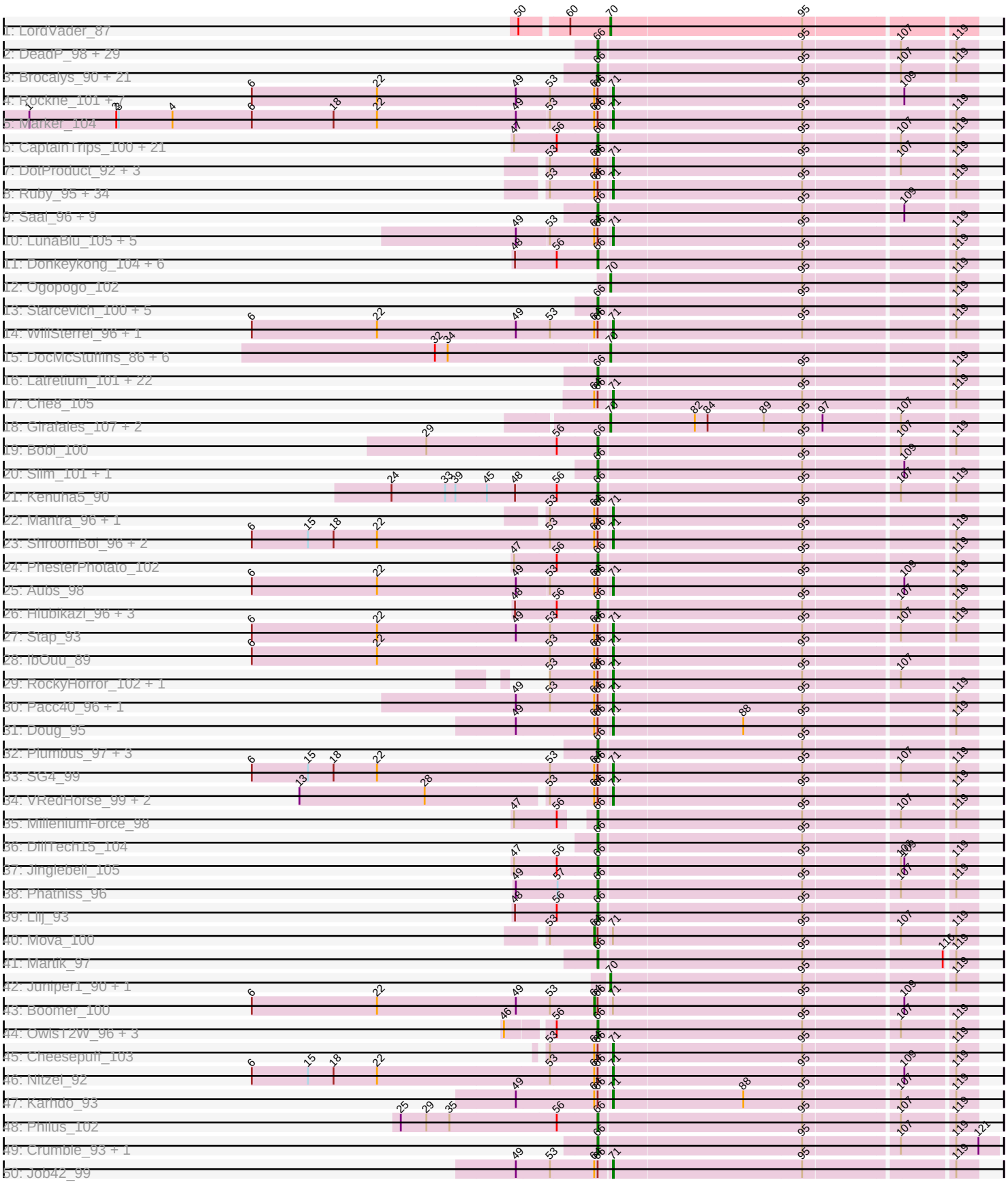
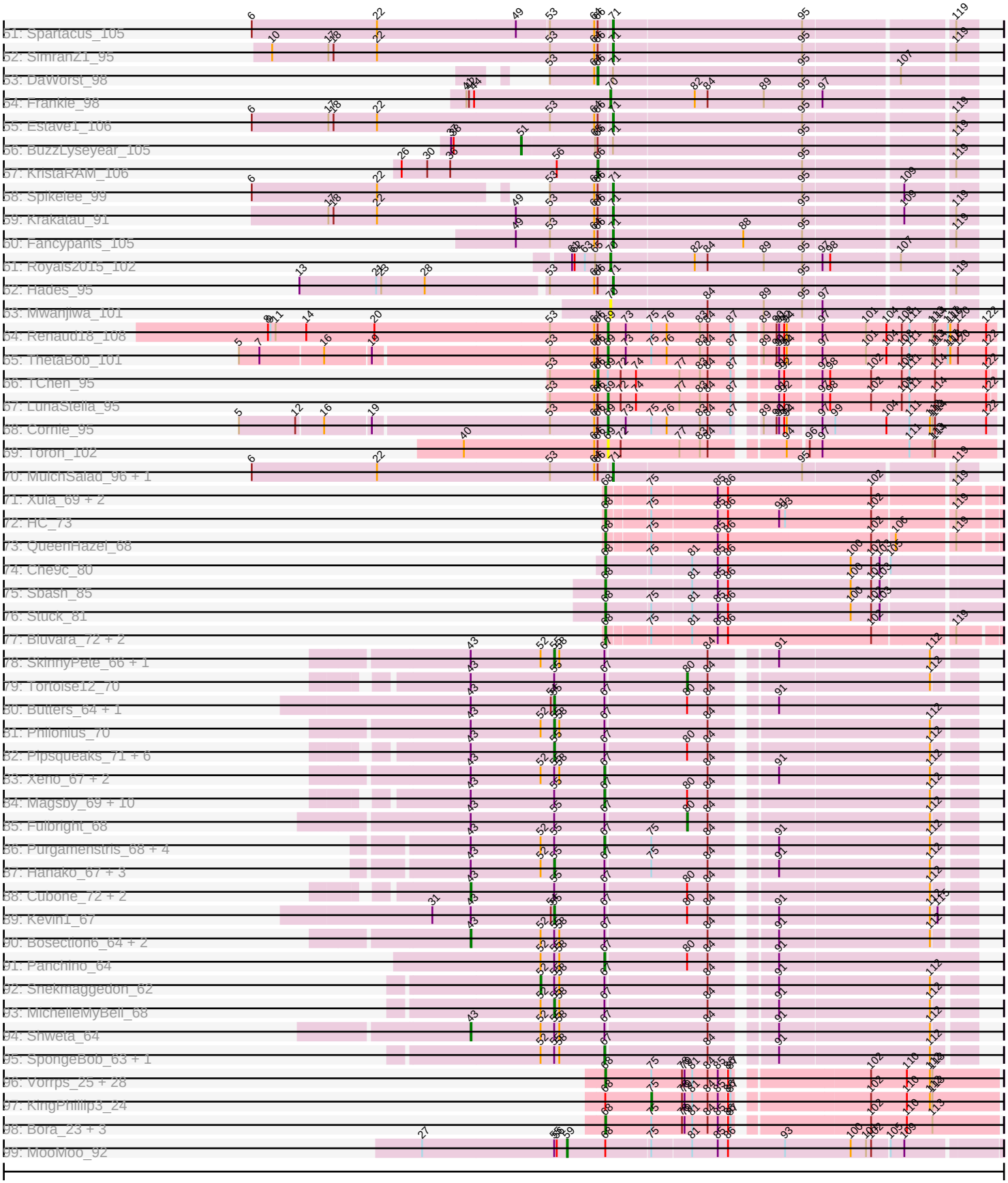
Pham 340789


1: LordVader_87
2: DeadP_98 + 29
3: Brocalys_90 + 21
4: Rockne_101 + 7
5: Marker_104
6: CaptainTrips_100 + 21
7: DotProduct_92 + 3
8: Ruby_95 + 34
9: Saal_96 + 9
10: LunaBlu_105 + 5
11: Donkeykong_104 + 6
12: Ogopogo_102
13: Starcevich_100 + 5
14: WillSterrel_96 + 1
15: DocMcStuffins_86 + 6
16: Latretium_101 + 22
17: Che8_105
18: Giraffales_107 + 2
19: Bobi_100
20: Slim_101 + 1
21: Kenuna5_90
22: Mantra_96 + 1
23: ShroomBoi_96 + 2
24: PhesterPhotato_102
25: Aubs_98
26: Hlubikazi_96 + 3
27: Stap_93
28: IbOuu_89
29: RockyHorror_102 + 1
30: Pacc40_96 + 1
31: Doug_95
32: Plumbus_97 + 3
33: SG4_99
34: VRedHorse_99 + 2
35: MillenniumForce_98
36: DiffTech15_104
37: Jinglebell_105
38: Phathiss_96
39: Lij_93
40: Mova_100
41: Mantik_97
42: Juniper1_90 + 1
43: Boomer_100
44: OwlsT2W_96 + 3
45: Cheesepuff_103
46: Nitzel_92
47: Kamdo_93
48: Philus_102
49: Crumble_93 + 1
50: Job42_99

Pham 340789


51: Spartacus_105
52: SimranZ1_95
53: DaWorst_98
54: Frankie_98
55: Estave1_106
56: BuzzLyseyear_105
57: KristaRAM_106
58: Spikelee_99
59: Krakatau_91
60: Fancypants_105
61: Royals2015_102
62: Hades_95
63: Mwanjiwa_101
64: Renaud18_108
65: ThetaBob_101
66: TChen_95
67: LunaStella_95
68: Cornie_95
69: Toron_102
70: MulchSalad_96 + 1
71: Xula_69 + 2
72: HC_73
73: QueenHazel_68
74: Che9c_80
75: Sbash_85
76: Stuck_81
77: Biuvara_72 + 2
78: SkinnyPete_66 + 1
79: Tortoise12_70
80: Butters_64 + 1
81: Philonius_70
82: Pipsqueaks_71 + 6
83: Xeno_67 + 2
84: Magsby_69 + 10
85: Fulbright_68
86: Purgamenstris_68 + 4
87: Hanako_67 + 3
88: Cubone_72 + 2
89: Kevin1_67
90: Bosection6_64 + 2
91: Panchino_64
92: Shekmaggedon_62
93: MichelleMyBell_68
94: Shweta_64
95: SpongeBob_63 + 1
96: Vorrps_25 + 28
97: KingPhilip3_24
98: Bora_23 + 3
99: MooMoo_92

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 340789 Report

This analysis was run 11/14/26 on database version 672.

Pham number 340789 has 357 members, 24 are drafts.

Phages represented in each track:
• Track 1 : LordVader_87
• Track 2 : DeadP_98, Chuckly_95, Corium_97, Cerasum_97, PopTart_89, Wee_101, Topiatin_100, Phanphagia_103, Emma_103, Brookers_97, KingJulian_106, LittleShirley_106, Taj_104, Sarma624_100, Shauna1_100, Coco12_99, Brushbloom_98, Mozy_102, SassyB_89, Fruitloop_96, Doomslug_116, Beanstalk_98, PatoPoderoso_99, Kingsley_107, Hegedechwinu_106, Velveteen_95, XFactor_89, BigPhil_95, Bipolar_100, Batiatus_98
• Track 3 : Brocalys_90, Jennelsea_96, BobaPhett_100, Burwell21_92, Lizziana_99, NormanBulbieJr_96, Violac_99, Koella_91, Zizzle_101, FreddyB_108, Maravista_95, SwagPigglett_100, Eish_103, LastJedi_89, Pippy_96, Cabrinians_95, James_102, Blexus_95, Priscilla_99, ShowerHandel_99, Clifton_90, Bubbles123_92
• Track 4 : Rockne_101, Lorde_101, UncleRicky_98, Drago_97, Enby_102, DirtMcgirt_99, Lucia_98, PMC_97
• Track 5 : Marker_104
• Track 6 : CaptainTrips_100, DLane_98, Melissauren88_88, Flathead_100, JalFarm20_107, Medindi_103, Zerg_96, Sabbb_101, Ardmore_82, Whatsapiecost_92, Dante_96, Ms6_100, Seagreen_99, Filuzino_98, Tootsieroll_92, Hamulus_98, Phalconet_99, Squirty_97, Okabe_90, Firehouse51_92, SuperGrey_98, Beakin_90
• Track 7 : DotProduct_92, Fastidio_102, IMpilo_96, Tweety_99
• Track 8 : Ruby_95, Leozinho_95, Radiance_96, Nimbo_90, JoeyJr_101, Leperchaun_100, Polka14_102, Geralt_91, RitaG_97, Veteran_89, Sassafras_100, KingMidas_98, Girr_97, SiSi_94, Pollywog_100, Doomphist_103, BodEinwohner17_108, MulchExplorer_98, Juice456_97, MadMen_103, Poenanya_102, Scottish_98, PHappiness_98, MisterCuddles_98, Kimberlium_100, Inventum_96, Clank_96, Empress_98, Dorothy_99, RedBird_99, OldBen_95, Deb65_91, Daenerys_96, DaddyRickover_100, QuickMath_99
• Track 9 : Saal_96, Nivrat_98, ShiLan_101, Spoonbill_98, LilMoolah_101, Minnie_93, Gorge_97, Jarcob_101, Sandalphon_98, Mattes_99
• Track 10 : LunaBlu_105, Polo2Bam_110, NewHope4_106, Galactic_102, Enzomatic_111, SeaLumen_107
• Track 11 : Donkeykong_104, StAnnes_102, Guppsters_93, Alexphander_99, Tchotchke_94, EleanorGeorge_102, MinionDave_96
• Track 12 : Ogopogo_102
• Track 13 : Starcevich_100, Peridot_102, Totinger_101, Oksu_104, Rialto_103, Moonbeam_101
• Track 14 : WillSterrel_96, IrishSherpFalk_98

• Track 15 : DocMcStuffins_86, Piper2020_93, Misha28_88, Aloeri_90, TootsiePop_88, Awesomesauce_89, ChickenDinner_89
• Track 16 : Latretium_101, Grimmer_103, Chevrolet_102, EmiMonkey_87, Kersh_101, AlpineSix_96, Llama_105, Ochi17_104, Seabastian_105, Ovechkin_101, PhlipPhlop_88, Yorick_94, Nichirin_100, Eradicator_90, Modragons_102, Vivum_98, Harley_100, Byougenkin_95, Wachhund_95, ArcusAngelus_98, ByChance_89, OfUltron_105, Ibhubesi_95
• Track 17 : Che8_105
• Track 18 : Girafales_107, Florinda_110, Quico_107
• Track 19 : Bobi_100
• Track 20 : Slim_101, Emmaloid_101
• Track 21 : Kenuha5_90
• Track 22 : Mantra_96, GigiOuiOui_93
• Track 23 : ShroomBoi_96, Phasih_95, Gandalph_98
• Track 24 : PhesterPhotato_102
• Track 25 : Aubs_98
• Track 26 : Hlubikazi_96, DosHalletts_95, Mandlovu_96, Strokeseat_96
• Track 27 : Stap_93
• Track 28 : IbOuu_89
• Track 29 : RockyHorror_102, GUmbie_97
• Track 30 : Pacc40_96, BlueCrab_101
• Track 31 : Doug_95
• Track 32 : Plumbus_97, TDanisky_106, DRBy19_98, Sparkdehlily_105
• Track 33 : SG4_99
• Track 34 : VRedHorse_99, Ramsey_103, Cornucopia_98
• Track 35 : MilleniumForce_98
• Track 36 : DillTech15_104
• Track 37 : Jinglebell_105
• Track 38 : Phatniss_96
• Track 39 : Llij_93
• Track 40 : Mova_100
• Track 41 : Martik_97
• Track 42 : Juniper1_90, Mahavrat_92
• Track 43 : Boomer_100
• Track 44 : OwlsT2W_96, Jant_105, Akhila_92, MilanaBonita_91
• Track 45 : Cheesepuff_103
• Track 46 : Nitzel_92
• Track 47 : Karhdo_93
• Track 48 : Philus_102
• Track 49 : Crumble_93, OlympiaSaint_102
• Track 50 : Job42_99
• Track 51 : Spartacus_105
• Track 52 : SimranZ1_95
• Track 53 : DaWorst_98
• Track 54 : Frankie_98
• Track 55 : Estave1_106
• Track 56 : BuzzLyseyear_105
• Track 57 : KristaRAM_106
• Track 58 : Spikelee_99
• Track 59 : Krakatau_91
• Track 60 : Fancypants_105
• Track 61 : Royals2015_102
• Track 62 : Hades_95

• Track 63 : Mwanjiwa_101
• Track 64 : Renaud18_108
• Track 65 : ThetaBob_101
• Track 66 : TChen_95
• Track 67 : LunaStella_95
• Track 68 : Cornie_95
• Track 69 : Toron_102
• Track 70 : MulchSalad_96, Madiba_97
• Track 71 : Xula_69, PaintedDog_71, Babsiella_73
• Track 72 : HC_73
• Track 73 : QueenHazel_68
• Track 74 : Che9c_80
• Track 75 : Sbash_85
• Track 76 : Stuck_81
• Track 77 : Bluvara_72, Brujita_69, Island3_71
• Track 78 : SkinnyPete_66, Charlie_66
• Track 79 : Tortoise12_70
• Track 80 : Butters_64, Rubeelu_64
• Track 81 : Philonius_70
• Track 82 : Pipsqueaks_71, Silvy_66, Gex_70, Aggie_65, Carcharodon_69, Xerxes_70, Tessdabest_70
• Track 83 : Xeno_67, PhancyPhin_67, Impisi_68
• Track 84 : Magsby_69, Silvafighter_72, Parmesanjohn_70, Duplicity_68, Andies_63, Smurph_70, Phloss_68, Tapioca_68, Schnauzer_72, Scitech_65, Melville_75
• Track 85 : Fulbright_68
• Track 86 : Purgamenstris_68, Rebel_64, Spinach_67, Raymond7_61, ShrimpFriedEgg_68
• Track 87 : Hanako_67, Redi_67, Nenae_68, BabeRuth_68
• Track 88 : Cubone_72, Chewbacca_72, EGUnicorn_64
• Track 89 : Kevin1_67
• Track 90 : Bosection6_64, Phrann_65, Journey_62
• Track 91 : Panchino_64
• Track 92 : Snekmaggedon_62
• Track 93 : MichelleMyBell_68
• Track 94 : Shweta_64
• Track 95 : SpongeBob_63, Jamie19_63
• Track 96 : Vorrps_25, JangDynasty_24, YoyoKar_23, Wildflower_25, MadKillah_26, Imara_25, Firecracker_25, Alkhayr_25, Catdawg_24, Ryadel_27, Murai_25, Familton_25, Idergollasper_24, FoulBall_24, Winget_25, Schuy_26, Smooch_28, Wogge42_24, Krili_25, Vagabond_25, Ashwin_26, Zebo_24, TelAviv_22, Mori_25, NiebruSaylor_25, SchoolBus_24, Shida_25, YungJamal_27, Blessica_25
• Track 97 : KingPhillip3_24
• Track 98 : Bora_23, Dylan_24, Corndog_27, Zakhe101_25
• Track 99 : MooMoo_92

