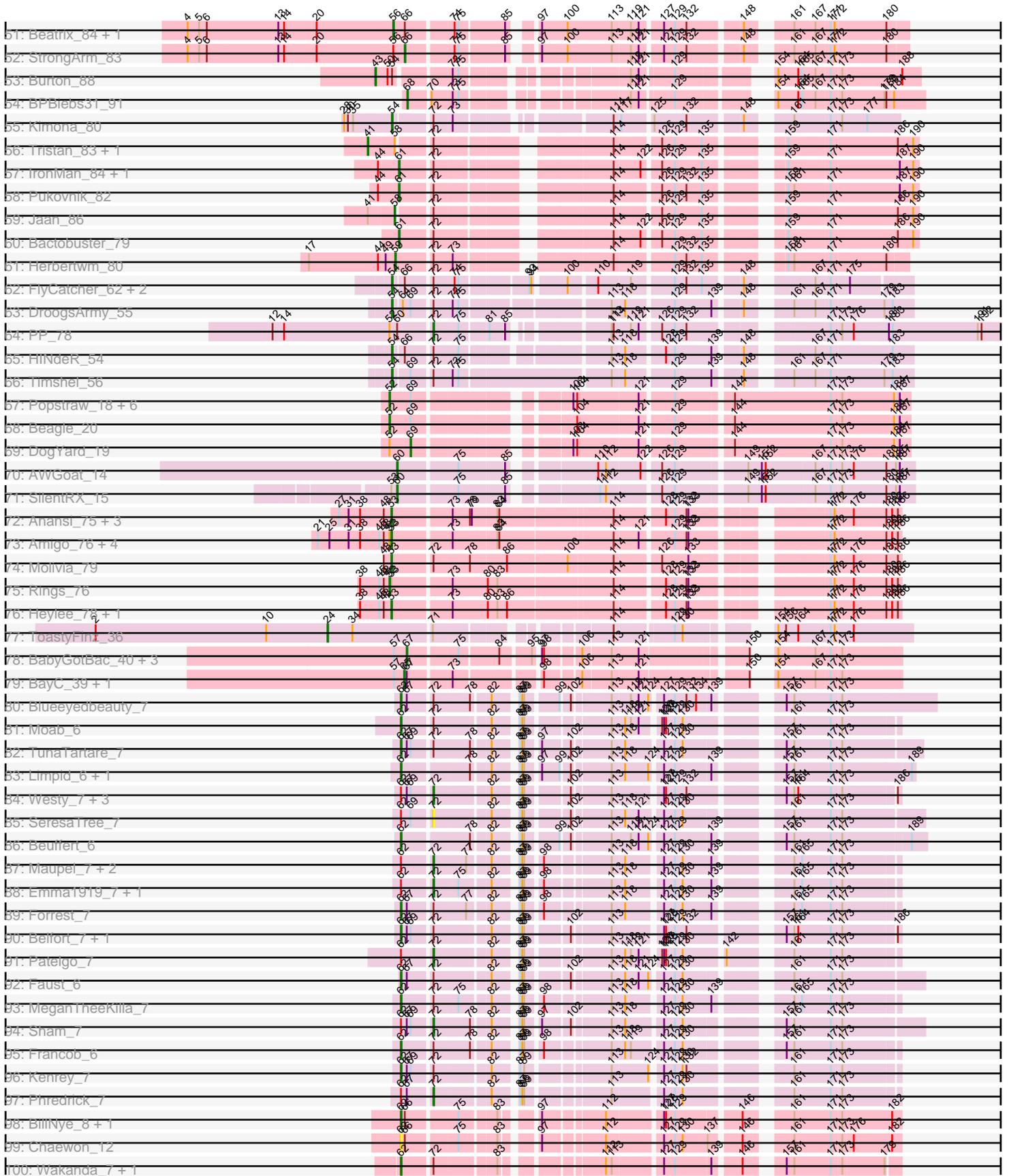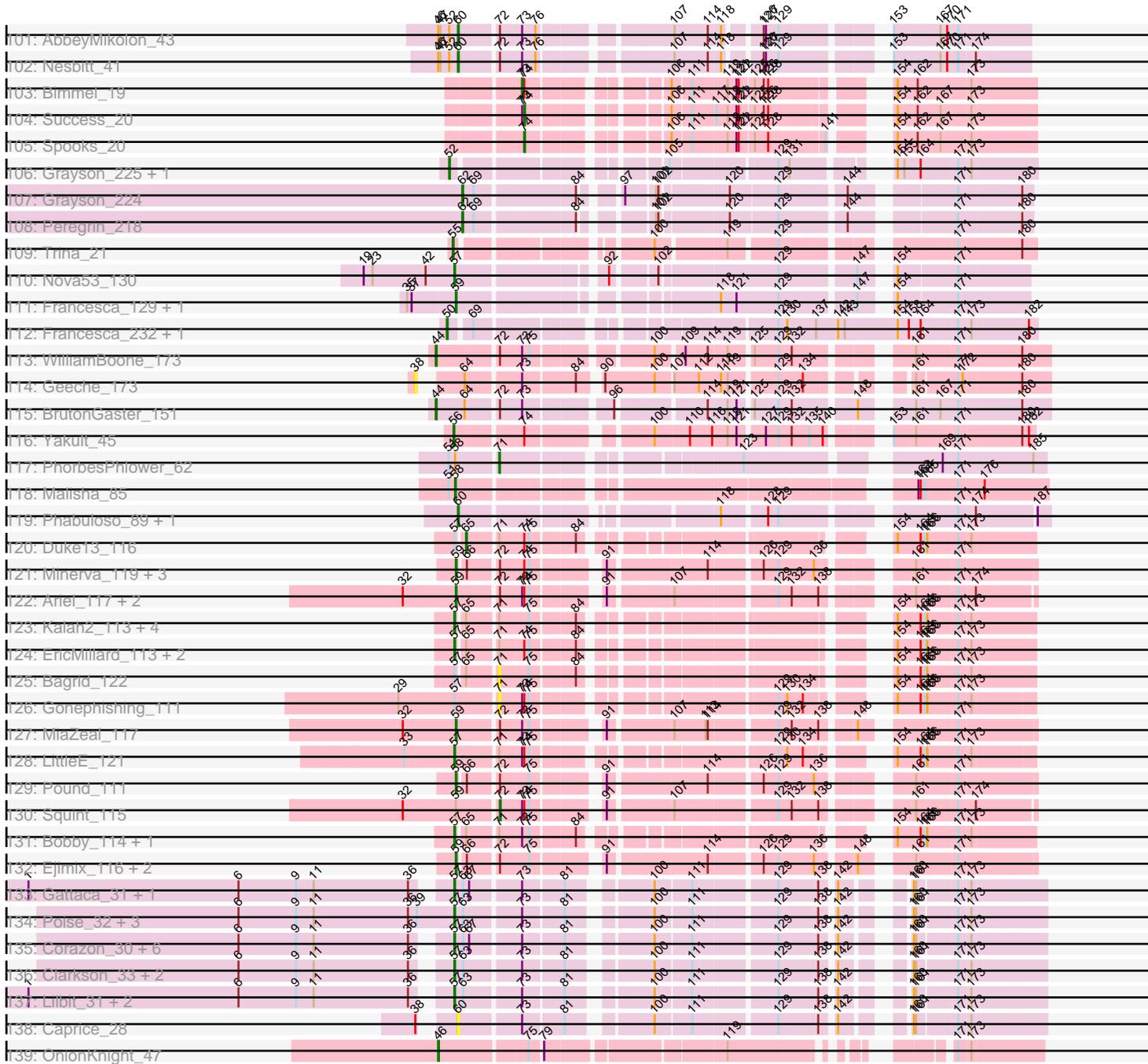# Pham 283461

Pham 283461

Pham 283461

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 283461 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283461 has 236 members, 24 are drafts.

Phages represented in each track:
• Track 1 : Petp2012_86
• Track 2 : Atkinbua_95, Gwendoluna_89, Tripl3t_89
• Track 3 : Maroc7_87, CactusRose_91
• Track 4 : TheloniousMonk_85
• Track 5 : Killigrew_82
• Track 6 : Altman_92, Ruotula_92, Kanely_91, ConceptII_94, Pinto_85
• Track 7 : ShortQueendom_79, Cueylyss_72, Sanya_79, Bigchungi_84
• Track 8 : Anglerfish_90
• Track 9 : Snazzy_87
• Track 10 : PacerPaul_89, BigPaolini_83
• Track 11 : Manatee_85, Lockley_87, DD5_84
• Track 12 : BK1_79, A6_79
• Track 13 : Ichabod_88
• Track 14 : Francis47_89, Agaliana_82
• Track 15 : Dynamix_85, U2_78, KSSJEB_84, Seabiscuit_87, Switzer_84
• Track 16 : BillKnuckles_77, Naira_89, Fenn_90
• Track 17 : Big3_87, Mkhuseli_82
• Track 18 : Blue_80
• Track 19 : Bruns_90, EnzoK_88, Lesedi_82
• Track 20 : Magnar_84
• Track 21 : Doom_78
• Track 22 : GageAP_88, Museum_87, Graduation_89
• Track 23 : Squee_84
• Track 24 : Briton15_89
• Track 25 : Rajelicia_84, PherrisBueller_82, Dreamboat_83, Jasper_82
• Track 26 : Bigfoot_82
• Track 27 : DrFeelGood_80
• Track 28 : ILeeKay_83
• Track 29 : Slagathor_89, McSinger_83
• Track 30 : Carlyle_84
• Track 31 : MrGordo_88
• Track 32 : Rajelicia_87
• Track 33 : Arcanine_92, Hope4ever_84
• Track 34 : Dexes_88
• Track 35 : Sibs6_89
• Track 36 : Raid_84, Zephyr_86
• Track 37 : Marcell_77

- Track 38 : Kugel_87
- Track 39 : Fascinus_82
- Track 40 : GrecoEtereo_90
- Track 41 : BeesKnees_87
- Track 42 : Euphoria_88
- Track 43 : PowerRanger_80
- Track 44 : PattyP_85
- Track 45 : McGuire_85
- Track 46 : Seanderson_85
- Track 47 : Zeeculate_84
- Track 48 : Blackflame_84
- Track 49 : Wheeler_92
- Track 50 : Licorice_87
- Track 51 : Beatrix_84, Bexan_82
- Track 52 : StrongArm_83
- Track 53 : Burton_88
- Track 54 : BPBiebs31_91
- Track 55 : Kimona_80
- Track 56 : Tristan_83, Phaded_81
- Track 57 : IronMan_84, Landor_85
- Track 58 : Pukovnik_82
- Track 59 : Jaan_86
- Track 60 : Bactobuster_79
- Track 61 : Herbertwm_80
- Track 62 : FlyCatcher_62, Toro_60, Sheen_59
- Track 63 : DroogsArmy_55
- Track 64 : PP_78
- Track 65 : HINdeR_54
- Track 66 : Timshel_56
- Track 67 : Popstraw_18, Hive_18, Odyssey395_21, BetaFish_19, Pureglobe5_21, PhuzzTulsa_17, Kubulix_20
- Track 68 : Beagle_20
- Track 69 : DogYard_19
- Track 70 : AWGoat_14
- Track 71 : SilentRX_15
- Track 72 : Anansi_75, Thunderclap_75, SorJuana_75, Gorgeous_75
- Track 73 : Amigo_76, Yeezus_75, Boersma_78, Ichor_75, Jaek_75
- Track 74 : Molivia_79
- Track 75 : Rings_76
- Track 76 : Heylee_78, Amavida_77
- Track 77 : ToastyFinz_36
- Track 78 : BabyGotBac_40, Asis_39, Maih_38, TP1604_39
- Track 79 : BayC_39, Salete_39
- Track 80 : Blueeyedbeauty_7
- Track 81 : Moab_6
- Track 82 : TunaTartare_7
- Track 83 : Limpid_6, Annadreamy_6
- Track 84 : Westy_7, SparkleGoddess_7, Stigma_7, Comrade_7
- Track 85 : SeresaTree_7
- Track 86 : Beuffert_6
- Track 87 : Maupel_7, Gilson_7, Jada_7
- Track 88 : Emma1919_7, DeluluLabubu_7
- Track 89 : Forrest_7

- Track 90 : Belfort_7, Karp_7
- Track 91 : Patelgo_7
- Track 92 : Faust_6
- Track 93 : MeganTheeKilla_7
- Track 94 : Sham_7
- Track 95 : Francob_6
- Track 96 : Kenrey_7
- Track 97 : Phredrick_7
- Track 98 : BillNye_8, Circinus_9
- Track 99 : Chaewon_12
- Track 100 : Wakanda_7, Muntaha_8
- Track 101 : AbbeyMikolon_43
- Track 102 : Nesbitt_41
- Track 103 : Bimmel_19
- Track 104 : Success_20
- Track 105 : Spooks_20
- Track 106 : Grayson_225, Peregrin_219
- Track 107 : Grayson_224
- Track 108 : Peregrin_218
- Track 109 : Trina_21
- Track 110 : Nova53_130
- Track 111 : Francesca_129, Dorin_129
- Track 112 : Francesca_232, Dorin_231
- Track 113 : WilliamBoone_173
- Track 114 : Geeche_173
- Track 115 : BrutonGaster_151
- Track 116 : Yakult_45
- Track 117 : PhorbesPhlower_62
- Track 118 : Malisha_85
- Track 119 : Phabuloso_89, Kamaru_76
- Track 120 : Duke13_116
- Track 121 : Minerva_119, Zelink_116, ThreeRngTarjay_117, Hughesyang_121
- Track 122 : Ariel_117, Courthouse_112, Superphikiman_114
- Track 123 : Kalah2_113, Klein_118, Hidrated_105, DmpstrDiver_122, Wanda_121
- Track 124 : EricMillard_113, BAKA_121, Optimus_112
- Track 125 : Bagrid_122
- Track 126 : Gonephishing_111
- Track 127 : MiaZeal_117
- Track 128 : LittleE_121
- Track 129 : Pound_111
- Track 130 : Squint_115
- Track 131 : Bobby_114, Marleymoo_105
- Track 132 : Ejimix_116, Redno2_115, Halley_124
- Track 133 : Gattaca_31, MosMoris_30
- Track 134 : Poise_32, GoongGoong_31, Raela_32, Blackbeetle_32
- Track 135 : Corazon_30, Tesla_31, Pringar_32, JoieB_33, RedRaider77_32, VasuNzinga_32, Beelzebub_36
- Track 136 : Clarkson_33, Huphlepuff_34, LittleLaf_32
- Track 137 : Lilbit_31, Marvin_30, FeliMaine_34
- Track 138 : Caprice_28
- Track 139 : OnionKnight_47

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

The start number called the most often in the published annotations is 57, it was called in 34 of the 212 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BAKA_121, Beelzebub_36, Big3_87, Bigchungi_84, Blackbeetle_32, Blackflame_84, Bobby_114, Clarkson_33, Corazon_30, Cueylyss_72, DmpstrDiver_122, EricMillard_113, FeliMaine_34, Gattaca_31, GoongGoong_31, Hidrated_105, Huphlepuff_34, JoieB_33, Kalah2_113, Killigrew_82, Klein_118, Lilbit_31, LittleE_121, LittleLaf_32, Marleymoo_105, Marvin_30, Mkhuseli_82, MosMoris_30, Nova53_130, Optimus_112, Poise_32, Pringar_32, Raela_32, RedRaider77_32, Sanya_79, ShortQueendom_79, Sibs6_89, Snazzy_87, Tesla_31, VasuNzinga_32, Wanda_121,

Genes that have the "Most Annotated" start but do not call it:
• Asis_39, BabyGotBac_40, Bagrid_122, BayC_39, BeesKnees_87, Doom_78, Duke13_116, GageAP_88, Gonephishing_111, Graduation_89, Maih_38, MrGordo_88, Museum_87, PattyP_85, Petp2012_86, Salete_39, TP1604_39,

Genes that do not have the "Most Annotated" start:
• A6_79, AWGoat_14, AbbeyMikolon_43, Agaliana_82, Altman_92, Amavida_77, Amigo_76, Anansi_75, Anglerfish_90, Annadreamy_6, Arcanine_92, Ariel_117, Atkinbua_95, BK1_79, BPBiebs31_91, Bactobuster_79, Beagle_20, Beatrix_84, Belfort_7, BetaFish_19, Beuffert_6, Bexan_82, BigPaolini_83, Bigfoot_82, BillKnuckles_77, BillNye_8, Bimmel_19, Blue_80, Blueeyedbeauty_7, Boersma_78, Briton15_89, Bruns_90, BrutonGaster_151, Burton_88, CactusRose_91, Caprice_28, Carlyle_84, Chaewon_12, Circinus_9, Comrade_7, ConceptII_94, Courthouse_112, DD5_84, DeluluLabubu_7, Dexes_88, DogYard_19, Dorin_129, Dorin_231, DrFeelGood_80, Dreamboat_83, DroogsArmy_55, Dynamix_85, Ejimix_116, Emma1919_7, EnzoK_88, Euphoria_88, Fascinus_82, Faust_6, Fenn_90, FlyCatcher_62, Forrest_7, Francesca_129, Francesca_232, Francis47_89, Francob_6, Geeche_173, Gilson_7, Gorgeous_75, Grayson_224, Grayson_225, GrecoEtereo_90, Gwendoluna_89, HINdeR_54, Halley_124, Herbertwm_80, Heylee_78, Hive_18, Hope4ever_84, Hughesyang_121, ILeeKay_83, Ichabod_88, Ichor_75, IronMan_84, Jaan_86, Jada_7, Jaek_75, Jasper_82, KSSJEB_84, Kamaru_76, Kanely_91, Karp_7, Kenrey_7, Kimona_80, Kubulix_20, Kugel_87, Landor_85, Lesedi_82, Licorice_87, Limpid_6, Lockley_87, Magnar_84, Malisha_85, Manatee_85, Marcell_77, Maroc7_87, Maupel_7, McGuire_85, McSinger_83, MeganTheeKilla_7, MiaZeal_117, Minerva_119, Moab_6, Molivia_79, Muntaha_8, Naira_89, Nesbitt_41, Odyssey395_21, OnionKnight_47, PP_78, PacerPaul_89, Patelgo_7, Peregrin_218, Peregrin_219, Phabuloso_89, Phaded_81, PherrisBueller_82, PhorbesPhlower_62, Phredrick_7, PhuzzTulsa_17, Pinto_85, Popstraw_18, Pound_111, PowerRanger_80, Pukovnik_82, Pureglobe5_21, Raid_84, Rajelicia_84, Rajelicia_87, Redno2_115, Rings_76, Ruotula_92, Seabiscuit_87, Seanderson_85, SeresaTree_7, Sham_7, Sheen_59, SilentRX_15, Slagathor_89, SorJuana_75, SparkleGoddess_7, Spooks_20, Squee_84, Squint_115, Stigma_7, StrongArm_83, Success_20, Superphikiman_114, Switzer_84, TheloniousMonk_85, ThreeRngTarjay_117, Thunderclap_75, Timshel_56, ToastyFinz_36, Toro_60, Trina_21, Tripl3t_89, Tristan_83, TunaTartare_7, U2_78, Wakanda_7, Westy_7, Wheeler_92, WilliamBoone_173, Yakult_45, Yeezus_75, Zeeculate_84, Zelink_116, Zephyr_86,

