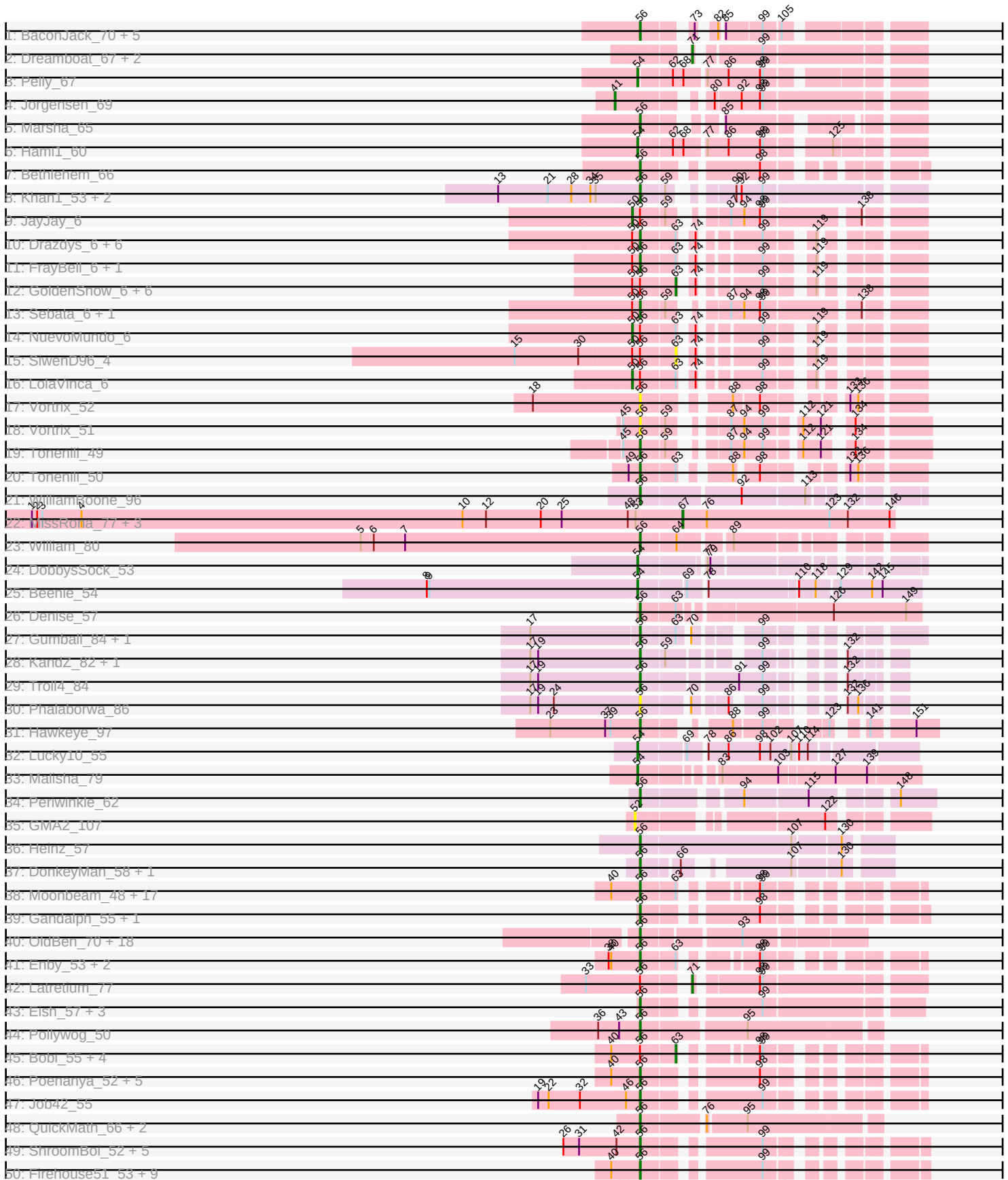
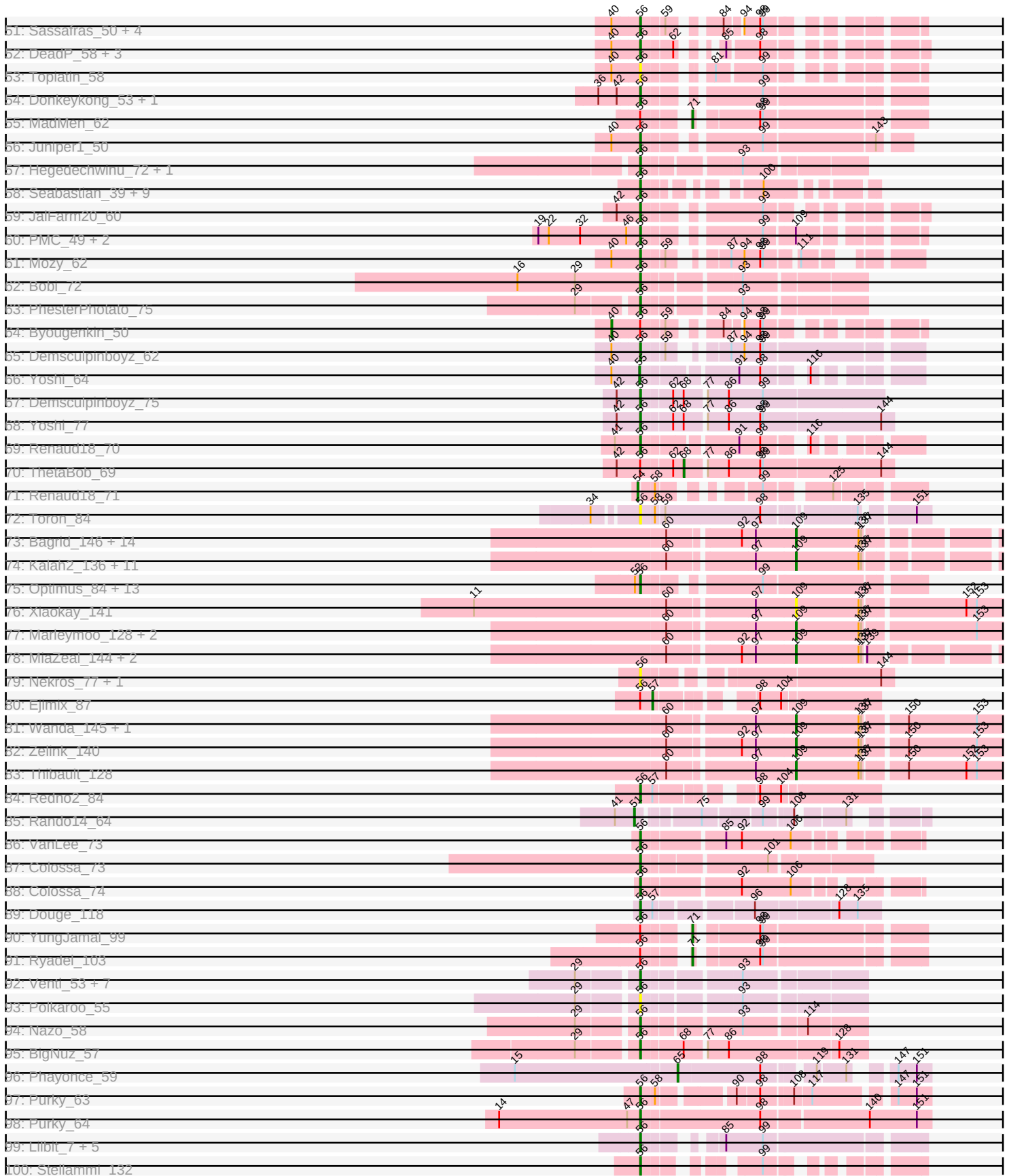
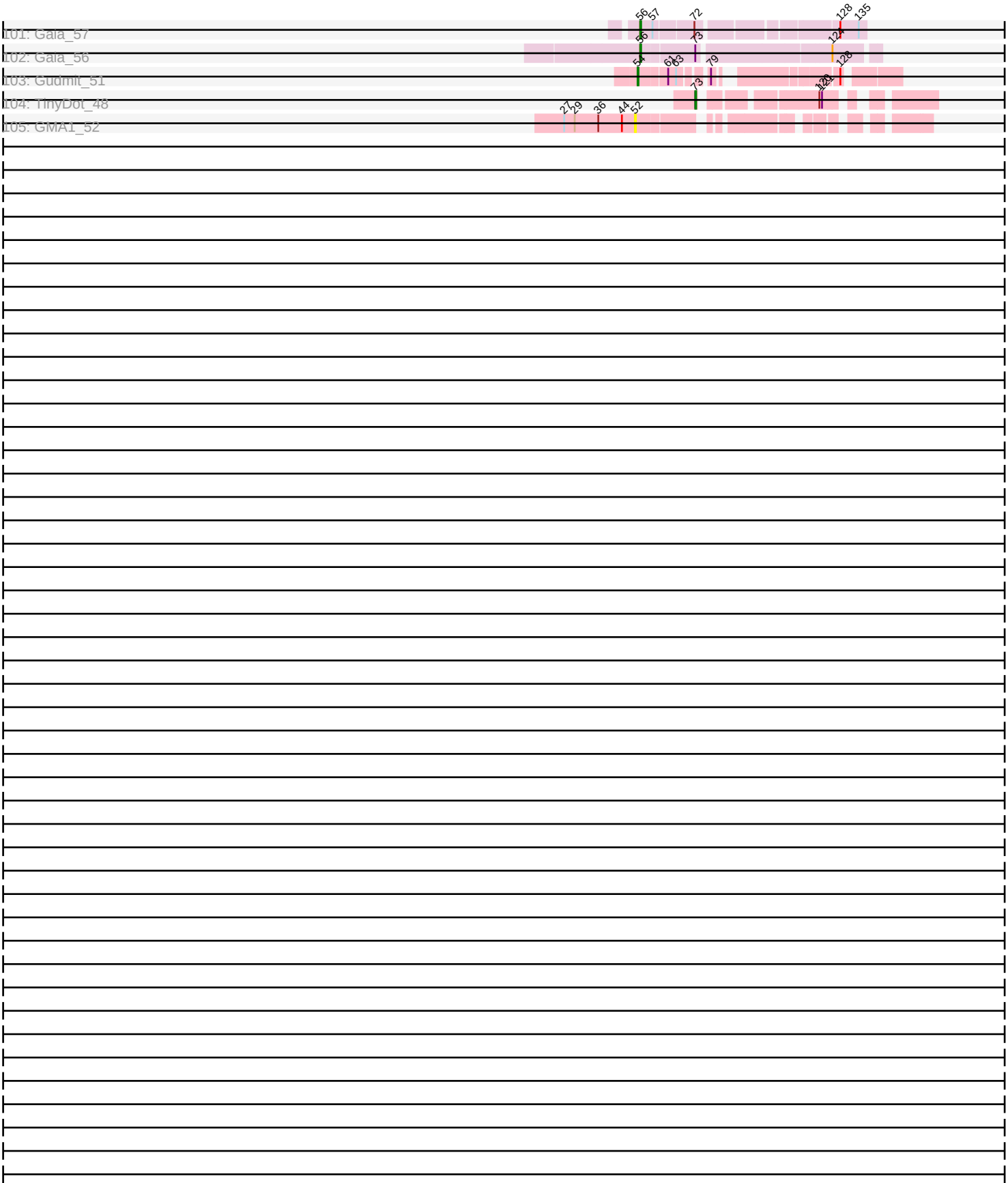








Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 330422 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330422 has 276 members, 26 are drafts.

Phages represented in each track:

- Track 1 : BaconJack_70, Sunshine924_70, Smairt_67, PhrostyMug_65, Mule_62, Aeneas_68
- Track 2 : Dreamboat_67, PherrisBueller_66, Jasper_66
- Track 3 : Pelly_67
- Track 4 : Jorgensen_69
- Track 5 : Marsha_65
- Track 6 : Hami1_60
- Track 7 : Bethlehem_66
- Track 8 : Khan1_53, Rimu_54, MrPhizzler_55
- Track 9 : JayJay_6
- Track 10 : Drazdys_6, Tyke_6, DTDevon_6, Specks_6, Pier_6, Dandelion_5, Nappy_5
- Track 11 : FrayBell_6, LordLeafolot_6
- Track 12 : GoldenSnow_6, PharkleMinkus_6, Maguvora_6, Tainan_6, InterFolia_6, Puhon_6, Pupusa_6
- Track 13 : Sebata_6, LinStu_6
- Track 14 : NuevoMundo_6
- Track 15 : SiwenD96_4
- Track 16 : LolaVinca_6
- Track 17 : Vortrix_52
- Track 18 : Vortrix_51
- Track 19 : Tonenili_49
- Track 20 : Tonenili_50
- Track 21 : WilliamBoone_96
- Track 22 : MissRona_77, Azula_77, Blueberry_76, Gambino_79
- Track 23 : William_80
- Track 24 : DobbysSock_53
- Track 25 : Beenie_54
- Track 26 : Denise_57
- Track 27 : Gumball_84, SirHarley_86
- Track 28 : KandZ_82, Helpful_87
- Track 29 : Troll4_84
- Track 30 : Phalaborwa_86
- Track 31 : Hawkeye_97
- Track 32 : Lucky10_55
- Track 33 : Malisha_79
- Track 34 : Periwinkle_62