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

The start number called the most often in the published annotations is 66, it was called in 139 of the 333 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akhila_92, Alexphander_99, AlpineSix_96, ArcusAngelus_98, Ardmore_82, Batiatus_98, Beakin_90, Beanstalk_98, BigPhil_95, Bipolar_100, Blexus_95, BobaPhett_100, Bobi_100, Brocalys_90, Brookers_97, Brushbloom_98, Bubbles123_92, Burwell21_92, ByChance_89, Byougenkin_95, Cabrinians_95, CaptainTrips_100, Cerasum_97, Chevrolet_102, Chuckly_95, Clifton_90, Coco12_99, Corium_97, Crumble_93, DLane_98, DRBy19_98, DaWorst_98, Dante_96, DeadP_98, DillTech15_104, Donkeykong_104, Doomslug_116, DosHalletts_95, Eish_103, EleanorGeorge_102, EmiMonkey_87, Emma_103, Emmaloid_101, Eradicator_90, Filuzino_98, Firehouse51_92, Flathead_100, FreddyB_108, Fruitloop_96, Gorge_97, Grimmer_103, Guppsters_93, Hamulus_98, Harley_100, Hegedechwinu_106, Hlubikazi_96, Ibhubesi_95, JalFarm20_107, James_102, Jant_105, Jarcob_101, Jennelsea_96, Jinglebell_105, Kenuha5_90, Kersh_101, KingJulian_106, Kingsley_107, Koella_91, KristaRAM_106, LastJedi_89, Latretium_101, LilMoolah_101, LittleShirley_106, Lizziana_99, Llama_105, Llij_93, Mandlovu_96, Maravista_95, Martik_97, Mattes_99, Medindi_103, Melissauren88_88, MilanaBonita_91, MilleniumForce_98, MinionDave_96, Minnie_93, Modragons_102, Moonbeam_101, Mozy_102, Ms6_100, Nichirin_100, Nivrat_98, NormanBulbieJr_96, Ochi17_104, OfUltron_105, Okabe_90, Oksu_104, OlympiaSaint_102, Ovechkin_101, OwlsT2W_96, PatoPoderoso_99, Peridot_102, Phalconet_99, Phanphagia_103, Phatniss_96, PhesterPhotato_102, Philus_102, PhlipPhlop_88, Pippy_96, Plumbus_97, PopTart_89, Priscilla_99, Rialto_103, Saal_96, Sabbb_101, Sandalphon_98, Sarma624_100, SassyB_89, Seabastian_105, Seagreen_99, Shauna1_100, ShiLan_101, ShowerHandel_99, Slim_101, Sparkdehlily_105, Spoonbill_98, Squirty_97, StAnnes_102, Starcevich_100, Strokeseat_96, SuperGrey_98, SwagPigglett_100, TChen_95, TDanisky_106, Taj_104, Tchotchke_94, Tootsieroll_92, Topiatin_100, Totinger_101, Velveteen_95, Violac_99, Vivum_98, Wachhund_95, Wee_101, Whatsapiecost_92, XFactor_89, Yorick_94, Zerg_96, Zizzle_101,

Genes that have the "Most Annotated" start but do not call it:
• Aubs_98, BlueCrab_101, BodEinwohner17_108, Boomer_100, BuzzLyseyear_105, Che8_105, Cheesepuff_103, Clank_96, Cornie_95, Cornucopia_98, DaddyRickover_100, Daenerys_96, Deb65_91, DirtMcgirt_99, Doomphist_103, Dorothy_99, DotProduct_92, Doug_95, Drago_97, Empress_98, Enby_102, Enzomatic_111, Estave1_106, Fancypants_105, Fastidio_102, GUmbie_97, Galactic_102, Gandalph_98, Geralt_91, GigiOuiOui_93, Girr_97, Hades_95, IMpilo_96, IbOuu_89, Inventum_96, IrishSherpFalk_98, Job42_99, JoeyJr_101, Juice456_97, Karhdo_93, Kimberlium_100, KingMidas_98, Krakatau_91, Leozinho_95, Leperchaun_100, Lorde_101, Lucia_98, LunaBlu_105, LunaStella_95, MadMen_103, Madiba_97, Mantra_96, Marker_104, MisterCuddles_98, Mova_100, MulchExplorer_98, MulchSalad_96, NewHope4_106, Nimbo_90, Nitzel_92, OldBen_95, PHappiness_98, PMC_97, Pacc40_96, Phasih_95, Poenanya_102, Polka14_102, Pollywog_100, Polo2Bam_110, QuickMath_99, Radiance_96, Ramsey_103, RedBird_99, Renaud18_108, RitaG_97, Rockne_101, RockyHorror_102, Ruby_95, SG4_99, Sassafras_100, Scottish_98, SeaLumen_107, ShroomBoi_96, SiSi_94, SimranZ1_95, Spartacus_105, Spikelee_99, Stap_93, ThetaBob_101, Toron_102, Tweety_99, UncleRicky_98, VRedHorse_99, Veteran_89, WillSterrel_96,

Genes that do not have the "Most Annotated" start:
• Aggie_65, Alkhayr_25, Aloeri_90, Andies_63, Ashwin_26, Awesomesauce_89, BabeRuth_68, Babsiella_73, Blessica_25, Bluvara_72, Bora_23, Bosection6_64,

Brujita_69, Butters_64, Carcharodon_69, Catdawg_24, Charlie_66, Che9c_80, Chewbacca_72, ChickenDinner_89, Corndog_27, Cubone_72, DocMcStuffins_86, Duplicity_68, Dylan_24, EGUnicorn_64, Familton_25, Firecracker_25, Florinda_110, FoulBall_24, Frankie_98, Fulbright_68, Gex_70, Girafales_107, HC_73, Hanako_67, Idergollasper_24, Imara_25, Impisi_68, Island3_71, Jamie19_63, JangDynasty_24, Journey_62, Juniper1_90, Kevin1_67, KingPhillip3_24, Krili_25, LordVader_87, MadKillah_26, Magsby_69, Mahavrat_92, Melville_75, MichelleMyBell_68, Misha28_88, MooMoo_92, Mori_25, Murai_25, Mwanjiwa_101, Nenae_68, NiebruSaylor_25, Ogopogo_102, PaintedDog_71, Panchino_64, Parmesanjohn_70, PhancyPhin_67, Philonius_70, Phloss_68, Phrann_65, Piper2020_93, Pipsqueaks_71, Purgamenstris_68, QueenHazel_68, Quico_107, Raymond7_61, Rebel_64, Redi_67, Royals2015_102, Rubeelu_64, Ryadel_27, Sbash_85, Schnauzer_72, SchoolBus_24, Schuy_26, Scitech_65, Shida_25, ShrimpFriedEgg_68, Shweta_64, Silvafighter_72, Silvy_66, SkinnyPete_66, Smooch_28, Smurph_70, Snekmaggedon_62, Spinach_67, SpongeBob_63, Stuck_81, Tapioca_68, TelAviv_22, Tessdabest_70, TootsiePop_88, Tortoise12_70, Vagabond_25, Vorrps_25, Wildflower_25, Winget_25, Wogge42_24, Xeno_67, Xerxes_70, Xula_69, YoyoKar_23, YungJamal_27, Zakhe101_25, Zebo_24,

Summary by start number:

Start 43:
• Found in 45 of 357 (12.6%) of genes in pham
• Manual Annotations of this start: 7 of 333
• Called 15.6% of time when present
• Phage (with cluster) where this start called: Bosection6_64 (N), Chewbacca_72 (N), Cubone_72 (N), EGUnicorn_64 (N), Journey_62 (N), Phrann_65 (N), Shweta_64 (N),

Start 51:
• Found in 1 of 357 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 333
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BuzzLyseyear_105 (F1),

Start 52:
• Found in 24 of 357 (6.7%) of genes in pham
• Manual Annotations of this start: 1 of 333
• Called 4.2% of time when present
• Phage (with cluster) where this start called: Snekmaggedon_62 (N),

Start 55:
• Found in 51 of 357 (14.3%) of genes in pham
• Manual Annotations of this start: 17 of 333
• Called 35.3% of time when present
• Phage (with cluster) where this start called: Aggie_65 (N), BabeRuth_68 (N), Butters_64 (N), Carcharodon_69 (N), Charlie_66 (N), Gex_70 (N), Hanako_67 (N), Kevin1_67 (N), MichelleMyBell_68 (N), Nenae_68 (N), Philonius_70 (N), Pipsqueaks_71 (N), Redi_67 (N), Rubeelu_64 (N), Silvy_66 (N), SkinnyPete_66 (N), Tessdabest_70 (N), Xerxes_70 (N),

Start 59:
• Found in 1 of 357 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 333

• Called 100.0% of time when present
• Phage (with cluster) where this start called: MooMoo_92 (singleton),

Start 64:
• Found in 96 of 357 (26.9%) of genes in pham
• Manual Annotations of this start: 2 of 333
• Called 2.1% of time when present
• Phage (with cluster) where this start called: Boomer_100 (F1), Mova_100 (F1),

Start 66:
• Found in 244 of 357 (68.3%) of genes in pham
• Manual Annotations of this start: 139 of 333
• Called 61.1% of time when present
• Phage (with cluster) where this start called: Akhila_92 (F1), Alexphander_99 (F1), AlpineSix_96 (F1), ArcusAngelus_98 (F1), Ardmore_82 (F1), Batiatus_98 (F1), Beakin_90 (F1), Beanstalk_98 (F1), BigPhil_95 (F1), Bipolar_100 (F1), Blexus_95 (F1), BobaPhett_100 (F1), Bobi_100 (F1), Brocalys_90 (F1), Brookers_97 (F1), Brushbloom_98 (F1), Bubbles123_92 (F1), Burwell21_92 (F1), ByChance_89 (F1), Byougenkin_95 (F1), Cabrinians_95 (F1), CaptainTrips_100 (F1), Cerasum_97 (F1), Chevrolet_102 (F1), Chuckly_95 (F1), Clifton_90 (F1), Coco12_99 (F1), Corium_97 (F1), Crumble_93 (F1), DLane_98 (F1), DRBy19_98 (F1), DaWorst_98 (F1), Dante_96 (F1), DeadP_98 (F1), DillTech15_104 (F1), Donkeykong_104 (F1), Doomslug_116 (F), DosHalletts_95 (F1), Eish_103 (F1), EleanorGeorge_102 (F1), EmiMonkey_87 (F1), Emma_103 (F1), Emmaloid_101 (F1), Eradicator_90 (F1), Filuzino_98 (F1), Firehouse51_92 (F1), Flathead_100 (F1), FreddyB_108 (F1), Fruitloop_96 (F1), Gorge_97 (F1), Grimmer_103 (F1), Guppsters_93 (F1), Hamulus_98 (F1), Harley_100 (F1), Hegedechwinu_106 (F1), Hlubikazi_96 (F1), Ibhubesi_95 (F1), JalFarm20_107 (F1), James_102 (F1), Jant_105 (F1), Jarcob_101 (F1), Jennelsea_96 (F1), Jinglebell_105 (F1), Kenuha5_90 (F1), Kersh_101 (F1), KingJulian_106 (F1), Kingsley_107 (F1), Koella_91 (F1), KristaRAM_106 (F1), LastJedi_89 (F1), Latretium_101 (F1), LilMoolah_101 (F1), LittleShirley_106 (F1), Lizziana_99 (F1), Llama_105 (F1), Llij_93 (F1), Mandlovu_96 (F1), Maravista_95 (F1), Martik_97 (F1), Mattes_99 (F1), Medindi_103 (F1), Melissauren88_88 (F1), MilanaBonita_91 (F1), MilleniumForce_98 (F1), MinionDave_96 (F1), Minnie_93 (F1), Modragons_102 (F1), Moonbeam_101 (F1), Mozy_102 (F1), Ms6_100 (F1), Nichirin_100 (F1), Nivrat_98 (F1), NormanBulbieJr_96 (F1), Ochi17_104 (F1), OfUltron_105 (F1), Okabe_90 (F8), Oksu_104 (F1), OlympiaSaint_102 (F1), Ovechkin_101 (F1), OwlsT2W_96 (F1), PatoPoderoso_99 (F1), Peridot_102 (F1), Phalconet_99 (F1), Phanphagia_103 (F1), Phatniss_96 (F1), PhesterPhotato_102 (F1), Philus_102 (F1), PhlipPhlop_88 (F1), Pippy_96 (F1), Plumbus_97 (F1), PopTart_89 (F1), Priscilla_99 (F1), Rialto_103 (F1), Saal_96 (F1), Sabbb_101 (F1), Sandalphon_98 (F1), Sarma624_100 (F1), SassyB_89 (F1), Seabastian_105 (F1), Seagreen_99 (F1), Shauna1_100 (F1), ShiLan_101 (F1), ShowerHandel_99 (F1), Slim_101 (F1), Sparkdehlily_105 (F1), Spoonbill_98 (F1), Squirty_97 (F3), StAnnes_102 (F1), Starcevich_100 (F1), Strokeseat_96 (F1), SuperGrey_98 (F1), SwagPigglett_100 (F1), TChen_95 (F4), TDanisky_106 (F1), Taj_104 (F1), Tchotchke_94 (F1), Tootsieroll_92 (F1), Topiatin_100 (F1), Totinger_101 (F1), Velveteen_95 (F1), Violac_99 (F1), Vivum_98 (F1), Wachhund_95 (F1), Wee_101 (F1), Whatsapiecost_92 (F1), XFactor_89 (F1), Yorick_94 (F1), Zerg_96 (F1), Zizzle_101 (F1),

Start 67:
• Found in 50 of 357 (14.0%) of genes in pham

• Manual Annotations of this start: 20 of 333
• Called 44.0% of time when present
• Phage (with cluster) where this start called: Andies_63 (N), Duplicity_68 (N), Impisi_68 (N), Jamie19_63 (N), Magsby_69 (N), Melville_75 (N), Panchino_64 (N), Parmesanjohn_70 (N), PhancyPhin_67 (N), Phloss_68 (N), Purgamenstris_68 (N), Raymond7_61 (N), Rebel_64 (N), Schnauzer_72 (N), Scitech_65 (N), ShrimpFriedEgg_68 (N), Silvafighter_72 (N), Smurph_70 (N), Spinach_67 (N), SpongeBob_63 (N), Tapioca_68 (N), Xeno_67 (N),

Start 68:
• Found in 46 of 357 (12.9%) of genes in pham
• Manual Annotations of this start: 40 of 333
• Called 95.7% of time when present
• Phage (with cluster) where this start called: Alkhayr_25 (O), Ashwin_26 (O), Babsiella_73 (I1), Blessica_25 (O), Bluvara_72 (I3), Bora_23 (O), Brujita_69 (I1), Catdawg_24 (O), Che9c_80 (I2), Corndog_27 (O), Dylan_24 (O), Familton_25 (O), Firecracker_25 (O), FoulBall_24 (O), HC_73 (I1), Idergollasper_24 (O), Imara_25 (O), Island3_71 (I1), JangDynasty_24 (O), Krili_25 (O), MadKillah_26 (O), Mori_25 (O), Murai_25 (O), NiebruSaylor_25 (O), PaintedDog_71 (I1), QueenHazel_68 (I1), Ryadel_27 (O), Sbash_85 (I2), SchoolBus_24 (O), Schuy_26 (O), Shida_25 (O), Smooch_28 (O), Stuck_81 (I2), TelAviv_22 (O), Vagabond_25 (O), Vorrps_25 (O), Wildflower_25 (O), Winget_25 (O), Wogge42_24 (O), Xula_69 (I1), YoyoKar_23 (O), YungJamal_27 (O), Zakhe101_25 (O), Zebo_24 (O),

Start 69:
• Found in 6 of 357 (1.7%) of genes in pham
• Manual Annotations of this start: 4 of 333
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Cornie_95 (F5), LunaStella_95 (F4), Renaud18_108 (F4), ThetaBob_101 (F4), Toron_102 (F6),

Start 70:
• Found in 17 of 357 (4.8%) of genes in pham
• Manual Annotations of this start: 16 of 333
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aloeri_90 (F1), Awesomesauce_89 (F1), ChickenDinner_89 (F1), DocMcStuffins_86 (F1), Florinda_110 (F1), Frankie_98 (F1), Girafales_107 (F1), Juniper1_90 (F1), LordVader_87 (F), Mahavrat_92 (F1), Misha28_88 (F1), Mwanjiwa_101 (F1), Ogopogo_102 (F1), Piper2020_93 (F1), Quico_107 (F1), Royals2015_102 (F1), TootsiePop_88 (F1),

Start 71:
• Found in 91 of 357 (25.5%) of genes in pham
• Manual Annotations of this start: 82 of 333
• Called 95.6% of time when present
• Phage (with cluster) where this start called: Aubs_98 (F1), BlueCrab_101 (F1), BodEinwohner17_108 (F1), Che8_105 (F1), Cheesepuff_103 (F1), Clank_96 (F), Cornucopia_98 (F1), DaddyRickover_100 (F1), Daenerys_96 (F1), Deb65_91 (F1), DirtMcgirt_99 (F1), Doomphist_103 (F1), Dorothy_99 (F1), DotProduct_92 (F1), Doug_95 (F1), Drago_97 (F1), Empress_98 (F1), Enby_102 (F1), Enzomatic_111 (F1), Estave1_106 (F1), Fancypants_105 (F1), Fastidio_102 (F1), GUmbie_97 (F1), Galactic_102 (F1), Gandalph_98 (F1), Geralt_91 (F1), GigiOuiOui_93 (F1), Girr_97 (F1), Hades_95 (F1), IMpilo_96 (F1), IbOuu_89 (F1), Inventum_96 (F1),

IrishSherpFalk_98 (F1), Job42_99 (F1), JoeyJr_101 (F1), Juice456_97 (F1), Karhdo_93 (F1), Kimberlium_100 (F1), KingMidas_98 (F1), Krakatau_91 (F1), Leozinho_95 (F1), Leperchaun_100 (F1), Lorde_101 (F1), Lucia_98 (F1), LunaBlu_105 (F1), MadMen_103 (F1), Madiba_97 (F1), Mantra_96 (F1), Marker_104 (F1), MisterCuddles_98 (F1), MulchExplorer_98 (F1), MulchSalad_96 (F7), NewHope4_106 (F1), Nimbo_90 (F1), Nitzel_92 (F1), OldBen_95 (F1), PHappiness_98 (F1), PMC_97 (F1), Pacc40_96 (F1), Phasih_95 (F1), Poenanya_102 (F1), Polka14_102 (F1), Pollywog_100 (F1), Polo2Bam_110 (F1), QuickMath_99 (F1), Radiance_96 (F1), Ramsey_103 (F1), RedBird_99 (F1), RitaG_97 (F1), Rockne_101 (F1), RockyHorror_102 (F1), Ruby_95 (F1), SG4_99 (F1), Sassafras_100 (F1), Scottish_98 (F1), SeaLumen_107 (F1), ShroomBoi_96 (F1), SiSi_94 (F1), SimranZ1_95 (F1), Spartacus_105 (F1), Spikelee_99 (F1), Stap_93 (F1), Tweety_99 (F1), UncleRicky_98 (F1), VRedHorse_99 (F1), Veteran_89 (F1), WillSterrel_96 (F1),

Start 75:
• Found in 57 of 357 (16.0%) of genes in pham
• Manual Annotations of this start: 1 of 333
• Called 1.8% of time when present
• Phage (with cluster) where this start called: KingPhillip3_24 (O),

Start 80:
• Found in 27 of 357 (7.6%) of genes in pham
• Manual Annotations of this start: 2 of 333
• Called 7.4% of time when present
• Phage (with cluster) where this start called: Fulbright_68 (N), Tortoise12_70 (N),

Summary by clusters:

There are 14 clusters represented in this pham: F1, F, F3, F4, F5, F6, F7, I1, I3, I2, singleton, O, N, F8,

Info for manual annotations of cluster F:
•Start number 70 was manually annotated 1 time for cluster F.