Summary by start number:

Start 24:
• Found in 1 of 236 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ToastyFinz_36 (BC1),

Start 26:
• Found in 5 of 236 (2.1%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Euphoria_88 (A1),

Start 30:
• Found in 2 of 236 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Licorice_87 (A1),

Start 38:
• Found in 14 of 236 (5.9%) of genes in pham
• No Manual Annotations of this start.
• Called 7.1% of time when present
• Phage (with cluster) where this start called: Geeche_173 (CQ1),

Start 39:
• Found in 12 of 236 (5.1%) of genes in pham
• Manual Annotations of this start: 5 of 212
• Called 58.3% of time when present
• Phage (with cluster) where this start called: Briton15_89 (A1), Bruns_90 (A1), EnzoK_88 (A1), Lesedi_82 (A1), PowerRanger_80 (A1), Raid_84 (A1), Zephyr_86 (A1),

Start 41:
• Found in 3 of 236 (1.3%) of genes in pham
• Manual Annotations of this start: 2 of 212
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Phaded_81 (A2), Tristan_83 (A2),

Start 43:
• Found in 16 of 236 (6.8%) of genes in pham
• Manual Annotations of this start: 6 of 212
• Called 37.5% of time when present
• Phage (with cluster) where this start called: Burton_88 (A1), GageAP_88 (A1), Graduation_89 (A1), Museum_87 (A1), PattyP_85 (A1), Petp2012_86 (A1),

Start 44:
• Found in 6 of 236 (2.5%) of genes in pham
• Manual Annotations of this start: 2 of 212
• Called 33.3% of time when present

• Phage (with cluster) where this start called: BrutonGaster_151 (CQ2), WilliamBoone_173 (CQ1),

Start 45:
• Found in 17 of 236 (7.2%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 5.9% of time when present
• Phage (with cluster) where this start called: Fascinus_82 (A1),

Start 46:
• Found in 18 of 236 (7.6%) of genes in pham
• Manual Annotations of this start: 9 of 212
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Altman_92 (A1), Arcanine_92 (A1), ConceptII_94 (A1), Hope4ever_84 (A1), Kanely_91 (A1), OnionKnight_47 (singleton), Pinto_85 (A1), Rajelicia_87 (A1), Ruotula_92 (A1),

Start 48:
• Found in 28 of 236 (11.9%) of genes in pham
• Manual Annotations of this start: 7 of 212
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Anglerfish_90 (A1), Atkinbua_95 (A1), GrecoEtereo_90 (A1), Gwendoluna_89 (A1), McSinger_83 (A1), Slagathor_89 (A1), Tripl3t_89 (A1),

Start 50:
• Found in 21 of 236 (8.9%) of genes in pham
• Manual Annotations of this start: 5 of 212
• Called 23.8% of time when present
• Phage (with cluster) where this start called: BeesKnees_87 (A1), Doom_78 (A1), Dorin_231 (CG), Francesca_232 (CG), MrGordo_88 (A1),

Start 52:
• Found in 24 of 236 (10.2%) of genes in pham
• Manual Annotations of this start: 11 of 212
• Called 62.5% of time when present
• Phage (with cluster) where this start called: Beagle_20 (AP2), BetaFish_19 (AP2), Dreamboat_83 (A1), Grayson_225 (CB), Hive_18 (AP2), Jasper_82 (A1), Kubulix_20 (AP2), Odyssey395_21 (AP2), Peregrin_219 (CB), PherrisBueller_82 (A1), PhuzzTulsa_17 (AP2), Popstraw_18 (AP2), Pureglobe5_21 (AP2), Rajelicia_84 (A1), Rings_76 (AQ),

Start 53:
• Found in 14 of 236 (5.9%) of genes in pham
• Manual Annotations of this start: 12 of 212
• Called 85.7% of time when present
• Phage (with cluster) where this start called: Amavida_77 (AQ), Amigo_76 (AQ), Anansi_75 (AQ), Boersma_78 (AQ), Gorgeous_75 (AQ), Heylee_78 (AQ), Ichor_75 (AQ), Jaek_75 (AQ), Molivia_79 (AQ), SorJuana_75 (AQ), Thunderclap_75 (AQ), Yeezus_75 (AQ),

Start 54:
• Found in 8 of 236 (3.4%) of genes in pham

• Manual Annotations of this start: 5 of 212
• Called 87.5% of time when present
• Phage (with cluster) where this start called: DroogsArmy_55 (A7), FlyCatcher_62 (A7), HINdeR_54 (A7), Kimona_80 (A19), Sheen_59 (A7), Timshel_56 (A7), Toro_60 (A7),

Start 55:
• Found in 1 of 236 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Trina_21 (CE),

Start 56:
• Found in 28 of 236 (11.9%) of genes in pham
• Manual Annotations of this start: 23 of 212
• Called 85.7% of time when present
• Phage (with cluster) where this start called: A6_79 (A1), Agaliana_82 (A1), BK1_79 (A1), Beatrix_84 (A1), Bexan_82 (A1), BigPaolini_83 (A1), BillKnuckles_77 (A1), Blue_80 (A1), CactusRose_91 (A1), Carlyle_84 (A1), Dexes_88 (A1), DrFeelGood_80 (A1), Fenn_90 (A1), Francis47_89 (A1), ILeeKay_83 (A1), Kugel_87 (A1), Magnar_84 (A1), Marcell_77 (A1), Maroc7_87 (A1), Naira_89 (A1), PacerPaul_89 (A1), Seanderson_85 (A1), Yakult_45 (CT), Zeeculate_84 (A1),

Start 57:
• Found in 58 of 236 (24.6%) of genes in pham
• Manual Annotations of this start: 34 of 212
• Called 70.7% of time when present
• Phage (with cluster) where this start called: BAKA_121 (J), Beelzebub_36 (S), Big3_87 (A1), Bigchungi_84 (A1), Blackbeetle_32 (S), Blackflame_84 (A1), Bobby_114 (J), Clarkson_33 (S), Corazon_30 (S), Cueylyss_72 (A1), DmpstrDiver_122 (J), EricMillard_113 (J), FeliMaine_34 (S), Gattaca_31 (S), GoongGoong_31 (S), Hidrated_105 (J), Huphlepuff_34 (S), JoieB_33 (S), Kalah2_113 (J), Killigrew_82 (A1), Klein_118 (J), Lilbit_31 (S), LittleE_121 (J), LittleLaf_32 (S), Marleymoo_105 (J), Marvin_30 (S), Mkhuseli_82 (A1), MosMoris_30 (S), Nova53_130 (CG), Optimus_112 (J), Poise_32 (S), Pringar_32 (S), Raela_32 (S), RedRaider77_32 (S), Sanya_79 (A1), ShortQueendom_79 (A1), Sibs6_89 (A1), Snazzy_87 (A1), Tesla_31 (S), VasuNzinga_32 (S), Wanda_121 (J),

Start 58:
• Found in 5 of 236 (2.1%) of genes in pham
• Manual Annotations of this start: 2 of 212
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Jaan_86 (A2), Malisha_85 (DN),

Start 59:
• Found in 16 of 236 (6.8%) of genes in pham
• Manual Annotations of this start: 15 of 212
• Called 93.8% of time when present
• Phage (with cluster) where this start called: Ariel_117 (J), Courthouse_112 (J), Dorin_129 (CG), Ejimix_116 (J), Francesca_129 (CG), Halley_124 (J), Herbertwm_80 (A2), Hughesyang_121 (J), MiaZeal_117 (J), Minerva_119 (J), Pound_111 (J), Redno2_115 (J), Superphikiman_114 (J), ThreeRngTarjay_117 (J), Zelink_116 (J),

Start 60:
• Found in 24 of 236 (10.2%) of genes in pham
• Manual Annotations of this start: 17 of 212
• Called 75.0% of time when present
• Phage (with cluster) where this start called: AWGoat_14 (AP4), AbbeyMikolon_43 (BL), Caprice_28 (S), DD5_84 (A1), Dynamix_85 (A1), Ichabod_88 (A1), KSSJEB_84 (A1), Kamaru_76 (DN1), Lockley_87 (A1), Manatee_85 (A1), McGuire_85 (A1), Nesbitt_41 (BL), Phabuloso_89 (DN1), Seabiscuit_87 (A1), SilentRX_15 (AP4), Switzer_84 (A1), U2_78 (A1), Wheeler_92 (A1),

Start 61:
• Found in 4 of 236 (1.7%) of genes in pham
• Manual Annotations of this start: 4 of 212
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bactobuster_79 (A2), IronMan_84 (A2), Landor_85 (A2), Pukovnik_82 (A2),

Start 62:
• Found in 54 of 236 (22.9%) of genes in pham
• Manual Annotations of this start: 19 of 212
• Called 37.0% of time when present
• Phage (with cluster) where this start called: Annadreamy_6 (BK1), Belfort_7 (BK1), Beuffert_6 (BK1), BillNye_8 (BK2), Blueeyedbeauty_7 (BK1), Chaewon_12 (BK2), Circinus_9 (BK2), Faust_6 (BK1), Forrest_7 (BK1), Francob_6 (BK1), Grayson_224 (CB), Karp_7 (BK1), Kenrey_7 (BK1), Limpid_6 (BK1), MeganTheeKilla_7 (BK1), Moab_6 (BK1), Muntaha_8 (BK2), Peregrin_218 (CB), TunaTartare_7 (BK1), Wakanda_7 (BK2),

Start 65:
• Found in 29 of 236 (12.3%) of genes in pham
• Manual Annotations of this start: 3 of 212
• Called 10.3% of time when present
• Phage (with cluster) where this start called: BayC_39 (BG), Duke13_116 (J), Salete_39 (BG),

Start 66:
• Found in 32 of 236 (13.6%) of genes in pham
• Manual Annotations of this start: 2 of 212
• Called 6.2% of time when present
• Phage (with cluster) where this start called: Bigfoot_82 (A1), StrongArm_83 (A1),

Start 67:
• Found in 34 of 236 (14.4%) of genes in pham
• Manual Annotations of this start: 4 of 212
• Called 11.8% of time when present
• Phage (with cluster) where this start called: Asis_39 (BG), BabyGotBac_40 (BG), Maih_38 (BG), TP1604_39 (BG),

Start 68:
• Found in 1 of 236 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BPBiebs31_91 (A1),

Start 69:
• Found in 26 of 236 (11.0%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 3.8% of time when present
• Phage (with cluster) where this start called: DogYard_19 (AP2),

Start 71:
• Found in 16 of 236 (6.8%) of genes in pham
• Manual Annotations of this start: 1 of 212
• Called 18.8% of time when present
• Phage (with cluster) where this start called: Bagrid_122 (J), Gonephishing_111 (J), PhorbesPhlower_62 (DH),

Start 72:
• Found in 59 of 236 (25.0%) of genes in pham
• Manual Annotations of this start: 12 of 212
• Called 25.4% of time when present
• Phage (with cluster) where this start called: Comrade_7 (BK1), DeluluLabubu_7 (BK1), Emma1919_7 (BK1), Gilson_7 (BK1), Jada_7 (BK1), Maupel_7 (BK1), PP_78 (A7), Patelgo_7 (BK1), Phredrick_7 (BK1), SeresaTree_7 (BK1), Sham_7 (BK1), SparkleGoddess_7 (BK1), Squint_115 (J), Stigma_7 (BK1), Westy_7 (BK1),

Start 73:
• Found in 118 of 236 (50.0%) of genes in pham
• Manual Annotations of this start: 2 of 212
• Called 1.7% of time when present
• Phage (with cluster) where this start called: Bimmel_19 (BT), Squee_84 (A1),

Start 74:
• Found in 44 of 236 (18.6%) of genes in pham
• Manual Annotations of this start: 3 of 212
• Called 6.8% of time when present
• Phage (with cluster) where this start called: Spooks_20 (BT), Success_20 (BT), TheloniousMonk_85 (A1),

Summary by clusters:

There are 25 clusters represented in this pham: DN, singleton, BG, DH, AP2, AP4, BT, A19, A1, BL, A2, DN1, A7, CQ2, CQ1, CB, J, CG, CE, AQ, S, BK1, BK2, CT, BC1,

Info for manual annotations of cluster A1:
•Start number 26 was manually annotated 1 time for cluster A1.
•Start number 30 was manually annotated 1 time for cluster A1.
•Start number 39 was manually annotated 5 times for cluster A1.
•Start number 43 was manually annotated 6 times for cluster A1.
•Start number 45 was manually annotated 1 time for cluster A1.
•Start number 46 was manually annotated 8 times for cluster A1.
•Start number 48 was manually annotated 7 times for cluster A1.
•Start number 50 was manually annotated 3 times for cluster A1.
•Start number 52 was manually annotated 4 times for cluster A1.
•Start number 56 was manually annotated 22 times for cluster A1.

•Start number 57 was manually annotated 6 times for cluster A1.
•Start number 60 was manually annotated 11 times for cluster A1.
•Start number 66 was manually annotated 2 times for cluster A1.
•Start number 68 was manually annotated 1 time for cluster A1.
•Start number 73 was manually annotated 1 time for cluster A1.
•Start number 74 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A19:
•Start number 54 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:
•Start number 41 was manually annotated 2 times for cluster A2.
•Start number 58 was manually annotated 1 time for cluster A2.
•Start number 59 was manually annotated 1 time for cluster A2.
•Start number 61 was manually annotated 4 times for cluster A2.

Info for manual annotations of cluster A7:
•Start number 54 was manually annotated 4 times for cluster A7.
•Start number 72 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster AP2:
•Start number 52 was manually annotated 4 times for cluster AP2.
•Start number 69 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP4:
•Start number 60 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster AQ:
•Start number 52 was manually annotated 1 time for cluster AQ.
•Start number 53 was manually annotated 12 times for cluster AQ.

Info for manual annotations of cluster BC1:
•Start number 24 was manually annotated 1 time for cluster BC1.

Info for manual annotations of cluster BG:
•Start number 65 was manually annotated 2 times for cluster BG.
•Start number 67 was manually annotated 4 times for cluster BG.

Info for manual annotations of cluster BK1:
•Start number 62 was manually annotated 13 times for cluster BK1.
•Start number 72 was manually annotated 10 times for cluster BK1.

Info for manual annotations of cluster BK2:
•Start number 62 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster BL:
•Start number 60 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster BT:
•Start number 73 was manually annotated 1 time for cluster BT.
•Start number 74 was manually annotated 2 times for cluster BT.

Info for manual annotations of cluster CB:

•Start number 52 was manually annotated 2 times for cluster CB.
•Start number 62 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster CE:
•Start number 55 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster CG:
•Start number 50 was manually annotated 2 times for cluster CG.
•Start number 57 was manually annotated 1 time for cluster CG.
•Start number 59 was manually annotated 2 times for cluster CG.

Info for manual annotations of cluster CQ1:
•Start number 44 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 44 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster CT:
•Start number 56 was manually annotated 1 time for cluster CT.

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

Info for manual annotations of cluster DN:
•Start number 58 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 60 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster J:
•Start number 57 was manually annotated 9 times for cluster J.
•Start number 59 was manually annotated 12 times for cluster J.
•Start number 65 was manually annotated 1 time for cluster J.
•Start number 72 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster S:
•Start number 57 was manually annotated 18 times for cluster S.

Gene Information:

Gene: A6_79 Start: 46951, Stop: 46274, Start Num: 56
Candidate Starts for A6_79:
(8, 47182), (Start: 45 @46972 has 1 MA's), (Start: 56 @46951 has 23 MA's), (Start: 66 @46933 has 2 MA's), (Start: 74 @46867 has 3 MA's), (75, 46861), (85, 46795), (97, 46768), (100, 46729), (113, 46660), (119, 46633), (121, 46621), (127, 46591), (129, 46576), (132, 46561), (148, 46489), (161, 46441), (167, 46411), (171, 46390), (172, 46384), (180, 46306),

Gene: AWGoat_14 Start: 5930, Stop: 6646, Start Num: 60
Candidate Starts for AWGoat_14:
(Start: 60 @5930 has 17 MA's), (75, 6014), (85, 6083), (110, 6194), (112, 6206), (122, 6257), (126, 6281), (129, 6299), (149, 6395), (151, 6416), (152, 6422), (167, 6497), (171, 6521), (173, 6536), (176,

6551), (180, 6602), (185, 6617), (187, 6623),

Gene: AbbeyMikolon_43 Start: 29546, Stop: 30193, Start Num: 60
Candidate Starts for AbbeyMikolon_43:
(Start: 46 @29519 has 9 MA's), (47, 29522), (Start: 52 @29534 has 11 MA's), (Start: 60 @29546 has 17 MA's), (Start: 72 @29594 has 12 MA's), (Start: 73 @29624 has 2 MA's), (76, 29642), (107, 29792), (114, 29837), (118, 29852), (126, 29891), (127, 29894), (129, 29909), (153, 30020), (167, 30077), (170, 30086), (171, 30098),

Gene: Agaliana_82 Start: 48068, Stop: 47394, Start Num: 56
Candidate Starts for Agaliana_82:
(Start: 56 @48068 has 23 MA's), (Start: 74 @47984 has 3 MA's), (75, 47978), (85, 47912), (97, 47885), (100, 47846), (113, 47780), (119, 47753), (121, 47741), (127, 47711), (129, 47696), (132, 47681), (148, 47609), (161, 47561), (171, 47510), (172, 47504), (174, 47489), (180, 47426),

Gene: Altman_92 Start: 51336, Stop: 50647, Start Num: 46
Candidate Starts for Altman_92:
(Start: 46 @51336 has 9 MA's), (Start: 48 @51330 has 7 MA's), (Start: 65 @51315 has 3 MA's), (Start: 73 @51252 has 2 MA's), (75, 51243), (119, 51033), (121, 51021), (129, 50976), (134, 50943), (154, 50865), (164, 50835), (165, 50829), (167, 50808), (171, 50787), (173, 50772), (179, 50709), (180, 50706), (184, 50694),

Gene: Amavida_77 Start: 49536, Stop: 48835, Start Num: 53
Candidate Starts for Amavida_77:
(38, 49584), (Start: 45 @49554 has 1 MA's), (Start: 48 @49548 has 7 MA's), (Start: 53 @49536 has 12 MA's), (Start: 73 @49452 has 2 MA's), (80, 49401), (83, 49386), (86, 49371), (114, 49215), (128, 49146), (129, 49134), (132, 49119), (133, 49116), (171, 48942), (172, 48936), (176, 48909), (180, 48858), (182, 48849), (186, 48840),