- Track 35 : GMA2_107
- Track 36 : Heinz_57
- Track 37 : DonkeyMan_58, Tarzan_58
- Track 38 : Moonbeam_48, DLane_48, XFactor_50, Ardmore_44, PhesterPhotato_54, Emma_52, Batiatius_50, Mova_53, Melissauren88_50, CaptainTrips_49, Royals2015_55, MinionDave_51, Phalconet_51, Tweety_52, Madiba_50, VRedHorse_52, Hamulus_53, MilleniumForce_52
- Track 39 : Gandalph_55, Polka14_51
- Track 40 : OldBen_70, JoeyJr_73, Doomphist_76, KingMidas_72, PHappiness_73, Poenanya_76, Nimbo_65, Empress_71, Geralt_66, Inventum_71, RedBird_74, Dorothy_74, Polka14_77, Deb65_66, Daenerys_72, Leperchaun_71, RitaG_73, Scottish_71, Sassafras_74
- Track 41 : Enby_53, SG4_49, Lorde_53
- Track 42 : Latretium_77
- Track 43 : Eish_57, Whatsapiecost_53, Estave1_55, DoRead_54
- Track 44 : Pollywog_50
- Track 45 : Bobi_55, Jant_56, Okabe_47, Krakatau_50, Harley_54
- Track 46 : Poenanya_52, Cornucopia_55, DotProduct_48, Doomphist_52, GigiOuiOui_49, OwlsT2W_53
- Track 47 : Job42_55
- Track 48 : QuickMath_66, Kimberlium_67, MulchExplorer_66
- Track 49 : ShroomBoi_52, Shauna1_47, Kenuha5_50, Bipolar_49, SuperGrey_52, KristaRAM_51
- Track 50 : Firehouse51_53, Chevrolet_59, Mwanjiwa_58, RockyHorror_53, ArcusAngelus_56, Maravista_54, Zerg_52, Marker_53, Doug_55, Che8_55
- Track 51 : Sassafras_50, Dante_53, DaWorst_54, Inventum_47, DaddyRickover_52
- Track 52 : DeadP_58, Renaud18_58, Taj_56, Wee_55
- Track 53 : Topiatin_58
- Track 54 : Donkeykong_53, Phanphagia_47
- Track 55 : MadMen_62
- Track 56 : Juniper1_50
- Track 57 : Hegedechwinu_72, SG4_69
- Track 58 : Seabastian_39, Ochi17_37, OfUltron_39, Llama_39, Modragons_38, Yoshi_44, Nichirin_39, Jinglebell_38, Oksu_39, AlpineSix_39
- Track 59 : JalFarm20_60
- Track 60 : PMC_49, Rockne_53, Boomer_57
- Track 61 : Mozy_62
- Track 62 : Bobi_72
- Track 63 : PhesterPhotato_75
- Track 64 : Byougenkin_50
- Track 65 : Demsculpinboyz_62
- Track 66 : Yoshi_64
- Track 67 : Demsculpinboyz_75
- Track 68 : Yoshi_77
- Track 69 : Renaud18_70
- Track 70 : ThetaBob_69
- Track 71 : Renaud18_71
- Track 72 : Toron_84
- Track 73 : Bagrid_146, Ejimix_138, ThreeRngTarjay_140, Duke13_141, Pound_137, Optimus_136, BAKA_145, Hughesyang_144, EricMillard_137, DmpstrDiver_146, Halley_147, Dallas_146, Schatzie_141, Phoebus_145, Constella_139
- Track 74 : Kalah2_136, Dove_131, Yeet_139, HokkenD_138, Beem_147, Odette_149, KashFlow_144, Klein_143, NihilNomen_147, JuicyJay_141,

Redno2_140, Bombitas_133

- Track 75 : Optimus_84, Chuckly_55, Phasih_51, BAKA_91, Mova_66, EricMillard_83, Minerva_89, Ogopogo_57, Madiba_63, Clank_57, Sparkdehlily_60, Aubs_53, MadMen_50, TDanisky_60
- Track 76 : Xiaokay_141
- Track 77 : Marleymoos_128, Hidrated_129, Bobby_135
- Track 78 : MiaZeal_144, Porcelain_141, Lucky2013_137
- Track 79 : Nekros_77, Nibley_71
- Track 80 : Ejimix_87
- Track 81 : Wanda_145, Minerva_145
- Track 82 : Zelink_140
- Track 83 : Thibault_128
- Track 84 : Redno2_84
- Track 85 : Rando14_64
- Track 86 : VanLee_73
- Track 87 : Colossa_73
- Track 88 : Colossa_74
- Track 89 : Douge_118
- Track 90 : YungJamal_99
- Track 91 : Ryadel_103
- Track 92 : Venti_53, Kari_52, FirstPlacePfu_54, Etoile_52, Langerak_53, Chubbello_52, Fishburne_52, Bartholomew_52
- Track 93 : Polkaroo_55
- Track 94 : Nazo_58
- Track 95 : BigNuz_57
- Track 96 : Phayonce_59
- Track 97 : Purky_63
- Track 98 : Purky_64
- Track 99 : Lilbit_7, VasuNzinga_8, Beelzebub_8, Pringar_6, FeliMaine_7, Clarkson_7
- Track 100 : Stellammi_132
- Track 101 : Gaia_57
- Track 102 : Gaia_56
- Track 103 : Gudmit_51
- Track 104 : TinyDot_48
- Track 105 : GMA1_52

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

The start number called the most often in the published annotations is 56, it was called in 181 of the 250 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aeneas_68, AlpineSix_39, ArcusAngelus_56, Ardmore_44, Aubs_53, BAKA_91, BaconJack_70, Bartholomew_52, Batiatus_50, Beelzebub_8, Bethlehem_66, BigNuz_57, Bipolar_49, Bobi_72, Boomer_57, CaptainTrips_49, Che8_55, Chevrolet_59, Chubbello_52, Chuckly_55, Clank_57, Clarkson_7, Colossa_73, Colossa_74, Cornucopia_55, DLane_48, DTDevon_6, DaWorst_54, DaddyRickover_52, Daenerys_72, Dandelion_5, Dante_53, DeadP_58, Deb65_66, Demsculpinboyz_62, Demsculpinboyz_75, Denise_57, DoRead_54, DonkeyMan_58,