Info for manual annotations of cluster F1:
•Start number 51 was manually annotated 1 time for cluster F1.
•Start number 64 was manually annotated 2 times for cluster F1.
•Start number 66 was manually annotated 137 times for cluster F1.
•Start number 70 was manually annotated 15 times for cluster F1.
•Start number 71 was manually annotated 81 times for cluster F1.

Info for manual annotations of cluster F3:
•Start number 66 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:
•Start number 66 was manually annotated 1 time for cluster F4.
•Start number 69 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 69 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster F7:
•Start number 71 was manually annotated 1 time for cluster F7.

Info for manual annotations of cluster I1:
•Start number 68 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:
•Start number 68 was manually annotated 3 times for cluster I2.

Info for manual annotations of cluster N:
•Start number 43 was manually annotated 7 times for cluster N.
•Start number 52 was manually annotated 1 time for cluster N.
•Start number 55 was manually annotated 17 times for cluster N.
•Start number 67 was manually annotated 20 times for cluster N.
•Start number 80 was manually annotated 2 times for cluster N.

Info for manual annotations of cluster O:
•Start number 68 was manually annotated 31 times for cluster O.
•Start number 75 was manually annotated 1 time for cluster O.

Gene Information:

Gene: Aggie_65 Start: 43172, Stop: 43627, Start Num: 55
Candidate Starts for Aggie_65:
(Start: 43 @43076 has 7 MA's), (Start: 55 @43172 has 17 MA's), (Start: 67 @43229 has 20 MA's), (Start: 80 @43322 has 2 MA's), (84, 43346), (112, 43583),

Gene: Akhila_92 Start: 52219, Stop: 52632, Start Num: 66
Candidate Starts for Akhila_92:
(46, 52126), (56, 52174), (Start: 66 @52219 has 139 MA's), (95, 52447), (107, 52552), (119, 52609),

Gene: Alexphander_99 Start: 54553, Stop: 54966, Start Num: 66
Candidate Starts for Alexphander_99:
(48, 54460), (56, 54508), (Start: 66 @54553 has 139 MA's), (95, 54781), (119, 54943),

Gene: Alkhayr_25 Start: 11416, Stop: 11850, Start Num: 68
Candidate Starts for Alkhayr_25:
(Start: 68 @11416 has 40 MA's), (Start: 75 @11470 has 1 MA's), (78, 11506), (79, 11509), (81, 11518), (84, 11536), (85, 11548), (86, 11557), (87, 11560), (102, 11701), (110, 11743), (112, 11770), (113, 11773),

Gene: Aloeri_90 Start: 53366, Stop: 53770, Start Num: 70
Candidate Starts for Aloeri_90:
(32, 53168), (34, 53183), (Start: 70 @53366 has 16 MA's),

Gene: AlpineSix_96 Start: 52937, Stop: 53350, Start Num: 66
Candidate Starts for AlpineSix_96:
(Start: 66 @52937 has 139 MA's), (95, 53165), (119, 53327),

Gene: Andies_63 Start: 42675, Stop: 43073, Start Num: 67
Candidate Starts for Andies_63:
(Start: 43 @42522 has 7 MA's), (Start: 55 @42618 has 17 MA's), (Start: 67 @42675 has 20 MA's), (Start: 80 @42768 has 2 MA's), (84, 42792), (112, 43029),

Gene: ArcusAngelus_98 Start: 54470, Stop: 54883, Start Num: 66
Candidate Starts for ArcusAngelus_98:
(Start: 66 @54470 has 139 MA's), (95, 54698), (119, 54860),

Gene: Ardmore_82 Start: 48108, Stop: 48521, Start Num: 66
Candidate Starts for Ardmore_82:
(47, 48015), (56, 48063), (Start: 66 @48108 has 139 MA's), (95, 48336), (107, 48441), (119, 48498),

Gene: Ashwin_26 Start: 11636, Stop: 12070, Start Num: 68
Candidate Starts for Ashwin_26:
(Start: 68 @11636 has 40 MA's), (Start: 75 @11690 has 1 MA's), (78, 11726), (79, 11729), (81, 11738), (84, 11756), (85, 11768), (86, 11777), (87, 11780), (102, 11921), (110, 11963), (112, 11990), (113, 11993),

Gene: Aubs_98 Start: 55122, Stop: 55523, Start Num: 71
Candidate Starts for Aubs_98:
(6, 54711), (22, 54858), (49, 55020), (53, 55056), (Start: 64 @55107 has 2 MA's), (Start: 66 @55110 has 139 MA's), (Start: 71 @55122 has 82 MA's), (95, 55338), (109, 55446), (119, 55500),

Gene: Awesomesauce_89 Start: 53602, Stop: 54006, Start Num: 70
Candidate Starts for Awesomesauce_89:
(32, 53404), (34, 53419), (Start: 70 @53602 has 16 MA's),

Gene: BabeRuth_68 Start: 41426, Stop: 41881, Start Num: 55
Candidate Starts for BabeRuth_68:
(Start: 43 @41330 has 7 MA's), (Start: 52 @41411 has 1 MA's), (Start: 55 @41426 has 17 MA's), (Start: 67 @41483 has 20 MA's), (Start: 75 @41534 has 1 MA's), (84, 41600), (91, 41663), (112, 41837),

Gene: Babsiella_73 Start: 45112, Stop: 45540, Start Num: 68
Candidate Starts for Babsiella_73:
(Start: 68 @45112 has 40 MA's), (Start: 75 @45157 has 1 MA's), (85, 45232), (86, 45244), (102, 45409), (119, 45496),

Gene: Batiatus_98 Start: 53658, Stop: 54071, Start Num: 66
Candidate Starts for Batiatus_98:
(Start: 66 @53658 has 139 MA's), (95, 53886), (107, 53991), (119, 54048),

Gene: Beakin_90 Start: 50631, Stop: 51044, Start Num: 66
Candidate Starts for Beakin_90:
(47, 50538), (56, 50586), (Start: 66 @50631 has 139 MA's), (95, 50859), (107, 50964), (119, 51021),

Gene: Beanstalk_98 Start: 52808, Stop: 53221, Start Num: 66
Candidate Starts for Beanstalk_98:
(Start: 66 @52808 has 139 MA's), (95, 53036), (107, 53141), (119, 53198),

Gene: BigPhil_95 Start: 50450, Stop: 50863, Start Num: 66
Candidate Starts for BigPhil_95:

(Start: 66 @50450 has 139 MA's), (95, 50678), (107, 50783), (119, 50840),

Gene: Bipolar_100 Start: 55427, Stop: 55840, Start Num: 66
Candidate Starts for Bipolar_100:
(Start: 66 @55427 has 139 MA's), (95, 55655), (107, 55760), (119, 55817),

Gene: Blessica_25 Start: 11439, Stop: 11873, Start Num: 68
Candidate Starts for Blessica_25:
(Start: 68 @11439 has 40 MA's), (Start: 75 @11493 has 1 MA's), (78, 11529), (79, 11532), (81, 11541), (84, 11559), (85, 11571), (86, 11580), (87, 11583), (102, 11724), (110, 11766), (112, 11793), (113, 11796),

Gene: Blexus_95 Start: 54034, Stop: 54447, Start Num: 66
Candidate Starts for Blexus_95:
(Start: 66 @54034 has 139 MA's), (95, 54262), (107, 54367), (119, 54424),

Gene: BlueCrab_101 Start: 55042, Stop: 55443, Start Num: 71
Candidate Starts for BlueCrab_101:
(49, 54937), (53, 54976), (Start: 64 @55027 has 2 MA's), (Start: 66 @55030 has 139 MA's), (Start: 71 @55042 has 82 MA's), (95, 55258), (119, 55420),

Gene: Bluvara_72 Start: 46741, Stop: 47169, Start Num: 68
Candidate Starts for Bluvara_72:
(Start: 68 @46741 has 40 MA's), (Start: 75 @46786 has 1 MA's), (81, 46831), (85, 46861), (86, 46873), (102, 47038), (119, 47125),

Gene: BobaPhett_100 Start: 55716, Stop: 56129, Start Num: 66
Candidate Starts for BobaPhett_100:
(Start: 66 @55716 has 139 MA's), (95, 55944), (107, 56049), (119, 56106),

Gene: Bobi_100 Start: 55132, Stop: 55545, Start Num: 66
Candidate Starts for Bobi_100:
(29, 54937), (56, 55087), (Start: 66 @55132 has 139 MA's), (95, 55360), (107, 55465), (119, 55522),

Gene: BodEinwohner17_108 Start: 56098, Stop: 56499, Start Num: 71
Candidate Starts for BodEinwohner17_108:
(53, 56032), (Start: 64 @56083 has 2 MA's), (Start: 66 @56086 has 139 MA's), (Start: 71 @56098 has 82 MA's), (95, 56314), (119, 56476),

Gene: Boomer_100 Start: 54380, Stop: 54796, Start Num: 64
Candidate Starts for Boomer_100:
(6, 53981), (22, 54128), (49, 54290), (53, 54329), (Start: 64 @54380 has 2 MA's), (Start: 66 @54383 has 139 MA's), (Start: 71 @54395 has 82 MA's), (95, 54611), (109, 54719),

Gene: Bora_23 Start: 11089, Stop: 11523, Start Num: 68
Candidate Starts for Bora_23:
(Start: 68 @11089 has 40 MA's), (Start: 75 @11143 has 1 MA's), (78, 11179), (79, 11182), (81, 11191), (84, 11209), (85, 11221), (86, 11230), (87, 11233), (102, 11374), (110, 11416), (113, 11446),

Gene: Bosection6_64 Start: 42146, Stop: 42697, Start Num: 43
Candidate Starts for Bosection6_64:
(Start: 43 @42146 has 7 MA's), (Start: 52 @42227 has 1 MA's), (Start: 55 @42242 has 17 MA's), (58, 42248), (Start: 67 @42299 has 20 MA's), (84, 42416), (91, 42479), (112, 42653),

Gene: Brocalys_90 Start: 51195, Stop: 51608, Start Num: 66
Candidate Starts for Brocalys_90:
(Start: 66 @51195 has 139 MA's), (95, 51423), (107, 51528), (119, 51585),

Gene: Brookers_97 Start: 53401, Stop: 53814, Start Num: 66
Candidate Starts for Brookers_97:
(Start: 66 @53401 has 139 MA's), (95, 53629), (107, 53734), (119, 53791),

Gene: Brujita_69 Start: 44086, Stop: 44514, Start Num: 68
Candidate Starts for Brujita_69:
(Start: 68 @44086 has 40 MA's), (Start: 75 @44131 has 1 MA's), (81, 44176), (85, 44206), (86, 44218), (102, 44383), (119, 44470),

Gene: Brushbloom_98 Start: 54702, Stop: 55115, Start Num: 66
Candidate Starts for Brushbloom_98:
(Start: 66 @54702 has 139 MA's), (95, 54930), (107, 55035), (119, 55092),

Gene: Bubbles123_92 Start: 53470, Stop: 53883, Start Num: 66
Candidate Starts for Bubbles123_92:
(Start: 66 @53470 has 139 MA's), (95, 53698), (107, 53803), (119, 53860),

Gene: Burwell21_92 Start: 53481, Stop: 53894, Start Num: 66
Candidate Starts for Burwell21_92:
(Start: 66 @53481 has 139 MA's), (95, 53709), (107, 53814), (119, 53871),

Gene: Butters_64 Start: 40322, Stop: 40789, Start Num: 55
Candidate Starts for Butters_64:
(Start: 43 @40226 has 7 MA's), (54, 40319), (Start: 55 @40322 has 17 MA's), (Start: 67 @40379 has 20 MA's), (Start: 80 @40472 has 2 MA's), (84, 40496), (91, 40559),

Gene: BuzzLyseyear_105 Start: 56154, Stop: 56654, Start Num: 51
Candidate Starts for BuzzLyseyear_105:
(37, 56073), (38, 56076), (Start: 51 @56154 has 1 MA's), (65, 56238), (Start: 66 @56241 has 139 MA's), (Start: 71 @56253 has 82 MA's), (95, 56469), (119, 56631),

Gene: ByChance_89 Start: 49553, Stop: 49966, Start Num: 66
Candidate Starts for ByChance_89:
(Start: 66 @49553 has 139 MA's), (95, 49781), (119, 49943),

Gene: Byougenkin_95 Start: 50517, Stop: 50930, Start Num: 66
Candidate Starts for Byougenkin_95:
(Start: 66 @50517 has 139 MA's), (95, 50745), (119, 50907),

Gene: Cabrinians_95 Start: 53116, Stop: 53529, Start Num: 66
Candidate Starts for Cabrinians_95:
(Start: 66 @53116 has 139 MA's), (95, 53344), (107, 53449), (119, 53506),

Gene: CaptainTrips_100 Start: 53296, Stop: 53709, Start Num: 66
Candidate Starts for CaptainTrips_100:
(47, 53203), (56, 53251), (Start: 66 @53296 has 139 MA's), (95, 53524), (107, 53629), (119, 53686),

Gene: Carcharodon_69 Start: 42519, Stop: 42974, Start Num: 55

Candidate Starts for Carcharodon_69:
(Start: 43 @42423 has 7 MA's), (Start: 55 @42519 has 17 MA's), (Start: 67 @42576 has 20 MA's), (Start: 80 @42669 has 2 MA's), (84, 42693), (112, 42930),

Gene: Catdawg_24 Start: 11045, Stop: 11479, Start Num: 68
Candidate Starts for Catdawg_24:
(Start: 68 @11045 has 40 MA's), (Start: 75 @11099 has 1 MA's), (78, 11135), (79, 11138), (81, 11147), (84, 11165), (85, 11177), (86, 11186), (87, 11189), (102, 11330), (110, 11372), (112, 11399), (113, 11402),

Gene: Cerasum_97 Start: 50468, Stop: 50881, Start Num: 66
Candidate Starts for Cerasum_97:
(Start: 66 @50468 has 139 MA's), (95, 50696), (107, 50801), (119, 50858),

Gene: Charlie_66 Start: 41866, Stop: 42321, Start Num: 55
Candidate Starts for Charlie_66:
(Start: 43 @41770 has 7 MA's), (Start: 52 @41851 has 1 MA's), (Start: 55 @41866 has 17 MA's), (58, 41872), (Start: 67 @41923 has 20 MA's), (84, 42040), (91, 42103), (112, 42277),

Gene: Che8_105 Start: 55307, Stop: 55708, Start Num: 71
Candidate Starts for Che8_105:
(Start: 64 @55292 has 2 MA's), (Start: 66 @55295 has 139 MA's), (Start: 71 @55307 has 82 MA's), (95, 55523), (119, 55685),

Gene: Che9c_80 Start: 53858, Stop: 54301, Start Num: 68
Candidate Starts for Che9c_80:
(Start: 68 @53858 has 40 MA's), (Start: 75 @53909 has 1 MA's), (81, 53954), (85, 53984), (86, 53996), (100, 54137), (102, 54161), (103, 54170), (105, 54179),

Gene: Cheesepuff_103 Start: 53489, Stop: 53890, Start Num: 71
Candidate Starts for Cheesepuff_103:
(53, 53423), (Start: 64 @53474 has 2 MA's), (Start: 66 @53477 has 139 MA's), (Start: 71 @53489 has 82 MA's), (95, 53705), (119, 53867),

Gene: Chevrolet_102 Start: 54471, Stop: 54884, Start Num: 66
Candidate Starts for Chevrolet_102:
(Start: 66 @54471 has 139 MA's), (95, 54699), (119, 54861),

Gene: Chewbacca_72 Start: 42318, Stop: 42869, Start Num: 43
Candidate Starts for Chewbacca_72:
(Start: 43 @42318 has 7 MA's), (Start: 55 @42414 has 17 MA's), (Start: 67 @42471 has 20 MA's), (Start: 80 @42564 has 2 MA's), (84, 42588), (112, 42825),

Gene: ChickenDinner_89 Start: 53366, Stop: 53770, Start Num: 70
Candidate Starts for ChickenDinner_89:
(32, 53168), (34, 53183), (Start: 70 @53366 has 16 MA's),

Gene: Chuckly_95 Start: 50338, Stop: 50751, Start Num: 66
Candidate Starts for Chuckly_95:
(Start: 66 @50338 has 139 MA's), (95, 50566), (107, 50671), (119, 50728),

Gene: Clank_96 Start: 51258, Stop: 51659, Start Num: 71
Candidate Starts for Clank_96:

(53, 51192), (Start: 64 @51243 has 2 MA's), (Start: 66 @51246 has 139 MA's), (Start: 71 @51258 has 82 MA's), (95, 51474), (119, 51636),

Gene: Clifton_90 Start: 52170, Stop: 52583, Start Num: 66
Candidate Starts for Clifton_90:
(Start: 66 @52170 has 139 MA's), (95, 52398), (107, 52503), (119, 52560),

Gene: Coco12_99 Start: 54525, Stop: 54938, Start Num: 66
Candidate Starts for Coco12_99:
(Start: 66 @54525 has 139 MA's), (95, 54753), (107, 54858), (119, 54915),