Gene: Amigo_76 Start: 49754, Stop: 49053, Start Num: 53
Candidate Starts for Amigo_76:
(21, 49868), (25, 49850), (31, 49820), (38, 49802), (Start: 45 @49772 has 1 MA's), (Start: 48 @49766 has 7 MA's), (Start: 52 @49757 has 11 MA's), (Start: 53 @49754 has 12 MA's), (Start: 73 @49670 has 2 MA's), (83, 49604), (84, 49601), (114, 49433), (121, 49397), (129, 49352), (132, 49337), (133, 49334), (171, 49160), (172, 49154), (180, 49076), (182, 49067), (186, 49058),

Gene: Anansi_75 Start: 49355, Stop: 48654, Start Num: 53
Candidate Starts for Anansi_75:
(27, 49436), (31, 49421), (38, 49403), (Start: 48 @49367 has 7 MA's), (Start: 53 @49355 has 12 MA's), (Start: 73 @49271 has 2 MA's), (78, 49244), (79, 49241), (83, 49205), (84, 49202), (114, 49034), (128, 48965), (129, 48953), (132, 48938), (133, 48935), (171, 48761), (172, 48755), (176, 48728), (180, 48677), (182, 48668), (186, 48659),

Gene: Anglerfish_90 Start: 51186, Stop: 50512, Start Num: 48
Candidate Starts for Anglerfish_90:
(Start: 46 @51192 has 9 MA's), (Start: 48 @51186 has 7 MA's), (Start: 65 @51171 has 3 MA's), (Start: 73 @51108 has 2 MA's), (75, 51099), (119, 50889), (121, 50877), (129, 50832), (154, 50721), (164, 50691), (165, 50685), (171, 50643), (173, 50628), (188, 50538),

Gene: Annadreamy_6 Start: 2126, Stop: 1452, Start Num: 62
Candidate Starts for Annadreamy_6:
(Start: 62 @2126 has 19 MA's), (78, 2030), (82, 2006), (87, 1976), (88, 1973), (89, 1970), (97, 1952), (99, 1925), (102, 1913), (113, 1859), (118, 1841), (124, 1805), (127, 1790), (129, 1775), (139, 1721),

(157, 1643), (161, 1631), (171, 1574), (173, 1559), (189, 1457),

Gene: Arcanine_92 Start: 51479, Stop: 50790, Start Num: 46
Candidate Starts for Arcanine_92:
(Start: 46 @51479 has 9 MA's), (Start: 48 @51473 has 7 MA's), (Start: 65 @51458 has 3 MA's), (Start: 73 @51395 has 2 MA's), (75, 51386), (119, 51176), (121, 51164), (129, 51119), (154, 51008), (164, 50978), (165, 50972), (167, 50951), (171, 50930), (173, 50915), (179, 50852), (180, 50849), (184, 50837),

Gene: Ariel_117 Start: 63532, Stop: 64182, Start Num: 59
Candidate Starts for Ariel_117:
(32, 63460), (Start: 59 @63532 has 15 MA's), (Start: 72 @63583 has 12 MA's), (Start: 73 @63610 has 2 MA's), (Start: 74 @63613 has 3 MA's), (75, 63619), (91, 63694), (107, 63772), (129, 63898), (132, 63913), (138, 63949), (161, 64033), (171, 64084), (174, 64105),

Gene: Asis_39 Start: 31643, Stop: 31008, Start Num: 67
Candidate Starts for Asis_39:
(Start: 57 @31661 has 34 MA's), (Start: 67 @31643 has 4 MA's), (75, 31574), (84, 31517), (95, 31475), (97, 31469), (98, 31466), (106, 31418), (113, 31376), (121, 31337), (150, 31193), (154, 31187), (167, 31130), (171, 31109), (173, 31094),

Gene: Atkinbua_95 Start: 51766, Stop: 51083, Start Num: 48
Candidate Starts for Atkinbua_95:
(Start: 46 @51772 has 9 MA's), (Start: 48 @51766 has 7 MA's), (Start: 65 @51751 has 3 MA's), (Start: 73 @51688 has 2 MA's), (75, 51679), (119, 51469), (121, 51457), (129, 51412), (134, 51379), (154, 51301), (164, 51271), (165, 51265), (167, 51244), (171, 51223), (173, 51208), (179, 51145), (180, 51142), (184, 51130),

Gene: BAKA_121 Start: 67154, Stop: 67777, Start Num: 57
Candidate Starts for BAKA_121:
(Start: 57 @67154 has 34 MA's), (Start: 65 @67163 has 3 MA's), (Start: 71 @67199 has 1 MA's), (Start: 74 @67229 has 3 MA's), (75, 67235), (84, 67289), (154, 67601), (164, 67631), (165, 67637), (166, 67640), (171, 67679), (173, 67694),

Gene: BK1_79 Start: 46951, Stop: 46274, Start Num: 56
Candidate Starts for BK1_79:
(8, 47182), (Start: 45 @46972 has 1 MA's), (Start: 56 @46951 has 23 MA's), (Start: 66 @46933 has 2 MA's), (Start: 74 @46867 has 3 MA's), (75, 46861), (85, 46795), (97, 46768), (100, 46729), (113, 46660), (119, 46633), (121, 46621), (127, 46591), (129, 46576), (132, 46561), (148, 46489), (161, 46441), (167, 46411), (171, 46390), (172, 46384), (180, 46306),

Gene: BPBiebs31_91 Start: 51295, Stop: 50630, Start Num: 68
Candidate Starts for BPBiebs31_91:
(Start: 68 @51295 has 1 MA's), (70, 51265), (Start: 73 @51235 has 2 MA's), (75, 51226), (119, 51016), (121, 51004), (129, 50959), (154, 50848), (164, 50818), (165, 50812), (167, 50791), (171, 50770), (173, 50755), (179, 50692), (180, 50689), (184, 50677),

Gene: BabyGotBac_40 Start: 31643, Stop: 31008, Start Num: 67
Candidate Starts for BabyGotBac_40:
(Start: 57 @31661 has 34 MA's), (Start: 67 @31643 has 4 MA's), (75, 31574), (84, 31517), (95, 31475), (97, 31469), (98, 31466), (106, 31418), (113, 31376), (121, 31337), (150, 31193), (154, 31187), (167, 31130), (171, 31109), (173, 31094),

Gene: Bactobuster_79 Start: 48348, Stop: 47665, Start Num: 61
Candidate Starts for Bactobuster_79:
(Start: 61 @48348 has 4 MA's), (Start: 72 @48303 has 12 MA's), (114, 48069), (122, 48030), (126, 48006), (129, 47988), (135, 47949), (159, 47856), (171, 47796), (186, 47694), (190, 47673),

Gene: Bagrid_122 Start: 67160, Stop: 67738, Start Num: 71
Candidate Starts for Bagrid_122:
(Start: 57 @67115 has 34 MA's), (Start: 65 @67124 has 3 MA's), (Start: 71 @67160 has 1 MA's), (75, 67196), (84, 67250), (154, 67562), (164, 67592), (165, 67598), (166, 67601), (171, 67640), (173, 67655),

Gene: BayC_39 Start: 31646, Stop: 31008, Start Num: 65
Candidate Starts for BayC_39:
(Start: 57 @31661 has 34 MA's), (Start: 65 @31646 has 3 MA's), (Start: 67 @31643 has 4 MA's), (Start: 73 @31583 has 2 MA's), (98, 31466), (106, 31418), (113, 31376), (121, 31337), (150, 31193), (154, 31187), (167, 31130), (171, 31109), (173, 31094),

Gene: Beagle_20 Start: 6529, Stop: 7245, Start Num: 52
Candidate Starts for Beagle_20:
(Start: 52 @6529 has 11 MA's), (Start: 69 @6562 has 1 MA's), (104, 6772), (121, 6865), (129, 6910), (144, 6985), (171, 7135), (173, 7150), (184, 7225), (187, 7231),

Gene: Beatrix_84 Start: 49764, Stop: 49084, Start Num: 56
Candidate Starts for Beatrix_84:
(4, 50085), (5, 50067), (6, 50055), (13, 49944), (14, 49935), (20, 49884), (Start: 56 @49764 has 23 MA's), (Start: 66 @49746 has 2 MA's), (Start: 74 @49680 has 3 MA's), (75, 49674), (85, 49608), (97, 49581), (100, 49542), (113, 49473), (119, 49446), (121, 49434), (127, 49404), (129, 49389), (132, 49374), (148, 49299), (161, 49251), (167, 49221), (171, 49200), (172, 49194), (180, 49116),

Gene: Beelzebub_36 Start: 10697, Stop: 10047, Start Num: 57
Candidate Starts for Beelzebub_36:
(6, 10961), (9, 10883), (11, 10859), (36, 10733), (Start: 57 @10697 has 34 MA's), (63, 10685), (Start: 67 @10679 has 4 MA's), (Start: 73 @10619 has 2 MA's), (81, 10568), (100, 10478), (111, 10433), (129, 10331), (138, 10280), (142, 10268), (160, 10211), (161, 10208), (171, 10160), (173, 10145),

Gene: BeesKnees_87 Start: 48684, Stop: 48004, Start Num: 50
Candidate Starts for BeesKnees_87:
(15, 48828), (18, 48798), (Start: 50 @48684 has 5 MA's), (Start: 57 @48678 has 34 MA's), (Start: 73 @48609 has 2 MA's), (75, 48600), (119, 48390), (121, 48378), (125, 48363), (129, 48333), (134, 48300), (154, 48222), (164, 48192), (165, 48186), (167, 48165), (171, 48144), (173, 48129), (179, 48066), (180, 48063), (184, 48051),

Gene: Belfort_7 Start: 2280, Stop: 1633, Start Num: 62
Candidate Starts for Belfort_7:
(Start: 62 @2280 has 19 MA's), (Start: 67 @2271 has 4 MA's), (Start: 69 @2265 has 1 MA's), (Start: 72 @2238 has 12 MA's), (82, 2160), (87, 2130), (88, 2127), (89, 2124), (102, 2067), (113, 2013), (127, 1947), (128, 1944), (129, 1932), (132, 1914), (157, 1797), (161, 1785), (164, 1779), (171, 1728), (173, 1713), (186, 1638),

Gene: BetaFish_19 Start: 6732, Stop: 7448, Start Num: 52
Candidate Starts for BetaFish_19:
(Start: 52 @6732 has 11 MA's), (Start: 69 @6765 has 1 MA's), (103, 6969), (104, 6975), (121, 7068), (129, 7113), (144, 7188), (171, 7338), (173, 7353), (184, 7428), (187, 7434),

Gene: Beuffert_6 Start: 2198, Stop: 1509, Start Num: 62
Candidate Starts for Beuffert_6:
(Start: 62 @2198 has 19 MA's), (78, 2102), (82, 2078), (87, 2048), (88, 2045), (89, 2042), (99, 1997),
(102, 1985), (113, 1931), (119, 1904), (121, 1892), (124, 1877), (127, 1862), (129, 1847), (139, 1793),
(157, 1715), (161, 1703), (171, 1646), (173, 1631), (189, 1532),

Gene: Bexan_82 Start: 49540, Stop: 48860, Start Num: 56
Candidate Starts for Bexan_82:
(4, 49861), (5, 49843), (6, 49831), (13, 49720), (14, 49711), (20, 49660), (Start: 56 @49540 has 23
MA's), (Start: 66 @49522 has 2 MA's), (Start: 74 @49456 has 3 MA's), (75, 49450), (85, 49384), (97,
49357), (100, 49318), (113, 49249), (119, 49222), (121, 49210), (127, 49180), (129, 49165), (132,
49150), (148, 49075), (161, 49027), (167, 48997), (171, 48976), (172, 48970), (180, 48892),

Gene: Big3_87 Start: 51481, Stop: 50807, Start Num: 57
Candidate Starts for Big3_87:
(Start: 43 @51505 has 6 MA's), (Start: 50 @51487 has 5 MA's), (Start: 57 @51481 has 34 MA's),
(Start: 73 @51412 has 2 MA's), (75, 51403), (119, 51193), (121, 51181), (129, 51136), (134, 51103),
(154, 51025), (164, 50995), (165, 50989), (167, 50968), (171, 50947), (173, 50932), (179, 50869),
(180, 50866), (184, 50854),

Gene: BigPaolini_83 Start: 48463, Stop: 47786, Start Num: 56
Candidate Starts for BigPaolini_83:
(Start: 56 @48463 has 23 MA's), (Start: 74 @48379 has 3 MA's), (75, 48373), (85, 48307), (97, 48280),
(100, 48241), (113, 48175), (119, 48148), (121, 48136), (127, 48106), (129, 48091), (132, 48076),
(148, 48001), (161, 47953), (167, 47923), (171, 47902), (172, 47896), (180, 47818),

Gene: Bigchungi_84 Start: 50312, Stop: 49638, Start Num: 57
Candidate Starts for Bigchungi_84:
(Start: 43 @50336 has 6 MA's), (Start: 50 @50318 has 5 MA's), (Start: 57 @50312 has 34 MA's),
(Start: 73 @50243 has 2 MA's), (75, 50234), (119, 50024), (121, 50012), (129, 49967), (134, 49934),
(154, 49856), (164, 49826), (165, 49820), (167, 49799), (171, 49778), (173, 49763), (179, 49700),
(180, 49697), (184, 49685),

Gene: Bigfoot_82 Start: 49765, Stop: 49106, Start Num: 66
Candidate Starts for Bigfoot_82:
(Start: 45 @49804 has 1 MA's), (Start: 56 @49783 has 23 MA's), (Start: 66 @49765 has 2 MA's),
(Start: 74 @49699 has 3 MA's), (75, 49693), (97, 49600), (100, 49561), (113, 49492), (115, 49486),
(119, 49465), (121, 49453), (127, 49423), (129, 49408), (132, 49393), (148, 49321), (161, 49273),
(167, 49243), (171, 49222), (172, 49216), (180, 49138),

Gene: BillKnuckles_77 Start: 48897, Stop: 48223, Start Num: 56
Candidate Starts for BillKnuckles_77:
(Start: 56 @48897 has 23 MA's), (Start: 62 @48885 has 19 MA's), (Start: 67 @48879 has 4 MA's),
(Start: 73 @48819 has 2 MA's), (85, 48744), (97, 48717), (100, 48678), (113, 48609), (119, 48582),
(121, 48570), (127, 48540), (129, 48525), (132, 48510), (148, 48438), (161, 48390), (167, 48360),
(171, 48339), (172, 48333), (180, 48255),

Gene: BillNye_8 Start: 3730, Stop: 3080, Start Num: 62
Candidate Starts for BillNye_8:
(Start: 62 @3730 has 19 MA's), (Start: 66 @3724 has 2 MA's), (75, 3652), (83, 3601), (97, 3562), (112,
3478), (127, 3400), (128, 3397), (129, 3385), (146, 3295), (161, 3241), (171, 3184), (173, 3169), (182,
3094),

Gene: Bimmel_19 Start: 12540, Stop: 11983, Start Num: 73
Candidate Starts for Bimmel_19:
(Start: 73 @12540 has 2 MA's), (Start: 74 @12537 has 3 MA's), (106, 12390), (111, 12366), (119, 12321), (121, 12309), (122, 12306), (125, 12288), (126, 12276), (128, 12270), (154, 12159), (162, 12132), (173, 12066),

Gene: Blackbeetle_32 Start: 9689, Stop: 9039, Start Num: 57
Candidate Starts for Blackbeetle_32:
(6, 9980), (9, 9902), (11, 9878), (36, 9752), (Start: 39 @9740 has 5 MA's), (Start: 57 @9689 has 34 MA's), (63, 9677), (Start: 73 @9611 has 2 MA's), (81, 9560), (100, 9470), (111, 9425), (129, 9323), (138, 9272), (142, 9260), (160, 9203), (161, 9200), (171, 9152), (173, 9137),

Gene: Blackflame_84 Start: 51527, Stop: 50856, Start Num: 57
Candidate Starts for Blackflame_84:
(Start: 57 @51527 has 34 MA's), (Start: 69 @51512 has 1 MA's), (Start: 73 @51458 has 2 MA's), (75, 51449), (119, 51239), (121, 51227), (129, 51182), (154, 51071), (164, 51041), (165, 51035), (167, 51014), (171, 50993), (173, 50978), (188, 50888),

Gene: Blue_80 Start: 48982, Stop: 48305, Start Num: 56
Candidate Starts for Blue_80:
(8, 49213), (Start: 45 @49003 has 1 MA's), (Start: 56 @48982 has 23 MA's), (Start: 66 @48964 has 2 MA's), (Start: 74 @48898 has 3 MA's), (75, 48892), (85, 48826), (97, 48799), (100, 48760), (113, 48691), (119, 48664), (121, 48652), (129, 48607), (132, 48592), (161, 48472), (167, 48442), (171, 48421), (172, 48415), (180, 48337),

Gene: Blueeyedbeauty_7 Start: 2331, Stop: 1621, Start Num: 62
Candidate Starts for Blueeyedbeauty_7:
(Start: 62 @2331 has 19 MA's), (Start: 67 @2322 has 4 MA's), (Start: 72 @2289 has 12 MA's), (78, 2235), (82, 2211), (87, 2181), (88, 2178), (89, 2175), (99, 2130), (102, 2118), (113, 2064), (119, 2037), (121, 2025), (124, 2010), (127, 1995), (129, 1980), (132, 1962), (134, 1947), (139, 1926), (157, 1848), (161, 1836), (171, 1779), (173, 1764),

Gene: Bobby_114 Start: 68576, Stop: 69196, Start Num: 57
Candidate Starts for Bobby_114:
(Start: 57 @68576 has 34 MA's), (Start: 65 @68585 has 3 MA's), (Start: 71 @68621 has 1 MA's), (Start: 73 @68648 has 2 MA's), (75, 68657), (84, 68711), (154, 69020), (164, 69050), (165, 69056), (166, 69059), (171, 69098), (173, 69113),

Gene: Boersma_78 Start: 49754, Stop: 49053, Start Num: 53
Candidate Starts for Boersma_78:
(21, 49868), (25, 49850), (31, 49820), (38, 49802), (Start: 45 @49772 has 1 MA's), (Start: 48 @49766 has 7 MA's), (Start: 52 @49757 has 11 MA's), (Start: 53 @49754 has 12 MA's), (Start: 73 @49670 has 2 MA's), (83, 49604), (84, 49601), (114, 49433), (121, 49397), (129, 49352), (132, 49337), (133, 49334), (171, 49160), (172, 49154), (180, 49076), (182, 49067), (186, 49058),

Gene: Briton15_89 Start: 50750, Stop: 50073, Start Num: 39
Candidate Starts for Briton15_89:
(Start: 39 @50750 has 5 MA's), (Start: 73 @50669 has 2 MA's), (75, 50660), (81, 50618), (97, 50567), (100, 50528), (118, 50441), (119, 50432), (127, 50390), (129, 50375), (132, 50360), (148, 50288), (161, 50240), (171, 50189), (172, 50183), (174, 50168), (180, 50105),

