (389, 7407), (390, 7410), (411, 7470), (414, 7482), (420, 7509), (425, 7530), (450, 7614), (455, 7626), (529, 7863), (548, 7896), (550, 7902),

Gene: Cookiedough\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for Cookiedough\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (294, 8390), (295, 8393), (319, 8504), (360, 8666), (383, 8753), (386, 8765), (389, 8777), (408, 8825), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: Corazon\_33 Start: 11073, Stop: 12815, Start Num: 96

Candidate Starts for Corazon\_33:

(Start: 96 @11073 has 69 MA's), (149, 11190), (162, 11235), (170, 11301), (172, 11316), (176, 11349), (177, 11352), (181, 11367), (186, 11391), (187, 11394), (194, 11424), (200, 11445), (202, 11463), (205, 11472), (212, 11508), (217, 11523), (227, 11568), (242, 11610), (246, 11649), (249, 11661), (251, 11682), (262, 11733), (268, 11754), (324, 11976), (346, 12081), (347, 12090), (366, 12123), (375, 12144), (376, 12147), (379, 12174), (383, 12204), (386, 12216), (390, 12231), (393, 12240), (394, 12246), (407, 12288), (409, 12297), (412, 12312), (416, 12327), (434, 12387), (440, 12426), (451, 12459), (463, 12489), (464, 12492), (485, 12576), (496, 12630), (499, 12645), (506, 12672), (517, 12726), (546, 12798), (547, 12801),

Gene: Cornie\_2 Start: 553, Stop: 2274, Start Num: 96

Candidate Starts for Cornie\_2:

(Start: 96 @553 has 69 MA's), (Start: 119 @604 has 1 MA's), (123, 616), (Start: 126 @628 has 2 MA's), (130, 643), (149, 664), (165, 718), (169, 733), (171, 748), (172, 751), (177, 787), (180, 796), (185, 823), (186, 826), (201, 892), (204, 901), (206, 910), (214, 946), (215, 949), (217, 955), (218, 958), (220, 970), (229, 1009), (230, 1012), (244, 1063), (251, 1114), (256, 1138), (275, 1225), (287, 1279), (299, 1330), (303, 1351), (309, 1366), (317, 1405), (318, 1408), (324, 1438), (326, 1444), (346, 1543), (369, 1609), (378, 1651), (382, 1687), (393, 1726), (396, 1741), (411, 1828), (413, 1837), (415, 1846), (421, 1870), (439, 1942), (442, 1954), (467, 2023), (468, 2032), (492, 2083), (496, 2095), (497, 2098), (517, 2191), (518, 2194), (521, 2212),

Gene: Corvo\_11 Start: 7169, Stop: 8857, Start Num: 48

Candidate Starts for Corvo\_11:

(Start: 48 @7169 has 363 MA's), (Start: 153 @7349 has 2 MA's), (175, 7433), (180, 7469), (217, 7619), (244, 7727), (256, 7817), (261, 7841), (268, 7868), (277, 7916), (297, 7985), (312, 8060), (315, 8072), (329, 8132), (390, 8357), (393, 8366), (395, 8378), (411, 8420), (416, 8441), (423, 8468), (455, 8576), (490, 8666), (514, 8771),

Gene: CosmicSans\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for CosmicSans\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Cozz\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Cozz\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (416, 2358), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Crater\_2 Start: 486, Stop: 2147, Start Num: 96

Candidate Starts for Crater\_2:

(24, 324), (29, 357), (30, 360), (34, 378), (Start: 50 @411 has 3 MA's), (58, 420), (Start: 76 @453 has 1 MA's), (Start: 96 @486 has 69 MA's), (Start: 119 @537 has 1 MA's), (123, 549), (130, 576), (169, 666), (184, 747), (185, 756), (186, 759), (194, 792), (206, 843), (214, 879), (215, 882), (217, 888), (220, 903), (221, 906), (225, 924), (229, 942), (244, 996), (251, 1047), (256, 1071), (275, 1158), (290, 1218), (295, 1227), (299, 1263), (309, 1299), (317, 1338), (318, 1341), (324, 1371), (354, 1503), (362, 1509), (379, 1572), (382, 1599), (389, 1626), (390, 1629), (394, 1644), (411, 1701), (420, 1740), (442, 1821), (453, 1851), (474, 1914), (496, 1962), (497, 1965), (517, 2058), (518, 2061), (521, 2079), (527, 2088), (534, 2100), (548, 2136),

Gene: Crewmate\_3 Start: 949, Stop: 2655, Start Num: 71

Candidate Starts for Crewmate\_3:

(Start: 71 @949 has 40 MA's), (83, 970), (Start: 126 @1060 has 2 MA's), (159, 1129), (203, 1321), (217, 1378), (228, 1426), (249, 1516), (258, 1570), (267, 1615), (284, 1690), (350, 1942), (434, 2245), (442, 2284), (455, 2320), (460, 2335), (496, 2470), (517, 2566), (519, 2578),

Gene: Crispicous1\_10 Start: 6453, Stop: 8141, Start Num: 48

Candidate Starts for Crispicous1\_10:

(Start: 48 @6453 has 363 MA's), (175, 6717), (176, 6741), (217, 6903), (223, 6936), (244, 7011), (256, 7101), (261, 7125), (268, 7152), (277, 7200), (297, 7269), (315, 7356), (329, 7416), (393, 7650), (395, 7662), (411, 7704), (416, 7725), (423, 7752), (455, 7860), (490, 7950), (514, 8055),

Gene: Crucio\_12 Start: 7386, Stop: 9173, Start Num: 49

Candidate Starts for Crucio\_12:

(Start: 49 @7386 has 222 MA's), (110, 7494), (120, 7515), (146, 7623), (185, 7785), (216, 7905), (217, 7908), (244, 8016), (256, 8106), (261, 8130), (289, 8247), (295, 8262), (362, 8562), (414, 8748), (420, 8775), (425, 8796), (455, 8892), (529, 9129), (546, 9156), (547, 9159),

Gene: Cuco\_9 Start: 6160, Stop: 7938, Start Num: 26

Candidate Starts for Cuco\_9:

(Start: 26 @6160 has 19 MA's), (Start: 28 @6187 has 30 MA's), (60, 6256), (121, 6370), (123, 6376), (171, 6508), (185, 6583), (186, 6586), (194, 6619), (204, 6652), (231, 6760), (238, 6784), (244, 6817), (256, 6892), (266, 6937), (281, 7015), (284, 7021), (331, 7219), (337, 7240), (383, 7414), (389, 7438), (390, 7441), (411, 7501), (414, 7513), (420, 7540), (425, 7561), (450, 7645), (455, 7657), (529, 7894), (548, 7927), (550, 7933),

Gene: Cucurbita\_32 Start: 9972, Stop: 11720, Start Num: 88

Candidate Starts for Cucurbita\_32:

(Start: 88 @9972 has 21 MA's), (106, 10002), (160, 10131), (190, 10317), (197, 10356), (205, 10380), (210, 10410), (216, 10428), (221, 10455), (228, 10485), (267, 10677), (270, 10695), (310, 10857), (327, 10905), (332, 10920), (373, 11103), (375, 11109), (389, 11193), (413, 11280), (421, 11313), (452, 11427), (465, 11463), (472, 11487), (481, 11502), (533, 11676), (535, 11682),

Gene: Cueyllyss\_11 Start: 7122, Stop: 8810, Start Num: 48

Candidate Starts for Cueyllyss\_11:

(Start: 48 @7122 has 363 MA's), (175, 7386), (176, 7410), (217, 7572), (223, 7605), (244, 7680), (256, 7770), (261, 7794), (268, 7821), (277, 7869), (315, 8025), (329, 8085), (370, 8217), (390, 8310), (393, 8319), (395, 8331), (411, 8373), (416, 8394), (423, 8421), (455, 8529), (490, 8619), (514, 8724),

Gene: Cullens\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for Cullens\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: Culver\_30 Start: 8433, Stop: 10181, Start Num: 88

Candidate Starts for Culver\_30:

(Start: 88 @8433 has 21 MA's), (106, 8463), (159, 8589), (160, 8592), (184, 8706), (190, 8778), (197, 8817), (205, 8841), (216, 8889), (221, 8916), (267, 9138), (270, 9156), (310, 9318), (327, 9366), (332, 9381), (373, 9564), (375, 9570), (389, 9654), (413, 9741), (421, 9774), (452, 9888), (465, 9924), (472, 9948), (481, 9963), (533, 10137), (535, 10143),

Gene: Cyan\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Cyan\_2:

(7, 242), (9, 251), (Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (478, 1973), (496, 2054), (513, 2138), (519, 2162),

Gene: D29\_13 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for D29\_13:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: D32\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for D32\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: DBQu4n\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for DBQu4n\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),



Gene: DD5\_12 Start: 7704, Stop: 9392, Start Num: 48

Candidate Starts for DD5\_12:

(Start: 48 @7704 has 363 MA's), (175, 7968), (176, 7992), (217, 8154), (244, 8262), (256, 8352), (261, 8376), (268, 8403), (277, 8451), (297, 8520), (315, 8607), (316, 8616), (329, 8667), (393, 8901), (395, 8913), (411, 8955), (416, 8976), (423, 9003), (455, 9111), (490, 9201), (514, 9306),

Gene: DS6A\_5 Start: 1816, Stop: 3612, Start Num: 43

Candidate Starts for DS6A\_5:

(Start: 43 @1816 has 1 MA's), (Start: 51 @1834 has 139 MA's), (159, 2068), (171, 2119), (176, 2155), (185, 2194), (194, 2236), (202, 2263), (204, 2269), (205, 2272), (217, 2323), (232, 2380), (233, 2383), (250, 2482), (256, 2509), (267, 2566), (311, 2758), (331, 2800), (365, 2920), (366, 2923), (376, 2947), (383, 2989), (390, 3016), (394, 3031), (417, 3121), (420, 3136), (421, 3139), (423, 3145), (433, 3205), (440, 3241), (442, 3247), (450, 3283), (451, 3286), (455, 3295), (475, 3352), (476, 3355), (477, 3358), (509, 3484), (514, 3520), (517, 3529), (519, 3541), (523, 3553), (527, 3559), (537, 3574),

Gene: DaHudson\_13 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for DaHudson\_13:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: DaVinci\_15 Start: 7534, Stop: 9288, Start Num: 49

Candidate Starts for DaVinci\_15:

(Start: 49 @7534 has 222 MA's), (146, 7765), (162, 7816), (171, 7852), (185, 7927), (217, 8050), (225, 8089), (244, 8158), (247, 8182), (248, 8185), (256, 8248), (261, 8272), (284, 8371), (285, 8374), (294, 8401), (295, 8404), (365, 8689), (386, 8776), (389, 8788), (411, 8851), (420, 8890), (425, 8911), (450, 8995), (455, 9007), (529, 9244), (546, 9271), (547, 9274),

Gene: Daishi\_12 Start: 5882, Stop: 7582, Start Num: 51

Candidate Starts for Daishi\_12:

(Start: 51 @5882 has 139 MA's), (Start: 81 @5930 has 4 MA's), (Start: 119 @6002 has 1 MA's), (149, 6065), (217, 6344), (256, 6542), (275, 6632), (294, 6695), (329, 6857), (383, 7055), (389, 7079), (390, 7082), (411, 7145), (414, 7157), (416, 7166), (420, 7184), (425, 7205), (455, 7301), (472, 7355), (490, 7391), (529, 7538), (547, 7568), (548, 7571),

Gene: Dalmatian\_12 Start: 7536, Stop: 9323, Start Num: 49

Candidate Starts for Dalmatian\_12:

(Start: 49 @7536 has 222 MA's), (110, 7644), (120, 7665), (146, 7773), (185, 7935), (216, 8055), (217, 8058), (244, 8166), (256, 8256), (261, 8280), (289, 8397), (295, 8412), (362, 8712), (414, 8898), (420, 8925), (425, 8946), (455, 9042), (529, 9279), (546, 9306), (547, 9309),

Gene: Danforth\_8 Start: 5683, Stop: 7437, Start Num: 28

Candidate Starts for Danforth\_8:

(Start: 28 @5683 has 30 MA's), (44, 5725), (67, 5764), (123, 5872), (185, 6079), (238, 6280), (256, 6388), (284, 6517), (322, 6682), (331, 6715), (366, 6835), (383, 6910), (416, 7021), (420, 7039), (425, 7060), (440, 7114), (455, 7156), (496, 7261), (517, 7360), (529, 7393), (548, 7426), (550, 7432),

Gene: Danzina\_7 Start: 2576, Stop: 4222, Start Num: 47

Candidate Starts for Danzina\_7:

(Start: 47 @2576 has 87 MA's), (Start: 62 @2594 has 20 MA's), (162, 2798), (171, 2834), (211, 3014), (218, 3035), (229, 3080), (242, 3122), (251, 3194), (256, 3218), (278, 3317), (281, 3332), (289, 3356), (291, 3362), (340, 3530), (383, 3680), (388, 3701), (392, 3713), (414, 3791), (442, 3899), (455, 3938),

(463, 3959), (465, 3965), (469, 3983), (517, 4139),

Gene: Daredevil\_12 Start: 5000, Stop: 6736, Start Num: 88

Candidate Starts for Daredevil\_12:

(Start: 88 @5000 has 21 MA's), (98, 5015), (123, 5072), (151, 5129), (181, 5261), (194, 5372), (205, 5408), (226, 5504), (256, 5648), (262, 5675), (270, 5723), (328, 5930), (339, 5975), (375, 6128), (411, 6290), (434, 6371), (452, 6446), (481, 6518), (496, 6554), (503, 6590), (517, 6650),

Gene: Darrell\_14 Start: 8335, Stop: 10122, Start Num: 49

Candidate Starts for Darrell\_14:

(Start: 49 @8335 has 222 MA's), (Start: 62 @8350 has 20 MA's), (110, 8437), (123, 8467), (146, 8566), (162, 8617), (185, 8728), (204, 8800), (217, 8854), (225, 8893), (244, 8965), (256, 9055), (261, 9079), (295, 9211), (316, 9319), (336, 9394), (357, 9490), (392, 9631), (420, 9724), (421, 9727), (425, 9745), (440, 9799), (455, 9841), (472, 9895), (491, 9934), (497, 9949), (529, 10078), (546, 10105), (547, 10108),

Gene: DARTHPhader\_13 Start: 8323, Stop: 10107, Start Num: 49

Candidate Starts for DARTHPhader\_13:

(Start: 49 @8323 has 222 MA's), (Start: 66 @8344 has 5 MA's), (Start: 119 @8443 has 1 MA's), (123, 8455), (139, 8521), (146, 8554), (171, 8641), (204, 8785), (217, 8839), (225, 8878), (244, 8950), (256, 9040), (261, 9064), (284, 9163), (289, 9181), (295, 9196), (326, 9340), (383, 9583), (408, 9655), (411, 9670), (425, 9730), (455, 9826), (490, 9916), (527, 10060), (529, 10063), (546, 10090), (547, 10093), (548, 10096),

Gene: DatBoi\_13 Start: 6914, Stop: 8650, Start Num: 88

Candidate Starts for DatBoi\_13:

(Start: 88 @6914 has 21 MA's), (123, 6986), (176, 7157), (181, 7175), (194, 7286), (205, 7322), (226, 7418), (256, 7562), (262, 7589), (270, 7637), (328, 7844), (339, 7889), (354, 7970), (375, 8042), (452, 8360), (496, 8468), (517, 8564),

Gene: Dattran\_7 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Dattran\_7:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (353, 3391), (383, 3481), (388, 3502), (414, 3592), (425, 3640), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (517, 3940),

Gene: Datway\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Datway\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (195, 7268), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (326, 7847), (337, 7889), (342, 7922), (365, 7988), (382, 8060), (383, 8063), (389, 8087), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: Daudau\_6 Start: 2153, Stop: 3799, Start Num: 47

Candidate Starts for Daudau\_6:

(Start: 47 @2153 has 87 MA's), (175, 2423), (176, 2447), (179, 2456), (202, 2549), (211, 2591), (213, 2597), (218, 2612), (242, 2699), (251, 2771), (256, 2795), (271, 2864), (278, 2894), (286, 2930), (295, 2948), (332, 3071), (340, 3107), (343, 3125), (388, 3278), (414, 3368), (420, 3395), (455, 3515), (463, 3536), (469, 3560), (496, 3620), (517, 3716), (550, 3794),

Gene: Deano\_11 Start: 6890, Stop: 8587, Start Num: 48

Candidate Starts for Deano\_11:

(Start: 48 @6890 has 363 MA's), (Start: 68 @6914 has 1 MA's), (Start: 126 @7037 has 2 MA's), (167, 7127), (175, 7160), (194, 7259), (216, 7343), (217, 7346), (225, 7385), (244, 7454), (247, 7478), (256, 7544), (275, 7634), (315, 7799), (337, 7886), (342, 7919), (365, 7985), (382, 8057), (383, 8060), (389, 8084), (408, 8135), (411, 8150), (420, 8189), (425, 8210), (455, 8306), (529, 8543), (547, 8573), (548, 8576),

Gene: DekHockey33\_14 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for DekHockey33\_14:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: Deloris\_13 Start: 7865, Stop: 9655, Start Num: 49

Candidate Starts for Deloris\_13:

(12, 7691), (Start: 49 @7865 has 222 MA's), (110, 7973), (120, 7994), (146, 8102), (156, 8126), (217, 8390), (244, 8498), (256, 8588), (261, 8612), (289, 8729), (295, 8744), (362, 9044), (414, 9230), (420, 9257), (425, 9278), (455, 9374), (529, 9611), (546, 9638), (547, 9641),

Gene: Dexers\_5 Start: 2218, Stop: 3864, Start Num: 47

Candidate Starts for Dexers\_5:

(Start: 45 @2209 has 1 MA's), (Start: 47 @2218 has 87 MA's), (Start: 48 @2221 has 363 MA's), (Start: 62 @2236 has 20 MA's), (106, 2314), (162, 2440), (171, 2476), (179, 2521), (202, 2614), (206, 2629), (211, 2656), (214, 2665), (218, 2677), (242, 2764), (248, 2812), (256, 2860), (278, 2959), (289, 2998), (326, 3112), (331, 3133), (340, 3172), (365, 3253), (383, 3322), (384, 3328), (388, 3343), (408, 3406), (441, 3538), (455, 3580), (465, 3607), (469, 3625), (491, 3673), (517, 3781),

Gene: Dexes\_12 Start: 7609, Stop: 9297, Start Num: 48

Candidate Starts for Dexes\_12:

(Start: 48 @7609 has 363 MA's), (175, 7873), (176, 7897), (217, 8059), (223, 8092), (244, 8167), (256, 8257), (261, 8281), (268, 8308), (277, 8356), (315, 8512), (329, 8572), (393, 8806), (395, 8818), (411, 8860), (416, 8881), (423, 8908), (455, 9016), (490, 9106), (514, 9211),

Gene: Dhanush\_11 Start: 6887, Stop: 8584, Start Num: 48

Candidate Starts for Dhanush\_11:

(Start: 48 @6887 has 363 MA's), (Start: 68 @6911 has 1 MA's), (Start: 126 @7034 has 2 MA's), (167, 7124), (175, 7157), (194, 7256), (216, 7340), (217, 7343), (225, 7382), (244, 7451), (247, 7475), (256, 7541), (275, 7631), (315, 7796), (337, 7883), (342, 7916), (365, 7982), (382, 8054), (383, 8057), (389, 8081), (408, 8132), (411, 8147), (420, 8186), (425, 8207), (455, 8303), (529, 8540), (547, 8570), (548, 8573),

Gene: Diane\_6 Start: 2144, Stop: 3793, Start Num: 47

Candidate Starts for Diane\_6:

(Start: 47 @2144 has 87 MA's), (106, 2243), (156, 2342), (162, 2369), (175, 2417), (179, 2450), (206, 2558), (211, 2585), (218, 2606), (229, 2651), (242, 2693), (251, 2765), (256, 2789), (278, 2888), (286, 2924), (295, 2942), (331, 3062), (332, 3065), (340, 3101), (388, 3272), (392, 3284), (408, 3335), (420, 3389), (423, 3398), (455, 3509), (463, 3530), (469, 3554), (517, 3710), (550, 3788),

Gene: Dieselweasel\_13 Start: 6958, Stop: 8658, Start Num: 51

Candidate Starts for Dieselweasel\_13:

(Start: 51 @6958 has 139 MA's), (Start: 81 @7006 has 4 MA's), (149, 7141), (194, 7333), (217, 7420), (256, 7618), (275, 7708), (294, 7771), (329, 7933), (383, 8131), (389, 8155), (390, 8158), (411, 8221), (416, 8242), (425, 8281), (455, 8377), (472, 8431), (490, 8467), (529, 8614), (547, 8644), (548, 8647),

Gene: Dignity\_14 Start: 7832, Stop: 9619, Start Num: 49

Candidate Starts for Dignity\_14:

(Start: 49 @7832 has 222 MA's), (110, 7940), (120, 7961), (137, 8027), (138, 8033), (146, 8069), (156, 8093), (171, 8156), (216, 8351), (217, 8354), (244, 8462), (256, 8552), (261, 8576), (277, 8651), (289, 8693), (295, 8708), (362, 9008), (414, 9194), (420, 9221), (425, 9242), (455, 9338), (529, 9575), (547, 9605),

Gene: Dinger\_8 Start: 3152, Stop: 4834, Start Num: 51

Candidate Starts for Dinger\_8:

(Start: 51 @3152 has 139 MA's), (Start: 153 @3338 has 2 MA's), (171, 3410), (175, 3422), (180, 3458), (219, 3626), (238, 3686), (256, 3794), (313, 4049), (331, 4121), (376, 4265), (383, 4307), (392, 4340), (411, 4397), (414, 4409), (455, 4553), (469, 4598), (496, 4658), (517, 4757), (529, 4790), (546, 4817), (547, 4820), (548, 4823),

Gene: DirtyDunning\_11 Start: 6880, Stop: 8577, Start Num: 48

Candidate Starts for DirtyDunning\_11:

(Start: 48 @6880 has 363 MA's), (Start: 68 @6904 has 1 MA's), (Start: 126 @7027 has 2 MA's), (167, 7117), (175, 7150), (194, 7249), (216, 7333), (217, 7336), (225, 7375), (244, 7444), (247, 7468), (256, 7534), (275, 7624), (315, 7789), (337, 7876), (342, 7909), (365, 7975), (382, 8047), (383, 8050), (389, 8074), (408, 8125), (411, 8140), (420, 8179), (425, 8200), (455, 8296), (529, 8533), (547, 8563), (548, 8566),

Gene: Discoknowium\_9 Start: 6269, Stop: 8047, Start Num: 26

Candidate Starts for Discoknowium\_9:

(Start: 26 @6269 has 19 MA's), (Start: 28 @6296 has 30 MA's), (60, 6365), (121, 6479), (123, 6485), (171, 6617), (185, 6692), (186, 6695), (231, 6869), (238, 6893), (256, 7001), (266, 7046), (281, 7124), (284, 7130), (285, 7133), (322, 7295), (324, 7301), (331, 7328), (337, 7349), (383, 7523), (389, 7547), (390, 7550), (411, 7610), (414, 7622), (420, 7649), (425, 7670), (440, 7724), (450, 7754), (455, 7766), (529, 8003), (548, 8036), (550, 8042),

Gene: Dixon\_9 Start: 5702, Stop: 7456, Start Num: 28

Candidate Starts for Dixon\_9:

(Start: 28 @5702 has 30 MA's), (44, 5744), (67, 5783), (123, 5891), (185, 6098), (238, 6299), (256, 6407), (284, 6536), (322, 6701), (331, 6734), (366, 6854), (383, 6929), (416, 7040), (420, 7058), (425, 7079), (440, 7133), (455, 7175), (478, 7244), (496, 7280), (517, 7379), (529, 7412), (548, 7445), (550, 7451),

Gene: Donkey\_2 Start: 593, Stop: 2281, Start Num: 75

Candidate Starts for Donkey\_2:

(75, 593), (169, 794), (199, 938), (206, 962), (217, 1007), (241, 1094), (249, 1148), (255, 1187), (284, 1322), (308, 1424), (343, 1535), (373, 1646), (383, 1697), (455, 1952), (460, 1967), (517, 2192), (519, 2204), (524, 2219),

Gene: DontArgue\_10 Start: 4944, Stop: 6635, Start Num: 48

Candidate Starts for DontArgue\_10:

(Start: 48 @4944 has 363 MA's), (Start: 68 @4968 has 1 MA's), (162, 5175), (171, 5211), (175, 5223), (195, 5328), (206, 5364), (217, 5409), (225, 5448), (242, 5496), (244, 5517), (247, 5541), (256, 5592), (333, 5922), (342, 5967), (383, 6108), (411, 6198), (414, 6210), (420, 6237), (425, 6258), (455, 6354), (529, 6591), (547, 6621), (548, 6624),

Gene: Doom\_11 Start: 7247, Stop: 8935, Start Num: 48

Candidate Starts for Doom\_11:

(Start: 48 @7247 has 363 MA's), (175, 7511), (176, 7535), (217, 7697), (223, 7730), (244, 7805), (256, 7895), (261, 7919), (268, 7946), (277, 7994), (297, 8063), (315, 8150), (329, 8210), (393, 8444), (395, 8456), (411, 8498), (416, 8519), (423, 8546), (455, 8654), (490, 8744), (514, 8849),

Gene: Dorothea\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Dorothea\_15:

(Start: 49 @7533 has 222 MA's), (146, 7764), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (284, 8370), (285, 8373), (294, 8400), (295, 8403), (365, 8688), (386, 8775), (389, 8787), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: DrFeelGood\_10 Start: 6771, Stop: 8459, Start Num: 48

Candidate Starts for DrFeelGood\_10:

(Start: 48 @6771 has 363 MA's), (175, 7035), (176, 7059), (217, 7221), (223, 7254), (244, 7329), (256, 7419), (261, 7443), (268, 7470), (277, 7518), (297, 7587), (315, 7674), (329, 7734), (390, 7959), (393, 7968), (395, 7980), (411, 8022), (416, 8043), (423, 8070), (455, 8178), (490, 8268), (514, 8373),

Gene: DrManhattan\_2 Start: 534, Stop: 2240, Start Num: 74

Candidate Starts for DrManhattan\_2:

(7, 240), (8, 243), (Start: 74 @534 has 7 MA's), (83, 555), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (249, 1101), (252, 1125), (258, 1155), (267, 1200), (284, 1275), (343, 1488), (350, 1527), (442, 1869), (455, 1905), (460, 1920), (467, 1938), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: DrSierra\_2 Start: 548, Stop: 2254, Start Num: 71

Candidate Starts for DrSierra\_2:

(Start: 71 @548 has 40 MA's), (83, 569), (109, 614), (217, 977), (228, 1025), (249, 1115), (284, 1289), (343, 1502), (350, 1541), (383, 1664), (408, 1748), (442, 1883), (455, 1919), (460, 1934), (496, 2069), (517, 2165), (519, 2177),

Gene: Drake55\_14 Start: 7940, Stop: 9727, Start Num: 49

Candidate Starts for Drake55\_14:

(10, 7754), (24, 7856), (Start: 49 @7940 has 222 MA's), (110, 8048), (120, 8069), (146, 8177), (217, 8462), (244, 8570), (256, 8660), (261, 8684), (289, 8801), (295, 8816), (383, 9203), (420, 9329), (425, 9350), (450, 9434), (455, 9446), (529, 9683), (546, 9710), (547, 9713), (548, 9716), (549, 9719),

Gene: Drake94\_10 Start: 4774, Stop: 6465, Start Num: 48

Candidate Starts for Drake94\_10:

(Start: 48 @4774 has 363 MA's), (Start: 68 @4798 has 1 MA's), (159, 4990), (171, 5041), (175, 5053), (181, 5095), (185, 5116), (206, 5194), (217, 5239), (225, 5278), (242, 5326), (244, 5347), (247, 5371), (256, 5422), (284, 5545), (320, 5692), (333, 5752), (342, 5797), (383, 5938), (397, 5992), (411, 6028), (420, 6067), (425, 6088), (455, 6184), (478, 6253), (529, 6421), (547, 6451), (548, 6454),

Gene: Dre3\_4 Start: 1229, Stop: 2923, Start Num: 96

Candidate Starts for Dre3\_4:

(Start: 96 @1229 has 69 MA's), (109, 1259), (123, 1292), (125, 1301), (171, 1439), (206, 1601), (208, 1616), (217, 1646), (220, 1667), (227, 1697), (244, 1766), (246, 1784), (249, 1796), (251, 1817), (267, 1886), (275, 1928), (317, 2105), (328, 2156), (342, 2219), (346, 2243), (362, 2276), (374, 2309), (384, 2378), (407, 2453), (409, 2462), (411, 2471), (414, 2483), (415, 2489), (420, 2510), (463, 2648), (505, 2771), (523, 2852), (547, 2909), (548, 2912),

Gene: DreamCatcher\_14 Start: 8201, Stop: 9889, Start Num: 55

Candidate Starts for DreamCatcher\_14:

(Start: 55 @8201 has 24 MA's), (Start: 153 @8381 has 2 MA's), (175, 8465), (177, 8492), (180, 8501), (217, 8651), (223, 8684), (244, 8759), (256, 8849), (261, 8873), (277, 8948), (297, 9017), (315, 9104), (316, 9113), (329, 9164), (393, 9398), (395, 9410), (411, 9452), (416, 9473), (423, 9500), (455, 9608), (490, 9698), (514, 9803),

Gene: DreamTeam1\_12 Start: 6308, Stop: 8080, Start Num: 62

Candidate Starts for DreamTeam1\_12:

(Start: 49 @6296 has 222 MA's), (Start: 62 @6308 has 20 MA's), (123, 6425), (146, 6524), (183, 6674), (185, 6686), (204, 6758), (217, 6812), (225, 6851), (244, 6923), (253, 6995), (256, 7013), (261, 7037), (289, 7154), (295, 7169), (316, 7277), (336, 7352), (357, 7448), (392, 7589), (408, 7628), (420, 7682), (421, 7685), (425, 7703), (440, 7757), (450, 7787), (455, 7799), (490, 7889), (497, 7907), (529, 8036), (546, 8063), (547, 8066),

Gene: Dreamboat\_12 Start: 6899, Stop: 8587, Start Num: 48

Candidate Starts for Dreamboat\_12:

(Start: 48 @6899 has 363 MA's), (Start: 153 @7079 has 2 MA's), (175, 7163), (180, 7199), (217, 7349), (244, 7457), (256, 7547), (261, 7571), (277, 7646), (297, 7715), (315, 7802), (329, 7862), (393, 8096), (395, 8108), (411, 8150), (416, 8171), (423, 8198), (455, 8306), (490, 8396), (514, 8501),

Gene: DroogsArmy\_12 Start: 8069, Stop: 9763, Start Num: 48

Candidate Starts for DroogsArmy\_12:

(Start: 48 @8069 has 363 MA's), (142, 8237), (162, 8288), (175, 8336), (185, 8399), (194, 8435), (204, 8468), (213, 8510), (217, 8522), (219, 8537), (225, 8561), (244, 8630), (256, 8720), (258, 8729), (295, 8876), (315, 8975), (328, 9032), (337, 9062), (382, 9233), (383, 9236), (389, 9260), (390, 9263), (413, 9335), (455, 9482), (465, 9509), (472, 9536), (518, 9689), (529, 9719), (547, 9749),

Gene: DropBear\_11 Start: 6556, Stop: 8253, Start Num: 48

Candidate Starts for DropBear\_11:

(Start: 48 @6556 has 363 MA's), (Start: 68 @6580 has 1 MA's), (95, 6628), (175, 6826), (185, 6889), (213, 7000), (217, 7012), (225, 7051), (230, 7063), (244, 7120), (247, 7144), (256, 7210), (258, 7219), (275, 7300), (281, 7327), (315, 7465), (337, 7552), (365, 7651), (383, 7726), (389, 7750), (390, 7753), (392, 7759), (394, 7768), (411, 7816), (425, 7876), (455, 7972), (469, 8017), (472, 8026), (518, 8179), (529, 8209), (547, 8239), (548, 8242),

Gene: Druantia\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Druantia\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Dublin\_8 Start: 6128, Stop: 7906, Start Num: 26

Candidate Starts for Dublin\_8:

(Start: 26 @6128 has 19 MA's), (Start: 28 @6155 has 30 MA's), (60, 6224), (121, 6338), (123, 6344), (171, 6476), (185, 6551), (186, 6554), (194, 6587), (204, 6620), (231, 6728), (238, 6752), (244, 6785), (256, 6860), (266, 6905), (281, 6983), (284, 6989), (322, 7154), (331, 7187), (337, 7208), (383, 7382), (389, 7406), (390, 7409), (411, 7469), (414, 7481), (420, 7508), (425, 7529), (450, 7613), (455, 7625), (491, 7718), (529, 7862), (548, 7895), (550, 7901),

Gene: Dubu\_2 Start: 550, Stop: 2163, Start Num: 105

Candidate Starts for Dubu\_2:

(Start: 105 @550 has 1 MA's), (114, 574), (150, 643), (161, 676), (169, 727), (172, 745), (174, 751), (186, 820), (194, 916), (201, 940), (208, 973), (217, 1003), (222, 1033), (231, 1054), (233, 1060), (242, 1087), (254, 1174), (256, 1183), (259, 1195), (263, 1216), (268, 1231), (286, 1306), (310, 1384), (343, 1492), (372, 1585), (375, 1600), (403, 1708), (414, 1765), (422, 1801), (438, 1834), (447, 1870), (462, 1903), (499, 2008), (512, 2071), (514, 2077), (515, 2080), (532, 2131), (547, 2152),

Gene: DudeLittle\_12 Start: 7538, Stop: 9325, Start Num: 49

Candidate Starts for DudeLittle\_12:

(Start: 49 @7538 has 222 MA's), (110, 7646), (120, 7667), (146, 7775), (185, 7937), (216, 8057), (217, 8060), (244, 8168), (256, 8258), (261, 8282), (289, 8399), (295, 8414), (362, 8714), (414, 8900), (420, 8927), (425, 8948), (455, 9044), (529, 9281), (546, 9308), (547, 9311),

Gene: Dulcie\_10 Start: 6646, Stop: 8334, Start Num: 48

Candidate Starts for Dulcie\_10:

(Start: 48 @6646 has 363 MA's), (175, 6910), (176, 6934), (217, 7096), (223, 7129), (244, 7204), (256, 7294), (261, 7318), (268, 7345), (277, 7393), (281, 7411), (297, 7462), (315, 7549), (329, 7609), (393, 7843), (395, 7855), (411, 7897), (416, 7918), (423, 7945), (455, 8053), (490, 8143), (514, 8248),

Gene: Duplo\_15 Start: 7416, Stop: 9203, Start Num: 49

Candidate Starts for Duplo\_15:

(14, 7257), (16, 7284), (Start: 49 @7416 has 222 MA's), (110, 7524), (120, 7545), (137, 7611), (146, 7653), (171, 7740), (216, 7935), (217, 7938), (244, 8046), (256, 8136), (261, 8160), (284, 8259), (294, 8289), (295, 8292), (319, 8403), (362, 8592), (408, 8751), (411, 8766), (414, 8778), (420, 8805), (425, 8826), (450, 8910), (455, 8922), (490, 9012), (529, 9159), (546, 9186), (547, 9189),

Gene: Dussy\_12 Start: 7007, Stop: 8695, Start Num: 48

Candidate Starts for Dussy\_12:

(Start: 48 @7007 has 363 MA's), (Start: 153 @7187 has 2 MA's), (175, 7271), (180, 7307), (185, 7334), (217, 7457), (244, 7565), (256, 7655), (261, 7679), (268, 7706), (277, 7754), (297, 7823), (315, 7910), (329, 7970), (390, 8195), (393, 8204), (395, 8216), (411, 8258), (416, 8279), (423, 8306), (455, 8414), (490, 8504), (514, 8609),

Gene: DustyMartin\_14 Start: 6755, Stop: 8446, Start Num: 48

Candidate Starts for DustyMartin\_14:

(Start: 48 @6755 has 363 MA's), (Start: 68 @6779 has 1 MA's), (Start: 126 @6902 has 2 MA's), (158, 6968), (171, 7022), (175, 7034), (182, 7079), (194, 7133), (202, 7160), (206, 7175), (217, 7220), (225, 7259), (242, 7307), (244, 7328), (247, 7352), (256, 7403), (284, 7526), (320, 7673), (333, 7733), (342, 7778), (365, 7844), (383, 7919), (389, 7943), (411, 8009), (425, 8069), (455, 8165), (472, 8219), (529, 8402), (547, 8432), (548, 8435),

Gene: Dusty\_28 Start: 8433, Stop: 10181, Start Num: 88

Candidate Starts for Dusty\_28:

(Start: 88 @8433 has 21 MA's), (106, 8463), (159, 8589), (160, 8592), (184, 8706), (190, 8778), (197, 8817), (205, 8841), (216, 8889), (221, 8916), (267, 9138), (270, 9156), (310, 9318), (327, 9366), (332, 9381), (373, 9564), (375, 9570), (389, 9654), (413, 9741), (421, 9774), (452, 9888), (465, 9924), (472, 9948), (481, 9963), (533, 10137), (535, 10143),

Gene: Dwayne\_6 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Dwayne\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (Start: 126 @2527 has 2 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (229, 2881), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (383, 3481), (388, 3502), (408, 3565), (414, 3592), (442, 3700), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (503, 3880), (517, 3940), (550,

4018),

Gene: Dynamix\_12 Start: 7056, Stop: 8744, Start Num: 48

Candidate Starts for Dynamix\_12:

(Start: 48 @7056 has 363 MA's), (Start: 153 @7236 has 2 MA's), (175, 7320), (180, 7356), (185, 7383), (217, 7506), (244, 7614), (256, 7704), (261, 7728), (268, 7755), (277, 7803), (315, 7959), (328, 8016), (329, 8019), (393, 8253), (395, 8265), (411, 8307), (416, 8328), (423, 8355), (455, 8463), (490, 8553), (514, 8658),

Gene: ELB20\_05 Start: 2194, Stop: 3855, Start Num: 47

Candidate Starts for ELB20\_05:

(Start: 47 @2194 has 87 MA's), (159, 2416), (179, 2512), (202, 2605), (206, 2620), (211, 2647), (218, 2668), (242, 2755), (256, 2851), (263, 2884), (275, 2938), (284, 2971), (291, 2995), (304, 3064), (332, 3127), (333, 3133), (340, 3163), (366, 3247), (382, 3310), (383, 3313), (386, 3325), (388, 3334), (391, 3343), (408, 3397), (414, 3424), (455, 3571), (463, 3592), (469, 3616), (496, 3676), (517, 3772), (550, 3850),

Gene: EMSquaredA\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for EMSquaredA\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: EZMoney23\_16 Start: 9406, Stop: 11193, Start Num: 49

Candidate Starts for EZMoney23\_16:

(Start: 49 @9406 has 222 MA's), (110, 9514), (120, 9535), (146, 9643), (162, 9694), (171, 9730), (181, 9784), (216, 9925), (217, 9928), (225, 9967), (244, 10036), (256, 10126), (261, 10150), (295, 10282), (383, 10669), (414, 10768), (420, 10795), (425, 10816), (450, 10900), (455, 10912), (529, 11149), (546, 11176), (547, 11179), (548, 11182), (549, 11185),

Gene: Eagle\_10 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Eagle\_10:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: EagleEye\_14 Start: 7590, Stop: 9344, Start Num: 49

Candidate Starts for EagleEye\_14:

(Start: 49 @7590 has 222 MA's), (123, 7722), (146, 7821), (171, 7908), (185, 7983), (204, 8052), (216, 8103), (217, 8106), (244, 8214), (256, 8304), (261, 8328), (294, 8457), (295, 8460), (299, 8496), (362, 8736), (365, 8745), (383, 8820), (408, 8892), (411, 8907), (420, 8946), (425, 8967), (450, 9051), (455, 9063), (496, 9168), (514, 9258), (517, 9267), (529, 9300), (546, 9327), (547, 9330), (548, 9333), (549, 9336),

Gene: Eaglepride\_12 Start: 6703, Stop: 8379, Start Num: 48

Candidate Starts for Eaglepride\_12:

(Start: 48 @6703 has 363 MA's), (Start: 126 @6835 has 2 MA's), (162, 6919), (171, 6955), (175, 6967), (202, 7093), (217, 7153), (225, 7192), (242, 7240), (244, 7261), (247, 7285), (256, 7336), (284, 7459), (299, 7528), (333, 7666), (342, 7711), (365, 7777), (383, 7852), (389, 7876), (411, 7942), (414,



7954), (420, 7981), (425, 8002), (455, 8098), (478, 8167), (527, 8332), (529, 8335), (547, 8365), (548, 8368),

Gene: Eapen\_11 Start: 6886, Stop: 8583, Start Num: 48

Candidate Starts for Eapen\_11:

(Start: 48 @6886 has 363 MA's), (Start: 68 @6910 has 1 MA's), (Start: 126 @7033 has 2 MA's), (167, 7123), (175, 7156), (194, 7255), (216, 7339), (217, 7342), (225, 7381), (244, 7450), (247, 7474), (256, 7540), (275, 7630), (315, 7795), (337, 7882), (342, 7915), (365, 7981), (382, 8053), (383, 8056), (389, 8080), (408, 8131), (411, 8146), (420, 8185), (425, 8206), (455, 8302), (529, 8539), (547, 8569), (548, 8572),

Gene: Ebony\_12 Start: 8082, Stop: 9845, Start Num: 49

Candidate Starts for Ebony\_12:

(Start: 49 @8082 has 222 MA's), (Start: 66 @8103 has 5 MA's), (110, 8190), (146, 8319), (156, 8343), (171, 8406), (204, 8550), (216, 8601), (217, 8604), (244, 8715), (247, 8739), (248, 8742), (256, 8805), (258, 8814), (261, 8829), (289, 8946), (295, 8961), (304, 9021), (326, 9105), (386, 9333), (389, 9345), (408, 9393), (411, 9408), (420, 9447), (425, 9468), (437, 9507), (450, 9552), (455, 9564), (529, 9801), (546, 9828),

Gene: Echild\_12 Start: 7541, Stop: 9328, Start Num: 49

Candidate Starts for Echild\_12:

(12, 7367), (Start: 49 @7541 has 222 MA's), (110, 7649), (120, 7670), (146, 7778), (171, 7865), (216, 8060), (217, 8063), (244, 8171), (256, 8261), (261, 8285), (289, 8402), (295, 8417), (362, 8717), (414, 8903), (420, 8930), (425, 8951), (455, 9047), (529, 9284), (546, 9311), (547, 9314),

Gene: Eddasa\_7 Start: 2562, Stop: 4208, Start Num: 47

Candidate Starts for Eddasa\_7:

(Start: 47 @2562 has 87 MA's), (Start: 62 @2580 has 20 MA's), (162, 2784), (179, 2865), (211, 3000), (218, 3021), (229, 3066), (242, 3108), (251, 3180), (256, 3204), (275, 3291), (278, 3303), (295, 3357), (326, 3456), (340, 3516), (386, 3678), (388, 3687), (414, 3777), (422, 3810), (441, 3882), (442, 3885), (455, 3924), (463, 3945), (465, 3951), (469, 3969), (503, 4065), (517, 4125),

Gene: Edison31\_11 Start: 6714, Stop: 8405, Start Num: 48

Candidate Starts for Edison31\_11:

(Start: 48 @6714 has 363 MA's), (Start: 68 @6738 has 1 MA's), (Start: 126 @6861 has 2 MA's), (171, 6981), (175, 6993), (182, 7038), (194, 7092), (202, 7119), (206, 7134), (217, 7179), (225, 7218), (242, 7266), (244, 7287), (247, 7311), (256, 7362), (284, 7485), (315, 7617), (333, 7692), (342, 7737), (365, 7803), (383, 7878), (389, 7902), (411, 7968), (420, 8007), (421, 8010), (425, 8028), (455, 8124), (478, 8193), (529, 8361), (547, 8391), (548, 8394),

Gene: EdogawaKiddo\_11 Start: 8124, Stop: 9896, Start Num: 62

Candidate Starts for EdogawaKiddo\_11:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: Edtherson\_12 Start: 7504, Stop: 9192, Start Num: 48

Candidate Starts for Edtherson\_12:

(Start: 48 @7504 has 363 MA's), (Start: 153 @7684 has 2 MA's), (175, 7768), (180, 7804), (185, 7831), (217, 7954), (223, 7987), (244, 8062), (256, 8152), (261, 8176), (268, 8203), (277, 8251), (312, 8395), (315, 8407), (329, 8467), (393, 8701), (395, 8713), (411, 8755), (416, 8776), (423, 8803), (455,

8911), (490, 9001), (514, 9106),

Gene: Eidsmoe\_13 Start: 8139, Stop: 9926, Start Num: 49

Candidate Starts for Eidsmoe\_13:

(Start: 49 @8139 has 222 MA's), (Start: 62 @8154 has 20 MA's), (Start: 66 @8160 has 5 MA's), (123, 8271), (146, 8370), (185, 8532), (204, 8604), (217, 8658), (225, 8697), (244, 8769), (256, 8859), (261, 8883), (289, 9000), (295, 9015), (316, 9123), (336, 9198), (342, 9234), (357, 9294), (386, 9414), (392, 9435), (408, 9474), (420, 9528), (421, 9531), (425, 9549), (440, 9603), (450, 9633), (455, 9645), (490, 9735), (497, 9753), (529, 9882), (546, 9909), (547, 9912),

Gene: Ejemplo\_6 Start: 2380, Stop: 4026, Start Num: 47

Candidate Starts for Ejemplo\_6:

(Start: 47 @2380 has 87 MA's), (Start: 62 @2398 has 20 MA's), (162, 2602), (171, 2638), (211, 2818), (218, 2839), (242, 2926), (251, 2998), (256, 3022), (278, 3121), (281, 3136), (289, 3160), (291, 3166), (340, 3334), (353, 3394), (383, 3484), (388, 3505), (414, 3595), (442, 3703), (455, 3742), (463, 3763), (465, 3769), (469, 3787), (517, 3943), (550, 4021),

Gene: ElGato\_7 Start: 2228, Stop: 3874, Start Num: 47

Candidate Starts for ElGato\_7:

(Start: 45 @2219 has 1 MA's), (Start: 47 @2228 has 87 MA's), (Start: 48 @2231 has 363 MA's), (Start: 62 @2246 has 20 MA's), (162, 2450), (171, 2486), (179, 2531), (202, 2624), (206, 2639), (211, 2666), (214, 2675), (218, 2687), (242, 2774), (248, 2822), (256, 2870), (278, 2969), (289, 3008), (326, 3122), (331, 3143), (340, 3182), (365, 3263), (383, 3332), (384, 3338), (388, 3353), (408, 3416), (441, 3548), (455, 3590), (465, 3617), (469, 3635), (491, 3683), (517, 3791),

Gene: ElTiger69\_9 Start: 5986, Stop: 7764, Start Num: 26

Candidate Starts for ElTiger69\_9:

(Start: 26 @5986 has 19 MA's), (Start: 28 @6013 has 30 MA's), (52, 6073), (60, 6082), (82, 6121), (121, 6196), (123, 6202), (185, 6409), (186, 6412), (231, 6586), (256, 6718), (266, 6763), (281, 6841), (284, 6847), (322, 7012), (331, 7045), (337, 7066), (383, 7240), (389, 7264), (420, 7366), (425, 7387), (440, 7441), (450, 7471), (455, 7483), (472, 7537), (527, 7717), (529, 7720), (548, 7753), (550, 7759),

Gene: Elephantoon\_13 Start: 7764, Stop: 9554, Start Num: 49

Candidate Starts for Elephantoon\_13:

(Start: 49 @7764 has 222 MA's), (Start: 62 @7779 has 20 MA's), (123, 7896), (146, 7995), (185, 8157), (204, 8229), (217, 8283), (225, 8322), (244, 8394), (256, 8484), (261, 8508), (295, 8640), (316, 8748), (336, 8823), (342, 8859), (357, 8919), (374, 8979), (386, 9039), (392, 9060), (420, 9156), (421, 9159), (425, 9177), (440, 9231), (450, 9261), (455, 9273), (491, 9366), (497, 9381), (509, 9432), (529, 9510), (546, 9537), (547, 9540),

Gene: Elezi\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Elezi\_2:

(Start: 71 @534 has 40 MA's), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (220, 984), (228, 1011), (249, 1101), (258, 1155), (267, 1200), (284, 1275), (324, 1404), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (440, 1863), (455, 1905), (460, 1920), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: Elinal\_5 Start: 906, Stop: 2582, Start Num: 96

Candidate Starts for Elinal\_5:

(Start: 96 @906 has 69 MA's), (Start: 119 @957 has 1 MA's), (125, 978), (150, 1023), (162, 1065), (171, 1101), (184, 1167), (206, 1263), (214, 1299), (217, 1308), (218, 1311), (227, 1359), (230, 1371), (249, 1458), (286, 1638), (299, 1692), (341, 1872), (346, 1905), (375, 1971), (384, 2037), (386, 2043), (411, 2127), (434, 2208), (440, 2241), (465, 2310), (496, 2388), (518, 2487), (523, 2508), (527, 2514),

(547, 2568), (548, 2571),

Gene: Eliott\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Eliott\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (148, 1224), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Emaanora\_8 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for Emaanora\_8:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (408, 3564), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (503, 3879), (517, 3939), (550, 4017),

Gene: Emalyn\_3 Start: 805, Stop: 2487, Start Num: 96

Candidate Starts for Emalyn\_3:

(Start: 96 @805 has 69 MA's), (Start: 119 @856 has 1 MA's), (125, 877), (Start: 126 @880 has 2 MA's), (171, 1003), (179, 1048), (185, 1078), (202, 1150), (206, 1165), (214, 1201), (217, 1210), (218, 1213), (227, 1261), (244, 1330), (249, 1360), (251, 1381), (259, 1417), (267, 1450), (292, 1555), (299, 1594), (309, 1630), (317, 1669), (324, 1702), (337, 1750), (342, 1783), (346, 1807), (362, 1840), (384, 1939), (386, 1945), (410, 2023), (420, 2068), (434, 2110), (463, 2206), (486, 2254), (505, 2329), (523, 2410), (547, 2473), (548, 2476),

Gene: Emotion\_2 Start: 551, Stop: 2290, Start Num: 51

Candidate Starts for Emotion\_2:

(46, 539), (Start: 51 @551 has 139 MA's), (Start: 88 @611 has 21 MA's), (134, 716), (195, 932), (199, 944), (211, 995), (217, 1013), (390, 1733), (455, 1961), (460, 1976), (506, 2147), (519, 2213), (547, 2276),

Gene: EmyBug\_13 Start: 8160, Stop: 9926, Start Num: 66

Candidate Starts for EmyBug\_13:

(Start: 49 @8139 has 222 MA's), (Start: 62 @8154 has 20 MA's), (Start: 66 @8160 has 5 MA's), (123, 8271), (146, 8370), (185, 8532), (204, 8604), (217, 8658), (225, 8697), (244, 8769), (256, 8859), (261, 8883), (289, 9000), (295, 9015), (316, 9123), (336, 9198), (342, 9234), (357, 9294), (386, 9414), (392, 9435), (408, 9474), (420, 9528), (421, 9531), (425, 9549), (440, 9603), (450, 9633), (455, 9645), (490, 9735), (497, 9753), (529, 9882), (546, 9909), (547, 9912),

Gene: EnalisNailo\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for EnalisNailo\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Engineer\_31 Start: 8628, Stop: 10376, Start Num: 88

Candidate Starts for Engineer\_31:

(Start: 88 @8628 has 21 MA's), (106, 8658), (160, 8787), (190, 8973), (197, 9012), (205, 9036), (210, 9066), (216, 9084), (221, 9111), (228, 9141), (267, 9333), (270, 9351), (310, 9513), (327, 9561), (332, 9576), (373, 9759), (375, 9765), (389, 9849), (413, 9936), (421, 9969), (452, 10083), (465, 10119), (472, 10143), (481, 10158), (533, 10332), (535, 10338),

Gene: EnochSoames\_7 Start: 2576, Stop: 4204, Start Num: 62

Candidate Starts for EnochSoames\_7:

(Start: 47 @2558 has 87 MA's), (Start: 62 @2576 has 20 MA's), (162, 2780), (179, 2861), (211, 2996), (218, 3017), (229, 3062), (242, 3104), (251, 3176), (256, 3200), (275, 3287), (278, 3299), (295, 3353), (326, 3452), (340, 3512), (386, 3674), (388, 3683), (414, 3773), (422, 3806), (441, 3878), (442, 3881), (455, 3920), (463, 3941), (465, 3947), (469, 3965), (503, 4061), (517, 4121),

Gene: EpicPhail\_13 Start: 6957, Stop: 8657, Start Num: 51

Candidate Starts for EpicPhail\_13:

(Start: 51 @6957 has 139 MA's), (Start: 81 @7005 has 4 MA's), (149, 7140), (194, 7332), (217, 7419), (256, 7617), (275, 7707), (294, 7770), (329, 7932), (383, 8130), (389, 8154), (390, 8157), (411, 8220), (416, 8241), (425, 8280), (455, 8376), (472, 8430), (490, 8466), (529, 8613), (547, 8643), (548, 8646),

Gene: Epsocamisio\_14 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for Epsocamisio\_14:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496, 8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: Equemioh13\_14 Start: 7926, Stop: 9713, Start Num: 49

Candidate Starts for Equemioh13\_14:

(10, 7740), (24, 7842), (Start: 49 @7926 has 222 MA's), (110, 8034), (120, 8055), (143, 8145), (146, 8163), (204, 8394), (216, 8445), (217, 8448), (244, 8556), (256, 8646), (261, 8670), (295, 8802), (383, 9189), (420, 9315), (425, 9336), (450, 9420), (455, 9432), (529, 9669), (546, 9696), (547, 9699), (548, 9702), (549, 9705),

Gene: Eraser\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Eraser\_2:

(Start: 71 @534 has 40 MA's), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (220, 984), (228, 1011), (249, 1101), (258, 1155), (267, 1200), (284, 1275), (303, 1365), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (440, 1863), (455, 1905), (460, 1920), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: EricB\_15 Start: 7524, Stop: 9278, Start Num: 49

Candidate Starts for EricB\_15:

(Start: 49 @7524 has 222 MA's), (146, 7755), (162, 7806), (171, 7842), (185, 7917), (217, 8040), (225, 8079), (244, 8148), (247, 8172), (248, 8175), (256, 8238), (261, 8262), (284, 8361), (285, 8364), (294, 8391), (295, 8394), (365, 8679), (386, 8766), (389, 8778), (411, 8841), (420, 8880), (425, 8901), (450, 8985), (455, 8997), (529, 9234), (546, 9261), (547, 9264),

Gene: Erik\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Erik\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Eris\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Eris\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Eros\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Eros\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Esperer\_6 Start: 2420, Stop: 4048, Start Num: 62

Candidate Starts for Esperer\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: Espica\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Espica\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Espresso\_11 Start: 7100, Stop: 8788, Start Num: 48

Candidate Starts for Espresso\_11:

(Start: 48 @7100 has 363 MA's), (175, 7364), (176, 7388), (217, 7550), (223, 7583), (244, 7658), (256, 7748), (261, 7772), (268, 7799), (277, 7847), (281, 7865), (297, 7916), (312, 7991), (315, 8003), (329, 8063), (393, 8297), (395, 8309), (411, 8351), (416, 8372), (423, 8399), (455, 8507), (490, 8597), (514, 8702),

Gene: Et2Brutus\_11 Start: 8027, Stop: 9790, Start Num: 49

Candidate Starts for Et2Brutus\_11:

(Start: 49 @8027 has 222 MA's), (Start: 66 @8048 has 5 MA's), (110, 8135), (146, 8264), (156, 8288), (171, 8351), (204, 8495), (216, 8546), (217, 8549), (244, 8660), (247, 8684), (248, 8687), (256, 8750), (258, 8759), (261, 8774), (289, 8891), (295, 8906), (304, 8966), (326, 9050), (386, 9278), (389, 9290), (408, 9338), (411, 9353), (420, 9392), (425, 9413), (437, 9452), (450, 9497), (455, 9509), (529, 9746), (546, 9773),

Gene: Euphoria\_11 Start: 6996, Stop: 8684, Start Num: 48

Candidate Starts for Euphoria\_11:

(Start: 48 @6996 has 363 MA's), (175, 7260), (176, 7284), (217, 7446), (223, 7479), (244, 7554), (256, 7644), (261, 7668), (268, 7695), (277, 7743), (297, 7812), (315, 7899), (329, 7959), (390, 8184), (393, 8193), (395, 8205), (411, 8247), (416, 8268), (423, 8295), (455, 8403), (490, 8493), (514, 8598),

Gene: Eurydice\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Eurydice\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: EvilGenius\_14 Start: 7834, Stop: 9621, Start Num: 49

Candidate Starts for EvilGenius\_14:

(Start: 49 @7834 has 222 MA's), (110, 7942), (120, 7963), (146, 8071), (171, 8158), (204, 8302), (216, 8353), (217, 8356), (244, 8464), (256, 8554), (261, 8578), (289, 8695), (295, 8710), (362, 9010), (414, 9196), (420, 9223), (425, 9244), (455, 9340), (529, 9577), (547, 9607),

Gene: Exile\_2 Start: 568, Stop: 2271, Start Num: 71

Candidate Starts for Exile\_2:

(Start: 71 @568 has 40 MA's), (171, 790), (180, 838), (199, 919), (217, 988), (228, 1036), (249, 1129), (258, 1183), (303, 1393), (455, 1939), (460, 1954), (519, 2194), (524, 2209), (547, 2257),

Gene: Expelliarmus\_8 Start: 5669, Stop: 7423, Start Num: 28

Candidate Starts for Expelliarmus\_8:

(Start: 28 @5669 has 30 MA's), (44, 5711), (67, 5750), (123, 5858), (185, 6065), (238, 6266), (256, 6374), (284, 6503), (322, 6668), (331, 6701), (366, 6821), (383, 6896), (416, 7007), (420, 7025), (425, 7046), (440, 7100), (455, 7142), (496, 7247), (517, 7346), (529, 7379), (548, 7412), (550, 7418),

Gene: ExplosioNervosa\_13 Start: 8157, Stop: 9929, Start Num: 62

Candidate Starts for ExplosioNervosa\_13:

(Start: 49 @8142 has 222 MA's), (Start: 62 @8157 has 20 MA's), (Start: 66 @8163 has 5 MA's), (123, 8274), (146, 8373), (185, 8535), (204, 8607), (217, 8661), (225, 8700), (244, 8772), (256, 8862), (261, 8886), (289, 9003), (295, 9018), (316, 9126), (336, 9201), (342, 9237), (357, 9297), (386, 9417), (392, 9438), (408, 9477), (420, 9531), (421, 9534), (425, 9552), (440, 9606), (450, 9636), (455, 9648), (490, 9738), (497, 9756), (529, 9885), (546, 9912), (547, 9915),

Gene: Eyeball\_11 Start: 6743, Stop: 8431, Start Num: 48

Candidate Starts for Eyeball\_11:

(Start: 48 @6743 has 363 MA's), (175, 7007), (176, 7031), (217, 7193), (223, 7226), (244, 7301), (256, 7391), (261, 7415), (268, 7442), (277, 7490), (315, 7646), (329, 7706), (390, 7931), (393, 7940), (395, 7952), (411, 7994), (416, 8015), (423, 8042), (455, 8150), (490, 8240), (514, 8345),

Gene: FF47\_05 Start: 1775, Stop: 3439, Start Num: 96

Candidate Starts for FF47\_05:

(Start: 96 @1775 has 69 MA's), (113, 1814), (123, 1838), (171, 1967), (200, 2099), (202, 2114), (206, 2129), (217, 2174), (227, 2222), (239, 2258), (248, 2315), (251, 2339), (259, 2375), (303, 2573), (309, 2588), (317, 2627), (347, 2774), (383, 2894), (414, 2999), (442, 3107), (453, 3137), (463, 3164), (467, 3176), (486, 3212), (487, 3215), (510, 3308), (521, 3365),

Gene: Fajezeel\_13 Start: 7320, Stop: 9008, Start Num: 55

Candidate Starts for Fajezeel\_13:

(Start: 55 @7320 has 24 MA's), (149, 7491), (Start: 153 @7500 has 2 MA's), (175, 7584), (177, 7611), (180, 7620), (217, 7770), (223, 7803), (244, 7878), (256, 7968), (261, 7992), (268, 8019), (277, 8067), (315, 8223), (329, 8283), (393, 8517), (411, 8571), (416, 8592), (423, 8619), (455, 8727), (490, 8817), (514, 8922),

Gene: Fameo\_12 Start: 7454, Stop: 9241, Start Num: 49

Candidate Starts for Fameo\_12:

(Start: 49 @7454 has 222 MA's), (110, 7562), (120, 7583), (146, 7691), (185, 7853), (217, 7976), (244, 8084), (256, 8174), (261, 8198), (289, 8315), (295, 8330), (362, 8630), (414, 8816), (420, 8843), (425, 8864), (455, 8960), (529, 9197), (546, 9224), (547, 9227),

Gene: Farber\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for Farber\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: Farewell\_2 Start: 506, Stop: 2287, Start Num: 48

Candidate Starts for Farewell\_2:

(Start: 48 @506 has 363 MA's), (112, 611), (176, 830), (180, 842), (185, 869), (202, 935), (204, 941), (205, 944), (210, 974), (217, 995), (232, 1052), (250, 1154), (258, 1190), (267, 1238), (279, 1298), (300, 1388), (308, 1418), (331, 1472), (346, 1550), (383, 1658), (388, 1679), (392, 1691), (395, 1709), (420, 1808), (429, 1862), (433, 1877), (442, 1919), (455, 1967), (465, 1991), (476, 2027), (491, 2096), (495, 2102), (496, 2108), (509, 2159), (514, 2195), (516, 2201), (519, 2216), (527, 2234), (537, 2249),

Gene: Fascinus\_10 Start: 6746, Stop: 8434, Start Num: 48

Candidate Starts for Fascinus\_10:

(Start: 48 @6746 has 363 MA's), (Start: 153 @6926 has 2 MA's), (175, 7010), (180, 7046), (185, 7073), (217, 7196), (244, 7304), (256, 7394), (261, 7418), (277, 7493), (297, 7562), (315, 7649), (329, 7709), (390, 7934), (393, 7943), (395, 7955), (411, 7997), (416, 8018), (423, 8045), (455, 8153), (490, 8243), (514, 8348),

Gene: Fayely\_13 Start: 8142, Stop: 9929, Start Num: 49

Candidate Starts for Fayely\_13:

(Start: 49 @8142 has 222 MA's), (Start: 62 @8157 has 20 MA's), (Start: 66 @8163 has 5 MA's), (123, 8274), (146, 8373), (185, 8535), (204, 8607), (217, 8661), (225, 8700), (244, 8772), (256, 8862), (261, 8886), (289, 9003), (295, 9018), (316, 9126), (336, 9201), (342, 9237), (357, 9297), (386, 9417), (392, 9438), (408, 9477), (420, 9531), (421, 9534), (425, 9552), (440, 9606), (450, 9636), (455, 9648), (490, 9738), (497, 9756), (529, 9885), (546, 9912), (547, 9915),

Gene: Feastonyeet\_3 Start: 928, Stop: 2604, Start Num: 96

Candidate Starts for Feastonyeet\_3:

(Start: 96 @928 has 69 MA's), (Start: 119 @979 has 1 MA's), (125, 1000), (150, 1045), (162, 1087), (171, 1123), (184, 1189), (206, 1285), (214, 1321), (217, 1330), (218, 1333), (227, 1381), (230, 1393), (249, 1480), (286, 1660), (299, 1714), (341, 1894), (346, 1927), (375, 1993), (384, 2059), (386, 2065), (411, 2149), (434, 2230), (440, 2263), (465, 2332), (496, 2410), (506, 2452), (518, 2509), (523, 2530), (527, 2536), (547, 2590), (548, 2593),

Gene: FeliMaine\_35 Start: 11121, Stop: 12863, Start Num: 96

Candidate Starts for FeliMaine\_35:

(Start: 96 @11121 has 69 MA's), (149, 11238), (162, 11283), (170, 11349), (172, 11364), (176, 11397), (177, 11400), (181, 11415), (186, 11439), (187, 11442), (194, 11472), (200, 11493), (202, 11511), (205, 11520), (212, 11556), (217, 11571), (227, 11616), (242, 11658), (246, 11697), (249, 11709), (251, 11730), (262, 11781), (268, 11802), (324, 12024), (346, 12129), (347, 12138), (366, 12171), (375, 12192), (376, 12195), (379, 12222), (383, 12252), (386, 12264), (390, 12279), (393, 12288), (394, 12294), (407, 12336), (409, 12345), (412, 12360), (416, 12375), (434, 12435), (440, 12474), (451, 12507), (463, 12537), (464, 12540), (485, 12624), (496, 12678), (499, 12693), (506, 12720), (517, 12774), (546, 12846), (547, 12849),

Gene: Fernando\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for Fernando\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: Fibonacci\_12 Start: 8027, Stop: 9790, Start Num: 49

Candidate Starts for Fibonacci\_12:

(Start: 49 @8027 has 222 MA's), (Start: 66 @8048 has 5 MA's), (110, 8135), (146, 8264), (156, 8288), (171, 8351), (204, 8495), (216, 8546), (217, 8549), (244, 8660), (247, 8684), (248, 8687), (256, 8750), (258, 8759), (261, 8774), (289, 8891), (295, 8906), (304, 8966), (326, 9050), (365, 9191), (386, 9278), (389, 9290), (408, 9338), (411, 9353), (420, 9392), (425, 9413), (437, 9452), (450, 9497), (455, 9509), (529, 9746), (546, 9773),

Gene: FiringLine\_12 Start: 7386, Stop: 9173, Start Num: 49

Candidate Starts for FiringLine\_12:

(Start: 49 @7386 has 222 MA's), (110, 7494), (120, 7515), (146, 7623), (185, 7785), (216, 7905), (217, 7908), (244, 8016), (256, 8106), (261, 8130), (289, 8247), (295, 8262), (362, 8562), (414, 8748), (420, 8775), (425, 8796), (455, 8892), (529, 9129), (546, 9156), (547, 9159),

Gene: First\_0012 Start: 7443, Stop: 9233, Start Num: 49

Candidate Starts for First\_0012:

(12, 7269), (Start: 49 @7443 has 222 MA's), (110, 7551), (120, 7572), (146, 7680), (216, 7965), (217, 7968), (244, 8076), (256, 8166), (261, 8190), (289, 8307), (295, 8322), (362, 8622), (414, 8808), (420, 8835), (425, 8856), (455, 8952), (529, 9189), (546, 9216), (547, 9219),

Gene: Flare16\_12 Start: 7484, Stop: 9271, Start Num: 49

Candidate Starts for Flare16\_12:

(10, 7298), (24, 7400), (Start: 49 @7484 has 222 MA's), (110, 7592), (120, 7613), (146, 7721), (217, 8006), (244, 8114), (256, 8204), (261, 8228), (289, 8345), (295, 8360), (383, 8747), (420, 8873), (425, 8894), (450, 8978), (455, 8990), (529, 9227), (546, 9254), (547, 9257), (548, 9260), (549, 9263),

Gene: Flaverint\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Flaverint\_12:

(20, 7904), (Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Floof\_2 Start: 634, Stop: 2388, Start Num: 64

Candidate Starts for Floof\_2:

(Start: 64 @634 has 12 MA's), (159, 820), (199, 1000), (211, 1051), (217, 1069), (249, 1219), (275, 1351), (324, 1558), (384, 1810), (408, 1888), (411, 1903), (434, 1984), (455, 2059), (460, 2074), (511, 2278), (517, 2299), (519, 2311),

Gene: Floral\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Floral\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519,



2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Florean\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Florean\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Flux\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Flux\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: FlyCatcher\_15 Start: 8301, Stop: 10001, Start Num: 48

Candidate Starts for FlyCatcher\_15:

(Start: 48 @8301 has 363 MA's), (Start: 88 @8364 has 21 MA's), (159, 8508), (167, 8538), (175, 8571), (185, 8634), (217, 8757), (219, 8772), (244, 8865), (247, 8889), (256, 8955), (295, 9111), (315, 9210), (337, 9297), (342, 9330), (360, 9384), (366, 9399), (382, 9468), (383, 9471), (389, 9495), (414, 9573), (455, 9717), (469, 9762), (497, 9825), (518, 9924), (529, 9954), (547, 9987),

Gene: Footloose\_2 Start: 428, Stop: 2197, Start Num: 38

Candidate Starts for Footloose\_2:

(22, 362), (23, 371), (Start: 38 @428 has 7 MA's), (101, 542), (124, 596), (129, 614), (135, 629), (140, 650), (Start: 153 @683 has 2 MA's), (158, 701), (162, 719), (171, 755), (172, 758), (194, 866), (202, 893), (206, 908), (207, 914), (211, 935), (217, 953), (242, 1043), (256, 1139), (259, 1151), (264, 1178), (268, 1199), (275, 1238), (289, 1295), (294, 1307), (300, 1346), (306, 1373), (310, 1382), (323, 1403), (328, 1424), (332, 1436), (334, 1445), (364, 1550), (366, 1556), (376, 1580), (386, 1634), (390, 1649), (393, 1658), (394, 1664), (405, 1703), (417, 1745), (421, 1763), (427, 1808), (440, 1865), (451, 1913), (455, 1922), (491, 2021), (496, 2033), (501, 2057), (503, 2069), (514, 2120), (516, 2126), (519, 2141), (525, 2156), (527, 2159), (540, 2189),

Gene: ForGetIt\_9 Start: 6005, Stop: 7783, Start Num: 26

Candidate Starts for ForGetIt\_9:

(Start: 26 @6005 has 19 MA's), (Start: 28 @6032 has 30 MA's), (60, 6101), (82, 6140), (121, 6215), (123, 6221), (171, 6353), (185, 6428), (186, 6431), (219, 6566), (231, 6605), (238, 6629), (256, 6737), (266, 6782), (281, 6860), (284, 6866), (322, 7031), (331, 7064), (337, 7085), (383, 7259), (389, 7283), (390, 7286), (411, 7346), (414, 7358), (420, 7385), (425, 7406), (450, 7490), (455, 7502), (529, 7739), (548, 7772), (550, 7778),

Gene: Forsytheast\_10 Start: 7010, Stop: 8698, Start Num: 48

Candidate Starts for Forsytheast\_10:

(Start: 48 @7010 has 363 MA's), (Start: 153 @7190 has 2 MA's), (175, 7274), (180, 7310), (217, 7460), (244, 7568), (256, 7658), (261, 7682), (277, 7757), (297, 7826), (315, 7913), (329, 7973), (393, 8207), (395, 8219), (411, 8261), (416, 8282), (423, 8309), (455, 8417), (490, 8507), (514, 8612),

Gene: Francis47\_11 Start: 7247, Stop: 8935, Start Num: 48

Candidate Starts for Francis47\_11:

(Start: 48 @7247 has 363 MA's), (175, 7511), (176, 7535), (217, 7697), (223, 7730), (244, 7805), (256, 7895), (261, 7919), (268, 7946), (277, 7994), (315, 8150), (329, 8210), (390, 8435), (393, 8444), (395, 8456), (411, 8498), (416, 8519), (423, 8546), (455, 8654), (490, 8744), (514, 8849),

Gene: Fred313\_11 Start: 6199, Stop: 7896, Start Num: 48

Candidate Starts for Fred313\_11:

(Start: 48 @6199 has 363 MA's), (95, 6271), (175, 6469), (213, 6643), (217, 6655), (225, 6694), (230, 6706), (244, 6763), (247, 6787), (256, 6853), (258, 6862), (275, 6943), (315, 7108), (331, 7174), (337, 7195), (341, 7219), (342, 7228), (365, 7294), (383, 7369), (389, 7393), (390, 7396), (392, 7402), (394, 7411), (411, 7459), (420, 7498), (425, 7519), (455, 7615), (469, 7660), (472, 7669), (518, 7822), (529, 7852), (547, 7882), (548, 7885),

Gene: Fribs8\_5 Start: 1777, Stop: 3477, Start Num: 96

Candidate Starts for Fribs8\_5:

(Start: 96 @1777 has 69 MA's), (109, 1807), (125, 1849), (171, 1987), (180, 2035), (186, 2065), (194, 2098), (202, 2134), (206, 2149), (208, 2164), (217, 2194), (227, 2245), (249, 2344), (251, 2365), (267, 2434), (275, 2476), (283, 2506), (317, 2653), (328, 2704), (342, 2767), (346, 2791), (374, 2857), (379, 2890), (381, 2914), (382, 2917), (384, 2926), (390, 2947), (401, 2974), (411, 3019), (414, 3031), (415, 3037), (420, 3058), (431, 3097), (463, 3196), (474, 3232), (505, 3319), (523, 3400), (527, 3406), (547, 3463), (548, 3466),

Gene: Froghopper\_12 Start: 6689, Stop: 8377, Start Num: 48

Candidate Starts for Froghopper\_12:

(Start: 48 @6689 has 363 MA's), (Start: 153 @6869 has 2 MA's), (175, 6953), (180, 6989), (185, 7016), (217, 7139), (223, 7172), (244, 7247), (256, 7337), (261, 7361), (268, 7388), (277, 7436), (312, 7580), (315, 7592), (329, 7652), (390, 7877), (393, 7886), (395, 7898), (411, 7940), (416, 7961), (423, 7988), (455, 8096), (490, 8186), (514, 8291),

Gene: Funston\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Funston\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Fushigi\_12 Start: 7411, Stop: 9099, Start Num: 55

Candidate Starts for Fushigi\_12:

(Start: 55 @7411 has 24 MA's), (Start: 153 @7591 has 2 MA's), (175, 7675), (177, 7702), (180, 7711), (217, 7861), (223, 7894), (244, 7969), (256, 8059), (261, 8083), (268, 8110), (277, 8158), (297, 8227), (315, 8314), (329, 8374), (390, 8599), (393, 8608), (395, 8620), (411, 8662), (416, 8683), (423, 8710), (455, 8818), (490, 8908), (514, 9013),

Gene: GMA4\_2 Start: 489, Stop: 2087, Start Num: 80

Candidate Starts for GMA4\_2:

(Start: 80 @489 has 1 MA's), (111, 540), (Start: 126 @579 has 2 MA's), (156, 636), (171, 699), (172, 702), (175, 711), (178, 741), (191, 783), (211, 861), (217, 879), (242, 966), (249, 1017), (256, 1062), (258, 1071), (271, 1140), (294, 1218), (299, 1257), (308, 1290), (313, 1311), (337, 1365), (338, 1371), (341, 1389), (345, 1419), (347, 1431), (375, 1491), (384, 1542), (455, 1791), (478, 1860), (497, 1911), (519, 2016),

Gene: GTE2\_02 Start: 803, Stop: 2482, Start Num: 96

Candidate Starts for GTE2\_02:

(Start: 96 @803 has 69 MA's), (Start: 119 @854 has 1 MA's), (125, 875), (150, 920), (179, 1046), (181, 1055), (184, 1067), (185, 1076), (206, 1163), (214, 1199), (217, 1208), (227, 1259), (249, 1358), (258, 1412), (267, 1448), (299, 1592), (309, 1628), (317, 1667), (324, 1700), (347, 1814), (362, 1838), (384, 1937), (410, 2021), (434, 2108), (463, 2204), (486, 2252), (492, 2276), (505, 2327), (523, 2408), (547, 2468), (548, 2471),

Gene: Gadost\_11 Start: 6888, Stop: 8585, Start Num: 48

Candidate Starts for Gadost\_11:

(Start: 48 @6888 has 363 MA's), (Start: 68 @6912 has 1 MA's), (Start: 126 @7035 has 2 MA's), (167, 7125), (175, 7158), (194, 7257), (216, 7341), (217, 7344), (225, 7383), (244, 7452), (247, 7476), (256, 7542), (275, 7632), (315, 7797), (337, 7884), (342, 7917), (365, 7983), (382, 8055), (383, 8058), (389, 8082), (408, 8133), (411, 8148), (420, 8187), (425, 8208), (455, 8304), (529, 8541), (547, 8571), (548, 8574),

Gene: GageAP\_13 Start: 7736, Stop: 9424, Start Num: 55

Candidate Starts for GageAP\_13:

(Start: 55 @7736 has 24 MA's), (Start: 153 @7916 has 2 MA's), (175, 8000), (177, 8027), (180, 8036), (217, 8186), (223, 8219), (244, 8294), (256, 8384), (261, 8408), (268, 8435), (277, 8483), (297, 8552), (315, 8639), (329, 8699), (390, 8924), (393, 8933), (395, 8945), (411, 8987), (416, 9008), (423, 9035), (455, 9143), (490, 9233), (514, 9338),

Gene: Gail\_11 Start: 6548, Stop: 8305, Start Num: 49

Candidate Starts for Gail\_11:

(Start: 49 @6548 has 222 MA's), (Start: 66 @6569 has 5 MA's), (113, 6656), (123, 6680), (136, 6734), (139, 6746), (140, 6755), (146, 6779), (162, 6830), (216, 7061), (217, 7064), (244, 7175), (247, 7199), (256, 7265), (261, 7289), (275, 7355), (295, 7421), (316, 7529), (336, 7604), (383, 7781), (386, 7793), (389, 7805), (390, 7808), (392, 7814), (411, 7868), (425, 7928), (455, 8024), (478, 8093), (529, 8261), (546, 8288),

Gene: Gambol\_2 Start: 593, Stop: 2281, Start Num: 75

Candidate Starts for Gambol\_2:

(75, 593), (169, 794), (199, 938), (206, 962), (217, 1007), (241, 1094), (249, 1148), (255, 1187), (284, 1322), (308, 1424), (343, 1535), (373, 1646), (383, 1697), (455, 1952), (460, 1967), (517, 2192), (519, 2204), (524, 2219),

Gene: Gandalf20\_12 Start: 7804, Stop: 9492, Start Num: 48

Candidate Starts for Gandalf20\_12:

(Start: 48 @7804 has 363 MA's), (Start: 153 @7984 has 2 MA's), (175, 8068), (180, 8104), (185, 8131), (217, 8254), (244, 8362), (256, 8452), (261, 8476), (277, 8551), (315, 8707), (329, 8767), (390, 8992), (393, 9001), (395, 9013), (411, 9055), (416, 9076), (423, 9103), (455, 9211), (490, 9301), (514, 9406),

Gene: Garak\_16 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Garak\_16:

(Start: 49 @7533 has 222 MA's), (123, 7665), (146, 7764), (156, 7788), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (219, 8064), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (294, 8400), (295, 8403), (319, 8514), (360, 8676), (383, 8763), (386, 8775), (389, 8787), (408, 8835), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: GardenState\_2 Start: 501, Stop: 2183, Start Num: 64

Candidate Starts for GardenState\_2:

(Start: 64 @501 has 12 MA's), (102, 555), (185, 798), (199, 852), (217, 921), (223, 957), (303, 1317), (455, 1857), (519, 2109),

Gene: Gattaca\_34 Start: 10300, Stop: 12042, Start Num: 96

Candidate Starts for Gattaca\_34:

(Start: 96 @10300 has 69 MA's), (149, 10417), (162, 10462), (170, 10528), (172, 10543), (176, 10576), (177, 10579), (181, 10594), (186, 10618), (187, 10621), (194, 10651), (200, 10672), (202, 10690), (205, 10699), (212, 10735), (217, 10750), (227, 10795), (242, 10837), (246, 10876), (249, 10888), (251, 10909), (262, 10960), (268, 10981), (324, 11203), (346, 11308), (347, 11317), (366, 11350), (375, 11371), (376, 11374), (379, 11401), (383, 11431), (386, 11443), (390, 11458), (393, 11467), (394, 11473), (407, 11515), (409, 11524), (412, 11539), (416, 11554), (434, 11614), (440, 11653), (451, 11686), (463, 11716), (464, 11719), (485, 11803), (496, 11857), (499, 11872), (506, 11899), (517, 11953), (546, 12025), (547, 12028),

Gene: GaugeLDP\_14 Start: 8787, Stop: 10547, Start Num: 49

Candidate Starts for GaugeLDP\_14:

(Start: 49 @8787 has 222 MA's), (110, 8895), (120, 8916), (143, 9006), (146, 9024), (216, 9306), (217, 9309), (225, 9348), (244, 9417), (256, 9507), (261, 9531), (284, 9630), (294, 9660), (295, 9663), (365, 9948), (383, 10023), (386, 10035), (389, 10047), (414, 10122), (421, 10152), (425, 10170), (450, 10254), (455, 10266), (478, 10335), (529, 10503), (546, 10530), (547, 10533),

Gene: Geeche\_29 Start: 8502, Stop: 10250, Start Num: 88

Candidate Starts for Geeche\_29:

(Start: 88 @8502 has 21 MA's), (106, 8532), (160, 8661), (190, 8847), (197, 8886), (205, 8910), (216, 8958), (221, 8985), (228, 9015), (267, 9207), (270, 9225), (310, 9387), (327, 9435), (332, 9450), (373, 9633), (375, 9639), (389, 9723), (413, 9810), (421, 9843), (452, 9957), (465, 9993), (472, 10017), (481, 10032), (533, 10206), (535, 10212),

Gene: Gemma\_13 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Gemma\_13:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: George\_8 Start: 6161, Stop: 7939, Start Num: 26

Candidate Starts for George\_8:

(Start: 26 @6161 has 19 MA's), (Start: 28 @6188 has 30 MA's), (60, 6257), (121, 6371), (123, 6377), (171, 6509), (185, 6584), (186, 6587), (194, 6620), (204, 6653), (231, 6761), (238, 6785), (244, 6818), (256, 6893), (266, 6938), (281, 7016), (284, 7022), (331, 7220), (337, 7241), (383, 7415), (389, 7439), (390, 7442), (411, 7502), (414, 7514), (420, 7541), (425, 7562), (450, 7646), (455, 7658), (529, 7895), (548, 7928), (550, 7934),

Gene: Georgie2\_13 Start: 7387, Stop: 9174, Start Num: 49

Candidate Starts for Georgie2\_13:

(Start: 49 @7387 has 222 MA's), (110, 7495), (120, 7516), (146, 7624), (185, 7786), (216, 7906), (217, 7909), (244, 8017), (256, 8107), (261, 8131), (289, 8248), (295, 8263), (362, 8563), (414, 8749), (420, 8776), (425, 8797), (455, 8893), (529, 9130), (546, 9157), (547, 9160),

Gene: Ghoulboy\_9 Start: 6238, Stop: 8016, Start Num: 26

Candidate Starts for Ghoulboy\_9:

(Start: 26 @6238 has 19 MA's), (Start: 28 @6265 has 30 MA's), (60, 6334), (82, 6373), (121, 6448), (123, 6454), (171, 6586), (185, 6661), (186, 6664), (204, 6730), (231, 6838), (238, 6862), (256, 6970),

(266, 7015), (281, 7093), (284, 7099), (285, 7102), (322, 7264), (324, 7270), (331, 7297), (383, 7492), (389, 7516), (411, 7579), (414, 7591), (420, 7618), (425, 7639), (440, 7693), (450, 7723), (455, 7735), (529, 7972), (548, 8005), (550, 8011),

Gene: GiKK\_7 Start: 1487, Stop: 3187, Start Num: 94

Candidate Starts for GiKK\_7:

(Start: 94 @1487 has 8 MA's), (Start: 119 @1541 has 1 MA's), (125, 1562), (134, 1589), (165, 1664), (171, 1700), (186, 1778), (204, 1853), (208, 1877), (217, 1907), (227, 1958), (249, 2057), (267, 2147), (286, 2237), (299, 2291), (317, 2366), (342, 2480), (346, 2504), (373, 2564), (375, 2570), (384, 2636), (386, 2642), (411, 2726), (416, 2747), (434, 2807), (435, 2813), (442, 2846), (489, 2969), (497, 2990), (516, 3080), (517, 3083), (527, 3113), (547, 3173), (548, 3176),

Gene: Gibbous\_4 Start: 1229, Stop: 2923, Start Num: 96

Candidate Starts for Gibbous\_4:

(Start: 96 @1229 has 69 MA's), (109, 1259), (123, 1292), (125, 1301), (171, 1439), (206, 1601), (208, 1616), (217, 1646), (220, 1667), (227, 1697), (244, 1766), (246, 1784), (249, 1796), (251, 1817), (267, 1886), (275, 1928), (317, 2105), (328, 2156), (342, 2219), (346, 2243), (362, 2276), (374, 2309), (384, 2378), (407, 2453), (409, 2462), (411, 2471), (414, 2483), (415, 2489), (420, 2510), (463, 2648), (505, 2771), (523, 2852), (547, 2909), (548, 2912),

Gene: Gilberta\_12 Start: 8021, Stop: 9784, Start Num: 49

Candidate Starts for Gilberta\_12:

(Start: 49 @8021 has 222 MA's), (Start: 66 @8042 has 5 MA's), (110, 8129), (146, 8258), (156, 8282), (171, 8345), (204, 8489), (216, 8540), (217, 8543), (244, 8654), (247, 8678), (248, 8681), (256, 8744), (258, 8753), (261, 8768), (289, 8885), (295, 8900), (304, 8960), (326, 9044), (386, 9272), (389, 9284), (408, 9332), (411, 9347), (420, 9386), (425, 9407), (437, 9446), (450, 9491), (455, 9503), (529, 9740), (546, 9767),

Gene: GingkoMaracino\_13 Start: 6843, Stop: 8543, Start Num: 51

Candidate Starts for GingkoMaracino\_13:

(Start: 51 @6843 has 139 MA's), (Start: 81 @6891 has 4 MA's), (Start: 119 @6963 has 1 MA's), (149, 7026), (194, 7218), (217, 7305), (256, 7503), (275, 7593), (294, 7656), (329, 7818), (383, 8016), (389, 8040), (390, 8043), (411, 8106), (416, 8127), (425, 8166), (455, 8262), (472, 8316), (490, 8352), (529, 8499), (547, 8529), (548, 8532),

Gene: GirlDinner\_6 Start: 2186, Stop: 3832, Start Num: 47

Candidate Starts for GirlDinner\_6:

(Start: 47 @2186 has 87 MA's), (169, 2429), (171, 2444), (175, 2456), (202, 2582), (211, 2624), (213, 2630), (218, 2645), (242, 2732), (251, 2804), (256, 2828), (278, 2927), (286, 2963), (295, 2981), (332, 3104), (340, 3140), (386, 3302), (388, 3311), (408, 3374), (420, 3428), (442, 3509), (455, 3548), (463, 3569), (469, 3593), (516, 3746), (517, 3749),

Gene: Giroux\_11 Start: 6496, Stop: 8193, Start Num: 48

Candidate Starts for Giroux\_11:

(Start: 48 @6496 has 363 MA's), (Start: 68 @6520 has 1 MA's), (95, 6568), (175, 6766), (185, 6829), (213, 6940), (217, 6952), (225, 6991), (230, 7003), (244, 7060), (247, 7084), (256, 7150), (258, 7159), (275, 7240), (281, 7267), (315, 7405), (337, 7492), (342, 7525), (365, 7591), (383, 7666), (389, 7690), (390, 7693), (392, 7699), (394, 7708), (408, 7741), (411, 7756), (425, 7816), (455, 7912), (469, 7957), (472, 7966), (518, 8119), (529, 8149), (547, 8179), (548, 8182),

Gene: Gladiator\_15 Start: 7507, Stop: 9261, Start Num: 49

Candidate Starts for Gladiator\_15:

(Start: 49 @7507 has 222 MA's), (123, 7639), (146, 7738), (156, 7762), (162, 7789), (171, 7825), (185, 7900), (217, 8023), (219, 8038), (225, 8062), (244, 8131), (247, 8155), (248, 8158), (256, 8221), (261, 8245), (294, 8374), (295, 8377), (319, 8488), (360, 8650), (383, 8737), (386, 8749), (389, 8761), (408, 8809), (411, 8824), (425, 8884), (450, 8968), (455, 8980), (529, 9217), (546, 9244), (547, 9247),

Gene: Goby\_6 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Goby\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (353, 3391), (383, 3481), (388, 3502), (414, 3592), (425, 3640), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (517, 3940),

Gene: Godpower\_7 Start: 2380, Stop: 4026, Start Num: 47

Candidate Starts for Godpower\_7:

(Start: 47 @2380 has 87 MA's), (Start: 62 @2398 has 20 MA's), (162, 2602), (171, 2638), (211, 2818), (218, 2839), (242, 2926), (251, 2998), (256, 3022), (278, 3121), (281, 3136), (289, 3160), (291, 3166), (340, 3334), (383, 3484), (388, 3505), (414, 3595), (442, 3703), (455, 3742), (463, 3763), (465, 3769), (469, 3787), (517, 3943),

Gene: GoldHunter\_5 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for GoldHunter\_5:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Gollum\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Gollum\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Gompeii16\_11 Start: 7207, Stop: 8895, Start Num: 48

Candidate Starts for Gompeii16\_11:

(Start: 48 @7207 has 363 MA's), (175, 7471), (176, 7495), (217, 7657), (223, 7690), (244, 7765), (256, 7855), (261, 7879), (268, 7906), (277, 7954), (315, 8110), (329, 8170), (390, 8395), (393, 8404), (395, 8416), (411, 8458), (416, 8479), (423, 8506), (455, 8614), (490, 8704), (514, 8809),

Gene: Goose\_11 Start: 6707, Stop: 8380, Start Num: 48

Candidate Starts for Goose\_11:

(Start: 48 @6707 has 363 MA's), (Start: 126 @6836 has 2 MA's), (158, 6902), (175, 6968), (182, 7013), (194, 7067), (206, 7109), (217, 7154), (225, 7193), (242, 7241), (244, 7262), (247, 7286), (256, 7337), (284, 7460), (299, 7529), (320, 7607), (333, 7667), (342, 7712), (365, 7778), (382, 7850), (383, 7853), (389, 7877), (411, 7943), (420, 7982), (421, 7985), (425, 8003), (455, 8099), (478, 8168), (529, 8336), (547, 8366), (548, 8369),

Gene: Graduation\_13 Start: 7769, Stop: 9457, Start Num: 48

Candidate Starts for Graduation\_13:

(Start: 48 @7769 has 363 MA's), (175, 8033), (176, 8057), (217, 8219), (223, 8252), (244, 8327), (256, 8417), (261, 8441), (277, 8516), (315, 8672), (316, 8681), (328, 8729), (329, 8732), (390, 8957), (393, 8966), (395, 8978), (411, 9020), (416, 9041), (423, 9068), (455, 9176), (490, 9266), (514, 9371),

Gene: GrecoEtereo\_12 Start: 7307, Stop: 8995, Start Num: 48

Candidate Starts for GrecoEtereo\_12:

(Start: 48 @7307 has 363 MA's), (175, 7571), (176, 7595), (217, 7757), (223, 7790), (244, 7865), (256, 7955), (261, 7979), (268, 8006), (277, 8054), (297, 8123), (315, 8210), (329, 8270), (393, 8504), (411, 8558), (416, 8579), (423, 8606), (455, 8714), (490, 8804), (514, 8909),

Gene: GreedyLawyer\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for GreedyLawyer\_15:

(Start: 49 @7533 has 222 MA's), (146, 7764), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (284, 8370), (285, 8373), (294, 8400), (295, 8403), (365, 8688), (386, 8775), (389, 8787), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Greg\_13 Start: 7320, Stop: 9008, Start Num: 55

Candidate Starts for Greg\_13:

(Start: 55 @7320 has 24 MA's), (149, 7491), (Start: 153 @7500 has 2 MA's), (175, 7584), (177, 7611), (180, 7620), (217, 7770), (223, 7803), (244, 7878), (256, 7968), (261, 7992), (268, 8019), (277, 8067), (315, 8223), (329, 8283), (393, 8517), (411, 8571), (416, 8592), (423, 8619), (455, 8727), (490, 8817), (514, 8922),

Gene: Gretchen\_2 Start: 640, Stop: 2388, Start Num: 64

Candidate Starts for Gretchen\_2:

(Start: 64 @640 has 12 MA's), (82, 658), (199, 1000), (211, 1051), (217, 1069), (240, 1162), (249, 1219), (343, 1642), (383, 1804), (384, 1810), (434, 1984), (455, 2059), (460, 2074), (483, 2155), (511, 2278), (517, 2299), (519, 2311),

Gene: Grif\_13 Start: 7040, Stop: 8740, Start Num: 51

Candidate Starts for Grif\_13:

(Start: 51 @7040 has 139 MA's), (Start: 81 @7088 has 4 MA's), (149, 7223), (194, 7415), (217, 7502), (256, 7700), (275, 7790), (294, 7853), (329, 8015), (383, 8213), (389, 8237), (390, 8240), (411, 8303), (416, 8324), (425, 8363), (455, 8459), (472, 8513), (490, 8549), (529, 8696), (547, 8726), (548, 8729),

Gene: Groundhog\_8 Start: 5670, Stop: 7424, Start Num: 28

Candidate Starts for Groundhog\_8:

(Start: 28 @5670 has 30 MA's), (44, 5712), (67, 5751), (123, 5859), (185, 6066), (238, 6267), (256, 6375), (284, 6504), (322, 6669), (331, 6702), (366, 6822), (383, 6897), (416, 7008), (420, 7026), (425, 7047), (440, 7101), (455, 7143), (496, 7248), (517, 7347), (529, 7380), (548, 7413), (550, 7419),

Gene: Groupthink\_14 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Groupthink\_14:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: Grub\_13 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for Grub\_13:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: Grum1\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for Grum1\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: Gruunaga\_15 Start: 7507, Stop: 9261, Start Num: 49

Candidate Starts for Gruunaga\_15:

(Start: 49 @7507 has 222 MA's), (123, 7639), (146, 7738), (156, 7762), (162, 7789), (171, 7825), (185, 7900), (217, 8023), (219, 8038), (225, 8062), (244, 8131), (247, 8155), (248, 8158), (256, 8221), (261, 8245), (294, 8374), (295, 8377), (319, 8488), (360, 8650), (383, 8737), (386, 8749), (389, 8761), (408, 8809), (411, 8824), (425, 8884), (450, 8968), (455, 8980), (529, 9217), (546, 9244), (547, 9247),

Gene: GtownJaz\_13 Start: 6958, Stop: 8658, Start Num: 51

Candidate Starts for GtownJaz\_13:

(Start: 51 @6958 has 139 MA's), (Start: 81 @7006 has 4 MA's), (149, 7141), (194, 7333), (217, 7420), (256, 7618), (275, 7708), (294, 7771), (329, 7933), (383, 8131), (389, 8155), (390, 8158), (411, 8221), (416, 8242), (425, 8281), (455, 8377), (472, 8431), (490, 8467), (529, 8614), (547, 8644), (548, 8647),

Gene: Gwendoluna\_13 Start: 8188, Stop: 9876, Start Num: 48

Candidate Starts for Gwendoluna\_13:

(Start: 48 @8188 has 363 MA's), (175, 8452), (176, 8476), (217, 8638), (223, 8671), (256, 8836), (261, 8860), (268, 8887), (277, 8935), (315, 9091), (329, 9151), (393, 9385), (395, 9397), (411, 9439), (416, 9460), (423, 9487), (455, 9595), (490, 9685), (514, 9790),

Gene: Gyzlar\_13 Start: 7950, Stop: 9638, Start Num: 55

Candidate Starts for Gyzlar\_13:

(Start: 55 @7950 has 24 MA's), (Start: 153 @8130 has 2 MA's), (175, 8214), (177, 8241), (180, 8250), (217, 8400), (223, 8433), (244, 8508), (256, 8598), (261, 8622), (268, 8649), (277, 8697), (315, 8853), (329, 8913), (393, 9147), (395, 9159), (411, 9201), (416, 9222), (423, 9249), (455, 9357), (490, 9447), (514, 9552),

Gene: HINdeR\_11 Start: 8169, Stop: 9863, Start Num: 48

Candidate Starts for HINdeR\_11:

(Start: 48 @8169 has 363 MA's), (Start: 88 @8229 has 21 MA's), (162, 8388), (175, 8436), (185, 8499), (194, 8535), (204, 8568), (213, 8610), (216, 8619), (217, 8622), (219, 8637), (225, 8661), (244, 8730), (256, 8820), (258, 8829), (295, 8976), (315, 9075), (328, 9132), (337, 9162), (342, 9195), (360, 9249), (365, 9261), (370, 9270), (382, 9333), (383, 9336), (389, 9360), (413, 9435), (414, 9438), (425, 9486), (455, 9582), (518, 9789), (529, 9819), (547, 9849),

Gene: Haizum\_6 Start: 2173, Stop: 3822, Start Num: 47

Candidate Starts for Haizum\_6:

(Start: 47 @2173 has 87 MA's), (113, 2290), (156, 2371), (162, 2398), (175, 2446), (179, 2479), (184, 2500), (206, 2587), (211, 2614), (218, 2635), (229, 2680), (242, 2722), (251, 2794), (256, 2818), (278, 2917), (286, 2953), (295, 2971), (331, 3091), (332, 3094), (340, 3130), (365, 3211), (388, 3301), (392, 3313), (408, 3364), (420, 3418), (455, 3538), (463, 3559), (468, 3580), (469, 3583), (496, 3643), (517, 3739), (518, 3742), (550, 3817),

Gene: Halsey\_2 Start: 594, Stop: 2282, Start Num: 75

Candidate Starts for Halsey\_2:

(75, 594), (199, 939), (206, 963), (217, 1008), (241, 1095), (249, 1149), (255, 1188), (284, 1323), (308, 1425), (373, 1647), (383, 1698), (442, 1917), (455, 1953), (460, 1968), (517, 2193), (519, 2205), (524, 2220), (548, 2271),



Gene: HamSlice\_10 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for HamSlice\_10:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Hami1\_13 Start: 7391, Stop: 9079, Start Num: 48

Candidate Starts for Hami1\_13:

(Start: 48 @7391 has 363 MA's), (Start: 153 @7571 has 2 MA's), (175, 7655), (180, 7691), (217, 7841), (244, 7949), (256, 8039), (261, 8063), (277, 8138), (297, 8207), (315, 8294), (329, 8354), (390, 8579), (393, 8588), (395, 8600), (411, 8642), (416, 8663), (423, 8690), (455, 8798), (490, 8888), (514, 8993),

Gene: Hammer\_15 Start: 7507, Stop: 9261, Start Num: 49

Candidate Starts for Hammer\_15:

(Start: 49 @7507 has 222 MA's), (123, 7639), (146, 7738), (156, 7762), (162, 7789), (171, 7825), (185, 7900), (217, 8023), (219, 8038), (225, 8062), (244, 8131), (247, 8155), (248, 8158), (256, 8221), (261, 8245), (294, 8374), (295, 8377), (319, 8488), (360, 8650), (383, 8737), (386, 8749), (389, 8761), (408, 8809), (411, 8824), (420, 8863), (425, 8884), (450, 8968), (455, 8980), (529, 9217), (546, 9244), (547, 9247),

Gene: HanShotFirst\_11 Start: 6611, Stop: 8299, Start Num: 48

Candidate Starts for HanShotFirst\_11:

(Start: 48 @6611 has 363 MA's), (Start: 153 @6791 has 2 MA's), (175, 6875), (180, 6911), (185, 6938), (217, 7061), (223, 7094), (244, 7169), (256, 7259), (261, 7283), (268, 7310), (277, 7358), (297, 7427), (315, 7514), (329, 7574), (393, 7808), (395, 7820), (411, 7862), (416, 7883), (423, 7910), (455, 8018), (490, 8108), (514, 8213),

Gene: Hank144\_7 Start: 2471, Stop: 4117, Start Num: 47

Candidate Starts for Hank144\_7:

(Start: 47 @2471 has 87 MA's), (Start: 126 @2621 has 2 MA's), (175, 2741), (176, 2765), (179, 2774), (195, 2846), (211, 2909), (218, 2930), (229, 2975), (242, 3017), (251, 3089), (256, 3113), (278, 3212), (295, 3266), (340, 3425), (383, 3575), (388, 3596), (414, 3686), (418, 3704), (442, 3794), (455, 3833), (463, 3854), (465, 3860), (469, 3878), (517, 4034), (550, 4112),

Gene: Hanray\_12 Start: 8166, Stop: 9932, Start Num: 66

Candidate Starts for Hanray\_12:

(Start: 49 @8145 has 222 MA's), (Start: 62 @8160 has 20 MA's), (Start: 66 @8166 has 5 MA's), (123, 8277), (146, 8376), (185, 8538), (204, 8610), (217, 8664), (225, 8703), (244, 8775), (256, 8865), (261, 8889), (289, 9006), (295, 9021), (316, 9129), (336, 9204), (342, 9240), (357, 9300), (386, 9420), (392, 9441), (408, 9480), (420, 9534), (421, 9537), (425, 9555), (440, 9609), (450, 9639), (455, 9651), (490, 9741), (497, 9759), (529, 9888), (546, 9915), (547, 9918),

Gene: Happiness\_11 Start: 6889, Stop: 8586, Start Num: 48

Candidate Starts for Happiness\_11:

(Start: 48 @6889 has 363 MA's), (Start: 68 @6913 has 1 MA's), (Start: 126 @7036 has 2 MA's), (167, 7126), (175, 7159), (194, 7258), (216, 7342), (217, 7345), (225, 7384), (244, 7453), (247, 7477), (256, 7543), (275, 7633), (315, 7798), (337, 7885), (342, 7918), (365, 7984), (382, 8056), (383, 8059), (389, 8083), (408, 8134), (411, 8149), (420, 8188), (425, 8209), (455, 8305), (529, 8542), (547, 8572), (548, 8575),

Gene: Harlequin\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Harlequin\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (256, 3798), (313, 4053), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: HarryHoudini\_14 Start: 7940, Stop: 9727, Start Num: 49

Candidate Starts for HarryHoudini\_14:

(10, 7754), (24, 7856), (Start: 49 @7940 has 222 MA's), (110, 8048), (120, 8069), (146, 8177), (217, 8462), (244, 8570), (256, 8660), (261, 8684), (289, 8801), (295, 8816), (383, 9203), (420, 9329), (425, 9350), (450, 9434), (455, 9446), (529, 9683), (546, 9710), (547, 9713), (548, 9716), (549, 9719),

Gene: HarryOW\_12 Start: 7307, Stop: 8995, Start Num: 48

Candidate Starts for HarryOW\_12:

(Start: 48 @7307 has 363 MA's), (175, 7571), (176, 7595), (217, 7757), (223, 7790), (244, 7865), (256, 7955), (261, 7979), (268, 8006), (277, 8054), (312, 8198), (315, 8210), (329, 8270), (393, 8504), (395, 8516), (411, 8558), (416, 8579), (423, 8606), (455, 8714), (490, 8804), (514, 8909),

Gene: HashRod\_14 Start: 7041, Stop: 8741, Start Num: 51

Candidate Starts for HashRod\_14:

(Start: 51 @7041 has 139 MA's), (Start: 81 @7089 has 4 MA's), (149, 7224), (194, 7416), (217, 7503), (256, 7701), (275, 7791), (294, 7854), (329, 8016), (383, 8214), (389, 8238), (390, 8241), (411, 8304), (416, 8325), (425, 8364), (455, 8460), (472, 8514), (490, 8550), (529, 8697), (547, 8727), (548, 8730),

Gene: HaveUMetTed\_14 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for HaveUMetTed\_14:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: Heathen\_11 Start: 6297, Stop: 7994, Start Num: 48

Candidate Starts for Heathen\_11:

(Start: 48 @6297 has 363 MA's), (95, 6369), (175, 6567), (213, 6741), (217, 6753), (225, 6792), (230, 6804), (244, 6861), (247, 6885), (256, 6951), (258, 6960), (275, 7041), (281, 7068), (315, 7206), (331, 7272), (337, 7293), (341, 7317), (342, 7326), (365, 7392), (383, 7467), (389, 7491), (390, 7494), (392, 7500), (394, 7509), (411, 7557), (425, 7617), (455, 7713), (469, 7758), (472, 7767), (518, 7920), (529, 7950), (547, 7980), (548, 7983),

Gene: Heffalump\_14 Start: 9253, Stop: 11040, Start Num: 49

Candidate Starts for Heffalump\_14:

(Start: 49 @9253 has 222 MA's), (110, 9361), (120, 9382), (146, 9490), (185, 9652), (217, 9775), (244, 9883), (256, 9973), (261, 9997), (289, 10114), (295, 10129), (362, 10429), (414, 10615), (420, 10642), (425, 10663), (455, 10759), (529, 10996), (546, 11023), (547, 11026),

Gene: HelDan\_11 Start: 6549, Stop: 8246, Start Num: 48

Candidate Starts for HelDan\_11:

(Start: 48 @6549 has 363 MA's), (95, 6621), (175, 6819), (213, 6993), (217, 7005), (225, 7044), (230, 7056), (244, 7113), (247, 7137), (256, 7203), (258, 7212), (275, 7293), (281, 7320), (315, 7458), (331, 7524), (337, 7545), (342, 7578), (365, 7644), (383, 7719), (389, 7743), (390, 7746), (392, 7752), (394, 7761), (411, 7809), (425, 7869), (455, 7965), (469, 8010), (472, 8019), (518, 8172), (529, 8202), (547, 8232), (548, 8235),

Gene: Heliosoles\_13 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Heliosoles\_13:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: Helmet\_16 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Helmet\_16:

(Start: 49 @7533 has 222 MA's), (123, 7665), (146, 7764), (156, 7788), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (219, 8064), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (294, 8400), (295, 8403), (319, 8514), (360, 8676), (383, 8763), (386, 8775), (389, 8787), (408, 8835), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Herbertwm\_10 Start: 6311, Stop: 8074, Start Num: 49

Candidate Starts for Herbertwm\_10:

(Start: 49 @6311 has 222 MA's), (123, 6443), (146, 6542), (175, 6641), (204, 6773), (217, 6827), (244, 6938), (256, 7028), (261, 7052), (295, 7184), (312, 7277), (365, 7475), (383, 7550), (389, 7574), (411, 7637), (414, 7649), (420, 7676), (455, 7793), (472, 7847), (497, 7901), (529, 8030), (546, 8057), (547, 8060),

Gene: Hercules11\_13 Start: 6964, Stop: 8664, Start Num: 51

Candidate Starts for Hercules11\_13:

(Start: 51 @6964 has 139 MA's), (Start: 81 @7012 has 4 MA's), (149, 7147), (194, 7339), (217, 7426), (256, 7624), (275, 7714), (294, 7777), (329, 7939), (383, 8137), (389, 8161), (390, 8164), (411, 8227), (416, 8248), (425, 8287), (455, 8383), (472, 8437), (490, 8473), (529, 8620), (547, 8650), (548, 8653),

Gene: Hermia\_13 Start: 7751, Stop: 9439, Start Num: 48

Candidate Starts for Hermia\_13:

(Start: 48 @7751 has 363 MA's), (Start: 153 @7931 has 2 MA's), (175, 8015), (180, 8051), (185, 8078), (217, 8201), (223, 8234), (244, 8309), (256, 8399), (261, 8423), (268, 8450), (277, 8498), (297, 8567), (312, 8642), (315, 8654), (316, 8663), (329, 8714), (390, 8939), (393, 8948), (395, 8960), (411, 9002), (416, 9023), (423, 9050), (455, 9158), (490, 9248), (514, 9353),

Gene: HermioneGrange\_12 Start: 6720, Stop: 8408, Start Num: 48

Candidate Starts for HermioneGrange\_12:

(Start: 48 @6720 has 363 MA's), (175, 6984), (176, 7008), (217, 7170), (223, 7203), (244, 7278), (256, 7368), (261, 7392), (268, 7419), (277, 7467), (315, 7623), (329, 7683), (390, 7908), (393, 7917), (395, 7929), (411, 7971), (416, 7992), (423, 8019), (455, 8127), (490, 8217), (514, 8322),

Gene: Hestia\_2 Start: 690, Stop: 2330, Start Num: 127

Candidate Starts for Hestia\_2:

(Start: 87 @597 has 2 MA's), (Start: 127 @690 has 2 MA's), (128, 693), (162, 783), (166, 807), (172, 843), (173, 846), (184, 906), (194, 1014), (217, 1101), (254, 1278), (263, 1320), (269, 1341), (276, 1377), (322, 1512), (324, 1518), (334, 1557), (346, 1626), (376, 1692), (377, 1704), (385, 1740), (406, 1824), (420, 1881), (430, 1944), (449, 2028), (458, 2052), (472, 2094), (496, 2151), (497, 2154), (499, 2166), (514, 2235), (528, 2277), (541, 2304), (546, 2316),

Gene: Hexamo\_15 Start: 7488, Stop: 9242, Start Num: 49

Candidate Starts for Hexamo\_15:

(Start: 49 @7488 has 222 MA's), (123, 7620), (146, 7719), (156, 7743), (162, 7770), (171, 7806), (185, 7881), (217, 8004), (219, 8019), (225, 8043), (244, 8112), (247, 8136), (248, 8139), (256, 8202), (261, 8226), (294, 8355), (295, 8358), (319, 8469), (360, 8631), (383, 8718), (386, 8730), (389, 8742), (408, 8790), (411, 8805), (420, 8844), (425, 8865), (450, 8949), (455, 8961), (529, 9198), (546, 9225), (547, 9228),

Gene: Hexbug\_5 Start: 1093, Stop: 2790, Start Num: 94

Candidate Starts for Hexbug\_5:

(Start: 77 @1066 has 1 MA's), (Start: 94 @1093 has 8 MA's), (Start: 119 @1147 has 1 MA's), (125, 1168), (134, 1195), (171, 1306), (186, 1384), (206, 1468), (214, 1504), (217, 1513), (218, 1516), (227, 1564), (230, 1576), (249, 1663), (267, 1753), (286, 1843), (299, 1897), (346, 2110), (348, 2125), (353, 2134), (375, 2176), (384, 2242), (386, 2248), (401, 2290), (409, 2323), (411, 2332), (442, 2452), (463, 2509), (468, 2530), (486, 2557), (501, 2617), (516, 2686), (517, 2689), (531, 2734), (547, 2776), (548, 2779),

Gene: Hippo\_6 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for Hippo\_6:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (408, 3564), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (503, 3879), (517, 3939), (550, 4017),

Gene: HippoPololi\_6 Start: 1863, Stop: 3563, Start Num: 96

Candidate Starts for HippoPololi\_6:

(Start: 96 @1863 has 69 MA's), (109, 1893), (125, 1935), (171, 2073), (180, 2121), (186, 2151), (194, 2184), (206, 2235), (208, 2250), (217, 2280), (220, 2301), (227, 2331), (249, 2430), (251, 2451), (267, 2520), (275, 2562), (317, 2739), (328, 2790), (342, 2853), (346, 2877), (374, 2943), (381, 3000), (382, 3003), (384, 3012), (409, 3096), (411, 3105), (414, 3117), (415, 3123), (420, 3144), (431, 3183), (463, 3282), (474, 3318), (505, 3405), (517, 3462), (518, 3465), (523, 3486), (547, 3549), (548, 3552),

Gene: Hiro\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Hiro\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (247, 3747), (248, 3750), (256, 3798), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Holec\_12 Start: 8166, Stop: 9932, Start Num: 66

Candidate Starts for Holec\_12:

(Start: 49 @8145 has 222 MA's), (Start: 62 @8160 has 20 MA's), (Start: 66 @8166 has 5 MA's), (123, 8277), (146, 8376), (185, 8538), (204, 8610), (217, 8664), (225, 8703), (244, 8775), (256, 8865), (261, 8889), (289, 9006), (295, 9021), (316, 9129), (336, 9204), (342, 9240), (357, 9300), (386, 9420), (392, 9441), (408, 9480), (420, 9534), (421, 9537), (425, 9555), (440, 9609), (450, 9639), (455, 9651), (490, 9741), (497, 9759), (529, 9888), (546, 9915), (547, 9918),

Gene: Holli\_11 Start: 6677, Stop: 8374, Start Num: 48

Candidate Starts for Holli\_11:

(Start: 48 @6677 has 363 MA's), (Start: 68 @6701 has 1 MA's), (Start: 126 @6824 has 2 MA's), (167, 6914), (175, 6947), (194, 7046), (216, 7130), (217, 7133), (225, 7172), (244, 7241), (247, 7265), (256, 7331), (275, 7421), (315, 7586), (337, 7673), (342, 7706), (365, 7772), (382, 7844), (383, 7847), (389, 7871), (408, 7922), (411, 7937), (420, 7976), (425, 7997), (455, 8093), (529, 8330), (547, 8360), (548, 8363),

Gene: Homines\_11 Start: 7026, Stop: 8714, Start Num: 48

Candidate Starts for Homines\_11:

(Start: 48 @7026 has 363 MA's), (Start: 153 @7206 has 2 MA's), (175, 7290), (180, 7326), (185, 7353), (217, 7476), (223, 7509), (244, 7584), (256, 7674), (261, 7698), (268, 7725), (277, 7773), (297, 7842), (315, 7929), (329, 7989), (393, 8223), (395, 8235), (411, 8277), (416, 8298), (423, 8325), (455, 8433), (490, 8523), (514, 8628),

Gene: Honk\_2 Start: 655, Stop: 2367, Start Num: 77

Candidate Starts for Honk\_2:

(2, 301), (3, 313), (Start: 62 @640 has 20 MA's), (Start: 77 @655 has 1 MA's), (Start: 90 @676 has 1 MA's), (149, 796), (185, 952), (199, 1012), (211, 1063), (217, 1081), (242, 1180), (249, 1231), (298, 1468), (302, 1492), (359, 1690), (384, 1789), (411, 1882), (420, 1921), (455, 2038), (460, 2053), (478, 2107), (496, 2182), (517, 2278), (519, 2290), (548, 2356),

Gene: Hookmount\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Hookmount\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Hoot\_15 Start: 7512, Stop: 9266, Start Num: 49

Candidate Starts for Hoot\_15:

(Start: 49 @7512 has 222 MA's), (146, 7743), (162, 7794), (171, 7830), (185, 7905), (217, 8028), (225, 8067), (244, 8136), (247, 8160), (248, 8163), (256, 8226), (261, 8250), (284, 8349), (285, 8352), (294, 8379), (295, 8382), (365, 8667), (386, 8754), (389, 8766), (411, 8829), (420, 8868), (425, 8889), (450, 8973), (455, 8985), (529, 9222), (546, 9249), (547, 9252),

Gene: Hope4ever\_11 Start: 7128, Stop: 8816, Start Num: 48

Candidate Starts for Hope4ever\_11:

(Start: 48 @7128 has 363 MA's), (175, 7392), (176, 7416), (217, 7578), (223, 7611), (244, 7686), (256, 7776), (261, 7800), (268, 7827), (277, 7875), (312, 8019), (315, 8031), (329, 8091), (390, 8316), (393, 8325), (395, 8337), (411, 8379), (416, 8400), (423, 8427), (455, 8535), (490, 8625), (514, 8730),

Gene: Horseradish\_5 Start: 1017, Stop: 2696, Start Num: 96

Candidate Starts for Horseradish\_5:

(Start: 96 @1017 has 69 MA's), (Start: 119 @1068 has 1 MA's), (125, 1089), (148, 1128), (171, 1215), (179, 1260), (184, 1281), (185, 1290), (202, 1362), (214, 1413), (217, 1422), (227, 1473), (249, 1572), (251, 1593), (258, 1626), (267, 1662), (299, 1806), (309, 1842), (317, 1881), (324, 1914), (337, 1962), (346, 2019), (362, 2052), (375, 2085), (384, 2151), (386, 2157), (407, 2223), (410, 2235), (411, 2241), (434, 2322), (463, 2418), (486, 2466), (505, 2541), (523, 2622), (547, 2682), (548, 2685),

Gene: HortumSL17\_13 Start: 8109, Stop: 9896, Start Num: 49

Candidate Starts for HortumSL17\_13:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: Houdini22\_11 Start: 6888, Stop: 8585, Start Num: 48

Candidate Starts for Houdini22\_11:

(Start: 48 @6888 has 363 MA's), (Start: 68 @6912 has 1 MA's), (Start: 126 @7035 has 2 MA's), (167, 7125), (175, 7158), (194, 7257), (216, 7341), (217, 7344), (225, 7383), (244, 7452), (247, 7476), (256, 7542), (275, 7632), (315, 7797), (337, 7884), (342, 7917), (365, 7983), (382, 8055), (383, 8058), (389, 8082), (408, 8133), (411, 8148), (420, 8187), (425, 8208), (455, 8304), (529, 8541), (547, 8571), (548, 8574),

Gene: HuhtaEnerson15\_9 Start: 6188, Stop: 7939, Start Num: 28

Candidate Starts for HuhtaEnerson15\_9:

(Start: 26 @6161 has 19 MA's), (Start: 28 @6188 has 30 MA's), (60, 6257), (121, 6371), (123, 6377), (171, 6509), (185, 6584), (186, 6587), (194, 6620), (204, 6653), (231, 6761), (238, 6785), (244, 6818), (256, 6893), (266, 6938), (281, 7016), (284, 7022), (297, 7067), (331, 7220), (337, 7241), (383, 7415), (389, 7439), (390, 7442), (411, 7502), (414, 7514), (420, 7541), (425, 7562), (450, 7646), (455, 7658), (529, 7895), (548, 7928), (550, 7934),

Gene: Hum25\_2 Start: 471, Stop: 2078, Start Num: 85

Candidate Starts for Hum25\_2:

(Start: 85 @471 has 1 MA's), (103, 501), (154, 615), (172, 687), (189, 807), (251, 1071), (256, 1092), (261, 1116), (267, 1146), (274, 1182), (275, 1188), (282, 1209), (293, 1239), (296, 1245), (307, 1299), (326, 1347), (331, 1368), (343, 1431), (349, 1467), (368, 1491), (379, 1536), (381, 1554), (386, 1572), (389, 1584), (411, 1659), (420, 1698), (436, 1749), (448, 1800), (450, 1806), (466, 1842), (491, 1878), (493, 1881), (524, 2013), (546, 2061),

Gene: Huphleuff\_37 Start: 10925, Stop: 12667, Start Num: 96

Candidate Starts for Huphleuff\_37:

(Start: 96 @10925 has 69 MA's), (149, 11042), (162, 11087), (170, 11153), (172, 11168), (176, 11201), (177, 11204), (181, 11219), (186, 11243), (187, 11246), (194, 11276), (200, 11297), (202, 11315), (205, 11324), (212, 11360), (217, 11375), (227, 11420), (242, 11462), (246, 11501), (249, 11513), (251, 11534), (262, 11585), (268, 11606), (324, 11828), (346, 11933), (347, 11942), (366, 11975), (375, 11996), (376, 11999), (379, 12026), (383, 12056), (386, 12068), (390, 12083), (393, 12092), (394, 12098), (407, 12140), (409, 12149), (412, 12164), (416, 12179), (434, 12239), (440, 12278), (451, 12311), (463, 12341), (464, 12344), (485, 12428), (496, 12482), (499, 12497), (506, 12524), (517, 12578), (546, 12650), (547, 12653),

Gene: Hutc2\_12 Start: 8027, Stop: 9790, Start Num: 49

Candidate Starts for Hutc2\_12:

(Start: 49 @8027 has 222 MA's), (Start: 66 @8048 has 5 MA's), (110, 8135), (146, 8264), (156, 8288), (171, 8351), (204, 8495), (216, 8546), (217, 8549), (244, 8660), (247, 8684), (248, 8687), (256, 8750), (258, 8759), (261, 8774), (289, 8891), (295, 8906), (304, 8966), (326, 9050), (365, 9191), (386, 9278), (389, 9290), (408, 9338), (411, 9353), (420, 9392), (425, 9413), (437, 9452), (450, 9497), (455, 9509), (529, 9746), (546, 9773),

Gene: Hydra\_8 Start: 2939, Stop: 4585, Start Num: 47

Candidate Starts for Hydra\_8:

(Start: 47 @2939 has 87 MA's), (Start: 62 @2957 has 20 MA's), (162, 3161), (179, 3242), (211, 3377), (218, 3398), (242, 3485), (251, 3557), (256, 3581), (278, 3680), (295, 3734), (326, 3833), (340, 3893), (386, 4055), (388, 4064), (414, 4154), (420, 4181), (441, 4259), (442, 4262), (455, 4301), (463, 4322), (465, 4328), (469, 4346), (503, 4442), (517, 4502),

Gene: IAmGroot\_2 Start: 501, Stop: 2183, Start Num: 64

Candidate Starts for IAmGroot\_2:

(Start: 64 @501 has 12 MA's), (102, 555), (185, 798), (199, 852), (217, 921), (223, 957), (303, 1317), (455, 1857), (519, 2109),

Gene: ICleared\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for ICleared\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: ILeeKay\_13 Start: 7180, Stop: 8868, Start Num: 48

Candidate Starts for ILeeKay\_13:

(Start: 48 @7180 has 363 MA's), (175, 7444), (176, 7468), (217, 7630), (223, 7663), (244, 7738), (252, 7792), (256, 7828), (261, 7852), (268, 7879), (277, 7927), (297, 7996), (315, 8083), (329, 8143), (393, 8377), (395, 8389), (411, 8431), (416, 8452), (423, 8479), (455, 8587), (490, 8677), (514, 8782),

Gene: Ibantik\_67 Start: 28527, Stop: 30182, Start Num: 79

Candidate Starts for Ibantik\_67:

(Start: 79 @28527 has 1 MA's), (84, 28539), (162, 28710), (172, 28749), (201, 28941), (202, 28944), (204, 28950), (210, 28983), (217, 29004), (230, 29058), (244, 29121), (256, 29196), (259, 29208), (268, 29253), (281, 29319), (346, 29544), (434, 29832), (463, 29910), (473, 29946), (491, 29982), (498, 30006), (502, 30021), (512, 30087), (514, 30093), (518, 30105), (538, 30147),

Gene: Ibrahim\_3 Start: 724, Stop: 2607, Start Num: 38

Candidate Starts for Ibrahim\_3:

(5, 475), (Start: 38 @724 has 7 MA's), (86, 805), (92, 814), (129, 910), (133, 922), (171, 1054), (205, 1201), (206, 1207), (211, 1234), (217, 1252), (234, 1315), (259, 1450), (300, 1651), (323, 1708), (384, 1927), (399, 1978), (404, 2002), (417, 2053), (443, 2182), (451, 2221), (455, 2230), (471, 2281), (481, 2320), (491, 2407), (496, 2419), (516, 2512), (519, 2527), (520, 2530),

Gene: Iceman\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Iceman\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Ichabod\_12 Start: 7032, Stop: 8720, Start Num: 48

Candidate Starts for Ichabod\_12:

(Start: 48 @7032 has 363 MA's), (175, 7296), (176, 7320), (217, 7482), (223, 7515), (244, 7590), (256, 7680), (261, 7704), (277, 7779), (297, 7848), (315, 7935), (316, 7944), (329, 7995), (393, 8229), (395, 8241), (411, 8283), (416, 8304), (423, 8331), (455, 8439), (490, 8529), (514, 8634),

Gene: Idleandcovert\_11 Start: 6496, Stop: 8193, Start Num: 48

Candidate Starts for Idleandcovert\_11:

(Start: 48 @6496 has 363 MA's), (Start: 68 @6520 has 1 MA's), (95, 6568), (175, 6766), (185, 6829), (213, 6940), (217, 6952), (225, 6991), (230, 7003), (244, 7060), (247, 7084), (256, 7150), (258, 7159), (275, 7240), (281, 7267), (315, 7405), (337, 7492), (342, 7525), (365, 7591), (383, 7666), (389, 7690), (390, 7693), (392, 7699), (394, 7708), (408, 7741), (411, 7756), (425, 7816), (455, 7912), (469, 7957), (472, 7966), (518, 8119), (529, 8149), (547, 8179), (548, 8182),

Gene: IgnatiusPatJac\_10 Start: 7006, Stop: 8694, Start Num: 48

Candidate Starts for IgnatiusPatJac\_10:

(Start: 48 @7006 has 363 MA's), (Start: 153 @7186 has 2 MA's), (175, 7270), (176, 7294), (217, 7456), (223, 7489), (244, 7564), (256, 7654), (261, 7678), (268, 7705), (277, 7753), (315, 7909), (329, 7969), (390, 8194), (393, 8203), (395, 8215), (411, 8257), (416, 8278), (423, 8305), (455, 8413), (490, 8503), (514, 8608),

Gene: Indigo\_6 Start: 2402, Stop: 4048, Start Num: 47

Candidate Starts for Indigo\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: Indra\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Indra\_15:

(Start: 49 @7533 has 222 MA's), (123, 7665), (146, 7764), (156, 7788), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (219, 8064), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (294, 8400), (295, 8403), (319, 8514), (360, 8676), (383, 8763), (386, 8775), (389, 8787), (408, 8835), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Insomnia\_12 Start: 8076, Stop: 9839, Start Num: 49

Candidate Starts for Insomnia\_12:

(20, 7956), (Start: 49 @8076 has 222 MA's), (Start: 66 @8097 has 5 MA's), (110, 8184), (146, 8313), (156, 8337), (171, 8400), (204, 8544), (216, 8595), (217, 8598), (244, 8709), (247, 8733), (248, 8736), (256, 8799), (258, 8808), (261, 8823), (289, 8940), (295, 8955), (304, 9015), (326, 9099), (386, 9327), (389, 9339), (408, 9387), (411, 9402), (420, 9441), (425, 9462), (437, 9501), (450, 9546), (455, 9558), (529, 9795), (546, 9822),

Gene: Inyanga\_10 Start: 6795, Stop: 8483, Start Num: 48

Candidate Starts for Inyanga\_10:

(Start: 48 @6795 has 363 MA's), (175, 7059), (176, 7083), (217, 7245), (223, 7278), (244, 7353), (256, 7443), (261, 7467), (268, 7494), (277, 7542), (297, 7611), (312, 7686), (315, 7698), (316, 7707), (329, 7758), (393, 7992), (395, 8004), (411, 8046), (416, 8067), (423, 8094), (455, 8202), (490, 8292), (514, 8397),

Gene: Iracema64\_11 Start: 6861, Stop: 8558, Start Num: 48

Candidate Starts for Iracema64\_11:

(Start: 48 @6861 has 363 MA's), (Start: 68 @6885 has 1 MA's), (Start: 126 @7008 has 2 MA's), (167, 7098), (175, 7131), (194, 7230), (216, 7314), (217, 7317), (225, 7356), (244, 7425), (247, 7449), (256, 7515), (275, 7605), (315, 7770), (337, 7857), (342, 7890), (365, 7956), (382, 8028), (383, 8031), (389, 8055), (408, 8106), (411, 8121), (420, 8160), (425, 8181), (455, 8277), (529, 8514), (547, 8544), (548, 8547),