Gene: Corium_97 Start: 55325, Stop: 55738, Start Num: 66
Candidate Starts for Corium_97:
(Start: 66 @55325 has 139 MA's), (95, 55553), (107, 55658), (119, 55715),

Gene: Corndog_27 Start: 11715, Stop: 12149, Start Num: 68
Candidate Starts for Corndog_27:
(Start: 68 @11715 has 40 MA's), (Start: 75 @11769 has 1 MA's), (78, 11805), (79, 11808), (81, 11817), (84, 11835), (85, 11847), (86, 11856), (87, 11859), (102, 12000), (110, 12042), (113, 12072),

Gene: Cornie_95 Start: 52934, Stop: 53362, Start Num: 69
Candidate Starts for Cornie_95:
(5, 52520), (12, 52586), (16, 52616), (19, 52667), (53, 52868), (Start: 64 @52919 has 2 MA's), (Start: 66 @52922 has 139 MA's), (Start: 69 @52934 has 4 MA's), (73, 52955), (Start: 75 @52985 has 1 MA's), (76, 53003), (83, 53042), (84, 53051), (87, 53078), (89, 53096), (90, 53111), (91, 53114), (92, 53120), (94, 53123), (97, 53159), (99, 53174), (104, 53234), (111, 53261), (112, 53285), (113, 53288), (114, 53291), (122, 53351),

Gene: Cornucopia_98 Start: 51608, Stop: 52009, Start Num: 71
Candidate Starts for Cornucopia_98:
(13, 51260), (28, 51407), (53, 51542), (Start: 64 @51593 has 2 MA's), (Start: 66 @51596 has 139 MA's), (Start: 71 @51608 has 82 MA's), (95, 51824), (119, 51986),

Gene: Crumble_93 Start: 49840, Stop: 50277, Start Num: 66
Candidate Starts for Crumble_93:
(Start: 66 @49840 has 139 MA's), (95, 50068), (107, 50173), (119, 50230), (121, 50254),

Gene: Cubone_72 Start: 43045, Stop: 43596, Start Num: 43
Candidate Starts for Cubone_72:
(Start: 43 @43045 has 7 MA's), (Start: 55 @43141 has 17 MA's), (Start: 67 @43198 has 20 MA's), (Start: 80 @43291 has 2 MA's), (84, 43315), (112, 43552),

Gene: DLane_98 Start: 54578, Stop: 54988, Start Num: 66
Candidate Starts for DLane_98:
(47, 54485), (56, 54533), (Start: 66 @54578 has 139 MA's), (95, 54806), (107, 54911), (119, 54968),

Gene: DRBy19_98 Start: 54797, Stop: 55210, Start Num: 66
Candidate Starts for DRBy19_98:
(Start: 66 @54797 has 139 MA's), (95, 55025),

Gene: DaWorst_98 Start: 53412, Stop: 53825, Start Num: 66
Candidate Starts for DaWorst_98:

(53, 53358), (Start: 64 @53409 has 2 MA's), (Start: 66 @53412 has 139 MA's), (Start: 71 @53424 has 82 MA's), (95, 53640), (107, 53745),

Gene: DaddyRickover_100 Start: 54292, Stop: 54693, Start Num: 71
Candidate Starts for DaddyRickover_100:
(53, 54226), (Start: 64 @54277 has 2 MA's), (Start: 66 @54280 has 139 MA's), (Start: 71 @54292 has 82 MA's), (95, 54508), (119, 54670),

Gene: Daenerys_96 Start: 54459, Stop: 54860, Start Num: 71
Candidate Starts for Daenerys_96:
(53, 54393), (Start: 64 @54444 has 2 MA's), (Start: 66 @54447 has 139 MA's), (Start: 71 @54459 has 82 MA's), (95, 54675), (119, 54837),

Gene: Dante_96 Start: 54928, Stop: 55341, Start Num: 66
Candidate Starts for Dante_96:
(47, 54835), (56, 54883), (Start: 66 @54928 has 139 MA's), (95, 55156), (107, 55261), (119, 55318),

Gene: DeadP_98 Start: 52156, Stop: 52569, Start Num: 66
Candidate Starts for DeadP_98:
(Start: 66 @52156 has 139 MA's), (95, 52384), (107, 52489), (119, 52546),

Gene: Deb65_91 Start: 52183, Stop: 52584, Start Num: 71
Candidate Starts for Deb65_91:
(53, 52117), (Start: 64 @52168 has 2 MA's), (Start: 66 @52171 has 139 MA's), (Start: 71 @52183 has 82 MA's), (95, 52399), (119, 52561),

Gene: DillTech15_104 Start: 53753, Stop: 54166, Start Num: 66
Candidate Starts for DillTech15_104:
(Start: 66 @53753 has 139 MA's), (95, 53981),

Gene: DirtMcgirt_99 Start: 51005, Stop: 51406, Start Num: 71
Candidate Starts for DirtMcgirt_99:
(6, 50591), (22, 50738), (49, 50900), (53, 50939), (Start: 64 @50990 has 2 MA's), (Start: 66 @50993 has 139 MA's), (Start: 71 @51005 has 82 MA's), (95, 51221), (109, 51329),

Gene: DocMcStuffins_86 Start: 54996, Stop: 55400, Start Num: 70
Candidate Starts for DocMcStuffins_86:
(32, 54798), (34, 54813), (Start: 70 @54996 has 16 MA's),

Gene: Donkeykong_104 Start: 55913, Stop: 56326, Start Num: 66
Candidate Starts for Donkeykong_104:
(48, 55820), (56, 55868), (Start: 66 @55913 has 139 MA's), (95, 56141), (119, 56303),

Gene: Doomphist_103 Start: 55112, Stop: 55513, Start Num: 71
Candidate Starts for Doomphist_103:
(53, 55046), (Start: 64 @55097 has 2 MA's), (Start: 66 @55100 has 139 MA's), (Start: 71 @55112 has 82 MA's), (95, 55328), (119, 55490),

Gene: Doomslug_116 Start: 56627, Stop: 57040, Start Num: 66
Candidate Starts for Doomslug_116:
(Start: 66 @56627 has 139 MA's), (95, 56855), (107, 56960), (119, 57017),

Gene: Dorothy_99 Start: 55281, Stop: 55682, Start Num: 71

Candidate Starts for Dorothy_99:
(53, 55215), (Start: 64 @55266 has 2 MA's), (Start: 66 @55269 has 139 MA's), (Start: 71 @55281 has 82 MA's), (95, 55497), (119, 55659),

Gene: DosHalletts_95 Start: 53918, Stop: 54331, Start Num: 66
Candidate Starts for DosHalletts_95:
(48, 53825), (56, 53873), (Start: 66 @53918 has 139 MA's), (95, 54146), (107, 54251), (119, 54308),

Gene: DotProduct_92 Start: 51297, Stop: 51698, Start Num: 71
Candidate Starts for DotProduct_92:
(53, 51231), (Start: 64 @51282 has 2 MA's), (Start: 66 @51285 has 139 MA's), (Start: 71 @51297 has 82 MA's), (95, 51513), (107, 51618), (119, 51675),

Gene: Doug_95 Start: 54844, Stop: 55245, Start Num: 71
Candidate Starts for Doug_95:
(49, 54739), (Start: 64 @54829 has 2 MA's), (Start: 66 @54832 has 139 MA's), (Start: 71 @54844 has 82 MA's), (88, 54994), (95, 55060), (119, 55222),

Gene: Drago_97 Start: 51008, Stop: 51409, Start Num: 71
Candidate Starts for Drago_97:
(6, 50594), (22, 50741), (49, 50903), (53, 50942), (Start: 64 @50993 has 2 MA's), (Start: 66 @50996 has 139 MA's), (Start: 71 @51008 has 82 MA's), (95, 51224), (109, 51332),

Gene: Duplicity_68 Start: 41833, Stop: 42231, Start Num: 67
Candidate Starts for Duplicity_68:
(Start: 43 @41680 has 7 MA's), (Start: 55 @41776 has 17 MA's), (Start: 67 @41833 has 20 MA's), (Start: 80 @41926 has 2 MA's), (84, 41950), (112, 42187),

Gene: Dylan_24 Start: 11441, Stop: 11875, Start Num: 68
Candidate Starts for Dylan_24:
(Start: 68 @11441 has 40 MA's), (Start: 75 @11495 has 1 MA's), (78, 11531), (79, 11534), (81, 11543), (84, 11561), (85, 11573), (86, 11582), (87, 11585), (102, 11726), (110, 11768), (113, 11798),

Gene: EGUnicorn_64 Start: 40746, Stop: 41297, Start Num: 43
Candidate Starts for EGUnicorn_64:
(Start: 43 @40746 has 7 MA's), (Start: 55 @40842 has 17 MA's), (Start: 67 @40899 has 20 MA's), (Start: 80 @40992 has 2 MA's), (84, 41016), (112, 41253),

Gene: Eish_103 Start: 54594, Stop: 55007, Start Num: 66
Candidate Starts for Eish_103:
(Start: 66 @54594 has 139 MA's), (95, 54822), (107, 54927), (119, 54984),

Gene: EleanorGeorge_102 Start: 55861, Stop: 56274, Start Num: 66
Candidate Starts for EleanorGeorge_102:
(48, 55768), (56, 55816), (Start: 66 @55861 has 139 MA's), (95, 56089), (119, 56251),

Gene: EmiMonkey_87 Start: 55028, Stop: 55441, Start Num: 66
Candidate Starts for EmiMonkey_87:
(Start: 66 @55028 has 139 MA's), (95, 55256), (119, 55418),

Gene: Emma_103 Start: 52862, Stop: 53275, Start Num: 66
Candidate Starts for Emma_103:
(Start: 66 @52862 has 139 MA's), (95, 53090), (107, 53195), (119, 53252),

Gene: Emmaloid_101 Start: 53782, Stop: 54195, Start Num: 66
Candidate Starts for Emmaloid_101:
(Start: 66 @53782 has 139 MA's), (95, 54010), (109, 54118),

Gene: Empress_98 Start: 53375, Stop: 53776, Start Num: 71
Candidate Starts for Empress_98:
(53, 53309), (Start: 64 @53360 has 2 MA's), (Start: 66 @53363 has 139 MA's), (Start: 71 @53375 has 82 MA's), (95, 53591), (119, 53753),

Gene: Enby_102 Start: 51284, Stop: 51685, Start Num: 71
Candidate Starts for Enby_102:
(6, 50870), (22, 51017), (49, 51179), (53, 51218), (Start: 64 @51269 has 2 MA's), (Start: 66 @51272 has 139 MA's), (Start: 71 @51284 has 82 MA's), (95, 51500), (109, 51608),

Gene: Enzomatic_111 Start: 53200, Stop: 53601, Start Num: 71
Candidate Starts for Enzomatic_111:
(49, 53098), (53, 53134), (Start: 64 @53185 has 2 MA's), (Start: 66 @53188 has 139 MA's), (Start: 71 @53200 has 82 MA's), (95, 53416), (119, 53578),

Gene: Eradicator_90 Start: 52133, Stop: 52546, Start Num: 66
Candidate Starts for Eradicator_90:
(Start: 66 @52133 has 139 MA's), (95, 52361), (119, 52523),

Gene: Estave1_106 Start: 57168, Stop: 57569, Start Num: 71
Candidate Starts for Estave1_106:
(6, 56754), (17, 56844), (18, 56850), (22, 56901), (53, 57102), (Start: 64 @57153 has 2 MA's), (Start: 66 @57156 has 139 MA's), (Start: 71 @57168 has 82 MA's), (95, 57384), (119, 57546),

Gene: Familton_25 Start: 11046, Stop: 11480, Start Num: 68
Candidate Starts for Familton_25:
(Start: 68 @11046 has 40 MA's), (Start: 75 @11100 has 1 MA's), (78, 11136), (79, 11139), (81, 11148), (84, 11166), (85, 11178), (86, 11187), (87, 11190), (102, 11331), (110, 11373), (112, 11400), (113, 11403),

Gene: Fancypants_105 Start: 56674, Stop: 57075, Start Num: 71
Candidate Starts for Fancypants_105:
(49, 56569), (53, 56608), (Start: 64 @56659 has 2 MA's), (Start: 66 @56662 has 139 MA's), (Start: 71 @56674 has 82 MA's), (88, 56824), (95, 56890), (119, 57052),

Gene: Fastidio_102 Start: 51689, Stop: 52090, Start Num: 71
Candidate Starts for Fastidio_102:
(53, 51623), (Start: 64 @51674 has 2 MA's), (Start: 66 @51677 has 139 MA's), (Start: 71 @51689 has 82 MA's), (95, 51905), (107, 52010), (119, 52067),

Gene: Filuzino_98 Start: 55273, Stop: 55686, Start Num: 66
Candidate Starts for Filuzino_98:
(47, 55180), (56, 55228), (Start: 66 @55273 has 139 MA's), (95, 55501), (107, 55606), (119, 55663),

Gene: Firecracker_25 Start: 11339, Stop: 11773, Start Num: 68
Candidate Starts for Firecracker_25:
(Start: 68 @11339 has 40 MA's), (Start: 75 @11393 has 1 MA's), (78, 11429), (79, 11432), (81, 11441), (84, 11459), (85, 11471), (86, 11480), (87, 11483), (102, 11624), (110, 11666), (112, 11693), (113,

11696),

Gene: Firehouse51_92 Start: 54090, Stop: 54503, Start Num: 66
Candidate Starts for Firehouse51_92:
(47, 53997), (56, 54045), (Start: 66 @54090 has 139 MA's), (95, 54318), (107, 54423), (119, 54480),

Gene: Flathead_100 Start: 53594, Stop: 54007, Start Num: 66
Candidate Starts for Flathead_100:
(47, 53501), (56, 53549), (Start: 66 @53594 has 139 MA's), (95, 53822), (107, 53927), (119, 53984),

Gene: Florinda_110 Start: 55688, Stop: 56092, Start Num: 70
Candidate Starts for Florinda_110:
(Start: 70 @55688 has 16 MA's), (82, 55784), (84, 55799), (89, 55865), (95, 55907), (97, 55928), (107, 56012),

Gene: FoulBall_24 Start: 11046, Stop: 11480, Start Num: 68
Candidate Starts for FoulBall_24:
(Start: 68 @11046 has 40 MA's), (Start: 75 @11100 has 1 MA's), (78, 11136), (79, 11139), (81, 11148), (84, 11166), (85, 11178), (86, 11187), (87, 11190), (102, 11331), (110, 11373), (112, 11400), (113, 11403),

Gene: Frankie_98 Start: 53511, Stop: 53915, Start Num: 70
Candidate Starts for Frankie_98:
(41, 53346), (42, 53349), (44, 53355), (Start: 70 @53511 has 16 MA's), (82, 53607), (84, 53622), (89, 53688), (95, 53730), (97, 53751),

Gene: FreddyB_108 Start: 54762, Stop: 55175, Start Num: 66
Candidate Starts for FreddyB_108:
(Start: 66 @54762 has 139 MA's), (95, 54990), (107, 55095), (119, 55152),

Gene: Fruitloop_96 Start: 54438, Stop: 54851, Start Num: 66
Candidate Starts for Fruitloop_96:
(Start: 66 @54438 has 139 MA's), (95, 54666), (107, 54771), (119, 54828),

Gene: Fulbright_68 Start: 41385, Stop: 41690, Start Num: 80
Candidate Starts for Fulbright_68:
(Start: 43 @41139 has 7 MA's), (Start: 55 @41235 has 17 MA's), (Start: 67 @41292 has 20 MA's), (Start: 80 @41385 has 2 MA's), (84, 41409), (112, 41646),

Gene: GUmbie_97 Start: 53311, Stop: 53712, Start Num: 71
Candidate Starts for GUmbie_97:
(53, 53245), (Start: 64 @53296 has 2 MA's), (Start: 66 @53299 has 139 MA's), (Start: 71 @53311 has 82 MA's), (95, 53527), (107, 53632),

Gene: Galactic_102 Start: 53734, Stop: 54135, Start Num: 71
Candidate Starts for Galactic_102:
(49, 53632), (53, 53668), (Start: 64 @53719 has 2 MA's), (Start: 66 @53722 has 139 MA's), (Start: 71 @53734 has 82 MA's), (95, 53950), (119, 54112),

Gene: Gandalph_98 Start: 51417, Stop: 51818, Start Num: 71
Candidate Starts for Gandalph_98:
(6, 51003), (15, 51069), (18, 51099), (22, 51150), (53, 51351), (Start: 64 @51402 has 2 MA's), (Start: 66 @51405 has 139 MA's), (Start: 71 @51417 has 82 MA's), (95, 51633), (119, 51795),

Gene: Geralt_91 Start: 52181, Stop: 52582, Start Num: 71
Candidate Starts for Geralt_91:
(53, 52115), (Start: 64 @52166 has 2 MA's), (Start: 66 @52169 has 139 MA's), (Start: 71 @52181 has 82 MA's), (95, 52397), (119, 52559),

Gene: Gex_70 Start: 42535, Stop: 42990, Start Num: 55
Candidate Starts for Gex_70:
(Start: 43 @42439 has 7 MA's), (Start: 55 @42535 has 17 MA's), (Start: 67 @42592 has 20 MA's), (Start: 80 @42685 has 2 MA's), (84, 42709), (112, 42946),

Gene: GigiOuiOui_93 Start: 52314, Stop: 52715, Start Num: 71
Candidate Starts for GigiOuiOui_93:
(53, 52248), (Start: 64 @52299 has 2 MA's), (Start: 66 @52302 has 139 MA's), (Start: 71 @52314 has 82 MA's), (95, 52530),

Gene: Girafales_107 Start: 55293, Stop: 55697, Start Num: 70
Candidate Starts for Girafales_107:
(Start: 70 @55293 has 16 MA's), (82, 55389), (84, 55404), (89, 55470), (95, 55512), (97, 55533), (107, 55617),

Gene: Girr_97 Start: 54180, Stop: 54581, Start Num: 71
Candidate Starts for Girr_97:
(53, 54114), (Start: 64 @54165 has 2 MA's), (Start: 66 @54168 has 139 MA's), (Start: 71 @54180 has 82 MA's), (95, 54396), (119, 54558),

Gene: Gorge_97 Start: 54389, Stop: 54802, Start Num: 66
Candidate Starts for Gorge_97:
(Start: 66 @54389 has 139 MA's), (95, 54617), (109, 54725),

Gene: Grimmer_103 Start: 53746, Stop: 54159, Start Num: 66
Candidate Starts for Grimmer_103:
(Start: 66 @53746 has 139 MA's), (95, 53974), (119, 54136),