Gene: Bruns_90 Start: 50053, Stop: 49328, Start Num: 39

Candidate Starts for Bruns_90:
(Start: 26 @50098 has 1 MA's), (Start: 39 @50053 has 5 MA's), (Start: 50 @50014 has 5 MA's), (Start: 60 @49999 has 17 MA's), (Start: 62 @49993 has 19 MA's), (Start: 73 @49924 has 2 MA's), (75, 49915), (81, 49873), (97, 49822), (100, 49783), (118, 49696), (119, 49687), (127, 49645), (129, 49630), (132, 49615), (148, 49543), (161, 49495), (171, 49444), (172, 49438), (174, 49423), (180, 49360),

Gene: BrutonGaster_151 Start: 82896, Stop: 82189, Start Num: 44
Candidate Starts for BrutonGaster_151:
(Start: 44 @82896 has 2 MA's), (64, 82857), (Start: 72 @82818 has 12 MA's), (Start: 73 @82791 has 2 MA's), (96, 82689), (114, 82581), (119, 82557), (121, 82545), (125, 82530), (129, 82500), (132, 82485), (148, 82410), (161, 82362), (167, 82332), (171, 82311), (180, 82227),

Gene: Burton_88 Start: 51831, Stop: 51142, Start Num: 43
Candidate Starts for Burton_88:
(Start: 43 @51831 has 6 MA's), (Start: 50 @51813 has 5 MA's), (Start: 54 @51807 has 5 MA's), (Start: 73 @51738 has 2 MA's), (75, 51729), (119, 51519), (121, 51507), (129, 51462), (154, 51351), (164, 51321), (165, 51315), (167, 51294), (171, 51273), (173, 51258), (188, 51168),

Gene: CactusRose_91 Start: 50800, Stop: 50123, Start Num: 56
Candidate Starts for CactusRose_91:
(Start: 45 @50821 has 1 MA's), (Start: 56 @50800 has 23 MA's), (Start: 66 @50782 has 2 MA's), (Start: 74 @50716 has 3 MA's), (75, 50710), (97, 50617), (100, 50578), (113, 50509), (115, 50503), (119, 50482), (121, 50470), (127, 50440), (129, 50425), (132, 50410), (148, 50338), (161, 50290), (167, 50260), (171, 50239), (172, 50233), (180, 50155),

Gene: Caprice_28 Start: 9258, Stop: 8611, Start Num: 60
Candidate Starts for Caprice_28:
(38, 9288), (Start: 60 @9258 has 17 MA's), (Start: 73 @9183 has 2 MA's), (81, 9132), (100, 9042), (111, 8997), (129, 8895), (138, 8844), (142, 8832), (160, 8775), (161, 8772), (171, 8724), (173, 8709),

Gene: Carlyle_84 Start: 48483, Stop: 47806, Start Num: 56
Candidate Starts for Carlyle_84:
(8, 48714), (Start: 45 @48504 has 1 MA's), (Start: 56 @48483 has 23 MA's), (Start: 66 @48465 has 2 MA's), (Start: 74 @48399 has 3 MA's), (75, 48393), (85, 48327), (97, 48300), (100, 48261), (108, 48225), (113, 48192), (119, 48165), (121, 48153), (127, 48123), (129, 48108), (132, 48093), (148, 48021), (161, 47973), (167, 47943), (171, 47922), (172, 47916), (180, 47838),

Gene: Chaewon_12 Start: 3500, Stop: 2850, Start Num: 62
Candidate Starts for Chaewon_12:
(Start: 62 @3500 has 19 MA's), (Start: 66 @3494 has 2 MA's), (75, 3422), (83, 3371), (97, 3332), (112, 3248), (127, 3170), (129, 3155), (130, 3143), (137, 3107), (146, 3065), (161, 3011), (171, 2954), (173, 2939), (176, 2924), (182, 2864),

Gene: Circinus_9 Start: 3611, Stop: 2961, Start Num: 62
Candidate Starts for Circinus_9:
(Start: 62 @3611 has 19 MA's), (Start: 66 @3605 has 2 MA's), (75, 3533), (83, 3482), (97, 3443), (112, 3359), (127, 3281), (128, 3278), (129, 3266), (146, 3176), (161, 3122), (171, 3065), (173, 3050), (182, 2975),

Gene: Clarkson_33 Start: 10398, Stop: 9748, Start Num: 57
Candidate Starts for Clarkson_33:

(6, 10662), (9, 10584), (11, 10560), (36, 10434), (Start: 57 @10398 has 34 MA's), (63, 10386), (Start: 73 @10320 has 2 MA's), (81, 10269), (100, 10179), (111, 10134), (129, 10032), (138, 9981), (142, 9969), (160, 9912), (161, 9909), (171, 9861), (173, 9846),

Gene: Comrade_7 Start: 2239, Stop: 1634, Start Num: 72
Candidate Starts for Comrade_7:
(Start: 62 @2281 has 19 MA's), (Start: 67 @2272 has 4 MA's), (Start: 69 @2266 has 1 MA's), (Start: 72 @2239 has 12 MA's), (82, 2161), (87, 2131), (88, 2128), (89, 2125), (102, 2068), (113, 2014), (127, 1948), (128, 1945), (129, 1933), (132, 1915), (157, 1798), (161, 1786), (164, 1780), (171, 1729), (173, 1714), (186, 1639),

Gene: ConceptII_94 Start: 52101, Stop: 51412, Start Num: 46
Candidate Starts for ConceptII_94:
(Start: 46 @52101 has 9 MA's), (Start: 48 @52095 has 7 MA's), (Start: 65 @52080 has 3 MA's), (Start: 73 @52017 has 2 MA's), (75, 52008), (119, 51798), (121, 51786), (129, 51741), (134, 51708), (154, 51630), (164, 51600), (165, 51594), (167, 51573), (171, 51552), (173, 51537), (179, 51474), (180, 51471), (184, 51459),

Gene: Corazon_30 Start: 10351, Stop: 9701, Start Num: 57
Candidate Starts for Corazon_30:
(6, 10615), (9, 10537), (11, 10513), (36, 10387), (Start: 57 @10351 has 34 MA's), (63, 10339), (Start: 67 @10333 has 4 MA's), (Start: 73 @10273 has 2 MA's), (81, 10222), (100, 10132), (111, 10087), (129, 9985), (138, 9934), (142, 9922), (160, 9865), (161, 9862), (171, 9814), (173, 9799),

Gene: Courthouse_112 Start: 63132, Stop: 63782, Start Num: 59
Candidate Starts for Courthouse_112:
(32, 63060), (Start: 59 @63132 has 15 MA's), (Start: 72 @63183 has 12 MA's), (Start: 73 @63210 has 2 MA's), (Start: 74 @63213 has 3 MA's), (75, 63219), (91, 63294), (107, 63372), (129, 63498), (132, 63513), (138, 63549), (161, 63633), (171, 63684), (174, 63705),

Gene: Cueylyss_72 Start: 46773, Stop: 46099, Start Num: 57
Candidate Starts for Cueylyss_72:
(Start: 43 @46797 has 6 MA's), (Start: 50 @46779 has 5 MA's), (Start: 57 @46773 has 34 MA's), (Start: 73 @46704 has 2 MA's), (75, 46695), (119, 46485), (121, 46473), (129, 46428), (134, 46395), (154, 46317), (164, 46287), (165, 46281), (167, 46260), (171, 46239), (173, 46224), (179, 46161), (180, 46158), (184, 46146),

Gene: DD5_84 Start: 50105, Stop: 49434, Start Num: 60
Candidate Starts for DD5_84:
(16, 50249), (22, 50219), (Start: 60 @50105 has 17 MA's), (Start: 62 @50099 has 19 MA's), (Start: 73 @50030 has 2 MA's), (75, 50021), (81, 49979), (97, 49928), (100, 49889), (118, 49802), (119, 49793), (121, 49781), (127, 49751), (129, 49736), (132, 49721), (148, 49649), (161, 49601), (171, 49550), (172, 49544), (174, 49529), (180, 49466),

Gene: DeluluLabubu_7 Start: 2246, Stop: 1641, Start Num: 72
Candidate Starts for DeluluLabubu_7:
(Start: 62 @2288 has 19 MA's), (Start: 72 @2246 has 12 MA's), (75, 2210), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (98, 2111), (113, 2021), (118, 2003), (127, 1955), (129, 1940), (130, 1928), (139, 1883), (161, 1793), (165, 1781), (171, 1736), (173, 1721),

Gene: Dexes_88 Start: 52469, Stop: 51795, Start Num: 56
Candidate Starts for Dexes_88:

(Start: 56 @52469 has 23 MA's), (Start: 62 @52457 has 19 MA's), (Start: 67 @52451 has 4 MA's), (Start: 73 @52391 has 2 MA's), (85, 52316), (97, 52289), (100, 52250), (113, 52181), (119, 52154), (121, 52142), (129, 52097), (132, 52082), (148, 52010), (161, 51962), (167, 51932), (171, 51911), (172, 51905), (180, 51827),

Gene: DmpstrDiver_122 Start: 67404, Stop: 68027, Start Num: 57
Candidate Starts for DmpstrDiver_122:
(Start: 57 @67404 has 34 MA's), (Start: 65 @67413 has 3 MA's), (Start: 71 @67449 has 1 MA's), (75, 67485), (84, 67539), (154, 67851), (164, 67881), (165, 67887), (166, 67890), (171, 67929), (173, 67944),

Gene: DogYard_19 Start: 6632, Stop: 7315, Start Num: 69
Candidate Starts for DogYard_19:
(Start: 52 @6599 has 11 MA's), (Start: 69 @6632 has 1 MA's), (103, 6836), (104, 6842), (121, 6935), (129, 6980), (144, 7055), (171, 7205), (173, 7220), (184, 7295), (187, 7301),

Gene: Doom_78 Start: 48519, Stop: 47839, Start Num: 50
Candidate Starts for Doom_78:
(Start: 43 @48537 has 6 MA's), (Start: 50 @48519 has 5 MA's), (Start: 57 @48513 has 34 MA's), (Start: 73 @48444 has 2 MA's), (75, 48435), (119, 48225), (121, 48213), (129, 48168), (154, 48057), (164, 48027), (165, 48021), (167, 48000), (171, 47979), (173, 47964), (179, 47901), (180, 47898), (184, 47886),

Gene: Dorin_231 Start: 119103, Stop: 119795, Start Num: 50
Candidate Starts for Dorin_231:
(Start: 50 @119103 has 5 MA's), (Start: 69 @119127 has 1 MA's), (129, 119457), (130, 119466), (137, 119505), (142, 119535), (143, 119544), (154, 119616), (158, 119631), (164, 119646), (171, 119694), (173, 119709), (182, 119784),

Gene: Dorin_129 Start: 82694, Stop: 83350, Start Num: 59
Candidate Starts for Dorin_129:
(35, 82631), (37, 82637), (Start: 59 @82694 has 15 MA's), (118, 82988), (121, 83009), (129, 83060), (147, 83153), (154, 83180), (171, 83258),

Gene: DrFeelGood_80 Start: 47764, Stop: 47084, Start Num: 56
Candidate Starts for DrFeelGood_80:
(Start: 45 @47785 has 1 MA's), (Start: 56 @47764 has 23 MA's), (Start: 66 @47746 has 2 MA's), (Start: 74 @47680 has 3 MA's), (75, 47674), (85, 47608), (97, 47581), (100, 47542), (113, 47473), (119, 47446), (121, 47434), (129, 47389), (132, 47374), (167, 47221), (171, 47200), (172, 47194), (180, 47116),

Gene: Dreamboat_83 Start: 47449, Stop: 46793, Start Num: 52
Candidate Starts for Dreamboat_83:
(Start: 52 @47449 has 11 MA's), (Start: 73 @47374 has 2 MA's), (79, 47350), (118, 47161), (121, 47140), (122, 47137), (129, 47089), (145, 47008), (167, 46933), (171, 46912), (173, 46897), (179, 46834),

Gene: DroogsArmy_55 Start: 40958, Stop: 40269, Start Num: 54
Candidate Starts for DroogsArmy_55:
(Start: 54 @40958 has 5 MA's), (64, 40946), (Start: 69 @40934 has 1 MA's), (Start: 72 @40907 has 12 MA's), (Start: 73 @40880 has 2 MA's), (75, 40871), (113, 40664), (118, 40646), (129, 40580), (139, 40526), (148, 40490), (161, 40442), (167, 40412), (171, 40391), (179, 40310), (183, 40298),

Gene: Duke13_116 Start: 64831, Stop: 65445, Start Num: 65
Candidate Starts for Duke13_116:
(Start: 57 @64822 has 34 MA's), (Start: 65 @64831 has 3 MA's), (Start: 71 @64867 has 1 MA's),
(Start: 74 @64897 has 3 MA's), (75, 64903), (84, 64957), (154, 65269), (164, 65299), (165, 65305),
(166, 65308), (171, 65347), (173, 65362),

Gene: Dynamix_85 Start: 48097, Stop: 47417, Start Num: 60
Candidate Starts for Dynamix_85:
(16, 48241), (22, 48211), (Start: 60 @48097 has 17 MA's), (Start: 62 @48091 has 19 MA's), (Start: 73
@48013 has 2 MA's), (75, 48004), (81, 47962), (97, 47911), (100, 47872), (118, 47785), (119, 47776),
(127, 47734), (129, 47719), (132, 47704), (148, 47632), (161, 47584), (171, 47533), (172, 47527),
(174, 47512), (180, 47449),

Gene: Ejimix_116 Start: 68532, Stop: 69179, Start Num: 59
Candidate Starts for Ejimix_116:
(Start: 59 @68532 has 15 MA's), (Start: 66 @68541 has 2 MA's), (Start: 72 @68577 has 12 MA's), (75,
68613), (91, 68688), (114, 68811), (126, 68874), (129, 68892), (136, 68937), (148, 68979), (161,
69027), (171, 69078),

Gene: Emma1919_7 Start: 2249, Stop: 1644, Start Num: 72
Candidate Starts for Emma1919_7:
(Start: 62 @2291 has 19 MA's), (Start: 72 @2249 has 12 MA's), (75, 2213), (82, 2171), (87, 2141), (88,
2138), (89, 2135), (98, 2114), (113, 2024), (118, 2006), (127, 1958), (129, 1943), (130, 1931), (139,
1886), (161, 1796), (165, 1784), (171, 1739), (173, 1724),

Gene: EnzoK_88 Start: 47912, Stop: 47187, Start Num: 39
Candidate Starts for EnzoK_88:
(Start: 26 @47957 has 1 MA's), (Start: 39 @47912 has 5 MA's), (Start: 50 @47873 has 5 MA's), (Start:
60 @47858 has 17 MA's), (Start: 62 @47852 has 19 MA's), (Start: 73 @47783 has 2 MA's), (75,
47774), (81, 47732), (97, 47681), (100, 47642), (118, 47555), (119, 47546), (127, 47504), (129,
47489), (132, 47474), (148, 47402), (161, 47354), (171, 47303), (172, 47297), (174, 47282), (180,
47219),

Gene: EricMillard_113 Start: 66791, Stop: 67414, Start Num: 57
Candidate Starts for EricMillard_113:
(Start: 57 @66791 has 34 MA's), (Start: 65 @66800 has 3 MA's), (Start: 71 @66836 has 1 MA's),
(Start: 74 @66866 has 3 MA's), (75, 66872), (84, 66926), (154, 67238), (164, 67268), (165, 67274),
(166, 67277), (171, 67316), (173, 67331),

Gene: Euphoria_88 Start: 50663, Stop: 49890, Start Num: 26
Candidate Starts for Euphoria_88:
(Start: 26 @50663 has 1 MA's), (Start: 39 @50618 has 5 MA's), (Start: 50 @50579 has 5 MA's), (Start:
60 @50564 has 17 MA's), (Start: 62 @50558 has 19 MA's), (Start: 73 @50489 has 2 MA's), (75,
50480), (81, 50438), (97, 50387), (100, 50348), (113, 50279), (119, 50252), (121, 50240), (127,
50210), (129, 50195), (132, 50180), (148, 50105), (161, 50057), (171, 50006), (172, 50000), (174,
49985), (180, 49922),

Gene: Fascinus_82 Start: 50318, Stop: 49620, Start Num: 45
Candidate Starts for Fascinus_82:
(Start: 45 @50318 has 1 MA's), (Start: 56 @50297 has 23 MA's), (Start: 66 @50279 has 2 MA's),
(Start: 74 @50213 has 3 MA's), (75, 50207), (97, 50114), (100, 50075), (113, 50006), (115, 50000),
(119, 49979), (121, 49967), (127, 49937), (129, 49922), (132, 49907), (148, 49835), (161, 49787),
(167, 49757), (171, 49736), (172, 49730), (180, 49652),

Gene: Faust_6 Start: 2432, Stop: 1746, Start Num: 62
Candidate Starts for Faust_6:
(Start: 62 @2432 has 19 MA's), (Start: 67 @2423 has 4 MA's), (Start: 72 @2390 has 12 MA's), (82, 2312), (87, 2282), (88, 2279), (89, 2276), (102, 2219), (113, 2165), (118, 2147), (121, 2126), (124, 2111), (127, 2096), (129, 2081), (130, 2069), (161, 1937), (171, 1880), (173, 1865),

Gene: FeliMaine_34 Start: 10399, Stop: 9749, Start Num: 57
Candidate Starts for FeliMaine_34:
(1, 10948), (6, 10663), (9, 10585), (11, 10561), (36, 10435), (Start: 57 @10399 has 34 MA's), (63, 10387), (Start: 73 @10321 has 2 MA's), (81, 10270), (100, 10180), (111, 10135), (129, 10033), (138, 9982), (142, 9970), (160, 9913), (161, 9910), (171, 9862), (173, 9847),

Gene: Fenn_90 Start: 50622, Stop: 49948, Start Num: 56
Candidate Starts for Fenn_90:
(Start: 56 @50622 has 23 MA's), (Start: 62 @50610 has 19 MA's), (Start: 67 @50604 has 4 MA's), (Start: 73 @50544 has 2 MA's), (85, 50469), (97, 50442), (100, 50403), (113, 50334), (119, 50307), (121, 50295), (127, 50265), (129, 50250), (132, 50235), (148, 50163), (161, 50115), (167, 50085), (171, 50064), (172, 50058), (180, 49980),

Gene: FlyCatcher_62 Start: 41844, Stop: 41167, Start Num: 54
Candidate Starts for FlyCatcher_62:
(Start: 54 @41844 has 5 MA's), (Start: 66 @41829 has 2 MA's), (Start: 72 @41793 has 12 MA's), (Start: 74 @41763 has 3 MA's), (75, 41757), (93, 41664), (94, 41661), (100, 41616), (110, 41577), (119, 41529), (129, 41472), (132, 41457), (135, 41433), (148, 41382), (167, 41304), (171, 41283), (175, 41256),