Gene: IronMan\_14 Start: 9160, Stop: 10938, Start Num: 49

Candidate Starts for IronMan\_14:

(Start: 49 @9160 has 222 MA's), (Start: 66 @9178 has 5 MA's), (123, 9289), (Start: 126 @9301 has 2 MA's), (136, 9343), (139, 9355), (140, 9364), (146, 9388), (171, 9475), (216, 9670), (217, 9673), (225, 9712), (244, 9781), (256, 9871), (261, 9895), (284, 9994), (295, 10027), (362, 10327), (383, 10414), (414, 10513), (420, 10540), (425, 10561), (455, 10657), (529, 10894), (546, 10921), (547, 10924),

Gene: Isca\_11 Start: 6368, Stop: 8065, Start Num: 48

Candidate Starts for Isca\_11:



(Start: 48 @6368 has 363 MA's), (95, 6440), (175, 6638), (185, 6701), (213, 6812), (217, 6824), (225, 6863), (230, 6875), (244, 6932), (247, 6956), (256, 7022), (258, 7031), (275, 7112), (281, 7139), (315, 7277), (331, 7343), (337, 7364), (342, 7397), (365, 7463), (383, 7538), (389, 7562), (392, 7571), (394, 7580), (411, 7628), (420, 7667), (425, 7688), (455, 7784), (469, 7829), (472, 7838), (518, 7991), (529, 8021), (547, 8051), (548, 8054),

Gene: Isiphiwo\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for Isiphiwo\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (284, 8360), (285, 8363), (294, 8390), (295, 8393), (365, 8678), (386, 8765), (389, 8777), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: Issmi\_7 Start: 2454, Stop: 4100, Start Num: 47

Candidate Starts for Issmi\_7:

(Start: 47 @2454 has 87 MA's), (171, 2712), (175, 2724), (179, 2757), (206, 2865), (211, 2892), (218, 2913), (242, 3000), (251, 3072), (256, 3096), (278, 3195), (325, 3345), (340, 3408), (343, 3426), (383, 3558), (384, 3564), (388, 3579), (391, 3588), (414, 3669), (418, 3687), (420, 3696), (442, 3777), (455, 3816), (463, 3837), (469, 3861), (496, 3921), (517, 4017),

Gene: Iter\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Iter\_2:

(Start: 71 @534 has 40 MA's), (203, 906), (217, 963), (228, 1011), (249, 1101), (267, 1200), (284, 1275), (303, 1365), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (442, 1869), (455, 1905), (460, 1920), (496, 2055), (513, 2139), (517, 2151), (519, 2163),

Gene: IttyBittyPiggy\_2 Start: 535, Stop: 2232, Start Num: 71

Candidate Starts for IttyBittyPiggy\_2:

(7, 244), (Start: 71 @535 has 40 MA's), (Start: 119 @622 has 1 MA's), (203, 907), (217, 964), (225, 1006), (249, 1102), (258, 1156), (284, 1276), (383, 1651), (414, 1762), (434, 1831), (455, 1906), (460, 1921), (496, 2047), (519, 2155),

Gene: Itza\_6 Start: 2578, Stop: 4239, Start Num: 47

Candidate Starts for Itza\_6:

(Start: 47 @2578 has 87 MA's), (141, 2761), (158, 2797), (195, 2968), (211, 3031), (225, 3088), (242, 3139), (251, 3211), (256, 3235), (263, 3268), (271, 3304), (278, 3334), (284, 3355), (304, 3448), (326, 3487), (332, 3511), (340, 3547), (353, 3607), (383, 3697), (388, 3718), (394, 3739), (421, 3838), (455, 3955), (469, 4000),

Gene: Iwokeuplikedis\_12 Start: 7191, Stop: 8972, Start Num: 49

Candidate Starts for Iwokeuplikedis\_12:

(12, 7023), (Start: 49 @7191 has 222 MA's), (146, 7422), (217, 7707), (225, 7746), (244, 7815), (256, 7905), (261, 7929), (268, 7956), (289, 8046), (295, 8061), (362, 8361), (383, 8448), (411, 8535), (414, 8547), (420, 8574), (450, 8679), (455, 8691), (529, 8928), (547, 8958),

Gene: Izzy\_7 Start: 2609, Stop: 4255, Start Num: 47

Candidate Starts for Izzy\_7:

(Start: 47 @2609 has 87 MA's), (Start: 62 @2627 has 20 MA's), (162, 2831), (179, 2912), (211, 3047), (218, 3068), (229, 3113), (242, 3155), (251, 3227), (256, 3251), (275, 3338), (278, 3350), (295, 3404), (326, 3503), (340, 3563), (386, 3725), (388, 3734), (414, 3824), (422, 3857), (441, 3929), (442, 3932), (455, 3971), (463, 3992), (465, 3998), (469, 4016), (503, 4112), (517, 4172),

Gene: JC27\_13 Start: 7632, Stop: 9320, Start Num: 48

Candidate Starts for JC27\_13:

(Start: 48 @7632 has 363 MA's), (Start: 153 @7812 has 2 MA's), (175, 7896), (180, 7932), (185, 7959), (217, 8082), (244, 8190), (256, 8280), (261, 8304), (268, 8331), (277, 8379), (297, 8448), (312, 8523), (315, 8535), (329, 8595), (390, 8820), (393, 8829), (395, 8841), (411, 8883), (416, 8904), (423, 8931), (455, 9039), (490, 9129), (514, 9234),

Gene: JF2\_11 Start: 6133, Stop: 7830, Start Num: 48

Candidate Starts for JF2\_11:

(Start: 48 @6133 has 363 MA's), (95, 6205), (175, 6403), (185, 6466), (213, 6577), (217, 6589), (225, 6628), (230, 6640), (244, 6697), (247, 6721), (252, 6751), (256, 6787), (258, 6796), (275, 6877), (281, 6904), (315, 7042), (331, 7108), (337, 7129), (342, 7162), (365, 7228), (383, 7303), (389, 7327), (390, 7330), (392, 7336), (394, 7345), (411, 7393), (420, 7432), (421, 7435), (425, 7453), (455, 7549), (472, 7603), (518, 7756), (529, 7786), (547, 7816), (548, 7819),

Gene: JF4\_11 Start: 6133, Stop: 7830, Start Num: 48

Candidate Starts for JF4\_11:

(Start: 48 @6133 has 363 MA's), (95, 6205), (175, 6403), (185, 6466), (213, 6577), (217, 6589), (225, 6628), (230, 6640), (244, 6697), (247, 6721), (252, 6751), (256, 6787), (258, 6796), (275, 6877), (281, 6904), (315, 7042), (331, 7108), (337, 7129), (342, 7162), (365, 7228), (383, 7303), (389, 7327), (390, 7330), (392, 7336), (394, 7345), (411, 7393), (420, 7432), (421, 7435), (425, 7453), (455, 7549), (472, 7603), (518, 7756), (529, 7786), (547, 7816), (548, 7819),

Gene: JHC117\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for JHC117\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: JSwag\_14 Start: 6679, Stop: 8376, Start Num: 49

Candidate Starts for JSwag\_14:

(Start: 49 @6679 has 222 MA's), (65, 6697), (149, 6859), (204, 7084), (217, 7138), (244, 7246), (248, 7273), (256, 7336), (261, 7360), (389, 7876), (411, 7939), (421, 7981), (455, 8095), (496, 8200), (529, 8332), (546, 8359), (547, 8362), (548, 8365),

Gene: Jaan\_15 Start: 9550, Stop: 11328, Start Num: 49

Candidate Starts for Jaan\_15:

(Start: 49 @9550 has 222 MA's), (Start: 66 @9568 has 5 MA's), (123, 9679), (Start: 126 @9691 has 2 MA's), (136, 9733), (139, 9745), (140, 9754), (146, 9778), (171, 9865), (216, 10060), (217, 10063), (225, 10102), (244, 10171), (256, 10261), (261, 10285), (284, 10384), (295, 10417), (362, 10717), (383, 10804), (414, 10903), (420, 10930), (425, 10951), (455, 11047), (529, 11284), (546, 11311), (547, 11314),

Gene: Jabiru\_9 Start: 6013, Stop: 7764, Start Num: 28

Candidate Starts for Jabiru\_9:

(Start: 26 @5986 has 19 MA's), (Start: 28 @6013 has 30 MA's), (52, 6073), (60, 6082), (82, 6121), (121, 6196), (123, 6202), (171, 6334), (185, 6409), (186, 6412), (231, 6586), (238, 6610), (256, 6718), (266, 6763), (281, 6841), (284, 6847), (322, 7012), (331, 7045), (337, 7066), (383, 7240), (389, 7264), (420, 7366), (425, 7387), (440, 7441), (450, 7471), (455, 7483), (472, 7537), (527, 7717), (529, 7720), (548, 7753), (550, 7759),

Gene: Jabith\_12 Start: 8076, Stop: 9839, Start Num: 49

Candidate Starts for Jabith\_12:

(20, 7956), (Start: 49 @8076 has 222 MA's), (Start: 66 @8097 has 5 MA's), (110, 8184), (146, 8313), (156, 8337), (171, 8400), (204, 8544), (216, 8595), (217, 8598), (244, 8709), (247, 8733), (248, 8736), (256, 8799), (258, 8808), (261, 8823), (289, 8940), (295, 8955), (304, 9015), (326, 9099), (386, 9327), (389, 9339), (408, 9387), (411, 9402), (420, 9441), (425, 9462), (437, 9501), (450, 9546), (455, 9558), (529, 9795), (546, 9822),

Gene: Jablanski\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Jablanski\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (299, 1382), (308, 1415), (365, 1589), (376, 1616), (383, 1658), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (535, 2240), (547, 2270), (548, 2273),

Gene: JackSparrow\_12 Start: 7288, Stop: 8976, Start Num: 48

Candidate Starts for JackSparrow\_12:

(Start: 48 @7288 has 363 MA's), (Start: 153 @7468 has 2 MA's), (175, 7552), (180, 7588), (185, 7615), (217, 7738), (244, 7846), (256, 7936), (261, 7960), (268, 7987), (277, 8035), (297, 8104), (312, 8179), (315, 8191), (329, 8251), (390, 8476), (393, 8485), (395, 8497), (411, 8539), (416, 8560), (423, 8587), (455, 8695), (490, 8785), (514, 8890),

Gene: JacoRen57\_2 Start: 669, Stop: 2324, Start Num: 96

Candidate Starts for JacoRen57\_2:

(Start: 96 @669 has 69 MA's), (123, 732), (Start: 126 @744 has 2 MA's), (171, 861), (182, 918), (214, 1059), (217, 1068), (227, 1116), (259, 1269), (386, 1797), (414, 1890), (442, 1998), (461, 2052), (463, 2055), (464, 2058), (486, 2103), (510, 2199), (518, 2238),

Gene: Jamzy\_7 Start: 1492, Stop: 3192, Start Num: 94

Candidate Starts for Jamzy\_7:

(Start: 94 @1492 has 8 MA's), (Start: 119 @1546 has 1 MA's), (125, 1567), (134, 1594), (165, 1669), (171, 1705), (186, 1783), (204, 1858), (208, 1882), (217, 1912), (227, 1963), (249, 2062), (267, 2152), (286, 2242), (299, 2296), (317, 2371), (342, 2485), (346, 2509), (348, 2524), (375, 2575), (384, 2641), (386, 2647), (409, 2722), (435, 2818), (442, 2851), (486, 2956), (516, 3085), (517, 3088), (547, 3178), (548, 3181),

Gene: Janeemi\_3 Start: 1617, Stop: 3323, Start Num: 71

Candidate Starts for Janeemi\_3:

(Start: 71 @1617 has 40 MA's), (203, 1989), (217, 2046), (228, 2094), (249, 2184), (284, 2358), (303, 2448), (343, 2571), (350, 2610), (442, 2952), (455, 2988), (460, 3003), (467, 3021), (496, 3138), (513, 3222), (517, 3234), (519, 3246),

Gene: Janus\_7 Start: 2523, Stop: 4169, Start Num: 47

Candidate Starts for Janus\_7:

(Start: 47 @2523 has 87 MA's), (169, 2766), (171, 2781), (175, 2793), (202, 2919), (211, 2961), (213, 2967), (218, 2982), (242, 3069), (251, 3141), (256, 3165), (278, 3264), (286, 3300), (295, 3318), (332, 3441), (340, 3477), (386, 3639), (388, 3648), (408, 3711), (420, 3765), (442, 3846), (455, 3885), (463, 3906), (469, 3930), (516, 4083), (517, 4086),

Gene: Jash\_7 Start: 2580, Stop: 4208, Start Num: 62

Candidate Starts for Jash\_7:

(Start: 47 @2562 has 87 MA's), (Start: 62 @2580 has 20 MA's), (162, 2784), (179, 2865), (211, 3000), (218, 3021), (229, 3066), (242, 3108), (251, 3180), (256, 3204), (275, 3291), (278, 3303), (295, 3357),

(326, 3456), (340, 3516), (386, 3678), (388, 3687), (414, 3777), (422, 3810), (441, 3882), (442, 3885), (455, 3924), (463, 3945), (465, 3951), (469, 3969), (503, 4065), (517, 4125),

Gene: JasmineDragon\_2 Start: 550, Stop: 2277, Start Num: 48

Candidate Starts for JasmineDragon\_2:

(27, 490), (Start: 48 @550 has 363 MA's), (Start: 119 @661 has 1 MA's), (196, 925), (199, 934), (211, 985), (217, 1003), (228, 1051), (249, 1144), (390, 1720), (434, 1873), (455, 1948), (460, 1963), (496, 2092), (519, 2200), (547, 2263),

Gene: Jasper\_12 Start: 6843, Stop: 8531, Start Num: 48

Candidate Starts for Jasper\_12:

(Start: 48 @6843 has 363 MA's), (Start: 153 @7023 has 2 MA's), (175, 7107), (180, 7143), (217, 7293), (244, 7401), (256, 7491), (261, 7515), (277, 7590), (297, 7659), (315, 7746), (329, 7806), (393, 8040), (395, 8052), (411, 8094), (416, 8115), (423, 8142), (455, 8250), (490, 8340), (514, 8445),

Gene: Jaykayelowell\_11 Start: 6883, Stop: 8580, Start Num: 48

Candidate Starts for Jaykayelowell\_11:

(Start: 48 @6883 has 363 MA's), (Start: 68 @6907 has 1 MA's), (Start: 126 @7030 has 2 MA's), (167, 7120), (175, 7153), (194, 7252), (216, 7336), (217, 7339), (225, 7378), (244, 7447), (247, 7471), (256, 7537), (275, 7627), (315, 7792), (337, 7879), (342, 7912), (365, 7978), (382, 8050), (383, 8053), (389, 8077), (408, 8128), (411, 8143), (420, 8182), (425, 8203), (455, 8299), (529, 8536), (547, 8566), (548, 8569),

Gene: Jeeves\_11 Start: 6561, Stop: 8318, Start Num: 49

Candidate Starts for Jeeves\_11:

(Start: 49 @6561 has 222 MA's), (113, 6669), (123, 6693), (139, 6759), (140, 6768), (146, 6792), (162, 6843), (180, 6927), (216, 7074), (217, 7077), (244, 7188), (247, 7212), (256, 7278), (261, 7302), (275, 7368), (295, 7434), (316, 7542), (336, 7617), (363, 7719), (383, 7794), (386, 7806), (389, 7818), (390, 7821), (411, 7881), (420, 7920), (425, 7941), (455, 8037), (529, 8274), (546, 8301),

Gene: Jeffabunny\_15 Start: 7536, Stop: 9290, Start Num: 49

Candidate Starts for Jeffabunny\_15:

(Start: 49 @7536 has 222 MA's), (146, 7767), (162, 7818), (171, 7854), (185, 7929), (217, 8052), (225, 8091), (244, 8160), (247, 8184), (248, 8187), (256, 8250), (261, 8274), (284, 8373), (285, 8376), (294, 8403), (295, 8406), (365, 8691), (386, 8778), (389, 8790), (411, 8853), (420, 8892), (425, 8913), (450, 8997), (455, 9009), (529, 9246), (546, 9273), (547, 9276),

Gene: JenCasNa\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for JenCasNa\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: JeppNRM\_14 Start: 7027, Stop: 8727, Start Num: 51

Candidate Starts for JeppNRM\_14:

(Start: 51 @7027 has 139 MA's), (Start: 81 @7075 has 4 MA's), (Start: 119 @7147 has 1 MA's), (149, 7210), (172, 7294), (217, 7489), (256, 7687), (275, 7777), (294, 7840), (299, 7879), (329, 8002), (383, 8200), (389, 8224), (390, 8227), (411, 8290), (414, 8302), (416, 8311), (425, 8350), (455, 8446), (472, 8500), (490, 8536), (529, 8683), (547, 8713), (548, 8716),

Gene: Jerm\_14 Start: 7848, Stop: 9635, Start Num: 49

Candidate Starts for Jerm\_14:

(Start: 49 @7848 has 222 MA's), (110, 7956), (120, 7977), (137, 8043), (138, 8049), (146, 8085), (156, 8109), (171, 8172), (216, 8367), (217, 8370), (244, 8478), (256, 8568), (261, 8592), (277, 8667), (289, 8709), (295, 8724), (362, 9024), (414, 9210), (420, 9237), (425, 9258), (455, 9354), (529, 9591), (547, 9621),

Gene: Jerm2\_12 Start: 7221, Stop: 8909, Start Num: 55

Candidate Starts for Jerm2\_12:

(Start: 55 @7221 has 24 MA's), (149, 7392), (Start: 153 @7401 has 2 MA's), (175, 7485), (177, 7512), (180, 7521), (217, 7671), (223, 7704), (244, 7779), (256, 7869), (261, 7893), (268, 7920), (277, 7968), (315, 8124), (329, 8184), (390, 8409), (393, 8418), (395, 8430), (411, 8472), (416, 8493), (423, 8520), (455, 8628), (490, 8718), (514, 8823),

Gene: Jester\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Jester\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (256, 3798), (313, 4053), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: JetBlade\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for JetBlade\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Jevington\_8 Start: 2746, Stop: 4392, Start Num: 47

Candidate Starts for Jevington\_8:

(Start: 47 @2746 has 87 MA's), (Start: 126 @2896 has 2 MA's), (175, 3016), (176, 3040), (179, 3049), (202, 3142), (204, 3148), (206, 3157), (211, 3184), (218, 3205), (242, 3292), (251, 3364), (256, 3388), (278, 3487), (286, 3523), (295, 3541), (313, 3628), (332, 3664), (340, 3700), (383, 3850), (388, 3871), (414, 3961), (420, 3988), (442, 4069), (455, 4108), (463, 4129), (469, 4153), (496, 4213), (517, 4309),

Gene: JewelBug\_15 Start: 7534, Stop: 9288, Start Num: 49

Candidate Starts for JewelBug\_15:

(Start: 49 @7534 has 222 MA's), (146, 7765), (162, 7816), (171, 7852), (185, 7927), (217, 8050), (225, 8089), (244, 8158), (247, 8182), (248, 8185), (256, 8248), (261, 8272), (284, 8371), (285, 8374), (294, 8401), (295, 8404), (365, 8689), (386, 8776), (389, 8788), (411, 8851), (420, 8890), (425, 8911), (450, 8995), (455, 9007), (529, 9244), (546, 9271), (547, 9274),

Gene: Jiawan\_12 Start: 8277, Stop: 9932, Start Num: 123

Candidate Starts for Jiawan\_12:

(Start: 49 @8145 has 222 MA's), (Start: 62 @8160 has 20 MA's), (Start: 66 @8166 has 5 MA's), (123, 8277), (146, 8376), (185, 8538), (204, 8610), (217, 8664), (225, 8703), (244, 8775), (256, 8865), (261, 8889), (289, 9006), (295, 9021), (316, 9129), (336, 9204), (342, 9240), (357, 9300), (386, 9420), (392, 9441), (408, 9480), (420, 9534), (421, 9537), (425, 9555), (440, 9609), (450, 9639), (455, 9651), (490, 9741), (497, 9759), (529, 9888), (546, 9915), (547, 9918),

Gene: Jobu08\_13 Start: 7026, Stop: 8726, Start Num: 51

Candidate Starts for Jobu08\_13:

(Start: 51 @7026 has 139 MA's), (Start: 81 @7074 has 4 MA's), (149, 7209), (194, 7401), (217, 7488), (256, 7686), (275, 7776), (294, 7839), (329, 8001), (383, 8199), (389, 8223), (390, 8226), (411, 8289),

(416, 8310), (425, 8349), (455, 8445), (472, 8499), (490, 8535), (529, 8682), (547, 8712), (548, 8715),

Gene: Joemato\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Joemato\_2:

(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (478, 1973), (496, 2054), (513, 2138), (519, 2162),

Gene: JohnDoe\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for JohnDoe\_2:

(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (496, 2054), (513, 2138), (519, 2162),

Gene: JoieB\_36 Start: 11144, Stop: 12886, Start Num: 96

Candidate Starts for JoieB\_36:

(Start: 96 @11144 has 69 MA's), (149, 11261), (162, 11306), (170, 11372), (172, 11387), (176, 11420), (177, 11423), (181, 11438), (186, 11462), (187, 11465), (194, 11495), (200, 11516), (202, 11534), (205, 11543), (212, 11579), (217, 11594), (227, 11639), (242, 11681), (246, 11720), (249, 11732), (251, 11753), (262, 11804), (268, 11825), (324, 12047), (346, 12152), (347, 12161), (366, 12194), (375, 12215), (376, 12218), (379, 12245), (383, 12275), (386, 12287), (390, 12302), (393, 12311), (394, 12317), (407, 12359), (409, 12368), (412, 12383), (416, 12398), (434, 12458), (440, 12497), (451, 12530), (463, 12560), (464, 12563), (485, 12647), (496, 12701), (499, 12716), (506, 12743), (517, 12797), (546, 12869), (547, 12872),

Gene: JoongJeon\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for JoongJeon\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Jordennis\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for Jordennis\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (294, 8390), (295, 8393), (319, 8504), (360, 8666), (383, 8753), (386, 8765), (389, 8777), (408, 8825), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: Jorgensen\_11 Start: 6804, Stop: 8492, Start Num: 48

Candidate Starts for Jorgensen\_11:

(Start: 48 @6804 has 363 MA's), (Start: 153 @6984 has 2 MA's), (175, 7068), (180, 7104), (217, 7254), (244, 7362), (256, 7452), (261, 7476), (268, 7503), (277, 7551), (315, 7707), (329, 7767), (393, 8001), (395, 8013), (411, 8055), (416, 8076), (423, 8103), (455, 8211), (490, 8301), (514, 8406),

Gene: Joselito\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Joselito\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: JoshKayV\_14 Start: 7836, Stop: 9626, Start Num: 49

Candidate Starts for JoshKayV\_14:

(Start: 49 @7836 has 222 MA's), (110, 7944), (120, 7965), (146, 8073), (171, 8160), (217, 8361), (244, 8469), (256, 8559), (261, 8583), (289, 8700), (295, 8715), (362, 9015), (414, 9201), (420, 9228), (425, 9249), (455, 9345), (529, 9582), (547, 9612),

Gene: Journey13\_10 Start: 6587, Stop: 8341, Start Num: 49

Candidate Starts for Journey13\_10:

(Start: 49 @6587 has 222 MA's), (Start: 126 @6731 has 2 MA's), (146, 6818), (171, 6905), (216, 7100), (217, 7103), (225, 7142), (244, 7211), (256, 7301), (261, 7325), (284, 7424), (285, 7427), (294, 7454), (295, 7457), (363, 7742), (383, 7817), (386, 7829), (389, 7841), (408, 7889), (411, 7904), (425, 7964), (450, 8048), (455, 8060), (529, 8297), (546, 8324), (547, 8327), (548, 8330),

Gene: Jovo\_9 Start: 6297, Stop: 8048, Start Num: 28

Candidate Starts for Jovo\_9:

(Start: 26 @6270 has 19 MA's), (Start: 28 @6297 has 30 MA's), (60, 6366), (121, 6480), (123, 6486), (171, 6618), (185, 6693), (186, 6696), (219, 6831), (231, 6870), (238, 6894), (256, 7002), (266, 7047), (281, 7125), (284, 7131), (322, 7296), (331, 7329), (337, 7350), (383, 7524), (389, 7548), (390, 7551), (411, 7611), (414, 7623), (420, 7650), (425, 7671), (450, 7755), (455, 7767), (529, 8004), (548, 8037), (550, 8043),

Gene: Jsquared\_11 Start: 6331, Stop: 8112, Start Num: 49

Candidate Starts for Jsquared\_11:

(13, 6172), (Start: 49 @6331 has 222 MA's), (Start: 126 @6475 has 2 MA's), (137, 6520), (146, 6562), (156, 6586), (171, 6649), (181, 6703), (216, 6844), (217, 6847), (225, 6886), (244, 6955), (256, 7045), (261, 7069), (294, 7198), (295, 7201), (355, 7474), (420, 7714), (425, 7735), (450, 7819), (455, 7831), (529, 8068), (546, 8095), (547, 8098), (548, 8101),

Gene: Jstan\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Jstan\_2:

(Start: 71 @534 has 40 MA's), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (220, 984), (228, 1011), (249, 1101), (258, 1155), (267, 1200), (284, 1275), (303, 1365), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (440, 1863), (455, 1905), (460, 1920), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: Juicebox\_3 Start: 1306, Stop: 2937, Start Num: 73

Candidate Starts for Juicebox\_3:

(70, 1303), (Start: 73 @1306 has 1 MA's), (83, 1315), (179, 1573), (199, 1663), (211, 1714), (213, 1720), (217, 1732), (267, 1972), (283, 2044), (299, 2119), (324, 2179), (346, 2284), (352, 2308), (375, 2350), (386, 2407), (390, 2422), (394, 2437), (409, 2470), (455, 2650), (473, 2707), (494, 2746), (516, 2848), (519, 2863), (547, 2926),

Gene: JuliaChild\_13 Start: 7479, Stop: 9167, Start Num: 48

Candidate Starts for JuliaChild\_13:

(Start: 48 @7479 has 363 MA's), (Start: 153 @7659 has 2 MA's), (175, 7743), (180, 7779), (185, 7806), (217, 7929), (244, 8037), (256, 8127), (261, 8151), (268, 8178), (277, 8226), (315, 8382), (329, 8442), (393, 8676), (395, 8688), (411, 8730), (416, 8751), (423, 8778), (455, 8886), (490, 8976), (514, 9081),

Gene: JuneStar\_2 Start: 545, Stop: 2242, Start Num: 71

Candidate Starts for JuneStar\_2:

(7, 242), (Start: 71 @545 has 40 MA's), (Start: 119 @632 has 1 MA's), (203, 917), (217, 974), (225, 1016), (249, 1112), (258, 1166), (284, 1286), (303, 1376), (383, 1661), (414, 1772), (434, 1841), (455, 1916), (460, 1931), (496, 2057), (513, 2141), (519, 2165),

Gene: KADY\_14 Start: 7041, Stop: 8741, Start Num: 51

Candidate Starts for KADY\_14:

(Start: 51 @7041 has 139 MA's), (Start: 81 @7089 has 4 MA's), (149, 7224), (194, 7416), (217, 7503), (256, 7701), (275, 7791), (294, 7854), (329, 8016), (383, 8214), (389, 8238), (390, 8241), (411, 8304), (416, 8325), (425, 8364), (455, 8460), (472, 8514), (490, 8550), (529, 8697), (547, 8727), (548, 8730),

Gene: KBG\_12 Start: 7912, Stop: 9600, Start Num: 48

Candidate Starts for KBG\_12:

(Start: 48 @7912 has 363 MA's), (Start: 153 @8092 has 2 MA's), (175, 8176), (180, 8212), (185, 8239), (217, 8362), (244, 8470), (256, 8560), (261, 8584), (277, 8659), (315, 8815), (329, 8875), (390, 9100), (393, 9109), (395, 9121), (411, 9163), (416, 9184), (423, 9211), (455, 9319), (490, 9409), (514, 9514),

Gene: KFPoly\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for KFPoly\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: KSSJEB\_11 Start: 6817, Stop: 8505, Start Num: 48

Candidate Starts for KSSJEB\_11:

(Start: 48 @6817 has 363 MA's), (175, 7081), (176, 7105), (209, 7240), (217, 7267), (223, 7300), (244, 7375), (256, 7465), (261, 7489), (268, 7516), (277, 7564), (297, 7633), (315, 7720), (328, 7777), (329, 7780), (390, 8005), (393, 8014), (395, 8026), (411, 8068), (416, 8089), (423, 8116), (455, 8224), (490, 8314), (514, 8419),

Gene: Kachowdy\_11 Start: 6549, Stop: 8246, Start Num: 48

Candidate Starts for Kachowdy\_11:

(Start: 48 @6549 has 363 MA's), (95, 6621), (175, 6819), (213, 6993), (217, 7005), (225, 7044), (230, 7056), (244, 7113), (247, 7137), (256, 7203), (258, 7212), (275, 7293), (281, 7320), (315, 7458), (331, 7524), (337, 7545), (341, 7569), (342, 7578), (365, 7644), (383, 7719), (389, 7743), (390, 7746), (392, 7752), (394, 7761), (411, 7809), (425, 7869), (455, 7965), (469, 8010), (472, 8019), (518, 8172), (529, 8202), (547, 8232), (548, 8235),

Gene: Kaine\_7 Start: 2218, Stop: 3864, Start Num: 47

Candidate Starts for Kaine\_7:

(Start: 45 @2209 has 1 MA's), (Start: 47 @2218 has 87 MA's), (Start: 48 @2221 has 363 MA's), (Start: 62 @2236 has 20 MA's), (162, 2440), (171, 2476), (179, 2521), (202, 2614), (206, 2629), (211, 2656), (214, 2665), (218, 2677), (242, 2764), (248, 2812), (256, 2860), (278, 2959), (289, 2998), (326, 3112), (331, 3133), (340, 3172), (365, 3253), (383, 3322), (384, 3328), (388, 3343), (408, 3406), (441, 3538), (455, 3580), (465, 3607), (469, 3625), (491, 3673), (517, 3781),

Gene: Kalb97\_14 Start: 7027, Stop: 8727, Start Num: 51

Candidate Starts for Kalb97\_14:

(Start: 51 @7027 has 139 MA's), (Start: 81 @7075 has 4 MA's), (Start: 119 @7147 has 1 MA's), (149, 7210), (217, 7489), (256, 7687), (275, 7777), (294, 7840), (329, 8002), (383, 8200), (389, 8224), (390, 8227), (411, 8290), (414, 8302), (416, 8311), (420, 8329), (425, 8350), (455, 8446), (472, 8500), (490,



8536), (529, 8683), (547, 8713), (548, 8716),

Gene: Kalimba\_2 Start: 593, Stop: 2281, Start Num: 75

Candidate Starts for Kalimba\_2:

(75, 593), (169, 794), (199, 938), (206, 962), (217, 1007), (241, 1094), (249, 1148), (255, 1187), (284, 1322), (308, 1424), (343, 1535), (373, 1646), (383, 1697), (455, 1952), (460, 1967), (517, 2192), (519, 2204), (524, 2219),

Gene: Kalnoky\_14 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Kalnoky\_14:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: Kalpine\_15 Start: 9215, Stop: 11002, Start Num: 49

Candidate Starts for Kalpine\_15:

(13, 9047), (21, 9098), (Start: 49 @9215 has 222 MA's), (110, 9323), (120, 9344), (146, 9452), (162, 9503), (171, 9539), (181, 9593), (185, 9614), (216, 9734), (217, 9737), (244, 9845), (256, 9935), (261, 9959), (285, 10061), (295, 10091), (383, 10478), (411, 10565), (414, 10577), (420, 10604), (421, 10607), (425, 10625), (455, 10721), (529, 10958), (546, 10985), (547, 10988), (548, 10991), (549, 10994),

Gene: Kampy\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Kampy\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Kanely\_12 Start: 7589, Stop: 9277, Start Num: 48

Candidate Starts for Kanely\_12:

(Start: 48 @7589 has 363 MA's), (175, 7853), (176, 7877), (217, 8039), (223, 8072), (244, 8147), (256, 8237), (261, 8261), (268, 8288), (277, 8336), (315, 8492), (329, 8552), (393, 8786), (395, 8798), (411, 8840), (416, 8861), (423, 8888), (455, 8996), (490, 9086), (514, 9191),

Gene: Katalie\_7 Start: 2648, Stop: 4294, Start Num: 47

Candidate Starts for Katalie\_7:

(Start: 47 @2648 has 87 MA's), (Start: 62 @2666 has 20 MA's), (162, 2870), (179, 2951), (211, 3086), (218, 3107), (229, 3152), (242, 3194), (251, 3266), (256, 3290), (278, 3389), (295, 3443), (303, 3500), (340, 3602), (353, 3662), (367, 3689), (388, 3773), (392, 3785), (414, 3863), (422, 3896), (442, 3971), (455, 4010), (463, 4031), (465, 4037), (469, 4055), (503, 4151), (517, 4211),

Gene: Katalie136\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Katalie136\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (195, 7268), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (337, 7889), (374, 8015), (382, 8060), (383, 8063), (389, 8087), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: KatherineG\_14 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for KatherineG\_14:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: KayGee\_4 Start: 906, Stop: 2582, Start Num: 96

Candidate Starts for KayGee\_4:

(Start: 96 @906 has 69 MA's), (Start: 119 @957 has 1 MA's), (125, 978), (150, 1023), (162, 1065), (171, 1101), (206, 1263), (214, 1299), (217, 1308), (218, 1311), (227, 1359), (230, 1371), (249, 1458), (286, 1638), (299, 1692), (341, 1872), (346, 1905), (375, 1971), (384, 2037), (386, 2043), (411, 2127), (434, 2208), (440, 2241), (465, 2310), (496, 2388), (518, 2487), (523, 2508), (527, 2514), (547, 2568), (548, 2571),

Gene: Kaylissa\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Kaylissa\_2:

(7, 242), (9, 251), (Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (478, 1973), (496, 2054), (513, 2138), (519, 2162),

Gene: Kazan\_15 Start: 7539, Stop: 9293, Start Num: 49

Candidate Starts for Kazan\_15:

(Start: 49 @7539 has 222 MA's), (146, 7770), (162, 7821), (171, 7857), (185, 7932), (217, 8055), (225, 8094), (244, 8163), (247, 8187), (248, 8190), (256, 8253), (261, 8277), (284, 8376), (285, 8379), (294, 8406), (295, 8409), (365, 8694), (386, 8781), (389, 8793), (411, 8856), (420, 8895), (425, 8916), (450, 9000), (455, 9012), (529, 9249), (546, 9276), (547, 9279),

Gene: KeAlii\_2 Start: 518, Stop: 2215, Start Num: 74

Candidate Starts for KeAlii\_2:

(Start: 74 @518 has 7 MA's), (83, 539), (203, 890), (217, 947), (249, 1085), (252, 1109), (267, 1184), (284, 1259), (350, 1511), (383, 1631), (442, 1850), (455, 1886), (460, 1901), (519, 2144),

Gene: Kenmech\_14 Start: 8093, Stop: 9781, Start Num: 55

Candidate Starts for Kenmech\_14:

(Start: 55 @8093 has 24 MA's), (Start: 153 @8273 has 2 MA's), (175, 8357), (177, 8384), (180, 8393), (217, 8543), (223, 8576), (244, 8651), (256, 8741), (261, 8765), (268, 8792), (277, 8840), (281, 8858), (297, 8909), (312, 8984), (315, 8996), (329, 9056), (393, 9290), (395, 9302), (411, 9344), (416, 9365), (423, 9392), (455, 9500), (490, 9590), (514, 9695),

Gene: Kerberos\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for Kerberos\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: Keziacharles14\_11 Start: 6280, Stop: 8064, Start Num: 49

Candidate Starts for Keziacharles14\_11:

(Start: 49 @6280 has 222 MA's), (Start: 62 @6292 has 20 MA's), (Start: 66 @6298 has 5 MA's), (123, 6409), (146, 6508), (185, 6670), (204, 6742), (217, 6796), (225, 6835), (244, 6907), (256, 6997), (261, 7021), (277, 7096), (289, 7138), (295, 7153), (316, 7261), (336, 7336), (357, 7432), (374, 7492), (411, 7627), (420, 7666), (425, 7687), (450, 7771), (455, 7783), (490, 7873), (497, 7891), (529, 8020), (546, 8047), (547, 8050),

Gene: Killigrew\_9 Start: 6454, Stop: 8142, Start Num: 48

Candidate Starts for Killigrew\_9:

(Start: 48 @6454 has 363 MA's), (175, 6718), (176, 6742), (217, 6904), (223, 6937), (244, 7012), (256, 7102), (261, 7126), (268, 7153), (277, 7201), (312, 7345), (315, 7357), (329, 7417), (390, 7642), (393, 7651), (395, 7663), (411, 7705), (416, 7726), (423, 7753), (455, 7861), (490, 7951), (514, 8056),

Gene: Kimona\_8 Start: 4308, Stop: 6005, Start Num: 48

Candidate Starts for Kimona\_8:

(Start: 48 @4308 has 363 MA's), (113, 4419), (175, 4578), (216, 4761), (217, 4764), (219, 4779), (225, 4803), (244, 4872), (247, 4896), (256, 4962), (258, 4971), (281, 5079), (315, 5217), (365, 5403), (389, 5502), (411, 5568), (414, 5580), (420, 5607), (425, 5628), (450, 5712), (455, 5724), (472, 5778), (527, 5958), (529, 5961), (547, 5991), (548, 5994),

Gene: KingCyrus\_14 Start: 7824, Stop: 9611, Start Num: 49

Candidate Starts for KingCyrus\_14:

(Start: 49 @7824 has 222 MA's), (110, 7932), (120, 7953), (146, 8061), (216, 8343), (217, 8346), (244, 8454), (256, 8544), (261, 8568), (289, 8685), (295, 8700), (362, 9000), (414, 9186), (420, 9213), (425, 9234), (455, 9330), (529, 9567), (547, 9597),

Gene: Kingmustik0402\_11 Start: 6876, Stop: 8573, Start Num: 48

Candidate Starts for Kingmustik0402\_11:

(Start: 48 @6876 has 363 MA's), (Start: 68 @6900 has 1 MA's), (Start: 126 @7023 has 2 MA's), (167, 7113), (175, 7146), (194, 7245), (216, 7329), (217, 7332), (225, 7371), (244, 7440), (247, 7464), (256, 7530), (275, 7620), (315, 7785), (337, 7872), (342, 7905), (365, 7971), (382, 8043), (383, 8046), (389, 8070), (408, 8121), (411, 8136), (420, 8175), (425, 8196), (455, 8292), (529, 8529), (547, 8559), (548, 8562),

Gene: Kinmap\_11 Start: 7441, Stop: 9138, Start Num: 54

Candidate Starts for Kinmap\_11:

(54, 7441), (63, 7453), (113, 7543), (120, 7558), (172, 7702), (217, 7897), (236, 7969), (244, 8008), (256, 8098), (261, 8122), (360, 8527), (389, 8638), (414, 8713), (421, 8743), (455, 8857), (465, 8884), (529, 9094), (546, 9121), (547, 9124),

Gene: Kipper29\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Kipper29\_15:

(Start: 49 @7533 has 222 MA's), (146, 7764), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (284, 8370), (285, 8373), (294, 8400), (295, 8403), (365, 8688), (386, 8775), (389, 8787), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: KittenMittens\_10 Start: 4782, Stop: 6473, Start Num: 48

Candidate Starts for KittenMittens\_10:

(Start: 48 @4782 has 363 MA's), (Start: 68 @4806 has 1 MA's), (Start: 126 @4929 has 2 MA's), (159, 4998), (171, 5049), (175, 5061), (185, 5124), (206, 5202), (217, 5247), (225, 5286), (242, 5334), (244, 5355), (247, 5379), (256, 5430), (284, 5553), (320, 5700), (333, 5760), (342, 5805), (383, 5946), (397, 6000), (411, 6036), (420, 6075), (425, 6096), (455, 6192), (478, 6261), (529, 6429), (547, 6459), (548, 6462),

Gene: Koduck\_12 Start: 6618, Stop: 8399, Start Num: 49

Candidate Starts for Koduck\_12:

(13, 6459), (Start: 49 @6618 has 222 MA's), (Start: 126 @6762 has 2 MA's), (137, 6807), (146, 6849), (171, 6936), (181, 6990), (216, 7131), (217, 7134), (225, 7173), (244, 7242), (256, 7332), (261, 7356), (294, 7485), (295, 7488), (420, 8001), (421, 8004), (425, 8022), (450, 8106), (455, 8118), (529, 8355), (546, 8382), (547, 8385), (548, 8388),

Gene: Koko\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Koko\_15:

(Start: 49 @7533 has 222 MA's), (123, 7665), (146, 7764), (156, 7788), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (219, 8064), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (294, 8400), (295, 8403), (319, 8514), (360, 8676), (383, 8763), (386, 8775), (389, 8787), (408, 8835), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Koreni\_10 Start: 6533, Stop: 8230, Start Num: 48

Candidate Starts for Koreni\_10:

(Start: 48 @6533 has 363 MA's), (Start: 68 @6557 has 1 MA's), (Start: 126 @6680 has 2 MA's), (167, 6770), (175, 6803), (194, 6902), (216, 6986), (217, 6989), (225, 7028), (244, 7097), (247, 7121), (256, 7187), (275, 7277), (315, 7442), (337, 7529), (342, 7562), (365, 7628), (382, 7700), (383, 7703), (389, 7727), (408, 7778), (411, 7793), (420, 7832), (425, 7853), (455, 7949), (529, 8186), (547, 8216), (548, 8219),

Gene: Kratak\_11 Start: 6879, Stop: 8576, Start Num: 48

Candidate Starts for Kratak\_11:

(Start: 48 @6879 has 363 MA's), (Start: 68 @6903 has 1 MA's), (Start: 126 @7026 has 2 MA's), (167, 7116), (175, 7149), (194, 7248), (216, 7332), (217, 7335), (225, 7374), (244, 7443), (247, 7467), (256, 7533), (275, 7623), (315, 7788), (337, 7875), (342, 7908), (365, 7974), (382, 8046), (383, 8049), (389, 8073), (408, 8124), (411, 8139), (420, 8178), (425, 8199), (455, 8295), (529, 8532), (547, 8562), (548, 8565),

Gene: Kremtemulon\_11 Start: 6929, Stop: 8626, Start Num: 48

Candidate Starts for Kremtemulon\_11:

(Start: 48 @6929 has 363 MA's), (Start: 68 @6953 has 1 MA's), (Start: 126 @7076 has 2 MA's), (167, 7166), (175, 7199), (194, 7298), (216, 7382), (217, 7385), (225, 7424), (244, 7493), (256, 7583), (275, 7673), (315, 7838), (337, 7925), (342, 7958), (382, 8096), (383, 8099), (389, 8123), (411, 8189), (420, 8228), (425, 8249), (455, 8345), (527, 8579), (529, 8582), (547, 8612), (548, 8615),

Gene: Krishelle\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Krishelle\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Kristoff\_12 Start: 6880, Stop: 8556, Start Num: 48

Candidate Starts for Kristoff\_12:

(Start: 48 @6880 has 363 MA's), (Start: 126 @7012 has 2 MA's), (175, 7144), (182, 7189), (206, 7285), (217, 7330), (225, 7369), (242, 7417), (244, 7438), (247, 7462), (256, 7513), (284, 7636), (315, 7768), (333, 7843), (342, 7888), (365, 7954), (383, 8029), (389, 8053), (390, 8056), (411, 8119), (420, 8158), (421, 8161), (425, 8179), (455, 8275), (478, 8344), (529, 8512), (547, 8542), (548, 8545),

Gene: Kromp\_2 Start: 782, Stop: 2422, Start Num: 91

Candidate Starts for Kromp\_2:

(Start: 91 @782 has 1 MA's), (115, 833), (155, 914), (180, 1049), (194, 1175), (217, 1262), (245, 1385), (247, 1394), (251, 1421), (254, 1436), (255, 1439), (263, 1478), (268, 1493), (275, 1532), (310, 1646), (324, 1679), (342, 1763), (364, 1829), (375, 1850), (376, 1853), (417, 2027), (421, 2045), (450, 2123), (459, 2147), (462, 2153), (507, 2285), (514, 2327), (515, 2330), (547, 2408), (549, 2414),

Gene: Kugel\_12 Start: 7046, Stop: 8737, Start Num: 48

Candidate Starts for Kugel\_12:

(Start: 48 @7046 has 363 MA's), (175, 7310), (183, 7361), (217, 7496), (244, 7607), (247, 7631), (256, 7697), (261, 7721), (299, 7889), (328, 8009), (329, 8012), (383, 8210), (390, 8237), (413, 8309), (416, 8321), (421, 8342), (437, 8399), (455, 8456), (490, 8546), (491, 8549), (517, 8660), (518, 8663), (529, 8693), (547, 8723), (548, 8726),

Gene: Kuwabara\_2 Start: 486, Stop: 2147, Start Num: 96

Candidate Starts for Kuwabara\_2:

(24, 324), (29, 357), (30, 360), (Start: 50 @411 has 3 MA's), (58, 420), (Start: 76 @453 has 1 MA's), (Start: 96 @486 has 69 MA's), (Start: 119 @537 has 1 MA's), (123, 549), (130, 576), (169, 666), (171, 681), (177, 720), (184, 747), (185, 756), (186, 759), (194, 792), (206, 843), (214, 879), (215, 882), (217, 888), (220, 903), (221, 906), (229, 942), (244, 996), (251, 1047), (256, 1071), (275, 1158), (290, 1218), (299, 1263), (309, 1299), (318, 1341), (330, 1395), (337, 1419), (341, 1443), (354, 1503), (362, 1509), (379, 1572), (389, 1626), (394, 1644), (411, 1701), (414, 1713), (420, 1740), (442, 1821), (453, 1851), (467, 1890), (474, 1914), (496, 1962), (497, 1965), (517, 2058), (518, 2061), (521, 2079), (527, 2088), (534, 2100), (548, 2136),

Gene: KyMonks1A\_13 Start: 7323, Stop: 9011, Start Num: 48

Candidate Starts for KyMonks1A\_13:

(Start: 48 @7323 has 363 MA's), (Start: 153 @7503 has 2 MA's), (175, 7587), (180, 7623), (185, 7650), (217, 7773), (244, 7881), (256, 7971), (261, 7995), (268, 8022), (277, 8070), (315, 8226), (329, 8286), (390, 8511), (393, 8520), (395, 8532), (411, 8574), (416, 8595), (423, 8622), (455, 8730), (490, 8820), (514, 8925),

Gene: Kyee\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Kyee\_11:

(12, 6708), (15, 6726), (Start: 17 @6756 has 1 MA's), (Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Kykar\_9 Start: 6543, Stop: 8234, Start Num: 48

Candidate Starts for Kykar\_9:

(Start: 48 @6543 has 363 MA's), (Start: 153 @6723 has 2 MA's), (175, 6807), (183, 6858), (217, 6993), (244, 7104), (247, 7128), (256, 7194), (261, 7218), (299, 7386), (328, 7506), (329, 7509), (383, 7707), (390, 7734), (413, 7806), (416, 7818), (421, 7839), (437, 7896), (455, 7953), (490, 8043), (491, 8046), (517, 8157), (518, 8160), (529, 8190), (547, 8220), (548, 8223),

Gene: L5\_13 Start: 6626, Stop: 8407, Start Num: 49

Candidate Starts for L5\_13:

(13, 6467), (Start: 49 @6626 has 222 MA's), (Start: 126 @6770 has 2 MA's), (137, 6815), (146, 6857), (171, 6944), (181, 6998), (216, 7139), (217, 7142), (225, 7181), (244, 7250), (256, 7340), (261, 7364), (294, 7493), (295, 7496), (420, 8009), (421, 8012), (425, 8030), (450, 8114), (455, 8126), (529, 8363), (546, 8390), (547, 8393), (548, 8396),

Gene: LBerry\_13 Start: 6957, Stop: 8657, Start Num: 51

Candidate Starts for LBerry\_13:

(Start: 51 @6957 has 139 MA's), (Start: 81 @7005 has 4 MA's), (149, 7140), (194, 7332), (217, 7419), (256, 7617), (275, 7707), (294, 7770), (329, 7932), (383, 8130), (389, 8154), (390, 8157), (411, 8220), (416, 8241), (425, 8280), (455, 8376), (472, 8430), (490, 8466), (529, 8613), (547, 8643), (548, 8646),

Gene: LHTSCC\_11 Start: 6861, Stop: 8558, Start Num: 48

Candidate Starts for LHTSCC\_11:

(Start: 48 @6861 has 363 MA's), (Start: 68 @6885 has 1 MA's), (Start: 126 @7008 has 2 MA's), (167, 7098), (175, 7131), (216, 7314), (217, 7317), (225, 7356), (244, 7425), (247, 7449), (256, 7515), (275, 7605), (315, 7770), (337, 7857), (342, 7890), (365, 7956), (382, 8028), (389, 8055), (408, 8106), (411, 8121), (420, 8160), (425, 8181), (455, 8277), (529, 8514), (547, 8544), (548, 8547),

Gene: LadyBird\_12 Start: 7410, Stop: 9197, Start Num: 49

Candidate Starts for LadyBird\_12:

(Start: 49 @7410 has 222 MA's), (110, 7518), (120, 7539), (146, 7647), (156, 7671), (216, 7929), (217, 7932), (244, 8040), (256, 8130), (261, 8154), (289, 8271), (295, 8286), (362, 8586), (414, 8772), (420, 8799), (425, 8820), (455, 8916), (529, 9153), (546, 9180), (547, 9183),

Gene: Lambert1\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Lambert1\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Lamina13\_11 Start: 6599, Stop: 8287, Start Num: 48

Candidate Starts for Lamina13\_11:

(Start: 48 @6599 has 363 MA's), (Start: 153 @6779 has 2 MA's), (175, 6863), (176, 6887), (217, 7049), (223, 7082), (244, 7157), (256, 7247), (261, 7271), (268, 7298), (277, 7346), (315, 7502), (316, 7511), (329, 7562), (393, 7796), (395, 7808), (411, 7850), (416, 7871), (423, 7898), (455, 8006), (490, 8096), (514, 8201),

Gene: Landor\_13 Start: 9202, Stop: 10980, Start Num: 49

Candidate Starts for Landor\_13:

(Start: 49 @9202 has 222 MA's), (Start: 66 @9220 has 5 MA's), (123, 9331), (Start: 126 @9343 has 2 MA's), (136, 9385), (139, 9397), (140, 9406), (146, 9430), (171, 9517), (216, 9712), (217, 9715), (225, 9754), (244, 9823), (256, 9913), (261, 9937), (284, 10036), (295, 10069), (362, 10369), (383, 10456), (414, 10555), (420, 10582), (425, 10603), (455, 10699), (529, 10936), (546, 10963), (547, 10966),

Gene: Lannister\_7 Start: 2384, Stop: 4030, Start Num: 47

Candidate Starts for Lannister\_7:

(Start: 47 @2384 has 87 MA's), (162, 2606), (179, 2687), (211, 2822), (218, 2843), (229, 2888), (242, 2930), (251, 3002), (256, 3026), (278, 3125), (295, 3179), (340, 3338), (353, 3398), (388, 3509), (414, 3599), (442, 3707), (455, 3746), (463, 3767), (465, 3773), (469, 3791), (503, 3887), (517, 3947),

Gene: LappelDuVide\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for LappelDuVide\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Larenn\_13 Start: 7730, Stop: 9493, Start Num: 49

Candidate Starts for Larenn\_13:

(Start: 49 @7730 has 222 MA's), (110, 7838), (120, 7859), (146, 7967), (156, 7991), (216, 8252), (217, 8255), (225, 8294), (244, 8363), (256, 8453), (261, 8477), (289, 8594), (295, 8609), (360, 8882), (383,

8969), (386, 8981), (389, 8993), (408, 9041), (411, 9056), (420, 9095), (425, 9116), (455, 9212), (529, 9449), (546, 9476), (547, 9479), (548, 9482), (549, 9485),

Gene: LarryKay\_13 Start: 7043, Stop: 8743, Start Num: 51

Candidate Starts for LarryKay\_13:

(Start: 51 @7043 has 139 MA's), (Start: 81 @7091 has 4 MA's), (149, 7226), (194, 7418), (217, 7505), (256, 7703), (275, 7793), (294, 7856), (329, 8018), (383, 8216), (389, 8240), (390, 8243), (411, 8306), (416, 8327), (425, 8366), (455, 8462), (472, 8516), (490, 8552), (529, 8699), (547, 8729), (548, 8732),

Gene: LastResort\_14 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for LastResort\_14:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496, 8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: Lauer\_3 Start: 958, Stop: 2634, Start Num: 96

Candidate Starts for Lauer\_3:

(Start: 96 @958 has 69 MA's), (Start: 119 @1009 has 1 MA's), (125, 1030), (150, 1075), (171, 1153), (184, 1219), (206, 1315), (214, 1351), (217, 1360), (218, 1363), (227, 1411), (230, 1423), (249, 1510), (286, 1690), (299, 1744), (341, 1924), (346, 1957), (375, 2023), (384, 2089), (386, 2095), (411, 2179), (434, 2260), (440, 2293), (465, 2362), (496, 2440), (518, 2539), (523, 2560), (527, 2566), (547, 2620), (548, 2623),

Gene: Legacy\_6 Start: 2382, Stop: 4028, Start Num: 47

Candidate Starts for Legacy\_6:

(Start: 47 @2382 has 87 MA's), (Start: 62 @2400 has 20 MA's), (162, 2604), (179, 2685), (211, 2820), (218, 2841), (242, 2928), (251, 3000), (256, 3024), (278, 3123), (295, 3177), (326, 3276), (340, 3336), (386, 3498), (388, 3507), (414, 3597), (420, 3624), (441, 3702), (442, 3705), (455, 3744), (463, 3765), (465, 3771), (469, 3789), (503, 3885), (517, 3945),

Gene: Lego\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Lego\_2:

(7, 242), (9, 251), (Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (478, 1973), (496, 2054), (519, 2162),

Gene: Lemur\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Lemur\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: LeoAvram\_11 Start: 7031, Stop: 8581, Start Num: 126

Candidate Starts for LeoAvram\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Leogania\_14 Start: 9575, Stop: 11362, Start Num: 49

Candidate Starts for Leogania\_14:

(Start: 49 @9575 has 222 MA's), (110, 9683), (120, 9704), (146, 9812), (171, 9899), (181, 9953), (216, 10094), (217, 10097), (225, 10136), (244, 10205), (256, 10295), (261, 10319), (289, 10436), (295, 10451), (362, 10751), (383, 10838), (414, 10937), (420, 10964), (425, 10985), (455, 11081), (529, 11318), (546, 11345), (547, 11348),

Gene: Lesedi\_10 Start: 6758, Stop: 8446, Start Num: 48

Candidate Starts for Lesedi\_10:

(Start: 48 @6758 has 363 MA's), (175, 7022), (176, 7046), (217, 7208), (223, 7241), (244, 7316), (256, 7406), (261, 7430), (268, 7457), (277, 7505), (297, 7574), (315, 7661), (329, 7721), (393, 7955), (395, 7967), (411, 8009), (416, 8030), (423, 8057), (455, 8165), (490, 8255), (514, 8360),

Gene: Lev2\_9 Start: 6005, Stop: 7756, Start Num: 28

Candidate Starts for Lev2\_9:

(Start: 26 @5978 has 19 MA's), (Start: 28 @6005 has 30 MA's), (60, 6074), (82, 6113), (121, 6188), (123, 6194), (171, 6326), (185, 6401), (186, 6404), (219, 6539), (231, 6578), (238, 6602), (256, 6710), (266, 6755), (281, 6833), (284, 6839), (322, 7004), (331, 7037), (337, 7058), (383, 7232), (389, 7256), (390, 7259), (411, 7319), (414, 7331), (420, 7358), (425, 7379), (450, 7463), (455, 7475), (529, 7712), (548, 7745), (550, 7751),

Gene: Leviathan\_14 Start: 7880, Stop: 9667, Start Num: 49

Candidate Starts for Leviathan\_14:

(Start: 49 @7880 has 222 MA's), (110, 7988), (120, 8009), (137, 8075), (138, 8081), (146, 8117), (156, 8141), (171, 8204), (216, 8399), (217, 8402), (244, 8510), (256, 8600), (261, 8624), (277, 8699), (289, 8741), (295, 8756), (362, 9056), (414, 9242), (420, 9269), (425, 9290), (455, 9386), (529, 9623), (547, 9653),

Gene: Leviticus\_6 Start: 2420, Stop: 4048, Start Num: 62

Candidate Starts for Leviticus\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: Licorice\_13 Start: 7615, Stop: 9303, Start Num: 48

Candidate Starts for Licorice\_13:

(Start: 48 @7615 has 363 MA's), (175, 7879), (176, 7903), (217, 8065), (223, 8098), (244, 8173), (256, 8263), (261, 8287), (268, 8314), (277, 8362), (315, 8518), (329, 8578), (390, 8803), (393, 8812), (395, 8824), (411, 8866), (416, 8887), (423, 8914), (455, 9022), (490, 9112), (514, 9217),

Gene: Liebe\_2 Start: 532, Stop: 2271, Start Num: 50

Candidate Starts for Liebe\_2:

(Start: 50 @532 has 3 MA's), (86, 592), (93, 601), (Start: 119 @655 has 1 MA's), (167, 778), (195, 916), (199, 928), (206, 952), (217, 997), (228, 1045), (249, 1138), (267, 1237), (268, 1240), (279, 1297), (302, 1399), (303, 1402), (331, 1468), (343, 1525), (356, 1594), (390, 1714), (442, 1906), (455, 1942), (460, 1957), (503, 2122), (519, 2194), (524, 2209), (527, 2212), (547, 2257),

Gene: Lika\_6 Start: 2381, Stop: 4027, Start Num: 47

Candidate Starts for Lika\_6:

(Start: 47 @2381 has 87 MA's), (Start: 62 @2399 has 20 MA's), (162, 2603), (171, 2639), (211, 2819), (218, 2840), (242, 2927), (251, 2999), (256, 3023), (278, 3122), (281, 3137), (289, 3161), (291, 3167), (340, 3335), (383, 3485), (388, 3506), (414, 3596), (442, 3704), (455, 3743), (463, 3764), (465, 3770), (469, 3788), (517, 3944),



Gene: LilBib\_12 Start: 7558, Stop: 9246, Start Num: 48

Candidate Starts for LilBib\_12:

(Start: 48 @7558 has 363 MA's), (Start: 153 @7738 has 2 MA's), (175, 7822), (180, 7858), (185, 7885), (217, 8008), (244, 8116), (256, 8206), (261, 8230), (268, 8257), (277, 8305), (315, 8461), (329, 8521), (393, 8755), (395, 8767), (411, 8809), (416, 8830), (423, 8857), (455, 8965), (490, 9055), (514, 9160),

Gene: LilTurb\_14 Start: 7907, Stop: 9694, Start Num: 49

Candidate Starts for LilTurb\_14:

(Start: 49 @7907 has 222 MA's), (110, 8015), (120, 8036), (137, 8102), (138, 8108), (146, 8144), (156, 8168), (171, 8231), (216, 8426), (217, 8429), (244, 8537), (256, 8627), (261, 8651), (277, 8726), (289, 8768), (295, 8783), (362, 9083), (414, 9269), (420, 9296), (425, 9317), (455, 9413), (529, 9650), (547, 9680),

Gene: Lilas\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Lilas\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Lilbit\_36 Start: 11121, Stop: 12863, Start Num: 96

Candidate Starts for Lilbit\_36:

(Start: 96 @11121 has 69 MA's), (149, 11238), (162, 11283), (170, 11349), (172, 11364), (176, 11397), (177, 11400), (181, 11415), (186, 11439), (187, 11442), (194, 11472), (200, 11493), (202, 11511), (205, 11520), (212, 11556), (217, 11571), (227, 11616), (242, 11658), (246, 11697), (249, 11709), (251, 11730), (262, 11781), (268, 11802), (324, 12024), (346, 12129), (347, 12138), (366, 12171), (375, 12192), (376, 12195), (379, 12222), (383, 12252), (386, 12264), (390, 12279), (393, 12288), (394, 12294), (407, 12336), (409, 12345), (412, 12360), (416, 12375), (434, 12435), (440, 12474), (451, 12507), (463, 12537), (464, 12540), (485, 12624), (496, 12678), (499, 12693), (506, 12720), (517, 12774), (546, 12846), (547, 12849),

Gene: Lilbunny\_15 Start: 7514, Stop: 9268, Start Num: 49

Candidate Starts for Lilbunny\_15:

(Start: 49 @7514 has 222 MA's), (123, 7646), (146, 7745), (156, 7769), (162, 7796), (171, 7832), (185, 7907), (217, 8030), (219, 8045), (225, 8069), (244, 8138), (247, 8162), (248, 8165), (256, 8228), (261, 8252), (294, 8381), (295, 8384), (319, 8495), (360, 8657), (383, 8744), (386, 8756), (389, 8768), (408, 8816), (411, 8831), (420, 8870), (425, 8891), (450, 8975), (455, 8987), (529, 9224), (546, 9251), (547, 9254),

Gene: Lilith\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for Lilith\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: Lilleskat\_11 Start: 8130, Stop: 9896, Start Num: 66

Candidate Starts for Lilleskat\_11:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261,

8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: Lillie\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Lillie\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: LittleB\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for LittleB\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (213, 7328), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: LittleCherry\_9 Start: 6189, Stop: 7940, Start Num: 28

Candidate Starts for LittleCherry\_9:

(Start: 26 @6162 has 19 MA's), (Start: 28 @6189 has 30 MA's), (60, 6258), (121, 6372), (123, 6378), (171, 6510), (185, 6585), (186, 6588), (194, 6621), (204, 6654), (231, 6762), (238, 6786), (244, 6819), (256, 6894), (266, 6939), (281, 7017), (284, 7023), (297, 7068), (331, 7221), (337, 7242), (383, 7416), (389, 7440), (390, 7443), (411, 7503), (414, 7515), (420, 7542), (425, 7563), (450, 7647), (455, 7659), (529, 7896), (548, 7929), (550, 7935),

Gene: LittleGuy\_11 Start: 6827, Stop: 8524, Start Num: 48

Candidate Starts for LittleGuy\_11:

(12, 6650), (15, 6668), (Start: 17 @6698 has 1 MA's), (Start: 48 @6827 has 363 MA's), (Start: 68 @6851 has 1 MA's), (Start: 126 @6974 has 2 MA's), (167, 7064), (175, 7097), (194, 7196), (216, 7280), (217, 7283), (225, 7322), (244, 7391), (247, 7415), (256, 7481), (275, 7571), (315, 7736), (337, 7823), (342, 7856), (365, 7922), (382, 7994), (383, 7997), (389, 8021), (408, 8072), (411, 8087), (420, 8126), (425, 8147), (455, 8243), (529, 8480), (547, 8510), (548, 8513),

Gene: LittleLaf\_35 Start: 10850, Stop: 12592, Start Num: 96

Candidate Starts for LittleLaf\_35:

(Start: 96 @10850 has 69 MA's), (149, 10967), (162, 11012), (170, 11078), (172, 11093), (176, 11126), (177, 11129), (181, 11144), (186, 11168), (187, 11171), (194, 11201), (200, 11222), (202, 11240), (205, 11249), (212, 11285), (217, 11300), (227, 11345), (242, 11387), (246, 11426), (249, 11438), (251, 11459), (262, 11510), (268, 11531), (324, 11753), (346, 11858), (347, 11867), (366, 11900), (375, 11921), (376, 11924), (379, 11951), (383, 11981), (386, 11993), (390, 12008), (393, 12017), (394, 12023), (407, 12065), (409, 12074), (412, 12089), (416, 12104), (434, 12164), (440, 12203), (451, 12236), (463, 12266), (464, 12269), (485, 12353), (496, 12407), (499, 12422), (506, 12449), (517, 12503), (546, 12575), (547, 12578),

Gene: Lizalica\_2 Start: 531, Stop: 2237, Start Num: 71

Candidate Starts for Lizalica\_2:

(1, 54), (6, 240), (7, 243), (Start: 71 @531 has 40 MA's), (203, 903), (217, 960), (228, 1008), (249, 1098), (258, 1152), (284, 1272), (303, 1362), (350, 1524), (374, 1599), (383, 1647), (408, 1731), (425, 1806), (455, 1902), (460, 1917), (478, 1971), (496, 2052), (513, 2136), (519, 2160),

Gene: LochMonster\_11 Start: 6859, Stop: 8556, Start Num: 48

Candidate Starts for LochMonster\_11:

(Start: 48 @6859 has 363 MA's), (Start: 68 @6883 has 1 MA's), (Start: 126 @7006 has 2 MA's), (167, 7096), (175, 7129), (194, 7228), (216, 7312), (217, 7315), (225, 7354), (244, 7423), (247, 7447), (256, 7513), (275, 7603), (337, 7855), (342, 7888), (365, 7954), (382, 8026), (383, 8029), (389, 8053), (408, 8104), (411, 8119), (420, 8158), (425, 8179), (455, 8275), (529, 8512), (547, 8542), (548, 8545),

Gene: Lockley\_11 Start: 6937, Stop: 8625, Start Num: 48

Candidate Starts for Lockley\_11:

(Start: 48 @6937 has 363 MA's), (175, 7201), (176, 7225), (217, 7387), (244, 7495), (256, 7585), (261, 7609), (268, 7636), (277, 7684), (297, 7753), (315, 7840), (316, 7849), (329, 7900), (393, 8134), (395, 8146), (411, 8188), (416, 8209), (423, 8236), (455, 8344), (490, 8434), (514, 8539),

Gene: Loka\_15 Start: 9141, Stop: 10922, Start Num: 49

Candidate Starts for Loka\_15:

(18, 9021), (35, 9114), (Start: 49 @9141 has 222 MA's), (123, 9273), (140, 9348), (146, 9372), (162, 9423), (216, 9654), (217, 9657), (225, 9696), (244, 9765), (256, 9855), (261, 9879), (284, 9978), (294, 10008), (295, 10011), (408, 10470), (411, 10485), (414, 10497), (420, 10524), (425, 10545), (455, 10641), (529, 10878), (546, 10905), (547, 10908),

Gene: London\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for London\_2:

(Start: 71 @534 has 40 MA's), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (220, 984), (228, 1011), (249, 1101), (258, 1155), (267, 1200), (284, 1275), (303, 1365), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (440, 1863), (455, 1905), (460, 1920), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: LoneWolf\_13 Start: 7971, Stop: 9743, Start Num: 62

Candidate Starts for LoneWolf\_13:

(Start: 49 @7956 has 222 MA's), (Start: 62 @7971 has 20 MA's), (123, 8088), (146, 8187), (156, 8211), (185, 8349), (204, 8421), (217, 8475), (225, 8514), (244, 8586), (256, 8676), (261, 8700), (277, 8775), (295, 8832), (316, 8940), (336, 9015), (342, 9051), (357, 9111), (374, 9171), (386, 9231), (392, 9252), (408, 9291), (420, 9345), (421, 9348), (425, 9366), (440, 9420), (450, 9450), (455, 9462), (491, 9555), (497, 9570), (529, 9699), (546, 9726), (547, 9729),

Gene: LonelyBoi\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for LonelyBoi\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (169, 782), (171, 797), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (547, 2270), (548, 2273),

Gene: Loofah\_7 Start: 2247, Stop: 3908, Start Num: 47

Candidate Starts for Loofah\_7:

(Start: 47 @2247 has 87 MA's), (179, 2565), (202, 2658), (206, 2673), (211, 2700), (218, 2721), (242, 2808), (256, 2904), (263, 2937), (275, 2991), (284, 3024), (291, 3048), (304, 3117), (332, 3180), (333, 3186), (340, 3216), (343, 3234), (366, 3300), (382, 3363), (383, 3366), (386, 3378), (388, 3387), (391, 3396), (408, 3450), (414, 3477), (455, 3624), (463, 3645), (469, 3669), (496, 3729), (517, 3825), (550, 3903),

Gene: Looper\_15 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for Looper\_15:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496, 8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: Lorelei\_6 Start: 2392, Stop: 4020, Start Num: 62

Candidate Starts for Lorelei\_6:

(Start: 47 @2374 has 87 MA's), (Start: 62 @2392 has 20 MA's), (162, 2596), (171, 2632), (211, 2812), (218, 2833), (229, 2878), (242, 2920), (251, 2992), (256, 3016), (278, 3115), (281, 3130), (289, 3154), (291, 3160), (340, 3328), (383, 3478), (388, 3499), (414, 3589), (442, 3697), (455, 3736), (463, 3757), (465, 3763), (469, 3781), (517, 3937), (550, 4015),

Gene: Lorenzo\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Lorenzo\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Loser\_15 Start: 9241, Stop: 11001, Start Num: 49

Candidate Starts for Loser\_15:

(Start: 49 @9241 has 222 MA's), (110, 9349), (120, 9370), (140, 9454), (146, 9478), (171, 9565), (204, 9709), (217, 9763), (244, 9871), (256, 9961), (261, 9985), (295, 10117), (326, 10261), (362, 10393), (383, 10477), (408, 10549), (411, 10564), (420, 10603), (421, 10606), (425, 10624), (455, 10720), (478, 10789), (529, 10957), (546, 10984), (547, 10987), (548, 10990), (549, 10993),

Gene: Louie6\_13 Start: 7044, Stop: 8744, Start Num: 51

Candidate Starts for Louie6\_13:

(Start: 51 @7044 has 139 MA's), (Start: 81 @7092 has 4 MA's), (149, 7227), (194, 7419), (217, 7506), (256, 7704), (275, 7794), (294, 7857), (329, 8019), (383, 8217), (389, 8241), (390, 8244), (411, 8307), (414, 8319), (416, 8328), (420, 8346), (425, 8367), (455, 8463), (472, 8517), (490, 8553), (529, 8700), (547, 8730), (548, 8733),

Gene: Lozinak\_30 Start: 8683, Stop: 10431, Start Num: 88

Candidate Starts for Lozinak\_30:

(Start: 88 @8683 has 21 MA's), (106, 8713), (160, 8842), (190, 9028), (197, 9067), (205, 9091), (210, 9121), (216, 9139), (221, 9166), (228, 9196), (267, 9388), (270, 9406), (310, 9568), (327, 9616), (332, 9631), (373, 9814), (375, 9820), (389, 9904), (413, 9991), (421, 10024), (452, 10138), (465, 10174), (472, 10198), (481, 10213), (533, 10387), (535, 10393),

Gene: Luchador\_12 Start: 7549, Stop: 9303, Start Num: 49

Candidate Starts for Luchador\_12:

(Start: 43 @7534 has 1 MA's), (Start: 49 @7549 has 222 MA's), (Start: 66 @7567 has 5 MA's), (113, 7654), (123, 7678), (136, 7732), (139, 7744), (140, 7753), (146, 7777), (162, 7828), (169, 7849), (216, 8059), (217, 8062), (244, 8173), (247, 8197), (256, 8263), (261, 8287), (275, 8353), (295, 8419), (316, 8527), (336, 8602), (363, 8704), (383, 8779), (386, 8791), (389, 8803), (390, 8806), (411, 8866), (425, 8926), (455, 9022), (478, 9091), (529, 9259), (546, 9286),

Gene: Lucivia\_12 Start: 8073, Stop: 9836, Start Num: 49

Candidate Starts for Lucivia\_12:

(20, 7953), (Start: 49 @8073 has 222 MA's), (Start: 66 @8094 has 5 MA's), (110, 8181), (146, 8310), (156, 8334), (171, 8397), (204, 8541), (216, 8592), (217, 8595), (244, 8706), (247, 8730), (248, 8733), (256, 8796), (258, 8805), (261, 8820), (289, 8937), (295, 8952), (304, 9012), (326, 9096), (386, 9324),

(389, 9336), (408, 9384), (411, 9399), (420, 9438), (425, 9459), (437, 9498), (450, 9543), (455, 9555), (529, 9792), (546, 9819),

Gene: Lucyedi\_13 Start: 7527, Stop: 9281, Start Num: 49

Candidate Starts for Lucyedi\_13:

(Start: 49 @7527 has 222 MA's), (123, 7659), (146, 7758), (171, 7845), (185, 7920), (204, 7989), (216, 8040), (217, 8043), (244, 8151), (256, 8241), (261, 8265), (294, 8394), (295, 8397), (299, 8433), (362, 8673), (365, 8682), (383, 8757), (408, 8829), (411, 8844), (420, 8883), (425, 8904), (450, 8988), (455, 9000), (496, 9105), (514, 9195), (517, 9204), (529, 9237), (546, 9264), (547, 9267), (548, 9270), (549, 9273),

Gene: LugYA\_15 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for LugYA\_15:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: LunaStella\_2 Start: 458, Stop: 2236, Start Num: 51

Candidate Starts for LunaStella\_2:

(Start: 51 @458 has 139 MA's), (89, 509), (101, 530), (112, 560), (116, 566), (122, 581), (140, 632), (160, 695), (162, 707), (171, 743), (180, 791), (183, 806), (185, 818), (187, 824), (201, 881), (202, 884), (204, 890), (207, 905), (210, 923), (211, 926), (217, 944), (249, 1085), (250, 1103), (256, 1130), (261, 1154), (267, 1187), (285, 1265), (303, 1355), (306, 1364), (311, 1379), (331, 1421), (332, 1424), (341, 1466), (342, 1475), (346, 1499), (365, 1541), (366, 1544), (376, 1568), (382, 1607), (383, 1610), (387, 1625), (392, 1643), (393, 1646), (417, 1727), (420, 1742), (421, 1745), (424, 1757), (429, 1796), (440, 1847), (442, 1853), (450, 1889), (455, 1901), (465, 1925), (472, 1952), (476, 1961), (477, 1964), (491, 2036), (503, 2084), (506, 2090), (511, 2123), (512, 2129), (514, 2135), (516, 2141), (517, 2144), (519, 2156), (527, 2174), (537, 2195), (544, 2213), (548, 2225),

Gene: Lunsford\_12 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Lunsford\_12:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: MA5\_11 Start: 6096, Stop: 7793, Start Num: 48

Candidate Starts for MA5\_11:

(Start: 48 @6096 has 363 MA's), (95, 6168), (120, 6222), (175, 6366), (213, 6540), (217, 6552), (225, 6591), (230, 6603), (244, 6660), (247, 6684), (256, 6750), (258, 6759), (275, 6840), (281, 6867), (315, 7005), (331, 7071), (337, 7092), (342, 7125), (365, 7191), (383, 7266), (389, 7290), (390, 7293), (392, 7299), (411, 7356), (414, 7368), (420, 7395), (425, 7416), (455, 7512), (469, 7557), (472, 7566), (518, 7719), (529, 7749), (547, 7779), (548, 7782),

Gene: MAnor\_4 Start: 897, Stop: 2573, Start Num: 96

Candidate Starts for MAnor\_4:

(Start: 96 @897 has 69 MA's), (Start: 119 @948 has 1 MA's), (125, 969), (150, 1014), (184, 1158), (199, 1221), (206, 1254), (214, 1290), (217, 1299), (218, 1302), (223, 1335), (227, 1350), (249, 1449), (251, 1470), (259, 1506), (263, 1527), (271, 1563), (286, 1629), (299, 1683), (341, 1863), (346, 1896), (375, 1962), (384, 2028), (386, 2034), (434, 2199), (440, 2232), (465, 2301), (496, 2379), (497, 2382), (516, 2472), (518, 2478), (523, 2499), (547, 2559), (548, 2562),

Gene: MK4\_11 Start: 6367, Stop: 8064, Start Num: 48

Candidate Starts for MK4\_11:

(Start: 48 @6367 has 363 MA's), (95, 6439), (175, 6637), (185, 6700), (213, 6811), (217, 6823), (225, 6862), (230, 6874), (244, 6931), (247, 6955), (252, 6985), (256, 7021), (258, 7030), (275, 7111), (281, 7138), (315, 7276), (331, 7342), (337, 7363), (342, 7396), (365, 7462), (383, 7537), (389, 7561), (390, 7564), (392, 7570), (394, 7579), (411, 7627), (420, 7666), (421, 7669), (425, 7687), (455, 7783), (472, 7837), (518, 7990), (529, 8020), (547, 8050), (548, 8053),

Gene: MPlant7149\_10 Start: 6575, Stop: 8263, Start Num: 48

Candidate Starts for MPlant7149\_10:

(Start: 48 @6575 has 363 MA's), (175, 6839), (176, 6863), (217, 7025), (223, 7058), (244, 7133), (256, 7223), (261, 7247), (268, 7274), (277, 7322), (315, 7478), (329, 7538), (390, 7763), (393, 7772), (395, 7784), (411, 7826), (416, 7847), (423, 7874), (455, 7982), (490, 8072), (514, 8177),

Gene: MScarn\_6 Start: 1111, Stop: 2790, Start Num: 96

Candidate Starts for MScarn\_6:

(Start: 96 @1111 has 69 MA's), (Start: 119 @1162 has 1 MA's), (125, 1183), (148, 1222), (171, 1309), (179, 1354), (184, 1375), (185, 1384), (202, 1456), (214, 1507), (217, 1516), (227, 1567), (249, 1666), (251, 1687), (258, 1720), (267, 1756), (299, 1900), (309, 1936), (317, 1975), (324, 2008), (337, 2056), (346, 2113), (362, 2146), (375, 2179), (384, 2245), (386, 2251), (407, 2317), (410, 2329), (411, 2335), (434, 2416), (463, 2512), (486, 2560), (505, 2635), (523, 2716), (547, 2776), (548, 2779),

Gene: MaCh\_12 Start: 8021, Stop: 9784, Start Num: 49

Candidate Starts for MaCh\_12:

(Start: 49 @8021 has 222 MA's), (Start: 66 @8042 has 5 MA's), (110, 8129), (146, 8258), (156, 8282), (171, 8345), (204, 8489), (216, 8540), (217, 8543), (244, 8654), (247, 8678), (248, 8681), (256, 8744), (258, 8753), (261, 8768), (289, 8885), (295, 8900), (304, 8960), (326, 9044), (386, 9272), (389, 9284), (408, 9332), (411, 9347), (420, 9386), (425, 9407), (437, 9446), (450, 9491), (455, 9503), (529, 9740), (546, 9767),

Gene: MaGuCo\_2 Start: 532, Stop: 2271, Start Num: 50

Candidate Starts for MaGuCo\_2:

(Start: 50 @532 has 3 MA's), (86, 592), (93, 601), (Start: 119 @655 has 1 MA's), (167, 778), (195, 916), (199, 928), (206, 952), (217, 997), (228, 1045), (249, 1138), (267, 1237), (268, 1240), (279, 1297), (302, 1399), (303, 1402), (331, 1468), (343, 1525), (390, 1714), (442, 1906), (455, 1942), (460, 1957), (503, 2122), (519, 2194), (524, 2209), (527, 2212), (547, 2257),

Gene: MaVan\_6 Start: 1989, Stop: 3689, Start Num: 96

Candidate Starts for MaVan\_6:

(Start: 96 @1989 has 69 MA's), (109, 2019), (125, 2061), (171, 2199), (180, 2247), (186, 2277), (194, 2310), (202, 2346), (206, 2361), (208, 2376), (217, 2406), (227, 2457), (249, 2556), (251, 2577), (267, 2646), (275, 2688), (283, 2718), (317, 2865), (328, 2916), (342, 2979), (346, 3003), (374, 3069), (379, 3102), (381, 3126), (382, 3129), (384, 3138), (390, 3159), (401, 3186), (411, 3231), (414, 3243), (415, 3249), (420, 3270), (431, 3309), (463, 3408), (474, 3444), (505, 3531), (523, 3612), (527, 3618), (547, 3675), (548, 3678),

Gene: Mabel\_12 Start: 8088, Stop: 9851, Start Num: 49

Candidate Starts for Mabel\_12:

(Start: 49 @8088 has 222 MA's), (Start: 66 @8109 has 5 MA's), (110, 8196), (146, 8325), (156, 8349), (171, 8412), (204, 8556), (216, 8607), (217, 8610), (244, 8721), (247, 8745), (248, 8748), (256, 8811), (258, 8820), (261, 8835), (289, 8952), (295, 8967), (304, 9027), (326, 9111), (386, 9339), (389, 9351), (408, 9399), (411, 9414), (420, 9453), (425, 9474), (437, 9513), (450, 9558), (455, 9570), (529, 9807),

(546, 9834),

Gene: Mabodamaca\_2 Start: 633, Stop: 2351, Start Num: 64

Candidate Starts for Mabodamaca\_2:

(Start: 64 @633 has 12 MA's), (199, 1005), (211, 1056), (217, 1074), (249, 1224), (258, 1278), (263, 1302), (275, 1356), (373, 1719), (383, 1770), (408, 1854), (455, 2025), (460, 2040), (488, 2139), (503, 2205), (519, 2277),

Gene: Maco6\_3 Start: 1054, Stop: 2718, Start Num: 96

Candidate Starts for Maco6\_3:

(Start: 96 @1054 has 69 MA's), (113, 1093), (123, 1117), (171, 1246), (202, 1393), (206, 1408), (217, 1453), (227, 1501), (239, 1537), (248, 1594), (251, 1618), (259, 1654), (303, 1852), (309, 1867), (317, 1906), (347, 2053), (379, 2143), (383, 2173), (414, 2278), (442, 2386), (453, 2416), (463, 2443), (467, 2455), (486, 2491), (487, 2494), (510, 2587), (521, 2644),

Gene: MadMarie\_13 Start: 6959, Stop: 8659, Start Num: 51

Candidate Starts for MadMarie\_13:

(Start: 51 @6959 has 139 MA's), (Start: 81 @7007 has 4 MA's), (149, 7142), (194, 7334), (217, 7421), (256, 7619), (275, 7709), (294, 7772), (329, 7934), (383, 8132), (389, 8156), (390, 8159), (411, 8222), (416, 8243), (425, 8282), (455, 8378), (472, 8432), (490, 8468), (529, 8615), (547, 8645), (548, 8648),

Gene: Magnar\_11 Start: 6723, Stop: 8411, Start Num: 48

Candidate Starts for Magnar\_11:

(Start: 48 @6723 has 363 MA's), (Start: 153 @6903 has 2 MA's), (175, 6987), (180, 7023), (185, 7050), (217, 7173), (223, 7206), (244, 7281), (256, 7371), (261, 7395), (268, 7422), (277, 7470), (315, 7626), (329, 7686), (393, 7920), (411, 7974), (416, 7995), (423, 8022), (455, 8130), (490, 8220), (514, 8325),

Gene: Magnito\_10 Start: 6474, Stop: 8162, Start Num: 48

Candidate Starts for Magnito\_10:

(Start: 48 @6474 has 363 MA's), (175, 6738), (176, 6762), (217, 6924), (223, 6957), (244, 7032), (256, 7122), (261, 7146), (268, 7173), (277, 7221), (315, 7377), (329, 7437), (390, 7662), (393, 7671), (395, 7683), (411, 7725), (416, 7746), (423, 7773), (455, 7881), (490, 7971), (514, 8076),

Gene: Mainiac\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for Mainiac\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: MajorMajor\_11 Start: 6379, Stop: 8160, Start Num: 49

Candidate Starts for MajorMajor\_11:

(Start: 49 @6379 has 222 MA's), (Start: 126 @6523 has 2 MA's), (137, 6568), (146, 6610), (156, 6634), (171, 6697), (181, 6751), (216, 6892), (217, 6895), (225, 6934), (244, 7003), (256, 7093), (261, 7117), (294, 7246), (295, 7249), (355, 7522), (420, 7762), (425, 7783), (450, 7867), (455, 7879), (529, 8116), (546, 8143), (547, 8146), (548, 8149),

Gene: MalagasyRose\_7 Start: 2064, Stop: 3839, Start Num: 40

Candidate Starts for MalagasyRose\_7:

(Start: 40 @2064 has 1 MA's), (63, 2106), (156, 2277), (185, 2415), (191, 2442), (199, 2475), (202, 2484), (206, 2499), (211, 2526), (213, 2532), (214, 2535), (227, 2595), (247, 2685), (248, 2688), (261, 2757), (267, 2778), (346, 3105), (351, 3126), (371, 3171), (375, 3189), (383, 3234), (386, 3246), (390, 3261), (402, 3306), (414, 3378), (420, 3405), (425, 3426), (445, 3504), (455, 3543), (468, 3585), (490,

3633), (496, 3648), (506, 3693), (514, 3738), (516, 3744), (522, 3771),

Gene: Malec\_13 Start: 7735, Stop: 9498, Start Num: 49

Candidate Starts for Malec\_13:

(Start: 49 @7735 has 222 MA's), (110, 7843), (120, 7864), (146, 7972), (216, 8257), (217, 8260), (225, 8299), (244, 8368), (256, 8458), (261, 8482), (289, 8599), (295, 8614), (360, 8887), (383, 8974), (386, 8986), (389, 8998), (408, 9046), (411, 9061), (420, 9100), (425, 9121), (455, 9217), (529, 9454), (546, 9481), (547, 9484), (548, 9487), (549, 9490),

Gene: Malinsilva\_15 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for Malinsilva\_15:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: Maminiaina\_13 Start: 7879, Stop: 9666, Start Num: 49

Candidate Starts for Maminiaina\_13:

(Start: 49 @7879 has 222 MA's), (Start: 62 @7894 has 20 MA's), (Start: 66 @7900 has 5 MA's), (123, 8011), (146, 8110), (185, 8272), (204, 8344), (217, 8398), (225, 8437), (244, 8509), (256, 8599), (261, 8623), (289, 8740), (295, 8755), (316, 8863), (336, 8938), (357, 9034), (367, 9070), (386, 9154), (392, 9175), (408, 9214), (420, 9268), (425, 9289), (450, 9373), (455, 9385), (491, 9478), (497, 9493), (529, 9622), (546, 9649), (547, 9652),

Gene: Manatee\_12 Start: 7007, Stop: 8695, Start Num: 48

Candidate Starts for Manatee\_12:

(Start: 48 @7007 has 363 MA's), (Start: 153 @7187 has 2 MA's), (175, 7271), (180, 7307), (185, 7334), (217, 7457), (244, 7565), (256, 7655), (261, 7679), (268, 7706), (277, 7754), (315, 7910), (316, 7919), (329, 7970), (390, 8195), (393, 8204), (395, 8216), (411, 8258), (416, 8279), (423, 8306), (455, 8414), (490, 8504), (514, 8609),

Gene: Maneekul\_6 Start: 2379, Stop: 4025, Start Num: 47

Candidate Starts for Maneekul\_6:

(Start: 47 @2379 has 87 MA's), (Start: 62 @2397 has 20 MA's), (162, 2601), (171, 2637), (211, 2817), (218, 2838), (242, 2925), (251, 2997), (256, 3021), (278, 3120), (281, 3135), (289, 3159), (291, 3165), (340, 3333), (353, 3393), (383, 3483), (388, 3504), (414, 3594), (442, 3702), (455, 3741), (463, 3762), (465, 3768), (469, 3786), (517, 3942), (550, 4020),

Gene: Manu\_14 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Manu\_14:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: MarQuardt\_13 Start: 6958, Stop: 8658, Start Num: 51

Candidate Starts for MarQuardt\_13:

(Start: 51 @6958 has 139 MA's), (Start: 81 @7006 has 4 MA's), (149, 7141), (194, 7333), (217, 7420), (256, 7618), (275, 7708), (294, 7771), (329, 7933), (383, 8131), (389, 8155), (390, 8158), (411, 8221), (416, 8242), (425, 8281), (455, 8377), (472, 8431), (490, 8467), (529, 8614), (547, 8644), (548, 8647),

Gene: Marav\_9 Start: 3096, Stop: 4742, Start Num: 47

Candidate Starts for Marav\_9:



(Start: 47 @3096 has 87 MA's), (Start: 126 @3246 has 2 MA's), (175, 3366), (179, 3399), (202, 3492), (204, 3498), (206, 3507), (211, 3534), (218, 3555), (242, 3642), (251, 3714), (256, 3738), (278, 3837), (286, 3873), (295, 3891), (313, 3978), (332, 4014), (340, 4050), (383, 4200), (388, 4221), (414, 4311), (420, 4338), (442, 4419), (455, 4458), (463, 4479), (469, 4503), (496, 4563), (517, 4659),

Gene: Marcell\_11 Start: 6934, Stop: 8622, Start Num: 48

Candidate Starts for Marcell\_11:

(Start: 48 @6934 has 363 MA's), (175, 7198), (176, 7222), (217, 7384), (223, 7417), (244, 7492), (256, 7582), (261, 7606), (268, 7633), (277, 7681), (297, 7750), (315, 7837), (329, 7897), (390, 8122), (393, 8131), (395, 8143), (411, 8185), (416, 8206), (423, 8233), (455, 8341), (490, 8431), (514, 8536),

Gene: Marchesa\_11 Start: 6547, Stop: 8244, Start Num: 48

Candidate Starts for Marchesa\_11:

(Start: 48 @6547 has 363 MA's), (Start: 68 @6571 has 1 MA's), (95, 6619), (175, 6817), (185, 6880), (213, 6991), (217, 7003), (225, 7042), (230, 7054), (244, 7111), (247, 7135), (256, 7201), (258, 7210), (275, 7291), (281, 7318), (315, 7456), (337, 7543), (365, 7642), (383, 7717), (389, 7741), (390, 7744), (392, 7750), (394, 7759), (411, 7807), (425, 7867), (455, 7963), (469, 8008), (472, 8017), (518, 8170), (529, 8200), (547, 8230), (548, 8233),

Gene: Marchy\_10 Start: 6561, Stop: 8249, Start Num: 48

Candidate Starts for Marchy\_10:

(Start: 48 @6561 has 363 MA's), (175, 6825), (176, 6849), (217, 7011), (223, 7044), (244, 7119), (256, 7209), (261, 7233), (277, 7308), (315, 7464), (316, 7473), (328, 7521), (329, 7524), (390, 7749), (393, 7758), (395, 7770), (411, 7812), (416, 7833), (423, 7860), (455, 7968), (490, 8058), (514, 8163),

Gene: Margaret\_7 Start: 1862, Stop: 3562, Start Num: 94

Candidate Starts for Margaret\_7:

(Start: 94 @1862 has 8 MA's), (Start: 119 @1916 has 1 MA's), (125, 1937), (134, 1964), (165, 2039), (171, 2075), (186, 2153), (204, 2228), (206, 2237), (217, 2282), (227, 2333), (249, 2432), (267, 2522), (286, 2612), (299, 2666), (317, 2741), (346, 2879), (373, 2939), (375, 2945), (384, 3011), (386, 3017), (411, 3101), (416, 3122), (434, 3182), (435, 3188), (442, 3221), (486, 3326), (516, 3455), (517, 3458), (531, 3503), (547, 3548), (548, 3551),

Gene: Marge\_12 Start: 7457, Stop: 9145, Start Num: 55

Candidate Starts for Marge\_12:

(Start: 55 @7457 has 24 MA's), (Start: 153 @7637 has 2 MA's), (175, 7721), (177, 7748), (180, 7757), (217, 7907), (223, 7940), (244, 8015), (256, 8105), (261, 8129), (268, 8156), (277, 8204), (297, 8273), (315, 8360), (329, 8420), (390, 8645), (393, 8654), (395, 8666), (411, 8708), (416, 8729), (423, 8756), (455, 8864), (490, 8954), (514, 9059),

Gene: Margo\_12 Start: 7069, Stop: 8766, Start Num: 48

Candidate Starts for Margo\_12:

(Start: 48 @7069 has 363 MA's), (Start: 68 @7093 has 1 MA's), (175, 7339), (213, 7513), (217, 7525), (225, 7564), (230, 7576), (244, 7633), (247, 7657), (256, 7723), (258, 7732), (275, 7813), (284, 7846), (315, 7978), (319, 7990), (331, 8044), (337, 8065), (342, 8098), (360, 8152), (383, 8239), (389, 8263), (390, 8266), (392, 8272), (394, 8281), (411, 8329), (420, 8368), (421, 8371), (425, 8389), (455, 8485), (472, 8539), (518, 8692), (529, 8722), (547, 8752), (548, 8755),

Gene: Marie\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for Marie\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641),

(548, 8644),

Gene: Marius\_14 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Marius\_14:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: Maroc7\_10 Start: 6747, Stop: 8435, Start Num: 48

Candidate Starts for Maroc7\_10:

(Start: 48 @6747 has 363 MA's), (175, 7011), (176, 7035), (217, 7197), (223, 7230), (244, 7305), (256, 7395), (261, 7419), (268, 7446), (277, 7494), (297, 7563), (312, 7638), (315, 7650), (329, 7710), (393, 7944), (395, 7956), (411, 7998), (416, 8019), (423, 8046), (455, 8154), (490, 8244), (514, 8349),

Gene: Marsha\_11 Start: 7191, Stop: 8879, Start Num: 48

Candidate Starts for Marsha\_11:

(Start: 48 @7191 has 363 MA's), (Start: 153 @7371 has 2 MA's), (175, 7455), (180, 7491), (185, 7518), (217, 7641), (244, 7749), (256, 7839), (261, 7863), (268, 7890), (277, 7938), (315, 8094), (329, 8154), (390, 8379), (393, 8388), (395, 8400), (411, 8442), (416, 8463), (423, 8490), (455, 8598), (490, 8688), (514, 8793),

Gene: Marteena\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Marteena\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Marvin\_33 Start: 11120, Stop: 12862, Start Num: 96

Candidate Starts for Marvin\_33:

(Start: 96 @11120 has 69 MA's), (149, 11237), (162, 11282), (170, 11348), (172, 11363), (176, 11396), (177, 11399), (181, 11414), (186, 11438), (187, 11441), (194, 11471), (200, 11492), (202, 11510), (205, 11519), (212, 11555), (217, 11570), (227, 11615), (242, 11657), (246, 11696), (249, 11708), (251, 11729), (262, 11780), (268, 11801), (324, 12023), (346, 12128), (347, 12137), (366, 12170), (375, 12191), (376, 12194), (379, 12221), (383, 12251), (386, 12263), (390, 12278), (393, 12287), (394, 12293), (407, 12335), (409, 12344), (412, 12359), (416, 12374), (434, 12434), (440, 12473), (451, 12506), (463, 12536), (464, 12539), (485, 12623), (496, 12677), (499, 12692), (506, 12719), (517, 12773), (546, 12845), (547, 12848),

Gene: MaryBeth\_11 Start: 7169, Stop: 8857, Start Num: 48

Candidate Starts for MaryBeth\_11:

(Start: 48 @7169 has 363 MA's), (Start: 153 @7349 has 2 MA's), (175, 7433), (180, 7469), (217, 7619), (244, 7727), (256, 7817), (261, 7841), (268, 7868), (277, 7916), (297, 7985), (312, 8060), (315, 8072), (329, 8132), (390, 8357), (393, 8366), (395, 8378), (411, 8420), (416, 8441), (423, 8468), (455, 8576), (490, 8666), (514, 8771),

Gene: MarysWell\_8 Start: 6156, Stop: 7907, Start Num: 28

Candidate Starts for MarysWell\_8:

(Start: 26 @6129 has 19 MA's), (Start: 28 @6156 has 30 MA's), (60, 6225), (121, 6339), (123, 6345), (171, 6477), (185, 6552), (186, 6555), (194, 6588), (204, 6621), (231, 6729), (238, 6753), (244, 6786),

(256, 6861), (266, 6906), (281, 6984), (284, 6990), (322, 7155), (331, 7188), (337, 7209), (383, 7383), (389, 7407), (390, 7410), (411, 7470), (414, 7482), (420, 7509), (425, 7530), (450, 7614), (455, 7626), (491, 7719), (529, 7863), (548, 7896), (550, 7902),

Gene: Maureen\_2 Start: 532, Stop: 2271, Start Num: 50

Candidate Starts for Maureen\_2:

(Start: 50 @532 has 3 MA's), (86, 592), (93, 601), (Start: 119 @655 has 1 MA's), (167, 778), (195, 916), (199, 928), (206, 952), (217, 997), (228, 1045), (249, 1138), (267, 1237), (268, 1240), (279, 1297), (302, 1399), (303, 1402), (331, 1468), (343, 1525), (356, 1594), (390, 1714), (442, 1906), (455, 1942), (460, 1957), (503, 2122), (519, 2194), (524, 2209), (527, 2212), (547, 2257),

Gene: Maverick\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Maverick\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Maxo\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Maxo\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Mayweather\_5 Start: 1518, Stop: 3194, Start Num: 96

Candidate Starts for Mayweather\_5:

(Start: 96 @1518 has 69 MA's), (Start: 119 @1569 has 1 MA's), (125, 1590), (150, 1635), (162, 1677), (171, 1713), (184, 1779), (199, 1842), (206, 1875), (214, 1911), (217, 1920), (218, 1923), (227, 1971), (249, 2070), (251, 2091), (259, 2127), (263, 2148), (271, 2184), (286, 2250), (299, 2304), (341, 2484), (346, 2517), (375, 2583), (376, 2586), (384, 2649), (386, 2655), (434, 2820), (440, 2853), (465, 2922), (496, 3000), (497, 3003), (516, 3093), (518, 3099), (523, 3120), (547, 3180), (548, 3183),

Gene: Mazhar510\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Mazhar510\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: McFly\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for McFly\_15:

(Start: 49 @7533 has 222 MA's), (146, 7764), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (284, 8370), (285, 8373), (294, 8400), (295, 8403), (365, 8688), (386, 8775), (389, 8787), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: McGuire\_12 Start: 7052, Stop: 8740, Start Num: 48

Candidate Starts for McGuire\_12:

(Start: 48 @7052 has 363 MA's), (Start: 153 @7232 has 2 MA's), (175, 7316), (180, 7352), (185, 7379), (217, 7502), (244, 7610), (256, 7700), (261, 7724), (268, 7751), (277, 7799), (315, 7955), (328, 8012), (329, 8015), (393, 8249), (395, 8261), (411, 8303), (416, 8324), (423, 8351), (455, 8459), (490, 8549), (514, 8654),

Gene: Medusa\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Medusa\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: MeeZee\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for MeeZee\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Melvin\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Melvin\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Mendokysei\_2 Start: 535, Stop: 2514, Start Num: 17

Candidate Starts for Mendokysei\_2:

(Start: 17 @535 has 1 MA's), (Start: 38 @631 has 7 MA's), (129, 817), (133, 829), (205, 1108), (206, 1114), (211, 1141), (217, 1159), (234, 1222), (259, 1357), (302, 1573), (305, 1582), (323, 1615), (384, 1834), (399, 1885), (400, 1888), (404, 1909), (417, 1960), (421, 1975), (434, 2047), (443, 2089), (446, 2098), (451, 2128), (455, 2137), (471, 2188), (479, 2209), (489, 2308), (491, 2314), (496, 2326), (516, 2419), (519, 2434), (520, 2437), (545, 2497),

Gene: MetalQZJ\_11 Start: 7169, Stop: 8857, Start Num: 48

Candidate Starts for MetalQZJ\_11:

(Start: 48 @7169 has 363 MA's), (Start: 153 @7349 has 2 MA's), (175, 7433), (180, 7469), (217, 7619), (244, 7727), (256, 7817), (261, 7841), (268, 7868), (277, 7916), (297, 7985), (312, 8060), (315, 8072), (329, 8132), (390, 8357), (393, 8366), (395, 8378), (411, 8420), (416, 8441), (423, 8468), (455, 8576), (490, 8666), (514, 8771),

Gene: Methuselah\_13 Start: 7040, Stop: 8740, Start Num: 51

Candidate Starts for Methuselah\_13:

(Start: 51 @7040 has 139 MA's), (Start: 81 @7088 has 4 MA's), (149, 7223), (194, 7415), (217, 7502), (256, 7700), (275, 7790), (294, 7853), (329, 8015), (383, 8213), (389, 8237), (390, 8240), (411, 8303), (416, 8324), (425, 8363), (455, 8459), (472, 8513), (490, 8549), (529, 8696), (547, 8726), (548, 8729),

Gene: Micasa\_9 Start: 6157, Stop: 7908, Start Num: 28

Candidate Starts for Micasa\_9:

(Start: 26 @6130 has 19 MA's), (Start: 28 @6157 has 30 MA's), (60, 6226), (121, 6340), (123, 6346), (171, 6478), (185, 6553), (186, 6556), (194, 6589), (204, 6622), (231, 6730), (238, 6754), (244, 6787), (256, 6862), (266, 6907), (281, 6985), (284, 6991), (297, 7036), (322, 7156), (331, 7189), (337, 7210), (383, 7384), (389, 7408), (390, 7411), (411, 7471), (414, 7483), (420, 7510), (425, 7531), (450, 7615), (455, 7627), (529, 7864), (548, 7897), (550, 7903),

Gene: Michley\_11 Start: 6917, Stop: 8605, Start Num: 48

Candidate Starts for Michley\_11:

(Start: 48 @6917 has 363 MA's), (175, 7181), (176, 7205), (217, 7367), (219, 7382), (223, 7400), (256, 7565), (261, 7589), (268, 7616), (277, 7664), (329, 7880), (393, 8114), (395, 8126), (411, 8168), (416, 8189), (423, 8216), (455, 8324), (490, 8414), (514, 8519),

Gene: Microwolf\_13 Start: 6958, Stop: 8658, Start Num: 51

Candidate Starts for Microwolf\_13:

(Start: 51 @6958 has 139 MA's), (Start: 81 @7006 has 4 MA's), (149, 7141), (194, 7333), (217, 7420), (256, 7618), (275, 7708), (294, 7771), (329, 7933), (383, 8131), (389, 8155), (390, 8158), (411, 8221), (416, 8242), (425, 8281), (455, 8377), (472, 8431), (490, 8467), (529, 8614), (547, 8644), (548, 8647),

Gene: MiculUcigas\_12 Start: 7484, Stop: 9271, Start Num: 49

Candidate Starts for MiculUcigas\_12:

(24, 7400), (Start: 49 @7484 has 222 MA's), (110, 7592), (120, 7613), (146, 7721), (216, 8003), (217, 8006), (244, 8114), (256, 8204), (261, 8228), (295, 8360), (383, 8747), (420, 8873), (425, 8894), (450, 8978), (455, 8990), (529, 9227), (546, 9254), (547, 9257), (548, 9260), (549, 9263),

Gene: Midas2\_9 Start: 6156, Stop: 7907, Start Num: 28

Candidate Starts for Midas2\_9:

(Start: 26 @6129 has 19 MA's), (Start: 28 @6156 has 30 MA's), (60, 6225), (121, 6339), (123, 6345), (171, 6477), (185, 6552), (186, 6555), (194, 6588), (204, 6621), (231, 6729), (238, 6753), (244, 6786), (256, 6861), (266, 6906), (281, 6984), (284, 6990), (322, 7155), (331, 7188), (337, 7209), (383, 7383), (389, 7407), (390, 7410), (411, 7470), (414, 7482), (420, 7509), (425, 7530), (450, 7614), (455, 7626), (529, 7863), (548, 7896), (550, 7902),

Gene: Miko\_15 Start: 9110, Stop: 10891, Start Num: 49

Candidate Starts for Miko\_15:

(18, 8990), (35, 9083), (Start: 49 @9110 has 222 MA's), (123, 9242), (140, 9317), (146, 9341), (162, 9392), (216, 9623), (217, 9626), (225, 9665), (244, 9734), (256, 9824), (261, 9848), (284, 9947), (294, 9977), (295, 9980), (319, 10091), (408, 10439), (411, 10454), (414, 10466), (420, 10493), (425, 10514), (455, 10610), (529, 10847), (546, 10874), (547, 10877),

Gene: Milcery\_9 Start: 6166, Stop: 7944, Start Num: 26

Candidate Starts for Milcery\_9:

(Start: 26 @6166 has 19 MA's), (Start: 28 @6193 has 30 MA's), (60, 6262), (121, 6376), (123, 6382), (171, 6514), (185, 6589), (186, 6592), (194, 6625), (204, 6658), (231, 6766), (238, 6790), (244, 6823), (256, 6898), (266, 6943), (281, 7021), (284, 7027), (297, 7072), (322, 7192), (331, 7225), (337, 7246), (383, 7420), (389, 7444), (390, 7447), (411, 7507), (414, 7519), (420, 7546), (425, 7567), (450, 7651), (455, 7663), (529, 7900), (548, 7933), (550, 7939),

Gene: Millski\_11 Start: 6887, Stop: 8584, Start Num: 51

Candidate Starts for Millski\_11:

(Start: 51 @6887 has 139 MA's), (Start: 68 @6911 has 1 MA's), (Start: 126 @7034 has 2 MA's), (167, 7124), (175, 7157), (194, 7256), (216, 7340), (217, 7343), (225, 7382), (244, 7451), (247, 7475), (256, 7541), (275, 7631), (315, 7796), (337, 7883), (342, 7916), (365, 7982), (382, 8054), (383, 8057), (389, 8081), (408, 8132), (411, 8147), (420, 8186), (425, 8207), (455, 8303), (529, 8540), (547, 8570), (548,

8573),

Gene: MinecraftSteve\_15 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for MinecraftSteve\_15:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (185, 7144), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: MiniMommy\_2 Start: 550, Stop: 2277, Start Num: 48

Candidate Starts for MiniMommy\_2:

(27, 490), (Start: 48 @550 has 363 MA's), (Start: 119 @661 has 1 MA's), (199, 934), (211, 985), (217, 1003), (219, 1021), (228, 1051), (249, 1144), (390, 1720), (434, 1873), (455, 1948), (460, 1963), (496, 2092), (519, 2200), (547, 2263),

Gene: Miramae\_11 Start: 6847, Stop: 8535, Start Num: 48

Candidate Starts for Miramae\_11:

(Start: 48 @6847 has 363 MA's), (175, 7108), (216, 7291), (217, 7294), (225, 7333), (244, 7402), (247, 7426), (252, 7456), (256, 7492), (275, 7582), (315, 7747), (326, 7792), (337, 7834), (342, 7867), (365, 7933), (383, 8008), (389, 8032), (411, 8098), (420, 8137), (425, 8158), (455, 8254), (529, 8491), (547, 8521), (548, 8524),

Gene: Miskis\_32 Start: 8458, Stop: 10206, Start Num: 88

Candidate Starts for Miskis\_32:

(Start: 88 @8458 has 21 MA's), (106, 8488), (159, 8614), (160, 8617), (190, 8803), (197, 8842), (205, 8866), (216, 8914), (221, 8941), (228, 8971), (267, 9163), (270, 9181), (310, 9343), (327, 9391), (332, 9406), (373, 9589), (375, 9595), (389, 9679), (413, 9766), (421, 9799), (452, 9913), (465, 9949), (472, 9973), (481, 9988), (533, 10162), (535, 10168),

Gene: Misomonster\_15 Start: 7040, Stop: 8740, Start Num: 51

Candidate Starts for Misomonster\_15:

(Start: 51 @7040 has 139 MA's), (Start: 81 @7088 has 4 MA's), (149, 7223), (194, 7415), (217, 7502), (256, 7700), (275, 7790), (294, 7853), (329, 8015), (383, 8213), (389, 8237), (390, 8240), (411, 8303), (416, 8324), (425, 8363), (455, 8459), (472, 8513), (490, 8549), (529, 8696), (547, 8726), (548, 8729),

Gene: MissSwiss\_2 Start: 551, Stop: 2257, Start Num: 74

Candidate Starts for MissSwiss\_2:

(Start: 74 @551 has 7 MA's), (109, 617), (203, 923), (217, 980), (228, 1028), (249, 1118), (252, 1142), (258, 1172), (284, 1292), (343, 1505), (350, 1544), (442, 1886), (455, 1922), (460, 1937), (467, 1955), (496, 2072), (517, 2168), (519, 2180),

Gene: MissWhite\_12 Start: 6502, Stop: 8256, Start Num: 49

Candidate Starts for MissWhite\_12:

(Start: 49 @6502 has 222 MA's), (Start: 126 @6646 has 2 MA's), (146, 6733), (171, 6820), (216, 7015), (217, 7018), (225, 7057), (244, 7126), (256, 7216), (261, 7240), (284, 7339), (285, 7342), (294, 7369), (295, 7372), (363, 7657), (383, 7732), (386, 7744), (389, 7756), (408, 7804), (411, 7819), (425, 7879), (450, 7963), (455, 7975), (529, 8212), (546, 8239), (547, 8242), (548, 8245),

Gene: Mkhuseli\_12 Start: 7342, Stop: 8766, Start Num: 175

Candidate Starts for Mkhuseli\_12:

(Start: 55 @7078 has 24 MA's), (Start: 153 @7258 has 2 MA's), (175, 7342), (177, 7369), (180, 7378), (217, 7528), (223, 7561), (244, 7636), (256, 7726), (261, 7750), (268, 7777), (277, 7825), (315, 7981), (329, 8041), (390, 8266), (393, 8275), (395, 8287), (411, 8329), (416, 8350), (423, 8377), (455, 8485), (490, 8575), (514, 8680),

Gene: Molly\_12 Start: 6777, Stop: 8465, Start Num: 48

Candidate Starts for Molly\_12:

(Start: 48 @6777 has 363 MA's), (Start: 153 @6957 has 2 MA's), (175, 7041), (180, 7077), (185, 7104), (209, 7200), (217, 7227), (223, 7260), (244, 7335), (256, 7425), (261, 7449), (268, 7476), (277, 7524), (297, 7593), (315, 7680), (329, 7740), (390, 7965), (393, 7974), (395, 7986), (411, 8028), (416, 8049), (423, 8076), (455, 8184), (490, 8274), (514, 8379),

Gene: Mollymur\_13 Start: 6996, Stop: 8732, Start Num: 88

Candidate Starts for Mollymur\_13:

(Start: 88 @6996 has 21 MA's), (123, 7068), (181, 7257), (194, 7368), (205, 7404), (226, 7500), (256, 7644), (262, 7671), (270, 7719), (277, 7752), (328, 7926), (339, 7971), (375, 8124), (452, 8442), (503, 8586), (517, 8646),

Gene: Monet\_13 Start: 7974, Stop: 9662, Start Num: 55

Candidate Starts for Monet\_13:

(Start: 55 @7974 has 24 MA's), (Start: 153 @8154 has 2 MA's), (175, 8238), (177, 8265), (180, 8274), (217, 8424), (223, 8457), (244, 8532), (256, 8622), (261, 8646), (268, 8673), (277, 8721), (297, 8790), (315, 8877), (329, 8937), (390, 9162), (393, 9171), (395, 9183), (411, 9225), (416, 9246), (423, 9273), (455, 9381), (490, 9471), (514, 9576),

Gene: MoneyMay\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for MoneyMay\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: Moose\_10 Start: 7010, Stop: 8698, Start Num: 48

Candidate Starts for Moose\_10:

(Start: 48 @7010 has 363 MA's), (Start: 153 @7190 has 2 MA's), (175, 7274), (180, 7310), (217, 7460), (244, 7568), (256, 7658), (261, 7682), (277, 7757), (297, 7826), (315, 7913), (329, 7973), (393, 8207), (395, 8219), (411, 8261), (416, 8282), (423, 8309), (455, 8417), (490, 8507), (514, 8612),

Gene: Morpher26\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for Morpher26\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (337, 7889), (374, 8015), (383, 8063), (389, 8087), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: Morrow\_11 Start: 6887, Stop: 8584, Start Num: 51

Candidate Starts for Morrow\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 51 @6887 has 139 MA's), (Start: 68 @6911 has 1 MA's), (Start: 126 @7034 has 2 MA's), (167, 7124), (175, 7157), (216, 7340), (217, 7343), (225, 7382), (244, 7451), (247, 7475), (256, 7541), (275, 7631), (315, 7796), (337, 7883), (342, 7916), (365, 7982), (382, 8054), (383, 8057), (389, 8081), (408, 8132), (411, 8147), (420, 8186), (425, 8207), (455, 8303), (529, 8540), (547, 8570), (548, 8573),

Gene: MortyNRick\_2 Start: 453, Stop: 2147, Start Num: 76

Candidate Starts for MortyNRick\_2:

(24, 324), (29, 357), (30, 360), (Start: 50 @411 has 3 MA's), (58, 420), (Start: 76 @453 has 1 MA's), (Start: 96 @486 has 69 MA's), (Start: 119 @537 has 1 MA's), (123, 549), (130, 576), (149, 597), (169,

666), (171, 681), (177, 720), (184, 747), (185, 756), (186, 759), (194, 792), (201, 825), (202, 828), (206, 843), (214, 879), (215, 882), (217, 888), (220, 903), (221, 906), (229, 942), (244, 996), (251, 1047), (256, 1071), (275, 1158), (290, 1218), (295, 1227), (299, 1263), (309, 1299), (318, 1341), (330, 1395), (337, 1419), (341, 1443), (354, 1503), (362, 1509), (379, 1572), (389, 1626), (394, 1644), (411, 1701), (414, 1713), (420, 1740), (442, 1821), (453, 1851), (467, 1890), (474, 1914), (492, 1950), (496, 1962), (497, 1965), (517, 2058), (518, 2061), (521, 2079), (534, 2100), (543, 2121), (548, 2136),

Gene: MosMoris\_33 Start: 10300, Stop: 12042, Start Num: 96

Candidate Starts for MosMoris\_33:

(Start: 96 @10300 has 69 MA's), (149, 10417), (162, 10462), (170, 10528), (172, 10543), (176, 10576), (177, 10579), (181, 10594), (186, 10618), (187, 10621), (194, 10651), (200, 10672), (202, 10690), (205, 10699), (212, 10735), (217, 10750), (227, 10795), (242, 10837), (246, 10876), (249, 10888), (251, 10909), (262, 10960), (268, 10981), (324, 11203), (346, 11308), (347, 11317), (366, 11350), (375, 11371), (376, 11374), (379, 11401), (383, 11431), (386, 11443), (390, 11458), (393, 11467), (394, 11473), (407, 11515), (409, 11524), (412, 11539), (416, 11554), (434, 11614), (440, 11653), (451, 11686), (463, 11716), (464, 11719), (485, 11803), (496, 11857), (499, 11872), (506, 11899), (517, 11953), (546, 12025), (547, 12028),

Gene: Moss\_2 Start: 594, Stop: 2282, Start Num: 75

Candidate Starts for Moss\_2:

(75, 594), (199, 939), (206, 963), (217, 1008), (241, 1095), (249, 1149), (255, 1188), (284, 1323), (308, 1425), (373, 1647), (383, 1698), (442, 1917), (455, 1953), (460, 1968), (517, 2193), (519, 2205), (524, 2220), (548, 2271),

Gene: MrGordo\_11 Start: 6729, Stop: 8417, Start Num: 48

Candidate Starts for MrGordo\_11:

(Start: 48 @6729 has 363 MA's), (175, 6993), (176, 7017), (217, 7179), (223, 7212), (244, 7287), (256, 7377), (261, 7401), (268, 7428), (277, 7476), (297, 7545), (315, 7632), (329, 7692), (393, 7926), (395, 7938), (411, 7980), (416, 8001), (423, 8028), (455, 8136), (490, 8226), (514, 8331),

Gene: Mryolo\_10 Start: 6759, Stop: 8447, Start Num: 48

Candidate Starts for Mryolo\_10:

(Start: 48 @6759 has 363 MA's), (Start: 153 @6939 has 2 MA's), (175, 7023), (180, 7059), (217, 7209), (244, 7317), (256, 7407), (261, 7431), (277, 7506), (281, 7524), (315, 7662), (329, 7722), (390, 7947), (393, 7956), (395, 7968), (411, 8010), (416, 8031), (423, 8058), (455, 8166), (490, 8256), (514, 8361),

Gene: MuchMore\_15 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for MuchMore\_15:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: Muddy\_5 Start: 2008, Stop: 3672, Start Num: 96

Candidate Starts for Muddy\_5:

(Start: 96 @2008 has 69 MA's), (113, 2047), (123, 2071), (171, 2200), (202, 2347), (206, 2362), (217, 2407), (227, 2455), (239, 2491), (248, 2548), (251, 2572), (259, 2608), (292, 2746), (303, 2806), (309, 2821), (317, 2860), (347, 3007), (379, 3097), (383, 3127), (414, 3232), (442, 3340), (453, 3370), (463, 3397), (467, 3409), (486, 3445), (487, 3448), (510, 3541), (521, 3598),

Gene: Mudpuppy\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Mudpuppy\_2:



(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (496, 2054), (513, 2138), (519, 2162),

Gene: Mulciber\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Mulciber\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (365, 9188), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Mule\_11 Start: 7045, Stop: 8733, Start Num: 48

Candidate Starts for Mule\_11:

(Start: 48 @7045 has 363 MA's), (175, 7309), (176, 7333), (217, 7495), (223, 7528), (244, 7603), (256, 7693), (261, 7717), (268, 7744), (277, 7792), (315, 7948), (329, 8008), (390, 8233), (393, 8242), (395, 8254), (411, 8296), (416, 8317), (423, 8344), (455, 8452), (490, 8542), (514, 8647),

Gene: Munch\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Munch\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Mundrea\_11 Start: 6846, Stop: 8543, Start Num: 48

Candidate Starts for Mundrea\_11:

(Start: 48 @6846 has 363 MA's), (Start: 68 @6870 has 1 MA's), (175, 7116), (216, 7299), (217, 7302), (225, 7341), (244, 7410), (247, 7434), (252, 7464), (256, 7500), (275, 7590), (315, 7755), (337, 7842), (342, 7875), (365, 7941), (382, 8013), (383, 8016), (389, 8040), (411, 8106), (420, 8145), (425, 8166), (455, 8262), (478, 8331), (527, 8496), (529, 8499), (547, 8529), (548, 8532),

Gene: MunkgeeRoachy\_4 Start: 1161, Stop: 2840, Start Num: 96

Candidate Starts for MunkgeeRoachy\_4:

(Start: 96 @1161 has 69 MA's), (Start: 119 @1212 has 1 MA's), (125, 1233), (Start: 126 @1236 has 2 MA's), (150, 1278), (171, 1359), (184, 1425), (185, 1434), (202, 1506), (206, 1521), (214, 1557), (217, 1566), (227, 1617), (249, 1716), (259, 1773), (267, 1806), (299, 1950), (309, 1986), (317, 2025), (324, 2058), (337, 2106), (342, 2139), (346, 2163), (362, 2196), (375, 2229), (382, 2286), (384, 2295), (410, 2379), (434, 2466), (463, 2562), (492, 2634), (496, 2646), (523, 2766), (547, 2826), (548, 2829),

Gene: Museum\_13 Start: 7063, Stop: 8751, Start Num: 55

Candidate Starts for Museum\_13:

(Start: 55 @7063 has 24 MA's), (149, 7234), (Start: 153 @7243 has 2 MA's), (175, 7327), (177, 7354), (180, 7363), (217, 7513), (223, 7546), (244, 7621), (256, 7711), (261, 7735), (268, 7762), (277, 7810), (315, 7966), (329, 8026), (390, 8251), (393, 8260), (395, 8272), (411, 8314), (416, 8335), (423, 8362), (455, 8470), (490, 8560), (514, 8665),

Gene: MyraDee\_9 Start: 5029, Stop: 6714, Start Num: 56

Candidate Starts for MyraDee\_9:

(Start: 56 @5029 has 1 MA's), (Start: 119 @5140 has 1 MA's), (123, 5152), (149, 5203), (180, 5332), (186, 5362), (216, 5476), (256, 5665), (266, 5710), (281, 5788), (285, 5797), (312, 5914), (322, 5959), (329, 5986), (331, 5992), (332, 5995), (383, 6187), (389, 6211), (390, 6214), (425, 6337), (455, 6433),

(529, 6670), (547, 6700), (548, 6703),

Gene: Mysterium\_2 Start: 594, Stop: 2282, Start Num: 75

Candidate Starts for Mysterium\_2:

(75, 594), (169, 795), (199, 939), (217, 1008), (241, 1095), (249, 1149), (255, 1188), (284, 1323), (308, 1425), (373, 1647), (383, 1698), (442, 1917), (455, 1953), (460, 1968), (517, 2193), (519, 2205), (524, 2220), (548, 2271),

Gene: Myxus\_13 Start: 8109, Stop: 9896, Start Num: 49

Candidate Starts for Myxus\_13:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: NEHalo\_11 Start: 6571, Stop: 8259, Start Num: 48

Candidate Starts for NEHalo\_11:

(Start: 48 @6571 has 363 MA's), (Start: 153 @6751 has 2 MA's), (175, 6835), (180, 6871), (185, 6898), (209, 6994), (217, 7021), (223, 7054), (244, 7129), (256, 7219), (261, 7243), (277, 7318), (315, 7474), (329, 7534), (390, 7759), (393, 7768), (395, 7780), (411, 7822), (416, 7843), (423, 7870), (455, 7978), (490, 8068), (514, 8173),

Gene: NaSiaTalie\_12 Start: 7481, Stop: 9268, Start Num: 49

Candidate Starts for NaSiaTalie\_12:

(24, 7397), (Start: 49 @7481 has 222 MA's), (110, 7589), (120, 7610), (143, 7700), (146, 7718), (216, 8000), (217, 8003), (244, 8111), (256, 8201), (261, 8225), (289, 8342), (295, 8357), (383, 8744), (420, 8870), (425, 8891), (450, 8975), (455, 8987), (529, 9224), (546, 9251), (547, 9254), (548, 9257), (549, 9260),

Gene: Nabi\_6 Start: 2374, Stop: 4020, Start Num: 47

Candidate Starts for Nabi\_6:

(Start: 47 @2374 has 87 MA's), (Start: 62 @2392 has 20 MA's), (162, 2596), (171, 2632), (211, 2812), (218, 2833), (229, 2878), (242, 2920), (251, 2992), (256, 3016), (278, 3115), (281, 3130), (289, 3154), (291, 3160), (340, 3328), (383, 3478), (388, 3499), (414, 3589), (442, 3697), (455, 3736), (463, 3757), (465, 3763), (469, 3781), (517, 3937), (550, 4015),

Gene: Naca\_9 Start: 6070, Stop: 7848, Start Num: 26

Candidate Starts for Naca\_9:

(Start: 26 @6070 has 19 MA's), (Start: 28 @6097 has 30 MA's), (52, 6157), (60, 6166), (82, 6205), (121, 6280), (123, 6286), (171, 6418), (185, 6493), (186, 6496), (231, 6670), (256, 6802), (266, 6847), (281, 6925), (284, 6931), (322, 7096), (331, 7129), (337, 7150), (383, 7324), (389, 7348), (420, 7450), (425, 7471), (440, 7525), (450, 7555), (455, 7567), (472, 7621), (527, 7801), (529, 7804), (548, 7837), (550, 7843),

Gene: Naiad\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Naiad\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Nairb\_3 Start: 724, Stop: 2607, Start Num: 38

Candidate Starts for Nairb\_3:

(5, 475), (Start: 38 @724 has 7 MA's), (86, 805), (92, 814), (129, 910), (133, 922), (171, 1054), (205, 1201), (206, 1207), (211, 1234), (217, 1252), (234, 1315), (259, 1450), (300, 1651), (323, 1708), (384, 1927), (399, 1978), (404, 2002), (417, 2053), (443, 2182), (451, 2221), (455, 2230), (471, 2281), (481, 2320), (491, 2407), (496, 2419), (516, 2512), (519, 2527), (520, 2530),

Gene: Naji\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for Naji\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: Nancinator\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Nancinator\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Nanodon\_8 Start: 2573, Stop: 4219, Start Num: 47

Candidate Starts for Nanodon\_8:

(Start: 47 @2573 has 87 MA's), (Start: 62 @2591 has 20 MA's), (162, 2795), (179, 2876), (211, 3011), (218, 3032), (229, 3077), (242, 3119), (251, 3191), (256, 3215), (278, 3314), (295, 3368), (340, 3527), (353, 3587), (388, 3698), (408, 3761), (414, 3788), (422, 3821), (442, 3896), (455, 3935), (463, 3956), (465, 3962), (469, 3980), (503, 4076), (517, 4136),

Gene: Natosaleda\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Natosaleda\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: NearlyHeadless\_9 Start: 5706, Stop: 7460, Start Num: 28

Candidate Starts for NearlyHeadless\_9:

(Start: 28 @5706 has 30 MA's), (44, 5748), (67, 5787), (107, 5856), (123, 5895), (185, 6102), (238, 6303), (256, 6411), (284, 6540), (322, 6705), (331, 6738), (366, 6858), (383, 6933), (414, 7035), (416, 7044), (420, 7062), (425, 7083), (440, 7137), (455, 7179), (496, 7284), (517, 7383), (529, 7416), (548, 7449), (550, 7455),

Gene: Nebs\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Nebs\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Nebulosus\_14 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for Nebulosus\_14:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496,

8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: Nedarya\_13 Start: 7279, Stop: 8973, Start Num: 49

Candidate Starts for Nedarya\_13:

(Start: 49 @7279 has 222 MA's), (65, 7294), (149, 7456), (204, 7681), (217, 7735), (244, 7843), (256, 7933), (261, 7957), (289, 8074), (316, 8197), (360, 8362), (383, 8449), (389, 8473), (411, 8536), (414, 8548), (421, 8578), (455, 8692), (497, 8800), (529, 8929), (546, 8956), (547, 8959), (548, 8962),

Gene: Neeharika16\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for Neeharika16\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (294, 8390), (295, 8393), (319, 8504), (360, 8666), (383, 8753), (386, 8765), (389, 8777), (408, 8825), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: Nemo27\_11 Start: 6907, Stop: 8580, Start Num: 68

Candidate Starts for Nemo27\_11:

(Start: 48 @6883 has 363 MA's), (Start: 68 @6907 has 1 MA's), (Start: 126 @7030 has 2 MA's), (167, 7120), (175, 7153), (194, 7252), (216, 7336), (217, 7339), (225, 7378), (244, 7447), (247, 7471), (256, 7537), (275, 7627), (315, 7792), (337, 7879), (342, 7912), (365, 7978), (382, 8050), (383, 8053), (389, 8077), (408, 8128), (411, 8143), (420, 8182), (425, 8203), (455, 8299), (529, 8536), (547, 8566), (548, 8569),

Gene: Nerdos\_6 Start: 2402, Stop: 4048, Start Num: 47

Candidate Starts for Nerdos\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: Nergal\_5 Start: 1844, Stop: 3613, Start Num: 41

Candidate Starts for Nergal\_5:

(Start: 41 @1844 has 1 MA's), (57, 1868), (63, 1877), (Start: 105 @1937 has 1 MA's), (149, 2033), (156, 2051), (171, 2114), (179, 2159), (185, 2189), (187, 2195), (199, 2249), (211, 2300), (213, 2306), (214, 2309), (248, 2462), (259, 2519), (267, 2552), (303, 2735), (310, 2753), (344, 2861), (374, 2960), (375, 2963), (383, 3008), (390, 3035), (413, 3149), (414, 3152), (420, 3179), (425, 3200), (432, 3227), (455, 3317), (468, 3359), (477, 3383), (490, 3407), (504, 3461), (514, 3512), (516, 3518), (526, 3551),

Gene: Nerujay\_12 Start: 7406, Stop: 9094, Start Num: 48

Candidate Starts for Nerujay\_12:

(Start: 48 @7406 has 363 MA's), (175, 7670), (176, 7694), (217, 7856), (223, 7889), (244, 7964), (256, 8054), (261, 8078), (268, 8105), (277, 8153), (297, 8222), (312, 8297), (315, 8309), (329, 8369), (393, 8603), (395, 8615), (411, 8657), (416, 8678), (423, 8705), (455, 8813), (490, 8903), (514, 9008),

Gene: Newrala\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for Newrala\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (294, 8390), (295, 8393), (319, 8504), (360, 8666), (383, 8753), (386, 8765), (389, 8777), (408, 8825), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: Nhonho\_11 Start: 6855, Stop: 8543, Start Num: 48

Candidate Starts for Nhonho\_11:

(Start: 48 @6855 has 363 MA's), (Start: 153 @7035 has 2 MA's), (175, 7119), (180, 7155), (185, 7182), (217, 7305), (244, 7413), (256, 7503), (261, 7527), (268, 7554), (277, 7602), (315, 7758), (329, 7818), (390, 8043), (393, 8052), (395, 8064), (411, 8106), (416, 8127), (423, 8154), (455, 8262), (490, 8352), (514, 8457),

Gene: Nibbles\_6 Start: 1989, Stop: 3689, Start Num: 96

Candidate Starts for Nibbles\_6:

(Start: 96 @1989 has 69 MA's), (109, 2019), (125, 2061), (171, 2199), (180, 2247), (186, 2277), (194, 2310), (202, 2346), (206, 2361), (208, 2376), (217, 2406), (227, 2457), (249, 2556), (251, 2577), (267, 2646), (275, 2688), (283, 2718), (317, 2865), (328, 2916), (342, 2979), (346, 3003), (374, 3069), (379, 3102), (381, 3126), (382, 3129), (384, 3138), (390, 3159), (401, 3186), (411, 3231), (414, 3243), (415, 3249), (420, 3270), (431, 3309), (463, 3408), (474, 3444), (505, 3531), (523, 3612), (527, 3618), (547, 3675), (548, 3678),

Gene: NicoleTera\_16 Start: 9187, Stop: 10974, Start Num: 49

Candidate Starts for NicoleTera\_16:

(Start: 49 @9187 has 222 MA's), (110, 9295), (120, 9316), (137, 9382), (146, 9424), (156, 9448), (171, 9511), (216, 9706), (217, 9709), (225, 9748), (244, 9817), (256, 9907), (261, 9931), (289, 10048), (295, 10063), (383, 10450), (411, 10537), (414, 10549), (421, 10579), (425, 10597), (455, 10693), (529, 10930), (546, 10957), (547, 10960), (548, 10963), (549, 10966),

Gene: Nina\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Nina\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Niobe\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Niobe\_2:

(Start: 71 @534 has 40 MA's), (Start: 119 @621 has 1 MA's), (203, 906), (217, 963), (220, 984), (228, 1011), (249, 1101), (258, 1155), (267, 1200), (284, 1275), (303, 1365), (343, 1488), (350, 1527), (383, 1650), (434, 1830), (440, 1863), (455, 1905), (460, 1920), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: Nishikigoi\_6 Start: 2173, Stop: 3822, Start Num: 47

Candidate Starts for Nishikigoi\_6:

(Start: 47 @2173 has 87 MA's), (113, 2290), (156, 2371), (162, 2398), (175, 2446), (179, 2479), (184, 2500), (206, 2587), (211, 2614), (218, 2635), (229, 2680), (242, 2722), (251, 2794), (256, 2818), (278, 2917), (286, 2953), (295, 2971), (331, 3091), (332, 3094), (340, 3130), (365, 3211), (388, 3301), (392, 3313), (408, 3364), (420, 3418), (455, 3538), (463, 3559), (468, 3580), (469, 3583), (496, 3643), (517, 3739), (550, 3817),

Gene: Nitro\_2 Start: 535, Stop: 2241, Start Num: 71

Candidate Starts for Nitro\_2:

(Start: 71 @535 has 40 MA's), (109, 601), (Start: 119 @622 has 1 MA's), (203, 907), (217, 964), (228, 1012), (249, 1102), (258, 1156), (267, 1201), (284, 1276), (303, 1366), (350, 1528), (383, 1651), (434, 1831), (455, 1906), (460, 1921), (496, 2056), (517, 2152), (519, 2164),

Gene: Niza\_13 Start: 8083, Stop: 9771, Start Num: 55

Candidate Starts for Niza\_13:

(Start: 55 @8083 has 24 MA's), (149, 8254), (Start: 153 @8263 has 2 MA's), (175, 8347), (177, 8374), (180, 8383), (217, 8533), (223, 8566), (244, 8641), (256, 8731), (261, 8755), (268, 8782), (277, 8830), (297, 8899), (315, 8986), (316, 8995), (329, 9046), (393, 9280), (395, 9292), (411, 9334), (416, 9355), (423, 9382), (455, 9490), (490, 9580), (514, 9685),

Gene: NoShow\_2 Start: 679, Stop: 2346, Start Num: 96

Candidate Starts for NoShow\_2:

(Start: 96 @679 has 69 MA's), (104, 697), (123, 742), (162, 835), (171, 871), (206, 1033), (217, 1078), (220, 1099), (227, 1126), (251, 1243), (259, 1279), (275, 1354), (347, 1678), (366, 1714), (375, 1738), (387, 1813), (410, 1885), (417, 1915), (420, 1930), (428, 1963), (442, 2011), (453, 2041), (463, 2068), (470, 2095), (486, 2116), (510, 2218), (518, 2257),

Gene: Nodigi\_5 Start: 1094, Stop: 2791, Start Num: 94

Candidate Starts for Nodigi\_5:

(Start: 94 @1094 has 8 MA's), (Start: 119 @1148 has 1 MA's), (125, 1169), (134, 1196), (171, 1307), (186, 1385), (204, 1460), (206, 1469), (217, 1514), (218, 1517), (227, 1565), (230, 1577), (249, 1664), (267, 1754), (286, 1844), (299, 1898), (346, 2111), (348, 2126), (353, 2135), (375, 2177), (384, 2243), (386, 2249), (401, 2291), (409, 2324), (411, 2333), (442, 2453), (463, 2510), (468, 2531), (486, 2558), (501, 2618), (516, 2687), (517, 2690), (531, 2735), (547, 2777), (548, 2780),

Gene: Noella\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Noella\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Noelle\_11 Start: 6950, Stop: 8647, Start Num: 48

Candidate Starts for Noelle\_11:

(Start: 48 @6950 has 363 MA's), (Start: 68 @6974 has 1 MA's), (107, 7046), (175, 7220), (216, 7403), (217, 7406), (225, 7445), (244, 7514), (247, 7538), (256, 7604), (275, 7694), (315, 7859), (326, 7904), (337, 7946), (342, 7979), (374, 8072), (382, 8117), (383, 8120), (389, 8144), (390, 8147), (411, 8210), (420, 8249), (425, 8270), (455, 8366), (529, 8603), (547, 8633), (548, 8636),

Gene: Norbert\_11 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Norbert\_11:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: NorthStar\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for NorthStar\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Norvs\_31 Start: 8685, Stop: 10433, Start Num: 88

Candidate Starts for Norvs\_31:

(Start: 88 @8685 has 21 MA's), (106, 8715), (160, 8844), (190, 9030), (197, 9069), (205, 9093), (216, 9141), (221, 9168), (228, 9198), (267, 9390), (270, 9408), (310, 9570), (327, 9618), (332, 9633), (373, 9816), (375, 9822), (389, 9906), (413, 9993), (421, 10026), (452, 10140), (465, 10176), (472, 10200), (481, 10215), (533, 10389), (535, 10395),

Gene: Norz\_13 Start: 7718, Stop: 9406, Start Num: 48

Candidate Starts for Norz\_13:

(Start: 48 @7718 has 363 MA's), (175, 7982), (176, 8006), (217, 8168), (223, 8201), (244, 8276), (256, 8366), (261, 8390), (277, 8465), (315, 8621), (329, 8681), (393, 8915), (395, 8927), (411, 8969), (416, 8990), (423, 9017), (455, 9125), (490, 9215), (514, 9320),

Gene: NotAPhaseMom\_11 Start: 6888, Stop: 8585, Start Num: 48

Candidate Starts for NotAPhaseMom\_11:

(Start: 48 @6888 has 363 MA's), (Start: 68 @6912 has 1 MA's), (Start: 126 @7035 has 2 MA's), (167, 7125), (175, 7158), (194, 7257), (216, 7341), (217, 7344), (225, 7383), (244, 7452), (247, 7476), (256, 7542), (275, 7632), (315, 7797), (337, 7884), (342, 7917), (365, 7983), (382, 8055), (383, 8058), (389, 8082), (408, 8133), (411, 8148), (420, 8187), (425, 8208), (455, 8304), (529, 8541), (547, 8571), (548, 8574),

Gene: NothingSpecial\_14 Start: 9458, Stop: 11239, Start Num: 49

Candidate Starts for NothingSpecial\_14:

(Start: 49 @9458 has 222 MA's), (123, 9590), (146, 9689), (216, 9971), (217, 9974), (225, 10013), (244, 10082), (256, 10172), (261, 10196), (284, 10295), (295, 10328), (362, 10628), (383, 10715), (392, 10748), (414, 10814), (425, 10862), (450, 10946), (455, 10958), (529, 11195), (546, 11222), (547, 11225),

Gene: Nyxis\_11 Start: 6830, Stop: 8527, Start Num: 48

Candidate Starts for Nyxis\_11:

(11, 6644), (12, 6653), (15, 6671), (Start: 17 @6701 has 1 MA's), (Start: 48 @6830 has 363 MA's), (Start: 68 @6854 has 1 MA's), (Start: 126 @6977 has 2 MA's), (167, 7067), (175, 7100), (194, 7199), (216, 7283), (217, 7286), (225, 7325), (244, 7394), (247, 7418), (256, 7484), (275, 7574), (315, 7739), (337, 7826), (342, 7859), (365, 7925), (382, 7997), (383, 8000), (389, 8024), (408, 8075), (411, 8090), (420, 8129), (425, 8150), (455, 8246), (529, 8483), (547, 8513), (548, 8516),

Gene: OKCentral2016\_11 Start: 6407, Stop: 8080, Start Num: 48

Candidate Starts for OKCentral2016\_11:

(Start: 48 @6407 has 363 MA's), (Start: 126 @6536 has 2 MA's), (158, 6602), (175, 6668), (182, 6713), (194, 6767), (206, 6809), (217, 6854), (225, 6893), (242, 6941), (244, 6962), (247, 6986), (256, 7037), (284, 7160), (299, 7229), (320, 7307), (333, 7367), (342, 7412), (365, 7478), (382, 7550), (383, 7553), (389, 7577), (411, 7643), (420, 7682), (421, 7685), (425, 7703), (455, 7799), (478, 7868), (529, 8036), (547, 8066), (548, 8069),

Gene: OKaNui\_11 Start: 6649, Stop: 8346, Start Num: 48

Candidate Starts for OKaNui\_11:

(Start: 48 @6649 has 363 MA's), (Start: 68 @6673 has 1 MA's), (Start: 126 @6796 has 2 MA's), (167, 6886), (175, 6919), (194, 7018), (216, 7102), (217, 7105), (225, 7144), (244, 7213), (247, 7237), (256, 7303), (275, 7393), (315, 7558), (337, 7645), (342, 7678), (365, 7744), (382, 7816), (383, 7819), (389, 7843), (411, 7909), (420, 7948), (425, 7969), (455, 8065), (527, 8299), (529, 8302), (547, 8332), (548, 8335),

Gene: Obama12\_11 Start: 6863, Stop: 8560, Start Num: 48

Candidate Starts for Obama12\_11:

(Start: 48 @6863 has 363 MA's), (Start: 68 @6887 has 1 MA's), (Start: 126 @7010 has 2 MA's), (167, 7100), (175, 7133), (216, 7316), (217, 7319), (225, 7358), (244, 7427), (247, 7451), (256, 7517), (275, 7607), (315, 7772), (337, 7859), (342, 7892), (365, 7958), (382, 8030), (389, 8057), (408, 8108), (411, 8123), (420, 8162), (425, 8183), (455, 8279), (529, 8516), (547, 8546), (548, 8549),

Gene: ObiToo\_2 Start: 546, Stop: 2252, Start Num: 71

Candidate Starts for ObiToo\_2:

(4, 243), (Start: 71 @546 has 40 MA's), (109, 612), (203, 918), (217, 975), (228, 1023), (249, 1113), (258, 1167), (267, 1212), (284, 1287), (350, 1539), (434, 1842), (442, 1881), (455, 1917), (460, 1932), (496, 2067), (517, 2163), (519, 2175),

Gene: Odin\_11 Start: 6300, Stop: 8084, Start Num: 49

Candidate Starts for Odin\_11:

(Start: 49 @6300 has 222 MA's), (146, 6531), (171, 6618), (206, 6771), (216, 6813), (217, 6816), (244, 6927), (247, 6951), (248, 6954), (256, 7017), (261, 7041), (295, 7173), (316, 7281), (420, 7686), (425, 7707), (450, 7791), (455, 7803), (497, 7911), (529, 8040), (546, 8067), (547, 8070),

Gene: Ohfah\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Ohfah\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Ohno789\_10 Start: 6399, Stop: 8087, Start Num: 48

Candidate Starts for Ohno789\_10:

(Start: 48 @6399 has 363 MA's), (Start: 153 @6579 has 2 MA's), (175, 6663), (180, 6699), (185, 6726), (217, 6849), (244, 6957), (256, 7047), (261, 7071), (268, 7098), (277, 7146), (297, 7215), (312, 7290), (315, 7302), (329, 7362), (390, 7587), (393, 7596), (395, 7608), (411, 7650), (416, 7671), (423, 7698), (455, 7806), (490, 7896), (502, 7938), (527, 8040),

Gene: OlanP\_13 Start: 7209, Stop: 8909, Start Num: 51

Candidate Starts for OlanP\_13:

(Start: 51 @7209 has 139 MA's), (Start: 81 @7257 has 4 MA's), (Start: 119 @7329 has 1 MA's), (149, 7392), (217, 7671), (256, 7869), (275, 7959), (294, 8022), (329, 8184), (383, 8382), (389, 8406), (390, 8409), (411, 8472), (414, 8484), (416, 8493), (420, 8511), (425, 8532), (455, 8628), (472, 8682), (490, 8718), (529, 8865), (547, 8895), (548, 8898),

Gene: Oliynyk\_7 Start: 2562, Stop: 4208, Start Num: 47

Candidate Starts for Oliynyk\_7:

(Start: 47 @2562 has 87 MA's), (Start: 62 @2580 has 20 MA's), (162, 2784), (179, 2865), (211, 3000), (218, 3021), (229, 3066), (242, 3108), (251, 3180), (256, 3204), (275, 3291), (278, 3303), (295, 3357), (326, 3456), (340, 3516), (386, 3678), (388, 3687), (414, 3777), (422, 3810), (441, 3882), (442, 3885), (455, 3924), (463, 3945), (465, 3951), (469, 3969), (503, 4065), (517, 4125),

Gene: Ollie\_13 Start: 6828, Stop: 8528, Start Num: 51

Candidate Starts for Ollie\_13:

(Start: 51 @6828 has 139 MA's), (Start: 81 @6876 has 4 MA's), (149, 7011), (194, 7203), (217, 7290), (256, 7488), (275, 7578), (294, 7641), (329, 7803), (383, 8001), (389, 8025), (390, 8028), (411, 8091), (416, 8112), (425, 8151), (455, 8247), (472, 8301), (490, 8337), (529, 8484), (547, 8514), (548, 8517),

Gene: Omar\_7 Start: 2403, Stop: 4052, Start Num: 47



Candidate Starts for Omar\_7:

(Start: 47 @2403 has 87 MA's), (Start: 62 @2424 has 20 MA's), (106, 2502), (162, 2628), (171, 2664), (175, 2676), (179, 2709), (202, 2802), (206, 2817), (211, 2844), (218, 2865), (229, 2910), (242, 2952), (251, 3024), (256, 3048), (278, 3147), (289, 3186), (295, 3201), (304, 3261), (326, 3300), (331, 3321), (332, 3324), (340, 3360), (386, 3522), (388, 3531), (392, 3543), (394, 3552), (414, 3621), (420, 3648), (442, 3729), (455, 3768), (463, 3789), (469, 3813), (496, 3873), (517, 3969), (524, 3996), (550, 4047),

Gene: OneUp\_24 Start: 6501, Stop: 8249, Start Num: 88

Candidate Starts for OneUp\_24:

(Start: 88 @6501 has 21 MA's), (106, 6531), (147, 6621), (160, 6660), (197, 6885), (202, 6900), (205, 6909), (216, 6957), (221, 6984), (267, 7206), (270, 7224), (305, 7374), (327, 7434), (328, 7437), (332, 7449), (383, 7698), (411, 7800), (413, 7809), (414, 7812), (420, 7839), (421, 7842), (452, 7956), (465, 7992), (472, 8016), (533, 8205), (535, 8211),

Gene: Onglai\_12 Start: 6490, Stop: 8262, Start Num: 62

Candidate Starts for Onglai\_12:

(Start: 49 @6475 has 222 MA's), (Start: 62 @6490 has 20 MA's), (Start: 66 @6496 has 5 MA's), (123, 6607), (146, 6706), (185, 6868), (204, 6940), (217, 6994), (225, 7033), (244, 7105), (256, 7195), (261, 7219), (289, 7336), (295, 7351), (316, 7459), (336, 7534), (357, 7630), (386, 7750), (392, 7771), (408, 7810), (420, 7864), (421, 7867), (425, 7885), (440, 7939), (450, 7969), (455, 7981), (490, 8071), (497, 8089), (529, 8218), (546, 8245), (547, 8248),

Gene: Oofda\_15 Start: 6657, Stop: 8354, Start Num: 49

Candidate Starts for Oofda\_15:

(Start: 49 @6657 has 222 MA's), (65, 6675), (149, 6837), (185, 6993), (204, 7062), (217, 7116), (244, 7224), (248, 7251), (256, 7314), (261, 7338), (389, 7854), (411, 7917), (421, 7959), (455, 8073), (496, 8178), (529, 8310), (546, 8337), (547, 8340), (548, 8343),

Gene: Oogway\_10 Start: 6991, Stop: 8679, Start Num: 48

Candidate Starts for Oogway\_10:

(Start: 48 @6991 has 363 MA's), (Start: 153 @7171 has 2 MA's), (175, 7255), (180, 7291), (185, 7318), (217, 7441), (223, 7474), (244, 7549), (256, 7639), (261, 7663), (277, 7738), (297, 7807), (312, 7882), (315, 7894), (329, 7954), (390, 8179), (393, 8188), (395, 8200), (411, 8242), (416, 8263), (423, 8290), (455, 8398), (490, 8488), (514, 8593),

Gene: Orange\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Orange\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Orla\_5 Start: 1093, Stop: 2793, Start Num: 94

Candidate Starts for Orla\_5:

(33, 985), (Start: 94 @1093 has 8 MA's), (Start: 119 @1147 has 1 MA's), (125, 1168), (134, 1195), (171, 1306), (186, 1384), (194, 1417), (204, 1459), (206, 1468), (217, 1513), (218, 1516), (227, 1564), (242, 1612), (244, 1633), (249, 1663), (267, 1753), (286, 1843), (299, 1897), (317, 1972), (346, 2110), (348, 2125), (353, 2134), (373, 2170), (375, 2176), (384, 2242), (386, 2248), (410, 2326), (411, 2332), (435, 2419), (442, 2452), (463, 2509), (468, 2530), (486, 2557), (501, 2617), (516, 2686), (517, 2689), (527, 2719), (531, 2734), (547, 2779), (548, 2782),

Gene: Ozzie\_6 Start: 2400, Stop: 4028, Start Num: 62

Candidate Starts for Ozzie\_6:

(Start: 47 @2382 has 87 MA's), (Start: 62 @2400 has 20 MA's), (162, 2604), (179, 2685), (211, 2820), (218, 2841), (242, 2928), (251, 3000), (256, 3024), (278, 3123), (295, 3177), (326, 3276), (340, 3336), (386, 3498), (388, 3507), (414, 3597), (420, 3624), (441, 3702), (442, 3705), (455, 3744), (463, 3765), (465, 3771), (469, 3789), (503, 3885), (517, 3945),

Gene: OzzyJ\_7 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for OzzyJ\_7:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (Start: 126 @2527 has 2 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (229, 2881), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (383, 3481), (388, 3502), (408, 3565), (414, 3592), (442, 3700), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (503, 3880), (517, 3940), (550, 4018),

Gene: P28Green\_13 Start: 6956, Stop: 8656, Start Num: 51

Candidate Starts for P28Green\_13:

(Start: 51 @6956 has 139 MA's), (Start: 81 @7004 has 4 MA's), (149, 7139), (194, 7331), (217, 7418), (256, 7616), (275, 7706), (294, 7769), (329, 7931), (383, 8129), (389, 8153), (390, 8156), (411, 8219), (416, 8240), (425, 8279), (455, 8375), (472, 8429), (490, 8465), (529, 8612), (547, 8642), (548, 8645),

Gene: PGHhamlin\_15 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for PGHhamlin\_15:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: PP\_21 Start: 12452, Stop: 14146, Start Num: 48

Candidate Starts for PP\_21:

(Start: 47 @12449 has 87 MA's), (Start: 48 @12452 has 363 MA's), (Start: 88 @12509 has 21 MA's), (93, 12515), (123, 12581), (Start: 153 @12632 has 2 MA's), (159, 12653), (175, 12716), (209, 12875), (213, 12890), (216, 12899), (217, 12902), (219, 12917), (230, 12953), (244, 13010), (247, 13034), (253, 13082), (256, 13100), (284, 13223), (285, 13226), (295, 13256), (315, 13355), (337, 13442), (342, 13475), (360, 13529), (365, 13541), (382, 13613), (389, 13640), (394, 13658), (408, 13691), (413, 13715), (455, 13862), (469, 13907), (518, 14069), (529, 14099),

Gene: PSullivan\_13 Start: 7479, Stop: 9167, Start Num: 48

Candidate Starts for PSullivan\_13:

(Start: 48 @7479 has 363 MA's), (Start: 153 @7659 has 2 MA's), (175, 7743), (180, 7779), (185, 7806), (217, 7929), (244, 8037), (256, 8127), (261, 8151), (268, 8178), (277, 8226), (315, 8382), (329, 8442), (393, 8676), (395, 8688), (411, 8730), (416, 8751), (423, 8778), (455, 8886), (490, 8976), (514, 9081),

Gene: Pablito\_6 Start: 2214, Stop: 3860, Start Num: 47

Candidate Starts for Pablito\_6:

(39, 2193), (46, 2208), (Start: 47 @2214 has 87 MA's), (61, 2229), (Start: 126 @2364 has 2 MA's), (175, 2484), (179, 2517), (211, 2652), (218, 2673), (223, 2703), (229, 2718), (242, 2760), (251, 2832), (256, 2856), (278, 2955), (295, 3009), (340, 3168), (354, 3231), (383, 3318), (388, 3339), (408, 3402), (414, 3429), (450, 3564), (455, 3576), (463, 3597), (465, 3603), (469, 3621), (496, 3681), (517, 3777), (539, 3825), (550, 3855),

Gene: PacerPaul\_11 Start: 7247, Stop: 8935, Start Num: 48

Candidate Starts for PacerPaul\_11:

(Start: 48 @7247 has 363 MA's), (Start: 153 @7427 has 2 MA's), (175, 7511), (180, 7547), (185, 7574), (217, 7697), (244, 7805), (256, 7895), (261, 7919), (277, 7994), (315, 8150), (329, 8210), (390, 8435), (393, 8444), (395, 8456), (411, 8498), (416, 8519), (423, 8546), (455, 8654), (490, 8744), (514, 8849),

Gene: PackMan\_13 Start: 8109, Stop: 9896, Start Num: 49

Candidate Starts for PackMan\_13:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: Paedore\_6 Start: 2247, Stop: 3908, Start Num: 47

Candidate Starts for Paedore\_6:

(Start: 47 @2247 has 87 MA's), (179, 2565), (202, 2658), (206, 2673), (211, 2700), (218, 2721), (242, 2808), (256, 2904), (263, 2937), (275, 2991), (284, 3024), (291, 3048), (304, 3117), (332, 3180), (333, 3186), (340, 3216), (343, 3234), (366, 3300), (382, 3363), (383, 3366), (386, 3378), (388, 3387), (391, 3396), (408, 3450), (414, 3477), (455, 3624), (463, 3645), (469, 3669), (496, 3729), (517, 3825), (550, 3903),

Gene: PainterBoy\_13 Start: 7527, Stop: 9281, Start Num: 49

Candidate Starts for PainterBoy\_13:

(Start: 49 @7527 has 222 MA's), (123, 7659), (146, 7758), (171, 7845), (185, 7920), (204, 7989), (216, 8040), (217, 8043), (244, 8151), (256, 8241), (261, 8265), (294, 8394), (295, 8397), (299, 8433), (362, 8673), (365, 8682), (383, 8757), (408, 8829), (411, 8844), (420, 8883), (425, 8904), (450, 8988), (455, 9000), (496, 9105), (514, 9195), (517, 9204), (529, 9237), (546, 9264), (547, 9267), (548, 9270), (549, 9273),

Gene: Palestino\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Palestino\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Panamaxus\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Panamaxus\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Paolo\_8 Start: 2800, Stop: 4446, Start Num: 47

Candidate Starts for Paolo\_8:

(Start: 47 @2800 has 87 MA's), (Start: 126 @2950 has 2 MA's), (175, 3070), (176, 3094), (202, 3196), (211, 3238), (213, 3244), (218, 3259), (242, 3346), (251, 3418), (256, 3442), (278, 3541), (286, 3577), (295, 3595), (324, 3688), (332, 3718), (340, 3754), (354, 3817), (383, 3904), (388, 3925), (392, 3937), (414, 4015), (420, 4042), (442, 4123), (455, 4162), (463, 4183), (469, 4207), (496, 4267), (517, 4363),

Gene: Papez\_13 Start: 8442, Stop: 10130, Start Num: 48

Candidate Starts for Papez\_13:

(Start: 48 @8442 has 363 MA's), (Start: 153 @8622 has 2 MA's), (175, 8706), (180, 8742), (185, 8769), (217, 8892), (223, 8925), (244, 9000), (256, 9090), (261, 9114), (268, 9141), (277, 9189), (315, 9345), (329, 9405), (393, 9639), (395, 9651), (411, 9693), (416, 9714), (423, 9741), (455, 9849), (490, 9939), (514, 10044),

Gene: Paphu\_10 Start: 6436, Stop: 8124, Start Num: 48

Candidate Starts for Paphu\_10:

(Start: 48 @6436 has 363 MA's), (175, 6700), (176, 6724), (217, 6886), (223, 6919), (256, 7084), (261, 7108), (268, 7135), (277, 7183), (297, 7252), (315, 7339), (329, 7399), (393, 7633), (395, 7645), (411, 7687), (416, 7708), (423, 7735), (455, 7843), (490, 7933), (514, 8038),

Gene: Paraselene\_10 Start: 6748, Stop: 8436, Start Num: 48

Candidate Starts for Paraselene\_10:

(Start: 48 @6748 has 363 MA's), (Start: 153 @6928 has 2 MA's), (175, 7012), (180, 7048), (185, 7075), (217, 7198), (244, 7306), (256, 7396), (261, 7420), (268, 7447), (277, 7495), (315, 7651), (329, 7711), (390, 7936), (393, 7945), (395, 7957), (411, 7999), (416, 8020), (423, 8047), (455, 8155), (490, 8245), (514, 8350),

Gene: Pari\_12 Start: 7215, Stop: 8903, Start Num: 48

Candidate Starts for Pari\_12:

(Start: 48 @7215 has 363 MA's), (Start: 153 @7395 has 2 MA's), (175, 7479), (180, 7515), (185, 7542), (209, 7638), (217, 7665), (223, 7698), (244, 7773), (256, 7863), (261, 7887), (268, 7914), (277, 7962), (297, 8031), (315, 8118), (316, 8127), (329, 8178), (393, 8412), (395, 8424), (411, 8466), (416, 8487), (423, 8514), (455, 8622), (490, 8712), (514, 8817),

Gene: Parliament\_10 Start: 6818, Stop: 8506, Start Num: 48

Candidate Starts for Parliament\_10:

(Start: 48 @6818 has 363 MA's), (175, 7082), (176, 7106), (217, 7268), (223, 7301), (244, 7376), (256, 7466), (261, 7490), (268, 7517), (277, 7565), (312, 7709), (315, 7721), (329, 7781), (390, 8006), (393, 8015), (395, 8027), (411, 8069), (416, 8090), (423, 8117), (455, 8225), (490, 8315), (514, 8420),

Gene: Partridge\_8 Start: 3215, Stop: 4897, Start Num: 51

Candidate Starts for Partridge\_8:

(Start: 51 @3215 has 139 MA's), (Start: 153 @3401 has 2 MA's), (171, 3473), (175, 3485), (180, 3521), (219, 3689), (238, 3749), (256, 3857), (313, 4112), (331, 4184), (376, 4328), (383, 4370), (392, 4403), (411, 4460), (414, 4472), (455, 4616), (469, 4661), (496, 4721), (517, 4820), (529, 4853), (546, 4880), (547, 4883), (548, 4886),

Gene: PascalRango\_10 Start: 6614, Stop: 8302, Start Num: 48

Candidate Starts for PascalRango\_10:

(Start: 48 @6614 has 363 MA's), (175, 6878), (176, 6902), (217, 7064), (223, 7097), (244, 7172), (256, 7262), (261, 7286), (268, 7313), (277, 7361), (315, 7517), (329, 7577), (390, 7802), (393, 7811), (395, 7823), (411, 7865), (416, 7886), (423, 7913), (455, 8021), (490, 8111), (514, 8216),

Gene: PattyP\_13 Start: 7272, Stop: 8960, Start Num: 55

Candidate Starts for PattyP\_13:

(Start: 55 @7272 has 24 MA's), (149, 7443), (Start: 153 @7452 has 2 MA's), (175, 7536), (177, 7563), (180, 7572), (217, 7722), (223, 7755), (244, 7830), (256, 7920), (261, 7944), (268, 7971), (277, 8019), (315, 8175), (329, 8235), (390, 8460), (393, 8469), (395, 8481), (411, 8523), (416, 8544), (423, 8571), (455, 8679), (490, 8769), (514, 8874),

Gene: Pavo\_8 Start: 2498, Stop: 4144, Start Num: 47

Candidate Starts for Pavo\_8:

(Start: 45 @2489 has 1 MA's), (Start: 47 @2498 has 87 MA's), (Start: 48 @2501 has 363 MA's), (Start: 62 @2516 has 20 MA's), (162, 2720), (171, 2756), (179, 2801), (202, 2894), (206, 2909), (211, 2936), (214, 2945), (218, 2957), (242, 3044), (248, 3092), (256, 3140), (278, 3239), (289, 3278), (326, 3392), (331, 3413), (340, 3452), (365, 3533), (383, 3602), (384, 3608), (388, 3623), (408, 3686), (441, 3818), (455, 3860), (465, 3887), (469, 3905), (491, 3953), (517, 4061),

Gene: Pawn\_14 Start: 7029, Stop: 8729, Start Num: 51

Candidate Starts for Pawn\_14:

(Start: 51 @7029 has 139 MA's), (Start: 81 @7077 has 4 MA's), (Start: 119 @7149 has 1 MA's), (149, 7212), (217, 7491), (256, 7689), (275, 7779), (294, 7842), (329, 8004), (383, 8202), (389, 8226), (390, 8229), (411, 8292), (414, 8304), (416, 8313), (420, 8331), (425, 8352), (455, 8448), (472, 8502), (490, 8538), (529, 8685), (547, 8715), (548, 8718),

Gene: Payneful\_11 Start: 6561, Stop: 8249, Start Num: 48

Candidate Starts for Payneful\_11:

(Start: 48 @6561 has 363 MA's), (175, 6825), (176, 6849), (217, 7011), (223, 7044), (244, 7119), (256, 7209), (261, 7233), (277, 7308), (315, 7464), (316, 7473), (328, 7521), (329, 7524), (390, 7749), (393, 7758), (395, 7770), (411, 7812), (416, 7833), (423, 7860), (455, 7968), (490, 8058), (514, 8163),

Gene: PeaceMeal1\_10 Start: 4783, Stop: 6474, Start Num: 48

Candidate Starts for PeaceMeal1\_10:

(Start: 48 @4783 has 363 MA's), (Start: 68 @4807 has 1 MA's), (Start: 126 @4930 has 2 MA's), (159, 4999), (171, 5050), (175, 5062), (181, 5104), (185, 5125), (206, 5203), (217, 5248), (225, 5287), (242, 5335), (244, 5356), (247, 5380), (256, 5431), (284, 5554), (320, 5701), (333, 5761), (342, 5806), (383, 5947), (397, 6001), (411, 6037), (420, 6076), (425, 6097), (455, 6193), (478, 6262), (529, 6430), (547, 6460), (548, 6463),

Gene: Peaches\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Peaches\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Pelly\_12 Start: 7447, Stop: 9135, Start Num: 48

Candidate Starts for Pelly\_12:

(Start: 48 @7447 has 363 MA's), (Start: 153 @7627 has 2 MA's), (175, 7711), (180, 7747), (185, 7774), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (268, 8146), (297, 8263), (312, 8338), (315, 8350), (329, 8410), (393, 8644), (395, 8656), (411, 8698), (416, 8719), (423, 8746), (455, 8854), (490, 8944), (514, 9049),

Gene: Pembroke\_13 Start: 6958, Stop: 8658, Start Num: 51

Candidate Starts for Pembroke\_13:

(Start: 51 @6958 has 139 MA's), (Start: 81 @7006 has 4 MA's), (149, 7141), (194, 7333), (217, 7420), (256, 7618), (275, 7708), (294, 7771), (329, 7933), (383, 8131), (389, 8155), (390, 8158), (411, 8221), (416, 8242), (425, 8281), (455, 8377), (472, 8431), (490, 8467), (529, 8614), (547, 8644), (548, 8647),

Gene: Penny1\_13 Start: 6957, Stop: 8657, Start Num: 51

Candidate Starts for Penny1\_13:

(Start: 51 @6957 has 139 MA's), (Start: 81 @7005 has 4 MA's), (149, 7140), (194, 7332), (217, 7419), (256, 7617), (275, 7707), (294, 7770), (329, 7932), (383, 8130), (389, 8154), (390, 8157), (411, 8220),

(416, 8241), (425, 8280), (455, 8376), (472, 8430), (490, 8466), (529, 8613), (547, 8643), (548, 8646),

Gene: Pepe\_12 Start: 7470, Stop: 9158, Start Num: 48

Candidate Starts for Pepe\_12:

(Start: 48 @7470 has 363 MA's), (175, 7734), (176, 7758), (217, 7920), (223, 7953), (244, 8028), (256, 8118), (261, 8142), (268, 8169), (277, 8217), (312, 8361), (315, 8373), (329, 8433), (390, 8658), (393, 8667), (395, 8679), (411, 8721), (416, 8742), (423, 8769), (455, 8877), (490, 8967), (514, 9072),

Gene: Percival\_2 Start: 640, Stop: 2388, Start Num: 64

Candidate Starts for Percival\_2:

(Start: 64 @640 has 12 MA's), (82, 658), (199, 1000), (211, 1051), (217, 1069), (240, 1162), (249, 1219), (343, 1642), (383, 1804), (384, 1810), (434, 1984), (455, 2059), (460, 2074), (483, 2155), (511, 2278), (517, 2299), (519, 2311),

Gene: Perplexer\_11 Start: 6887, Stop: 8584, Start Num: 48

Candidate Starts for Perplexer\_11:

(Start: 48 @6887 has 363 MA's), (Start: 68 @6911 has 1 MA's), (175, 7157), (216, 7340), (217, 7343), (225, 7382), (244, 7451), (247, 7475), (256, 7541), (275, 7631), (315, 7796), (337, 7883), (374, 8009), (383, 8057), (389, 8081), (411, 8147), (420, 8186), (425, 8207), (455, 8303), (527, 8537), (529, 8540), (547, 8570), (548, 8573),

Gene: Perseus\_12 Start: 7131, Stop: 8819, Start Num: 48

Candidate Starts for Perseus\_12:

(Start: 48 @7131 has 363 MA's), (Start: 153 @7311 has 2 MA's), (175, 7395), (180, 7431), (217, 7581), (244, 7689), (256, 7779), (261, 7803), (277, 7878), (297, 7947), (315, 8034), (329, 8094), (393, 8328), (395, 8340), (411, 8382), (416, 8403), (423, 8430), (455, 8538), (490, 8628), (514, 8733),

Gene: Persistence\_2 Start: 689, Stop: 2329, Start Num: 127

Candidate Starts for Persistence\_2:

(Start: 87 @596 has 2 MA's), (Start: 127 @689 has 2 MA's), (128, 692), (162, 782), (166, 806), (172, 842), (173, 845), (184, 905), (194, 1013), (217, 1100), (240, 1187), (254, 1277), (263, 1319), (269, 1340), (276, 1376), (322, 1511), (324, 1517), (334, 1556), (346, 1625), (376, 1691), (377, 1703), (385, 1739), (398, 1787), (406, 1823), (420, 1880), (421, 1883), (430, 1943), (449, 2027), (497, 2153), (514, 2234), (528, 2276), (546, 2315),

Gene: PeterPeter\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for PeterPeter\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Petersenfast\_11 Start: 8027, Stop: 9790, Start Num: 49

Candidate Starts for Petersenfast\_11:

(Start: 49 @8027 has 222 MA's), (Start: 66 @8048 has 5 MA's), (110, 8135), (146, 8264), (156, 8288), (171, 8351), (204, 8495), (216, 8546), (217, 8549), (244, 8660), (247, 8684), (248, 8687), (256, 8750), (258, 8759), (261, 8774), (289, 8891), (295, 8906), (304, 8966), (326, 9050), (386, 9278), (389, 9290), (408, 9338), (411, 9353), (420, 9392), (425, 9413), (437, 9452), (450, 9497), (455, 9509), (529, 9746), (546, 9773),

Gene: Peterson\_14 Start: 8430, Stop: 10118, Start Num: 48

Candidate Starts for Peterson\_14:

(Start: 48 @8430 has 363 MA's), (175, 8694), (176, 8718), (209, 8853), (217, 8880), (223, 8913), (244, 8988), (256, 9078), (261, 9102), (268, 9129), (277, 9177), (315, 9333), (329, 9393), (390, 9618), (393, 9627), (395, 9639), (411, 9681), (416, 9702), (423, 9729), (455, 9837), (490, 9927), (514, 10032),

Gene: PetiteSangsue\_11 Start: 6893, Stop: 8590, Start Num: 48

Candidate Starts for PetiteSangsue\_11:

(Start: 48 @6893 has 363 MA's), (Start: 68 @6917 has 1 MA's), (175, 7163), (216, 7346), (217, 7349), (225, 7388), (244, 7457), (247, 7481), (256, 7547), (275, 7637), (315, 7802), (337, 7889), (374, 8015), (383, 8063), (389, 8087), (408, 8138), (411, 8153), (420, 8192), (425, 8213), (455, 8309), (527, 8543), (529, 8546), (547, 8576), (548, 8579),

Gene: Petruccio\_11 Start: 6689, Stop: 8377, Start Num: 48

Candidate Starts for Petruccio\_11:

(Start: 48 @6689 has 363 MA's), (Start: 153 @6869 has 2 MA's), (175, 6953), (180, 6989), (185, 7016), (217, 7139), (223, 7172), (244, 7247), (256, 7337), (261, 7361), (268, 7388), (277, 7436), (312, 7580), (315, 7592), (329, 7652), (390, 7877), (393, 7886), (395, 7898), (411, 7940), (416, 7961), (423, 7988), (455, 8096), (490, 8186), (514, 8291),

Gene: PetterN\_10 Start: 5984, Stop: 7735, Start Num: 28

Candidate Starts for PetterN\_10:

(Start: 26 @5957 has 19 MA's), (Start: 28 @5984 has 30 MA's), (52, 6044), (60, 6053), (82, 6092), (121, 6167), (123, 6173), (171, 6305), (185, 6380), (186, 6383), (231, 6557), (256, 6689), (266, 6734), (281, 6812), (284, 6818), (322, 6983), (331, 7016), (337, 7037), (383, 7211), (389, 7235), (420, 7337), (425, 7358), (440, 7412), (450, 7442), (455, 7454), (472, 7508), (527, 7688), (529, 7691), (548, 7724), (550, 7730),

Gene: Ph8s\_13 Start: 6262, Stop: 8046, Start Num: 49

Candidate Starts for Ph8s\_13:

(Start: 49 @6262 has 222 MA's), (146, 6493), (171, 6580), (206, 6733), (216, 6775), (217, 6778), (244, 6889), (247, 6913), (248, 6916), (256, 6979), (261, 7003), (295, 7135), (420, 7648), (425, 7669), (450, 7753), (455, 7765), (491, 7858), (497, 7873), (529, 8002), (546, 8029), (547, 8032),

Gene: Phacado\_11 Start: 6883, Stop: 8580, Start Num: 48

Candidate Starts for Phacado\_11:

(Start: 48 @6883 has 363 MA's), (Start: 68 @6907 has 1 MA's), (Start: 126 @7030 has 2 MA's), (167, 7120), (175, 7153), (194, 7252), (216, 7336), (217, 7339), (225, 7378), (244, 7447), (247, 7471), (256, 7537), (275, 7627), (315, 7792), (337, 7879), (342, 7912), (365, 7978), (382, 8050), (383, 8053), (389, 8077), (408, 8128), (411, 8143), (420, 8182), (425, 8203), (455, 8299), (529, 8536), (547, 8566), (548, 8569),

Gene: Phaded\_15 Start: 9549, Stop: 11327, Start Num: 49

Candidate Starts for Phaded\_15:

(Start: 49 @9549 has 222 MA's), (Start: 66 @9567 has 5 MA's), (123, 9678), (Start: 126 @9690 has 2 MA's), (136, 9732), (139, 9744), (140, 9753), (146, 9777), (171, 9864), (216, 10059), (217, 10062), (225, 10101), (244, 10170), (256, 10260), (261, 10284), (284, 10383), (295, 10416), (362, 10716), (383, 10803), (414, 10902), (420, 10929), (425, 10950), (455, 11046), (529, 11283), (546, 11310), (547, 11313),

Gene: Phaeder\_13 Start: 8124, Stop: 9896, Start Num: 62

Candidate Starts for Phaeder\_13:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392,

9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: PhailMary\_7 Start: 3222, Stop: 4904, Start Num: 51

Candidate Starts for PhailMary\_7:

(Start: 51 @3222 has 139 MA's), (Start: 153 @3408 has 2 MA's), (171, 3480), (175, 3492), (176, 3516), (180, 3528), (217, 3681), (219, 3696), (238, 3756), (256, 3864), (268, 3921), (313, 4119), (319, 4137), (331, 4191), (376, 4335), (383, 4377), (392, 4410), (411, 4467), (414, 4479), (455, 4623), (469, 4668), (496, 4728), (517, 4827), (529, 4860), (546, 4887), (547, 4890), (548, 4893),

Gene: Phantastic\_11 Start: 6458, Stop: 8155, Start Num: 48

Candidate Starts for Phantastic\_11:

(Start: 48 @6458 has 363 MA's), (95, 6530), (175, 6728), (185, 6791), (213, 6902), (217, 6914), (225, 6953), (230, 6965), (244, 7022), (247, 7046), (252, 7076), (256, 7112), (258, 7121), (275, 7202), (281, 7229), (315, 7367), (331, 7433), (337, 7454), (342, 7487), (365, 7553), (383, 7628), (389, 7652), (390, 7655), (392, 7661), (394, 7670), (411, 7718), (420, 7757), (425, 7778), (455, 7874), (472, 7928), (518, 8081), (529, 8111), (547, 8141), (548, 8144),

Gene: Pharaoh\_12 Start: 7906, Stop: 9693, Start Num: 49

Candidate Starts for Pharaoh\_12:

(Start: 49 @7906 has 222 MA's), (Start: 66 @7927 has 5 MA's), (120, 8029), (123, 8038), (146, 8137), (157, 8167), (158, 8170), (206, 8380), (217, 8425), (225, 8464), (244, 8536), (247, 8560), (256, 8626), (261, 8650), (284, 8749), (289, 8767), (295, 8782), (367, 9097), (383, 9169), (408, 9241), (414, 9268), (420, 9295), (421, 9298), (425, 9316), (455, 9412), (527, 9646), (529, 9649), (546, 9676), (547, 9679), (548, 9682),

Gene: Phelipe\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Phelipe\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: PherrisBueller\_12 Start: 6899, Stop: 8587, Start Num: 48

Candidate Starts for PherrisBueller\_12:

(Start: 48 @6899 has 363 MA's), (Start: 153 @7079 has 2 MA's), (175, 7163), (180, 7199), (217, 7349), (244, 7457), (256, 7547), (261, 7571), (268, 7598), (277, 7646), (315, 7802), (329, 7862), (393, 8096), (395, 8108), (411, 8150), (416, 8171), (423, 8198), (455, 8306), (490, 8396), (514, 8501),

Gene: Phettuccine\_6 Start: 2402, Stop: 4048, Start Num: 47

Candidate Starts for Phettuccine\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: Phighter1804\_11 Start: 6860, Stop: 8557, Start Num: 48

Candidate Starts for Phighter1804\_11:

(Start: 48 @6860 has 363 MA's), (Start: 68 @6884 has 1 MA's), (Start: 126 @7007 has 2 MA's), (167, 7097), (175, 7130), (194, 7229), (216, 7313), (217, 7316), (225, 7355), (244, 7424), (247, 7448), (256, 7514), (275, 7604), (315, 7769), (337, 7856), (342, 7889), (365, 7955), (382, 8027), (383, 8030), (389, 8054), (408, 8105), (411, 8120), (420, 8159), (425, 8180), (455, 8276), (529, 8513), (547, 8543), (548,



8546),

Gene: Phillis\_9 Start: 5664, Stop: 7418, Start Num: 28

Candidate Starts for Phillis\_9:

(Start: 28 @5664 has 30 MA's), (44, 5706), (67, 5745), (123, 5853), (185, 6060), (206, 6138), (238, 6261), (243, 6288), (256, 6369), (284, 6498), (322, 6663), (331, 6696), (366, 6816), (382, 6888), (383, 6891), (416, 7002), (425, 7041), (455, 7137), (496, 7242), (517, 7341), (529, 7374), (548, 7407), (550, 7413),

Gene: PhinkBoden\_30 Start: 9066, Stop: 10814, Start Num: 88

Candidate Starts for PhinkBoden\_30:

(Start: 88 @9066 has 21 MA's), (106, 9096), (160, 9225), (190, 9411), (197, 9450), (205, 9474), (210, 9504), (216, 9522), (221, 9549), (228, 9579), (267, 9771), (270, 9789), (310, 9951), (327, 9999), (332, 10014), (373, 10197), (375, 10203), (389, 10287), (413, 10374), (421, 10407), (452, 10521), (465, 10557), (472, 10581), (481, 10596), (533, 10770), (535, 10776),

Gene: PhishRPhriends\_12 Start: 6220, Stop: 7920, Start Num: 51

Candidate Starts for PhishRPhriends\_12:

(Start: 51 @6220 has 139 MA's), (Start: 81 @6268 has 4 MA's), (Start: 119 @6340 has 1 MA's), (149, 6403), (217, 6682), (256, 6880), (275, 6970), (294, 7033), (329, 7195), (383, 7393), (389, 7417), (390, 7420), (411, 7483), (414, 7495), (416, 7504), (420, 7522), (425, 7543), (455, 7639), (472, 7693), (490, 7729), (529, 7876), (547, 7906), (548, 7909),

Gene: Phives\_3 Start: 1606, Stop: 3312, Start Num: 71

Candidate Starts for Phives\_3:

(Start: 71 @1606 has 40 MA's), (217, 2035), (228, 2083), (249, 2173), (273, 2305), (284, 2347), (350, 2599), (383, 2722), (442, 2941), (455, 2977), (460, 2992), (496, 3127), (517, 3223), (519, 3235),

Gene: Phlei\_8 Start: 7957, Stop: 9663, Start Num: 82

Candidate Starts for Phlei\_8:

(Start: 49 @7912 has 222 MA's), (82, 7957), (143, 8119), (146, 8137), (162, 8188), (175, 8236), (185, 8299), (204, 8368), (206, 8377), (217, 8422), (244, 8533), (247, 8557), (248, 8560), (256, 8623), (258, 8632), (261, 8647), (277, 8722), (295, 8779), (299, 8815), (304, 8839), (326, 8923), (337, 8965), (360, 9052), (365, 9064), (383, 9139), (386, 9151), (389, 9163), (390, 9166), (411, 9226), (420, 9265), (423, 9274), (425, 9286), (455, 9382), (478, 9451), (514, 9577), (517, 9586), (518, 9589), (529, 9619), (546, 9646), (547, 9649),

Gene: Phlorence\_9 Start: 6269, Stop: 8047, Start Num: 26

Candidate Starts for Phlorence\_9:

(Start: 26 @6269 has 19 MA's), (Start: 28 @6296 has 30 MA's), (60, 6365), (82, 6404), (121, 6479), (123, 6485), (171, 6617), (185, 6692), (186, 6695), (219, 6830), (231, 6869), (238, 6893), (256, 7001), (266, 7046), (281, 7124), (284, 7130), (322, 7295), (331, 7328), (337, 7349), (383, 7523), (389, 7547), (390, 7550), (411, 7610), (414, 7622), (420, 7649), (425, 7670), (450, 7754), (455, 7766), (529, 8003), (548, 8036), (550, 8042),

Gene: Phoebe\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for Phoebe\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: Phonnegut\_13 Start: 8163, Stop: 9929, Start Num: 66

Candidate Starts for Phonnegut\_13:

(Start: 49 @8142 has 222 MA's), (Start: 62 @8157 has 20 MA's), (Start: 66 @8163 has 5 MA's), (123, 8274), (146, 8373), (185, 8535), (204, 8607), (217, 8661), (225, 8700), (244, 8772), (256, 8862), (261, 8886), (289, 9003), (295, 9018), (316, 9126), (336, 9201), (342, 9237), (357, 9297), (386, 9417), (392, 9438), (408, 9477), (420, 9531), (421, 9534), (425, 9552), (440, 9606), (450, 9636), (455, 9648), (490, 9738), (497, 9756), (529, 9885), (546, 9912), (547, 9915),

Gene: Phontbonne\_11 Start: 6828, Stop: 8525, Start Num: 48

Candidate Starts for Phontbonne\_11:

(12, 6651), (15, 6669), (Start: 17 @6699 has 1 MA's), (Start: 48 @6828 has 363 MA's), (Start: 68 @6852 has 1 MA's), (Start: 126 @6975 has 2 MA's), (167, 7065), (175, 7098), (194, 7197), (216, 7281), (217, 7284), (225, 7323), (244, 7392), (247, 7416), (256, 7482), (275, 7572), (315, 7737), (337, 7824), (342, 7857), (365, 7923), (382, 7995), (383, 7998), (389, 8022), (408, 8073), (411, 8088), (420, 8127), (425, 8148), (455, 8244), (529, 8481), (547, 8511), (548, 8514),

Gene: Phoxy\_13 Start: 7041, Stop: 8741, Start Num: 51

Candidate Starts for Phoxy\_13:

(Start: 51 @7041 has 139 MA's), (Start: 81 @7089 has 4 MA's), (149, 7224), (194, 7416), (217, 7503), (256, 7701), (275, 7791), (294, 7854), (329, 8016), (383, 8214), (389, 8238), (390, 8241), (411, 8304), (416, 8325), (425, 8364), (455, 8460), (472, 8514), (490, 8550), (529, 8697), (547, 8727), (548, 8730),

Gene: Phrank15\_2 Start: 597, Stop: 2330, Start Num: 87

Candidate Starts for Phrank15\_2:

(Start: 87 @597 has 2 MA's), (Start: 127 @690 has 2 MA's), (128, 693), (162, 783), (166, 807), (172, 843), (173, 846), (184, 906), (194, 1014), (217, 1101), (220, 1119), (240, 1188), (254, 1278), (261, 1311), (263, 1320), (269, 1341), (276, 1377), (322, 1512), (324, 1518), (334, 1557), (346, 1626), (376, 1692), (377, 1704), (385, 1740), (398, 1788), (406, 1824), (420, 1881), (430, 1944), (449, 2028), (458, 2052), (472, 2094), (496, 2151), (497, 2154), (499, 2166), (514, 2235), (528, 2277), (541, 2304), (546, 2316),

Gene: Phrankenstein\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Phrankenstein\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Phranny\_14 Start: 7027, Stop: 8727, Start Num: 51

Candidate Starts for Phranny\_14:

(Start: 51 @7027 has 139 MA's), (Start: 81 @7075 has 4 MA's), (149, 7210), (217, 7489), (256, 7687), (275, 7777), (294, 7840), (329, 8002), (383, 8200), (389, 8224), (390, 8227), (411, 8290), (414, 8302), (416, 8311), (420, 8329), (425, 8350), (455, 8446), (472, 8500), (490, 8536), (529, 8683), (547, 8713), (548, 8716),

Gene: PhrostyMug\_11 Start: 7045, Stop: 8733, Start Num: 48

Candidate Starts for PhrostyMug\_11:

(Start: 48 @7045 has 363 MA's), (175, 7309), (176, 7333), (217, 7495), (223, 7528), (244, 7603), (256, 7693), (261, 7717), (268, 7744), (277, 7792), (315, 7948), (329, 8008), (390, 8233), (393, 8242), (395, 8254), (411, 8296), (416, 8317), (423, 8344), (455, 8452), (490, 8542), (514, 8647),

Gene: PickleBack\_9 Start: 5979, Stop: 7757, Start Num: 26

Candidate Starts for PickleBack\_9:

(Start: 26 @5979 has 19 MA's), (Start: 28 @6006 has 30 MA's), (60, 6075), (82, 6114), (121, 6189), (123, 6195), (171, 6327), (185, 6402), (186, 6405), (219, 6540), (231, 6579), (238, 6603), (256, 6711),

(266, 6756), (281, 6834), (284, 6840), (322, 7005), (331, 7038), (337, 7059), (383, 7233), (389, 7257), (390, 7260), (411, 7320), (414, 7332), (420, 7359), (425, 7380), (450, 7464), (455, 7476), (529, 7713), (548, 7746), (550, 7752),

Gene: PinkPlastic\_10 Start: 6814, Stop: 8502, Start Num: 48

Candidate Starts for PinkPlastic\_10:

(Start: 48 @6814 has 363 MA's), (Start: 153 @6994 has 2 MA's), (175, 7078), (180, 7114), (185, 7141), (209, 7237), (217, 7264), (223, 7297), (244, 7372), (256, 7462), (261, 7486), (277, 7561), (297, 7630), (315, 7717), (316, 7726), (329, 7777), (393, 8011), (395, 8023), (411, 8065), (416, 8086), (423, 8113), (455, 8221), (490, 8311), (514, 8416),

Gene: Pinto\_13 Start: 7121, Stop: 8809, Start Num: 48

Candidate Starts for Pinto\_13:

(Start: 48 @7121 has 363 MA's), (175, 7385), (176, 7409), (217, 7571), (223, 7604), (244, 7679), (256, 7769), (261, 7793), (268, 7820), (277, 7868), (315, 8024), (329, 8084), (390, 8309), (393, 8318), (395, 8330), (411, 8372), (416, 8393), (423, 8420), (455, 8528), (490, 8618), (514, 8723),

Gene: Pioneer\_13 Start: 8157, Stop: 9929, Start Num: 62

Candidate Starts for Pioneer\_13:

(Start: 49 @8142 has 222 MA's), (Start: 62 @8157 has 20 MA's), (Start: 66 @8163 has 5 MA's), (123, 8274), (146, 8373), (185, 8535), (204, 8607), (217, 8661), (225, 8700), (244, 8772), (256, 8862), (261, 8886), (289, 9003), (295, 9018), (316, 9126), (336, 9201), (342, 9237), (357, 9297), (386, 9417), (392, 9438), (408, 9477), (420, 9531), (421, 9534), (425, 9552), (440, 9606), (450, 9636), (455, 9648), (490, 9738), (497, 9756), (529, 9885), (546, 9912), (547, 9915),

Gene: Pipcraft\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Pipcraft\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Pippin\_13 Start: 7322, Stop: 9010, Start Num: 55

Candidate Starts for Pippin\_13:

(Start: 55 @7322 has 24 MA's), (149, 7493), (Start: 153 @7502 has 2 MA's), (175, 7586), (177, 7613), (180, 7622), (217, 7772), (223, 7805), (244, 7880), (256, 7970), (261, 7994), (268, 8021), (277, 8069), (315, 8225), (329, 8285), (390, 8510), (393, 8519), (395, 8531), (411, 8573), (416, 8594), (423, 8621), (455, 8729), (490, 8819), (514, 8924),

Gene: Piro94\_13 Start: 7941, Stop: 9728, Start Num: 49

Candidate Starts for Piro94\_13:

(10, 7755), (24, 7857), (Start: 49 @7941 has 222 MA's), (110, 8049), (120, 8070), (146, 8178), (217, 8463), (244, 8571), (256, 8661), (261, 8685), (289, 8802), (295, 8817), (383, 9204), (420, 9330), (425, 9351), (450, 9435), (455, 9447), (529, 9684), (546, 9711), (547, 9714), (548, 9717), (549, 9720),

Gene: Pistachio\_12 Start: 6043, Stop: 7740, Start Num: 48

Candidate Starts for Pistachio\_12:

(Start: 48 @6043 has 363 MA's), (Start: 68 @6067 has 1 MA's), (95, 6115), (175, 6313), (185, 6376), (213, 6487), (217, 6499), (225, 6538), (230, 6550), (244, 6607), (247, 6631), (256, 6697), (258, 6706), (275, 6787), (281, 6814), (315, 6952), (337, 7039), (342, 7072), (365, 7138), (383, 7213), (389, 7237), (390, 7240), (392, 7246), (394, 7255), (408, 7288), (411, 7303), (425, 7363), (455, 7459), (469, 7504), (472, 7513), (518, 7666), (529, 7696), (547, 7726), (548, 7729),

Gene: Pita2\_13 Start: 7479, Stop: 9167, Start Num: 48

Candidate Starts for Pita2\_13:

(Start: 48 @7479 has 363 MA's), (Start: 153 @7659 has 2 MA's), (175, 7743), (180, 7779), (185, 7806), (217, 7929), (244, 8037), (256, 8127), (261, 8151), (268, 8178), (277, 8226), (315, 8382), (329, 8442), (393, 8676), (395, 8688), (411, 8730), (416, 8751), (423, 8778), (455, 8886), (490, 8976), (514, 9081),

Gene: Pixelle\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Pixelle\_2:

(Start: 71 @533 has 40 MA's), (109, 599), (203, 905), (217, 962), (220, 983), (228, 1010), (249, 1100), (258, 1154), (267, 1199), (284, 1274), (350, 1526), (383, 1649), (434, 1829), (455, 1904), (460, 1919), (496, 2054), (503, 2090), (517, 2150), (519, 2162), (534, 2192),

Gene: Pmask\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for Pmask\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (294, 8390), (295, 8393), (319, 8504), (360, 8666), (383, 8753), (386, 8765), (389, 8777), (408, 8825), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: Pocahontas\_12 Start: 7041, Stop: 8738, Start Num: 48

Candidate Starts for Pocahontas\_12:

(Start: 48 @7041 has 363 MA's), (Start: 68 @7065 has 1 MA's), (175, 7311), (213, 7485), (217, 7497), (225, 7536), (230, 7548), (244, 7605), (247, 7629), (256, 7695), (258, 7704), (275, 7785), (284, 7818), (315, 7950), (319, 7962), (331, 8016), (337, 8037), (342, 8070), (360, 8124), (383, 8211), (389, 8235), (390, 8238), (392, 8244), (394, 8253), (411, 8301), (420, 8340), (421, 8343), (425, 8361), (455, 8457), (472, 8511), (518, 8664), (529, 8694), (547, 8724), (548, 8727),

Gene: Poise\_35 Start: 10438, Stop: 12180, Start Num: 96

Candidate Starts for Poise\_35:

(Start: 96 @10438 has 69 MA's), (149, 10555), (162, 10600), (170, 10666), (172, 10681), (176, 10714), (177, 10717), (181, 10732), (186, 10756), (187, 10759), (194, 10789), (200, 10810), (202, 10828), (205, 10837), (212, 10873), (217, 10888), (227, 10933), (242, 10975), (246, 11014), (249, 11026), (251, 11047), (262, 11098), (268, 11119), (324, 11341), (346, 11446), (347, 11455), (366, 11488), (375, 11509), (376, 11512), (379, 11539), (383, 11569), (386, 11581), (390, 11596), (393, 11605), (394, 11611), (407, 11653), (409, 11662), (412, 11677), (416, 11692), (434, 11752), (440, 11791), (451, 11824), (463, 11854), (464, 11857), (485, 11941), (496, 11995), (499, 12010), (506, 12037), (517, 12091), (546, 12163), (547, 12166),

Gene: Pollux\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Pollux\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (131, 650), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (233, 1052), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (298, 1376), (299, 1382), (302, 1400), (308, 1415), (365, 1589), (376, 1616), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (547, 2270), (548, 2273),

Gene: Polymorphads\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Polymorphads\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217,

7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Pomar16\_15 Start: 7416, Stop: 9203, Start Num: 49

Candidate Starts for Pomar16\_15:

(14, 7257), (16, 7284), (32, 7380), (Start: 49 @7416 has 222 MA's), (110, 7524), (120, 7545), (137, 7611), (146, 7653), (171, 7740), (216, 7935), (217, 7938), (244, 8046), (256, 8136), (261, 8160), (284, 8259), (294, 8289), (295, 8292), (319, 8403), (362, 8592), (408, 8751), (411, 8766), (414, 8778), (420, 8805), (425, 8826), (450, 8910), (455, 8922), (490, 9012), (529, 9159), (546, 9186), (547, 9189),

Gene: Pons\_4 Start: 897, Stop: 2573, Start Num: 96

Candidate Starts for Pons\_4:

(Start: 96 @897 has 69 MA's), (Start: 119 @948 has 1 MA's), (125, 969), (150, 1014), (184, 1158), (199, 1221), (206, 1254), (214, 1290), (217, 1299), (218, 1302), (223, 1335), (227, 1350), (249, 1449), (251, 1470), (259, 1506), (263, 1527), (271, 1563), (286, 1629), (299, 1683), (341, 1863), (346, 1896), (375, 1962), (376, 1965), (384, 2028), (386, 2034), (434, 2199), (440, 2232), (465, 2301), (467, 2307), (496, 2379), (497, 2382), (516, 2472), (518, 2478), (523, 2499), (547, 2559), (548, 2562),