Gene: Guppsters_93 Start: 51279, Stop: 51692, Start Num: 66
Candidate Starts for Guppsters_93:
(48, 51186), (56, 51234), (Start: 66 @51279 has 139 MA's), (95, 51507), (119, 51669),

Gene: HC_73 Start: 43335, Stop: 43763, Start Num: 68
Candidate Starts for HC_73:
(Start: 68 @43335 has 40 MA's), (Start: 75 @43380 has 1 MA's), (85, 43455), (86, 43467), (91, 43527), (93, 43533), (102, 43632), (119, 43719),

Gene: Hades_95 Start: 50900, Stop: 51301, Start Num: 71
Candidate Starts for Hades_95:
(13, 50552), (21, 50642), (23, 50648), (28, 50699), (53, 50834), (Start: 64 @50885 has 2 MA's), (Start: 66 @50888 has 139 MA's), (Start: 71 @50900 has 82 MA's), (95, 51116), (119, 51278),

Gene: Hamulus_98 Start: 53123, Stop: 53536, Start Num: 66
Candidate Starts for Hamulus_98:
(47, 53030), (56, 53078), (Start: 66 @53123 has 139 MA's), (95, 53351), (107, 53456), (119, 53513),

Gene: Hanako_67 Start: 41426, Stop: 41881, Start Num: 55

Candidate Starts for Hanako_67:
(Start: 43 @41330 has 7 MA's), (Start: 52 @41411 has 1 MA's), (Start: 55 @41426 has 17 MA's), (Start: 67 @41483 has 20 MA's), (Start: 75 @41534 has 1 MA's), (84, 41600), (91, 41663), (112, 41837),

Gene: Harley_100 Start: 54295, Stop: 54708, Start Num: 66
Candidate Starts for Harley_100:
(Start: 66 @54295 has 139 MA's), (95, 54523), (119, 54685),

Gene: Hegedechwinu_106 Start: 53659, Stop: 54072, Start Num: 66
Candidate Starts for Hegedechwinu_106:
(Start: 66 @53659 has 139 MA's), (95, 53887), (107, 53992), (119, 54049),

Gene: Hlubikazi_96 Start: 51902, Stop: 52315, Start Num: 66
Candidate Starts for Hlubikazi_96:
(48, 51809), (56, 51857), (Start: 66 @51902 has 139 MA's), (95, 52130), (107, 52235), (119, 52292),

Gene: IMpilo_96 Start: 51913, Stop: 52314, Start Num: 71
Candidate Starts for IMpilo_96:
(53, 51847), (Start: 64 @51898 has 2 MA's), (Start: 66 @51901 has 139 MA's), (Start: 71 @51913 has 82 MA's), (95, 52129), (107, 52234), (119, 52291),

Gene: IbOuu_89 Start: 51277, Stop: 51678, Start Num: 71
Candidate Starts for IbOuu_89:
(6, 50863), (22, 51010), (53, 51211), (Start: 64 @51262 has 2 MA's), (Start: 66 @51265 has 139 MA's), (Start: 71 @51277 has 82 MA's), (95, 51493),

Gene: Ibhubesi_95 Start: 51164, Stop: 51577, Start Num: 66
Candidate Starts for Ibhubesi_95:
(Start: 66 @51164 has 139 MA's), (95, 51392), (119, 51554),

Gene: Idergollasper_24 Start: 11046, Stop: 11480, Start Num: 68
Candidate Starts for Idergollasper_24:
(Start: 68 @11046 has 40 MA's), (Start: 75 @11100 has 1 MA's), (78, 11136), (79, 11139), (81, 11148), (84, 11166), (85, 11178), (86, 11187), (87, 11190), (102, 11331), (110, 11373), (112, 11400), (113, 11403),

Gene: Imara_25 Start: 11299, Stop: 11733, Start Num: 68
Candidate Starts for Imara_25:
(Start: 68 @11299 has 40 MA's), (Start: 75 @11353 has 1 MA's), (78, 11389), (79, 11392), (81, 11401), (84, 11419), (85, 11431), (86, 11440), (87, 11443), (102, 11584), (110, 11626), (112, 11653), (113, 11656),

Gene: Impisi_68 Start: 40939, Stop: 41337, Start Num: 67
Candidate Starts for Impisi_68:
(Start: 43 @40786 has 7 MA's), (Start: 52 @40867 has 1 MA's), (Start: 55 @40882 has 17 MA's), (58, 40888), (Start: 67 @40939 has 20 MA's), (84, 41056), (91, 41119), (112, 41293),

Gene: Inventum_96 Start: 53469, Stop: 53870, Start Num: 71
Candidate Starts for Inventum_96:
(53, 53403), (Start: 64 @53454 has 2 MA's), (Start: 66 @53457 has 139 MA's), (Start: 71 @53469 has 82 MA's), (95, 53685), (119, 53847),

Gene: IrishSherpFalk_98 Start: 53804, Stop: 54205, Start Num: 71
Candidate Starts for IrishSherpFalk_98:
(6, 53390), (22, 53537), (49, 53699), (53, 53738), (Start: 64 @53789 has 2 MA's), (Start: 66 @53792 has 139 MA's), (Start: 71 @53804 has 82 MA's), (95, 54020), (119, 54182),

Gene: Island3_71 Start: 44316, Stop: 44744, Start Num: 68
Candidate Starts for Island3_71:
(Start: 68 @44316 has 40 MA's), (Start: 75 @44361 has 1 MA's), (81, 44406), (85, 44436), (86, 44448), (102, 44613), (119, 44700),

Gene: JalFarm20_107 Start: 55600, Stop: 56013, Start Num: 66
Candidate Starts for JalFarm20_107:
(47, 55507), (56, 55555), (Start: 66 @55600 has 139 MA's), (95, 55828), (107, 55933), (119, 55990),

Gene: James_102 Start: 55771, Stop: 56184, Start Num: 66
Candidate Starts for James_102:
(Start: 66 @55771 has 139 MA's), (95, 55999), (107, 56104), (119, 56161),

Gene: Jamie19_63 Start: 40165, Stop: 40563, Start Num: 67
Candidate Starts for Jamie19_63:
(Start: 52 @40093 has 1 MA's), (Start: 55 @40108 has 17 MA's), (58, 40114), (Start: 67 @40165 has 20 MA's), (84, 40282), (91, 40345), (112, 40519),

Gene: JangDynasty_24 Start: 11135, Stop: 11569, Start Num: 68
Candidate Starts for JangDynasty_24:
(Start: 68 @11135 has 40 MA's), (Start: 75 @11189 has 1 MA's), (78, 11225), (79, 11228), (81, 11237), (84, 11255), (85, 11267), (86, 11276), (87, 11279), (102, 11420), (110, 11462), (112, 11489), (113, 11492),

Gene: Jant_105 Start: 53086, Stop: 53499, Start Num: 66
Candidate Starts for Jant_105:
(46, 52993), (56, 53041), (Start: 66 @53086 has 139 MA's), (95, 53314), (107, 53419), (119, 53476),

Gene: Jarcob_101 Start: 55370, Stop: 55783, Start Num: 66
Candidate Starts for Jarcob_101:
(Start: 66 @55370 has 139 MA's), (95, 55598), (109, 55706),

Gene: Jennelsea_96 Start: 52671, Stop: 53084, Start Num: 66
Candidate Starts for Jennelsea_96:
(Start: 66 @52671 has 139 MA's), (95, 52899), (107, 53004), (119, 53061),

Gene: Jinglebell_105 Start: 55047, Stop: 55460, Start Num: 66
Candidate Starts for Jinglebell_105:
(47, 54954), (56, 55002), (Start: 66 @55047 has 139 MA's), (95, 55275), (107, 55380), (109, 55383), (119, 55437),

Gene: Job42_99 Start: 55957, Stop: 56358, Start Num: 71
Candidate Starts for Job42_99:
(49, 55852), (53, 55891), (Start: 64 @55942 has 2 MA's), (Start: 66 @55945 has 139 MA's), (Start: 71 @55957 has 82 MA's), (95, 56173), (119, 56335),

Gene: JoeyJr_101 Start: 55377, Stop: 55778, Start Num: 71
Candidate Starts for JoeyJr_101:

(53, 55311), (Start: 64 @55362 has 2 MA's), (Start: 66 @55365 has 139 MA's), (Start: 71 @55377 has 82 MA's), (95, 55593), (119, 55755),

Gene: Journey_62 Start: 40729, Stop: 41280, Start Num: 43
Candidate Starts for Journey_62:
(Start: 43 @40729 has 7 MA's), (Start: 52 @40810 has 1 MA's), (Start: 55 @40825 has 17 MA's), (58, 40831), (Start: 67 @40882 has 20 MA's), (84, 40999), (91, 41062), (112, 41236),

Gene: Juice456_97 Start: 53087, Stop: 53488, Start Num: 71
Candidate Starts for Juice456_97:
(53, 53021), (Start: 64 @53072 has 2 MA's), (Start: 66 @53075 has 139 MA's), (Start: 71 @53087 has 82 MA's), (95, 53303), (119, 53465),

Gene: Juniper1_90 Start: 52071, Stop: 52475, Start Num: 70
Candidate Starts for Juniper1_90:
(Start: 70 @52071 has 16 MA's), (95, 52290), (119, 52452),

Gene: Karhdo_93 Start: 51546, Stop: 51947, Start Num: 71
Candidate Starts for Karhdo_93:
(49, 51441), (Start: 64 @51531 has 2 MA's), (Start: 66 @51534 has 139 MA's), (Start: 71 @51546 has 82 MA's), (88, 51696), (95, 51762), (107, 51867), (119, 51924),

Gene: Kenuha5_90 Start: 52947, Stop: 53360, Start Num: 66
Candidate Starts for Kenuha5_90:
(24, 52710), (33, 52773), (39, 52785), (45, 52821), (48, 52854), (56, 52902), (Start: 66 @52947 has 139 MA's), (95, 53175), (107, 53280), (119, 53337),

Gene: Kersh_101 Start: 56116, Stop: 56529, Start Num: 66
Candidate Starts for Kersh_101:
(Start: 66 @56116 has 139 MA's), (95, 56344), (119, 56506),

Gene: Kevin1_67 Start: 40831, Stop: 41286, Start Num: 55
Candidate Starts for Kevin1_67:
(31, 40690), (Start: 43 @40735 has 7 MA's), (54, 40828), (Start: 55 @40831 has 17 MA's), (Start: 67 @40888 has 20 MA's), (Start: 80 @40981 has 2 MA's), (84, 41005), (91, 41068), (112, 41242), (115, 41248),

Gene: Kimberlium_100 Start: 53187, Stop: 53588, Start Num: 71
Candidate Starts for Kimberlium_100:
(53, 53121), (Start: 64 @53172 has 2 MA's), (Start: 66 @53175 has 139 MA's), (Start: 71 @53187 has 82 MA's), (95, 53403), (119, 53565),

Gene: KingJulian_106 Start: 56189, Stop: 56602, Start Num: 66
Candidate Starts for KingJulian_106:
(Start: 66 @56189 has 139 MA's), (95, 56417), (107, 56522), (119, 56579),

Gene: KingMidas_98 Start: 53606, Stop: 54007, Start Num: 71
Candidate Starts for KingMidas_98:
(53, 53540), (Start: 64 @53591 has 2 MA's), (Start: 66 @53594 has 139 MA's), (Start: 71 @53606 has 82 MA's), (95, 53822), (119, 53984),

Gene: KingPhillip3_24 Start: 11100, Stop: 11480, Start Num: 75
Candidate Starts for KingPhillip3_24:

(Start: 68 @11046 has 40 MA's), (Start: 75 @11100 has 1 MA's), (78, 11136), (79, 11139), (81, 11148), (84, 11166), (85, 11178), (86, 11187), (87, 11190), (102, 11331), (110, 11373), (112, 11400), (113, 11403),

Gene: Kingsley_107 Start: 57132, Stop: 57545, Start Num: 66
Candidate Starts for Kingsley_107:
(Start: 66 @57132 has 139 MA's), (95, 57360), (107, 57465), (119, 57522),

Gene: Koella_91 Start: 50533, Stop: 50946, Start Num: 66
Candidate Starts for Koella_91:
(Start: 66 @50533 has 139 MA's), (95, 50761), (107, 50866), (119, 50923),

Gene: Krakatau_91 Start: 49504, Stop: 49905, Start Num: 71
Candidate Starts for Krakatau_91:
(17, 49180), (18, 49186), (22, 49237), (49, 49399), (53, 49438), (Start: 64 @49489 has 2 MA's), (Start: 66 @49492 has 139 MA's), (Start: 71 @49504 has 82 MA's), (95, 49720), (109, 49828), (119, 49882),

Gene: Krili_25 Start: 11405, Stop: 11839, Start Num: 68
Candidate Starts for Krili_25:
(Start: 68 @11405 has 40 MA's), (Start: 75 @11459 has 1 MA's), (78, 11495), (79, 11498), (81, 11507), (84, 11525), (85, 11537), (86, 11546), (87, 11549), (102, 11690), (110, 11732), (112, 11759), (113, 11762),

Gene: KristaRAM_106 Start: 54855, Stop: 55268, Start Num: 66
Candidate Starts for KristaRAM_106:
(26, 54630), (30, 54660), (36, 54687), (56, 54810), (Start: 66 @54855 has 139 MA's), (95, 55083), (119, 55245),

Gene: LastJedi_89 Start: 51590, Stop: 52003, Start Num: 66
Candidate Starts for LastJedi_89:
(Start: 66 @51590 has 139 MA's), (95, 51818), (107, 51923), (119, 51980),

Gene: Latretium_101 Start: 54636, Stop: 55049, Start Num: 66
Candidate Starts for Latretium_101:
(Start: 66 @54636 has 139 MA's), (95, 54864), (119, 55026),

Gene: Leozinho_95 Start: 51125, Stop: 51526, Start Num: 71
Candidate Starts for Leozinho_95:
(53, 51059), (Start: 64 @51110 has 2 MA's), (Start: 66 @51113 has 139 MA's), (Start: 71 @51125 has 82 MA's), (95, 51341), (119, 51503),

Gene: Leperchaun_100 Start: 54611, Stop: 55012, Start Num: 71
Candidate Starts for Leperchaun_100:
(53, 54545), (Start: 64 @54596 has 2 MA's), (Start: 66 @54599 has 139 MA's), (Start: 71 @54611 has 82 MA's), (95, 54827), (119, 54989),

Gene: LilMoolah_101 Start: 54570, Stop: 54983, Start Num: 66
Candidate Starts for LilMoolah_101:
(Start: 66 @54570 has 139 MA's), (95, 54798), (109, 54906),

Gene: LittleShirley_106 Start: 54967, Stop: 55380, Start Num: 66
Candidate Starts for LittleShirley_106:
(Start: 66 @54967 has 139 MA's), (95, 55195), (107, 55300), (119, 55357),

Gene: Lizziana_99 Start: 54838, Stop: 55251, Start Num: 66
Candidate Starts for Lizziana_99:
(Start: 66 @54838 has 139 MA's), (95, 55066), (107, 55171), (119, 55228),

Gene: Llama_105 Start: 54690, Stop: 55103, Start Num: 66
Candidate Starts for Llama_105:
(Start: 66 @54690 has 139 MA's), (95, 54918), (119, 55080),

Gene: Llij_93 Start: 52521, Stop: 52934, Start Num: 66
Candidate Starts for Llij_93:
(48, 52428), (56, 52476), (Start: 66 @52521 has 139 MA's), (95, 52749),

Gene: LordVader_87 Start: 50446, Stop: 50850, Start Num: 70
Candidate Starts for LordVader_87:
(50, 50353), (60, 50401), (Start: 70 @50446 has 16 MA's), (95, 50665),

Gene: Lorde_101 Start: 50449, Stop: 50850, Start Num: 71
Candidate Starts for Lorde_101:
(6, 50035), (22, 50182), (49, 50344), (53, 50383), (Start: 64 @50434 has 2 MA's), (Start: 66 @50437 has 139 MA's), (Start: 71 @50449 has 82 MA's), (95, 50665), (109, 50773),

Gene: Lucia_98 Start: 51297, Stop: 51698, Start Num: 71
Candidate Starts for Lucia_98:
(6, 50883), (22, 51030), (49, 51192), (53, 51231), (Start: 64 @51282 has 2 MA's), (Start: 66 @51285 has 139 MA's), (Start: 71 @51297 has 82 MA's), (95, 51513), (109, 51621),

Gene: LunaBlu_105 Start: 55220, Stop: 55621, Start Num: 71
Candidate Starts for LunaBlu_105:
(49, 55118), (53, 55154), (Start: 64 @55205 has 2 MA's), (Start: 66 @55208 has 139 MA's), (Start: 71 @55220 has 82 MA's), (95, 55436), (119, 55598),

Gene: LunaStella_95 Start: 51843, Stop: 52268, Start Num: 69
Candidate Starts for LunaStella_95:
(53, 51777), (Start: 64 @51828 has 2 MA's), (Start: 66 @51831 has 139 MA's), (Start: 69 @51843 has 4 MA's), (72, 51858), (74, 51876), (77, 51927), (83, 51951), (84, 51960), (87, 51987), (91, 52023), (92, 52029), (97, 52068), (98, 52077), (102, 52125), (108, 52161), (111, 52170), (114, 52200), (122, 52260),

Gene: MadKillah_26 Start: 11438, Stop: 11872, Start Num: 68
Candidate Starts for MadKillah_26:
(Start: 68 @11438 has 40 MA's), (Start: 75 @11492 has 1 MA's), (78, 11528), (79, 11531), (81, 11540), (84, 11558), (85, 11570), (86, 11579), (87, 11582), (102, 11723), (110, 11765), (112, 11792), (113, 11795),

Gene: MadMen_103 Start: 54148, Stop: 54549, Start Num: 71
Candidate Starts for MadMen_103:
(53, 54082), (Start: 64 @54133 has 2 MA's), (Start: 66 @54136 has 139 MA's), (Start: 71 @54148 has 82 MA's), (95, 54364), (119, 54526),

Gene: Madiba_97 Start: 52890, Stop: 53291, Start Num: 71
Candidate Starts for Madiba_97:

(6, 52476), (22, 52623), (53, 52824), (Start: 64 @52875 has 2 MA's), (Start: 66 @52878 has 139 MA's), (Start: 71 @52890 has 82 MA's), (95, 53106), (119, 53268),

Gene: Magsby_69 Start: 42538, Stop: 42936, Start Num: 67
Candidate Starts for Magsby_69:
(Start: 43 @42385 has 7 MA's), (Start: 55 @42481 has 17 MA's), (Start: 67 @42538 has 20 MA's), (Start: 80 @42631 has 2 MA's), (84, 42655), (112, 42892),