Donkeykong_53, Doomphist_52, Doomphist_76, Dorothy_74, DotProduct_48, Doug_55, Douge_118, Drazdys_6, Eish_57, Emma_52, Empress_71, Enby_53, EricMillard_83, Estave1_55, Etoile_52, FeliMaine_7, Firehouse51_53, FirstPlacePfu_54, Fishburne_52, FrayBell_6, Gaia_56, Gaia_57, Gandalph_55, Geralt_66, GigiOuiOui_49, Gumball_84, Hamulus_53, Hawkeye_97, Hegedechwinu_72, Heinz_57, Helpful_87, Inventum_47, Inventum_71, JalFarm20_60, Jinglebell_38, Job42_55, JoeyJr_73, Juniper1_50, KandZ_82, Kari_52, Kenuha5_50, Khan1_53, Kimberlium_67, KingMidas_72, KristaRAM_51, Langerak_53, Leperchaun_71, Lilbit_7, LinStu_6, Llama_39, LordLeafolot_6, Lorde_53, MadMen_50, Madiba_50, Madiba_63, Maravista_54, Marker_53, Marsha_65, Melissauren88_50, MilleniumForce_52, Minerva_89, MinionDave_51, Modragons_38, Moonbeam_48, Mova_53, Mova_66, Mozy_62, MrPhizzler_55, MulchExplorer_66, Mule_62, Mwanjiwa_58, Nappy_5, Nazo_58, Nekros_77, Nibley_71, Nichirin_39, Nimbo_65, Ochi17_37, OfUltron_39, Ogopogo_57, Oksu_39, OldBen_70, Optimus_84, OwlsT2W_53, PHappiness_73, PMC_49, Periwinkle_62, Phalaborwa_86, Phalconet_51, Phanphagia_47, Phasih_51, PhesterPhotato_54, PhesterPhotato_75, PhrostyMug_65, Pier_6, Poenanya_52, Poenanya_76, Polka14_51, Polka14_77, Polkaroo_55, Pollywog_50, Pringar_6, Purky_63, Purky_64, QuickMath_66, RedBird_74, Redno2_84, Renaud18_58, Renaud18_70, Rimu_54, RitaG_73, Rockne_53, RockyHorror_53, Royals2015_55, SG4_49, SG4_69, Sassafras_50, Sassafras_74, Scottish_71, Seabastian_39, Sebata_6, Shauna1_47, ShroomBoi_52, SirHarley_86, Smairt_67, Sparkdehlily_60, Specks_6, Stellammi_132, Sunshine924_70, SuperGrey_52, TDanisky_60, Taj_56, Tarzan_58, Tonenili_49, Tonenili_50, Topiatin_58, Toron_84, Troll4_84, Tweety_52, Tyke_6, VRedHorse_52, VanLee_73, VasuNzinga_8, Venti_53, Vortrix_51, Vortrix_52, Wee_55, Whatsapiecost_53, WilliamBoone_96, William_80, XFactor_50, Yoshi_44, Yoshi_77, Zerg_52,

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

- Bobi_55, Byougenkin_50, Ejimix_87, GoldenSnow_6, Harley_54, InterFolia_6, Jant_56, JayJay_6, Krakatau_50, Latretium_77, LolaVinca_6, MadMen_62, Maguvora_6, NuevoMundo_6, Okabe_47, PharkleMinkus_6, Puhon_6, Pupusa_6, Ryadel_103, SiwenD96_4, Tainan_6, ThetaBob_69, YungJamal_99,

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

- Azula_77, BAKA_145, Bagrid_146, Beem_147, Beenie_54, Blueberry_76, Bobby_135, Bombitas_133, Constella_139, Dallas_146, DmpstrDiver_146, DobbysSock_53, Dove_131, Dreamboat_67, Duke13_141, Ejimix_138, EricMillard_137, GMA1_52, GMA2_107, Gambino_79, Gudmit_51, Halley_147, Hami1_60, Hidrated_129, HokkenD_138, Hughesyang_144, Jasper_66, Jorgensen_69, JuicyJay_141, Kalah2_136, KashFlow_144, Klein_143, Lucky10_55, Lucky2013_137, Malisha_79, Marleymoo_128, MiaZeal_144, Minerva_145, MissRona_77, NihilNomen_147, Odette_149, Optimus_136, Pelly_67, Phayonce_59, PherrisBueller_66, Phoebus_145, Porcelain_141, Pound_137, Rando14_64, Redno2_140, Renaud18_71, Schatzie_141, Thibault_128, ThreeRngTarjay_140, TinyDot_48, Wanda_145, Xiaokay_141, Yeet_139, Yoshi_64, Zelink_140,

Summary by start number:

Start 40:

- Found in 57 of 276 (20.7%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 1.8% of time when present

- Phage (with cluster) where this start called: Byougenkin_50 (F1),

Start 41:

- Found in 3 of 276 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Jorgensen_69 (A1),

Start 50:

- Found in 22 of 276 (8.0%) of genes in pham
- Manual Annotations of this start: 3 of 250
- Called 13.6% of time when present
- Phage (with cluster) where this start called: JayJay_6 (C1), LolaVinca_6 (C1), NuevoMundo_6 (C1),

Start 51:

- Found in 1 of 276 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rando14_64 (K5),

Start 52:

- Found in 16 of 276 (5.8%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: GMA1_52 (singleton), GMA2_107 (DS),

Start 54:

- Found in 8 of 276 (2.9%) of genes in pham
- Manual Annotations of this start: 8 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beenie_54 (CZ4), DobbysSock_53 (CZ4), Gudmit_51 (singleton), Hami1_60 (A1), Lucky10_55 (DH), Malisha_79 (DN), Pelly_67 (A1), Renaud18_71 (F4),

Start 55:

- Found in 1 of 276 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yoshi_64 (F2),

Start 56:

- Found in 216 of 276 (78.3%) of genes in pham
- Manual Annotations of this start: 181 of 250
- Called 89.4% of time when present
- Phage (with cluster) where this start called: Aeneas_68 (A1), AlpineSix_39 (F1), ArcusAngelus_56 (F1), Ardmore_44 (F1), Aubs_53 (F1), BAKA_91 (J), BaconJack_70 (A1), Bartholomew_52 (P1), Batiatus_50 (F1), Beelzebub_8 (S), Bethlehem_66 (A1), BigNuz_57 (P4), Bipolar_49 (F1), Bobi_72 (F1), Boomer_57 (F1), CaptainTrips_49 (F1), Che8_55 (F1), Chevrolet_59 (F1), Chubbello_52 (P1), Chuckly_55 (F1), Clank_57 (F), Clarkson_7 (S), Colossa_73 (KA), Colossa_74 (KA), Cornucopia_55 (F1), DLane_48 (F1), DTDevon_6 (C1), DaWorst_54 (F1), DaddyRickover_52 (F1), Daenerys_72 (F1), Dandelion_5 (C1), Dante_53 (F1),