Gene: Forrest_7 Start: 2288, Stop: 1641, Start Num: 62
Candidate Starts for Forrest_7:
(Start: 62 @2288 has 19 MA's), (Start: 67 @2279 has 4 MA's), (Start: 72 @2246 has 12 MA's), (77, 2198), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (98, 2111), (113, 2021), (118, 2003), (127, 1955), (129, 1940), (130, 1928), (139, 1883), (161, 1793), (165, 1781), (171, 1736), (173, 1721),

Gene: Francesca_129 Start: 83609, Stop: 84265, Start Num: 59
Candidate Starts for Francesca_129:
(35, 83546), (37, 83552), (Start: 59 @83609 has 15 MA's), (118, 83903), (121, 83924), (129, 83975), (147, 84068), (154, 84095), (171, 84173),

Gene: Francesca_232 Start: 119746, Stop: 120438, Start Num: 50
Candidate Starts for Francesca_232:
(Start: 50 @119746 has 5 MA's), (Start: 69 @119770 has 1 MA's), (129, 120100), (130, 120109), (137, 120148), (142, 120178), (143, 120187), (154, 120259), (158, 120274), (164, 120289), (171, 120337), (173, 120352), (182, 120427),

Gene: Francis47_89 Start: 52474, Stop: 51800, Start Num: 56
Candidate Starts for Francis47_89:
(Start: 56 @52474 has 23 MA's), (Start: 74 @52390 has 3 MA's), (75, 52384), (85, 52318), (97, 52291), (100, 52252), (113, 52186), (119, 52159), (121, 52147), (127, 52117), (129, 52102), (132, 52087), (148, 52015), (161, 51967), (171, 51916), (172, 51910), (174, 51895), (180, 51832),

Gene: Francob_6 Start: 2290, Stop: 1643, Start Num: 62
Candidate Starts for Francob_6:

(Start: 62 @2290 has 19 MA's), (Start: 72 @2248 has 12 MA's), (78, 2194), (82, 2170), (87, 2140), (88, 2137), (89, 2134), (98, 2113), (113, 2023), (118, 2005), (119, 1996), (127, 1954), (129, 1939), (130, 1927), (157, 1807), (161, 1795), (171, 1738), (173, 1723),

Gene: GageAP_88 Start: 51129, Stop: 50431, Start Num: 43
Candidate Starts for GageAP_88:
(Start: 43 @51129 has 6 MA's), (Start: 50 @51111 has 5 MA's), (Start: 57 @51105 has 34 MA's), (Start: 73 @51036 has 2 MA's), (75, 51027), (119, 50817), (121, 50805), (129, 50760), (134, 50727), (154, 50649), (164, 50619), (165, 50613), (167, 50592), (171, 50571), (173, 50556), (179, 50493), (180, 50490), (184, 50478),

Gene: Gattaca_31 Start: 9578, Stop: 8928, Start Num: 57
Candidate Starts for Gattaca_31:
(1, 10127), (6, 9842), (9, 9764), (11, 9740), (36, 9614), (Start: 57 @9578 has 34 MA's), (63, 9566), (Start: 67 @9560 has 4 MA's), (Start: 73 @9500 has 2 MA's), (81, 9449), (100, 9359), (111, 9314), (129, 9212), (138, 9161), (142, 9149), (160, 9092), (161, 9089), (171, 9041), (173, 9026),

Gene: Geeche_173 Start: 87550, Stop: 86852, Start Num: 38
Candidate Starts for Geeche_173:
(38, 87550), (64, 87511), (Start: 73 @87445 has 2 MA's), (84, 87379), (90, 87358), (100, 87292), (107, 87271), (112, 87238), (118, 87208), (119, 87199), (129, 87142), (134, 87112), (161, 87019), (171, 86971), (172, 86965), (180, 86890),

Gene: Gilson_7 Start: 2246, Stop: 1641, Start Num: 72
Candidate Starts for Gilson_7:
(Start: 62 @2288 has 19 MA's), (Start: 72 @2246 has 12 MA's), (77, 2198), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (98, 2111), (113, 2021), (118, 2003), (127, 1955), (129, 1940), (130, 1928), (139, 1883), (161, 1793), (165, 1781), (171, 1736), (173, 1721),

Gene: Gonephishing_111 Start: 62610, Stop: 63188, Start Num: 71
Candidate Starts for Gonephishing_111:
(29, 62487), (Start: 57 @62559 has 34 MA's), (Start: 71 @62610 has 1 MA's), (Start: 73 @62637 has 2 MA's), (Start: 74 @62640 has 3 MA's), (75, 62646), (129, 62913), (130, 62925), (134, 62946), (154, 63015), (164, 63045), (165, 63051), (166, 63054), (171, 63093), (173, 63108),

Gene: GoongGoong_31 Start: 9591, Stop: 8941, Start Num: 57
Candidate Starts for GoongGoong_31:
(6, 9882), (9, 9804), (11, 9780), (36, 9654), (Start: 39 @9642 has 5 MA's), (Start: 57 @9591 has 34 MA's), (63, 9579), (Start: 73 @9513 has 2 MA's), (81, 9462), (100, 9372), (111, 9327), (129, 9225), (138, 9174), (142, 9162), (160, 9105), (161, 9102), (171, 9054), (173, 9039),

Gene: Gorgeous_75 Start: 49355, Stop: 48654, Start Num: 53
Candidate Starts for Gorgeous_75:
(27, 49436), (31, 49421), (38, 49403), (Start: 48 @49367 has 7 MA's), (Start: 53 @49355 has 12 MA's), (Start: 73 @49271 has 2 MA's), (78, 49244), (79, 49241), (83, 49205), (84, 49202), (114, 49034), (128, 48965), (129, 48953), (132, 48938), (133, 48935), (171, 48761), (172, 48755), (176, 48728), (180, 48677), (182, 48668), (186, 48659),

Gene: Graduation_89 Start: 50205, Stop: 49507, Start Num: 43
Candidate Starts for Graduation_89:
(Start: 43 @50205 has 6 MA's), (Start: 50 @50187 has 5 MA's), (Start: 57 @50181 has 34 MA's), (Start: 73 @50112 has 2 MA's), (75, 50103), (119, 49893), (121, 49881), (129, 49836), (134, 49803), (154, 49725), (164, 49695), (165, 49689), (167, 49668), (171, 49647), (173, 49632), (179, 49569),

(180, 49566), (184, 49554),

Gene: Grayson_225 Start: 110700, Stop: 111323, Start Num: 52
Candidate Starts for Grayson_225:
(Start: 52 @110700 has 11 MA's), (105, 110922), (129, 111051), (131, 111063), (154, 111147), (155, 111156), (164, 111177), (171, 111225), (173, 111240),

Gene: Grayson_224 Start: 110034, Stop: 110687, Start Num: 62
Candidate Starts for Grayson_224:
(Start: 62 @110034 has 19 MA's), (Start: 69 @110049 has 1 MA's), (84, 110172), (97, 110208), (101, 110244), (102, 110247), (120, 110331), (129, 110391), (144, 110472), (171, 110589), (180, 110673),

Gene: GrecoEtereo_90 Start: 51375, Stop: 50692, Start Num: 48
Candidate Starts for GrecoEtereo_90:
(Start: 46 @51381 has 9 MA's), (Start: 48 @51375 has 7 MA's), (Start: 65 @51360 has 3 MA's), (Start: 73 @51297 has 2 MA's), (75, 51288), (119, 51078), (121, 51066), (129, 51021), (154, 50910), (164, 50880), (171, 50832), (173, 50817), (179, 50754), (180, 50751), (184, 50739),

Gene: Gwendoluna_89 Start: 50909, Stop: 50226, Start Num: 48
Candidate Starts for Gwendoluna_89:
(Start: 46 @50915 has 9 MA's), (Start: 48 @50909 has 7 MA's), (Start: 65 @50894 has 3 MA's), (Start: 73 @50831 has 2 MA's), (75, 50822), (119, 50612), (121, 50600), (129, 50555), (134, 50522), (154, 50444), (164, 50414), (165, 50408), (167, 50387), (171, 50366), (173, 50351), (179, 50288), (180, 50285), (184, 50273),

Gene: HINdeR_54 Start: 40614, Stop: 39931, Start Num: 54
Candidate Starts for HINdeR_54:
(Start: 54 @40614 has 5 MA's), (Start: 66 @40599 has 2 MA's), (Start: 72 @40563 has 12 MA's), (75, 40527), (113, 40326), (118, 40308), (128, 40254), (129, 40242), (139, 40188), (148, 40152), (167, 40074), (171, 40053), (183, 39960),

Gene: Halley_124 Start: 68848, Stop: 69495, Start Num: 59
Candidate Starts for Halley_124:
(Start: 59 @68848 has 15 MA's), (Start: 66 @68857 has 2 MA's), (Start: 72 @68893 has 12 MA's), (75, 68929), (91, 69004), (114, 69127), (126, 69190), (129, 69208), (136, 69253), (148, 69295), (161, 69343), (171, 69394),

Gene: Herbertwm_80 Start: 47646, Stop: 46972, Start Num: 59
Candidate Starts for Herbertwm_80:
(17, 47781), (Start: 44 @47673 has 2 MA's), (49, 47661), (Start: 59 @47646 has 15 MA's), (Start: 72 @47595 has 12 MA's), (Start: 73 @47568 has 2 MA's), (114, 47361), (129, 47280), (132, 47265), (135, 47241), (159, 47148), (161, 47139), (171, 47088), (180, 47004),

Gene: Heylee_78 Start: 49536, Stop: 48835, Start Num: 53
Candidate Starts for Heylee_78:
(38, 49584), (Start: 45 @49554 has 1 MA's), (Start: 48 @49548 has 7 MA's), (Start: 53 @49536 has 12 MA's), (Start: 73 @49452 has 2 MA's), (80, 49401), (83, 49386), (86, 49371), (114, 49215), (128, 49146), (129, 49134), (132, 49119), (133, 49116), (171, 48942), (172, 48936), (176, 48909), (180, 48858), (182, 48849), (186, 48840),

Gene: Hidrated_105 Start: 64652, Stop: 65272, Start Num: 57
Candidate Starts for Hidrated_105:

(Start: 57 @64652 has 34 MA's), (Start: 65 @64661 has 3 MA's), (Start: 71 @64697 has 1 MA's), (75, 64730), (84, 64784), (154, 65096), (164, 65126), (165, 65132), (166, 65135), (171, 65174), (173, 65189),

Gene: Hive_18 Start: 6613, Stop: 7329, Start Num: 52
Candidate Starts for Hive_18:
(Start: 52 @6613 has 11 MA's), (Start: 69 @6646 has 1 MA's), (103, 6850), (104, 6856), (121, 6949), (129, 6994), (144, 7069), (171, 7219), (173, 7234), (184, 7309), (187, 7315),

Gene: Hope4ever_84 Start: 49344, Stop: 48655, Start Num: 46
Candidate Starts for Hope4ever_84:
(Start: 46 @49344 has 9 MA's), (Start: 48 @49338 has 7 MA's), (Start: 65 @49323 has 3 MA's), (Start: 73 @49260 has 2 MA's), (75, 49251), (119, 49041), (121, 49029), (129, 48984), (154, 48873), (164, 48843), (165, 48837), (167, 48816), (171, 48795), (173, 48780), (179, 48717), (180, 48714), (184, 48702),

Gene: Hughesyang_121 Start: 68304, Stop: 68951, Start Num: 59
Candidate Starts for Hughesyang_121:
(Start: 59 @68304 has 15 MA's), (Start: 66 @68313 has 2 MA's), (Start: 72 @68349 has 12 MA's), (Start: 74 @68379 has 3 MA's), (75, 68385), (91, 68460), (114, 68583), (126, 68646), (129, 68664), (136, 68709), (161, 68799), (171, 68850),

Gene: Huphlepuff_34 Start: 10203, Stop: 9553, Start Num: 57
Candidate Starts for Huphlepuff_34:
(6, 10467), (9, 10389), (11, 10365), (36, 10239), (Start: 57 @10203 has 34 MA's), (63, 10191), (Start: 73 @10125 has 2 MA's), (81, 10074), (100, 9984), (111, 9939), (129, 9837), (138, 9786), (142, 9774), (160, 9717), (161, 9714), (171, 9666), (173, 9651),

Gene: ILeeKay_83 Start: 47940, Stop: 47263, Start Num: 56
Candidate Starts for ILeeKay_83:
(3, 48324), (6, 48228), (7, 48180), (Start: 56 @47940 has 23 MA's), (Start: 66 @47922 has 2 MA's), (Start: 74 @47856 has 3 MA's), (75, 47850), (85, 47784), (97, 47757), (100, 47718), (113, 47649), (119, 47622), (121, 47610), (127, 47580), (129, 47565), (132, 47550), (148, 47478), (161, 47430), (167, 47400), (171, 47379), (172, 47373), (180, 47295),

Gene: Ichabod_88 Start: 50257, Stop: 49586, Start Num: 60
Candidate Starts for Ichabod_88:
(16, 50401), (22, 50371), (Start: 60 @50257 has 17 MA's), (Start: 62 @50251 has 19 MA's), (Start: 73 @50182 has 2 MA's), (75, 50173), (81, 50131), (97, 50080), (100, 50041), (113, 49972), (119, 49945), (121, 49933), (127, 49903), (129, 49888), (132, 49873), (148, 49801), (161, 49753), (171, 49702), (172, 49696), (174, 49681), (180, 49618),

Gene: Ichor_75 Start: 49754, Stop: 49053, Start Num: 53
Candidate Starts for Ichor_75:
(21, 49868), (25, 49850), (31, 49820), (38, 49802), (Start: 45 @49772 has 1 MA's), (Start: 48 @49766 has 7 MA's), (Start: 52 @49757 has 11 MA's), (Start: 53 @49754 has 12 MA's), (Start: 73 @49670 has 2 MA's), (83, 49604), (84, 49601), (114, 49433), (121, 49397), (129, 49352), (132, 49337), (133, 49334), (171, 49160), (172, 49154), (180, 49076), (182, 49067), (186, 49058),

Gene: IronMan_84 Start: 49875, Stop: 49189, Start Num: 61
Candidate Starts for IronMan_84:
(Start: 44 @49902 has 2 MA's), (Start: 61 @49875 has 4 MA's), (Start: 72 @49830 has 12 MA's), (114, 49596), (122, 49557), (126, 49533), (129, 49515), (135, 49476), (159, 49383), (171, 49323), (187,

49218), (190, 49197),

Gene: Jaan_86 Start: 49980, Stop: 49297, Start Num: 58
Candidate Starts for Jaan_86:
(Start: 41 @50019 has 2 MA's), (Start: 58 @49980 has 2 MA's), (Start: 72 @49935 has 12 MA's), (114, 49701), (126, 49638), (129, 49620), (135, 49581), (159, 49488), (171, 49428), (186, 49326), (190, 49305),

Gene: Jada_7 Start: 2246, Stop: 1641, Start Num: 72
Candidate Starts for Jada_7:
(Start: 62 @2288 has 19 MA's), (Start: 72 @2246 has 12 MA's), (77, 2198), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (98, 2111), (113, 2021), (118, 2003), (127, 1955), (129, 1940), (130, 1928), (139, 1883), (161, 1793), (165, 1781), (171, 1736), (173, 1721),

Gene: Jaek_75 Start: 49754, Stop: 49053, Start Num: 53
Candidate Starts for Jaek_75:
(21, 49868), (25, 49850), (31, 49820), (38, 49802), (Start: 45 @49772 has 1 MA's), (Start: 48 @49766 has 7 MA's), (Start: 52 @49757 has 11 MA's), (Start: 53 @49754 has 12 MA's), (Start: 73 @49670 has 2 MA's), (83, 49604), (84, 49601), (114, 49433), (121, 49397), (129, 49352), (132, 49337), (133, 49334), (171, 49160), (172, 49154), (180, 49076), (182, 49067), (186, 49058),

Gene: Jasper_82 Start: 47335, Stop: 46679, Start Num: 52
Candidate Starts for Jasper_82:
(Start: 52 @47335 has 11 MA's), (Start: 73 @47260 has 2 MA's), (79, 47236), (118, 47047), (121, 47026), (122, 47023), (129, 46975), (145, 46894), (167, 46819), (171, 46798), (173, 46783), (179, 46720),

Gene: JoieB_33 Start: 10422, Stop: 9772, Start Num: 57
Candidate Starts for JoieB_33:
(6, 10686), (9, 10608), (11, 10584), (36, 10458), (Start: 57 @10422 has 34 MA's), (63, 10410), (Start: 67 @10404 has 4 MA's), (Start: 73 @10344 has 2 MA's), (81, 10293), (100, 10203), (111, 10158), (129, 10056), (138, 10005), (142, 9993), (160, 9936), (161, 9933), (171, 9885), (173, 9870),

Gene: KSSJEB_84 Start: 48621, Stop: 47950, Start Num: 60
Candidate Starts for KSSJEB_84:
(16, 48765), (22, 48735), (Start: 60 @48621 has 17 MA's), (Start: 62 @48615 has 19 MA's), (Start: 73 @48546 has 2 MA's), (75, 48537), (81, 48495), (97, 48444), (100, 48405), (118, 48318), (119, 48309), (127, 48267), (129, 48252), (132, 48237), (148, 48165), (161, 48117), (171, 48066), (172, 48060), (174, 48045), (180, 47982),

Gene: Kalah2_113 Start: 67017, Stop: 67640, Start Num: 57
Candidate Starts for Kalah2_113:
(Start: 57 @67017 has 34 MA's), (Start: 65 @67026 has 3 MA's), (Start: 71 @67062 has 1 MA's), (75, 67098), (84, 67152), (154, 67464), (164, 67494), (165, 67500), (166, 67503), (171, 67542), (173, 67557),

Gene: Kamaru_76 Start: 44933, Stop: 45595, Start Num: 60
Candidate Starts for Kamaru_76:
(Start: 60 @44933 has 17 MA's), (118, 45224), (128, 45278), (129, 45290), (171, 45479), (174, 45500), (187, 45578),

Gene: Kanely_91 Start: 51113, Stop: 50424, Start Num: 46
Candidate Starts for Kanely_91:

(Start: 46 @51113 has 9 MA's), (Start: 48 @51107 has 7 MA's), (Start: 65 @51092 has 3 MA's), (Start: 73 @51029 has 2 MA's), (75, 51020), (119, 50810), (121, 50798), (129, 50753), (134, 50720), (154, 50642), (164, 50612), (165, 50606), (167, 50585), (171, 50564), (173, 50549), (179, 50486), (180, 50483), (184, 50471),

Gene: Karp_7 Start: 2281, Stop: 1634, Start Num: 62
Candidate Starts for Karp_7:
(Start: 62 @2281 has 19 MA's), (Start: 67 @2272 has 4 MA's), (Start: 69 @2266 has 1 MA's), (Start: 72 @2239 has 12 MA's), (82, 2161), (87, 2131), (88, 2128), (89, 2125), (102, 2068), (113, 2014), (127, 1948), (128, 1945), (129, 1933), (132, 1915), (157, 1798), (161, 1786), (164, 1780), (171, 1729), (173, 1714), (186, 1639),