Gene: Mahavrat_92 Start: 51100, Stop: 51504, Start Num: 70
Candidate Starts for Mahavrat_92:
(Start: 70 @51100 has 16 MA's), (95, 51319), (119, 51481),

Gene: Mandlovu_96 Start: 51844, Stop: 52257, Start Num: 66
Candidate Starts for Mandlovu_96:
(48, 51751), (56, 51799), (Start: 66 @51844 has 139 MA's), (95, 52072), (107, 52177), (119, 52234),

Gene: Mantra_96 Start: 53210, Stop: 53611, Start Num: 71
Candidate Starts for Mantra_96:
(53, 53144), (Start: 64 @53195 has 2 MA's), (Start: 66 @53198 has 139 MA's), (Start: 71 @53210 has 82 MA's), (95, 53426),

Gene: Maravista_95 Start: 55498, Stop: 55911, Start Num: 66
Candidate Starts for Maravista_95:
(Start: 66 @55498 has 139 MA's), (95, 55726), (107, 55831), (119, 55888),

Gene: Marker_104 Start: 54993, Stop: 55394, Start Num: 71
Candidate Starts for Marker_104:
(1, 54321), (2, 54423), (3, 54426), (4, 54489), (6, 54582), (18, 54678), (22, 54729), (49, 54891), (53, 54927), (Start: 64 @54978 has 2 MA's), (Start: 66 @54981 has 139 MA's), (Start: 71 @54993 has 82 MA's), (95, 55209), (119, 55371),

Gene: Martik_97 Start: 55301, Stop: 55714, Start Num: 66
Candidate Starts for Martik_97:
(Start: 66 @55301 has 139 MA's), (95, 55529), (116, 55682), (119, 55691),

Gene: Mattes_99 Start: 54507, Stop: 54920, Start Num: 66
Candidate Starts for Mattes_99:
(Start: 66 @54507 has 139 MA's), (95, 54735), (109, 54843),

Gene: Medindi_103 Start: 54649, Stop: 55062, Start Num: 66
Candidate Starts for Medindi_103:
(47, 54556), (56, 54604), (Start: 66 @54649 has 139 MA's), (95, 54877), (107, 54982), (119, 55039),

Gene: Melissauren88_88 Start: 50323, Stop: 50736, Start Num: 66
Candidate Starts for Melissauren88_88:
(47, 50230), (56, 50278), (Start: 66 @50323 has 139 MA's), (95, 50551), (107, 50656), (119, 50713),

Gene: Melville_75 Start: 42147, Stop: 42545, Start Num: 67
Candidate Starts for Melville_75:
(Start: 43 @41994 has 7 MA's), (Start: 55 @42090 has 17 MA's), (Start: 67 @42147 has 20 MA's), (Start: 80 @42240 has 2 MA's), (84, 42264), (112, 42501),

Gene: MichelleMyBell_68 Start: 41071, Stop: 41526, Start Num: 55

Candidate Starts for MichelleMyBell_68:
(Start: 52 @41056 has 1 MA's), (Start: 55 @41071 has 17 MA's), (58, 41077), (Start: 67 @41128 has 20 MA's), (84, 41245), (91, 41308), (112, 41482),

Gene: MilanaBonita_91 Start: 52219, Stop: 52632, Start Num: 66
Candidate Starts for MilanaBonita_91:
(46, 52126), (56, 52174), (Start: 66 @52219 has 139 MA's), (95, 52447), (107, 52552), (119, 52609),

Gene: MilleniumForce_98 Start: 54026, Stop: 54439, Start Num: 66
Candidate Starts for MilleniumForce_98:
(47, 53957), (56, 54005), (Start: 66 @54026 has 139 MA's), (95, 54254), (107, 54359), (119, 54416),

Gene: MinionDave_96 Start: 53928, Stop: 54341, Start Num: 66
Candidate Starts for MinionDave_96:
(48, 53835), (56, 53883), (Start: 66 @53928 has 139 MA's), (95, 54156), (119, 54318),

Gene: Minnie_93 Start: 54919, Stop: 55332, Start Num: 66
Candidate Starts for Minnie_93:
(Start: 66 @54919 has 139 MA's), (95, 55147), (109, 55255),

Gene: Misha28_88 Start: 54301, Stop: 54705, Start Num: 70
Candidate Starts for Misha28_88:
(32, 54103), (34, 54118), (Start: 70 @54301 has 16 MA's),

Gene: MisterCuddles_98 Start: 54180, Stop: 54581, Start Num: 71
Candidate Starts for MisterCuddles_98:
(53, 54114), (Start: 64 @54165 has 2 MA's), (Start: 66 @54168 has 139 MA's), (Start: 71 @54180 has 82 MA's), (95, 54396), (119, 54558),

Gene: Modragons_102 Start: 54678, Stop: 55091, Start Num: 66
Candidate Starts for Modragons_102:
(Start: 66 @54678 has 139 MA's), (95, 54906), (119, 55068),

Gene: MooMoo_92 Start: 51379, Stop: 51864, Start Num: 59
Candidate Starts for MooMoo_92:
(27, 51211), (Start: 55 @51364 has 17 MA's), (56, 51367), (Start: 59 @51379 has 1 MA's), (Start: 68 @51424 has 40 MA's), (Start: 75 @51475 has 1 MA's), (81, 51520), (85, 51550), (86, 51562), (93, 51628), (100, 51703), (101, 51721), (102, 51727), (105, 51745), (109, 51760),

Gene: Moonbeam_101 Start: 54414, Stop: 54827, Start Num: 66
Candidate Starts for Moonbeam_101:
(Start: 66 @54414 has 139 MA's), (95, 54642), (119, 54804),

Gene: Mori_25 Start: 11276, Stop: 11710, Start Num: 68
Candidate Starts for Mori_25:
(Start: 68 @11276 has 40 MA's), (Start: 75 @11330 has 1 MA's), (78, 11366), (79, 11369), (81, 11378), (84, 11396), (85, 11408), (86, 11417), (87, 11420), (102, 11561), (110, 11603), (112, 11630), (113, 11633),

Gene: Mova_100 Start: 53953, Stop: 54369, Start Num: 64
Candidate Starts for Mova_100:
(53, 53902), (Start: 64 @53953 has 2 MA's), (Start: 66 @53956 has 139 MA's), (Start: 71 @53968 has 82 MA's), (95, 54184), (107, 54289), (119, 54346),

Gene: Mozy_102 Start: 53591, Stop: 54004, Start Num: 66
Candidate Starts for Mozy_102:
(Start: 66 @53591 has 139 MA's), (95, 53819), (107, 53924), (119, 53981),

Gene: Ms6_100 Start: 50214, Stop: 50627, Start Num: 66
Candidate Starts for Ms6_100:
(47, 50121), (56, 50169), (Start: 66 @50214 has 139 MA's), (95, 50442), (107, 50547), (119, 50604),

Gene: MulchExplorer_98 Start: 52858, Stop: 53259, Start Num: 71
Candidate Starts for MulchExplorer_98:
(53, 52792), (Start: 64 @52843 has 2 MA's), (Start: 66 @52846 has 139 MA's), (Start: 71 @52858 has 82 MA's), (95, 53074), (119, 53236),

Gene: MulchSalad_96 Start: 54859, Stop: 55260, Start Num: 71
Candidate Starts for MulchSalad_96:
(6, 54445), (22, 54592), (53, 54793), (Start: 64 @54844 has 2 MA's), (Start: 66 @54847 has 139 MA's), (Start: 71 @54859 has 82 MA's), (95, 55075), (119, 55237),

Gene: Murai_25 Start: 11277, Stop: 11711, Start Num: 68
Candidate Starts for Murai_25:
(Start: 68 @11277 has 40 MA's), (Start: 75 @11331 has 1 MA's), (78, 11367), (79, 11370), (81, 11379), (84, 11397), (85, 11409), (86, 11418), (87, 11421), (102, 11562), (110, 11604), (112, 11631), (113, 11634),

Gene: Mwanjiwa_101 Start: 55037, Stop: 55441, Start Num: 70
Candidate Starts for Mwanjiwa_101:
(Start: 70 @55037 has 16 MA's), (84, 55148), (89, 55214), (95, 55256), (97, 55277),

Gene: Nenae_68 Start: 41428, Stop: 41883, Start Num: 55
Candidate Starts for Nenae_68:
(Start: 43 @41332 has 7 MA's), (Start: 52 @41413 has 1 MA's), (Start: 55 @41428 has 17 MA's), (Start: 67 @41485 has 20 MA's), (Start: 75 @41536 has 1 MA's), (84, 41602), (91, 41665), (112, 41839),

Gene: NewHope4_106 Start: 53346, Stop: 53747, Start Num: 71
Candidate Starts for NewHope4_106:
(49, 53244), (53, 53280), (Start: 64 @53331 has 2 MA's), (Start: 66 @53334 has 139 MA's), (Start: 71 @53346 has 82 MA's), (95, 53562), (119, 53724),

Gene: Nichirin_100 Start: 54533, Stop: 54946, Start Num: 66
Candidate Starts for Nichirin_100:
(Start: 66 @54533 has 139 MA's), (95, 54761), (119, 54923),

Gene: NiebruSaylor_25 Start: 11277, Stop: 11711, Start Num: 68
Candidate Starts for NiebruSaylor_25:
(Start: 68 @11277 has 40 MA's), (Start: 75 @11331 has 1 MA's), (78, 11367), (79, 11370), (81, 11379), (84, 11397), (85, 11409), (86, 11418), (87, 11421), (102, 11562), (110, 11604), (112, 11631), (113, 11634),

Gene: Nimbo_90 Start: 52183, Stop: 52584, Start Num: 71
Candidate Starts for Nimbo_90:

(53, 52117), (Start: 64 @52168 has 2 MA's), (Start: 66 @52171 has 139 MA's), (Start: 71 @52183 has 82 MA's), (95, 52399), (119, 52561),

Gene: Nitzel_92 Start: 50796, Stop: 51197, Start Num: 71
Candidate Starts for Nitzel_92:
(6, 50382), (15, 50448), (18, 50478), (22, 50529), (53, 50730), (Start: 64 @50781 has 2 MA's), (Start: 66 @50784 has 139 MA's), (Start: 71 @50796 has 82 MA's), (95, 51012), (109, 51120), (119, 51174),

Gene: Nivrat_98 Start: 54443, Stop: 54856, Start Num: 66
Candidate Starts for Nivrat_98:
(Start: 66 @54443 has 139 MA's), (95, 54671), (109, 54779),

Gene: NormanBulbieJr_96 Start: 54547, Stop: 54960, Start Num: 66
Candidate Starts for NormanBulbieJr_96:
(Start: 66 @54547 has 139 MA's), (95, 54775), (107, 54880), (119, 54937),

Gene: Ochi17_104 Start: 54285, Stop: 54698, Start Num: 66
Candidate Starts for Ochi17_104:
(Start: 66 @54285 has 139 MA's), (95, 54513), (119, 54675),

Gene: OfUltron_105 Start: 54834, Stop: 55247, Start Num: 66
Candidate Starts for OfUltron_105:
(Start: 66 @54834 has 139 MA's), (95, 55062), (119, 55224),

Gene: Ogopogo_102 Start: 52785, Stop: 53189, Start Num: 70
Candidate Starts for Ogopogo_102:
(Start: 70 @52785 has 16 MA's), (95, 53004), (119, 53166),

Gene: Okabe_90 Start: 50001, Stop: 50414, Start Num: 66
Candidate Starts for Okabe_90:
(47, 49908), (56, 49956), (Start: 66 @50001 has 139 MA's), (95, 50229), (107, 50334), (119, 50391),

Gene: Oksu_104 Start: 55924, Stop: 56337, Start Num: 66
Candidate Starts for Oksu_104:
(Start: 66 @55924 has 139 MA's), (95, 56152), (119, 56314),

Gene: OldBen_95 Start: 53575, Stop: 53976, Start Num: 71
Candidate Starts for OldBen_95:
(53, 53509), (Start: 64 @53560 has 2 MA's), (Start: 66 @53563 has 139 MA's), (Start: 71 @53575 has 82 MA's), (95, 53791), (119, 53953),

Gene: OlympiaSaint_102 Start: 54713, Stop: 55150, Start Num: 66
Candidate Starts for OlympiaSaint_102:
(Start: 66 @54713 has 139 MA's), (95, 54941), (107, 55046), (119, 55103), (121, 55127),

Gene: Ovechkin_101 Start: 54263, Stop: 54676, Start Num: 66
Candidate Starts for Ovechkin_101:
(Start: 66 @54263 has 139 MA's), (95, 54491), (119, 54653),

Gene: OwlsT2W_96 Start: 52467, Stop: 52880, Start Num: 66
Candidate Starts for OwlsT2W_96:
(46, 52374), (56, 52422), (Start: 66 @52467 has 139 MA's), (95, 52695), (107, 52800), (119, 52857),

Gene: PHappiness_98 Start: 54404, Stop: 54805, Start Num: 71
Candidate Starts for PHappiness_98:
(53, 54338), (Start: 64 @54389 has 2 MA's), (Start: 66 @54392 has 139 MA's), (Start: 71 @54404 has 82 MA's), (95, 54620), (119, 54782),

Gene: PMC_97 Start: 52619, Stop: 53020, Start Num: 71
Candidate Starts for PMC_97:
(6, 52205), (22, 52352), (49, 52514), (53, 52553), (Start: 64 @52604 has 2 MA's), (Start: 66 @52607 has 139 MA's), (Start: 71 @52619 has 82 MA's), (95, 52835), (109, 52943),

Gene: Pacc40_96 Start: 54998, Stop: 55399, Start Num: 71
Candidate Starts for Pacc40_96:
(49, 54893), (53, 54932), (Start: 64 @54983 has 2 MA's), (Start: 66 @54986 has 139 MA's), (Start: 71 @54998 has 82 MA's), (95, 55214), (119, 55376),

Gene: PaintedDog_71 Start: 45517, Stop: 45945, Start Num: 68
Candidate Starts for PaintedDog_71:
(Start: 68 @45517 has 40 MA's), (Start: 75 @45562 has 1 MA's), (85, 45637), (86, 45649), (102, 45814), (119, 45901),

Gene: Panchino_64 Start: 42391, Stop: 42801, Start Num: 67
Candidate Starts for Panchino_64:
(Start: 52 @42319 has 1 MA's), (Start: 55 @42334 has 17 MA's), (58, 42340), (Start: 67 @42391 has 20 MA's), (Start: 80 @42484 has 2 MA's), (84, 42508), (91, 42571),

Gene: Parmesanjohn_70 Start: 42596, Stop: 42994, Start Num: 67
Candidate Starts for Parmesanjohn_70:
(Start: 43 @42443 has 7 MA's), (Start: 55 @42539 has 17 MA's), (Start: 67 @42596 has 20 MA's), (Start: 80 @42689 has 2 MA's), (84, 42713), (112, 42950),

Gene: PatoPoderoso_99 Start: 56189, Stop: 56602, Start Num: 66
Candidate Starts for PatoPoderoso_99:
(Start: 66 @56189 has 139 MA's), (95, 56417), (107, 56522), (119, 56579),

Gene: Peridot_102 Start: 53976, Stop: 54389, Start Num: 66
Candidate Starts for Peridot_102:
(Start: 66 @53976 has 139 MA's), (95, 54204), (119, 54366),

Gene: Phalconet_99 Start: 53616, Stop: 54029, Start Num: 66
Candidate Starts for Phalconet_99:
(47, 53523), (56, 53571), (Start: 66 @53616 has 139 MA's), (95, 53844), (107, 53949), (119, 54006),

Gene: PhancyPhin_67 Start: 41342, Stop: 41740, Start Num: 67
Candidate Starts for PhancyPhin_67:
(Start: 43 @41189 has 7 MA's), (Start: 52 @41270 has 1 MA's), (Start: 55 @41285 has 17 MA's), (58, 41291), (Start: 67 @41342 has 20 MA's), (84, 41459), (91, 41522), (112, 41696),

Gene: Phanphagia_103 Start: 55371, Stop: 55784, Start Num: 66
Candidate Starts for Phanphagia_103:
(Start: 66 @55371 has 139 MA's), (95, 55599), (107, 55704), (119, 55761),

Gene: Phasih_95 Start: 52516, Stop: 52917, Start Num: 71
Candidate Starts for Phasih_95:

(6, 52102), (15, 52168), (18, 52198), (22, 52249), (53, 52450), (Start: 64 @52501 has 2 MA's), (Start: 66 @52504 has 139 MA's), (Start: 71 @52516 has 82 MA's), (95, 52732), (119, 52894),

Gene: Phatniss_96 Start: 52948, Stop: 53361, Start Num: 66
Candidate Starts for Phatniss_96:
(49, 52855), (57, 52903), (Start: 66 @52948 has 139 MA's), (95, 53176), (107, 53281), (119, 53338),

Gene: PhesterPhotato_102 Start: 53590, Stop: 54003, Start Num: 66
Candidate Starts for PhesterPhotato_102:
(47, 53497), (56, 53545), (Start: 66 @53590 has 139 MA's), (95, 53818), (119, 53980),

Gene: Philonius_70 Start: 42725, Stop: 43180, Start Num: 55
Candidate Starts for Philonius_70:
(Start: 43 @42629 has 7 MA's), (Start: 52 @42710 has 1 MA's), (Start: 55 @42725 has 17 MA's), (58, 42731), (Start: 67 @42782 has 20 MA's), (84, 42899), (112, 43136),

Gene: Philus_102 Start: 55678, Stop: 56091, Start Num: 66
Candidate Starts for Philus_102:
(25, 55453), (29, 55483), (35, 55510), (56, 55633), (Start: 66 @55678 has 139 MA's), (95, 55906), (107, 56011), (119, 56068),

Gene: PhlipPhlop_88 Start: 55028, Stop: 55441, Start Num: 66
Candidate Starts for PhlipPhlop_88:
(Start: 66 @55028 has 139 MA's), (95, 55256), (119, 55418),

Gene: Phloss_68 Start: 42003, Stop: 42401, Start Num: 67
Candidate Starts for Phloss_68:
(Start: 43 @41850 has 7 MA's), (Start: 55 @41946 has 17 MA's), (Start: 67 @42003 has 20 MA's), (Start: 80 @42096 has 2 MA's), (84, 42120), (112, 42357),

Gene: Phrann_65 Start: 43606, Stop: 44157, Start Num: 43
Candidate Starts for Phrann_65:
(Start: 43 @43606 has 7 MA's), (Start: 52 @43687 has 1 MA's), (Start: 55 @43702 has 17 MA's), (58, 43708), (Start: 67 @43759 has 20 MA's), (84, 43876), (91, 43939), (112, 44113),