DeadP_58 (F1), Deb65_66 (F1), Demsculpinboyz_62 (F2), Demsculpinboyz_75 (F2), Denise_57 (CZ5), DoRead_54 (F1), DonkeyMan_58 (DY), Donkeykong_53 (F1), Doomphist_52 (F1), Doomphist_76 (F1), Dorothy_74 (F1), DotProduct_48 (F1), Doug_55 (F1), Douge_118 (L4), Drazdys_6 (C1), Eish_57 (F1), Emma_52 (F1), Empress_71 (F1), Enby_53 (F1), EricMillard_83 (J), Estave1_55 (F1), Etoile_52 (P1), FeliMaine_7 (S), Firehouse51_53 (F1), FirstPlacePfu_54 (P1), Fishburne_52 (P1), FrayBell_6 (C1), Gaia_56 (X), Gaia_57 (X), Gandolph_55 (F1), Geralt_66 (F1), GigiOuiOui_49 (F1), Gumball_84 (D1), Hamulus_53 (F1), Hawkeye_97 (D2), Hegedechwinu_72 (F1), Heinz_57 (DY), Helpful_87 (D1), Inventum_47 (F1), Inventum_71 (F1), JalFarm20_60 (F1), Jinglebell_38 (F1), Job42_55 (F1), JoeyJr_73 (F1), Juniper1_50 (F1), KandZ_82 (D1), Kari_52 (P1), Kenuha5_50 (F1), Khan1_53 (B1), Kimberlium_67 (F1), KingMidas_72 (F1), KristaRAM_51 (F1), Langerak_53 (P1), Leperchaun_71 (F1), Lilbit_7 (S), LinStu_6 (C1), Llama_39 (F1), LordLeafolot_6 (C1), Lorde_53 (F1), MadMen_50 (F1), Madiba_50 (F1), Madiba_63 (F1), Maravista_54 (F1), Marker_53 (F1), Marsha_65 (A1), Melissauren88_50 (F1), MilleniumForce_52 (F1), Minerva_89 (J), MinionDave_51 (F1), Modragons_38 (F1), Moonbeam_48 (F1), Mova_53 (F1), Mova_66 (F1), Mozy_62 (F1), MrPhizzler_55 (B1), MulchExplorer_66 (F1), Mule_62 (A1), Mwanjiwa_58 (F1), Nappy_5 (C1), Nazo_58 (P4), Nekros_77 (J), Nibley_71 (J), Nichirin_39 (F1), Nimbo_65 (F1), Ochi17_37 (F1), OfUltron_39 (F1), Ogopogo_57 (F1), Oksu_39 (F1), OldBen_70 (F1), Optimus_84 (J), OwlsT2W_53 (F1), PHappiness_73 (F1), PMC_49 (F1), Periwinkle_62 (DN1), Phalaborwa_86 (D1), Phalconet_51 (F1), Phanphagia_47 (F1), Phasih_51 (F1), PhesterPhotato_54 (F1), PhesterPhotato_75 (F1), PhrostyMug_65 (A1), Pier_6 (C1), Poenanya_52 (F1), Poenanya_76 (F1), Polka14_51 (F1), Polka14_77 (F1), Polkaroo_55 (P1), Pollywog_50 (F1), Pringar_6 (S), Purky_63 (P6), Purky_64 (P6), QuickMath_66 (F1), RedBird_74 (F1), Redno2_84 (J), Renaud18_58 (F4), Renaud18_70 (F4), Rimu_54 (B1), RitaG_73 (F1), Rockne_53 (F1), RockyHorror_53 (F1), Royals2015_55 (F1), SG4_49 (F1), SG4_69 (F1), Sassafras_50 (F1), Sassafras_74 (F1), Scottish_71 (F1), Seabastian_39 (F1), Sebata_6 (C1), Shauna1_47 (F1), ShroomBoi_52 (F1), SirHarley_86 (D1), Smairt_67 (A1), Sparkdehlily_60 (F1), Specks_6 (C1), Stellammi_132 (UNK), Sunshine924_70 (A1), SuperGrey_52 (F1), TDanisky_60 (F1), Taj_56 (F1), Tarzan_58 (DY), Tonenili_49 (C1), Tonenili_50 (C1), Topiatin_58 (F1), Toron_84 (F6), Troll4_84 (D1), Tweety_52 (F1), Tyke_6 (C1), VRedHorse_52 (F1), VanLee_73 (KA), VasuNzinga_8 (S), Venti_53 (P1), Vortrix_51 (C1), Vortrix_52 (C1), Wee_55 (F1), Whatsapiecost_53 (F1), WilliamBoone_96 (CQ1), William_80 (CV), XFactor_50 (F1), Yoshi_44 (F2), Yoshi_77 (F2), Zerg_52 (F1),

Start 57:

- Found in 4 of 276 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Ejimix_87 (J),

Start 63:

- Found in 50 of 276 (18.1%) of genes in pham
- Manual Annotations of this start: 5 of 250
- Called 26.0% of time when present
- Phage (with cluster) where this start called: Bobi_55 (F1), GoldenSnow_6 (C1), Harley_54 (F1), InterFolia_6 (C1), Jant_56 (F1), Krakatau_50 (F1), Maguvora_6 (C1), Okabe_47 (F8), PharkleMinkus_6 (C1), Puhon_6 (C1), Pupusa_6 (C1), SiwenD96_4 (C1), Tainan_6 (C1),

Start 65:

- Found in 1 of 276 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phayonce_59 (P5),

Start 67:

- Found in 4 of 276 (1.4%) of genes in pham
- Manual Annotations of this start: 4 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azula_77 (CV), Blueberry_76 (CV), Gambino_79 (CV), MissRona_77 (CV),

Start 68:

- Found in 6 of 276 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 16.7% of time when present
- Phage (with cluster) where this start called: ThetaBob_69 (F4),

Start 71:

- Found in 7 of 276 (2.5%) of genes in pham
- Manual Annotations of this start: 7 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dreamboat_67 (A1), Jasper_66 (A1), Latretium_77 (F1), MadMen_62 (F1), PherrisBueller_66 (A1), Ryadel_103 (O), YungJamal_99 (O),

Start 73:

- Found in 8 of 276 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 12.5% of time when present
- Phage (with cluster) where this start called: TinyDot_48 (singleton),

Start 109:

- Found in 41 of 276 (14.9%) of genes in pham
- Manual Annotations of this start: 34 of 250
- Called 92.7% of time when present
- Phage (with cluster) where this start called: BAKA_145 (J), Bagrid_146 (J), Beem_147 (J), Bobby_135 (J), Bombitas_133 (J), Constella_139 (J), Dallas_146 (J), DmpstrDiver_146 (J), Dove_131 (J), Duke13_141 (J), Ejimix_138 (J), EricMillard_137 (J), Halley_147 (J), Hidrated_129 (J), HokkenD_138 (J), Hughesyang_144 (J), JuicyJay_141 (J), Kalah2_136 (J), KashFlow_144 (J), Klein_143 (J), Lucky2013_137 (J), Marleymoo_128 (J), MiaZeal_144 (J), Minerva_145 (J), NihilNomen_147 (J), Odette_149 (J), Optimus_136 (J), Phoebus_145 (J), Porcelain_141 (J), Pound_137 (J), Redno2_140 (J), Schatzie_141 (J), Thibault_128 (J), ThreeRngTarjay_140 (J), Wanda_145 (J), Xiaokay_141 (J), Yeet_139 (J), Zelink_140 (J),

Summary by clusters:

There are 33 clusters represented in this pham: DN, singleton, CQ1, DH, CZ4, CZ5, K5, DY, DS, F, A1, DN1, C1, P1, P6, P4, P5, J, F2, O, L4, X, UNK, CV, F1, KA, F4, F6, F8, S, B1, D2, D1,

Info for manual annotations of cluster A1:

- Start number 41 was manually annotated 1 time for cluster A1.
- Start number 54 was manually annotated 2 times for cluster A1.
- Start number 56 was manually annotated 8 times for cluster A1.
- Start number 71 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster B1:

- Start number 56 was manually annotated 3 times for cluster B1.

Info for manual annotations of cluster C1:

- Start number 50 was manually annotated 3 times for cluster C1.
- Start number 56 was manually annotated 13 times for cluster C1.
- Start number 63 was manually annotated 2 times for cluster C1.

Info for manual annotations of cluster CQ1:

- Start number 56 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CV:

- Start number 56 was manually annotated 1 time for cluster CV.
- Start number 67 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CZ4:

- Start number 54 was manually annotated 2 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 56 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster D1:

- Start number 56 was manually annotated 5 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 56 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DH:

- Start number 54 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 54 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 56 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DY:

- Start number 56 was manually annotated 3 times for cluster DY.

Info for manual annotations of cluster F1:

- Start number 40 was manually annotated 1 time for cluster F1.
- Start number 56 was manually annotated 109 times for cluster F1.
- Start number 63 was manually annotated 3 times for cluster F1.
- Start number 71 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 55 was manually annotated 1 time for cluster F2.
- Start number 56 was manually annotated 4 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 54 was manually annotated 1 time for cluster F4.
- Start number 56 was manually annotated 2 times for cluster F4.
- Start number 68 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:

- Start number 56 was manually annotated 5 times for cluster J.
- Start number 57 was manually annotated 1 time for cluster J.
- Start number 109 was manually annotated 34 times for cluster J.

Info for manual annotations of cluster K5:

- Start number 51 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster KA:

- Start number 56 was manually annotated 3 times for cluster KA.

Info for manual annotations of cluster L4:

- Start number 56 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster O:

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

Info for manual annotations of cluster P1:

- Start number 56 was manually annotated 7 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 56 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 65 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 56 was manually annotated 2 times for cluster P6.

Info for manual annotations of cluster S:

- Start number 56 was manually annotated 6 times for cluster S.

Info for manual annotations of cluster UNK:

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

Info for manual annotations of cluster X:

- Start number 56 was manually annotated 2 times for cluster X.

Gene Information:

Gene: Aeneas_68 Start: 44278, Stop: 44033, Start Num: 56

Candidate Starts for Aeneas_68:

(Start: 56 @44278 has 181 MA's), (Start: 73 @44236 has 1 MA's), (82, 44224), (85, 44221), (99, 44182), (105, 44164),

Gene: AlpineSix_39 Start: 31200, Stop: 31009, Start Num: 56

Candidate Starts for AlpineSix_39:

(Start: 56 @31200 has 181 MA's), (100, 31110),

Gene: ArcusAngelus_56 Start: 38441, Stop: 38683, Start Num: 56

Candidate Starts for ArcusAngelus_56:

(Start: 40 @38411 has 1 MA's), (Start: 56 @38441 has 181 MA's), (99, 38552),

Gene: Ardmore_44 Start: 35217, Stop: 35447, Start Num: 56

Candidate Starts for Ardmore_44:

(Start: 40 @35187 has 1 MA's), (Start: 56 @35217 has 181 MA's), (Start: 63 @35253 has 5 MA's), (98, 35313), (99, 35316),

Gene: Aubs_53 Start: 37222, Stop: 37464, Start Num: 56

Candidate Starts for Aubs_53:

(52, 37216), (Start: 56 @37222 has 181 MA's), (99, 37333),

Gene: Azula_77 Start: 48141, Stop: 48380, Start Num: 67

Candidate Starts for Azula_77:

(1, 47394), (2, 47400), (3, 47406), (4, 47451), (10, 47889), (12, 47916), (20, 47979), (25, 48003), (48, 48078), (53, 48087), (Start: 67 @48141 has 4 MA's), (76, 48168), (123, 48306), (132, 48327), (146, 48375),

Gene: BAKA_91 Start: 56921, Stop: 57199, Start Num: 56

Candidate Starts for BAKA_91:

(52, 56915), (Start: 56 @56921 has 181 MA's), (99, 57032),

Gene: BAKA_145 Start: 76447, Stop: 76692, Start Num: 109

Candidate Starts for BAKA_145:

(60, 76312), (92, 76387), (97, 76402), (Start: 109 @76447 has 34 MA's), (136, 76519), (137, 76522),

Gene: BaconJack_70 Start: 45368, Stop: 45123, Start Num: 56

Candidate Starts for BaconJack_70:

(Start: 56 @45368 has 181 MA's), (Start: 73 @45326 has 1 MA's), (82, 45314), (85, 45311), (99, 45272), (105, 45254),