Gene: Kenrey_7 Start: 2277, Stop: 1630, Start Num: 62
Candidate Starts for Kenrey_7:
(Start: 62 @2277 has 19 MA's), (Start: 67 @2268 has 4 MA's), (Start: 69 @2262 has 1 MA's), (Start: 72 @2235 has 12 MA's), (82, 2157), (87, 2127), (89, 2121), (113, 2010), (124, 1956), (127, 1944), (129, 1929), (130, 1917), (132, 1911), (161, 1782), (171, 1725), (173, 1710),

Gene: Killigrew_82 Start: 48701, Stop: 48027, Start Num: 57
Candidate Starts for Killigrew_82:
(Start: 57 @48701 has 34 MA's), (Start: 73 @48632 has 2 MA's), (75, 48623), (119, 48413), (121, 48401), (129, 48356), (154, 48245), (164, 48215), (165, 48209), (167, 48188), (171, 48167), (173, 48152), (179, 48089), (180, 48086), (184, 48074),

Gene: Kimona_80 Start: 46221, Stop: 45568, Start Num: 54
Candidate Starts for Kimona_80:
(28, 46290), (Start: 30 @46284 has 1 MA's), (35, 46278), (Start: 54 @46221 has 5 MA's), (Start: 72 @46170 has 12 MA's), (Start: 73 @46143 has 2 MA's), (114, 45942), (117, 45933), (125, 45891), (132, 45846), (148, 45771), (161, 45723), (171, 45672), (173, 45657), (177, 45618),

Gene: Klein_118 Start: 65374, Stop: 65997, Start Num: 57
Candidate Starts for Klein_118:
(Start: 57 @65374 has 34 MA's), (Start: 65 @65383 has 3 MA's), (Start: 71 @65419 has 1 MA's), (75, 65455), (84, 65509), (154, 65821), (164, 65851), (165, 65857), (166, 65860), (171, 65899), (173, 65914),

Gene: Kubulix_20 Start: 6728, Stop: 7444, Start Num: 52
Candidate Starts for Kubulix_20:
(Start: 52 @6728 has 11 MA's), (Start: 69 @6761 has 1 MA's), (103, 6965), (104, 6971), (121, 7064), (129, 7109), (144, 7184), (171, 7334), (173, 7349), (184, 7424), (187, 7430),

Gene: Kugel_87 Start: 50139, Stop: 49459, Start Num: 56
Candidate Starts for Kugel_87:
(Start: 56 @50139 has 23 MA's), (Start: 66 @50121 has 2 MA's), (Start: 74 @50055 has 3 MA's), (75, 50049), (97, 49956), (100, 49917), (113, 49848), (119, 49821), (121, 49809), (127, 49779), (129, 49764), (132, 49749), (161, 49626), (167, 49596), (171, 49575), (172, 49569), (180, 49491),

Gene: Landor_85 Start: 49908, Stop: 49222, Start Num: 61
Candidate Starts for Landor_85:
(Start: 44 @49935 has 2 MA's), (Start: 61 @49908 has 4 MA's), (Start: 72 @49863 has 12 MA's), (114, 49629), (122, 49590), (126, 49566), (129, 49548), (135, 49509), (159, 49416), (171, 49356), (187, 49251), (190, 49230),

Gene: Lesedi_82 Start: 48034, Stop: 47309, Start Num: 39
Candidate Starts for Lesedi_82:
(Start: 26 @48079 has 1 MA's), (Start: 39 @48034 has 5 MA's), (Start: 50 @47995 has 5 MA's), (Start: 60 @47980 has 17 MA's), (Start: 62 @47974 has 19 MA's), (Start: 73 @47905 has 2 MA's), (75, 47896), (81, 47854), (97, 47803), (100, 47764), (118, 47677), (119, 47668), (127, 47626), (129, 47611), (132, 47596), (148, 47524), (161, 47476), (171, 47425), (172, 47419), (174, 47404), (180, 47341),

Gene: Licorice_87 Start: 51728, Stop: 50982, Start Num: 30
Candidate Starts for Licorice_87:
(Start: 30 @51728 has 1 MA's), (Start: 56 @51659 has 23 MA's), (Start: 74 @51575 has 3 MA's), (75, 51569), (85, 51503), (97, 51476), (100, 51437), (113, 51371), (119, 51344), (121, 51332), (127, 51302), (129, 51287), (132, 51272), (148, 51197), (161, 51149), (167, 51119), (171, 51098), (172, 51092), (180, 51014),

Gene: Lilbit_31 Start: 10399, Stop: 9749, Start Num: 57
Candidate Starts for Lilbit_31:
(1, 10948), (6, 10663), (9, 10585), (11, 10561), (36, 10435), (Start: 57 @10399 has 34 MA's), (63, 10387), (Start: 73 @10321 has 2 MA's), (81, 10270), (100, 10180), (111, 10135), (129, 10033), (138, 9982), (142, 9970), (160, 9913), (161, 9910), (171, 9862), (173, 9847),

Gene: Limpid_6 Start: 2125, Stop: 1451, Start Num: 62
Candidate Starts for Limpid_6:
(Start: 62 @2125 has 19 MA's), (78, 2029), (82, 2005), (87, 1975), (88, 1972), (89, 1969), (97, 1951), (99, 1924), (102, 1912), (113, 1858), (118, 1840), (124, 1804), (127, 1789), (129, 1774), (139, 1720), (157, 1642), (161, 1630), (171, 1573), (173, 1558), (189, 1456),

Gene: LittleE_121 Start: 66758, Stop: 67387, Start Num: 57
Candidate Starts for LittleE_121:
(33, 66692), (Start: 57 @66758 has 34 MA's), (Start: 71 @66809 has 1 MA's), (Start: 73 @66836 has 2 MA's), (Start: 74 @66839 has 3 MA's), (75, 66845), (129, 67112), (130, 67124), (134, 67145), (154, 67214), (164, 67244), (165, 67250), (166, 67253), (171, 67292), (173, 67307),

Gene: LittleLaf_32 Start: 10128, Stop: 9478, Start Num: 57
Candidate Starts for LittleLaf_32:
(6, 10392), (9, 10314), (11, 10290), (36, 10164), (Start: 57 @10128 has 34 MA's), (63, 10116), (Start: 73 @10050 has 2 MA's), (81, 9999), (100, 9909), (111, 9864), (129, 9762), (138, 9711), (142, 9699), (160, 9642), (161, 9639), (171, 9591), (173, 9576),

Gene: Lockley_87 Start: 49860, Stop: 49189, Start Num: 60
Candidate Starts for Lockley_87:
(16, 50004), (22, 49974), (Start: 60 @49860 has 17 MA's), (Start: 62 @49854 has 19 MA's), (Start: 73 @49785 has 2 MA's), (75, 49776), (81, 49734), (97, 49683), (100, 49644), (118, 49557), (119, 49548), (121, 49536), (127, 49506), (129, 49491), (132, 49476), (148, 49404), (161, 49356), (171, 49305), (172, 49299), (174, 49284), (180, 49221),

Gene: Magnar_84 Start: 49011, Stop: 48337, Start Num: 56
Candidate Starts for Magnar_84:
(Start: 56 @49011 has 23 MA's), (Start: 62 @48999 has 19 MA's), (Start: 67 @48993 has 4 MA's), (Start: 73 @48933 has 2 MA's), (85, 48858), (97, 48831), (100, 48792), (113, 48723), (119, 48696), (121, 48684), (129, 48639), (132, 48624), (161, 48504), (167, 48474), (171, 48453), (172, 48447), (180, 48369),

Gene: Maih_38 Start: 31642, Stop: 31007, Start Num: 67
Candidate Starts for Maih_38:
(Start: 57 @31660 has 34 MA's), (Start: 67 @31642 has 4 MA's), (75, 31573), (84, 31516), (95, 31474), (97, 31468), (98, 31465), (106, 31417), (113, 31375), (121, 31336), (150, 31192), (154, 31186), (167, 31129), (171, 31108), (173, 31093),

Gene: Malisha_85 Start: 50278, Stop: 50961, Start Num: 58
Candidate Starts for Malisha_85:
(51, 50269), (Start: 58 @50278 has 2 MA's), (163, 50794), (164, 50797), (165, 50803), (171, 50845), (176, 50875),

Gene: Manatee_85 Start: 48517, Stop: 47846, Start Num: 60
Candidate Starts for Manatee_85:
(16, 48661), (22, 48631), (Start: 60 @48517 has 17 MA's), (Start: 62 @48511 has 19 MA's), (Start: 73 @48442 has 2 MA's), (75, 48433), (81, 48391), (97, 48340), (100, 48301), (118, 48214), (119, 48205), (121, 48193), (127, 48163), (129, 48148), (132, 48133), (148, 48061), (161, 48013), (171, 47962), (172, 47956), (174, 47941), (180, 47878),

Gene: Marcell_77 Start: 46764, Stop: 46087, Start Num: 56
Candidate Starts for Marcell_77:
(3, 47148), (7, 47004), (Start: 56 @46764 has 23 MA's), (Start: 66 @46746 has 2 MA's), (Start: 74 @46680 has 3 MA's), (75, 46674), (85, 46608), (97, 46581), (100, 46542), (113, 46473), (119, 46446), (121, 46434), (129, 46389), (132, 46374), (148, 46302), (161, 46254), (167, 46224), (171, 46203), (172, 46197), (180, 46119),

Gene: Marleymoo_105 Start: 64322, Stop: 64942, Start Num: 57
Candidate Starts for Marleymoo_105:
(Start: 57 @64322 has 34 MA's), (Start: 65 @64331 has 3 MA's), (Start: 71 @64367 has 1 MA's), (Start: 73 @64394 has 2 MA's), (75, 64403), (84, 64457), (154, 64766), (164, 64796), (165, 64802), (166, 64805), (171, 64844), (173, 64859),

Gene: Maroc7_87 Start: 51516, Stop: 50839, Start Num: 56
Candidate Starts for Maroc7_87:
(Start: 45 @51537 has 1 MA's), (Start: 56 @51516 has 23 MA's), (Start: 66 @51498 has 2 MA's), (Start: 74 @51432 has 3 MA's), (75, 51426), (97, 51333), (100, 51294), (113, 51225), (115, 51219), (119, 51198), (121, 51186), (127, 51156), (129, 51141), (132, 51126), (148, 51054), (161, 51006), (167, 50976), (171, 50955), (172, 50949), (180, 50871),

Gene: Marvin_30 Start: 10398, Stop: 9748, Start Num: 57
Candidate Starts for Marvin_30:
(1, 10947), (6, 10662), (9, 10584), (11, 10560), (36, 10434), (Start: 57 @10398 has 34 MA's), (63, 10386), (Start: 73 @10320 has 2 MA's), (81, 10269), (100, 10179), (111, 10134), (129, 10032), (138, 9981), (142, 9969), (160, 9912), (161, 9909), (171, 9861), (173, 9846),

Gene: Maupel_7 Start: 2246, Stop: 1641, Start Num: 72
Candidate Starts for Maupel_7:
(Start: 62 @2288 has 19 MA's), (Start: 72 @2246 has 12 MA's), (77, 2198), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (98, 2111), (113, 2021), (118, 2003), (127, 1955), (129, 1940), (130, 1928), (139, 1883), (161, 1793), (165, 1781), (171, 1736), (173, 1721),

Gene: McGuire_85 Start: 48751, Stop: 48110, Start Num: 60
Candidate Starts for McGuire_85:

(16, 48895), (22, 48865), (Start: 60 @48751 has 17 MA's), (Start: 62 @48745 has 19 MA's), (Start: 73 @48676 has 2 MA's), (75, 48667), (81, 48625), (97, 48574), (100, 48535), (118, 48448), (119, 48439), (127, 48397), (129, 48382), (132, 48367), (148, 48295), (161, 48247), (168, 48214), (178, 48124),

Gene: McSinger_83 Start: 49476, Stop: 48793, Start Num: 48
Candidate Starts for McSinger_83:
(Start: 46 @49482 has 9 MA's), (Start: 48 @49476 has 7 MA's), (Start: 65 @49461 has 3 MA's), (Start: 73 @49398 has 2 MA's), (75, 49389), (119, 49179), (121, 49167), (129, 49122), (154, 49011), (164, 48981), (165, 48975), (167, 48954), (171, 48933), (173, 48918), (179, 48855), (180, 48852), (184, 48840),

Gene: MeganTheeKilla_7 Start: 2288, Stop: 1641, Start Num: 62
Candidate Starts for MeganTheeKilla_7:
(Start: 62 @2288 has 19 MA's), (Start: 72 @2246 has 12 MA's), (75, 2210), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (98, 2111), (113, 2021), (118, 2003), (127, 1955), (129, 1940), (130, 1928), (139, 1883), (161, 1793), (165, 1781), (171, 1736), (173, 1721),

Gene: MiaZeal_117 Start: 64204, Stop: 64857, Start Num: 59
Candidate Starts for MiaZeal_117:
(32, 64132), (Start: 59 @64204 has 15 MA's), (Start: 72 @64255 has 12 MA's), (Start: 73 @64282 has 2 MA's), (75, 64291), (91, 64366), (107, 64444), (113, 64486), (114, 64489), (129, 64570), (132, 64585), (138, 64621), (148, 64657), (171, 64756),

Gene: Minerva_119 Start: 66905, Stop: 67552, Start Num: 59
Candidate Starts for Minerva_119:
(Start: 59 @66905 has 15 MA's), (Start: 66 @66914 has 2 MA's), (Start: 72 @66950 has 12 MA's), (Start: 74 @66980 has 3 MA's), (75, 66986), (91, 67061), (114, 67184), (126, 67247), (129, 67265), (136, 67310), (161, 67400), (171, 67451),

Gene: Mkhuseli_82 Start: 47268, Stop: 46594, Start Num: 57
Candidate Starts for Mkhuseli_82:
(Start: 43 @47292 has 6 MA's), (Start: 50 @47274 has 5 MA's), (Start: 57 @47268 has 34 MA's), (Start: 73 @47199 has 2 MA's), (75, 47190), (119, 46980), (121, 46968), (129, 46923), (134, 46890), (154, 46812), (164, 46782), (165, 46776), (167, 46755), (171, 46734), (173, 46719), (179, 46656), (180, 46653), (184, 46641),

Gene: Moab_6 Start: 2241, Stop: 1594, Start Num: 62
Candidate Starts for Moab_6:
(Start: 62 @2241 has 19 MA's), (Start: 72 @2199 has 12 MA's), (82, 2121), (87, 2091), (88, 2088), (89, 2085), (113, 1974), (118, 1956), (119, 1947), (121, 1935), (126, 1911), (127, 1908), (128, 1905), (129, 1893), (130, 1881), (161, 1746), (171, 1689), (173, 1674),

Gene: Molivia_79 Start: 48343, Stop: 47642, Start Num: 53
Candidate Starts for Molivia_79:
(Start: 48 @48355 has 7 MA's), (Start: 53 @48343 has 12 MA's), (Start: 72 @48286 has 12 MA's), (78, 48232), (86, 48178), (100, 48088), (114, 48022), (126, 47959), (133, 47923), (171, 47749), (172, 47743), (176, 47716), (180, 47665), (186, 47647),

Gene: MosMoris_30 Start: 9578, Stop: 8928, Start Num: 57
Candidate Starts for MosMoris_30:
(1, 10127), (6, 9842), (9, 9764), (11, 9740), (36, 9614), (Start: 57 @9578 has 34 MA's), (63, 9566), (Start: 67 @9560 has 4 MA's), (Start: 73 @9500 has 2 MA's), (81, 9449), (100, 9359), (111, 9314), (129, 9212), (138, 9161), (142, 9149), (160, 9092), (161, 9089), (171, 9041), (173, 9026),

Gene: MrGordo_88 Start: 49233, Stop: 48553, Start Num: 50
Candidate Starts for MrGordo_88:
(Start: 43 @49251 has 6 MA's), (Start: 50 @49233 has 5 MA's), (Start: 57 @49227 has 34 MA's),
(Start: 73 @49158 has 2 MA's), (75, 49149), (119, 48939), (121, 48927), (129, 48882), (134, 48849),
(154, 48771), (164, 48741), (165, 48735), (167, 48714), (171, 48693), (173, 48678), (179, 48615),
(180, 48612), (184, 48600),

Gene: Muntaha_8 Start: 3277, Stop: 2633, Start Num: 62
Candidate Starts for Muntaha_8:
(Start: 62 @3277 has 19 MA's), (Start: 72 @3235 has 12 MA's), (83, 3148), (112, 3025), (113, 3016),
(127, 2947), (129, 2932), (139, 2878), (146, 2842), (157, 2800), (161, 2788), (171, 2731), (173, 2716),
(179, 2653),

Gene: Museum_87 Start: 50254, Stop: 49556, Start Num: 43
Candidate Starts for Museum_87:
(Start: 43 @50254 has 6 MA's), (Start: 50 @50236 has 5 MA's), (Start: 57 @50230 has 34 MA's),
(Start: 73 @50161 has 2 MA's), (75, 50152), (119, 49942), (121, 49930), (129, 49885), (134, 49852),
(154, 49774), (164, 49744), (165, 49738), (167, 49717), (171, 49696), (173, 49681), (179, 49618),
(180, 49615), (184, 49603),

Gene: Naira_89 Start: 50754, Stop: 50080, Start Num: 56
Candidate Starts for Naira_89:
(Start: 56 @50754 has 23 MA's), (Start: 62 @50742 has 19 MA's), (Start: 67 @50736 has 4 MA's),
(Start: 73 @50676 has 2 MA's), (85, 50601), (97, 50574), (100, 50535), (113, 50466), (119, 50439),
(121, 50427), (127, 50397), (129, 50382), (132, 50367), (148, 50295), (161, 50247), (167, 50217),
(171, 50196), (172, 50190), (180, 50112),

Gene: Nesbitt_41 Start: 29441, Stop: 30088, Start Num: 60
Candidate Starts for Nesbitt_41:
(Start: 46 @29414 has 9 MA's), (47, 29417), (Start: 52 @29429 has 11 MA's), (Start: 60 @29441 has
17 MA's), (Start: 72 @29489 has 12 MA's), (Start: 73 @29519 has 2 MA's), (76, 29537), (107, 29687),
(114, 29732), (118, 29747), (126, 29786), (127, 29789), (129, 29804), (153, 29915), (167, 29972),
(170, 29981), (171, 29993), (174, 30014),

Gene: Nova53_130 Start: 84326, Stop: 84982, Start Num: 57
Candidate Starts for Nova53_130:
(19, 84203), (23, 84215), (42, 84287), (Start: 57 @84326 has 34 MA's), (92, 84497), (102, 84548),
(129, 84692), (147, 84785), (154, 84812), (171, 84890),