Gene: Piper2020_93 Start: 54549, Stop: 54953, Start Num: 70
Candidate Starts for Piper2020_93:
(32, 54351), (34, 54366), (Start: 70 @54549 has 16 MA's),

Gene: Pippy_96 Start: 52818, Stop: 53231, Start Num: 66
Candidate Starts for Pippy_96:
(Start: 66 @52818 has 139 MA's), (95, 53046), (107, 53151), (119, 53208),

Gene: Pipsqueaks_71 Start: 42517, Stop: 42972, Start Num: 55
Candidate Starts for Pipsqueaks_71:
(Start: 43 @42421 has 7 MA's), (Start: 55 @42517 has 17 MA's), (Start: 67 @42574 has 20 MA's), (Start: 80 @42667 has 2 MA's), (84, 42691), (112, 42928),

Gene: Plumbus_97 Start: 51288, Stop: 51701, Start Num: 66
Candidate Starts for Plumbus_97:
(Start: 66 @51288 has 139 MA's), (95, 51516),

Gene: Poenanya_102 Start: 55112, Stop: 55513, Start Num: 71

Candidate Starts for Poenanya_102:
(53, 55046), (Start: 64 @55097 has 2 MA's), (Start: 66 @55100 has 139 MA's), (Start: 71 @55112 has 82 MA's), (95, 55328), (119, 55490),

Gene: Polka14_102 Start: 55173, Stop: 55574, Start Num: 71
Candidate Starts for Polka14_102:
(53, 55107), (Start: 64 @55158 has 2 MA's), (Start: 66 @55161 has 139 MA's), (Start: 71 @55173 has 82 MA's), (95, 55389), (119, 55551),

Gene: Pollywog_100 Start: 55231, Stop: 55632, Start Num: 71
Candidate Starts for Pollywog_100:
(53, 55165), (Start: 64 @55216 has 2 MA's), (Start: 66 @55219 has 139 MA's), (Start: 71 @55231 has 82 MA's), (95, 55447), (119, 55609),

Gene: Polo2Bam_110 Start: 53200, Stop: 53601, Start Num: 71
Candidate Starts for Polo2Bam_110:
(49, 53098), (53, 53134), (Start: 64 @53185 has 2 MA's), (Start: 66 @53188 has 139 MA's), (Start: 71 @53200 has 82 MA's), (95, 53416), (119, 53578),

Gene: PopTart_89 Start: 51020, Stop: 51433, Start Num: 66
Candidate Starts for PopTart_89:
(Start: 66 @51020 has 139 MA's), (95, 51248), (107, 51353), (119, 51410),

Gene: Priscilla_99 Start: 54645, Stop: 55058, Start Num: 66
Candidate Starts for Priscilla_99:
(Start: 66 @54645 has 139 MA's), (95, 54873), (107, 54978), (119, 55035),

Gene: Purgamenstris_68 Start: 41483, Stop: 41881, Start Num: 67
Candidate Starts for Purgamenstris_68:
(Start: 43 @41330 has 7 MA's), (Start: 52 @41411 has 1 MA's), (Start: 55 @41426 has 17 MA's), (Start: 67 @41483 has 20 MA's), (Start: 75 @41534 has 1 MA's), (84, 41600), (91, 41663), (112, 41837),

Gene: QueenHazel_68 Start: 44336, Stop: 44764, Start Num: 68
Candidate Starts for QueenHazel_68:
(Start: 68 @44336 has 40 MA's), (Start: 75 @44381 has 1 MA's), (85, 44456), (86, 44468), (102, 44633), (106, 44657), (119, 44720),

Gene: QuickMath_99 Start: 53439, Stop: 53840, Start Num: 71
Candidate Starts for QuickMath_99:
(53, 53373), (Start: 64 @53424 has 2 MA's), (Start: 66 @53427 has 139 MA's), (Start: 71 @53439 has 82 MA's), (95, 53655), (119, 53817),

Gene: Quico_107 Start: 55508, Stop: 55912, Start Num: 70
Candidate Starts for Quico_107:
(Start: 70 @55508 has 16 MA's), (82, 55604), (84, 55619), (89, 55685), (95, 55727), (97, 55748), (107, 55832),

Gene: Radiance_96 Start: 53516, Stop: 53917, Start Num: 71
Candidate Starts for Radiance_96:
(53, 53450), (Start: 64 @53501 has 2 MA's), (Start: 66 @53504 has 139 MA's), (Start: 71 @53516 has 82 MA's), (95, 53732), (119, 53894),

Gene: Ramsey_103 Start: 55412, Stop: 55813, Start Num: 71
Candidate Starts for Ramsey_103:
(13, 55064), (28, 55211), (53, 55346), (Start: 64 @55397 has 2 MA's), (Start: 66 @55400 has 139 MA's), (Start: 71 @55412 has 82 MA's), (95, 55628), (119, 55790),

Gene: Raymond7_61 Start: 41271, Stop: 41669, Start Num: 67
Candidate Starts for Raymond7_61:
(Start: 43 @41118 has 7 MA's), (Start: 52 @41199 has 1 MA's), (Start: 55 @41214 has 17 MA's), (Start: 67 @41271 has 20 MA's), (Start: 75 @41322 has 1 MA's), (84, 41388), (91, 41451), (112, 41625),

Gene: Rebel_64 Start: 39467, Stop: 39865, Start Num: 67
Candidate Starts for Rebel_64:
(Start: 43 @39314 has 7 MA's), (Start: 52 @39395 has 1 MA's), (Start: 55 @39410 has 17 MA's), (Start: 67 @39467 has 20 MA's), (Start: 75 @39518 has 1 MA's), (84, 39584), (91, 39647), (112, 39821),

Gene: RedBird_99 Start: 55151, Stop: 55552, Start Num: 71
Candidate Starts for RedBird_99:
(53, 55085), (Start: 64 @55136 has 2 MA's), (Start: 66 @55139 has 139 MA's), (Start: 71 @55151 has 82 MA's), (95, 55367), (119, 55529),

Gene: Redi_67 Start: 41425, Stop: 41880, Start Num: 55
Candidate Starts for Redi_67:
(Start: 43 @41329 has 7 MA's), (Start: 52 @41410 has 1 MA's), (Start: 55 @41425 has 17 MA's), (Start: 67 @41482 has 20 MA's), (Start: 75 @41533 has 1 MA's), (84, 41599), (91, 41662), (112, 41836),

Gene: Renaud18_108 Start: 54756, Stop: 55184, Start Num: 69
Candidate Starts for Renaud18_108:
(8, 54363), (9, 54366), (11, 54372), (14, 54408), (20, 54486), (53, 54690), (Start: 64 @54741 has 2 MA's), (Start: 66 @54744 has 139 MA's), (Start: 69 @54756 has 4 MA's), (73, 54777), (Start: 75 @54807 has 1 MA's), (76, 54825), (83, 54864), (84, 54873), (87, 54900), (89, 54918), (90, 54933), (91, 54936), (92, 54942), (94, 54945), (97, 54981), (101, 55032), (104, 55056), (108, 55074), (111, 55083), (113, 55110), (114, 55113), (117, 55128), (118, 55131), (120, 55140), (122, 55173),

Gene: Rialto_103 Start: 54755, Stop: 55168, Start Num: 66
Candidate Starts for Rialto_103:
(Start: 66 @54755 has 139 MA's), (95, 54983), (119, 55145),

Gene: RitaG_97 Start: 54206, Stop: 54607, Start Num: 71
Candidate Starts for RitaG_97:
(53, 54140), (Start: 64 @54191 has 2 MA's), (Start: 66 @54194 has 139 MA's), (Start: 71 @54206 has 82 MA's), (95, 54422), (119, 54584),

Gene: Rockne_101 Start: 52631, Stop: 53032, Start Num: 71
Candidate Starts for Rockne_101:
(6, 52217), (22, 52364), (49, 52526), (53, 52565), (Start: 64 @52616 has 2 MA's), (Start: 66 @52619 has 139 MA's), (Start: 71 @52631 has 82 MA's), (95, 52847), (109, 52955),

Gene: RockyHorror_102 Start: 53316, Stop: 53717, Start Num: 71
Candidate Starts for RockyHorror_102:

(53, 53250), (Start: 64 @53301 has 2 MA's), (Start: 66 @53304 has 139 MA's), (Start: 71 @53316 has 82 MA's), (95, 53532), (107, 53637),

Gene: Royals2015_102 Start: 52759, Stop: 53163, Start Num: 70
Candidate Starts for Royals2015_102:
(61, 52714), (62, 52717), (63, 52729), (65, 52741), (Start: 70 @52759 has 16 MA's), (82, 52855), (84, 52870), (89, 52936), (95, 52978), (97, 52999), (98, 53008), (107, 53083),

Gene: Rubeelu_64 Start: 40322, Stop: 40789, Start Num: 55
Candidate Starts for Rubeelu_64:
(Start: 43 @40226 has 7 MA's), (54, 40319), (Start: 55 @40322 has 17 MA's), (Start: 67 @40379 has 20 MA's), (Start: 80 @40472 has 2 MA's), (84, 40496), (91, 40559),

Gene: Ruby_95 Start: 54182, Stop: 54583, Start Num: 71
Candidate Starts for Ruby_95:
(53, 54116), (Start: 64 @54167 has 2 MA's), (Start: 66 @54170 has 139 MA's), (Start: 71 @54182 has 82 MA's), (95, 54398), (119, 54560),

Gene: Ryadel_27 Start: 11859, Stop: 12293, Start Num: 68
Candidate Starts for Ryadel_27:
(Start: 68 @11859 has 40 MA's), (Start: 75 @11913 has 1 MA's), (78, 11949), (79, 11952), (81, 11961), (84, 11979), (85, 11991), (86, 12000), (87, 12003), (102, 12144), (110, 12186), (112, 12213), (113, 12216),

Gene: SG4_99 Start: 54996, Stop: 55397, Start Num: 71
Candidate Starts for SG4_99:
(6, 54582), (15, 54648), (18, 54678), (22, 54729), (53, 54930), (Start: 64 @54981 has 2 MA's), (Start: 66 @54984 has 139 MA's), (Start: 71 @54996 has 82 MA's), (95, 55212), (107, 55317), (119, 55374),

Gene: Saal_96 Start: 54209, Stop: 54622, Start Num: 66
Candidate Starts for Saal_96:
(Start: 66 @54209 has 139 MA's), (95, 54437), (109, 54545),

Gene: Sabbb_101 Start: 52175, Stop: 52588, Start Num: 66
Candidate Starts for Sabbb_101:
(47, 52082), (56, 52130), (Start: 66 @52175 has 139 MA's), (95, 52403), (107, 52508), (119, 52565),

Gene: Sandalphon_98 Start: 55202, Stop: 55615, Start Num: 66
Candidate Starts for Sandalphon_98:
(Start: 66 @55202 has 139 MA's), (95, 55430), (109, 55538),

Gene: Sarma624_100 Start: 51144, Stop: 51557, Start Num: 66
Candidate Starts for Sarma624_100:
(Start: 66 @51144 has 139 MA's), (95, 51372), (107, 51477), (119, 51534),

Gene: Sassafras_100 Start: 53468, Stop: 53869, Start Num: 71
Candidate Starts for Sassafras_100:
(53, 53402), (Start: 64 @53453 has 2 MA's), (Start: 66 @53456 has 139 MA's), (Start: 71 @53468 has 82 MA's), (95, 53684), (119, 53846),

Gene: SassyB_89 Start: 51020, Stop: 51433, Start Num: 66
Candidate Starts for SassyB_89:
(Start: 66 @51020 has 139 MA's), (95, 51248), (107, 51353), (119, 51410),

Gene: Sbash_85 Start: 52628, Stop: 53071, Start Num: 68
Candidate Starts for Sbash_85:
(Start: 68 @52628 has 40 MA's), (81, 52724), (85, 52754), (86, 52766), (100, 52907), (102, 52931), (103, 52940),

Gene: Schnauzer_72 Start: 42596, Stop: 42994, Start Num: 67
Candidate Starts for Schnauzer_72:
(Start: 43 @42443 has 7 MA's), (Start: 55 @42539 has 17 MA's), (Start: 67 @42596 has 20 MA's), (Start: 80 @42689 has 2 MA's), (84, 42713), (112, 42950),

Gene: SchoolBus_24 Start: 11046, Stop: 11480, Start Num: 68
Candidate Starts for SchoolBus_24:
(Start: 68 @11046 has 40 MA's), (Start: 75 @11100 has 1 MA's), (78, 11136), (79, 11139), (81, 11148), (84, 11166), (85, 11178), (86, 11187), (87, 11190), (102, 11331), (110, 11373), (112, 11400), (113, 11403),

Gene: Schuy_26 Start: 11438, Stop: 11872, Start Num: 68
Candidate Starts for Schuy_26:
(Start: 68 @11438 has 40 MA's), (Start: 75 @11492 has 1 MA's), (78, 11528), (79, 11531), (81, 11540), (84, 11558), (85, 11570), (86, 11579), (87, 11582), (102, 11723), (110, 11765), (112, 11792), (113, 11795),

Gene: Scitech_65 Start: 41999, Stop: 42397, Start Num: 67
Candidate Starts for Scitech_65:
(Start: 43 @41846 has 7 MA's), (Start: 55 @41942 has 17 MA's), (Start: 67 @41999 has 20 MA's), (Start: 80 @42092 has 2 MA's), (84, 42116), (112, 42353),

Gene: Scottish_98 Start: 53045, Stop: 53446, Start Num: 71
Candidate Starts for Scottish_98:
(53, 52979), (Start: 64 @53030 has 2 MA's), (Start: 66 @53033 has 139 MA's), (Start: 71 @53045 has 82 MA's), (95, 53261), (119, 53423),

Gene: SeaLumen_107 Start: 53200, Stop: 53601, Start Num: 71
Candidate Starts for SeaLumen_107:
(49, 53098), (53, 53134), (Start: 64 @53185 has 2 MA's), (Start: 66 @53188 has 139 MA's), (Start: 71 @53200 has 82 MA's), (95, 53416), (119, 53578),

Gene: Seabastian_105 Start: 54835, Stop: 55248, Start Num: 66
Candidate Starts for Seabastian_105:
(Start: 66 @54835 has 139 MA's), (95, 55063), (119, 55225),

Gene: Seagreen_99 Start: 54122, Stop: 54535, Start Num: 66
Candidate Starts for Seagreen_99:
(47, 54029), (56, 54077), (Start: 66 @54122 has 139 MA's), (95, 54350), (107, 54455), (119, 54512),

Gene: Shauna1_100 Start: 54987, Stop: 55400, Start Num: 66
Candidate Starts for Shauna1_100:
(Start: 66 @54987 has 139 MA's), (95, 55215), (107, 55320), (119, 55377),

Gene: ShiLan_101 Start: 56226, Stop: 56639, Start Num: 66
Candidate Starts for ShiLan_101:
(Start: 66 @56226 has 139 MA's), (95, 56454), (109, 56562),

Gene: Shida_25 Start: 11343, Stop: 11777, Start Num: 68
Candidate Starts for Shida_25:
(Start: 68 @11343 has 40 MA's), (Start: 75 @11397 has 1 MA's), (78, 11433), (79, 11436), (81, 11445), (84, 11463), (85, 11475), (86, 11484), (87, 11487), (102, 11628), (110, 11670), (112, 11697), (113, 11700),

Gene: ShowerHandel_99 Start: 53491, Stop: 53904, Start Num: 66
Candidate Starts for ShowerHandel_99:
(Start: 66 @53491 has 139 MA's), (95, 53719), (107, 53824), (119, 53881),

Gene: ShrimpFriedEgg_68 Start: 41482, Stop: 41880, Start Num: 67
Candidate Starts for ShrimpFriedEgg_68:
(Start: 43 @41329 has 7 MA's), (Start: 52 @41410 has 1 MA's), (Start: 55 @41425 has 17 MA's), (Start: 67 @41482 has 20 MA's), (Start: 75 @41533 has 1 MA's), (84, 41599), (91, 41662), (112, 41836),

Gene: ShroomBoi_96 Start: 53551, Stop: 53952, Start Num: 71
Candidate Starts for ShroomBoi_96:
(6, 53137), (15, 53203), (18, 53233), (22, 53284), (53, 53485), (Start: 64 @53536 has 2 MA's), (Start: 66 @53539 has 139 MA's), (Start: 71 @53551 has 82 MA's), (95, 53767), (119, 53929),

Gene: Shweta_64 Start: 41425, Stop: 41976, Start Num: 43
Candidate Starts for Shweta_64:
(Start: 43 @41425 has 7 MA's), (Start: 52 @41506 has 1 MA's), (Start: 55 @41521 has 17 MA's), (58, 41527), (Start: 67 @41578 has 20 MA's), (84, 41695), (91, 41758), (112, 41932),

Gene: SiSi_94 Start: 52735, Stop: 53136, Start Num: 71
Candidate Starts for SiSi_94:
(53, 52669), (Start: 64 @52720 has 2 MA's), (Start: 66 @52723 has 139 MA's), (Start: 71 @52735 has 82 MA's), (95, 52951), (119, 53113),

Gene: Silvafighter_72 Start: 42139, Stop: 42537, Start Num: 67
Candidate Starts for Silvafighter_72:
(Start: 43 @41986 has 7 MA's), (Start: 55 @42082 has 17 MA's), (Start: 67 @42139 has 20 MA's), (Start: 80 @42232 has 2 MA's), (84, 42256), (112, 42493),

Gene: Silvy_66 Start: 43172, Stop: 43627, Start Num: 55
Candidate Starts for Silvy_66:
(Start: 43 @43076 has 7 MA's), (Start: 55 @43172 has 17 MA's), (Start: 67 @43229 has 20 MA's), (Start: 80 @43322 has 2 MA's), (84, 43346), (112, 43583),

Gene: SimranZ1_95 Start: 52098, Stop: 52499, Start Num: 71
Candidate Starts for SimranZ1_95:
(10, 51708), (17, 51774), (18, 51780), (22, 51831), (53, 52032), (Start: 64 @52083 has 2 MA's), (Start: 66 @52086 has 139 MA's), (Start: 71 @52098 has 82 MA's), (95, 52314), (119, 52476),

Gene: SkinnyPete_66 Start: 42308, Stop: 42763, Start Num: 55
Candidate Starts for SkinnyPete_66:
(Start: 43 @42212 has 7 MA's), (Start: 52 @42293 has 1 MA's), (Start: 55 @42308 has 17 MA's), (58, 42314), (Start: 67 @42365 has 20 MA's), (84, 42482), (91, 42545), (112, 42719),

Gene: Slim_101 Start: 53773, Stop: 54186, Start Num: 66

Candidate Starts for Slim_101:
(Start: 66 @53773 has 139 MA's), (95, 54001), (109, 54109),