Gene: Poompha\_10 Start: 4781, Stop: 6472, Start Num: 48

Candidate Starts for Poompha\_10:

(Start: 48 @4781 has 363 MA's), (Start: 68 @4805 has 1 MA's), (159, 4997), (171, 5048), (175, 5060), (185, 5123), (206, 5201), (217, 5246), (225, 5285), (242, 5333), (244, 5354), (247, 5378), (256, 5429), (284, 5552), (320, 5699), (333, 5759), (342, 5804), (383, 5945), (397, 5999), (411, 6035), (420, 6074), (425, 6095), (455, 6191), (478, 6260), (529, 6428), (547, 6458), (548, 6461),

Gene: Popcicle\_12 Start: 7041, Stop: 8738, Start Num: 48

Candidate Starts for Popcicle\_12:

(Start: 48 @7041 has 363 MA's), (Start: 68 @7065 has 1 MA's), (175, 7311), (213, 7485), (217, 7497), (225, 7536), (230, 7548), (244, 7605), (247, 7629), (256, 7695), (258, 7704), (275, 7785), (284, 7818), (315, 7950), (319, 7962), (331, 8016), (337, 8037), (342, 8070), (360, 8124), (383, 8211), (389, 8235), (390, 8238), (392, 8244), (394, 8253), (411, 8301), (420, 8340), (421, 8343), (425, 8361), (455, 8457), (472, 8511), (518, 8664), (529, 8694), (547, 8724), (548, 8727),

Gene: Posh\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Posh\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (249, 1130), (250, 1148), (256, 1175), (272, 1259), (285, 1310), (288, 1331), (306, 1412), (337, 1490), (376, 1616), (386, 1670), (390, 1685), (392, 1691), (394, 1700), (411, 1757), (414, 1769), (442, 1907), (450, 1943), (455, 1955), (457, 1961), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (535, 2240), (547, 2270), (548, 2273),

Gene: PotPie\_4 Start: 1762, Stop: 3438, Start Num: 96

Candidate Starts for PotPie\_4:

(Start: 96 @1762 has 69 MA's), (Start: 119 @1813 has 1 MA's), (125, 1834), (150, 1879), (162, 1921), (171, 1957), (184, 2023), (199, 2086), (206, 2119), (214, 2155), (217, 2164), (218, 2167), (227, 2215), (230, 2227), (249, 2314), (286, 2494), (299, 2548), (341, 2728), (346, 2761), (375, 2827), (384, 2893), (386, 2899), (411, 2983), (434, 3064), (440, 3097), (465, 3166), (496, 3244), (518, 3343), (523, 3364), (527, 3370), (547, 3424), (548, 3427),

Gene: PotatoSplit\_14 Start: 6957, Stop: 8657, Start Num: 51

Candidate Starts for PotatoSplit\_14:

(Start: 51 @6957 has 139 MA's), (Start: 81 @7005 has 4 MA's), (149, 7140), (194, 7332), (217, 7419), (256, 7617), (275, 7707), (294, 7770), (329, 7932), (383, 8130), (389, 8154), (390, 8157), (411, 8220), (416, 8241), (425, 8280), (455, 8376), (472, 8430), (490, 8466), (529, 8613), (547, 8643), (548, 8646),

Gene: Poushou\_3 Start: 1236, Stop: 2873, Start Num: 81

Candidate Starts for Poushou\_3:

(Start: 81 @1236 has 4 MA's), (97, 1260), (Start: 127 @1338 has 2 MA's), (159, 1404), (180, 1503), (184, 1521), (185, 1530), (187, 1536), (197, 1584), (199, 1590), (202, 1599), (211, 1641), (213, 1647), (214, 1650), (217, 1659), (235, 1737), (256, 1854), (259, 1866), (260, 1869), (261, 1878), (275, 1941), (295, 2013), (299, 2046), (328, 2124), (352, 2235), (376, 2280), (410, 2412), (411, 2418), (445, 2550), (455, 2589), (490, 2679), (498, 2706), (516, 2787), (519, 2802), (520, 2805), (522, 2814), (547, 2862),

Gene: Power\_12 Start: 7386, Stop: 9173, Start Num: 49

Candidate Starts for Power\_12:

(Start: 49 @7386 has 222 MA's), (110, 7494), (120, 7515), (146, 7623), (156, 7647), (180, 7758), (185, 7785), (216, 7905), (217, 7908), (244, 8016), (256, 8106), (261, 8130), (289, 8247), (295, 8262), (362, 8562), (414, 8748), (420, 8775), (425, 8796), (455, 8892), (529, 9129), (546, 9156), (547, 9159),

Gene: Powerpuff\_2 Start: 533, Stop: 2290, Start Num: 71

Candidate Starts for Powerpuff\_2:

(7, 242), (9, 251), (Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1700), (455, 1955), (460, 1970), (478, 2024), (496, 2105), (513, 2189), (519, 2213),

Gene: Priamo\_15 Start: 7551, Stop: 9305, Start Num: 49

Candidate Starts for Priamo\_15:

(Start: 49 @7551 has 222 MA's), (146, 7782), (162, 7833), (171, 7869), (185, 7944), (217, 8067), (225, 8106), (244, 8175), (247, 8199), (248, 8202), (256, 8265), (261, 8289), (284, 8388), (285, 8391), (294, 8418), (295, 8421), (365, 8706), (386, 8793), (389, 8805), (411, 8868), (420, 8907), (425, 8928), (450, 9012), (455, 9024), (529, 9261), (546, 9288), (547, 9291),

Gene: Pringar\_35 Start: 10750, Stop: 12492, Start Num: 96

Candidate Starts for Pringar\_35:

(Start: 96 @10750 has 69 MA's), (149, 10867), (162, 10912), (170, 10978), (172, 10993), (176, 11026), (177, 11029), (181, 11044), (186, 11068), (187, 11071), (194, 11101), (200, 11122), (202, 11140), (205, 11149), (212, 11185), (217, 11200), (227, 11245), (242, 11287), (246, 11326), (249, 11338), (251, 11359), (262, 11410), (268, 11431), (324, 11653), (346, 11758), (347, 11767), (366, 11800), (375, 11821), (376, 11824), (379, 11851), (383, 11881), (386, 11893), (390, 11908), (393, 11917), (394, 11923), (407, 11965), (409, 11974), (412, 11989), (416, 12004), (434, 12064), (440, 12103), (451, 12136), (463, 12166), (464, 12169), (485, 12253), (496, 12307), (499, 12322), (506, 12349), (517, 12403), (546, 12475), (547, 12478),

Gene: Priya\_13 Start: 8140, Stop: 9927, Start Num: 49

Candidate Starts for Priya\_13:

(Start: 49 @8140 has 222 MA's), (Start: 62 @8155 has 20 MA's), (Start: 66 @8161 has 5 MA's), (123, 8272), (146, 8371), (185, 8533), (204, 8605), (217, 8659), (225, 8698), (244, 8770), (256, 8860), (261, 8884), (289, 9001), (295, 9016), (316, 9124), (336, 9199), (342, 9235), (357, 9295), (386, 9415), (392, 9436), (408, 9475), (420, 9529), (421, 9532), (425, 9550), (440, 9604), (450, 9634), (455, 9646), (490, 9736), (497, 9754), (529, 9883), (546, 9910), (547, 9913),

Gene: ProMouse\_10 Start: 7442, Stop: 9130, Start Num: 48

Candidate Starts for ProMouse\_10:

(Start: 48 @7442 has 363 MA's), (Start: 153 @7622 has 2 MA's), (175, 7706), (177, 7733), (180, 7742), (185, 7769), (217, 7892), (244, 8000), (256, 8090), (261, 8114), (277, 8189), (297, 8258), (315, 8345), (316, 8354), (328, 8402), (329, 8405), (393, 8639), (395, 8651), (411, 8693), (416, 8714), (423, 8741), (455, 8849), (490, 8939), (514, 9044),

Gene: Provolone\_7 Start: 2219, Stop: 3874, Start Num: 45

Candidate Starts for Provolone\_7:

(Start: 45 @2219 has 1 MA's), (Start: 47 @2228 has 87 MA's), (Start: 48 @2231 has 363 MA's), (Start: 62 @2246 has 20 MA's), (Start: 126 @2378 has 2 MA's), (162, 2450), (171, 2486), (179, 2531), (202, 2624), (206, 2639), (211, 2666), (214, 2675), (218, 2687), (242, 2774), (248, 2822), (256, 2870), (278, 2969), (289, 3008), (326, 3122), (331, 3143), (340, 3182), (365, 3263), (383, 3332), (384, 3338), (388, 3353), (408, 3416), (441, 3548), (455, 3590), (465, 3617), (469, 3635), (491, 3683), (517, 3791),

Gene: PsychoKiller\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for PsychoKiller\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (148, 1224), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: Puginator\_8 Start: 2746, Stop: 4392, Start Num: 47

Candidate Starts for Puginator\_8:

(Start: 47 @2746 has 87 MA's), (Start: 126 @2896 has 2 MA's), (175, 3016), (202, 3142), (211, 3184), (213, 3190), (218, 3205), (242, 3292), (251, 3364), (256, 3388), (278, 3487), (286, 3523), (295, 3541), (332, 3664), (340, 3700), (383, 3850), (388, 3871), (414, 3961), (420, 3988), (442, 4069), (455, 4108), (463, 4129), (469, 4153), (496, 4213), (517, 4309),

Gene: Pukovnik\_14 Start: 9110, Stop: 10888, Start Num: 49

Candidate Starts for Pukovnik\_14:

(Start: 49 @9110 has 222 MA's), (Start: 66 @9128 has 5 MA's), (123, 9239), (Start: 126 @9251 has 2 MA's), (136, 9293), (139, 9305), (140, 9314), (146, 9338), (171, 9425), (216, 9620), (217, 9623), (225, 9662), (244, 9731), (256, 9821), (261, 9845), (295, 9977), (362, 10277), (383, 10364), (408, 10436), (414, 10463), (420, 10490), (421, 10493), (425, 10511), (455, 10607), (529, 10844), (547, 10874),

Gene: Pumbaa\_11 Start: 6859, Stop: 8556, Start Num: 48

Candidate Starts for Pumbaa\_11:

(Start: 48 @6859 has 363 MA's), (Start: 68 @6883 has 1 MA's), (Start: 126 @7006 has 2 MA's), (167, 7096), (175, 7129), (194, 7228), (216, 7312), (217, 7315), (225, 7354), (244, 7423), (247, 7447), (256, 7513), (275, 7603), (315, 7768), (337, 7855), (342, 7888), (365, 7954), (382, 8026), (383, 8029), (389, 8053), (408, 8104), (411, 8119), (420, 8158), (425, 8179), (455, 8275), (529, 8512), (547, 8542), (548, 8545),

Gene: Pumpkins\_2 Start: 547, Stop: 2244, Start Num: 71

Candidate Starts for Pumpkins\_2:

(Start: 71 @547 has 40 MA's), (Start: 119 @634 has 1 MA's), (203, 919), (217, 976), (225, 1018), (249, 1114), (258, 1168), (284, 1288), (303, 1378), (383, 1663), (414, 1774), (434, 1843), (455, 1918), (460, 1933), (496, 2059), (513, 2143), (519, 2167),

Gene: Puppy\_12 Start: 6115, Stop: 7812, Start Num: 48

Candidate Starts for Puppy\_12:

(Start: 48 @6115 has 363 MA's), (Start: 68 @6139 has 1 MA's), (95, 6187), (175, 6385), (185, 6448), (213, 6559), (217, 6571), (225, 6610), (230, 6622), (244, 6679), (247, 6703), (256, 6769), (258, 6778), (275, 6859), (281, 6886), (315, 7024), (337, 7111), (342, 7144), (365, 7210), (383, 7285), (389, 7309), (390, 7312), (392, 7318), (394, 7327), (408, 7360), (411, 7375), (425, 7435), (455, 7531), (469, 7576), (472, 7585), (518, 7738), (529, 7768), (547, 7798), (548, 7801),

Gene: PurpleHaze\_13 Start: 7028, Stop: 8728, Start Num: 51

Candidate Starts for PurpleHaze\_13:

(Start: 51 @7028 has 139 MA's), (Start: 81 @7076 has 4 MA's), (Start: 119 @7148 has 1 MA's), (149, 7211), (217, 7490), (256, 7688), (275, 7778), (294, 7841), (329, 8003), (383, 8201), (389, 8225), (390, 8228), (411, 8291), (414, 8303), (416, 8312), (420, 8330), (425, 8351), (455, 8447), (472, 8501), (490, 8537), (529, 8684), (547, 8714), (548, 8717),

Gene: Pytheas\_2 Start: 485, Stop: 2284, Start Num: 51

Candidate Starts for Pytheas\_2:

(Start: 51 @485 has 139 MA's), (124, 623), (169, 782), (171, 797), (188, 881), (195, 911), (199, 923), (202, 932), (210, 971), (217, 992), (241, 1076), (250, 1148), (258, 1184), (265, 1220), (285, 1310), (288, 1331), (299, 1382), (308, 1415), (365, 1589), (376, 1616), (383, 1658), (390, 1685), (392, 1691), (411, 1757), (414, 1769), (420, 1796), (442, 1907), (450, 1943), (455, 1955), (465, 1979), (472, 2006), (480, 2030), (495, 2093), (503, 2135), (516, 2192), (519, 2207), (525, 2222), (527, 2225), (535, 2240), (547, 2270), (548, 2273),

Gene: QTRlifeCrisis\_11 Start: 7447, Stop: 9135, Start Num: 48

Candidate Starts for QTRlifeCrisis\_11:

(Start: 48 @7447 has 363 MA's), (175, 7711), (180, 7747), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (277, 8194), (297, 8263), (315, 8350), (329, 8410), (390, 8635), (393, 8644), (395, 8656), (411, 8698), (416, 8719), (423, 8746), (455, 8854), (490, 8944), (514, 9049),

Gene: Qobbit\_13 Start: 8160, Stop: 9926, Start Num: 66

Candidate Starts for Qobbit\_13:

(Start: 49 @8139 has 222 MA's), (Start: 62 @8154 has 20 MA's), (Start: 66 @8160 has 5 MA's), (123, 8271), (146, 8370), (185, 8532), (204, 8604), (217, 8658), (225, 8697), (244, 8769), (256, 8859), (261, 8883), (289, 9000), (295, 9015), (316, 9123), (336, 9198), (342, 9234), (357, 9294), (386, 9414), (392, 9435), (408, 9474), (420, 9528), (421, 9531), (425, 9549), (440, 9603), (450, 9633), (455, 9645), (490, 9735), (497, 9753), (529, 9882), (546, 9909), (547, 9912),

Gene: Quasar\_4 Start: 1734, Stop: 3413, Start Num: 96

Candidate Starts for Quasar\_4:

(Start: 96 @1734 has 69 MA's), (Start: 119 @1785 has 1 MA's), (125, 1806), (150, 1851), (171, 1932), (184, 1998), (185, 2007), (202, 2079), (206, 2094), (214, 2130), (217, 2139), (227, 2190), (249, 2289), (258, 2343), (267, 2379), (299, 2523), (309, 2559), (317, 2598), (324, 2631), (337, 2679), (342, 2712), (346, 2736), (362, 2769), (375, 2802), (382, 2859), (384, 2868), (410, 2952), (434, 3039), (463, 3135), (492, 3207), (496, 3219), (523, 3339), (547, 3399), (548, 3402),

Gene: QueenB2\_12 Start: 7454, Stop: 9241, Start Num: 49

Candidate Starts for QueenB2\_12:

(Start: 49 @7454 has 222 MA's), (110, 7562), (120, 7583), (146, 7691), (185, 7853), (217, 7976), (244, 8084), (256, 8174), (261, 8198), (289, 8315), (295, 8330), (362, 8630), (414, 8816), (420, 8843), (425, 8864), (455, 8960), (529, 9197), (546, 9224), (547, 9227),

Gene: QueenBeesly\_12 Start: 7386, Stop: 9173, Start Num: 49

Candidate Starts for QueenBeesly\_12:



(Start: 49 @7386 has 222 MA's), (110, 7494), (120, 7515), (146, 7623), (185, 7785), (216, 7905), (217, 7908), (244, 8016), (256, 8106), (261, 8130), (289, 8247), (295, 8262), (362, 8562), (414, 8748), (420, 8775), (425, 8796), (455, 8892), (529, 9129), (546, 9156), (547, 9159),

Gene: QuinnKiro\_11 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for QuinnKiro\_11:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Quokka\_10 Start: 6379, Stop: 8160, Start Num: 49

Candidate Starts for Quokka\_10:

(Start: 49 @6379 has 222 MA's), (Start: 126 @6523 has 2 MA's), (137, 6568), (146, 6610), (156, 6634), (171, 6697), (181, 6751), (216, 6892), (217, 6895), (225, 6934), (244, 7003), (256, 7093), (261, 7117), (294, 7246), (295, 7249), (355, 7522), (420, 7762), (425, 7783), (450, 7867), (455, 7879), (529, 8116), (546, 8143), (547, 8146), (548, 8149),

Gene: R4\_6 Start: 2205, Stop: 3866, Start Num: 47

Candidate Starts for R4\_6:

(Start: 47 @2205 has 87 MA's), (159, 2427), (179, 2523), (202, 2616), (206, 2631), (211, 2658), (218, 2679), (242, 2766), (256, 2862), (263, 2895), (275, 2949), (284, 2982), (291, 3006), (304, 3075), (332, 3138), (333, 3144), (340, 3174), (366, 3258), (382, 3321), (383, 3324), (386, 3336), (388, 3345), (391, 3354), (408, 3408), (414, 3435), (455, 3582), (463, 3603), (469, 3627), (496, 3687), (517, 3783), (550, 3861),

Gene: RER2\_1 Start: 28, Stop: 1710, Start Num: 51

Candidate Starts for RER2\_1:

(Start: 51 @28 has 139 MA's), (Start: 153 @214 has 2 MA's), (171, 286), (175, 298), (176, 322), (180, 334), (217, 487), (219, 502), (238, 562), (256, 670), (268, 727), (313, 925), (319, 943), (331, 997), (376, 1141), (382, 1180), (383, 1183), (392, 1216), (414, 1285), (455, 1429), (469, 1474), (496, 1534), (517, 1633), (529, 1666), (546, 1693), (547, 1696), (548, 1699),

Gene: Rachaly\_15 Start: 9139, Stop: 10920, Start Num: 49

Candidate Starts for Rachaly\_15:

(18, 9019), (35, 9112), (Start: 49 @9139 has 222 MA's), (123, 9271), (140, 9346), (146, 9370), (162, 9421), (216, 9652), (217, 9655), (225, 9694), (244, 9763), (256, 9853), (261, 9877), (284, 9976), (294, 10006), (295, 10009), (408, 10468), (411, 10483), (414, 10495), (420, 10522), (425, 10543), (455, 10639), (529, 10876), (546, 10903), (547, 10906),

Gene: Raela\_35 Start: 10993, Stop: 12735, Start Num: 96

Candidate Starts for Raela\_35:

(Start: 96 @10993 has 69 MA's), (149, 11110), (162, 11155), (170, 11221), (172, 11236), (176, 11269), (177, 11272), (181, 11287), (186, 11311), (187, 11314), (194, 11344), (200, 11365), (202, 11383), (205, 11392), (212, 11428), (217, 11443), (227, 11488), (242, 11530), (246, 11569), (249, 11581), (251, 11602), (262, 11653), (268, 11674), (324, 11896), (346, 12001), (347, 12010), (366, 12043), (375, 12064), (376, 12067), (379, 12094), (383, 12124), (386, 12136), (390, 12151), (393, 12160), (394, 12166), (407, 12208), (409, 12217), (412, 12232), (416, 12247), (434, 12307), (440, 12346), (451, 12379), (463, 12409), (464, 12412), (485, 12496), (496, 12550), (499, 12565), (506, 12592), (517, 12646), (546, 12718), (547, 12721),

Gene: Rahalelujah\_11 Start: 6185, Stop: 7972, Start Num: 49

Candidate Starts for Rahalelujah\_11:

(Start: 49 @6185 has 222 MA's), (123, 6314), (146, 6413), (185, 6575), (192, 6608), (204, 6647), (217, 6701), (225, 6740), (244, 6812), (256, 6902), (261, 6926), (289, 7043), (295, 7058), (316, 7166), (336, 7241), (358, 7340), (367, 7373), (386, 7457), (392, 7478), (408, 7520), (411, 7535), (414, 7547), (420, 7574), (425, 7595), (440, 7649), (455, 7691), (490, 7781), (497, 7799), (509, 7850), (529, 7928), (546, 7955), (547, 7958),

Gene: Rajelicia\_11 Start: 6954, Stop: 8642, Start Num: 48

Candidate Starts for Rajelicia\_11:

(Start: 48 @6954 has 363 MA's), (175, 7218), (176, 7242), (217, 7404), (223, 7437), (244, 7512), (256, 7602), (261, 7626), (268, 7653), (277, 7701), (312, 7845), (315, 7857), (329, 7917), (390, 8142), (393, 8151), (395, 8163), (411, 8205), (416, 8226), (423, 8253), (455, 8361), (490, 8451), (514, 8556),

Gene: Rana\_6 Start: 2374, Stop: 4020, Start Num: 47

Candidate Starts for Rana\_6:

(Start: 47 @2374 has 87 MA's), (Start: 62 @2392 has 20 MA's), (162, 2596), (171, 2632), (211, 2812), (218, 2833), (229, 2878), (242, 2920), (251, 2992), (256, 3016), (278, 3115), (281, 3130), (289, 3154), (291, 3160), (340, 3328), (383, 3478), (388, 3499), (414, 3589), (442, 3697), (455, 3736), (463, 3757), (465, 3763), (469, 3781), (517, 3937), (550, 4015),

Gene: RanchParmCat\_7 Start: 1862, Stop: 3562, Start Num: 94

Candidate Starts for RanchParmCat\_7:

(Start: 94 @1862 has 8 MA's), (Start: 119 @1916 has 1 MA's), (125, 1937), (134, 1964), (165, 2039), (171, 2075), (186, 2153), (206, 2237), (208, 2252), (217, 2282), (227, 2333), (249, 2432), (267, 2522), (286, 2612), (299, 2666), (317, 2741), (346, 2879), (373, 2939), (375, 2945), (384, 3011), (386, 3017), (411, 3101), (416, 3122), (434, 3182), (435, 3188), (442, 3221), (486, 3326), (492, 3350), (516, 3455), (517, 3458), (531, 3503), (547, 3548), (548, 3551),

Gene: Rasputin\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Rasputin\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: ReMo\_14 Start: 6686, Stop: 8383, Start Num: 49

Candidate Starts for ReMo\_14:

(Start: 49 @6686 has 222 MA's), (65, 6704), (149, 6866), (185, 7022), (204, 7091), (217, 7145), (244, 7253), (248, 7280), (256, 7343), (261, 7367), (389, 7883), (411, 7946), (421, 7988), (455, 8102), (496, 8207), (529, 8339), (546, 8366), (547, 8369), (548, 8372),

Gene: Reba\_14 Start: 6700, Stop: 8400, Start Num: 51

Candidate Starts for Reba\_14:

(Start: 51 @6700 has 139 MA's), (Start: 81 @6748 has 4 MA's), (149, 6883), (217, 7162), (256, 7360), (275, 7450), (294, 7513), (329, 7675), (383, 7873), (389, 7897), (390, 7900), (411, 7963), (414, 7975), (416, 7984), (420, 8002), (425, 8023), (455, 8119), (472, 8173), (490, 8209), (529, 8356), (547, 8386), (548, 8389),

Gene: Rebeuca\_12 Start: 6881, Stop: 8557, Start Num: 48

Candidate Starts for Rebeuca\_12:

(Start: 48 @6881 has 363 MA's), (Start: 126 @7013 has 2 MA's), (175, 7145), (182, 7190), (206, 7286), (217, 7331), (225, 7370), (242, 7418), (244, 7439), (247, 7463), (256, 7514), (284, 7637), (315, 7769), (333, 7844), (342, 7889), (365, 7955), (383, 8030), (389, 8054), (390, 8057), (411, 8120), (420,

8159), (421, 8162), (425, 8180), (455, 8276), (478, 8345), (529, 8513), (547, 8543), (548, 8546),

Gene: RedBaron\_5 Start: 1158, Stop: 2837, Start Num: 96

Candidate Starts for RedBaron\_5:

(Start: 96 @1158 has 69 MA's), (Start: 119 @1209 has 1 MA's), (125, 1230), (Start: 126 @1233 has 2 MA's), (150, 1275), (171, 1356), (184, 1422), (185, 1431), (202, 1503), (206, 1518), (214, 1554), (217, 1563), (227, 1614), (249, 1713), (258, 1767), (267, 1803), (299, 1947), (309, 1983), (317, 2022), (324, 2055), (337, 2103), (342, 2136), (346, 2160), (362, 2193), (375, 2226), (382, 2283), (384, 2292), (410, 2376), (434, 2463), (463, 2559), (492, 2631), (496, 2643), (523, 2763), (547, 2823), (548, 2826),

Gene: RedBear\_8 Start: 2648, Stop: 4294, Start Num: 47

Candidate Starts for RedBear\_8:

(Start: 47 @2648 has 87 MA's), (Start: 62 @2666 has 20 MA's), (162, 2870), (179, 2951), (211, 3086), (218, 3107), (229, 3152), (242, 3194), (251, 3266), (256, 3290), (278, 3389), (295, 3443), (303, 3500), (340, 3602), (353, 3662), (367, 3689), (388, 3773), (392, 3785), (414, 3863), (422, 3896), (442, 3971), (455, 4010), (463, 4031), (465, 4037), (469, 4055), (503, 4151), (517, 4211),

Gene: RedRaider77\_35 Start: 10894, Stop: 12636, Start Num: 96

Candidate Starts for RedRaider77\_35:

(Start: 96 @10894 has 69 MA's), (149, 11011), (162, 11056), (170, 11122), (172, 11137), (176, 11170), (177, 11173), (181, 11188), (186, 11212), (187, 11215), (194, 11245), (200, 11266), (202, 11284), (205, 11293), (212, 11329), (217, 11344), (227, 11389), (242, 11431), (246, 11470), (249, 11482), (251, 11503), (262, 11554), (268, 11575), (324, 11797), (346, 11902), (347, 11911), (366, 11944), (375, 11965), (376, 11968), (379, 11995), (383, 12025), (386, 12037), (390, 12052), (393, 12061), (394, 12067), (407, 12109), (409, 12118), (412, 12133), (416, 12148), (434, 12208), (440, 12247), (451, 12280), (463, 12310), (464, 12313), (485, 12397), (496, 12451), (499, 12466), (506, 12493), (517, 12547), (546, 12619), (547, 12622),

Gene: RedRock\_15 Start: 9396, Stop: 11156, Start Num: 49

Candidate Starts for RedRock\_15:

(24, 9312), (Start: 49 @9396 has 222 MA's), (110, 9504), (120, 9525), (140, 9609), (146, 9633), (156, 9657), (171, 9720), (181, 9774), (204, 9864), (217, 9918), (244, 10026), (256, 10116), (261, 10140), (295, 10272), (326, 10416), (332, 10440), (362, 10548), (383, 10632), (408, 10704), (411, 10719), (420, 10758), (421, 10761), (425, 10779), (455, 10875), (478, 10944), (529, 11112), (546, 11139), (547, 11142), (548, 11145), (549, 11148),

Gene: Reedo\_2 Start: 544, Stop: 2244, Start Num: 74

Candidate Starts for Reedo\_2:

(Start: 74 @544 has 7 MA's), (109, 607), (203, 913), (217, 970), (228, 1018), (249, 1108), (258, 1162), (267, 1207), (284, 1282), (350, 1534), (369, 1591), (383, 1654), (419, 1786), (442, 1873), (455, 1909), (460, 1924), (467, 1942), (517, 2155), (519, 2167),

Gene: Refuge\_15 Start: 9750, Stop: 11534, Start Num: 49

Candidate Starts for Refuge\_15:

(Start: 49 @9750 has 222 MA's), (Start: 119 @9870 has 1 MA's), (123, 9882), (139, 9948), (146, 9981), (171, 10068), (204, 10212), (217, 10266), (225, 10305), (244, 10377), (256, 10467), (261, 10491), (284, 10590), (289, 10608), (295, 10623), (326, 10767), (347, 10875), (383, 11010), (408, 11082), (411, 11097), (425, 11157), (455, 11253), (490, 11343), (518, 11460), (527, 11487), (529, 11490), (546, 11517), (547, 11520), (548, 11523),

Gene: Relief\_11 Start: 6885, Stop: 8582, Start Num: 48

Candidate Starts for Relief\_11:

(Start: 48 @6885 has 363 MA's), (Start: 68 @6909 has 1 MA's), (Start: 126 @7032 has 2 MA's), (167, 7122), (175, 7155), (194, 7254), (216, 7338), (217, 7341), (225, 7380), (244, 7449), (247, 7473), (256, 7539), (275, 7629), (315, 7794), (337, 7881), (342, 7914), (365, 7980), (382, 8052), (383, 8055), (389, 8079), (408, 8130), (411, 8145), (420, 8184), (425, 8205), (455, 8301), (529, 8538), (547, 8568), (548, 8571),

Gene: Remus\_14 Start: 6647, Stop: 8344, Start Num: 49

Candidate Starts for Remus\_14:

(Start: 49 @6647 has 222 MA's), (65, 6665), (149, 6827), (204, 7052), (217, 7106), (244, 7214), (248, 7241), (256, 7304), (261, 7328), (389, 7844), (411, 7907), (421, 7949), (455, 8063), (496, 8168), (529, 8300), (546, 8327), (547, 8330), (548, 8333),

Gene: Renaud18\_2 Start: 458, Stop: 2236, Start Num: 51

Candidate Starts for Renaud18\_2:

(Start: 51 @458 has 139 MA's), (89, 509), (101, 530), (112, 560), (116, 566), (122, 581), (140, 632), (160, 695), (162, 707), (171, 743), (180, 791), (183, 806), (185, 818), (187, 824), (201, 881), (202, 884), (204, 890), (207, 905), (210, 923), (211, 926), (217, 944), (249, 1085), (250, 1103), (256, 1130), (261, 1154), (267, 1187), (285, 1265), (303, 1355), (306, 1364), (311, 1379), (331, 1421), (332, 1424), (341, 1466), (342, 1475), (346, 1499), (365, 1541), (366, 1544), (376, 1568), (382, 1607), (383, 1610), (387, 1625), (392, 1643), (393, 1646), (417, 1727), (420, 1742), (421, 1745), (424, 1757), (429, 1796), (440, 1847), (442, 1853), (450, 1889), (455, 1901), (465, 1925), (472, 1952), (476, 1961), (477, 1964), (491, 2036), (503, 2084), (506, 2090), (511, 2123), (512, 2129), (514, 2135), (516, 2141), (517, 2144), (519, 2156), (527, 2174), (537, 2195), (544, 2213), (548, 2225),

Gene: ResDef\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for ResDef\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Retro23\_12 Start: 7537, Stop: 9324, Start Num: 49

Candidate Starts for Retro23\_12:

(Start: 49 @7537 has 222 MA's), (110, 7645), (120, 7666), (146, 7774), (185, 7936), (216, 8056), (217, 8059), (244, 8167), (256, 8257), (261, 8281), (289, 8398), (295, 8413), (362, 8713), (414, 8899), (420, 8926), (425, 8947), (455, 9043), (529, 9280), (546, 9307), (547, 9310),

Gene: RexFury\_8 Start: 3187, Stop: 4869, Start Num: 51

Candidate Starts for RexFury\_8:

(Start: 51 @3187 has 139 MA's), (Start: 153 @3373 has 2 MA's), (171, 3445), (175, 3457), (176, 3481), (180, 3493), (217, 3646), (219, 3661), (238, 3721), (256, 3829), (268, 3886), (313, 4084), (319, 4102), (331, 4156), (376, 4300), (383, 4342), (392, 4375), (414, 4444), (455, 4588), (469, 4633), (496, 4693), (517, 4792), (529, 4825), (546, 4852), (547, 4855), (548, 4858),

Gene: Rhodalysa\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Rhodalysa\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: RhynO\_12 Start: 6844, Stop: 8535, Start Num: 48

Candidate Starts for RhynO\_12:

(Start: 48 @6844 has 363 MA's), (Start: 68 @6868 has 1 MA's), (Start: 126 @6991 has 2 MA's), (158, 7057), (171, 7111), (175, 7123), (182, 7168), (194, 7222), (202, 7249), (206, 7264), (217, 7309), (225, 7348), (242, 7396), (244, 7417), (247, 7441), (256, 7492), (284, 7615), (320, 7762), (333, 7822), (342, 7867), (365, 7933), (383, 8008), (389, 8032), (411, 8098), (425, 8158), (455, 8254), (472, 8308), (529, 8491), (547, 8521), (548, 8524),

Gene: Rhynn\_11 Start: 7048, Stop: 8736, Start Num: 48

Candidate Starts for Rhynn\_11:

(Start: 48 @7048 has 363 MA's), (175, 7312), (176, 7336), (217, 7498), (223, 7531), (244, 7606), (252, 7660), (256, 7696), (261, 7720), (268, 7747), (277, 7795), (297, 7864), (315, 7951), (329, 8011), (393, 8245), (395, 8257), (411, 8299), (416, 8320), (423, 8347), (455, 8455), (490, 8545), (514, 8650),

Gene: RidgeCB\_11 Start: 6575, Stop: 8263, Start Num: 48

Candidate Starts for RidgeCB\_11:

(Start: 48 @6575 has 363 MA's), (Start: 153 @6755 has 2 MA's), (175, 6839), (180, 6875), (185, 6902), (217, 7025), (244, 7133), (256, 7223), (261, 7247), (268, 7274), (277, 7322), (315, 7478), (329, 7538), (393, 7772), (395, 7784), (411, 7826), (416, 7847), (423, 7874), (455, 7982), (490, 8072), (514, 8177),

Gene: Rifter\_15 Start: 7506, Stop: 9260, Start Num: 49

Candidate Starts for Rifter\_15:

(Start: 49 @7506 has 222 MA's), (123, 7638), (146, 7737), (156, 7761), (162, 7788), (171, 7824), (185, 7899), (217, 8022), (219, 8037), (225, 8061), (244, 8130), (247, 8154), (248, 8157), (256, 8220), (261, 8244), (294, 8373), (295, 8376), (319, 8487), (360, 8649), (383, 8736), (386, 8748), (389, 8760), (408, 8808), (411, 8823), (425, 8883), (450, 8967), (455, 8979), (529, 9216), (546, 9243), (547, 9246),

Gene: Ringer\_11 Start: 7246, Stop: 8934, Start Num: 48

Candidate Starts for Ringer\_11:

(Start: 48 @7246 has 363 MA's), (Start: 153 @7426 has 2 MA's), (175, 7510), (180, 7546), (185, 7573), (217, 7696), (244, 7804), (256, 7894), (261, 7918), (268, 7945), (277, 7993), (315, 8149), (329, 8209), (390, 8434), (393, 8443), (395, 8455), (411, 8497), (416, 8518), (423, 8545), (455, 8653), (490, 8743), (514, 8848),

Gene: Roary\_9 Start: 5668, Stop: 7422, Start Num: 28

Candidate Starts for Roary\_9:

(Start: 28 @5668 has 30 MA's), (44, 5710), (67, 5749), (123, 5857), (185, 6064), (238, 6265), (256, 6373), (284, 6502), (322, 6667), (331, 6700), (366, 6820), (383, 6895), (416, 7006), (420, 7024), (425, 7045), (440, 7099), (455, 7141), (478, 7210), (496, 7246), (517, 7345), (529, 7378), (548, 7411), (550, 7417),

Gene: Rockstar\_11 Start: 6367, Stop: 8064, Start Num: 48

Candidate Starts for Rockstar\_11:

(Start: 48 @6367 has 363 MA's), (95, 6439), (175, 6637), (185, 6700), (213, 6811), (217, 6823), (230, 6874), (244, 6931), (247, 6955), (256, 7021), (258, 7030), (275, 7111), (281, 7138), (315, 7276), (331, 7342), (337, 7363), (342, 7396), (365, 7462), (383, 7537), (389, 7561), (390, 7564), (392, 7570), (394, 7579), (411, 7627), (420, 7666), (425, 7687), (455, 7783), (472, 7837), (518, 7990), (529, 8020), (547, 8050), (548, 8053),

Gene: Rohr\_12 Start: 7254, Stop: 8942, Start Num: 48

Candidate Starts for Rohr\_12:

(Start: 48 @7254 has 363 MA's), (Start: 153 @7434 has 2 MA's), (175, 7518), (180, 7554), (185, 7581), (217, 7704), (223, 7737), (244, 7812), (256, 7902), (261, 7926), (268, 7953), (277, 8001), (315,

8157), (329, 8217), (390, 8442), (393, 8451), (395, 8463), (411, 8505), (416, 8526), (423, 8553), (455, 8661), (490, 8751), (514, 8856),

Gene: Roksolana\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Roksolana\_15:

(Start: 49 @7533 has 222 MA's), (123, 7665), (146, 7764), (156, 7788), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (219, 8064), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (294, 8400), (295, 8403), (319, 8514), (360, 8676), (383, 8763), (386, 8775), (389, 8787), (408, 8835), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Romney\_11 Start: 6883, Stop: 8580, Start Num: 48

Candidate Starts for Romney\_11:

(Start: 48 @6883 has 363 MA's), (Start: 68 @6907 has 1 MA's), (Start: 126 @7030 has 2 MA's), (167, 7120), (175, 7153), (194, 7252), (216, 7336), (217, 7339), (225, 7378), (244, 7447), (247, 7471), (256, 7537), (275, 7627), (315, 7792), (337, 7879), (342, 7912), (365, 7978), (382, 8050), (383, 8053), (389, 8077), (408, 8128), (411, 8143), (420, 8182), (425, 8203), (455, 8299), (529, 8536), (547, 8566), (548, 8569),

Gene: RonRayGun\_3 Start: 724, Stop: 2607, Start Num: 38

Candidate Starts for RonRayGun\_3:

(5, 475), (Start: 38 @724 has 7 MA's), (86, 805), (92, 814), (129, 910), (133, 922), (171, 1054), (205, 1201), (206, 1207), (211, 1234), (217, 1252), (234, 1315), (259, 1450), (300, 1651), (323, 1708), (384, 1927), (399, 1978), (404, 2002), (417, 2053), (443, 2182), (451, 2221), (455, 2230), (471, 2281), (481, 2320), (491, 2407), (496, 2419), (516, 2512), (519, 2527), (520, 2530),

Gene: Roosevelt\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Roosevelt\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Rosa24\_10 Start: 6859, Stop: 8556, Start Num: 48

Candidate Starts for Rosa24\_10:

(Start: 48 @6859 has 363 MA's), (Start: 68 @6883 has 1 MA's), (Start: 126 @7006 has 2 MA's), (167, 7096), (175, 7129), (216, 7312), (217, 7315), (225, 7354), (244, 7423), (247, 7447), (256, 7513), (275, 7603), (315, 7768), (337, 7855), (342, 7888), (365, 7954), (382, 8026), (383, 8029), (389, 8053), (408, 8104), (411, 8119), (420, 8158), (425, 8179), (455, 8275), (529, 8512), (547, 8542), (548, 8545),

Gene: Rosalind\_14 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for Rosalind\_14:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (185, 7144), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: Rowdy\_14 Start: 6755, Stop: 8446, Start Num: 48

Candidate Starts for Rowdy\_14:

(Start: 48 @6755 has 363 MA's), (Start: 68 @6779 has 1 MA's), (Start: 126 @6902 has 2 MA's), (158, 6968), (171, 7022), (175, 7034), (182, 7079), (194, 7133), (202, 7160), (206, 7175), (217, 7220), (225, 7259), (242, 7307), (244, 7328), (247, 7352), (256, 7403), (284, 7526), (320, 7673), (333, 7733), (342, 7778), (365, 7844), (383, 7919), (389, 7943), (411, 8009), (425, 8069), (455, 8165), (472, 8219), (529,

8402), (547, 8432), (548, 8435),

Gene: Rubeus\_12 Start: 7080, Stop: 8768, Start Num: 55

Candidate Starts for Rubeus\_12:

(Start: 55 @7080 has 24 MA's), (149, 7251), (Start: 153 @7260 has 2 MA's), (175, 7344), (177, 7371), (180, 7380), (217, 7530), (223, 7563), (244, 7638), (256, 7728), (261, 7752), (268, 7779), (277, 7827), (315, 7983), (329, 8043), (390, 8268), (393, 8277), (395, 8289), (411, 8331), (416, 8352), (423, 8379), (455, 8487), (490, 8577), (514, 8682),

Gene: Rufus\_12 Start: 7137, Stop: 8825, Start Num: 55

Candidate Starts for Rufus\_12:

(Start: 55 @7137 has 24 MA's), (149, 7308), (Start: 153 @7317 has 2 MA's), (175, 7401), (177, 7428), (180, 7437), (217, 7587), (223, 7620), (244, 7695), (256, 7785), (261, 7809), (268, 7836), (277, 7884), (297, 7953), (312, 8028), (315, 8040), (329, 8100), (393, 8334), (395, 8346), (411, 8388), (416, 8409), (423, 8436), (455, 8544), (490, 8634), (514, 8739),

Gene: Ruin\_11 Start: 6883, Stop: 8580, Start Num: 48

Candidate Starts for Ruin\_11:

(Start: 48 @6883 has 363 MA's), (Start: 68 @6907 has 1 MA's), (Start: 126 @7030 has 2 MA's), (167, 7120), (175, 7153), (194, 7252), (216, 7336), (217, 7339), (225, 7378), (244, 7447), (247, 7471), (256, 7537), (275, 7627), (315, 7792), (337, 7879), (342, 7912), (365, 7978), (382, 8050), (383, 8053), (389, 8077), (408, 8128), (411, 8143), (420, 8182), (425, 8203), (455, 8299), (529, 8536), (547, 8566), (548, 8569),

Gene: Rummer\_13 Start: 7041, Stop: 8741, Start Num: 51

Candidate Starts for Rummer\_13:

(Start: 51 @7041 has 139 MA's), (Start: 81 @7089 has 4 MA's), (149, 7224), (194, 7416), (217, 7503), (256, 7701), (275, 7791), (294, 7854), (329, 8016), (383, 8214), (389, 8238), (390, 8241), (411, 8304), (416, 8325), (425, 8364), (455, 8460), (472, 8514), (490, 8550), (529, 8697), (547, 8727), (548, 8730),

Gene: Ruotula\_10 Start: 7196, Stop: 8884, Start Num: 48

Candidate Starts for Ruotula\_10:

(Start: 48 @7196 has 363 MA's), (175, 7460), (176, 7484), (217, 7646), (223, 7679), (244, 7754), (256, 7844), (261, 7868), (268, 7895), (277, 7943), (297, 8012), (315, 8099), (329, 8159), (393, 8393), (395, 8405), (411, 8447), (416, 8468), (423, 8495), (455, 8603), (490, 8693), (514, 8798),

Gene: Rusticus\_7 Start: 2580, Stop: 4208, Start Num: 62

Candidate Starts for Rusticus\_7:

(Start: 47 @2562 has 87 MA's), (Start: 62 @2580 has 20 MA's), (162, 2784), (179, 2865), (211, 3000), (218, 3021), (229, 3066), (242, 3108), (251, 3180), (256, 3204), (275, 3291), (278, 3303), (295, 3357), (326, 3456), (340, 3516), (386, 3678), (388, 3687), (414, 3777), (422, 3810), (441, 3882), (442, 3885), (455, 3924), (463, 3945), (465, 3951), (469, 3969), (503, 4065), (517, 4125),

Gene: Rutherferd\_13 Start: 7598, Stop: 9286, Start Num: 55

Candidate Starts for Rutherferd\_13:

(Start: 55 @7598 has 24 MA's), (Start: 153 @7778 has 2 MA's), (175, 7862), (177, 7889), (180, 7898), (217, 8048), (223, 8081), (244, 8156), (256, 8246), (261, 8270), (268, 8297), (277, 8345), (315, 8501), (329, 8561), (390, 8786), (393, 8795), (395, 8807), (411, 8849), (416, 8870), (423, 8897), (455, 9005), (490, 9095), (514, 9200),

Gene: RyeScarlet\_14 Start: 8166, Stop: 9932, Start Num: 66

Candidate Starts for RyeScarlet\_14:

(Start: 49 @8145 has 222 MA's), (Start: 62 @8160 has 20 MA's), (Start: 66 @8166 has 5 MA's), (123, 8277), (146, 8376), (185, 8538), (204, 8610), (217, 8664), (225, 8703), (244, 8775), (256, 8865), (261, 8889), (289, 9006), (295, 9021), (316, 9129), (336, 9204), (342, 9240), (357, 9300), (386, 9420), (392, 9441), (408, 9480), (420, 9534), (421, 9537), (425, 9555), (440, 9609), (450, 9639), (455, 9651), (490, 9741), (497, 9759), (529, 9888), (546, 9915), (547, 9918),

Gene: SPB78\_2 Start: 441, Stop: 2099, Start Num: 94

Candidate Starts for SPB78\_2:

(Start: 94 @441 has 8 MA's), (Start: 119 @495 has 1 MA's), (123, 507), (149, 555), (155, 570), (158, 582), (171, 639), (177, 678), (195, 756), (202, 786), (212, 831), (217, 846), (220, 864), (259, 1041), (299, 1218), (317, 1293), (341, 1398), (346, 1431), (348, 1446), (375, 1497), (390, 1584), (394, 1599), (408, 1641), (411, 1656), (414, 1668), (423, 1704), (442, 1776), (454, 1812), (460, 1830), (472, 1869), (486, 1884), (494, 1911), (542, 2079),

Gene: STLscum\_12 Start: 7167, Stop: 8855, Start Num: 48

Candidate Starts for STLscum\_12:

(Start: 48 @7167 has 363 MA's), (175, 7431), (176, 7455), (217, 7617), (223, 7650), (244, 7725), (256, 7815), (261, 7839), (268, 7866), (277, 7914), (315, 8070), (316, 8079), (329, 8130), (393, 8364), (395, 8376), (411, 8418), (416, 8439), (423, 8466), (455, 8574), (490, 8664), (514, 8769),

Gene: Sabertooth\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Sabertooth\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Sabia\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for Sabia\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: Sabinator\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for Sabinator\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: Sachima\_11 Start: 8124, Stop: 9896, Start Num: 62

Candidate Starts for Sachima\_11:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: Saftant\_6 Start: 2534, Stop: 4177, Start Num: 48

Candidate Starts for Saftant\_6:

(Start: 47 @2531 has 87 MA's), (Start: 48 @2534 has 363 MA's), (Start: 62 @2549 has 20 MA's), (95, 2606), (162, 2753), (171, 2789), (180, 2837), (206, 2942), (211, 2969), (214, 2978), (218, 2990), (248, 3125), (256, 3173), (278, 3272), (295, 3326), (304, 3386), (326, 3425), (340, 3485), (343, 3503), (365,



3566), (383, 3635), (388, 3656), (408, 3719), (414, 3746), (420, 3773), (425, 3794), (442, 3854), (455, 3893), (465, 3920), (469, 3938), (521, 4115),

Gene: Sagefire\_12 Start: 7849, Stop: 9537, Start Num: 48

Candidate Starts for Sagefire\_12:

(Start: 48 @7849 has 363 MA's), (175, 8113), (176, 8137), (217, 8299), (223, 8332), (244, 8407), (256, 8497), (261, 8521), (268, 8548), (277, 8596), (315, 8752), (329, 8812), (393, 9046), (395, 9058), (411, 9100), (416, 9121), (423, 9148), (455, 9256), (490, 9346), (514, 9451),

Gene: Saintus\_9 Start: 5681, Stop: 7435, Start Num: 28

Candidate Starts for Saintus\_9:

(Start: 28 @5681 has 30 MA's), (44, 5723), (67, 5762), (123, 5870), (185, 6077), (238, 6278), (256, 6386), (284, 6515), (322, 6680), (331, 6713), (366, 6833), (383, 6908), (416, 7019), (420, 7037), (425, 7058), (440, 7112), (455, 7154), (517, 7358), (529, 7391), (548, 7424), (550, 7430),

Gene: Salz\_12 Start: 8021, Stop: 9784, Start Num: 49

Candidate Starts for Salz\_12:

(Start: 49 @8021 has 222 MA's), (Start: 66 @8042 has 5 MA's), (110, 8129), (146, 8258), (156, 8282), (171, 8345), (204, 8489), (216, 8540), (217, 8543), (244, 8654), (247, 8678), (248, 8681), (256, 8744), (258, 8753), (261, 8768), (289, 8885), (295, 8900), (304, 8960), (326, 9044), (365, 9185), (386, 9272), (389, 9284), (408, 9332), (411, 9347), (420, 9386), (425, 9407), (437, 9446), (450, 9491), (455, 9503), (529, 9740), (546, 9767),

Gene: Samy\_5 Start: 1792, Stop: 3501, Start Num: 88

Candidate Starts for Samy\_5:

(Start: 88 @1792 has 21 MA's), (98, 1807), (118, 1849), (123, 1864), (Start: 127 @1879 has 2 MA's), (147, 1912), (159, 1945), (168, 1981), (194, 2164), (205, 2200), (256, 2440), (270, 2515), (321, 2698), (324, 2707), (346, 2812), (434, 3100), (445, 3148), (456, 3193), (501, 3340), (504, 3355), (514, 3406), (517, 3415),

Gene: Sandaddy\_10 Start: 6972, Stop: 8660, Start Num: 48

Candidate Starts for Sandaddy\_10:

(Start: 48 @6972 has 363 MA's), (Start: 153 @7152 has 2 MA's), (175, 7236), (180, 7272), (185, 7299), (217, 7422), (244, 7530), (256, 7620), (261, 7644), (268, 7671), (277, 7719), (315, 7875), (329, 7935), (390, 8160), (393, 8169), (395, 8181), (411, 8223), (416, 8244), (423, 8271), (455, 8379), (490, 8469), (514, 8574),

Gene: Sanya\_10 Start: 7634, Stop: 9322, Start Num: 48

Candidate Starts for Sanya\_10:

(Start: 48 @7634 has 363 MA's), (175, 7898), (176, 7922), (217, 8084), (223, 8117), (244, 8192), (256, 8282), (261, 8306), (268, 8333), (277, 8381), (297, 8450), (315, 8537), (316, 8546), (329, 8597), (390, 8822), (393, 8831), (395, 8843), (411, 8885), (416, 8906), (423, 8933), (455, 9041), (490, 9131), (514, 9236),

Gene: SarFire\_11 Start: 6833, Stop: 8521, Start Num: 48

Candidate Starts for SarFire\_11:

(Start: 48 @6833 has 363 MA's), (Start: 153 @7013 has 2 MA's), (175, 7097), (180, 7133), (185, 7160), (217, 7283), (223, 7316), (244, 7391), (256, 7481), (261, 7505), (268, 7532), (277, 7580), (315, 7736), (316, 7745), (329, 7796), (393, 8030), (395, 8042), (411, 8084), (416, 8105), (423, 8132), (455, 8240), (490, 8330), (514, 8435),

Gene: SarahRose\_6 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for SarahRose\_6:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (408, 3564), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (503, 3879), (517, 3939), (550, 4017),

Gene: SaturnRing\_11 Start: 6496, Stop: 8193, Start Num: 48

Candidate Starts for SaturnRing\_11:

(Start: 48 @6496 has 363 MA's), (Start: 68 @6520 has 1 MA's), (95, 6568), (175, 6766), (185, 6829), (213, 6940), (217, 6952), (225, 6991), (230, 7003), (244, 7060), (247, 7084), (256, 7150), (258, 7159), (275, 7240), (281, 7267), (315, 7405), (337, 7492), (342, 7525), (365, 7591), (383, 7666), (389, 7690), (390, 7693), (392, 7699), (394, 7708), (408, 7741), (411, 7756), (425, 7816), (455, 7912), (469, 7957), (472, 7966), (518, 8119), (529, 8149), (547, 8179), (548, 8182),

Gene: Scamp\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Scamp\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Scherzo\_13 Start: 8163, Stop: 9929, Start Num: 66

Candidate Starts for Scherzo\_13:

(Start: 49 @8142 has 222 MA's), (Start: 62 @8157 has 20 MA's), (Start: 66 @8163 has 5 MA's), (123, 8274), (146, 8373), (185, 8535), (204, 8607), (217, 8661), (225, 8700), (244, 8772), (256, 8862), (261, 8886), (289, 9003), (295, 9018), (316, 9126), (336, 9201), (342, 9237), (357, 9297), (386, 9417), (392, 9438), (408, 9477), (420, 9531), (421, 9534), (425, 9552), (440, 9606), (450, 9636), (455, 9648), (490, 9738), (497, 9756), (529, 9885), (546, 9912), (547, 9915),

Gene: Scorpio\_10 Start: 5985, Stop: 7736, Start Num: 28

Candidate Starts for Scorpio\_10:

(Start: 26 @5958 has 19 MA's), (Start: 28 @5985 has 30 MA's), (52, 6045), (60, 6054), (82, 6093), (123, 6174), (171, 6306), (185, 6381), (186, 6384), (231, 6558), (256, 6690), (266, 6735), (281, 6813), (284, 6819), (322, 6984), (331, 7017), (337, 7038), (383, 7212), (389, 7236), (420, 7338), (425, 7359), (440, 7413), (450, 7443), (455, 7455), (472, 7509), (527, 7689), (529, 7692), (548, 7725), (550, 7731),

Gene: Scout\_11 Start: 5791, Stop: 7488, Start Num: 48

Candidate Starts for Scout\_11:

(Start: 48 @5791 has 363 MA's), (95, 5863), (175, 6061), (213, 6235), (217, 6247), (225, 6286), (230, 6298), (244, 6355), (247, 6379), (256, 6445), (258, 6454), (275, 6535), (315, 6700), (331, 6766), (337, 6787), (341, 6811), (342, 6820), (365, 6886), (383, 6961), (389, 6985), (390, 6988), (392, 6994), (394, 7003), (411, 7051), (420, 7090), (425, 7111), (455, 7207), (469, 7252), (472, 7261), (518, 7414), (529, 7444), (547, 7474), (548, 7477),

Gene: Scowl\_12 Start: 7525, Stop: 9213, Start Num: 48

Candidate Starts for Scowl\_12:

(Start: 48 @7525 has 363 MA's), (175, 7789), (176, 7813), (217, 7975), (223, 8008), (244, 8083), (256, 8173), (261, 8197), (268, 8224), (277, 8272), (297, 8341), (315, 8428), (329, 8488), (390, 8713), (393, 8722), (395, 8734), (411, 8776), (416, 8797), (423, 8824), (455, 8932), (490, 9022), (514, 9127),

Gene: Seabiscuit\_13 Start: 7054, Stop: 8742, Start Num: 48

Candidate Starts for Seabiscuit\_13:

(Start: 48 @7054 has 363 MA's), (175, 7318), (176, 7342), (209, 7477), (217, 7504), (223, 7537), (244, 7612), (256, 7702), (261, 7726), (268, 7753), (277, 7801), (297, 7870), (315, 7957), (316, 7966), (329, 8017), (393, 8251), (395, 8263), (411, 8305), (416, 8326), (423, 8353), (455, 8461), (490, 8551), (514, 8656),

Gene: Seanderson\_12 Start: 7498, Stop: 9186, Start Num: 48

Candidate Starts for Seanderson\_12:

(Start: 48 @7498 has 363 MA's), (Start: 153 @7678 has 2 MA's), (175, 7762), (180, 7798), (185, 7825), (217, 7948), (244, 8056), (256, 8146), (261, 8170), (268, 8197), (277, 8245), (297, 8314), (312, 8389), (315, 8401), (329, 8461), (390, 8686), (393, 8695), (395, 8707), (411, 8749), (416, 8770), (423, 8797), (455, 8905), (490, 8995), (514, 9100),

Gene: SemperFi\_14 Start: 7814, Stop: 9601, Start Num: 49

Candidate Starts for SemperFi\_14:

(Start: 49 @7814 has 222 MA's), (110, 7922), (120, 7943), (146, 8051), (185, 8213), (216, 8333), (217, 8336), (244, 8444), (256, 8534), (261, 8558), (289, 8675), (295, 8690), (362, 8990), (414, 9176), (420, 9203), (425, 9224), (455, 9320), (529, 9557), (546, 9584), (547, 9587),

Gene: Serenity\_11 Start: 6379, Stop: 8160, Start Num: 49

Candidate Starts for Serenity\_11:

(Start: 49 @6379 has 222 MA's), (Start: 126 @6523 has 2 MA's), (137, 6568), (146, 6610), (156, 6634), (171, 6697), (181, 6751), (216, 6892), (217, 6895), (225, 6934), (244, 7003), (256, 7093), (261, 7117), (294, 7246), (295, 7249), (355, 7522), (420, 7762), (425, 7783), (450, 7867), (455, 7879), (529, 8116), (546, 8143), (547, 8146), (548, 8149),

Gene: Severus\_10 Start: 4781, Stop: 6472, Start Num: 48

Candidate Starts for Severus\_10:

(Start: 48 @4781 has 363 MA's), (Start: 68 @4805 has 1 MA's), (Start: 126 @4928 has 2 MA's), (159, 4997), (171, 5048), (175, 5060), (181, 5102), (185, 5123), (206, 5201), (217, 5246), (225, 5285), (242, 5333), (244, 5354), (247, 5378), (256, 5429), (284, 5552), (320, 5699), (333, 5759), (342, 5804), (382, 5942), (383, 5945), (397, 5999), (411, 6035), (420, 6074), (425, 6095), (455, 6191), (478, 6260), (529, 6428), (547, 6458), (548, 6461),

Gene: Shaka\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Shaka\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: ShakeltOph\_2 Start: 550, Stop: 2277, Start Num: 48

Candidate Starts for ShakeltOph\_2:

(27, 490), (Start: 48 @550 has 363 MA's), (Start: 119 @661 has 1 MA's), (196, 925), (199, 934), (211, 985), (217, 1003), (228, 1051), (249, 1144), (390, 1720), (434, 1873), (455, 1948), (460, 1963), (496, 2092), (519, 2200), (547, 2263),

Gene: Sham4\_12 Start: 8027, Stop: 9790, Start Num: 49

Candidate Starts for Sham4\_12:

(Start: 49 @8027 has 222 MA's), (Start: 66 @8048 has 5 MA's), (110, 8135), (146, 8264), (156, 8288), (171, 8351), (204, 8495), (216, 8546), (217, 8549), (244, 8660), (247, 8684), (248, 8687), (256, 8750), (258, 8759), (261, 8774), (289, 8891), (295, 8906), (304, 8966), (326, 9050), (386, 9278), (389, 9290), (408, 9338), (411, 9353), (420, 9392), (425, 9413), (437, 9452), (450, 9497), (455, 9509), (529, 9746),

(546, 9773),

Gene: Shapes\_14 Start: 6755, Stop: 8446, Start Num: 48

Candidate Starts for Shapes\_14:

(Start: 48 @6755 has 363 MA's), (Start: 68 @6779 has 1 MA's), (Start: 126 @6902 has 2 MA's), (158, 6968), (171, 7022), (175, 7034), (182, 7079), (194, 7133), (202, 7160), (206, 7175), (217, 7220), (225, 7259), (242, 7307), (244, 7328), (247, 7352), (256, 7403), (284, 7526), (320, 7673), (333, 7733), (342, 7778), (365, 7844), (383, 7919), (389, 7943), (411, 8009), (425, 8069), (455, 8165), (472, 8219), (529, 8402), (547, 8432), (548, 8435),

Gene: ShayRa\_15 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for ShayRa\_15:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: SheaKeira\_12 Start: 6325, Stop: 8097, Start Num: 62

Candidate Starts for SheaKeira\_12:

(Start: 49 @6310 has 222 MA's), (Start: 62 @6325 has 20 MA's), (Start: 66 @6331 has 5 MA's), (123, 6442), (146, 6541), (185, 6703), (204, 6775), (217, 6829), (225, 6868), (244, 6940), (253, 7012), (256, 7030), (261, 7054), (289, 7171), (295, 7186), (316, 7294), (336, 7369), (357, 7465), (367, 7501), (392, 7606), (408, 7645), (414, 7672), (420, 7699), (421, 7702), (425, 7720), (440, 7774), (450, 7804), (455, 7816), (490, 7906), (497, 7924), (529, 8053), (546, 8080), (547, 8083),

Gene: SheckWes\_3 Start: 948, Stop: 2573, Start Num: 119

Candidate Starts for SheckWes\_3:

(Start: 96 @897 has 69 MA's), (Start: 119 @948 has 1 MA's), (125, 969), (150, 1014), (199, 1221), (206, 1254), (214, 1290), (217, 1299), (218, 1302), (223, 1335), (227, 1350), (249, 1449), (251, 1470), (259, 1506), (263, 1527), (271, 1563), (286, 1629), (299, 1683), (341, 1863), (346, 1896), (375, 1962), (384, 2028), (386, 2034), (434, 2199), (440, 2232), (465, 2301), (496, 2379), (497, 2382), (516, 2472), (518, 2478), (523, 2499), (547, 2559), (548, 2562),

Gene: Sheen\_13 Start: 8359, Stop: 10059, Start Num: 48

Candidate Starts for Sheen\_13:

(Start: 48 @8359 has 363 MA's), (Start: 88 @8422 has 21 MA's), (159, 8566), (167, 8596), (175, 8629), (185, 8692), (217, 8815), (219, 8830), (244, 8923), (247, 8947), (256, 9013), (295, 9169), (315, 9268), (337, 9355), (342, 9388), (360, 9442), (366, 9457), (382, 9526), (383, 9529), (389, 9553), (414, 9631), (455, 9775), (469, 9820), (497, 9883), (518, 9982), (529, 10012), (547, 10045),

Gene: SheldonCooper\_11 Start: 6862, Stop: 8559, Start Num: 48

Candidate Starts for SheldonCooper\_11:

(Start: 48 @6862 has 363 MA's), (Start: 68 @6886 has 1 MA's), (Start: 126 @7009 has 2 MA's), (167, 7099), (175, 7132), (216, 7315), (217, 7318), (225, 7357), (244, 7426), (247, 7450), (256, 7516), (275, 7606), (315, 7771), (337, 7858), (342, 7891), (365, 7957), (382, 8029), (383, 8032), (389, 8056), (408, 8107), (411, 8122), (420, 8161), (425, 8182), (455, 8278), (529, 8515), (547, 8545), (548, 8548),

Gene: ShortQueendom\_10 Start: 6640, Stop: 8328, Start Num: 48

Candidate Starts for ShortQueendom\_10:

(Start: 48 @6640 has 363 MA's), (Start: 153 @6820 has 2 MA's), (175, 6904), (180, 6940), (217, 7090), (244, 7198), (256, 7288), (261, 7312), (277, 7387), (297, 7456), (315, 7543), (329, 7603), (393, 7837), (395, 7849), (411, 7891), (416, 7912), (423, 7939), (455, 8047), (490, 8137), (514, 8242),

Gene: Shuman\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Shuman\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Shygu2\_11 Start: 6887, Stop: 8584, Start Num: 48