Gene: Odyssey395_21 Start: 6730, Stop: 7446, Start Num: 52
Candidate Starts for Odyssey395_21:
(Start: 52 @6730 has 11 MA's), (Start: 69 @6763 has 1 MA's), (103, 6967), (104, 6973), (121, 7066),
(129, 7111), (144, 7186), (171, 7336), (173, 7351), (184, 7426), (187, 7432),

Gene: OnionKnight_47 Start: 32813, Stop: 33472, Start Num: 46
Candidate Starts for OnionKnight_47:
(Start: 46 @32813 has 9 MA's), (75, 32924), (79, 32939), (119, 33155), (171, 33362), (173, 33377),

Gene: Optimus_112 Start: 65325, Stop: 65948, Start Num: 57
Candidate Starts for Optimus_112:
(Start: 57 @65325 has 34 MA's), (Start: 65 @65334 has 3 MA's), (Start: 71 @65370 has 1 MA's),
(Start: 74 @65400 has 3 MA's), (75, 65406), (84, 65460), (154, 65772), (164, 65802), (165, 65808),

(166, 65811), (171, 65850), (173, 65865),

Gene: PP_78 Start: 50822, Stop: 50058, Start Num: 72
Candidate Starts for PP_78:
(12, 51065), (14, 51047), (Start: 52 @50882 has 11 MA's), (Start: 60 @50870 has 17 MA's), (Start: 72 @50822 has 12 MA's), (75, 50786), (81, 50747), (85, 50723), (113, 50597), (114, 50594), (119, 50570), (121, 50558), (126, 50531), (129, 50513), (132, 50498), (171, 50324), (173, 50309), (176, 50291), (181, 50237), (183, 50231), (191, 50099), (192, 50093),

Gene: PacerPaul_89 Start: 51271, Stop: 50597, Start Num: 56
Candidate Starts for PacerPaul_89:
(Start: 56 @51271 has 23 MA's), (Start: 74 @51187 has 3 MA's), (75, 51181), (85, 51115), (97, 51088), (100, 51049), (113, 50983), (119, 50956), (121, 50944), (127, 50914), (129, 50899), (132, 50884), (148, 50812), (161, 50764), (167, 50734), (171, 50713), (172, 50707), (180, 50629),

Gene: Patelgo_7 Start: 2199, Stop: 1594, Start Num: 72
Candidate Starts for Patelgo_7:
(Start: 62 @2241 has 19 MA's), (Start: 72 @2199 has 12 MA's), (82, 2121), (87, 2091), (88, 2088), (89, 2085), (113, 1974), (118, 1956), (119, 1947), (121, 1935), (126, 1911), (127, 1908), (128, 1905), (129, 1893), (130, 1881), (142, 1824), (161, 1746), (171, 1689), (173, 1674),

Gene: PattyP_85 Start: 49801, Stop: 49100, Start Num: 43
Candidate Starts for PattyP_85:
(Start: 43 @49801 has 6 MA's), (Start: 57 @49774 has 34 MA's), (Start: 73 @49705 has 2 MA's), (75, 49696), (119, 49486), (121, 49474), (129, 49429), (134, 49396), (154, 49318), (164, 49288), (165, 49282), (167, 49261), (171, 49240), (173, 49225), (179, 49162), (180, 49159), (184, 49147),

Gene: Peregrin_218 Start: 109695, Stop: 110348, Start Num: 62
Candidate Starts for Peregrin_218:
(Start: 62 @109695 has 19 MA's), (Start: 69 @109710 has 1 MA's), (84, 109833), (101, 109905), (102, 109908), (120, 109992), (129, 110052), (144, 110133), (171, 110250), (180, 110334),

Gene: Peregrin_219 Start: 110361, Stop: 110984, Start Num: 52
Candidate Starts for Peregrin_219:
(Start: 52 @110361 has 11 MA's), (105, 110583), (129, 110712), (131, 110724), (154, 110808), (155, 110817), (164, 110838), (171, 110886), (173, 110901),

Gene: Petp2012_86 Start: 50544, Stop: 49852, Start Num: 43
Candidate Starts for Petp2012_86:
(Start: 43 @50544 has 6 MA's), (Start: 57 @50517 has 34 MA's), (Start: 73 @50448 has 2 MA's), (75, 50439), (119, 50229), (121, 50217), (129, 50172), (154, 50061), (164, 50031), (165, 50025), (167, 50004), (171, 49983), (173, 49968), (188, 49878),

Gene: Phabuloso_89 Start: 47857, Stop: 48519, Start Num: 60
Candidate Starts for Phabuloso_89:
(Start: 60 @47857 has 17 MA's), (118, 48148), (128, 48202), (129, 48214), (171, 48403), (174, 48424), (187, 48502),

Gene: Phaded_81 Start: 49902, Stop: 49180, Start Num: 41
Candidate Starts for Phaded_81:
(Start: 41 @49902 has 2 MA's), (Start: 58 @49863 has 2 MA's), (Start: 72 @49818 has 12 MA's), (114, 49584), (126, 49521), (129, 49503), (135, 49464), (159, 49371), (171, 49311), (186, 49209), (190, 49188),

Gene: PherrisBueller_82 Start: 46986, Stop: 46330, Start Num: 52
Candidate Starts for PherrisBueller_82:
(Start: 52 @46986 has 11 MA's), (Start: 73 @46911 has 2 MA's), (79, 46887), (118, 46698), (121, 46677), (122, 46674), (129, 46626), (145, 46545), (167, 46470), (171, 46449), (173, 46434), (179, 46371),

Gene: PhorbesPhlower_62 Start: 36855, Stop: 37460, Start Num: 71
Candidate Starts for PhorbesPhlower_62:
(51, 36798), (Start: 58 @36807 has 2 MA's), (Start: 71 @36855 has 1 MA's), (123, 37122), (169, 37332), (171, 37347), (185, 37443),

Gene: Phredrick_7 Start: 2246, Stop: 1641, Start Num: 72
Candidate Starts for Phredrick_7:
(Start: 62 @2288 has 19 MA's), (Start: 67 @2279 has 4 MA's), (Start: 72 @2246 has 12 MA's), (82, 2168), (87, 2138), (88, 2135), (89, 2132), (113, 2021), (127, 1955), (129, 1940), (130, 1928), (161, 1793), (171, 1736), (173, 1721),

Gene: PhuzzTulsa_17 Start: 6517, Stop: 7233, Start Num: 52
Candidate Starts for PhuzzTulsa_17:
(Start: 52 @6517 has 11 MA's), (Start: 69 @6550 has 1 MA's), (103, 6754), (104, 6760), (121, 6853), (129, 6898), (144, 6973), (171, 7123), (173, 7138), (184, 7213), (187, 7219),

Gene: Pinto_85 Start: 49797, Stop: 49108, Start Num: 46
Candidate Starts for Pinto_85:
(Start: 46 @49797 has 9 MA's), (Start: 48 @49791 has 7 MA's), (Start: 65 @49776 has 3 MA's), (Start: 73 @49713 has 2 MA's), (75, 49704), (119, 49494), (121, 49482), (129, 49437), (134, 49404), (154, 49326), (164, 49296), (165, 49290), (167, 49269), (171, 49248), (173, 49233), (179, 49170), (180, 49167), (184, 49155),

Gene: Poise_32 Start: 9689, Stop: 9039, Start Num: 57
Candidate Starts for Poise_32:
(6, 9980), (9, 9902), (11, 9878), (36, 9752), (Start: 39 @9740 has 5 MA's), (Start: 57 @9689 has 34 MA's), (63, 9677), (Start: 73 @9611 has 2 MA's), (81, 9560), (100, 9470), (111, 9425), (129, 9323), (138, 9272), (142, 9260), (160, 9203), (161, 9200), (171, 9152), (173, 9137),

Gene: Popstraw_18 Start: 6517, Stop: 7233, Start Num: 52
Candidate Starts for Popstraw_18:
(Start: 52 @6517 has 11 MA's), (Start: 69 @6550 has 1 MA's), (103, 6754), (104, 6760), (121, 6853), (129, 6898), (144, 6973), (171, 7123), (173, 7138), (184, 7213), (187, 7219),

Gene: Pound_111 Start: 65924, Stop: 66571, Start Num: 59
Candidate Starts for Pound_111:
(Start: 59 @65924 has 15 MA's), (Start: 66 @65933 has 2 MA's), (Start: 72 @65969 has 12 MA's), (75, 66005), (91, 66080), (114, 66203), (126, 66266), (129, 66284), (136, 66329), (161, 66419), (171, 66470),

Gene: PowerRanger_80 Start: 49434, Stop: 48709, Start Num: 39
Candidate Starts for PowerRanger_80:
(Start: 26 @49479 has 1 MA's), (Start: 39 @49434 has 5 MA's), (Start: 50 @49395 has 5 MA's), (Start: 60 @49380 has 17 MA's), (Start: 62 @49374 has 19 MA's), (Start: 73 @49305 has 2 MA's), (75, 49296), (81, 49254), (97, 49203), (100, 49164), (113, 49095), (119, 49068), (121, 49056), (129, 49011), (132, 48996), (148, 48924), (161, 48876), (171, 48825), (172, 48819), (174, 48804), (180,

48741),

Gene: Pringar_32 Start: 10028, Stop: 9378, Start Num: 57
Candidate Starts for Pringar_32:
(6, 10292), (9, 10214), (11, 10190), (36, 10064), (Start: 57 @10028 has 34 MA's), (63, 10016), (Start: 67 @10010 has 4 MA's), (Start: 73 @9950 has 2 MA's), (81, 9899), (100, 9809), (111, 9764), (129, 9662), (138, 9611), (142, 9599), (160, 9542), (161, 9539), (171, 9491), (173, 9476),

Gene: Pukovnik_82 Start: 49336, Stop: 48650, Start Num: 61
Candidate Starts for Pukovnik_82:
(Start: 44 @49360 has 2 MA's), (Start: 61 @49336 has 4 MA's), (Start: 72 @49291 has 12 MA's), (114, 49057), (126, 48994), (129, 48976), (132, 48961), (135, 48937), (159, 48844), (161, 48835), (171, 48784), (187, 48679), (190, 48658),

Gene: Pureglobe5_21 Start: 6744, Stop: 7460, Start Num: 52
Candidate Starts for Pureglobe5_21:
(Start: 52 @6744 has 11 MA's), (Start: 69 @6777 has 1 MA's), (103, 6981), (104, 6987), (121, 7080), (129, 7125), (144, 7200), (171, 7350), (173, 7365), (184, 7440), (187, 7446),

Gene: Raela_32 Start: 10244, Stop: 9594, Start Num: 57
Candidate Starts for Raela_32:
(6, 10535), (9, 10457), (11, 10433), (36, 10307), (Start: 39 @10295 has 5 MA's), (Start: 57 @10244 has 34 MA's), (63, 10232), (Start: 73 @10166 has 2 MA's), (81, 10115), (100, 10025), (111, 9980), (129, 9878), (138, 9827), (142, 9815), (160, 9758), (161, 9755), (171, 9707), (173, 9692),

Gene: Raid_84 Start: 49022, Stop: 48345, Start Num: 39
Candidate Starts for Raid_84:
(Start: 39 @49022 has 5 MA's), (Start: 73 @48941 has 2 MA's), (75, 48932), (97, 48839), (100, 48800), (118, 48713), (119, 48704), (121, 48692), (127, 48662), (129, 48647), (132, 48632), (148, 48560), (161, 48512), (171, 48461), (172, 48455), (174, 48440), (180, 48377),

Gene: Rajelicia_84 Start: 50923, Stop: 50267, Start Num: 52
Candidate Starts for Rajelicia_84:
(Start: 52 @50923 has 11 MA's), (Start: 73 @50848 has 2 MA's), (79, 50824), (118, 50635), (121, 50614), (122, 50611), (129, 50563), (145, 50482), (167, 50407), (171, 50386), (173, 50371), (179, 50308),

Gene: Rajelicia_87 Start: 52049, Stop: 51360, Start Num: 46
Candidate Starts for Rajelicia_87:
(Start: 46 @52049 has 9 MA's), (Start: 48 @52043 has 7 MA's), (Start: 65 @52028 has 3 MA's), (Start: 73 @51965 has 2 MA's), (75, 51956), (119, 51746), (121, 51734), (129, 51689), (154, 51578), (164, 51548), (167, 51521), (171, 51500), (173, 51485), (179, 51422), (180, 51419), (184, 51407),

Gene: RedRaider77_32 Start: 10172, Stop: 9522, Start Num: 57
Candidate Starts for RedRaider77_32:
(6, 10436), (9, 10358), (11, 10334), (36, 10208), (Start: 57 @10172 has 34 MA's), (63, 10160), (Start: 67 @10154 has 4 MA's), (Start: 73 @10094 has 2 MA's), (81, 10043), (100, 9953), (111, 9908), (129, 9806), (138, 9755), (142, 9743), (160, 9686), (161, 9683), (171, 9635), (173, 9620),

Gene: Redno2_115 Start: 65360, Stop: 66007, Start Num: 59
Candidate Starts for Redno2_115:
(Start: 59 @65360 has 15 MA's), (Start: 66 @65369 has 2 MA's), (Start: 72 @65405 has 12 MA's), (75, 65441), (91, 65516), (114, 65639), (126, 65702), (129, 65720), (136, 65765), (148, 65807), (161,

65855), (171, 65906),

Gene: Rings_76 Start: 49802, Stop: 49098, Start Num: 52
Candidate Starts for Rings_76:
(38, 49847), (Start: 45 @49817 has 1 MA's), (Start: 48 @49811 has 7 MA's), (Start: 52 @49802 has 11 MA's), (Start: 53 @49799 has 12 MA's), (Start: 73 @49715 has 2 MA's), (80, 49664), (83, 49649), (114, 49478), (128, 49409), (129, 49397), (132, 49382), (133, 49379), (171, 49205), (172, 49199), (176, 49172), (180, 49121), (182, 49112), (186, 49103),

Gene: Ruotula_92 Start: 51789, Stop: 51100, Start Num: 46
Candidate Starts for Ruotula_92:
(Start: 46 @51789 has 9 MA's), (Start: 48 @51783 has 7 MA's), (Start: 65 @51768 has 3 MA's), (Start: 73 @51705 has 2 MA's), (75, 51696), (119, 51486), (121, 51474), (129, 51429), (134, 51396), (154, 51318), (164, 51288), (165, 51282), (167, 51261), (171, 51240), (173, 51225), (179, 51162), (180, 51159), (184, 51147),

Gene: Salete_39 Start: 31646, Stop: 31008, Start Num: 65
Candidate Starts for Salete_39:
(Start: 57 @31661 has 34 MA's), (Start: 65 @31646 has 3 MA's), (Start: 67 @31643 has 4 MA's), (Start: 73 @31583 has 2 MA's), (98, 31466), (106, 31418), (113, 31376), (121, 31337), (150, 31193), (154, 31187), (167, 31130), (171, 31109), (173, 31094),

Gene: Sanya_79 Start: 49939, Stop: 49265, Start Num: 57
Candidate Starts for Sanya_79:
(Start: 43 @49963 has 6 MA's), (Start: 50 @49945 has 5 MA's), (Start: 57 @49939 has 34 MA's), (Start: 73 @49870 has 2 MA's), (75, 49861), (119, 49651), (121, 49639), (129, 49594), (134, 49561), (154, 49483), (164, 49453), (165, 49447), (167, 49426), (171, 49405), (173, 49390), (179, 49327), (180, 49324), (184, 49312),

Gene: Seabiscuit_87 Start: 48983, Stop: 48312, Start Num: 60
Candidate Starts for Seabiscuit_87:
(16, 49127), (22, 49097), (Start: 60 @48983 has 17 MA's), (Start: 62 @48977 has 19 MA's), (Start: 73 @48908 has 2 MA's), (75, 48899), (81, 48857), (97, 48806), (100, 48767), (118, 48680), (119, 48671), (127, 48629), (129, 48614), (132, 48599), (148, 48527), (161, 48479), (171, 48428), (172, 48422), (174, 48407), (180, 48344),

Gene: Seanderson_85 Start: 51237, Stop: 50560, Start Num: 56
Candidate Starts for Seanderson_85:
(Start: 56 @51237 has 23 MA's), (Start: 66 @51219 has 2 MA's), (Start: 74 @51153 has 3 MA's), (75, 51147), (81, 51105), (97, 51054), (100, 51015), (113, 50946), (119, 50919), (121, 50907), (127, 50877), (129, 50862), (132, 50847), (148, 50775), (161, 50727), (171, 50676), (172, 50670), (174, 50655), (180, 50592),

Gene: SeresaTree_7 Start: 2390, Stop: 1746, Start Num: 72
Candidate Starts for SeresaTree_7:
(Start: 62 @2432 has 19 MA's), (Start: 69 @2417 has 1 MA's), (Start: 72 @2390 has 12 MA's), (82, 2312), (87, 2282), (88, 2279), (89, 2276), (102, 2219), (113, 2165), (118, 2147), (121, 2126), (127, 2096), (129, 2081), (130, 2069), (161, 1937), (171, 1880), (173, 1865),

Gene: Sham_7 Start: 2371, Stop: 1727, Start Num: 72
Candidate Starts for Sham_7:
(Start: 62 @2413 has 19 MA's), (Start: 67 @2404 has 4 MA's), (Start: 69 @2398 has 1 MA's), (Start: 72 @2371 has 12 MA's), (78, 2317), (82, 2293), (87, 2263), (88, 2260), (89, 2257), (97, 2239), (102,

2200), (113, 2146), (118, 2128), (127, 2077), (129, 2062), (130, 2050), (157, 1930), (161, 1918), (171, 1861), (173, 1846),

Gene: Sheen_59 Start: 41732, Stop: 41055, Start Num: 54
Candidate Starts for Sheen_59:
(Start: 54 @41732 has 5 MA's), (Start: 66 @41717 has 2 MA's), (Start: 72 @41681 has 12 MA's), (Start: 74 @41651 has 3 MA's), (75, 41645), (93, 41552), (94, 41549), (100, 41504), (110, 41465), (119, 41417), (129, 41360), (132, 41345), (135, 41321), (148, 41270), (167, 41192), (171, 41171), (175, 41144),

Gene: ShortQueendom_79 Start: 47837, Stop: 47163, Start Num: 57
Candidate Starts for ShortQueendom_79:
(Start: 43 @47861 has 6 MA's), (Start: 50 @47843 has 5 MA's), (Start: 57 @47837 has 34 MA's), (Start: 73 @47768 has 2 MA's), (75, 47759), (119, 47549), (121, 47537), (129, 47492), (134, 47459), (154, 47381), (164, 47351), (165, 47345), (167, 47324), (171, 47303), (173, 47288), (179, 47225), (180, 47222), (184, 47210),