Gene: Smooch_28 Start: 12792, Stop: 13226, Start Num: 68
Candidate Starts for Smooch_28:
(Start: 68 @12792 has 40 MA's), (Start: 75 @12846 has 1 MA's), (78, 12882), (79, 12885), (81, 12894), (84, 12912), (85, 12924), (86, 12933), (87, 12936), (102, 13077), (110, 13119), (112, 13146), (113, 13149),

Gene: Smurph_70 Start: 42596, Stop: 42994, Start Num: 67
Candidate Starts for Smurph_70:
(Start: 43 @42443 has 7 MA's), (Start: 55 @42539 has 17 MA's), (Start: 67 @42596 has 20 MA's), (Start: 80 @42689 has 2 MA's), (84, 42713), (112, 42950),

Gene: Snekmaggedon_62 Start: 40093, Stop: 40563, Start Num: 52
Candidate Starts for Snekmaggedon_62:
(Start: 52 @40093 has 1 MA's), (Start: 55 @40108 has 17 MA's), (58, 40114), (Start: 67 @40165 has 20 MA's), (84, 40282), (91, 40345), (112, 40519),

Gene: Sparkdehlily_105 Start: 52704, Stop: 53117, Start Num: 66
Candidate Starts for Sparkdehlily_105:
(Start: 66 @52704 has 139 MA's), (95, 52932),

Gene: Spartacus_105 Start: 56830, Stop: 57231, Start Num: 71
Candidate Starts for Spartacus_105:
(6, 56419), (22, 56566), (49, 56728), (53, 56764), (Start: 64 @56815 has 2 MA's), (Start: 66 @56818 has 139 MA's), (Start: 71 @56830 has 82 MA's), (95, 57046), (119, 57208),

Gene: Spikelee_99 Start: 55210, Stop: 55611, Start Num: 71
Candidate Starts for Spikelee_99:
(6, 54862), (22, 55009), (53, 55144), (Start: 64 @55195 has 2 MA's), (Start: 66 @55198 has 139 MA's), (Start: 71 @55210 has 82 MA's), (95, 55426), (109, 55534),

Gene: Spinach_67 Start: 41482, Stop: 41880, Start Num: 67
Candidate Starts for Spinach_67:
(Start: 43 @41329 has 7 MA's), (Start: 52 @41410 has 1 MA's), (Start: 55 @41425 has 17 MA's), (Start: 67 @41482 has 20 MA's), (Start: 75 @41533 has 1 MA's), (84, 41599), (91, 41662), (112, 41836),

Gene: SpongeBob_63 Start: 40165, Stop: 40563, Start Num: 67
Candidate Starts for SpongeBob_63:
(Start: 52 @40093 has 1 MA's), (Start: 55 @40108 has 17 MA's), (58, 40114), (Start: 67 @40165 has 20 MA's), (84, 40282), (91, 40345), (112, 40519),

Gene: Spoonbill_98 Start: 52139, Stop: 52552, Start Num: 66
Candidate Starts for Spoonbill_98:
(Start: 66 @52139 has 139 MA's), (95, 52367), (109, 52475),

Gene: Squirty_97 Start: 57108, Stop: 57521, Start Num: 66
Candidate Starts for Squirty_97:
(47, 57015), (56, 57063), (Start: 66 @57108 has 139 MA's), (95, 57336), (107, 57441), (119, 57498),

Gene: StAnnes_102 Start: 55035, Stop: 55448, Start Num: 66

Candidate Starts for StAnnes_102:
(48, 54942), (56, 54990), (Start: 66 @55035 has 139 MA's), (95, 55263), (119, 55425),

Gene: Stap_93 Start: 50763, Stop: 51164, Start Num: 71
Candidate Starts for Stap_93:
(6, 50349), (22, 50496), (49, 50658), (53, 50697), (Start: 64 @50748 has 2 MA's), (Start: 66 @50751 has 139 MA's), (Start: 71 @50763 has 82 MA's), (95, 50979), (107, 51084), (119, 51141),

Gene: Starcevich_100 Start: 54868, Stop: 55281, Start Num: 66
Candidate Starts for Starcevich_100:
(Start: 66 @54868 has 139 MA's), (95, 55096), (119, 55258),

Gene: Strokeseat_96 Start: 51901, Stop: 52314, Start Num: 66
Candidate Starts for Strokeseat_96:
(48, 51808), (56, 51856), (Start: 66 @51901 has 139 MA's), (95, 52129), (107, 52234), (119, 52291),

Gene: Stuck_81 Start: 51938, Stop: 52381, Start Num: 68
Candidate Starts for Stuck_81:
(Start: 68 @51938 has 40 MA's), (Start: 75 @51989 has 1 MA's), (81, 52034), (85, 52064), (86, 52076), (100, 52217), (102, 52241), (103, 52250),

Gene: SuperGrey_98 Start: 55787, Stop: 56200, Start Num: 66
Candidate Starts for SuperGrey_98:
(47, 55694), (56, 55742), (Start: 66 @55787 has 139 MA's), (95, 56015), (107, 56120), (119, 56177),

Gene: SwagPigglett_100 Start: 55345, Stop: 55758, Start Num: 66
Candidate Starts for SwagPigglett_100:
(Start: 66 @55345 has 139 MA's), (95, 55573), (107, 55678), (119, 55735),

Gene: TChen_95 Start: 53782, Stop: 54219, Start Num: 66
Candidate Starts for TChen_95:
(53, 53728), (Start: 64 @53779 has 2 MA's), (Start: 66 @53782 has 139 MA's), (Start: 69 @53794 has 4 MA's), (72, 53809), (74, 53827), (77, 53878), (83, 53902), (84, 53911), (87, 53938), (91, 53974), (92, 53980), (97, 54019), (98, 54028), (102, 54076), (108, 54112), (111, 54121), (114, 54151), (122, 54211),

Gene: TDanisky_106 Start: 52704, Stop: 53117, Start Num: 66
Candidate Starts for TDanisky_106:
(Start: 66 @52704 has 139 MA's), (95, 52932),

Gene: Taj_104 Start: 54993, Stop: 55406, Start Num: 66
Candidate Starts for Taj_104:
(Start: 66 @54993 has 139 MA's), (95, 55221), (107, 55326), (119, 55383),

Gene: Tapioca_68 Start: 43101, Stop: 43499, Start Num: 67
Candidate Starts for Tapioca_68:
(Start: 43 @42948 has 7 MA's), (Start: 55 @43044 has 17 MA's), (Start: 67 @43101 has 20 MA's), (Start: 80 @43194 has 2 MA's), (84, 43218), (112, 43455),

Gene: Tchotchke_94 Start: 52267, Stop: 52680, Start Num: 66
Candidate Starts for Tchotchke_94:
(48, 52174), (56, 52222), (Start: 66 @52267 has 139 MA's), (95, 52495), (119, 52657),

Gene: TelAviv_22 Start: 11043, Stop: 11477, Start Num: 68
Candidate Starts for TelAviv_22:
(Start: 68 @11043 has 40 MA's), (Start: 75 @11097 has 1 MA's), (78, 11133), (79, 11136), (81, 11145), (84, 11163), (85, 11175), (86, 11184), (87, 11187), (102, 11328), (110, 11370), (112, 11397), (113, 11400),

Gene: Tessdabest_70 Start: 42673, Stop: 43128, Start Num: 55
Candidate Starts for Tessdabest_70:
(Start: 43 @42577 has 7 MA's), (Start: 55 @42673 has 17 MA's), (Start: 67 @42730 has 20 MA's), (Start: 80 @42823 has 2 MA's), (84, 42847), (112, 43084),

Gene: ThetaBob_101 Start: 52977, Stop: 53405, Start Num: 69
Candidate Starts for ThetaBob_101:
(5, 52563), (7, 52587), (16, 52659), (19, 52710), (53, 52911), (Start: 64 @52962 has 2 MA's), (Start: 66 @52965 has 139 MA's), (Start: 69 @52977 has 4 MA's), (73, 52998), (Start: 75 @53028 has 1 MA's), (76, 53046), (83, 53085), (84, 53094), (87, 53121), (89, 53139), (90, 53154), (91, 53157), (92, 53163), (94, 53166), (97, 53202), (101, 53253), (104, 53277), (108, 53295), (111, 53304), (113, 53331), (114, 53334), (117, 53349), (118, 53352), (120, 53361), (122, 53394),

Gene: TootsiePop_88 Start: 54301, Stop: 54705, Start Num: 70
Candidate Starts for TootsiePop_88:
(32, 54103), (34, 54118), (Start: 70 @54301 has 16 MA's),

Gene: Tootsieroll_92 Start: 54137, Stop: 54550, Start Num: 66
Candidate Starts for Tootsieroll_92:
(47, 54044), (56, 54092), (Start: 66 @54137 has 139 MA's), (95, 54365), (107, 54470), (119, 54527),

Gene: Topiatin_100 Start: 54734, Stop: 55147, Start Num: 66
Candidate Starts for Topiatin_100:
(Start: 66 @54734 has 139 MA's), (95, 54962), (107, 55067), (119, 55124),

Gene: Toron_102 Start: 55585, Stop: 56013, Start Num: 69
Candidate Starts for Toron_102:
(40, 55417), (Start: 64 @55570 has 2 MA's), (Start: 66 @55573 has 139 MA's), (Start: 69 @55585 has 4 MA's), (72, 55600), (77, 55669), (83, 55693), (84, 55702), (94, 55774), (96, 55795), (97, 55810), (111, 55912), (113, 55939), (114, 55942),

Gene: Tortoise12_70 Start: 41678, Stop: 41983, Start Num: 80
Candidate Starts for Tortoise12_70:
(Start: 43 @41432 has 7 MA's), (Start: 55 @41528 has 17 MA's), (Start: 67 @41585 has 20 MA's), (Start: 80 @41678 has 2 MA's), (84, 41702), (112, 41939),

Gene: Totinger_101 Start: 54268, Stop: 54681, Start Num: 66
Candidate Starts for Totinger_101:
(Start: 66 @54268 has 139 MA's), (95, 54496), (119, 54658),

Gene: Tweety_99 Start: 54399, Stop: 54800, Start Num: 71
Candidate Starts for Tweety_99:
(53, 54333), (Start: 64 @54384 has 2 MA's), (Start: 66 @54387 has 139 MA's), (Start: 71 @54399 has 82 MA's), (95, 54615), (107, 54720), (119, 54777),

Gene: UncleRicky_98 Start: 52505, Stop: 52906, Start Num: 71
Candidate Starts for UncleRicky_98:

(6, 52091), (22, 52238), (49, 52400), (53, 52439), (Start: 64 @52490 has 2 MA's), (Start: 66 @52493 has 139 MA's), (Start: 71 @52505 has 82 MA's), (95, 52721), (109, 52829),

Gene: VRedHorse_99 Start: 51255, Stop: 51656, Start Num: 71
Candidate Starts for VRedHorse_99:
(13, 50907), (28, 51054), (53, 51189), (Start: 64 @51240 has 2 MA's), (Start: 66 @51243 has 139 MA's), (Start: 71 @51255 has 82 MA's), (95, 51471), (119, 51633),

Gene: Vagabond_25 Start: 11320, Stop: 11754, Start Num: 68
Candidate Starts for Vagabond_25:
(Start: 68 @11320 has 40 MA's), (Start: 75 @11374 has 1 MA's), (78, 11410), (79, 11413), (81, 11422), (84, 11440), (85, 11452), (86, 11461), (87, 11464), (102, 11605), (110, 11647), (112, 11674), (113, 11677),

Gene: Velveteen_95 Start: 51144, Stop: 51557, Start Num: 66
Candidate Starts for Velveteen_95:
(Start: 66 @51144 has 139 MA's), (95, 51372), (107, 51477), (119, 51534),

Gene: Veteran_89 Start: 52603, Stop: 53004, Start Num: 71
Candidate Starts for Veteran_89:
(53, 52537), (Start: 64 @52588 has 2 MA's), (Start: 66 @52591 has 139 MA's), (Start: 71 @52603 has 82 MA's), (95, 52819), (119, 52981),

Gene: Violac_99 Start: 54639, Stop: 55052, Start Num: 66
Candidate Starts for Violac_99:
(Start: 66 @54639 has 139 MA's), (95, 54867), (107, 54972), (119, 55029),

Gene: Vivum_98 Start: 55580, Stop: 55993, Start Num: 66
Candidate Starts for Vivum_98:
(Start: 66 @55580 has 139 MA's), (95, 55808), (119, 55970),

Gene: Vorrps_25 Start: 11277, Stop: 11711, Start Num: 68
Candidate Starts for Vorrps_25:
(Start: 68 @11277 has 40 MA's), (Start: 75 @11331 has 1 MA's), (78, 11367), (79, 11370), (81, 11379), (84, 11397), (85, 11409), (86, 11418), (87, 11421), (102, 11562), (110, 11604), (112, 11631), (113, 11634),

Gene: Wachhund_95 Start: 50439, Stop: 50852, Start Num: 66
Candidate Starts for Wachhund_95:
(Start: 66 @50439 has 139 MA's), (95, 50667), (119, 50829),

Gene: Wee_101 Start: 55069, Stop: 55482, Start Num: 66
Candidate Starts for Wee_101:
(Start: 66 @55069 has 139 MA's), (95, 55297), (107, 55402), (119, 55459),

Gene: Whatsapiecost_92 Start: 48794, Stop: 49207, Start Num: 66
Candidate Starts for Whatsapiecost_92:
(47, 48701), (56, 48749), (Start: 66 @48794 has 139 MA's), (95, 49022), (107, 49127), (119, 49184),

Gene: Wildflower_25 Start: 11300, Stop: 11734, Start Num: 68
Candidate Starts for Wildflower_25:
(Start: 68 @11300 has 40 MA's), (Start: 75 @11354 has 1 MA's), (78, 11390), (79, 11393), (81, 11402), (84, 11420), (85, 11432), (86, 11441), (87, 11444), (102, 11585), (110, 11627), (112, 11654), (113,

11657),

Gene: WillSterrel_96 Start: 53837, Stop: 54238, Start Num: 71
Candidate Starts for WillSterrel_96:
(6, 53423), (22, 53570), (49, 53732), (53, 53771), (Start: 64 @53822 has 2 MA's), (Start: 66 @53825 has 139 MA's), (Start: 71 @53837 has 82 MA's), (95, 54053), (119, 54215),

Gene: Winget_25 Start: 11319, Stop: 11753, Start Num: 68
Candidate Starts for Winget_25:
(Start: 68 @11319 has 40 MA's), (Start: 75 @11373 has 1 MA's), (78, 11409), (79, 11412), (81, 11421), (84, 11439), (85, 11451), (86, 11460), (87, 11463), (102, 11604), (110, 11646), (112, 11673), (113, 11676),

Gene: Wogge42_24 Start: 11408, Stop: 11842, Start Num: 68
Candidate Starts for Wogge42_24:
(Start: 68 @11408 has 40 MA's), (Start: 75 @11462 has 1 MA's), (78, 11498), (79, 11501), (81, 11510), (84, 11528), (85, 11540), (86, 11549), (87, 11552), (102, 11693), (110, 11735), (112, 11762), (113, 11765),

Gene: XFactor_89 Start: 51585, Stop: 51998, Start Num: 66
Candidate Starts for XFactor_89:
(Start: 66 @51585 has 139 MA's), (95, 51813), (107, 51918), (119, 51975),

Gene: Xeno_67 Start: 41282, Stop: 41680, Start Num: 67
Candidate Starts for Xeno_67:
(Start: 43 @41129 has 7 MA's), (Start: 52 @41210 has 1 MA's), (Start: 55 @41225 has 17 MA's), (58, 41231), (Start: 67 @41282 has 20 MA's), (84, 41399), (91, 41462), (112, 41636),

Gene: Xerxes_70 Start: 42536, Stop: 42991, Start Num: 55
Candidate Starts for Xerxes_70:
(Start: 43 @42440 has 7 MA's), (Start: 55 @42536 has 17 MA's), (Start: 67 @42593 has 20 MA's), (Start: 80 @42686 has 2 MA's), (84, 42710), (112, 42947),

Gene: Xula_69 Start: 44823, Stop: 45251, Start Num: 68
Candidate Starts for Xula_69:
(Start: 68 @44823 has 40 MA's), (Start: 75 @44868 has 1 MA's), (85, 44943), (86, 44955), (102, 45120), (119, 45207),

Gene: Yorick_94 Start: 54886, Stop: 55299, Start Num: 66
Candidate Starts for Yorick_94:
(Start: 66 @54886 has 139 MA's), (95, 55114), (119, 55276),

Gene: YoyoKar_23 Start: 11047, Stop: 11481, Start Num: 68
Candidate Starts for YoyoKar_23:
(Start: 68 @11047 has 40 MA's), (Start: 75 @11101 has 1 MA's), (78, 11137), (79, 11140), (81, 11149), (84, 11167), (85, 11179), (86, 11188), (87, 11191), (102, 11332), (110, 11374), (112, 11401), (113, 11404),

Gene: YungJamal_27 Start: 11595, Stop: 12029, Start Num: 68
Candidate Starts for YungJamal_27:
(Start: 68 @11595 has 40 MA's), (Start: 75 @11649 has 1 MA's), (78, 11685), (79, 11688), (81, 11697), (84, 11715), (85, 11727), (86, 11736), (87, 11739), (102, 11880), (110, 11922), (112, 11949), (113, 11952),

Gene: Zakhe101_25 Start: 11445, Stop: 11879, Start Num: 68
Candidate Starts for Zakhe101_25:
(Start: 68 @11445 has 40 MA's), (Start: 75 @11499 has 1 MA's), (78, 11535), (79, 11538), (81, 11547), (84, 11565), (85, 11577), (86, 11586), (87, 11589), (102, 11730), (110, 11772), (113, 11802),

Gene: Zebo_24 Start: 11046, Stop: 11480, Start Num: 68
Candidate Starts for Zebo_24:
(Start: 68 @11046 has 40 MA's), (Start: 75 @11100 has 1 MA's), (78, 11136), (79, 11139), (81, 11148), (84, 11166), (85, 11178), (86, 11187), (87, 11190), (102, 11331), (110, 11373), (112, 11400), (113, 11403),

Gene: Zerg_96 Start: 53460, Stop: 53873, Start Num: 66
Candidate Starts for Zerg_96:
(47, 53367), (56, 53415), (Start: 66 @53460 has 139 MA's), (95, 53688), (107, 53793), (119, 53850),

Gene: Zizzle_101 Start: 55536, Stop: 55949, Start Num: 66
Candidate Starts for Zizzle_101:
(Start: 66 @55536 has 139 MA's), (95, 55764), (107, 55869), (119, 55926),