Candidate Starts for Shygu2\_11:

(Start: 48 @6887 has 363 MA's), (Start: 68 @6911 has 1 MA's), (175, 7157), (216, 7340), (217, 7343), (225, 7382), (244, 7451), (247, 7475), (256, 7541), (275, 7631), (315, 7796), (337, 7883), (342, 7916), (374, 8009), (383, 8057), (389, 8081), (411, 8147), (420, 8186), (425, 8207), (455, 8303), (527, 8537), (529, 8540), (547, 8570), (548, 8573),

Gene: Sibs6\_13 Start: 7273, Stop: 8961, Start Num: 55

Candidate Starts for Sibs6\_13:

(Start: 55 @7273 has 24 MA's), (149, 7444), (Start: 153 @7453 has 2 MA's), (175, 7537), (177, 7564), (180, 7573), (217, 7723), (223, 7756), (244, 7831), (256, 7921), (261, 7945), (268, 7972), (277, 8020), (315, 8176), (329, 8236), (390, 8461), (393, 8470), (395, 8482), (411, 8524), (416, 8545), (423, 8572), (455, 8680), (490, 8770), (514, 8875),

Gene: Simpson\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Simpson\_2:

(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (478, 1973), (496, 2054), (513, 2138), (519, 2162),

Gene: SketchMex\_3 Start: 1110, Stop: 2789, Start Num: 96

Candidate Starts for SketchMex\_3:

(Start: 96 @1110 has 69 MA's), (Start: 119 @1161 has 1 MA's), (125, 1182), (148, 1221), (171, 1308), (179, 1353), (184, 1374), (185, 1383), (202, 1455), (214, 1506), (217, 1515), (227, 1566), (249, 1665), (251, 1686), (258, 1719), (267, 1755), (299, 1899), (309, 1935), (317, 1974), (324, 2007), (337, 2055), (346, 2112), (362, 2145), (375, 2178), (384, 2244), (386, 2250), (407, 2316), (410, 2328), (434, 2415), (463, 2511), (486, 2559), (505, 2634), (523, 2715), (547, 2775), (548, 2778),

Gene: SkiPole\_13 Start: 7147, Stop: 8835, Start Num: 48

Candidate Starts for SkiPole\_13:

(Start: 48 @7147 has 363 MA's), (175, 7411), (176, 7435), (217, 7597), (223, 7630), (244, 7705), (256, 7795), (261, 7819), (277, 7894), (315, 8050), (316, 8059), (328, 8107), (329, 8110), (393, 8344), (395, 8356), (411, 8398), (416, 8419), (423, 8446), (455, 8554), (490, 8644), (514, 8749),

Gene: Skipitt\_11 Start: 7031, Stop: 8581, Start Num: 126

Candidate Starts for Skipitt\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Slagathor\_12 Start: 6925, Stop: 8613, Start Num: 48

Candidate Starts for Slagathor\_12:

(Start: 48 @6925 has 363 MA's), (175, 7189), (176, 7213), (217, 7375), (223, 7408), (244, 7483), (256, 7573), (261, 7597), (268, 7624), (277, 7672), (312, 7816), (315, 7828), (329, 7888), (393, 8122), (395, 8134), (411, 8176), (416, 8197), (423, 8224), (455, 8332), (490, 8422), (514, 8527),

Gene: Smairt\_12 Start: 7444, Stop: 9132, Start Num: 48

Candidate Starts for Smairt\_12:

(Start: 48 @7444 has 363 MA's), (Start: 153 @7624 has 2 MA's), (175, 7708), (180, 7744), (185, 7771), (217, 7894), (244, 8002), (256, 8092), (261, 8116), (277, 8191), (315, 8347), (329, 8407), (390, 8632), (393, 8641), (395, 8653), (411, 8695), (416, 8716), (423, 8743), (455, 8851), (490, 8941), (514, 9046),

Gene: Smeadley\_9 Start: 5701, Stop: 7455, Start Num: 28

Candidate Starts for Smeadley\_9:

(Start: 28 @5701 has 30 MA's), (44, 5743), (67, 5782), (123, 5890), (185, 6097), (238, 6298), (256, 6406), (284, 6535), (322, 6700), (331, 6733), (366, 6853), (383, 6928), (416, 7039), (420, 7057), (425, 7078), (440, 7132), (455, 7174), (478, 7243), (496, 7279), (517, 7378), (529, 7411), (548, 7444), (550, 7450),

Gene: Smeagan\_14 Start: 7883, Stop: 9670, Start Num: 49

Candidate Starts for Smeagan\_14:

(Start: 49 @7883 has 222 MA's), (110, 7991), (120, 8012), (137, 8078), (138, 8084), (146, 8120), (171, 8207), (216, 8402), (217, 8405), (244, 8513), (256, 8603), (261, 8627), (277, 8702), (289, 8744), (295, 8759), (362, 9059), (414, 9245), (420, 9272), (425, 9293), (455, 9389), (529, 9626), (547, 9656),

Gene: Smeagol\_12 Start: 7865, Stop: 9553, Start Num: 48

Candidate Starts for Smeagol\_12:

(Start: 48 @7865 has 363 MA's), (Start: 153 @8045 has 2 MA's), (175, 8129), (180, 8165), (185, 8192), (217, 8315), (244, 8423), (256, 8513), (261, 8537), (268, 8564), (277, 8612), (315, 8768), (329, 8828), (390, 9053), (393, 9062), (395, 9074), (411, 9116), (416, 9137), (423, 9164), (455, 9272), (490, 9362), (514, 9467),

Gene: SmellyB\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for SmellyB\_15:

(Start: 49 @7533 has 222 MA's), (146, 7764), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (284, 8370), (285, 8373), (294, 8400), (295, 8403), (365, 8688), (386, 8775), (389, 8787), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Smoothie\_31 Start: 8683, Stop: 10431, Start Num: 88

Candidate Starts for Smoothie\_31:

(Start: 88 @8683 has 21 MA's), (106, 8713), (160, 8842), (190, 9028), (197, 9067), (205, 9091), (210, 9121), (216, 9139), (221, 9166), (228, 9196), (267, 9388), (270, 9406), (310, 9568), (327, 9616), (332, 9631), (373, 9814), (375, 9820), (389, 9904), (413, 9991), (421, 10024), (452, 10138), (465, 10174), (472, 10198), (481, 10213), (533, 10387), (535, 10393),

Gene: SnapTap\_12 Start: 7386, Stop: 9173, Start Num: 49

Candidate Starts for SnapTap\_12:

(Start: 49 @7386 has 222 MA's), (110, 7494), (120, 7515), (146, 7623), (185, 7785), (216, 7905), (217, 7908), (244, 8016), (256, 8106), (261, 8130), (289, 8247), (295, 8262), (362, 8562), (414, 8748), (420, 8775), (425, 8796), (455, 8892), (529, 9129), (546, 9156), (547, 9159),

Gene: Snape\_12 Start: 8027, Stop: 9790, Start Num: 49

Candidate Starts for Snape\_12:

(Start: 49 @8027 has 222 MA's), (Start: 66 @8048 has 5 MA's), (110, 8135), (146, 8264), (156, 8288), (171, 8351), (204, 8495), (216, 8546), (217, 8549), (244, 8660), (247, 8684), (248, 8687), (256, 8750), (258, 8759), (261, 8774), (289, 8891), (295, 8906), (304, 8966), (326, 9050), (365, 9191), (386, 9278), (389, 9290), (408, 9338), (411, 9353), (420, 9392), (425, 9413), (437, 9452), (450, 9497), (455, 9509),

(529, 9746), (546, 9773),

Gene: Snazzy\_9 Start: 6454, Stop: 8142, Start Num: 48

Candidate Starts for Snazzy\_9:

(Start: 48 @6454 has 363 MA's), (175, 6718), (176, 6742), (217, 6904), (223, 6937), (244, 7012), (256, 7102), (261, 7126), (277, 7201), (315, 7357), (316, 7366), (328, 7414), (329, 7417), (390, 7642), (393, 7651), (395, 7663), (411, 7705), (416, 7726), (423, 7753), (455, 7861), (490, 7951), (514, 8056),

Gene: Snek\_3 Start: 1419, Stop: 3110, Start Num: 71

Candidate Starts for Snek\_3:

(Start: 71 @1419 has 40 MA's), (Start: 90 @1449 has 1 MA's), (109, 1485), (158, 1596), (199, 1779), (203, 1791), (217, 1848), (240, 1932), (249, 1989), (374, 2478), (442, 2745), (455, 2781), (460, 2796), (496, 2925), (500, 2946), (519, 3033),

Gene: Snickers\_13 Start: 6931, Stop: 8631, Start Num: 51

Candidate Starts for Snickers\_13:

(Start: 51 @6931 has 139 MA's), (Start: 81 @6979 has 4 MA's), (149, 7114), (194, 7306), (217, 7393), (256, 7591), (275, 7681), (294, 7744), (329, 7906), (383, 8104), (389, 8128), (390, 8131), (411, 8194), (416, 8215), (425, 8254), (455, 8350), (472, 8404), (490, 8440), (529, 8587), (547, 8617), (548, 8620),

Gene: Snorlax\_6 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for Snorlax\_6:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (408, 3564), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (503, 3879), (517, 3939), (550, 4017),

Gene: SoYo\_13 Start: 6868, Stop: 8568, Start Num: 51

Candidate Starts for SoYo\_13:

(Start: 51 @6868 has 139 MA's), (Start: 81 @6916 has 4 MA's), (149, 7051), (194, 7243), (217, 7330), (256, 7528), (275, 7618), (294, 7681), (329, 7843), (383, 8041), (389, 8065), (390, 8068), (411, 8131), (416, 8152), (425, 8191), (455, 8287), (472, 8341), (490, 8377), (529, 8524), (547, 8554), (548, 8557),

Gene: SoilDragon\_13 Start: 6642, Stop: 8342, Start Num: 51

Candidate Starts for SoilDragon\_13:

(Start: 51 @6642 has 139 MA's), (Start: 81 @6690 has 4 MA's), (149, 6825), (194, 7017), (217, 7104), (256, 7302), (275, 7392), (294, 7455), (329, 7617), (383, 7815), (389, 7839), (390, 7842), (411, 7905), (416, 7926), (425, 7965), (455, 8061), (472, 8115), (490, 8151), (529, 8298), (547, 8328), (548, 8331),

Gene: Solon\_11 Start: 7606, Stop: 9294, Start Num: 48

Candidate Starts for Solon\_11:

(Start: 48 @7606 has 363 MA's), (175, 7870), (176, 7894), (217, 8056), (223, 8089), (244, 8164), (256, 8254), (261, 8278), (268, 8305), (277, 8353), (315, 8509), (329, 8569), (393, 8803), (395, 8815), (411, 8857), (416, 8878), (423, 8905), (455, 9013), (490, 9103), (514, 9208),

Gene: Soondubu\_2 Start: 568, Stop: 2274, Start Num: 71

Candidate Starts for Soondubu\_2:

(Start: 71 @568 has 40 MA's), (171, 793), (199, 922), (217, 991), (223, 1027), (228, 1039), (249, 1132), (258, 1186), (303, 1396), (455, 1942), (460, 1957), (513, 2173), (519, 2197), (524, 2212), (547, 2260),

Gene: Sooty\_2 Start: 593, Stop: 2281, Start Num: 75

Candidate Starts for Sooty\_2:

(75, 593), (169, 794), (199, 938), (206, 962), (217, 1007), (241, 1094), (249, 1148), (255, 1187), (284, 1322), (308, 1424), (343, 1535), (373, 1646), (383, 1697), (455, 1952), (460, 1967), (517, 2192), (519, 2204), (524, 2219),

Gene: Sopespian\_4 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Sopespian\_4:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (148, 1224), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (317, 1977), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: SororFago\_11 Start: 6539, Stop: 8296, Start Num: 49

Candidate Starts for SororFago\_11:

(Start: 49 @6539 has 222 MA's), (113, 6647), (123, 6671), (136, 6725), (139, 6737), (140, 6746), (144, 6755), (146, 6770), (162, 6821), (185, 6932), (216, 7052), (217, 7055), (244, 7166), (247, 7190), (256, 7256), (261, 7280), (275, 7346), (295, 7412), (316, 7520), (336, 7595), (383, 7772), (386, 7784), (389, 7796), (390, 7799), (392, 7805), (411, 7859), (420, 7898), (455, 8015), (478, 8084), (529, 8252), (546, 8279),

Gene: Sorpresa\_11 Start: 6972, Stop: 8660, Start Num: 48

Candidate Starts for Sorpresa\_11:

(Start: 48 @6972 has 363 MA's), (Start: 153 @7152 has 2 MA's), (175, 7236), (180, 7272), (185, 7299), (217, 7422), (244, 7530), (256, 7620), (261, 7644), (268, 7671), (277, 7719), (315, 7875), (329, 7935), (390, 8160), (393, 8169), (395, 8181), (411, 8223), (416, 8244), (423, 8271), (455, 8379), (490, 8469), (514, 8574),

Gene: Soshari\_15 Start: 7040, Stop: 8740, Start Num: 51

Candidate Starts for Soshari\_15:

(Start: 51 @7040 has 139 MA's), (Start: 81 @7088 has 4 MA's), (149, 7223), (194, 7415), (217, 7502), (256, 7700), (275, 7790), (294, 7853), (329, 8015), (383, 8213), (389, 8237), (390, 8240), (411, 8303), (416, 8324), (425, 8363), (455, 8459), (472, 8513), (490, 8549), (529, 8696), (547, 8726), (548, 8729),

Gene: Soups\_14 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for Soups\_14:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (185, 7144), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: South40\_7 Start: 2648, Stop: 4294, Start Num: 47

Candidate Starts for South40\_7:

(Start: 47 @2648 has 87 MA's), (Start: 62 @2666 has 20 MA's), (162, 2870), (179, 2951), (211, 3086), (218, 3107), (229, 3152), (242, 3194), (251, 3266), (256, 3290), (278, 3389), (295, 3443), (303, 3500), (340, 3602), (353, 3662), (367, 3689), (388, 3773), (392, 3785), (414, 3863), (422, 3896), (442, 3971), (455, 4010), (463, 4031), (465, 4037), (469, 4055), (503, 4151), (517, 4211),

Gene: Sparky\_2 Start: 507, Stop: 2288, Start Num: 48

Candidate Starts for Sparky\_2:

(Start: 48 @507 has 363 MA's), (112, 612), (176, 831), (180, 843), (185, 870), (202, 936), (204, 942), (205, 945), (210, 975), (217, 996), (232, 1053), (250, 1155), (258, 1191), (267, 1239), (279, 1299), (300, 1389), (308, 1419), (331, 1473), (346, 1551), (383, 1659), (388, 1680), (392, 1692), (395, 1710),



(420, 1809), (429, 1863), (433, 1878), (442, 1920), (455, 1968), (465, 1992), (476, 2028), (491, 2097), (495, 2103), (496, 2109), (509, 2160), (514, 2196), (516, 2202), (519, 2217), (527, 2235), (537, 2250),

Gene: Sparxx\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Sparxx\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: SpecialK\_2 Start: 594, Stop: 2282, Start Num: 75

Candidate Starts for SpecialK\_2:

(75, 594), (199, 939), (206, 963), (217, 1008), (241, 1095), (249, 1149), (255, 1188), (284, 1323), (308, 1425), (373, 1647), (383, 1698), (442, 1917), (455, 1953), (460, 1968), (517, 2193), (519, 2205), (524, 2220), (548, 2271),

Gene: SpeedDemon\_130 Start: 6395, Stop: 8131, Start Num: 88

Candidate Starts for SpeedDemon\_130:

(Start: 88 @6395 has 21 MA's), (123, 6467), (151, 6524), (181, 6656), (194, 6767), (205, 6803), (226, 6899), (256, 7043), (262, 7070), (270, 7118), (277, 7151), (328, 7325), (339, 7370), (452, 7841), (496, 7949), (517, 8045),

Gene: Speedwell\_8 Start: 2470, Stop: 4116, Start Num: 47

Candidate Starts for Speedwell\_8:

(Start: 45 @2461 has 1 MA's), (Start: 47 @2470 has 87 MA's), (Start: 48 @2473 has 363 MA's), (Start: 62 @2488 has 20 MA's), (95, 2545), (162, 2692), (179, 2773), (180, 2776), (211, 2908), (214, 2917), (217, 2926), (218, 2929), (256, 3112), (278, 3211), (295, 3265), (304, 3325), (326, 3364), (340, 3424), (365, 3505), (383, 3574), (388, 3595), (405, 3655), (408, 3658), (420, 3712), (425, 3733), (442, 3793), (455, 3832), (465, 3859), (469, 3877), (521, 4054),

Gene: Spike509\_13 Start: 7041, Stop: 8741, Start Num: 51

Candidate Starts for Spike509\_13:

(Start: 51 @7041 has 139 MA's), (Start: 81 @7089 has 4 MA's), (149, 7224), (194, 7416), (217, 7503), (256, 7701), (275, 7791), (294, 7854), (329, 8016), (383, 8214), (389, 8238), (390, 8241), (411, 8304), (416, 8325), (425, 8364), (455, 8460), (472, 8514), (490, 8550), (529, 8697), (547, 8727), (548, 8730),

Gene: SpikeBT\_13 Start: 7909, Stop: 9597, Start Num: 55

Candidate Starts for SpikeBT\_13:

(Start: 55 @7909 has 24 MA's), (Start: 153 @8089 has 2 MA's), (175, 8173), (177, 8200), (180, 8209), (217, 8359), (223, 8392), (244, 8467), (256, 8557), (261, 8581), (268, 8608), (277, 8656), (297, 8725), (315, 8812), (329, 8872), (390, 9097), (393, 9106), (395, 9118), (411, 9160), (416, 9181), (423, 9208), (455, 9316), (490, 9406), (514, 9511),

Gene: Spino\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Spino\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Spouty\_13 Start: 8139, Stop: 9926, Start Num: 49

Candidate Starts for Spouty\_13:

(Start: 49 @8139 has 222 MA's), (Start: 62 @8154 has 20 MA's), (Start: 66 @8160 has 5 MA's), (123, 8271), (146, 8370), (185, 8532), (204, 8604), (217, 8658), (225, 8697), (244, 8769), (256, 8859), (261, 8883), (289, 9000), (295, 9015), (316, 9123), (336, 9198), (342, 9234), (357, 9294), (386, 9414), (392, 9435), (408, 9474), (420, 9528), (421, 9531), (425, 9549), (440, 9603), (450, 9633), (455, 9645), (490, 9735), (497, 9753), (529, 9882), (546, 9909), (547, 9912),

Gene: SqueakyClean\_7 Start: 2449, Stop: 4095, Start Num: 47

Candidate Starts for SqueakyClean\_7:

(Start: 47 @2449 has 87 MA's), (169, 2692), (171, 2707), (175, 2719), (183, 2770), (202, 2845), (211, 2887), (213, 2893), (218, 2908), (242, 2995), (251, 3067), (256, 3091), (278, 3190), (286, 3226), (295, 3244), (332, 3367), (340, 3403), (386, 3565), (388, 3574), (408, 3637), (420, 3691), (442, 3772), (455, 3811), (463, 3832), (469, 3856), (516, 4009), (517, 4012),

Gene: Squee\_12 Start: 7450, Stop: 9138, Start Num: 48

Candidate Starts for Squee\_12:

(Start: 48 @7450 has 363 MA's), (Start: 153 @7630 has 2 MA's), (175, 7714), (180, 7750), (185, 7777), (209, 7873), (217, 7900), (223, 7933), (244, 8008), (256, 8098), (261, 8122), (277, 8197), (315, 8353), (316, 8362), (329, 8413), (393, 8647), (395, 8659), (411, 8701), (416, 8722), (423, 8749), (455, 8857), (490, 8947), (514, 9052),

Gene: StCroix\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for StCroix\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Stagni\_13 Start: 6959, Stop: 8659, Start Num: 51

Candidate Starts for Stagni\_13:

(Start: 51 @6959 has 139 MA's), (Start: 81 @7007 has 4 MA's), (149, 7142), (194, 7334), (217, 7421), (256, 7619), (275, 7709), (294, 7772), (329, 7934), (383, 8132), (389, 8156), (390, 8159), (411, 8222), (416, 8243), (425, 8282), (455, 8378), (472, 8432), (490, 8468), (529, 8615), (547, 8645), (548, 8648),

Gene: StarStuff\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for StarStuff\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: Stasia\_12 Start: 7329, Stop: 9026, Start Num: 48

Candidate Starts for Stasia\_12:

(Start: 48 @7329 has 363 MA's), (Start: 68 @7353 has 1 MA's), (175, 7599), (216, 7782), (217, 7785), (225, 7824), (244, 7893), (247, 7917), (256, 7983), (258, 7992), (275, 8073), (284, 8106), (315, 8238), (337, 8325), (342, 8358), (365, 8424), (383, 8499), (389, 8523), (411, 8589), (414, 8601), (420, 8628), (425, 8649), (455, 8745), (478, 8814), (529, 8982), (547, 9012), (548, 9015),

Gene: SteamedHams\_6 Start: 1120, Stop: 2799, Start Num: 96

Candidate Starts for SteamedHams\_6:

(Start: 96 @1120 has 69 MA's), (Start: 119 @1171 has 1 MA's), (125, 1192), (Start: 126 @1195 has 2 MA's), (150, 1237), (169, 1303), (179, 1363), (184, 1384), (185, 1393), (206, 1480), (214, 1516), (217, 1525), (227, 1576), (249, 1675), (251, 1696), (258, 1729), (267, 1765), (299, 1909), (309, 1945), (317,

1984), (347, 2131), (362, 2155), (384, 2254), (410, 2338), (434, 2425), (463, 2521), (486, 2569), (492, 2593), (523, 2725), (547, 2785), (548, 2788),

Gene: Steamy\_13 Start: 7952, Stop: 9736, Start Num: 49

Candidate Starts for Steamy\_13:

(Start: 49 @7952 has 222 MA's), (123, 8081), (146, 8180), (156, 8204), (171, 8267), (185, 8342), (206, 8423), (217, 8468), (225, 8507), (244, 8579), (256, 8669), (261, 8693), (284, 8792), (289, 8810), (295, 8825), (383, 9212), (408, 9284), (411, 9299), (420, 9338), (421, 9341), (425, 9359), (455, 9455), (527, 9689), (529, 9692), (546, 9719), (547, 9722), (548, 9725),

Gene: StepMih\_13 Start: 6950, Stop: 8650, Start Num: 51

Candidate Starts for StepMih\_13:

(Start: 51 @6950 has 139 MA's), (Start: 81 @6998 has 4 MA's), (149, 7133), (194, 7325), (217, 7412), (256, 7610), (275, 7700), (294, 7763), (329, 7925), (383, 8123), (389, 8147), (390, 8150), (411, 8213), (416, 8234), (425, 8273), (455, 8369), (472, 8423), (490, 8459), (529, 8606), (547, 8636), (548, 8639),

Gene: Stephig9\_9 Start: 5669, Stop: 7423, Start Num: 28

Candidate Starts for Stephig9\_9:

(Start: 28 @5669 has 30 MA's), (44, 5711), (67, 5750), (123, 5858), (185, 6065), (238, 6266), (256, 6374), (284, 6503), (322, 6668), (331, 6701), (366, 6821), (383, 6896), (416, 7007), (420, 7025), (425, 7046), (440, 7100), (455, 7142), (496, 7247), (517, 7346), (529, 7379), (548, 7412), (550, 7418),

Gene: StewieG\_10 Start: 6822, Stop: 8510, Start Num: 48

Candidate Starts for StewieG\_10:

(Start: 48 @6822 has 363 MA's), (Start: 153 @7002 has 2 MA's), (175, 7086), (180, 7122), (185, 7149), (217, 7272), (244, 7380), (256, 7470), (261, 7494), (268, 7521), (277, 7569), (315, 7725), (329, 7785), (390, 8010), (393, 8019), (395, 8031), (411, 8073), (416, 8094), (423, 8121), (455, 8229), (490, 8319), (514, 8424),

Gene: Stink\_11 Start: 6849, Stop: 8546, Start Num: 48

Candidate Starts for Stink\_11:

(Start: 48 @6849 has 363 MA's), (Start: 68 @6873 has 1 MA's), (Start: 153 @7035 has 2 MA's), (175, 7119), (216, 7302), (217, 7305), (225, 7344), (244, 7413), (247, 7437), (252, 7467), (256, 7503), (275, 7593), (315, 7758), (326, 7803), (337, 7845), (342, 7878), (365, 7944), (383, 8019), (389, 8043), (411, 8109), (420, 8148), (425, 8169), (455, 8265), (529, 8502), (547, 8532), (548, 8535),

Gene: Strosahl\_14 Start: 6647, Stop: 8344, Start Num: 49

Candidate Starts for Strosahl\_14:

(Start: 49 @6647 has 222 MA's), (65, 6665), (149, 6827), (204, 7052), (217, 7106), (244, 7214), (248, 7241), (256, 7304), (261, 7328), (389, 7844), (411, 7907), (421, 7949), (455, 8063), (496, 8168), (529, 8300), (546, 8327), (547, 8330), (548, 8333),

Gene: SuMoo\_2 Start: 632, Stop: 2350, Start Num: 64

Candidate Starts for SuMoo\_2:

(Start: 64 @632 has 12 MA's), (199, 1004), (211, 1055), (217, 1073), (249, 1223), (258, 1277), (275, 1355), (286, 1403), (373, 1718), (408, 1853), (455, 2024), (460, 2039), (488, 2138), (503, 2204), (519, 2276),

Gene: Success\_50 Start: 25807, Stop: 27369, Start Num: 90

Candidate Starts for Success\_50:

(Start: 90 @25807 has 1 MA's), (159, 25960), (211, 26191), (213, 26197), (217, 26209), (229, 26260), (249, 26356), (258, 26410), (259, 26413), (281, 26524), (346, 26752), (383, 26863), (386, 26875), (463, 27109), (473, 27145), (517, 27289), (538, 27334), (547, 27358),

Gene: Sue2\_2 Start: 539, Stop: 2245, Start Num: 74

Candidate Starts for Sue2\_2:

(6, 230), (7, 233), (9, 242), (31, 461), (Start: 74 @539 has 7 MA's), (217, 968), (225, 1010), (249, 1106), (252, 1130), (267, 1205), (279, 1265), (284, 1280), (350, 1532), (383, 1655), (386, 1667), (420, 1793), (425, 1814), (455, 1910), (460, 1925), (517, 2156), (519, 2168),

Gene: Sujidade\_7 Start: 2672, Stop: 4318, Start Num: 47

Candidate Starts for Sujidade\_7:

(Start: 47 @2672 has 87 MA's), (Start: 62 @2690 has 20 MA's), (162, 2894), (171, 2930), (211, 3110), (218, 3131), (242, 3218), (251, 3290), (256, 3314), (278, 3413), (281, 3428), (289, 3452), (291, 3458), (340, 3626), (383, 3776), (388, 3797), (414, 3887), (442, 3995), (455, 4034), (463, 4055), (465, 4061), (469, 4079), (517, 4235),

Gene: SummitAcademy\_3 Start: 977, Stop: 2653, Start Num: 96

Candidate Starts for SummitAcademy\_3:

(Start: 96 @977 has 69 MA's), (Start: 119 @1028 has 1 MA's), (125, 1049), (150, 1094), (162, 1136), (171, 1172), (184, 1238), (206, 1334), (214, 1370), (217, 1379), (218, 1382), (227, 1430), (230, 1442), (249, 1529), (286, 1709), (299, 1763), (327, 1886), (341, 1943), (346, 1976), (375, 2042), (384, 2108), (386, 2114), (411, 2198), (434, 2279), (440, 2312), (465, 2381), (496, 2459), (497, 2462), (518, 2558), (523, 2579), (527, 2585), (547, 2639), (548, 2642),

Gene: Sumter\_10 Start: 6565, Stop: 8253, Start Num: 48

Candidate Starts for Sumter\_10:

(Start: 48 @6565 has 363 MA's), (175, 6829), (176, 6853), (217, 7015), (223, 7048), (244, 7123), (256, 7213), (261, 7237), (268, 7264), (277, 7312), (297, 7381), (315, 7468), (329, 7528), (390, 7753), (393, 7762), (395, 7774), (411, 7816), (416, 7837), (423, 7864), (455, 7972), (490, 8062), (514, 8167),

Gene: Sunhee\_10 Start: 6558, Stop: 8312, Start Num: 49

Candidate Starts for Sunhee\_10:

(Start: 49 @6558 has 222 MA's), (Start: 66 @6576 has 5 MA's), (113, 6663), (120, 6678), (123, 6687), (139, 6753), (145, 6783), (146, 6786), (162, 6837), (216, 7068), (217, 7071), (244, 7182), (247, 7206), (256, 7272), (261, 7296), (275, 7362), (295, 7428), (316, 7536), (336, 7611), (363, 7713), (383, 7788), (386, 7800), (389, 7812), (390, 7815), (392, 7821), (411, 7875), (455, 8031), (478, 8100), (529, 8268), (546, 8295), (549, 8304),

Gene: SunsetPointe\_6 Start: 2419, Stop: 4047, Start Num: 62

Candidate Starts for SunsetPointe\_6:

(Start: 47 @2401 has 87 MA's), (Start: 62 @2419 has 20 MA's), (162, 2623), (179, 2704), (211, 2839), (218, 2860), (242, 2947), (251, 3019), (256, 3043), (278, 3142), (295, 3196), (326, 3295), (340, 3355), (386, 3517), (388, 3526), (414, 3616), (420, 3643), (441, 3721), (442, 3724), (455, 3763), (463, 3784), (465, 3790), (469, 3808), (503, 3904), (517, 3964),

Gene: Sunshine924\_10 Start: 6548, Stop: 8236, Start Num: 48

Candidate Starts for Sunshine924\_10:

(Start: 48 @6548 has 363 MA's), (175, 6812), (176, 6836), (217, 6998), (223, 7031), (244, 7106), (252, 7160), (256, 7196), (261, 7220), (268, 7247), (277, 7295), (297, 7364), (315, 7451), (329, 7511), (393, 7745), (395, 7757), (411, 7799), (416, 7820), (423, 7847), (455, 7955), (490, 8045), (514, 8150),

Gene: SuperAwesome\_15 Start: 7523, Stop: 9277, Start Num: 49

Candidate Starts for SuperAwesome\_15:

(Start: 49 @7523 has 222 MA's), (146, 7754), (162, 7805), (171, 7841), (185, 7916), (217, 8039), (225, 8078), (244, 8147), (247, 8171), (248, 8174), (256, 8237), (261, 8261), (294, 8390), (295, 8393), (319,

8504), (360, 8666), (383, 8753), (386, 8765), (389, 8777), (411, 8840), (420, 8879), (425, 8900), (450, 8984), (455, 8996), (529, 9233), (546, 9260), (547, 9263),

Gene: SuperCallie99\_15 Start: 7524, Stop: 9278, Start Num: 49

Candidate Starts for SuperCallie99\_15:

(Start: 49 @7524 has 222 MA's), (146, 7755), (162, 7806), (171, 7842), (185, 7917), (217, 8040), (225, 8079), (244, 8148), (247, 8172), (248, 8175), (256, 8238), (261, 8262), (284, 8361), (285, 8364), (294, 8391), (295, 8394), (365, 8679), (386, 8766), (389, 8778), (411, 8841), (420, 8880), (425, 8901), (450, 8985), (455, 8997), (529, 9234), (546, 9261), (547, 9264),

Gene: Superchunk\_11 Start: 6158, Stop: 7942, Start Num: 49

Candidate Starts for Superchunk\_11:

(Start: 49 @6158 has 222 MA's), (146, 6389), (171, 6476), (206, 6629), (216, 6671), (217, 6674), (244, 6785), (247, 6809), (248, 6812), (256, 6875), (261, 6899), (295, 7031), (392, 7451), (420, 7544), (425, 7565), (450, 7649), (455, 7661), (497, 7769), (529, 7898), (546, 7925), (547, 7928),

Gene: Superstar\_8 Start: 3315, Stop: 4961, Start Num: 47

Candidate Starts for Superstar\_8:

(Start: 47 @3315 has 87 MA's), (175, 3585), (181, 3627), (202, 3711), (211, 3753), (218, 3774), (242, 3861), (251, 3933), (256, 3957), (278, 4056), (286, 4092), (295, 4110), (331, 4230), (332, 4233), (340, 4269), (388, 4440), (392, 4452), (420, 4557), (442, 4638), (455, 4677), (463, 4698), (469, 4722), (517, 4878),

Gene: Survivors\_6 Start: 1843, Stop: 3543, Start Num: 96

Candidate Starts for Survivors\_6:

(Start: 96 @1843 has 69 MA's), (109, 1873), (125, 1915), (171, 2053), (180, 2101), (186, 2131), (194, 2164), (202, 2200), (206, 2215), (208, 2230), (217, 2260), (227, 2311), (249, 2410), (251, 2431), (267, 2500), (275, 2542), (283, 2572), (317, 2719), (328, 2770), (342, 2833), (346, 2857), (374, 2923), (379, 2956), (381, 2980), (382, 2983), (384, 2992), (390, 3013), (401, 3040), (411, 3085), (414, 3097), (415, 3103), (420, 3124), (431, 3163), (463, 3262), (474, 3298), (505, 3385), (523, 3466), (527, 3472), (547, 3529), (548, 3532),

Gene: Swann\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Swann\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: SweatNTears\_6 Start: 1637, Stop: 3316, Start Num: 96

Candidate Starts for SweatNTears\_6:

(Start: 96 @1637 has 69 MA's), (Start: 119 @1688 has 1 MA's), (125, 1709), (148, 1748), (171, 1835), (179, 1880), (184, 1901), (185, 1910), (202, 1982), (214, 2033), (217, 2042), (227, 2093), (249, 2192), (267, 2282), (299, 2426), (309, 2462), (317, 2501), (324, 2534), (337, 2582), (346, 2639), (362, 2672), (375, 2705), (384, 2771), (386, 2777), (407, 2843), (410, 2855), (434, 2942), (463, 3038), (486, 3086), (505, 3161), (523, 3242), (547, 3302), (548, 3305),

Gene: SweetiePie\_12 Start: 7386, Stop: 9173, Start Num: 49

Candidate Starts for SweetiePie\_12:

(Start: 49 @7386 has 222 MA's), (110, 7494), (120, 7515), (146, 7623), (164, 7683), (185, 7785), (216, 7905), (217, 7908), (244, 8016), (256, 8106), (261, 8130), (289, 8247), (295, 8262), (362, 8562), (414, 8748), (420, 8775), (425, 8796), (455, 8892), (529, 9129), (546, 9156), (547, 9159),

Gene: SwirlSquare\_14 Start: 6290, Stop: 8074, Start Num: 49

Candidate Starts for SwirlSquare\_14:

(Start: 49 @6290 has 222 MA's), (146, 6521), (171, 6608), (206, 6761), (216, 6803), (217, 6806), (244, 6917), (256, 7007), (261, 7031), (295, 7163), (297, 7175), (420, 7676), (425, 7697), (450, 7781), (455, 7793), (497, 7901), (529, 8030), (546, 8057), (547, 8060),

Gene: Swirley\_9 Start: 6131, Stop: 7909, Start Num: 26

Candidate Starts for Swirley\_9:

(Start: 26 @6131 has 19 MA's), (Start: 28 @6158 has 30 MA's), (60, 6227), (121, 6341), (123, 6347), (171, 6479), (185, 6554), (186, 6557), (194, 6590), (204, 6623), (231, 6731), (238, 6755), (244, 6788), (256, 6863), (266, 6908), (281, 6986), (284, 6992), (297, 7037), (322, 7157), (331, 7190), (337, 7211), (383, 7385), (389, 7409), (390, 7412), (411, 7472), (414, 7484), (420, 7511), (425, 7532), (450, 7616), (455, 7628), (529, 7865), (548, 7898), (550, 7904),

Gene: SwissCheese\_11 Start: 7010, Stop: 8698, Start Num: 48

Candidate Starts for SwissCheese\_11:

(Start: 48 @7010 has 363 MA's), (Start: 153 @7190 has 2 MA's), (175, 7274), (180, 7310), (217, 7460), (244, 7568), (256, 7658), (261, 7682), (277, 7757), (297, 7826), (315, 7913), (329, 7973), (393, 8207), (395, 8219), (411, 8261), (416, 8282), (423, 8309), (455, 8417), (490, 8507), (514, 8612),

Gene: Switzer\_12 Start: 6933, Stop: 8621, Start Num: 48

Candidate Starts for Switzer\_12:

(Start: 48 @6933 has 363 MA's), (175, 7197), (176, 7221), (209, 7356), (217, 7383), (223, 7416), (244, 7491), (256, 7581), (261, 7605), (268, 7632), (277, 7680), (297, 7749), (315, 7836), (328, 7893), (329, 7896), (390, 8121), (393, 8130), (395, 8142), (411, 8184), (416, 8205), (423, 8232), (455, 8340), (490, 8430), (514, 8535),

Gene: Switzerland\_14 Start: 6808, Stop: 8505, Start Num: 49

Candidate Starts for Switzerland\_14:

(Start: 49 @6808 has 222 MA's), (65, 6826), (149, 6988), (185, 7144), (204, 7213), (217, 7267), (244, 7375), (248, 7402), (256, 7465), (261, 7489), (389, 8005), (411, 8068), (421, 8110), (455, 8224), (496, 8329), (529, 8461), (546, 8488), (547, 8491), (548, 8494),

Gene: Swole\_13 Start: 7479, Stop: 9167, Start Num: 48

Candidate Starts for Swole\_13:

(Start: 48 @7479 has 363 MA's), (Start: 153 @7659 has 2 MA's), (175, 7743), (180, 7779), (185, 7806), (217, 7929), (244, 8037), (256, 8127), (261, 8151), (268, 8178), (277, 8226), (315, 8382), (329, 8442), (393, 8676), (395, 8688), (411, 8730), (416, 8751), (423, 8778), (455, 8886), (490, 8976), (514, 9081),

Gene: SydNat\_9 Start: 6265, Stop: 8016, Start Num: 28

Candidate Starts for SydNat\_9:

(Start: 26 @6238 has 19 MA's), (Start: 28 @6265 has 30 MA's), (60, 6334), (82, 6373), (121, 6448), (123, 6454), (171, 6586), (185, 6661), (186, 6664), (204, 6730), (231, 6838), (238, 6862), (256, 6970), (266, 7015), (281, 7093), (284, 7099), (285, 7102), (322, 7264), (324, 7270), (331, 7297), (383, 7492), (389, 7516), (411, 7579), (414, 7591), (420, 7618), (425, 7639), (440, 7693), (450, 7723), (455, 7735), (529, 7972), (548, 8005), (550, 8011),

Gene: TChen\_2 Start: 458, Stop: 2236, Start Num: 51

Candidate Starts for TChen\_2:

(Start: 51 @458 has 139 MA's), (89, 509), (101, 530), (112, 560), (116, 566), (122, 581), (140, 632), (160, 695), (162, 707), (171, 743), (180, 791), (183, 806), (185, 818), (187, 824), (201, 881), (202, 884), (204, 890), (207, 905), (210, 923), (211, 926), (217, 944), (249, 1085), (250, 1103), (256, 1130),

(261, 1154), (267, 1187), (285, 1265), (303, 1355), (306, 1364), (311, 1379), (331, 1421), (332, 1424), (341, 1466), (342, 1475), (346, 1499), (365, 1541), (366, 1544), (376, 1568), (382, 1607), (383, 1610), (387, 1625), (392, 1643), (393, 1646), (417, 1727), (420, 1742), (421, 1745), (424, 1757), (429, 1796), (440, 1847), (442, 1853), (450, 1889), (455, 1901), (465, 1925), (472, 1952), (476, 1961), (477, 1964), (491, 2036), (503, 2084), (506, 2090), (511, 2123), (512, 2129), (514, 2135), (516, 2141), (517, 2144), (519, 2156), (527, 2174), (537, 2195), (544, 2213), (548, 2225),

Gene: TNguyen7\_11 Start: 6466, Stop: 8163, Start Num: 48

Candidate Starts for TNguyen7\_11:

(Start: 48 @6466 has 363 MA's), (Start: 68 @6490 has 1 MA's), (95, 6538), (175, 6736), (185, 6799), (213, 6910), (217, 6922), (225, 6961), (230, 6973), (244, 7030), (247, 7054), (256, 7120), (258, 7129), (275, 7210), (281, 7237), (315, 7375), (337, 7462), (342, 7495), (365, 7561), (383, 7636), (389, 7660), (390, 7663), (392, 7669), (394, 7678), (408, 7711), (411, 7726), (425, 7786), (455, 7882), (469, 7927), (472, 7936), (518, 8089), (529, 8119), (547, 8149), (548, 8152),

Gene: TPA4\_2 Start: 526, Stop: 2238, Start Num: 82

Candidate Starts for TPA4\_2:

(39, 451), (Start: 48 @475 has 363 MA's), (72, 505), (82, 526), (99, 550), (117, 595), (140, 658), (169, 757), (171, 772), (188, 856), (195, 889), (198, 898), (217, 970), (239, 1048), (241, 1054), (250, 1126), (258, 1162), (269, 1219), (273, 1243), (376, 1585), (386, 1639), (392, 1660), (394, 1669), (414, 1738), (420, 1765), (421, 1768), (442, 1876), (450, 1909), (455, 1921), (495, 2044), (514, 2137), (516, 2143), (548, 2227),

Gene: TWAMP\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for TWAMP\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (382, 4308), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: TagePhighter\_7 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for TagePhighter\_7:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (Start: 126 @2526 has 2 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (353, 3390), (383, 3480), (388, 3501), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (517, 3939), (550, 4017),

Gene: Takoda\_8 Start: 3148, Stop: 4830, Start Num: 51

Candidate Starts for Takoda\_8:

(Start: 51 @3148 has 139 MA's), (Start: 153 @3334 has 2 MA's), (171, 3406), (175, 3418), (176, 3442), (180, 3454), (219, 3622), (238, 3682), (256, 3790), (313, 4045), (331, 4117), (332, 4120), (376, 4261), (383, 4303), (392, 4336), (411, 4393), (414, 4405), (455, 4549), (469, 4594), (496, 4654), (517, 4753), (529, 4786), (546, 4813), (547, 4816), (548, 4819),

Gene: Tallboi\_2 Start: 534, Stop: 2240, Start Num: 71

Candidate Starts for Tallboi\_2:

(Start: 71 @534 has 40 MA's), (203, 906), (217, 963), (220, 984), (228, 1011), (249, 1101), (258, 1155), (267, 1200), (284, 1275), (343, 1488), (350, 1527), (383, 1650), (455, 1905), (460, 1920), (496, 2055), (503, 2091), (517, 2151), (519, 2163),

Gene: Taquarus\_11 Start: 6887, Stop: 8584, Start Num: 48

Candidate Starts for Taquarus\_11:

(Start: 48 @6887 has 363 MA's), (Start: 68 @6911 has 1 MA's), (Start: 126 @7034 has 2 MA's), (167, 7124), (175, 7157), (194, 7256), (216, 7340), (217, 7343), (225, 7382), (244, 7451), (247, 7475), (256, 7541), (275, 7631), (315, 7796), (337, 7883), (342, 7916), (365, 7982), (382, 8054), (383, 8057), (389, 8081), (408, 8132), (411, 8147), (420, 8186), (425, 8207), (455, 8303), (529, 8540), (547, 8570), (548, 8573),

Gene: Target\_13 Start: 7766, Stop: 9457, Start Num: 48

Candidate Starts for Target\_13:

(Start: 48 @7766 has 363 MA's), (Start: 153 @7946 has 2 MA's), (175, 8030), (183, 8081), (217, 8216), (244, 8327), (247, 8351), (256, 8417), (261, 8441), (299, 8609), (328, 8729), (329, 8732), (383, 8930), (390, 8957), (413, 9029), (416, 9041), (421, 9062), (437, 9119), (455, 9176), (490, 9266), (491, 9269), (517, 9380), (518, 9383), (529, 9413), (547, 9443), (548, 9446),

Gene: TarsusIV\_12 Start: 7454, Stop: 9241, Start Num: 49

Candidate Starts for TarsusIV\_12:

(Start: 49 @7454 has 222 MA's), (110, 7562), (120, 7583), (140, 7667), (146, 7691), (171, 7778), (181, 7832), (202, 7916), (216, 7973), (217, 7976), (244, 8084), (256, 8174), (261, 8198), (289, 8315), (295, 8330), (367, 8645), (383, 8717), (414, 8816), (420, 8843), (425, 8864), (455, 8960), (529, 9197), (547, 9227),

Gene: Tarynearal\_8 Start: 6158, Stop: 7936, Start Num: 26

Candidate Starts for Tarynearal\_8:

(Start: 26 @6158 has 19 MA's), (Start: 28 @6185 has 30 MA's), (60, 6254), (121, 6368), (123, 6374), (171, 6506), (185, 6581), (186, 6584), (194, 6617), (204, 6650), (231, 6758), (238, 6782), (244, 6815), (256, 6890), (266, 6935), (281, 7013), (284, 7019), (297, 7064), (331, 7217), (337, 7238), (383, 7412), (389, 7436), (390, 7439), (411, 7499), (414, 7511), (420, 7538), (425, 7559), (450, 7643), (455, 7655), (529, 7892), (548, 7925), (550, 7931),

Gene: Tasp14\_12 Start: 7250, Stop: 8938, Start Num: 48

Candidate Starts for Tasp14\_12:

(Start: 48 @7250 has 363 MA's), (Start: 153 @7430 has 2 MA's), (175, 7514), (180, 7550), (185, 7577), (217, 7700), (244, 7808), (256, 7898), (261, 7922), (268, 7949), (277, 7997), (297, 8066), (315, 8153), (329, 8213), (393, 8447), (395, 8459), (411, 8501), (416, 8522), (423, 8549), (455, 8657), (490, 8747), (514, 8852),

Gene: Taurus\_13 Start: 6955, Stop: 8655, Start Num: 51

Candidate Starts for Taurus\_13:

(Start: 51 @6955 has 139 MA's), (Start: 81 @7003 has 4 MA's), (149, 7138), (194, 7330), (217, 7417), (224, 7453), (256, 7615), (275, 7705), (294, 7768), (329, 7930), (383, 8128), (389, 8152), (390, 8155), (411, 8218), (416, 8239), (425, 8278), (455, 8374), (472, 8428), (490, 8464), (529, 8611), (547, 8641), (548, 8644),

Gene: Tbone\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Tbone\_2:

(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (496, 2054), (513, 2138), (519, 2162),

Gene: Tefunt\_6 Start: 2173, Stop: 3822, Start Num: 47

Candidate Starts for Tefunt\_6:

(Start: 47 @2173 has 87 MA's), (156, 2371), (162, 2398), (175, 2446), (179, 2479), (184, 2500), (206, 2587), (211, 2614), (218, 2635), (229, 2680), (242, 2722), (251, 2794), (256, 2818), (278, 2917), (286, 2953), (295, 2971), (331, 3091), (332, 3094), (340, 3130), (365, 3211), (388, 3301), (392, 3313), (408,



3364), (414, 3391), (420, 3418), (455, 3538), (463, 3559), (469, 3583), (496, 3643), (517, 3739), (550, 3817),

Gene: Teodoridan\_9 Start: 6381, Stop: 8069, Start Num: 48

Candidate Starts for Teodoridan\_9:

(Start: 48 @6381 has 363 MA's), (175, 6645), (176, 6669), (217, 6831), (223, 6864), (244, 6939), (256, 7029), (261, 7053), (277, 7128), (315, 7284), (316, 7293), (328, 7341), (329, 7344), (393, 7578), (395, 7590), (411, 7632), (416, 7653), (423, 7680), (455, 7788), (490, 7878), (514, 7983),

Gene: Tesla\_34 Start: 10743, Stop: 12485, Start Num: 96

Candidate Starts for Tesla\_34:

(Start: 96 @10743 has 69 MA's), (149, 10860), (162, 10905), (170, 10971), (172, 10986), (176, 11019), (177, 11022), (181, 11037), (186, 11061), (187, 11064), (194, 11094), (200, 11115), (202, 11133), (205, 11142), (212, 11178), (217, 11193), (227, 11238), (242, 11280), (246, 11319), (249, 11331), (251, 11352), (262, 11403), (268, 11424), (324, 11646), (346, 11751), (347, 11760), (366, 11793), (375, 11814), (376, 11817), (379, 11844), (383, 11874), (386, 11886), (390, 11901), (393, 11910), (394, 11916), (407, 11958), (409, 11967), (412, 11982), (416, 11997), (434, 12057), (440, 12096), (451, 12129), (463, 12159), (464, 12162), (485, 12246), (496, 12300), (499, 12315), (506, 12342), (517, 12396), (546, 12468), (547, 12471),

Gene: Texage\_11 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Texage\_11:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: TforTroy\_2 Start: 547, Stop: 2244, Start Num: 71

Candidate Starts for TforTroy\_2:

(Start: 71 @547 has 40 MA's), (78, 556), (Start: 119 @634 has 1 MA's), (203, 919), (217, 976), (225, 1018), (249, 1114), (258, 1168), (284, 1288), (303, 1378), (383, 1663), (414, 1774), (434, 1843), (455, 1918), (460, 1933), (496, 2059), (513, 2143), (519, 2167),

Gene: Thanksgivukkah\_11 Start: 6889, Stop: 8586, Start Num: 48

Candidate Starts for Thanksgivukkah\_11:

(Start: 48 @6889 has 363 MA's), (Start: 68 @6913 has 1 MA's), (Start: 126 @7036 has 2 MA's), (167, 7126), (175, 7159), (194, 7258), (216, 7342), (217, 7345), (225, 7384), (244, 7453), (247, 7477), (256, 7543), (275, 7633), (315, 7798), (337, 7885), (342, 7918), (365, 7984), (382, 8056), (383, 8059), (389, 8083), (408, 8134), (411, 8149), (420, 8188), (425, 8209), (455, 8305), (529, 8542), (547, 8572), (548, 8575),

Gene: Theia\_8 Start: 6097, Stop: 7875, Start Num: 26

Candidate Starts for Theia\_8:

(Start: 26 @6097 has 19 MA's), (Start: 28 @6124 has 30 MA's), (60, 6193), (121, 6307), (123, 6313), (171, 6445), (185, 6520), (186, 6523), (194, 6556), (204, 6589), (231, 6697), (238, 6721), (244, 6754), (256, 6829), (266, 6874), (281, 6952), (284, 6958), (322, 7123), (331, 7156), (337, 7177), (383, 7351), (389, 7375), (390, 7378), (411, 7438), (414, 7450), (420, 7477), (425, 7498), (450, 7582), (455, 7594), (491, 7687), (529, 7831), (548, 7864), (550, 7870),

Gene: TheloniousMonk\_13 Start: 7993, Stop: 9681, Start Num: 48

Candidate Starts for TheloniousMonk\_13:

(Start: 48 @7993 has 363 MA's), (175, 8257), (176, 8281), (217, 8443), (223, 8476), (244, 8551), (256, 8641), (261, 8665), (268, 8692), (277, 8740), (297, 8809), (312, 8884), (315, 8896), (329, 8956), (390, 9181), (393, 9190), (395, 9202), (411, 9244), (416, 9265), (423, 9292), (455, 9400), (490, 9490), (514, 9595),

Gene: Thestral\_7 Start: 2249, Stop: 3895, Start Num: 47

Candidate Starts for Thestral\_7:

(Start: 47 @2249 has 87 MA's), (175, 2519), (176, 2543), (179, 2552), (202, 2645), (206, 2660), (211, 2687), (218, 2708), (242, 2795), (251, 2867), (256, 2891), (278, 2990), (286, 3026), (313, 3131), (332, 3167), (340, 3203), (343, 3221), (382, 3350), (383, 3353), (386, 3365), (388, 3374), (391, 3383), (414, 3464), (420, 3491), (426, 3518), (442, 3572), (455, 3611), (463, 3632), (469, 3656), (496, 3716), (517, 3812), (550, 3890),

Gene: ThetaBob\_2 Start: 458, Stop: 2236, Start Num: 51

Candidate Starts for ThetaBob\_2:

(Start: 51 @458 has 139 MA's), (89, 509), (101, 530), (112, 560), (116, 566), (122, 581), (140, 632), (160, 695), (162, 707), (171, 743), (180, 791), (183, 806), (185, 818), (187, 824), (201, 881), (202, 884), (204, 890), (207, 905), (210, 923), (211, 926), (217, 944), (249, 1085), (250, 1103), (256, 1130), (261, 1154), (267, 1187), (285, 1265), (303, 1355), (306, 1364), (311, 1379), (331, 1421), (332, 1424), (341, 1466), (342, 1475), (346, 1499), (365, 1541), (366, 1544), (376, 1568), (382, 1607), (383, 1610), (387, 1625), (392, 1643), (393, 1646), (417, 1727), (420, 1742), (421, 1745), (424, 1757), (429, 1796), (440, 1847), (442, 1853), (450, 1889), (455, 1901), (465, 1925), (472, 1952), (476, 1961), (477, 1964), (491, 2036), (503, 2084), (506, 2090), (511, 2123), (512, 2129), (514, 2135), (516, 2141), (517, 2144), (519, 2156), (527, 2174), (537, 2195), (544, 2213), (548, 2225),

Gene: Thor\_11 Start: 6833, Stop: 8521, Start Num: 48

Candidate Starts for Thor\_11:

(Start: 48 @6833 has 363 MA's), (Start: 153 @7013 has 2 MA's), (175, 7097), (180, 7133), (185, 7160), (217, 7283), (223, 7316), (244, 7391), (256, 7481), (261, 7505), (268, 7532), (277, 7580), (315, 7736), (316, 7745), (329, 7796), (393, 8030), (395, 8042), (411, 8084), (416, 8105), (423, 8132), (455, 8240), (490, 8330), (514, 8435),

Gene: Tian\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Tian\_2:

(Start: 71 @533 has 40 MA's), (109, 599), (203, 905), (217, 962), (220, 983), (228, 1010), (249, 1100), (258, 1154), (267, 1199), (284, 1274), (350, 1526), (383, 1649), (434, 1829), (455, 1904), (460, 1919), (496, 2054), (517, 2150), (519, 2162),

Gene: Tiffany\_13 Start: 6851, Stop: 8551, Start Num: 51

Candidate Starts for Tiffany\_13:

(Start: 51 @6851 has 139 MA's), (Start: 81 @6899 has 4 MA's), (149, 7034), (194, 7226), (217, 7313), (256, 7511), (275, 7601), (294, 7664), (329, 7826), (383, 8024), (389, 8048), (390, 8051), (411, 8114), (416, 8135), (425, 8174), (455, 8270), (472, 8324), (490, 8360), (529, 8507), (547, 8537), (548, 8540),

Gene: Tiger\_9 Start: 6005, Stop: 7756, Start Num: 28

Candidate Starts for Tiger\_9:

(Start: 26 @5978 has 19 MA's), (Start: 28 @6005 has 30 MA's), (60, 6074), (82, 6113), (121, 6188), (123, 6194), (171, 6326), (185, 6401), (186, 6404), (219, 6539), (231, 6578), (238, 6602), (256, 6710), (266, 6755), (281, 6833), (284, 6839), (322, 7004), (331, 7037), (337, 7058), (383, 7232), (389, 7256), (390, 7259), (411, 7319), (414, 7331), (420, 7358), (425, 7379), (450, 7463), (455, 7475), (529, 7712), (548, 7745), (550, 7751),

Gene: Timothy\_12 Start: 8024, Stop: 9787, Start Num: 49

Candidate Starts for Timothy\_12:

(Start: 49 @8024 has 222 MA's), (Start: 66 @8045 has 5 MA's), (110, 8132), (146, 8261), (156, 8285), (171, 8348), (204, 8492), (216, 8543), (217, 8546), (244, 8657), (247, 8681), (248, 8684), (256, 8747), (258, 8756), (261, 8771), (289, 8888), (295, 8903), (304, 8963), (326, 9047), (365, 9188), (386, 9275), (389, 9287), (408, 9335), (411, 9350), (420, 9389), (425, 9410), (437, 9449), (450, 9494), (455, 9506), (529, 9743), (546, 9770),

Gene: Timshel\_12 Start: 8311, Stop: 10005, Start Num: 48

Candidate Starts for Timshel\_12:

(Start: 48 @8311 has 363 MA's), (142, 8479), (162, 8530), (175, 8578), (185, 8641), (194, 8677), (204, 8710), (213, 8752), (217, 8764), (219, 8779), (225, 8803), (244, 8872), (256, 8962), (258, 8971), (295, 9118), (315, 9217), (328, 9274), (337, 9304), (382, 9475), (383, 9478), (389, 9502), (390, 9505), (413, 9577), (425, 9628), (455, 9724), (465, 9751), (472, 9778), (518, 9931), (529, 9961), (547, 9991),

Gene: TinaBelcher\_6 Start: 2200, Stop: 3846, Start Num: 47

Candidate Starts for TinaBelcher\_6:

(Start: 47 @2200 has 87 MA's), (106, 2296), (175, 2470), (176, 2494), (179, 2503), (202, 2596), (206, 2611), (211, 2638), (218, 2659), (242, 2746), (251, 2818), (256, 2842), (278, 2941), (286, 2977), (313, 3082), (332, 3118), (340, 3154), (343, 3172), (382, 3301), (383, 3304), (386, 3316), (388, 3325), (391, 3334), (414, 3415), (420, 3442), (426, 3469), (442, 3523), (455, 3562), (463, 3583), (469, 3607), (478, 3631), (496, 3667), (517, 3763), (550, 3841),

Gene: TinaFeyge\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for TinaFeyge\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: TinyTimmy\_12 Start: 8076, Stop: 9839, Start Num: 49

Candidate Starts for TinyTimmy\_12:

(Start: 49 @8076 has 222 MA's), (Start: 66 @8097 has 5 MA's), (110, 8184), (146, 8313), (156, 8337), (171, 8400), (204, 8544), (216, 8595), (217, 8598), (244, 8709), (247, 8733), (248, 8736), (256, 8799), (258, 8808), (261, 8823), (289, 8940), (295, 8955), (304, 9015), (326, 9099), (386, 9327), (389, 9339), (408, 9387), (411, 9402), (420, 9441), (425, 9462), (437, 9501), (450, 9546), (455, 9558), (529, 9795), (546, 9822),

Gene: Tinybot\_10 Start: 6864, Stop: 8561, Start Num: 48

Candidate Starts for Tinybot\_10:

(Start: 48 @6864 has 363 MA's), (Start: 68 @6888 has 1 MA's), (Start: 126 @7011 has 2 MA's), (167, 7101), (175, 7134), (194, 7233), (216, 7317), (217, 7320), (225, 7359), (244, 7428), (247, 7452), (256, 7518), (275, 7608), (315, 7773), (337, 7860), (342, 7893), (365, 7959), (382, 8031), (383, 8034), (389, 8058), (408, 8109), (411, 8124), (420, 8163), (425, 8184), (455, 8280), (529, 8517), (547, 8547), (548, 8550),

Gene: TipsytheTRex\_11 Start: 6516, Stop: 8297, Start Num: 49

Candidate Starts for TipsytheTRex\_11:

(Start: 49 @6516 has 222 MA's), (Start: 126 @6660 has 2 MA's), (137, 6705), (146, 6747), (171, 6834), (181, 6888), (216, 7029), (217, 7032), (225, 7071), (244, 7140), (256, 7230), (261, 7254), (294, 7383), (295, 7386), (420, 7899), (425, 7920), (450, 8004), (455, 8016), (529, 8253), (546, 8280), (547, 8283), (548, 8286),

Gene: TiroTheta9\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for TiroTheta9\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Toaka\_11 Start: 6489, Stop: 8273, Start Num: 49

Candidate Starts for Toaka\_11:

(Start: 49 @6489 has 222 MA's), (123, 6618), (146, 6717), (149, 6723), (156, 6741), (185, 6879), (204, 6951), (217, 7005), (225, 7044), (244, 7116), (256, 7206), (261, 7230), (289, 7347), (295, 7362), (316, 7470), (336, 7545), (357, 7641), (386, 7761), (392, 7782), (420, 7875), (425, 7896), (440, 7950), (450, 7980), (455, 7992), (497, 8100), (509, 8151), (529, 8229), (546, 8256), (547, 8259),

Gene: Todacoro\_12 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Todacoro\_12:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Tolls\_6 Start: 1121, Stop: 2800, Start Num: 96

Candidate Starts for Tolls\_6:

(Start: 96 @1121 has 69 MA's), (Start: 119 @1172 has 1 MA's), (125, 1193), (Start: 126 @1196 has 2 MA's), (150, 1238), (169, 1304), (179, 1364), (184, 1385), (185, 1394), (206, 1481), (214, 1517), (217, 1526), (227, 1577), (249, 1676), (251, 1697), (258, 1730), (267, 1766), (299, 1910), (309, 1946), (317, 1985), (347, 2132), (362, 2156), (384, 2255), (410, 2339), (434, 2426), (463, 2522), (486, 2570), (492, 2594), (505, 2645), (523, 2726), (547, 2786), (548, 2789),

Gene: Toma\_6 Start: 2395, Stop: 4023, Start Num: 62

Candidate Starts for Toma\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (353, 3391), (383, 3481), (388, 3502), (414, 3592), (425, 3640), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (517, 3940),

Gene: Tomathan\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for Tomathan\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: ToneTone\_14 Start: 7446, Stop: 9200, Start Num: 49

Candidate Starts for ToneTone\_14:

(Start: 49 @7446 has 222 MA's), (123, 7578), (146, 7677), (156, 7701), (162, 7728), (171, 7764), (185, 7839), (217, 7962), (219, 7977), (225, 8001), (244, 8070), (247, 8094), (248, 8097), (256, 8160), (261, 8184), (294, 8313), (295, 8316), (319, 8427), (360, 8589), (383, 8676), (386, 8688), (389, 8700), (408, 8748), (411, 8763), (420, 8802), (425, 8823), (450, 8907), (455, 8919), (529, 9156), (546, 9183), (547, 9186),

Gene: Toniann\_30 Start: 8628, Stop: 10376, Start Num: 88

Candidate Starts for Toniann\_30:

(Start: 88 @8628 has 21 MA's), (106, 8658), (160, 8787), (190, 8973), (197, 9012), (205, 9036), (210, 9066), (216, 9084), (221, 9111), (228, 9141), (267, 9333), (270, 9351), (310, 9513), (327, 9561), (332, 9576), (373, 9759), (375, 9765), (389, 9849), (413, 9936), (421, 9969), (452, 10083), (465, 10119), (472, 10143), (481, 10158), (533, 10332), (535, 10338),

Gene: Topanga\_11 Start: 6816, Stop: 8507, Start Num: 48

Candidate Starts for Topanga\_11:

(Start: 48 @6816 has 363 MA's), (Start: 68 @6840 has 1 MA's), (Start: 126 @6963 has 2 MA's), (171, 7083), (175, 7095), (182, 7140), (194, 7194), (202, 7221), (206, 7236), (217, 7281), (225, 7320), (242, 7368), (244, 7389), (247, 7413), (256, 7464), (284, 7587), (315, 7719), (333, 7794), (342, 7839), (365, 7905), (383, 7980), (389, 8004), (411, 8070), (420, 8109), (421, 8112), (425, 8130), (455, 8226), (478, 8295), (529, 8463), (547, 8493), (548, 8496),

Gene: Topgun\_11 Start: 6738, Stop: 8426, Start Num: 48

Candidate Starts for Topgun\_11:

(Start: 48 @6738 has 363 MA's), (175, 7002), (176, 7026), (217, 7188), (223, 7221), (244, 7296), (256, 7386), (261, 7410), (277, 7485), (315, 7641), (316, 7650), (328, 7698), (329, 7701), (393, 7935), (395, 7947), (411, 7989), (416, 8010), (423, 8037), (455, 8145), (490, 8235), (514, 8340),

Gene: Toro\_14 Start: 8301, Stop: 10001, Start Num: 48

Candidate Starts for Toro\_14:

(Start: 48 @8301 has 363 MA's), (Start: 88 @8364 has 21 MA's), (159, 8508), (167, 8538), (175, 8571), (185, 8634), (217, 8757), (219, 8772), (244, 8865), (247, 8889), (256, 8955), (295, 9111), (315, 9210), (337, 9297), (342, 9330), (360, 9384), (366, 9399), (382, 9468), (383, 9471), (389, 9495), (414, 9573), (455, 9717), (469, 9762), (497, 9825), (518, 9924), (529, 9954), (547, 9987),

Gene: Toron\_2 Start: 458, Stop: 2236, Start Num: 51

Candidate Starts for Toron\_2:

(Start: 51 @458 has 139 MA's), (69, 479), (89, 509), (101, 530), (112, 560), (116, 566), (122, 581), (140, 632), (160, 695), (162, 707), (171, 743), (180, 791), (183, 806), (185, 818), (187, 824), (201, 881), (202, 884), (204, 890), (207, 905), (210, 923), (211, 926), (217, 944), (249, 1085), (250, 1103), (256, 1130), (261, 1154), (267, 1187), (285, 1265), (306, 1364), (311, 1379), (331, 1421), (337, 1442), (341, 1466), (342, 1475), (346, 1499), (365, 1541), (366, 1544), (376, 1568), (382, 1607), (383, 1610), (387, 1625), (392, 1643), (417, 1727), (420, 1742), (421, 1745), (424, 1757), (429, 1796), (440, 1847), (442, 1853), (450, 1889), (455, 1901), (465, 1925), (472, 1952), (477, 1964), (484, 2000), (491, 2036), (503, 2084), (506, 2090), (511, 2123), (512, 2129), (514, 2135), (516, 2141), (517, 2144), (519, 2156), (527, 2174), (537, 2195), (544, 2213), (548, 2225),

Gene: Tote\_13 Start: 7479, Stop: 9167, Start Num: 48

Candidate Starts for Tote\_13:

(Start: 48 @7479 has 363 MA's), (Start: 153 @7659 has 2 MA's), (175, 7743), (180, 7779), (185, 7806), (217, 7929), (244, 8037), (256, 8127), (261, 8151), (268, 8178), (277, 8226), (315, 8382), (329, 8442), (393, 8676), (395, 8688), (411, 8730), (416, 8751), (423, 8778), (455, 8886), (490, 8976), (514, 9081),

Gene: TouchMeNot\_3 Start: 1236, Stop: 2873, Start Num: 81

Candidate Starts for TouchMeNot\_3:

(Start: 81 @1236 has 4 MA's), (97, 1260), (Start: 127 @1338 has 2 MA's), (159, 1404), (180, 1503), (184, 1521), (185, 1530), (187, 1536), (197, 1584), (199, 1590), (202, 1599), (211, 1641), (213, 1647), (214, 1650), (217, 1659), (235, 1737), (256, 1854), (259, 1866), (260, 1869), (261, 1878), (275, 1941), (295, 2013), (299, 2046), (328, 2124), (352, 2235), (376, 2280), (410, 2412), (411, 2418), (445, 2550),

(455, 2589), (490, 2679), (498, 2706), (516, 2787), (519, 2802), (520, 2805), (522, 2814), (547, 2862),

Gene: Traft412\_13 Start: 7666, Stop: 9354, Start Num: 48

Candidate Starts for Traft412\_13:

(Start: 48 @7666 has 363 MA's), (175, 7930), (176, 7954), (217, 8116), (223, 8149), (244, 8224), (256, 8314), (261, 8338), (268, 8365), (277, 8413), (315, 8569), (329, 8629), (393, 8863), (395, 8875), (411, 8917), (416, 8938), (423, 8965), (455, 9073), (490, 9163), (514, 9268),

Gene: Travvers\_15 Start: 7375, Stop: 9162, Start Num: 49

Candidate Starts for Travvers\_15:

(14, 7216), (16, 7243), (Start: 49 @7375 has 222 MA's), (110, 7483), (120, 7504), (137, 7570), (146, 7612), (171, 7699), (216, 7894), (217, 7897), (244, 8005), (256, 8095), (261, 8119), (284, 8218), (294, 8248), (295, 8251), (319, 8362), (362, 8551), (408, 8710), (411, 8725), (414, 8737), (420, 8764), (425, 8785), (450, 8869), (455, 8881), (490, 8971), (529, 9118), (546, 9145), (547, 9148),

Gene: Treddle\_13 Start: 7975, Stop: 9663, Start Num: 55

Candidate Starts for Treddle\_13:

(Start: 55 @7975 has 24 MA's), (Start: 153 @8155 has 2 MA's), (175, 8239), (177, 8266), (180, 8275), (217, 8425), (223, 8458), (244, 8533), (256, 8623), (261, 8647), (268, 8674), (277, 8722), (315, 8878), (329, 8938), (393, 9172), (395, 9184), (411, 9226), (416, 9247), (423, 9274), (455, 9382), (490, 9472), (514, 9577),

Gene: Trike\_9 Start: 4773, Stop: 6464, Start Num: 48

Candidate Starts for Trike\_9:

(Start: 48 @4773 has 363 MA's), (Start: 68 @4797 has 1 MA's), (Start: 126 @4920 has 2 MA's), (162, 5004), (171, 5040), (175, 5052), (181, 5094), (206, 5193), (217, 5238), (225, 5277), (242, 5325), (244, 5346), (247, 5370), (256, 5421), (284, 5544), (320, 5691), (333, 5751), (342, 5796), (383, 5937), (397, 5991), (411, 6027), (420, 6066), (425, 6087), (455, 6183), (478, 6252), (529, 6420), (547, 6450), (548, 6453),

Gene: Tripl3t\_12 Start: 7661, Stop: 9349, Start Num: 48

Candidate Starts for Tripl3t\_12:

(Start: 48 @7661 has 363 MA's), (175, 7925), (176, 7949), (209, 8084), (217, 8111), (223, 8144), (244, 8219), (256, 8309), (261, 8333), (268, 8360), (277, 8408), (315, 8564), (316, 8573), (329, 8624), (390, 8849), (393, 8858), (395, 8870), (411, 8912), (416, 8933), (423, 8960), (455, 9068), (490, 9158), (514, 9263),

Gene: Triste\_6 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Triste\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (Start: 126 @2527 has 2 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (229, 2881), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (383, 3481), (388, 3502), (408, 3565), (414, 3592), (442, 3700), (455, 3739), (461, 3757), (463, 3760), (465, 3766), (469, 3784), (517, 3940), (550, 4018),

Gene: Trixie\_15 Start: 9087, Stop: 10874, Start Num: 49

Candidate Starts for Trixie\_15:

(Start: 49 @9087 has 222 MA's), (110, 9195), (120, 9216), (146, 9324), (162, 9375), (171, 9411), (216, 9606), (217, 9609), (244, 9717), (256, 9807), (261, 9831), (295, 9963), (383, 10350), (414, 10449), (420, 10476), (421, 10479), (425, 10497), (455, 10593), (529, 10830), (546, 10857), (547, 10860), (548, 10863), (549, 10866),

Gene: Troje\_4 Start: 1111, Stop: 2790, Start Num: 96

Candidate Starts for Troje\_4:

(Start: 96 @1111 has 69 MA's), (Start: 119 @1162 has 1 MA's), (125, 1183), (148, 1222), (171, 1309), (179, 1354), (184, 1375), (185, 1384), (202, 1456), (214, 1507), (217, 1516), (227, 1567), (249, 1666), (251, 1687), (258, 1720), (267, 1756), (299, 1900), (309, 1936), (317, 1975), (324, 2008), (337, 2056), (346, 2113), (362, 2146), (375, 2179), (384, 2245), (386, 2251), (407, 2317), (410, 2329), (434, 2416), (463, 2512), (486, 2560), (505, 2635), (523, 2716), (547, 2776), (548, 2779),

Gene: Trooper\_12 Start: 7244, Stop: 9031, Start Num: 49

Candidate Starts for Trooper\_12:

(Start: 49 @7244 has 222 MA's), (110, 7352), (120, 7373), (143, 7463), (146, 7481), (162, 7532), (171, 7568), (181, 7622), (185, 7643), (193, 7676), (217, 7766), (225, 7805), (244, 7874), (256, 7964), (261, 7988), (289, 8105), (295, 8120), (383, 8507), (414, 8606), (420, 8633), (421, 8636), (425, 8654), (455, 8750), (529, 8987), (547, 9017),

Gene: Trouble\_11 Start: 7310, Stop: 8998, Start Num: 48

Candidate Starts for Trouble\_11:

(Start: 48 @7310 has 363 MA's), (Start: 153 @7490 has 2 MA's), (175, 7574), (180, 7610), (185, 7637), (217, 7760), (244, 7868), (256, 7958), (261, 7982), (268, 8009), (277, 8057), (297, 8126), (312, 8201), (315, 8213), (329, 8273), (390, 8498), (393, 8507), (395, 8519), (411, 8561), (416, 8582), (423, 8609), (455, 8717), (490, 8807), (514, 8912),

Gene: TroyPia\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for TroyPia\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: TrvxScott\_5 Start: 2201, Stop: 3847, Start Num: 47

Candidate Starts for TrvxScott\_5:

(Start: 47 @2201 has 87 MA's), (106, 2297), (175, 2471), (176, 2495), (179, 2504), (202, 2597), (206, 2612), (211, 2639), (218, 2660), (242, 2747), (251, 2819), (256, 2843), (278, 2942), (286, 2978), (313, 3083), (332, 3119), (340, 3155), (343, 3173), (382, 3302), (383, 3305), (386, 3317), (388, 3326), (391, 3335), (408, 3389), (414, 3416), (420, 3443), (426, 3470), (442, 3524), (455, 3563), (463, 3584), (469, 3608), (478, 3632), (496, 3668), (517, 3764), (550, 3842),

Gene: TuanPN\_6 Start: 2380, Stop: 4026, Start Num: 47

Candidate Starts for TuanPN\_6:

(Start: 47 @2380 has 87 MA's), (Start: 62 @2398 has 20 MA's), (162, 2602), (171, 2638), (211, 2818), (218, 2839), (242, 2926), (251, 2998), (256, 3022), (278, 3121), (281, 3136), (289, 3160), (291, 3166), (340, 3334), (353, 3394), (383, 3484), (388, 3505), (414, 3595), (442, 3703), (455, 3742), (463, 3763), (465, 3769), (469, 3787), (517, 3943), (550, 4021),

Gene: Tubs\_13 Start: 8109, Stop: 9896, Start Num: 49

Candidate Starts for Tubs\_13:

(Start: 49 @8109 has 222 MA's), (Start: 62 @8124 has 20 MA's), (Start: 66 @8130 has 5 MA's), (123, 8241), (146, 8340), (185, 8502), (204, 8574), (217, 8628), (225, 8667), (244, 8739), (256, 8829), (261, 8853), (289, 8970), (295, 8985), (316, 9093), (336, 9168), (342, 9204), (357, 9264), (386, 9384), (392, 9405), (408, 9444), (420, 9498), (421, 9501), (425, 9519), (440, 9573), (450, 9603), (455, 9615), (490, 9705), (497, 9723), (529, 9852), (546, 9879), (547, 9882),

Gene: Tuck\_3 Start: 1594, Stop: 3300, Start Num: 71

Candidate Starts for Tuck\_3:

(Start: 71 @1594 has 40 MA's), (217, 2023), (228, 2071), (249, 2161), (273, 2293), (284, 2335), (350, 2587), (383, 2710), (442, 2929), (455, 2965), (460, 2980), (496, 3115), (517, 3211), (519, 3223),

Gene: Tucker\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for Tucker\_15:

(Start: 49 @7533 has 222 MA's), (123, 7665), (146, 7764), (156, 7788), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (219, 8064), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (294, 8400), (295, 8403), (319, 8514), (360, 8676), (383, 8763), (386, 8775), (389, 8787), (408, 8835), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: Turab\_2 Start: 537, Stop: 2243, Start Num: 71

Candidate Starts for Turab\_2:

(Start: 71 @537 has 40 MA's), (Start: 119 @624 has 1 MA's), (203, 909), (217, 966), (220, 987), (228, 1014), (249, 1104), (284, 1278), (350, 1530), (383, 1653), (434, 1833), (455, 1908), (460, 1923), (496, 2058), (503, 2094), (513, 2142), (517, 2154), (519, 2166),

Gene: Turbido\_14 Start: 7910, Stop: 9697, Start Num: 49

Candidate Starts for Turbido\_14:

(Start: 49 @7910 has 222 MA's), (110, 8018), (120, 8039), (137, 8105), (138, 8111), (146, 8147), (156, 8171), (171, 8234), (216, 8429), (217, 8432), (244, 8540), (256, 8630), (261, 8654), (277, 8729), (289, 8771), (295, 8786), (362, 9086), (414, 9272), (420, 9299), (425, 9320), (455, 9416), (529, 9653), (547, 9683),

Gene: Turj99\_10 Start: 6754, Stop: 8442, Start Num: 48

Candidate Starts for Turj99\_10:

(Start: 48 @6754 has 363 MA's), (Start: 153 @6934 has 2 MA's), (175, 7018), (180, 7054), (217, 7204), (244, 7312), (256, 7402), (261, 7426), (277, 7501), (297, 7570), (315, 7657), (329, 7717), (393, 7951), (395, 7963), (411, 8005), (416, 8026), (423, 8053), (455, 8161), (490, 8251), (514, 8356),

Gene: Tutumahutu\_2 Start: 533, Stop: 2290, Start Num: 71

Candidate Starts for Tutumahutu\_2:

(7, 242), (9, 251), (Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1700), (455, 1955), (460, 1970), (478, 2024), (496, 2105), (513, 2189), (519, 2213),

Gene: Tweety19\_3 Start: 1419, Stop: 3110, Start Num: 71

Candidate Starts for Tweety19\_3:

(Start: 71 @1419 has 40 MA's), (Start: 90 @1449 has 1 MA's), (109, 1485), (158, 1596), (199, 1779), (203, 1791), (217, 1848), (240, 1932), (249, 1989), (374, 2478), (442, 2745), (455, 2781), (460, 2796), (496, 2925), (500, 2946), (519, 3033),

Gene: Twister\_11 Start: 6715, Stop: 8406, Start Num: 48

Candidate Starts for Twister\_11:

(Start: 48 @6715 has 363 MA's), (Start: 68 @6739 has 1 MA's), (Start: 126 @6862 has 2 MA's), (171, 6982), (175, 6994), (182, 7039), (194, 7093), (202, 7120), (206, 7135), (217, 7180), (225, 7219), (242, 7267), (244, 7288), (247, 7312), (256, 7363), (284, 7486), (315, 7618), (333, 7693), (342, 7738), (365, 7804), (383, 7879), (389, 7903), (411, 7969), (420, 8008), (421, 8011), (425, 8029), (455, 8125), (478, 8194), (529, 8362), (547, 8392), (548, 8395),

Gene: TwoPeat\_12 Start: 7272, Stop: 8960, Start Num: 48

Candidate Starts for TwoPeat\_12:



(Start: 48 @7272 has 363 MA's), (175, 7536), (176, 7560), (217, 7722), (223, 7755), (244, 7830), (256, 7920), (261, 7944), (268, 7971), (277, 8019), (297, 8088), (315, 8175), (316, 8184), (329, 8235), (393, 8469), (395, 8481), (411, 8523), (416, 8544), (423, 8571), (455, 8679), (490, 8769), (514, 8874),

Gene: TygerBlood\_11 Start: 6886, Stop: 8583, Start Num: 48

Candidate Starts for TygerBlood\_11:

(Start: 48 @6886 has 363 MA's), (Start: 68 @6910 has 1 MA's), (Start: 126 @7033 has 2 MA's), (167, 7123), (175, 7156), (194, 7255), (216, 7339), (217, 7342), (225, 7381), (244, 7450), (247, 7474), (256, 7540), (275, 7630), (315, 7795), (337, 7882), (342, 7915), (365, 7981), (382, 8053), (383, 8056), (389, 8080), (408, 8131), (411, 8146), (420, 8185), (425, 8206), (455, 8302), (529, 8539), (547, 8569), (548, 8572),

Gene: Typhonomachy\_5 Start: 1113, Stop: 2792, Start Num: 96

Candidate Starts for Typhonomachy\_5:

(Start: 96 @1113 has 69 MA's), (Start: 119 @1164 has 1 MA's), (125, 1185), (Start: 126 @1188 has 2 MA's), (150, 1230), (171, 1311), (184, 1377), (185, 1386), (202, 1458), (206, 1473), (214, 1509), (217, 1518), (227, 1569), (249, 1668), (258, 1722), (267, 1758), (299, 1902), (309, 1938), (324, 2010), (337, 2058), (342, 2091), (346, 2115), (362, 2148), (375, 2181), (382, 2238), (384, 2247), (410, 2331), (416, 2358), (434, 2418), (463, 2514), (492, 2586), (496, 2598), (523, 2718), (547, 2778), (548, 2781),

Gene: U2\_11 Start: 6935, Stop: 8623, Start Num: 48

Candidate Starts for U2\_11:

(Start: 48 @6935 has 363 MA's), (175, 7199), (176, 7223), (209, 7358), (217, 7385), (223, 7418), (244, 7493), (256, 7583), (261, 7607), (268, 7634), (277, 7682), (297, 7751), (315, 7838), (328, 7895), (329, 7898), (390, 8123), (393, 8132), (395, 8144), (411, 8186), (416, 8207), (423, 8234), (455, 8342), (490, 8432), (514, 8537),

Gene: Ugenie5\_10 Start: 8142, Stop: 9929, Start Num: 49

Candidate Starts for Ugenie5\_10:

(Start: 49 @8142 has 222 MA's), (Start: 62 @8157 has 20 MA's), (Start: 66 @8163 has 5 MA's), (123, 8274), (146, 8373), (185, 8535), (204, 8607), (217, 8661), (225, 8700), (244, 8772), (256, 8862), (261, 8886), (289, 9003), (295, 9018), (316, 9126), (336, 9201), (342, 9237), (357, 9297), (386, 9417), (392, 9438), (408, 9477), (420, 9531), (421, 9534), (425, 9552), (440, 9606), (450, 9636), (455, 9648), (490, 9738), (497, 9756), (529, 9885), (546, 9912), (547, 9915),

Gene: UhSalsa\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for UhSalsa\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (217, 3615), (219, 3630), (238, 3690), (256, 3798), (268, 3855), (313, 4053), (319, 4071), (331, 4125), (366, 4236), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Ulysses\_10 Start: 6603, Stop: 8300, Start Num: 48

Candidate Starts for Ulysses\_10:

(Start: 48 @6603 has 363 MA's), (Start: 68 @6627 has 1 MA's), (Start: 126 @6750 has 2 MA's), (167, 6840), (175, 6873), (194, 6972), (216, 7056), (217, 7059), (225, 7098), (244, 7167), (247, 7191), (256, 7257), (275, 7347), (315, 7512), (337, 7599), (342, 7632), (365, 7698), (382, 7770), (383, 7773), (389, 7797), (408, 7848), (411, 7863), (420, 7902), (425, 7923), (455, 8019), (529, 8256), (547, 8286), (548, 8289),

Gene: UnionJack\_9 Start: 5697, Stop: 7475, Start Num: 26

Candidate Starts for UnionJack\_9:

(Start: 26 @5697 has 19 MA's), (Start: 28 @5724 has 30 MA's), (60, 5793), (82, 5832), (121, 5907), (123, 5913), (171, 6045), (185, 6120), (186, 6123), (231, 6297), (238, 6321), (256, 6429), (266, 6474), (281, 6552), (284, 6558), (322, 6723), (331, 6756), (337, 6777), (383, 6951), (411, 7038), (414, 7050), (420, 7077), (425, 7098), (450, 7182), (455, 7194), (527, 7428), (529, 7431), (548, 7464), (550, 7470),

Gene: Unstoppable\_6 Start: 2420, Stop: 4048, Start Num: 62

Candidate Starts for Unstoppable\_6:

(Start: 47 @2402 has 87 MA's), (Start: 62 @2420 has 20 MA's), (162, 2624), (179, 2705), (211, 2840), (218, 2861), (242, 2948), (251, 3020), (256, 3044), (278, 3143), (295, 3197), (326, 3296), (340, 3356), (386, 3518), (388, 3527), (414, 3617), (420, 3644), (441, 3722), (442, 3725), (455, 3764), (463, 3785), (465, 3791), (469, 3809), (503, 3905), (517, 3965),

Gene: Updawg\_14 Start: 7926, Stop: 9713, Start Num: 49

Candidate Starts for Updawg\_14:

(10, 7740), (24, 7842), (Start: 49 @7926 has 222 MA's), (110, 8034), (120, 8055), (143, 8145), (146, 8163), (204, 8394), (216, 8445), (217, 8448), (244, 8556), (256, 8646), (261, 8670), (295, 8802), (383, 9189), (420, 9315), (425, 9336), (450, 9420), (455, 9432), (529, 9669), (546, 9696), (547, 9699), (548, 9702), (549, 9705),

Gene: Urza\_6 Start: 2578, Stop: 4239, Start Num: 47

Candidate Starts for Urza\_6:

(Start: 47 @2578 has 87 MA's), (141, 2761), (158, 2797), (195, 2968), (211, 3031), (225, 3088), (242, 3139), (251, 3211), (256, 3235), (263, 3268), (271, 3304), (278, 3334), (284, 3355), (304, 3448), (326, 3487), (332, 3511), (340, 3547), (383, 3697), (388, 3718), (394, 3739), (421, 3838), (455, 3955), (469, 4000),

Gene: UtzChips\_2 Start: 634, Stop: 2352, Start Num: 64

Candidate Starts for UtzChips\_2:

(Start: 64 @634 has 12 MA's), (199, 1006), (211, 1057), (217, 1075), (249, 1225), (373, 1720), (455, 2026), (460, 2041), (503, 2206), (519, 2278),

Gene: VA6\_12 Start: 7428, Stop: 9218, Start Num: 49

Candidate Starts for VA6\_12:

(12, 7254), (Start: 49 @7428 has 222 MA's), (110, 7536), (120, 7557), (146, 7665), (217, 7953), (244, 8061), (256, 8151), (261, 8175), (289, 8292), (295, 8307), (362, 8607), (414, 8793), (420, 8820), (425, 8841), (455, 8937), (529, 9174), (546, 9201), (547, 9204),

Gene: VC3\_15 Start: 7374, Stop: 9164, Start Num: 49

Candidate Starts for VC3\_15:

(25, 7296), (36, 7347), (Start: 49 @7374 has 222 MA's), (110, 7482), (120, 7503), (137, 7569), (146, 7611), (156, 7635), (185, 7773), (216, 7893), (217, 7896), (244, 8007), (256, 8097), (261, 8121), (275, 8187), (285, 8223), (294, 8250), (295, 8253), (362, 8553), (383, 8640), (392, 8673), (414, 8739), (420, 8766), (425, 8787), (450, 8871), (455, 8883), (491, 8976), (497, 8991), (529, 9120), (546, 9147), (547, 9150),

Gene: VResidence\_2 Start: 601, Stop: 2307, Start Num: 74

Candidate Starts for VResidence\_2:

(Start: 74 @601 has 7 MA's), (78, 610), (Start: 90 @631 has 1 MA's), (Start: 119 @688 has 1 MA's), (217, 1030), (220, 1051), (228, 1078), (249, 1168), (252, 1192), (267, 1267), (284, 1342), (343, 1555), (350, 1594), (383, 1717), (442, 1936), (455, 1972), (460, 1987), (519, 2230),

Gene: VWB\_2 Start: 559, Stop: 2169, Start Num: 123

Candidate Starts for VWB\_2:

(Start: 94 @493 has 8 MA's), (123, 559), (165, 661), (169, 676), (185, 766), (200, 823), (202, 838), (206, 853), (217, 898), (259, 1093), (299, 1270), (317, 1345), (348, 1498), (365, 1525), (366, 1528), (375, 1549), (380, 1588), (394, 1651), (408, 1711), (411, 1726), (421, 1768), (423, 1774), (442, 1846), (444, 1852), (454, 1882), (461, 1903), (494, 1981), (508, 2035), (542, 2149),

Gene: Vanisoa\_11 Start: 6197, Stop: 7987, Start Num: 49

Candidate Starts for Vanisoa\_11:

(Start: 49 @6197 has 222 MA's), (Start: 62 @6212 has 20 MA's), (123, 6329), (146, 6428), (185, 6590), (192, 6623), (204, 6662), (217, 6716), (225, 6755), (244, 6827), (248, 6854), (256, 6917), (261, 6941), (289, 7058), (295, 7073), (316, 7181), (336, 7256), (358, 7355), (367, 7388), (386, 7472), (392, 7493), (420, 7589), (421, 7592), (425, 7610), (440, 7664), (450, 7694), (455, 7706), (491, 7799), (497, 7814), (509, 7865), (529, 7943), (546, 7970), (547, 7973),

Gene: Vanseggelen\_9 Start: 2121, Stop: 3767, Start Num: 47

Candidate Starts for Vanseggelen\_9:

(Start: 45 @2112 has 1 MA's), (Start: 47 @2121 has 87 MA's), (Start: 48 @2124 has 363 MA's), (Start: 62 @2139 has 20 MA's), (93, 2193), (162, 2343), (169, 2364), (195, 2496), (202, 2517), (206, 2532), (211, 2559), (214, 2568), (218, 2580), (242, 2667), (248, 2715), (249, 2718), (251, 2739), (256, 2763), (278, 2862), (326, 3015), (331, 3036), (340, 3075), (353, 3135), (383, 3225), (384, 3231), (388, 3246), (392, 3258), (408, 3309), (414, 3336), (420, 3363), (440, 3438), (455, 3483), (465, 3510), (469, 3528), (517, 3684),

Gene: VasuNzinga\_35 Start: 10327, Stop: 12069, Start Num: 96

Candidate Starts for VasuNzinga\_35:

(Start: 96 @10327 has 69 MA's), (149, 10444), (162, 10489), (170, 10555), (172, 10570), (176, 10603), (177, 10606), (181, 10621), (186, 10645), (187, 10648), (194, 10678), (200, 10699), (202, 10717), (205, 10726), (212, 10762), (217, 10777), (227, 10822), (242, 10864), (246, 10903), (249, 10915), (251, 10936), (262, 10987), (268, 11008), (324, 11230), (346, 11335), (347, 11344), (366, 11377), (375, 11398), (376, 11401), (379, 11428), (383, 11458), (386, 11470), (390, 11485), (393, 11494), (394, 11500), (407, 11542), (409, 11551), (412, 11566), (416, 11581), (434, 11641), (440, 11680), (451, 11713), (463, 11743), (464, 11746), (485, 11830), (496, 11884), (499, 11899), (506, 11926), (517, 11980), (546, 12052), (547, 12055),

Gene: Verabelle\_7 Start: 2488, Stop: 4134, Start Num: 47

Candidate Starts for Verabelle\_7:

(Start: 47 @2488 has 87 MA's), (Start: 62 @2506 has 20 MA's), (162, 2710), (179, 2791), (180, 2794), (211, 2926), (218, 2947), (242, 3034), (256, 3130), (275, 3217), (278, 3229), (295, 3283), (340, 3442), (343, 3460), (383, 3592), (388, 3613), (411, 3691), (414, 3703), (420, 3730), (442, 3811), (455, 3850), (465, 3877), (469, 3895), (521, 4072),

Gene: Veracruz\_11 Start: 7044, Stop: 8741, Start Num: 48

Candidate Starts for Veracruz\_11:

(Start: 48 @7044 has 363 MA's), (Start: 68 @7068 has 1 MA's), (175, 7314), (213, 7488), (217, 7500), (225, 7539), (230, 7551), (244, 7608), (247, 7632), (256, 7698), (258, 7707), (275, 7788), (284, 7821), (315, 7953), (319, 7965), (331, 8019), (337, 8040), (342, 8073), (360, 8127), (383, 8214), (389, 8238), (390, 8241), (392, 8247), (394, 8256), (411, 8304), (420, 8343), (421, 8346), (425, 8364), (455, 8460), (472, 8514), (518, 8667), (529, 8697), (547, 8727), (548, 8730),

Gene: Verse\_6 Start: 2569, Stop: 4215, Start Num: 47

Candidate Starts for Verse\_6:

(Start: 45 @2560 has 1 MA's), (Start: 47 @2569 has 87 MA's), (Start: 48 @2572 has 363 MA's), (Start: 62 @2587 has 20 MA's), (93, 2641), (106, 2665), (162, 2791), (179, 2872), (202, 2965), (206, 2980), (211, 3007), (214, 3016), (218, 3028), (242, 3115), (248, 3163), (256, 3211), (278, 3310), (289, 3349),

(326, 3463), (331, 3484), (340, 3523), (383, 3673), (384, 3679), (388, 3694), (392, 3706), (408, 3757), (420, 3811), (441, 3889), (442, 3892), (455, 3931), (465, 3958), (469, 3976), (517, 4132),

Gene: VieEnRose\_6 Start: 2652, Stop: 4313, Start Num: 47

Candidate Starts for VieEnRose\_6:

(Start: 47 @2652 has 87 MA's), (141, 2835), (158, 2871), (195, 3042), (211, 3105), (225, 3162), (242, 3213), (251, 3285), (256, 3309), (263, 3342), (271, 3378), (278, 3408), (284, 3429), (304, 3522), (326, 3561), (332, 3585), (340, 3621), (353, 3681), (383, 3771), (388, 3792), (394, 3813), (421, 3912), (455, 4029), (469, 4074),

Gene: Vine\_5 Start: 1901, Stop: 3577, Start Num: 96

Candidate Starts for Vine\_5:

(Start: 96 @1901 has 69 MA's), (Start: 119 @1952 has 1 MA's), (125, 1973), (150, 2018), (162, 2060), (171, 2096), (184, 2162), (206, 2258), (214, 2294), (217, 2303), (218, 2306), (227, 2354), (230, 2366), (249, 2453), (259, 2510), (286, 2633), (299, 2687), (341, 2867), (346, 2900), (375, 2966), (384, 3032), (386, 3038), (411, 3122), (434, 3203), (440, 3236), (465, 3305), (496, 3383), (518, 3482), (523, 3503), (527, 3509), (547, 3563), (548, 3566),

Gene: Vix\_13 Start: 7039, Stop: 8739, Start Num: 51

Candidate Starts for Vix\_13:

(Start: 51 @7039 has 139 MA's), (Start: 81 @7087 has 4 MA's), (149, 7222), (194, 7414), (217, 7501), (256, 7699), (275, 7789), (294, 7852), (329, 8014), (383, 8212), (389, 8236), (390, 8239), (411, 8302), (414, 8314), (416, 8323), (425, 8362), (455, 8458), (472, 8512), (490, 8548), (529, 8695), (547, 8725), (548, 8728),

Gene: VohminGhazi\_15 Start: 7533, Stop: 9287, Start Num: 49

Candidate Starts for VohminGhazi\_15:

(Start: 49 @7533 has 222 MA's), (146, 7764), (162, 7815), (171, 7851), (185, 7926), (217, 8049), (225, 8088), (244, 8157), (247, 8181), (248, 8184), (256, 8247), (261, 8271), (284, 8370), (285, 8373), (294, 8400), (295, 8403), (365, 8688), (386, 8775), (389, 8787), (411, 8850), (420, 8889), (425, 8910), (450, 8994), (455, 9006), (529, 9243), (546, 9270), (547, 9273),

Gene: VroomVroom\_2 Start: 553, Stop: 2283, Start Num: 48

Candidate Starts for VroomVroom\_2:

(Start: 48 @553 has 363 MA's), (Start: 119 @667 has 1 MA's), (171, 811), (196, 931), (199, 940), (211, 991), (217, 1009), (228, 1057), (249, 1150), (303, 1414), (390, 1726), (434, 1879), (455, 1954), (460, 1969), (482, 2047), (496, 2098), (519, 2206), (547, 2269),

Gene: Waits\_14 Start: 6653, Stop: 8350, Start Num: 49

Candidate Starts for Waits\_14:

(Start: 49 @6653 has 222 MA's), (65, 6671), (149, 6833), (204, 7058), (217, 7112), (244, 7220), (248, 7247), (256, 7310), (261, 7334), (389, 7850), (411, 7913), (421, 7955), (455, 8069), (496, 8174), (529, 8306), (546, 8333), (547, 8336), (548, 8339),

Gene: WalterMcMickey\_11 Start: 6715, Stop: 8406, Start Num: 48

Candidate Starts for WalterMcMickey\_11:

(Start: 48 @6715 has 363 MA's), (Start: 68 @6739 has 1 MA's), (Start: 126 @6862 has 2 MA's), (171, 6982), (175, 6994), (182, 7039), (194, 7093), (202, 7120), (206, 7135), (217, 7180), (225, 7219), (242, 7267), (244, 7288), (247, 7312), (256, 7363), (284, 7486), (315, 7618), (333, 7693), (342, 7738), (365, 7804), (383, 7879), (389, 7903), (411, 7969), (420, 8008), (421, 8011), (425, 8029), (455, 8125), (478, 8194), (529, 8362), (547, 8392), (548, 8395),

Gene: Wander\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for Wander\_11:

(Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (194, 7253), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425, 8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Warda\_2 Start: 533, Stop: 2239, Start Num: 71

Candidate Starts for Warda\_2:

(Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1649), (455, 1904), (460, 1919), (496, 2054), (513, 2138), (519, 2162),

Gene: Watermelon\_13 Start: 7861, Stop: 9549, Start Num: 48

Candidate Starts for Watermelon\_13:

(Start: 48 @7861 has 363 MA's), (175, 8125), (176, 8149), (217, 8311), (223, 8344), (244, 8419), (256, 8509), (261, 8533), (268, 8560), (277, 8608), (297, 8677), (315, 8764), (329, 8824), (393, 9058), (395, 9070), (411, 9112), (416, 9133), (423, 9160), (455, 9268), (490, 9358), (514, 9463),

Gene: Watson\_13 Start: 6949, Stop: 8649, Start Num: 51

Candidate Starts for Watson\_13:

(Start: 51 @6949 has 139 MA's), (Start: 81 @6997 has 4 MA's), (149, 7132), (194, 7324), (217, 7411), (256, 7609), (275, 7699), (294, 7762), (329, 7924), (383, 8122), (389, 8146), (390, 8149), (411, 8212), (416, 8233), (425, 8272), (455, 8368), (472, 8422), (490, 8458), (529, 8605), (547, 8635), (548, 8638),

Gene: WeiHuaDA\_18 Start: 9697, Stop: 11484, Start Num: 49

Candidate Starts for WeiHuaDA\_18:

(Start: 49 @9697 has 222 MA's), (110, 9805), (120, 9826), (146, 9934), (162, 9985), (171, 10021), (216, 10216), (217, 10219), (244, 10327), (256, 10417), (261, 10441), (295, 10573), (383, 10960), (414, 11059), (420, 11086), (421, 11089), (425, 11107), (455, 11203), (529, 11440), (546, 11467), (547, 11470), (548, 11473), (549, 11476),

Gene: Werner\_6 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Werner\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (Start: 126 @2527 has 2 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (229, 2881), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (383, 3481), (388, 3502), (408, 3565), (414, 3592), (442, 3700), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (503, 3880), (517, 3940), (550, 4018),

Gene: Whabigail7\_14 Start: 7898, Stop: 9685, Start Num: 49

Candidate Starts for Whabigail7\_14:

(Start: 49 @7898 has 222 MA's), (110, 8006), (120, 8027), (137, 8093), (138, 8099), (146, 8135), (156, 8159), (171, 8222), (216, 8417), (217, 8420), (244, 8528), (256, 8618), (261, 8642), (277, 8717), (289, 8759), (295, 8774), (362, 9074), (414, 9260), (420, 9287), (425, 9308), (455, 9404), (529, 9641), (547, 9671),

Gene: Whatever\_6 Start: 2377, Stop: 4023, Start Num: 47

Candidate Starts for Whatever\_6:

(Start: 47 @2377 has 87 MA's), (Start: 62 @2395 has 20 MA's), (Start: 126 @2527 has 2 MA's), (162, 2599), (171, 2635), (211, 2815), (218, 2836), (229, 2881), (242, 2923), (251, 2995), (256, 3019), (278, 3118), (281, 3133), (289, 3157), (291, 3163), (340, 3331), (383, 3481), (388, 3502), (408, 3565), (414, 3592), (442, 3700), (455, 3739), (463, 3760), (465, 3766), (469, 3784), (503, 3880), (517, 3940), (550, 4018),

4018),

Gene: Wheeler\_11 Start: 7027, Stop: 8715, Start Num: 48

Candidate Starts for Wheeler\_11:

(Start: 48 @7027 has 363 MA's), (175, 7291), (176, 7315), (217, 7477), (223, 7510), (244, 7585), (256, 7675), (261, 7699), (268, 7726), (277, 7774), (315, 7930), (329, 7990), (393, 8224), (395, 8236), (411, 8278), (416, 8299), (423, 8326), (455, 8434), (490, 8524), (514, 8629),

Gene: Whitty\_3 Start: 724, Stop: 2607, Start Num: 38

Candidate Starts for Whitty\_3:

(5, 475), (Start: 38 @724 has 7 MA's), (86, 805), (92, 814), (129, 910), (133, 922), (171, 1054), (205, 1201), (206, 1207), (211, 1234), (217, 1252), (234, 1315), (259, 1450), (300, 1651), (323, 1708), (384, 1927), (399, 1978), (404, 2002), (417, 2053), (443, 2182), (451, 2221), (455, 2230), (471, 2281), (481, 2320), (491, 2407), (496, 2419), (516, 2512), (519, 2527), (520, 2530),

Gene: WideWale\_14 Start: 7926, Stop: 9713, Start Num: 49

Candidate Starts for WideWale\_14:

(10, 7740), (24, 7842), (Start: 49 @7926 has 222 MA's), (110, 8034), (120, 8055), (143, 8145), (146, 8163), (204, 8394), (216, 8445), (217, 8448), (244, 8556), (256, 8646), (261, 8670), (295, 8802), (383, 9189), (420, 9315), (425, 9336), (450, 9420), (455, 9432), (529, 9669), (546, 9696), (547, 9699), (548, 9702), (549, 9705),

Gene: Wiks\_15 Start: 7514, Stop: 9268, Start Num: 49

Candidate Starts for Wiks\_15:

(Start: 49 @7514 has 222 MA's), (123, 7646), (146, 7745), (156, 7769), (162, 7796), (171, 7832), (185, 7907), (217, 8030), (219, 8045), (225, 8069), (244, 8138), (247, 8162), (248, 8165), (256, 8228), (261, 8252), (294, 8381), (295, 8384), (319, 8495), (360, 8657), (383, 8744), (386, 8756), (389, 8768), (408, 8816), (411, 8831), (420, 8870), (425, 8891), (450, 8975), (455, 8987), (529, 9224), (546, 9251), (547, 9254),

Gene: Wilbur\_11 Start: 6883, Stop: 8580, Start Num: 48

Candidate Starts for Wilbur\_11:

(Start: 48 @6883 has 363 MA's), (Start: 68 @6907 has 1 MA's), (Start: 126 @7030 has 2 MA's), (167, 7120), (175, 7153), (194, 7252), (216, 7336), (217, 7339), (225, 7378), (244, 7447), (247, 7471), (256, 7537), (275, 7627), (315, 7792), (337, 7879), (342, 7912), (365, 7978), (382, 8050), (383, 8053), (389, 8077), (408, 8128), (411, 8143), (420, 8182), (425, 8203), (455, 8299), (529, 8536), (547, 8566), (548, 8569),

Gene: Wildwest\_3 Start: 1478, Stop: 3184, Start Num: 71

Candidate Starts for Wildwest\_3:

(7, 1187), (8, 1190), (Start: 71 @1478 has 40 MA's), (83, 1499), (109, 1544), (217, 1907), (228, 1955), (249, 2045), (284, 2219), (343, 2432), (350, 2471), (383, 2594), (408, 2678), (440, 2807), (442, 2813), (455, 2849), (460, 2864), (496, 2999), (517, 3095), (519, 3107),

Gene: Wile\_11 Start: 6894, Stop: 8591, Start Num: 48

Candidate Starts for Wile\_11:

(Start: 48 @6894 has 363 MA's), (Start: 68 @6918 has 1 MA's), (175, 7164), (195, 7269), (216, 7347), (217, 7350), (225, 7389), (244, 7458), (247, 7482), (256, 7548), (275, 7638), (315, 7803), (326, 7848), (337, 7890), (342, 7923), (365, 7989), (382, 8061), (383, 8064), (389, 8088), (411, 8154), (420, 8193), (425, 8214), (455, 8310), (527, 8544), (529, 8547), (547, 8577), (548, 8580),

Gene: Wilkins\_11 Start: 6738, Stop: 8426, Start Num: 48

Candidate Starts for Wilkins\_11:

(Start: 48 @6738 has 363 MA's), (175, 7002), (176, 7026), (217, 7188), (223, 7221), (244, 7296), (256, 7386), (261, 7410), (268, 7437), (277, 7485), (315, 7641), (316, 7650), (328, 7698), (329, 7701), (390, 7926), (393, 7935), (395, 7947), (411, 7989), (416, 8010), (423, 8037), (455, 8145), (490, 8235), (514, 8340),

Gene: WilliamBoone\_30 Start: 8027, Stop: 9775, Start Num: 88

Candidate Starts for WilliamBoone\_30:

(Start: 88 @8027 has 21 MA's), (106, 8057), (132, 8132), (160, 8186), (162, 8198), (168, 8216), (180, 8282), (190, 8372), (197, 8411), (205, 8435), (216, 8483), (267, 8732), (270, 8750), (327, 8960), (332, 8975), (370, 9143), (383, 9224), (389, 9248), (413, 9335), (440, 9440), (452, 9482), (465, 9518), (472, 9542), (481, 9557), (533, 9731), (535, 9737),

Gene: Wizard007\_11 Start: 6886, Stop: 8583, Start Num: 48

Candidate Starts for Wizard007\_11:

(Start: 48 @6886 has 363 MA's), (Start: 68 @6910 has 1 MA's), (Start: 126 @7033 has 2 MA's), (167, 7123), (175, 7156), (194, 7255), (216, 7339), (217, 7342), (225, 7381), (244, 7450), (247, 7474), (256, 7540), (275, 7630), (315, 7795), (337, 7882), (342, 7915), (365, 7981), (382, 8053), (383, 8056), (389, 8080), (408, 8131), (411, 8146), (420, 8185), (425, 8206), (455, 8302), (529, 8539), (547, 8569), (548, 8572),

Gene: Wooldri\_15 Start: 6868, Stop: 8568, Start Num: 51

Candidate Starts for Wooldri\_15:

(Start: 51 @6868 has 139 MA's), (Start: 81 @6916 has 4 MA's), (149, 7051), (194, 7243), (217, 7330), (256, 7528), (275, 7618), (294, 7681), (329, 7843), (383, 8041), (389, 8065), (390, 8068), (411, 8131), (416, 8152), (425, 8191), (455, 8287), (472, 8341), (490, 8377), (529, 8524), (547, 8554), (548, 8557),

Gene: Wrigley\_2 Start: 485, Stop: 2281, Start Num: 51

Candidate Starts for Wrigley\_2:

(Start: 51 @485 has 139 MA's), (122, 611), (124, 620), (169, 779), (171, 794), (188, 878), (199, 920), (201, 926), (202, 929), (210, 968), (217, 989), (241, 1073), (249, 1127), (250, 1145), (258, 1181), (272, 1256), (285, 1307), (288, 1328), (306, 1409), (327, 1454), (337, 1487), (346, 1544), (376, 1613), (386, 1667), (390, 1682), (392, 1688), (394, 1697), (405, 1736), (411, 1754), (414, 1766), (442, 1904), (450, 1940), (455, 1952), (457, 1958), (465, 1976), (472, 2003), (480, 2027), (495, 2090), (503, 2132), (516, 2189), (525, 2219), (537, 2243), (547, 2267), (548, 2270),

Gene: WunderPhul\_15 Start: 7514, Stop: 9268, Start Num: 49

Candidate Starts for WunderPhul\_15:

(Start: 49 @7514 has 222 MA's), (123, 7646), (146, 7745), (156, 7769), (162, 7796), (171, 7832), (185, 7907), (217, 8030), (219, 8045), (225, 8069), (244, 8138), (247, 8162), (248, 8165), (256, 8228), (261, 8252), (294, 8381), (295, 8384), (319, 8495), (360, 8657), (383, 8744), (386, 8756), (389, 8768), (408, 8816), (411, 8831), (420, 8870), (425, 8891), (450, 8975), (455, 8987), (529, 9224), (546, 9251), (547, 9254),

Gene: Xena\_11 Start: 6881, Stop: 8578, Start Num: 48

Candidate Starts for Xena\_11:

(Start: 48 @6881 has 363 MA's), (Start: 68 @6905 has 1 MA's), (175, 7151), (195, 7256), (216, 7334), (217, 7337), (225, 7376), (244, 7445), (247, 7469), (256, 7535), (275, 7625), (315, 7790), (326, 7835), (337, 7877), (342, 7910), (365, 7976), (382, 8048), (383, 8051), (389, 8075), (411, 8141), (420, 8180), (425, 8201), (455, 8297), (527, 8531), (529, 8534), (547, 8564), (548, 8567),

Gene: XianYue\_12 Start: 7369, Stop: 9150, Start Num: 49

Candidate Starts for XianYue\_12:

(18, 7249), (35, 7342), (Start: 49 @7369 has 222 MA's), (123, 7501), (Start: 126 @7513 has 2 MA's), (143, 7582), (146, 7600), (216, 7882), (217, 7885), (225, 7924), (244, 7993), (256, 8083), (261, 8107), (284, 8206), (294, 8236), (295, 8239), (383, 8626), (414, 8725), (420, 8752), (425, 8773), (450, 8857), (455, 8869), (529, 9106), (546, 9133), (547, 9136), (548, 9139), (549, 9142),

Gene: Yakult\_5 Start: 1064, Stop: 2764, Start Num: 94

Candidate Starts for Yakult\_5:

(Start: 94 @1064 has 8 MA's), (Start: 119 @1118 has 1 MA's), (125, 1139), (134, 1166), (204, 1430), (206, 1439), (208, 1454), (214, 1475), (217, 1484), (227, 1535), (230, 1547), (249, 1634), (267, 1724), (285, 1802), (299, 1868), (309, 1904), (346, 2081), (384, 2213), (421, 2342), (434, 2381), (435, 2387), (517, 2657), (530, 2699), (547, 2750), (548, 2753),

Gene: Yang\_2 Start: 545, Stop: 2242, Start Num: 71

Candidate Starts for Yang\_2:

(7, 242), (Start: 71 @545 has 40 MA's), (Start: 119 @632 has 1 MA's), (203, 917), (217, 974), (225, 1016), (249, 1112), (258, 1166), (284, 1286), (303, 1376), (383, 1661), (414, 1772), (434, 1841), (455, 1916), (460, 1931), (496, 2057), (513, 2141), (519, 2165),

Gene: Yarn\_3 Start: 1114, Stop: 2793, Start Num: 96

Candidate Starts for Yarn\_3:

(Start: 96 @1114 has 69 MA's), (Start: 119 @1165 has 1 MA's), (125, 1186), (Start: 126 @1189 has 2 MA's), (150, 1231), (169, 1297), (179, 1357), (184, 1378), (185, 1387), (206, 1474), (214, 1510), (217, 1519), (227, 1570), (249, 1669), (251, 1690), (258, 1723), (267, 1759), (299, 1903), (309, 1939), (317, 1978), (347, 2125), (362, 2149), (384, 2248), (410, 2332), (434, 2419), (463, 2515), (486, 2563), (492, 2587), (505, 2638), (523, 2719), (547, 2779), (548, 2782),

Gene: Yasdni\_6 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for Yasdni\_6:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (353, 3390), (383, 3480), (388, 3501), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (517, 3939), (550, 4017),

Gene: Yecey3\_12 Start: 6313, Stop: 8085, Start Num: 62

Candidate Starts for Yecey3\_12:

(Start: 62 @6313 has 20 MA's), (123, 6430), (146, 6529), (185, 6691), (204, 6763), (217, 6817), (225, 6856), (244, 6928), (256, 7018), (258, 7027), (261, 7042), (289, 7159), (295, 7174), (316, 7282), (336, 7357), (342, 7393), (357, 7453), (367, 7489), (374, 7513), (392, 7594), (408, 7633), (420, 7687), (425, 7708), (450, 7792), (455, 7804), (491, 7897), (497, 7912), (509, 7963), (529, 8041), (546, 8068), (547, 8071),

Gene: YesChef\_2 Start: 533, Stop: 2290, Start Num: 71

Candidate Starts for YesChef\_2:

(7, 242), (9, 251), (Start: 71 @533 has 40 MA's), (203, 905), (217, 962), (228, 1010), (249, 1100), (258, 1154), (284, 1274), (303, 1364), (350, 1526), (383, 1700), (455, 1955), (460, 1970), (478, 2024), (496, 2105), (513, 2189), (519, 2213),

Gene: YoSam321\_11 Start: 6884, Stop: 8581, Start Num: 48

Candidate Starts for YoSam321\_11:

(12, 6707), (15, 6725), (Start: 17 @6755 has 1 MA's), (Start: 48 @6884 has 363 MA's), (Start: 68 @6908 has 1 MA's), (Start: 126 @7031 has 2 MA's), (167, 7121), (175, 7154), (216, 7337), (217, 7340), (225, 7379), (244, 7448), (247, 7472), (256, 7538), (275, 7628), (315, 7793), (337, 7880), (342, 7913), (365, 7979), (382, 8051), (383, 8054), (389, 8078), (408, 8129), (411, 8144), (420, 8183), (425,



8204), (455, 8300), (529, 8537), (547, 8567), (548, 8570),

Gene: Yogi\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Yogi\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (247, 3747), (248, 3750), (256, 3798), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Yokurt\_15 Start: 7514, Stop: 9268, Start Num: 49

Candidate Starts for Yokurt\_15:

(Start: 49 @7514 has 222 MA's), (123, 7646), (146, 7745), (156, 7769), (162, 7796), (171, 7832), (185, 7907), (217, 8030), (219, 8045), (225, 8069), (244, 8138), (247, 8162), (248, 8165), (256, 8228), (261, 8252), (294, 8381), (295, 8384), (319, 8495), (360, 8657), (383, 8744), (386, 8756), (389, 8768), (408, 8816), (411, 8831), (420, 8870), (425, 8891), (450, 8975), (455, 8987), (529, 9224), (546, 9251), (547, 9254),

Gene: Yoncess\_8 Start: 3156, Stop: 4838, Start Num: 51

Candidate Starts for Yoncess\_8:

(Start: 51 @3156 has 139 MA's), (Start: 153 @3342 has 2 MA's), (171, 3414), (175, 3426), (176, 3450), (180, 3462), (219, 3630), (238, 3690), (247, 3747), (248, 3750), (256, 3798), (313, 4053), (319, 4071), (331, 4125), (376, 4269), (383, 4311), (392, 4344), (414, 4413), (455, 4557), (469, 4602), (496, 4662), (517, 4761), (529, 4794), (546, 4821), (547, 4824), (548, 4827),

Gene: Yosif\_7 Start: 2837, Stop: 4483, Start Num: 47

Candidate Starts for Yosif\_7:

(42, 2822), (Start: 45 @2828 has 1 MA's), (Start: 47 @2837 has 87 MA's), (Start: 48 @2840 has 363 MA's), (Start: 62 @2855 has 20 MA's), (162, 3059), (171, 3095), (179, 3140), (180, 3143), (206, 3248), (211, 3275), (213, 3281), (214, 3284), (218, 3296), (242, 3383), (248, 3431), (256, 3479), (278, 3578), (304, 3692), (326, 3731), (331, 3752), (340, 3791), (383, 3941), (388, 3962), (392, 3974), (408, 4025), (420, 4079), (442, 4160), (455, 4199), (465, 4226), (469, 4244), (517, 4400), (550, 4478),

Gene: Yummy\_5 Start: 1017, Stop: 2696, Start Num: 96

Candidate Starts for Yummy\_5:

(Start: 96 @1017 has 69 MA's), (Start: 119 @1068 has 1 MA's), (125, 1089), (148, 1128), (171, 1215), (179, 1260), (184, 1281), (185, 1290), (202, 1362), (214, 1413), (217, 1422), (227, 1473), (249, 1572), (251, 1593), (258, 1626), (267, 1662), (299, 1806), (309, 1842), (317, 1881), (324, 1914), (337, 1962), (346, 2019), (362, 2052), (375, 2085), (384, 2151), (386, 2157), (407, 2223), (410, 2235), (411, 2241), (434, 2322), (463, 2418), (486, 2466), (505, 2541), (523, 2622), (547, 2682), (548, 2685),

Gene: Yvonnetastic\_28 Start: 10462, Stop: 12180, Start Num: 88

Candidate Starts for Yvonnetastic\_28:

(Start: 88 @10462 has 21 MA's), (108, 10498), (152, 10594), (190, 10807), (194, 10834), (197, 10846), (205, 10870), (232, 10984), (270, 11179), (280, 11227), (305, 11329), (327, 11389), (332, 11404), (386, 11647), (409, 11728), (414, 11749), (420, 11776), (440, 11851), (452, 11893), (516, 12094), (526, 12127),

Gene: Zainub\_8 Start: 2746, Stop: 4392, Start Num: 47

Candidate Starts for Zainub\_8:

(Start: 47 @2746 has 87 MA's), (Start: 126 @2896 has 2 MA's), (175, 3016), (176, 3040), (202, 3142), (211, 3184), (213, 3190), (218, 3205), (242, 3292), (251, 3364), (256, 3388), (278, 3487), (286, 3523), (295, 3541), (332, 3664), (340, 3700), (354, 3763), (383, 3850), (388, 3871), (392, 3883), (414, 3961), (420, 3988), (442, 4069), (455, 4108), (463, 4129), (469, 4153), (496, 4213), (517, 4309),

Gene: Zaka\_15 Start: 7514, Stop: 9268, Start Num: 49

Candidate Starts for Zaka\_15:

(Start: 49 @7514 has 222 MA's), (123, 7646), (146, 7745), (156, 7769), (162, 7796), (171, 7832), (185, 7907), (217, 8030), (219, 8045), (225, 8069), (244, 8138), (247, 8162), (248, 8165), (256, 8228), (261, 8252), (294, 8381), (295, 8384), (319, 8495), (360, 8657), (383, 8744), (386, 8756), (389, 8768), (408, 8816), (411, 8831), (420, 8870), (425, 8891), (450, 8975), (455, 8987), (529, 9224), (546, 9251), (547, 9254),

Gene: Zareef\_7 Start: 2020, Stop: 3690, Start Num: 109

Candidate Starts for Zareef\_7:

(Start: 96 @1990 has 69 MA's), (109, 2020), (125, 2062), (171, 2200), (180, 2248), (186, 2278), (194, 2311), (202, 2347), (206, 2362), (208, 2377), (217, 2407), (227, 2458), (249, 2557), (251, 2578), (267, 2647), (275, 2689), (283, 2719), (317, 2866), (328, 2917), (342, 2980), (346, 3004), (374, 3070), (379, 3103), (381, 3127), (382, 3130), (384, 3139), (390, 3160), (401, 3187), (411, 3232), (414, 3244), (415, 3250), (420, 3271), (431, 3310), (463, 3409), (474, 3445), (505, 3532), (523, 3613), (527, 3619), (547, 3676), (548, 3679),

Gene: Zeeculate\_10 Start: 6722, Stop: 8410, Start Num: 48

Candidate Starts for Zeeculate\_10:

(Start: 48 @6722 has 363 MA's), (175, 6986), (176, 7010), (217, 7172), (223, 7205), (244, 7280), (256, 7370), (261, 7394), (268, 7421), (277, 7469), (315, 7625), (329, 7685), (370, 7817), (390, 7910), (393, 7919), (395, 7931), (411, 7973), (416, 7994), (423, 8021), (455, 8129), (490, 8219), (514, 8324),

Gene: Zemlya\_7 Start: 2376, Stop: 4022, Start Num: 47

Candidate Starts for Zemlya\_7:

(Start: 47 @2376 has 87 MA's), (Start: 62 @2394 has 20 MA's), (162, 2598), (171, 2634), (211, 2814), (218, 2835), (229, 2880), (242, 2922), (251, 2994), (256, 3018), (278, 3117), (281, 3132), (289, 3156), (291, 3162), (340, 3330), (383, 3480), (388, 3501), (392, 3513), (414, 3591), (442, 3699), (455, 3738), (463, 3759), (465, 3765), (469, 3783), (517, 3939),

Gene: ZenTime222\_3 Start: 724, Stop: 2607, Start Num: 38

Candidate Starts for ZenTime222\_3:

(5, 475), (Start: 38 @724 has 7 MA's), (86, 805), (92, 814), (129, 910), (133, 922), (171, 1054), (205, 1201), (206, 1207), (211, 1234), (217, 1252), (234, 1315), (259, 1450), (300, 1651), (323, 1708), (384, 1927), (399, 1978), (404, 2002), (417, 2053), (443, 2182), (451, 2221), (455, 2230), (471, 2281), (481, 2320), (491, 2407), (496, 2419), (516, 2512), (519, 2527), (520, 2530),

Gene: Zephyr\_11 Start: 6863, Stop: 8551, Start Num: 48

Candidate Starts for Zephyr\_11:

(Start: 48 @6863 has 363 MA's), (Start: 153 @7043 has 2 MA's), (175, 7127), (180, 7163), (185, 7190), (217, 7313), (244, 7421), (256, 7511), (261, 7535), (268, 7562), (277, 7610), (297, 7679), (315, 7766), (329, 7826), (390, 8051), (393, 8060), (395, 8072), (411, 8114), (416, 8135), (423, 8162), (455, 8270), (490, 8360), (514, 8465),

Gene: Zeta1847\_2 Start: 478, Stop: 2175, Start Num: 64

Candidate Starts for Zeta1847\_2:

(Start: 64 @478 has 12 MA's), (156, 649), (163, 676), (169, 688), (185, 778), (199, 832), (217, 901), (228, 949), (421, 1726), (455, 1840), (519, 2098),

Gene: Zetzy\_12 Start: 6522, Stop: 8222, Start Num: 51

Candidate Starts for Zetzy\_12:

(Start: 51 @6522 has 139 MA's), (Start: 81 @6570 has 4 MA's), (Start: 119 @6642 has 1 MA's), (149, 6705), (217, 6984), (256, 7182), (275, 7272), (294, 7335), (329, 7497), (383, 7695), (389, 7719), (390, 7722), (411, 7785), (414, 7797), (416, 7806), (425, 7845), (455, 7941), (472, 7995), (490, 8031), (529, 8178), (547, 8208), (548, 8211),

Gene: Zeuska\_12 Start: 7541, Stop: 9229, Start Num: 48

Candidate Starts for Zeuska\_12:

(Start: 48 @7541 has 363 MA's), (Start: 153 @7721 has 2 MA's), (175, 7805), (180, 7841), (185, 7868), (217, 7991), (244, 8099), (256, 8189), (261, 8213), (268, 8240), (277, 8288), (297, 8357), (315, 8444), (329, 8504), (390, 8729), (393, 8738), (395, 8750), (411, 8792), (416, 8813), (423, 8840), (455, 8948), (490, 9038), (514, 9143),

Gene: Zimmer\_14 Start: 9025, Stop: 10809, Start Num: 49

Candidate Starts for Zimmer\_14:

(37, 8998), (Start: 49 @9025 has 222 MA's), (123, 9157), (139, 9223), (146, 9256), (171, 9343), (204, 9487), (217, 9541), (225, 9580), (244, 9652), (256, 9742), (261, 9766), (284, 9865), (289, 9883), (295, 9898), (326, 10042), (367, 10213), (383, 10285), (408, 10357), (411, 10372), (425, 10432), (455, 10528), (490, 10618), (527, 10762), (529, 10765), (546, 10792), (547, 10795), (548, 10798),

Gene: Zolita\_8 Start: 6266, Stop: 8017, Start Num: 28

Candidate Starts for Zolita\_8:

(Start: 26 @6239 has 19 MA's), (Start: 28 @6266 has 30 MA's), (60, 6335), (82, 6374), (121, 6449), (123, 6455), (171, 6587), (185, 6662), (186, 6665), (204, 6731), (231, 6839), (238, 6863), (256, 6971), (266, 7016), (281, 7094), (284, 7100), (285, 7103), (322, 7265), (324, 7271), (331, 7298), (383, 7493), (389, 7517), (411, 7580), (414, 7592), (420, 7619), (425, 7640), (440, 7694), (450, 7724), (455, 7736), (529, 7973), (548, 8006), (550, 8012),

Gene: Zulu\_15 Start: 7513, Stop: 9267, Start Num: 49

Candidate Starts for Zulu\_15:

(Start: 49 @7513 has 222 MA's), (123, 7645), (146, 7744), (156, 7768), (162, 7795), (171, 7831), (185, 7906), (217, 8029), (219, 8044), (225, 8068), (244, 8137), (247, 8161), (248, 8164), (256, 8227), (261, 8251), (294, 8380), (295, 8383), (319, 8494), (360, 8656), (383, 8743), (386, 8755), (389, 8767), (408, 8815), (411, 8830), (420, 8869), (425, 8890), (450, 8974), (455, 8986), (529, 9223), (546, 9250), (547, 9253),

Gene: phiCAM\_06 Start: 2516, Stop: 4162, Start Num: 47

Candidate Starts for phiCAM\_06:

(Start: 45 @2507 has 1 MA's), (Start: 47 @2516 has 87 MA's), (Start: 48 @2519 has 363 MA's), (Start: 62 @2534 has 20 MA's), (93, 2588), (106, 2612), (162, 2738), (169, 2759), (171, 2774), (202, 2912), (206, 2927), (211, 2954), (214, 2963), (218, 2975), (242, 3062), (244, 3083), (248, 3110), (256, 3158), (278, 3257), (326, 3410), (331, 3431), (340, 3470), (383, 3620), (384, 3626), (388, 3641), (392, 3653), (408, 3704), (420, 3758), (455, 3878), (465, 3905), (469, 3923), (517, 4079),

Gene: phiSASD1\_22 Start: 558, Stop: 2168, Start Num: 105

Candidate Starts for phiSASD1\_22:

(Start: 105 @558 has 1 MA's), (114, 582), (150, 651), (161, 684), (169, 735), (172, 753), (174, 759), (194, 924), (208, 981), (210, 990), (217, 1011), (222, 1041), (230, 1059), (233, 1068), (254, 1182), (259, 1203), (263, 1224), (268, 1239), (301, 1365), (346, 1521), (372, 1590), (387, 1662), (414, 1770), (420, 1797), (438, 1839), (447, 1875), (459, 1902), (462, 1908), (499, 2013), (514, 2082), (515, 2085), (517, 2091), (547, 2157),