Gene: Sibs6_89 Start: 47701, Stop: 47027, Start Num: 57
Candidate Starts for Sibs6_89:
(40, 47737), (Start: 43 @47725 has 6 MA's), (Start: 50 @47707 has 5 MA's), (Start: 57 @47701 has 34 MA's), (Start: 73 @47632 has 2 MA's), (75, 47623), (119, 47413), (121, 47401), (129, 47356), (134, 47323), (154, 47245), (164, 47215), (165, 47209), (167, 47188), (171, 47167), (173, 47152), (179, 47089), (180, 47086), (184, 47074),

Gene: SilentRX_15 Start: 5723, Stop: 6439, Start Num: 60
Candidate Starts for SilentRX_15:
(Start: 53 @5714 has 12 MA's), (Start: 60 @5723 has 17 MA's), (75, 5807), (85, 5876), (111, 5990), (112, 5999), (126, 6074), (129, 6092), (149, 6188), (151, 6209), (152, 6215), (167, 6290), (171, 6314), (173, 6329), (180, 6395), (185, 6410), (187, 6416),

Gene: Slagathor_89 Start: 50784, Stop: 50101, Start Num: 48
Candidate Starts for Slagathor_89:
(Start: 46 @50790 has 9 MA's), (Start: 48 @50784 has 7 MA's), (Start: 65 @50769 has 3 MA's), (Start: 73 @50706 has 2 MA's), (75, 50697), (119, 50487), (121, 50475), (129, 50430), (154, 50319), (164, 50289), (165, 50283), (167, 50262), (171, 50241), (173, 50226), (179, 50163), (180, 50160), (184, 50148),

Gene: Snazzy_87 Start: 50092, Stop: 49418, Start Num: 57
Candidate Starts for Snazzy_87:
(Start: 43 @50119 has 6 MA's), (Start: 57 @50092 has 34 MA's), (Start: 73 @50023 has 2 MA's), (75, 50014), (119, 49804), (121, 49792), (129, 49747), (134, 49714), (154, 49636), (164, 49606), (165, 49600), (167, 49579), (171, 49558), (173, 49543), (179, 49480), (180, 49477), (184, 49465),

Gene: SorJuana_75 Start: 49355, Stop: 48654, Start Num: 53
Candidate Starts for SorJuana_75:
(27, 49436), (31, 49421), (38, 49403), (Start: 48 @49367 has 7 MA's), (Start: 53 @49355 has 12 MA's), (Start: 73 @49271 has 2 MA's), (78, 49244), (79, 49241), (83, 49205), (84, 49202), (114, 49034), (128, 48965), (129, 48953), (132, 48938), (133, 48935), (171, 48761), (172, 48755), (176, 48728), (180, 48677), (182, 48668), (186, 48659),

Gene: SparkleGoddess_7 Start: 2235, Stop: 1630, Start Num: 72
Candidate Starts for SparkleGoddess_7:

(Start: 62 @2277 has 19 MA's), (Start: 67 @2268 has 4 MA's), (Start: 69 @2262 has 1 MA's), (Start: 72 @2235 has 12 MA's), (82, 2157), (87, 2127), (88, 2124), (89, 2121), (102, 2064), (113, 2010), (127, 1944), (128, 1941), (129, 1929), (132, 1911), (157, 1794), (161, 1782), (164, 1776), (171, 1725), (173, 1710), (186, 1635),

Gene: Spooks_20 Start: 13193, Stop: 12639, Start Num: 74
Candidate Starts for Spooks_20:
(Start: 74 @13193 has 3 MA's), (106, 13046), (111, 13022), (119, 12977), (121, 12965), (122, 12962), (125, 12944), (128, 12926), (141, 12860), (154, 12815), (162, 12788), (167, 12758), (173, 12722),

Gene: Squee_84 Start: 49047, Stop: 48451, Start Num: 73
Candidate Starts for Squee_84:
(Start: 67 @49107 has 4 MA's), (Start: 73 @49047 has 2 MA's), (85, 48972), (97, 48945), (100, 48906), (113, 48837), (119, 48810), (121, 48798), (127, 48768), (129, 48753), (132, 48738), (148, 48666), (161, 48618), (167, 48588), (171, 48567), (172, 48561), (180, 48483),

Gene: Squint_115 Start: 64374, Stop: 64973, Start Num: 72
Candidate Starts for Squint_115:
(32, 64251), (Start: 59 @64323 has 15 MA's), (Start: 72 @64374 has 12 MA's), (Start: 73 @64401 has 2 MA's), (Start: 74 @64404 has 3 MA's), (75, 64410), (91, 64485), (107, 64563), (129, 64689), (132, 64704), (138, 64740), (161, 64824), (171, 64875), (174, 64896),

Gene: Stigma_7 Start: 2239, Stop: 1634, Start Num: 72
Candidate Starts for Stigma_7:
(Start: 62 @2281 has 19 MA's), (Start: 67 @2272 has 4 MA's), (Start: 69 @2266 has 1 MA's), (Start: 72 @2239 has 12 MA's), (82, 2161), (87, 2131), (88, 2128), (89, 2125), (102, 2068), (113, 2014), (127, 1948), (128, 1945), (129, 1933), (132, 1915), (157, 1798), (161, 1786), (164, 1780), (171, 1729), (173, 1714), (186, 1639),

Gene: StrongArm_83 Start: 49650, Stop: 48988, Start Num: 66
Candidate Starts for StrongArm_83:
(4, 49989), (5, 49971), (6, 49959), (13, 49848), (14, 49839), (20, 49788), (Start: 56 @49668 has 23 MA's), (Start: 66 @49650 has 2 MA's), (Start: 74 @49584 has 3 MA's), (75, 49578), (85, 49512), (97, 49485), (100, 49446), (113, 49377), (119, 49350), (121, 49338), (127, 49308), (129, 49293), (132, 49278), (148, 49203), (161, 49155), (167, 49125), (171, 49104), (172, 49098), (180, 49020),

Gene: Success_20 Start: 12404, Stop: 11850, Start Num: 74
Candidate Starts for Success_20:
(Start: 73 @12407 has 2 MA's), (Start: 74 @12404 has 3 MA's), (106, 12257), (111, 12233), (117, 12203), (119, 12188), (121, 12176), (122, 12173), (125, 12155), (126, 12143), (128, 12137), (154, 12026), (162, 11999), (167, 11969), (173, 11933),

Gene: Superphikiman_114 Start: 63414, Stop: 64064, Start Num: 59
Candidate Starts for Superphikiman_114:
(32, 63342), (Start: 59 @63414 has 15 MA's), (Start: 72 @63465 has 12 MA's), (Start: 73 @63492 has 2 MA's), (Start: 74 @63495 has 3 MA's), (75, 63501), (91, 63576), (107, 63654), (129, 63780), (132, 63795), (138, 63831), (161, 63915), (171, 63966), (174, 63987),

Gene: Switzer_84 Start: 49767, Stop: 49096, Start Num: 60
Candidate Starts for Switzer_84:
(16, 49911), (22, 49881), (Start: 60 @49767 has 17 MA's), (Start: 62 @49761 has 19 MA's), (Start: 73 @49692 has 2 MA's), (75, 49683), (81, 49641), (97, 49590), (100, 49551), (118, 49464), (119, 49455), (127, 49413), (129, 49398), (132, 49383), (148, 49311), (161, 49263), (171, 49212), (172, 49206),

(174, 49191), (180, 49128),

Gene: TP1604_39 Start: 31643, Stop: 31008, Start Num: 67
Candidate Starts for TP1604_39:
(Start: 57 @31661 has 34 MA's), (Start: 67 @31643 has 4 MA's), (75, 31574), (84, 31517), (95, 31475), (97, 31469), (98, 31466), (106, 31418), (113, 31376), (121, 31337), (150, 31193), (154, 31187), (167, 31130), (171, 31109), (173, 31094),

Gene: Tesla_31 Start: 10021, Stop: 9371, Start Num: 57
Candidate Starts for Tesla_31:
(6, 10285), (9, 10207), (11, 10183), (36, 10057), (Start: 57 @10021 has 34 MA's), (63, 10009), (Start: 67 @10003 has 4 MA's), (Start: 73 @9943 has 2 MA's), (81, 9892), (100, 9802), (111, 9757), (129, 9655), (138, 9604), (142, 9592), (160, 9535), (161, 9532), (171, 9484), (173, 9469),

Gene: TheloniousMonk_85 Start: 50510, Stop: 49917, Start Num: 74
Candidate Starts for TheloniousMonk_85:
(Start: 74 @50510 has 3 MA's), (75, 50504), (85, 50438), (97, 50411), (100, 50372), (113, 50303), (119, 50276), (121, 50264), (127, 50234), (129, 50219), (132, 50204), (161, 50084), (167, 50054), (171, 50033), (172, 50027), (180, 49949),

Gene: ThreeRngTarjay_117 Start: 68249, Stop: 68896, Start Num: 59
Candidate Starts for ThreeRngTarjay_117:
(Start: 59 @68249 has 15 MA's), (Start: 66 @68258 has 2 MA's), (Start: 72 @68294 has 12 MA's), (Start: 74 @68324 has 3 MA's), (75, 68330), (91, 68405), (114, 68528), (126, 68591), (129, 68609), (136, 68654), (161, 68744), (171, 68795),

Gene: Thunderclap_75 Start: 49777, Stop: 49076, Start Num: 53
Candidate Starts for Thunderclap_75:
(27, 49858), (31, 49843), (38, 49825), (Start: 48 @49789 has 7 MA's), (Start: 53 @49777 has 12 MA's), (Start: 73 @49693 has 2 MA's), (78, 49666), (79, 49663), (83, 49627), (84, 49624), (114, 49456), (128, 49387), (129, 49375), (132, 49360), (133, 49357), (171, 49183), (172, 49177), (176, 49150), (180, 49099), (182, 49090), (186, 49081),

Gene: Timshel_56 Start: 41030, Stop: 40329, Start Num: 54
Candidate Starts for Timshel_56:
(Start: 54 @41030 has 5 MA's), (Start: 69 @41006 has 1 MA's), (Start: 72 @40979 has 12 MA's), (Start: 73 @40952 has 2 MA's), (75, 40943), (113, 40724), (118, 40706), (129, 40640), (139, 40586), (148, 40550), (161, 40502), (167, 40472), (171, 40451), (179, 40370), (183, 40358),

Gene: ToastyFinz_36 Start: 28865, Stop: 29620, Start Num: 24
Candidate Starts for ToastyFinz_36:
(2, 28502), (10, 28769), (Start: 24 @28865 has 1 MA's), (34, 28904), (Start: 71 @29021 has 1 MA's), (114, 29243), (129, 29324), (130, 29333), (154, 29420), (156, 29432), (164, 29450), (171, 29498), (172, 29504), (176, 29528),

Gene: Toro_60 Start: 41844, Stop: 41167, Start Num: 54
Candidate Starts for Toro_60:
(Start: 54 @41844 has 5 MA's), (Start: 66 @41829 has 2 MA's), (Start: 72 @41793 has 12 MA's), (Start: 74 @41763 has 3 MA's), (75, 41757), (93, 41664), (94, 41661), (100, 41616), (110, 41577), (119, 41529), (129, 41472), (132, 41457), (135, 41433), (148, 41382), (167, 41304), (171, 41283), (175, 41256),

Gene: Trina_21 Start: 7519, Stop: 6875, Start Num: 55

Candidate Starts for Trina_21:
(Start: 55 @7519 has 1 MA's), (100, 7309), (119, 7222), (129, 7165), (171, 6976), (180, 6892),

Gene: Tripl3t_89 Start: 52782, Stop: 52099, Start Num: 48
Candidate Starts for Tripl3t_89:
(Start: 46 @52788 has 9 MA's), (Start: 48 @52782 has 7 MA's), (Start: 65 @52767 has 3 MA's), (Start: 73 @52704 has 2 MA's), (75, 52695), (119, 52485), (121, 52473), (129, 52428), (134, 52395), (154, 52317), (164, 52287), (165, 52281), (167, 52260), (171, 52239), (173, 52224), (179, 52161), (180, 52158), (184, 52146),

Gene: Tristan_83 Start: 49734, Stop: 49012, Start Num: 41
Candidate Starts for Tristan_83:
(Start: 41 @49734 has 2 MA's), (Start: 58 @49695 has 2 MA's), (Start: 72 @49650 has 12 MA's), (114, 49416), (126, 49353), (129, 49335), (135, 49296), (159, 49203), (171, 49143), (186, 49041), (190, 49020),

Gene: TunaTartare_7 Start: 2413, Stop: 1730, Start Num: 62
Candidate Starts for TunaTartare_7:
(Start: 62 @2413 has 19 MA's), (Start: 67 @2404 has 4 MA's), (Start: 69 @2398 has 1 MA's), (Start: 72 @2371 has 12 MA's), (78, 2317), (82, 2293), (87, 2263), (88, 2260), (89, 2257), (97, 2239), (102, 2200), (113, 2146), (118, 2128), (127, 2077), (129, 2062), (130, 2050), (157, 1930), (161, 1918), (171, 1861), (173, 1846),

Gene: U2_78 Start: 49972, Stop: 49301, Start Num: 60
Candidate Starts for U2_78:
(16, 50116), (22, 50086), (Start: 60 @49972 has 17 MA's), (Start: 62 @49966 has 19 MA's), (Start: 73 @49897 has 2 MA's), (75, 49888), (81, 49846), (97, 49795), (100, 49756), (118, 49669), (119, 49660), (127, 49618), (129, 49603), (132, 49588), (148, 49516), (161, 49468), (171, 49417), (172, 49411), (174, 49396), (180, 49333),

Gene: VasuNzinga_32 Start: 9605, Stop: 8955, Start Num: 57
Candidate Starts for VasuNzinga_32:
(6, 9869), (9, 9791), (11, 9767), (36, 9641), (Start: 57 @9605 has 34 MA's), (63, 9593), (Start: 67 @9587 has 4 MA's), (Start: 73 @9527 has 2 MA's), (81, 9476), (100, 9386), (111, 9341), (129, 9239), (138, 9188), (142, 9176), (160, 9119), (161, 9116), (171, 9068), (173, 9053),

Gene: Wakanda_7 Start: 3176, Stop: 2532, Start Num: 62
Candidate Starts for Wakanda_7:
(Start: 62 @3176 has 19 MA's), (Start: 72 @3134 has 12 MA's), (83, 3047), (112, 2924), (113, 2915), (127, 2846), (129, 2831), (139, 2777), (146, 2741), (157, 2699), (161, 2687), (171, 2630), (173, 2615), (179, 2552),

Gene: Wanda_121 Start: 65651, Stop: 66274, Start Num: 57
Candidate Starts for Wanda_121:
(Start: 57 @65651 has 34 MA's), (Start: 65 @65660 has 3 MA's), (Start: 71 @65696 has 1 MA's), (75, 65732), (84, 65786), (154, 66098), (164, 66128), (165, 66134), (166, 66137), (171, 66176), (173, 66191),

Gene: Westy_7 Start: 2239, Stop: 1634, Start Num: 72
Candidate Starts for Westy_7:
(Start: 62 @2281 has 19 MA's), (Start: 67 @2272 has 4 MA's), (Start: 69 @2266 has 1 MA's), (Start: 72 @2239 has 12 MA's), (82, 2161), (87, 2131), (88, 2128), (89, 2125), (102, 2068), (113, 2014), (127, 1948), (128, 1945), (129, 1933), (132, 1915), (157, 1798), (161, 1786), (164, 1780), (171, 1729), (173,

1714), (186, 1639),

Gene: Wheeler_92 Start: 52122, Stop: 51451, Start Num: 60
Candidate Starts for Wheeler_92:
(16, 52266), (22, 52236), (Start: 60 @52122 has 17 MA's), (Start: 62 @52116 has 19 MA's), (Start: 73 @52047 has 2 MA's), (75, 52038), (81, 51996), (100, 51906), (118, 51819), (119, 51810), (127, 51768), (129, 51753), (132, 51738), (148, 51666), (161, 51618), (171, 51567), (172, 51561), (174, 51546), (180, 51483),

Gene: WilliamBoone_173 Start: 85461, Stop: 84754, Start Num: 44
Candidate Starts for WilliamBoone_173:
(Start: 44 @85461 has 2 MA's), (Start: 72 @85383 has 12 MA's), (Start: 73 @85356 has 2 MA's), (75, 85347), (100, 85209), (109, 85176), (114, 85146), (119, 85122), (125, 85095), (129, 85065), (132, 85050), (161, 84927), (171, 84876), (180, 84792),

Gene: Yakult_45 Start: 31564, Stop: 30911, Start Num: 56
Candidate Starts for Yakult_45:
(Start: 56 @31564 has 23 MA's), (Start: 74 @31483 has 3 MA's), (100, 31345), (110, 31300), (116, 31270), (119, 31252), (121, 31240), (127, 31210), (129, 31195), (132, 31180), (135, 31156), (140, 31141), (153, 31087), (161, 31060), (171, 31009), (180, 30925), (182, 30916),

Gene: Yeezus_75 Start: 49753, Stop: 49052, Start Num: 53
Candidate Starts for Yeezus_75:
(21, 49867), (25, 49849), (31, 49819), (38, 49801), (Start: 45 @49771 has 1 MA's), (Start: 48 @49765 has 7 MA's), (Start: 52 @49756 has 11 MA's), (Start: 53 @49753 has 12 MA's), (Start: 73 @49669 has 2 MA's), (83, 49603), (84, 49600), (114, 49432), (121, 49396), (129, 49351), (132, 49336), (133, 49333), (171, 49159), (172, 49153), (180, 49075), (182, 49066), (186, 49057),

Gene: Zeeculate_84 Start: 50762, Stop: 50082, Start Num: 56
Candidate Starts for Zeeculate_84:
(7, 51002), (Start: 56 @50762 has 23 MA's), (Start: 66 @50744 has 2 MA's), (Start: 74 @50678 has 3 MA's), (75, 50672), (85, 50606), (97, 50579), (100, 50540), (113, 50471), (119, 50444), (121, 50432), (127, 50402), (129, 50387), (132, 50372), (161, 50249), (171, 50198), (172, 50192), (174, 50177), (180, 50114),

Gene: Zelink_116 Start: 68196, Stop: 68843, Start Num: 59
Candidate Starts for Zelink_116:
(Start: 59 @68196 has 15 MA's), (Start: 66 @68205 has 2 MA's), (Start: 72 @68241 has 12 MA's), (Start: 74 @68271 has 3 MA's), (75, 68277), (91, 68352), (114, 68475), (126, 68538), (129, 68556), (136, 68601), (161, 68691), (171, 68742),

Gene: Zephyr_86 Start: 49855, Stop: 49178, Start Num: 39
Candidate Starts for Zephyr_86:
(Start: 39 @49855 has 5 MA's), (Start: 73 @49774 has 2 MA's), (75, 49765), (97, 49672), (100, 49633), (118, 49546), (119, 49537), (121, 49525), (127, 49495), (129, 49480), (132, 49465), (148, 49393), (161, 49345), (171, 49294), (172, 49288), (174, 49273), (180, 49210),