Gene: Bagrid_146 Start: 77142, Stop: 77387, Start Num: 109

Candidate Starts for Bagrid_146:

(60, 77007), (92, 77082), (97, 77097), (Start: 109 @77142 has 34 MA's), (136, 77214), (137, 77217),

Gene: Bartholomew_52 Start: 36036, Stop: 36263, Start Num: 56

Candidate Starts for Bartholomew_52:

(29, 35973), (Start: 56 @36036 has 181 MA's), (93, 36135),

Gene: Batiatus_50 Start: 37046, Stop: 37276, Start Num: 56

Candidate Starts for Batiatus_50:

(Start: 40 @37016 has 1 MA's), (Start: 56 @37046 has 181 MA's), (Start: 63 @37082 has 5 MA's), (98, 37142), (99, 37145),

Gene: Beelzebub_8 Start: 2535, Stop: 2807, Start Num: 56

Candidate Starts for Beelzebub_8:

(Start: 56 @2535 has 181 MA's), (85, 2598), (99, 2640),

Gene: Beem_147 Start: 78045, Stop: 78290, Start Num: 109

Candidate Starts for Beem_147:

(60, 77910), (97, 78000), (Start: 109 @78045 has 34 MA's), (136, 78117), (137, 78120),

Gene: Beenie_54 Start: 39845, Stop: 40141, Start Num: 54

Candidate Starts for Beenie_54:

(8, 39605), (9, 39608), (Start: 54 @39845 has 8 MA's), (69, 39893), (78, 39911), (110, 40007), (118, 40025), (129, 40049), (142, 40085), (145, 40097),

Gene: Bethlehem_66 Start: 44024, Stop: 43779, Start Num: 56

Candidate Starts for Bethlehem_66:

(Start: 56 @44024 has 181 MA's), (98, 43916),

Gene: BigNuz_57 Start: 39875, Stop: 40117, Start Num: 56

Candidate Starts for BigNuz_57:

(29, 39812), (Start: 56 @39875 has 181 MA's), (Start: 68 @39920 has 1 MA's), (77, 39941), (86, 39965), (128, 40085),

Gene: Bipolar_49 Start: 36854, Stop: 37099, Start Num: 56

Candidate Starts for Bipolar_49:

(26, 36770), (31, 36788), (42, 36830), (Start: 56 @36854 has 181 MA's), (99, 36965),

Gene: Blueberry_76 Start: 48141, Stop: 48380, Start Num: 67

Candidate Starts for Blueberry_76:

(1, 47394), (2, 47400), (3, 47406), (4, 47451), (10, 47889), (12, 47916), (20, 47979), (25, 48003), (48, 48078), (53, 48087), (Start: 67 @48141 has 4 MA's), (76, 48168), (123, 48306), (132, 48327), (146, 48375),

Gene: Bobby_135 Start: 77882, Stop: 78160, Start Num: 109

Candidate Starts for Bobby_135:

(60, 77747), (97, 77837), (Start: 109 @77882 has 34 MA's), (136, 77954), (137, 77957), (153, 78077),

Gene: Bobi_55 Start: 38256, Stop: 38450, Start Num: 63

Candidate Starts for Bobi_55:

(Start: 40 @38190 has 1 MA's), (Start: 56 @38220 has 181 MA's), (Start: 63 @38256 has 5 MA's), (98, 38316), (99, 38319),

Gene: Bobi_72 Start: 44458, Stop: 44685, Start Num: 56

Candidate Starts for Bobi_72:

(16, 44317), (29, 44383), (Start: 56 @44458 has 181 MA's), (93, 44557),

Gene: Bombitas_133 Start: 75456, Stop: 75701, Start Num: 109

Candidate Starts for Bombitas_133:

(60, 75321), (97, 75411), (Start: 109 @75456 has 34 MA's), (136, 75528), (137, 75531),

Gene: Boomer_57 Start: 38978, Stop: 39235, Start Num: 56

Candidate Starts for Boomer_57:

(19, 38864), (22, 38876), (32, 38912), (46, 38963), (Start: 56 @38978 has 181 MA's), (99, 39089),
(Start: 109 @39119 has 34 MA's),

Gene: Byougenkin_50 Start: 36870, Stop: 37133, Start Num: 40

Candidate Starts for Byougenkin_50:

(Start: 40 @36870 has 1 MA's), (Start: 56 @36900 has 181 MA's), (59, 36924), (84, 36966), (94, 36981), (98, 36999), (99, 37002),

Gene: CaptainTrips_49 Start: 36066, Stop: 36296, Start Num: 56

Candidate Starts for CaptainTrips_49:

(Start: 40 @36036 has 1 MA's), (Start: 56 @36066 has 181 MA's), (Start: 63 @36102 has 5 MA's), (98, 36162), (99, 36165),

Gene: Che8_55 Start: 38308, Stop: 38550, Start Num: 56

Candidate Starts for Che8_55:

(Start: 40 @38278 has 1 MA's), (Start: 56 @38308 has 181 MA's), (99, 38419),

Gene: Chevrolet_59 Start: 38442, Stop: 38684, Start Num: 56

Candidate Starts for Chevrolet_59:

(Start: 40 @38412 has 1 MA's), (Start: 56 @38442 has 181 MA's), (99, 38553),

Gene: Chubbello_52 Start: 36032, Stop: 36259, Start Num: 56

Candidate Starts for Chubbello_52:

(29, 35969), (Start: 56 @36032 has 181 MA's), (93, 36131),

Gene: Chuckly_55 Start: 37799, Stop: 38041, Start Num: 56

Candidate Starts for Chuckly_55:

(52, 37793), (Start: 56 @37799 has 181 MA's), (99, 37910),

Gene: Clank_57 Start: 38129, Stop: 38371, Start Num: 56

Candidate Starts for Clank_57:

(52, 38123), (Start: 56 @38129 has 181 MA's), (99, 38240),

Gene: Clarkson_7 Start: 2311, Stop: 2583, Start Num: 56

Candidate Starts for Clarkson_7:

(Start: 56 @2311 has 181 MA's), (85, 2374), (99, 2416),

Gene: Colossa_73 Start: 43841, Stop: 44080, Start Num: 56

Candidate Starts for Colossa_73:

(Start: 56 @43841 has 181 MA's), (101, 43973),

Gene: Colossa_74 Start: 44073, Stop: 44345, Start Num: 56

Candidate Starts for Colossa_74:

(Start: 56 @44073 has 181 MA's), (92, 44178), (106, 44232),

Gene: Constella_139 Start: 76698, Stop: 76943, Start Num: 109

Candidate Starts for Constella_139:

(60, 76563), (92, 76638), (97, 76653), (Start: 109 @76698 has 34 MA's), (136, 76770), (137, 76773),

Gene: Cornucopia_55 Start: 38144, Stop: 38386, Start Num: 56

Candidate Starts for Cornucopia_55:

(Start: 40 @38114 has 1 MA's), (Start: 56 @38144 has 181 MA's), (98, 38252),

Gene: DLane_48 Start: 36148, Stop: 36381, Start Num: 56

Candidate Starts for DLane_48:

(Start: 40 @36118 has 1 MA's), (Start: 56 @36148 has 181 MA's), (Start: 63 @36184 has 5 MA's), (98, 36244), (99, 36247),

Gene: DTDevon_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for DTDevon_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: DaWorst_54 Start: 38043, Stop: 38276, Start Num: 56

Candidate Starts for DaWorst_54:

(Start: 40 @38013 has 1 MA's), (Start: 56 @38043 has 181 MA's), (59, 38067), (84, 38109), (94, 38124), (98, 38142), (99, 38145),

Gene: DaddyRickover_52 Start: 37670, Stop: 37903, Start Num: 56

Candidate Starts for DaddyRickover_52:

(Start: 40 @37640 has 1 MA's), (Start: 56 @37670 has 181 MA's), (59, 37694), (84, 37736), (94, 37751), (98, 37769), (99, 37772),

Gene: Daenerys_72 Start: 47067, Stop: 47294, Start Num: 56

Candidate Starts for Daenerys_72:

(Start: 56 @47067 has 181 MA's), (93, 47166),

Gene: Dallas_146 Start: 77512, Stop: 77757, Start Num: 109

Candidate Starts for Dallas_146:

(60, 77377), (92, 77452), (97, 77467), (Start: 109 @77512 has 34 MA's), (136, 77584), (137, 77587),

Gene: Dandelion_5 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for Dandelion_5:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Dante_53 Start: 37036, Stop: 37266, Start Num: 56

Candidate Starts for Dante_53:

(Start: 40 @37006 has 1 MA's), (Start: 56 @37036 has 181 MA's), (59, 37060), (84, 37099), (94, 37114), (98, 37132), (99, 37135),

Gene: DeadP_58 Start: 38932, Stop: 39159, Start Num: 56

Candidate Starts for DeadP_58:

(Start: 40 @38902 has 1 MA's), (Start: 56 @38932 has 181 MA's), (62, 38965), (85, 38989), (98, 39022),

Gene: Deb65_66 Start: 44788, Stop: 45015, Start Num: 56

Candidate Starts for Deb65_66:

(Start: 56 @44788 has 181 MA's), (93, 44887),

Gene: Demsculpinboyz_62 Start: 36874, Stop: 37140, Start Num: 56

Candidate Starts for Demsculpinboyz_62:

(Start: 40 @36844 has 1 MA's), (Start: 56 @36874 has 181 MA's), (59, 36898), (87, 36940), (94, 36955), (98, 36973), (99, 36976),

Gene: Demsculpinboyz_75 Start: 41100, Stop: 41363, Start Num: 56

Candidate Starts for Demsculpinboyz_75:

(42, 41073), (Start: 56 @41100 has 181 MA's), (62, 41133), (Start: 68 @41145 has 1 MA's), (77, 41166), (86, 41190), (99, 41229),

Gene: Denise_57 Start: 36623, Stop: 36913, Start Num: 56

Candidate Starts for Denise_57:

(Start: 56 @36623 has 181 MA's), (Start: 63 @36659 has 5 MA's), (126, 36815), (149, 36896),

Gene: DmpstrDiver_146 Start: 77431, Stop: 77676, Start Num: 109

Candidate Starts for DmpstrDiver_146:

(60, 77296), (92, 77371), (97, 77386), (Start: 109 @77431 has 34 MA's), (136, 77503), (137, 77506),

Gene: DoRead_54 Start: 36172, Stop: 36447, Start Num: 56

Candidate Starts for DoRead_54:

(Start: 56 @36172 has 181 MA's), (99, 36283),

Gene: DobbysSock_53 Start: 39107, Stop: 39373, Start Num: 54

Candidate Starts for DobbysSock_53:

(Start: 54 @39107 has 8 MA's), (77, 39173), (79, 39176),

Gene: DonkeyMan_58 Start: 38401, Stop: 38625, Start Num: 56

Candidate Starts for DonkeyMan_58:

(Start: 56 @38401 has 181 MA's), (66, 38437), (107, 38530), (130, 38578),

Gene: Donkeykong_53 Start: 39067, Stop: 39345, Start Num: 56

Candidate Starts for Donkeykong_53:

(36, 39022), (42, 39043), (Start: 56 @39067 has 181 MA's), (99, 39178),

Gene: Doomphist_76 Start: 46880, Stop: 47107, Start Num: 56

Candidate Starts for Doomphist_76:

(Start: 56 @46880 has 181 MA's), (93, 46979),

Gene: Doomphist_52 Start: 38179, Stop: 38421, Start Num: 56

Candidate Starts for Doomphist_52:

(Start: 40 @38149 has 1 MA's), (Start: 56 @38179 has 181 MA's), (98, 38287),

Gene: Dorothy_74 Start: 45505, Stop: 45732, Start Num: 56

Candidate Starts for Dorothy_74:

(Start: 56 @45505 has 181 MA's), (93, 45604),

Gene: DotProduct_48 Start: 36209, Stop: 36451, Start Num: 56

Candidate Starts for DotProduct_48:

(Start: 40 @36179 has 1 MA's), (Start: 56 @36209 has 181 MA's), (98, 36317),

Gene: Doug_55 Start: 38300, Stop: 38542, Start Num: 56

Candidate Starts for Doug_55:

(Start: 40 @38270 has 1 MA's), (Start: 56 @38300 has 181 MA's), (99, 38411),

Gene: Douge_118 Start: 64670, Stop: 64912, Start Num: 56

Candidate Starts for Douge_118:

(Start: 56 @64670 has 181 MA's), (Start: 57 @64682 has 1 MA's), (96, 64778), (128, 64865), (135, 64886),

Gene: Dove_131 Start: 73030, Stop: 73275, Start Num: 109

Candidate Starts for Dove_131:

(60, 72895), (97, 72985), (Start: 109 @73030 has 34 MA's), (136, 73102), (137, 73105),

Gene: Drazdys_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for Drazdys_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Dreamboat_67 Start: 41780, Stop: 41553, Start Num: 71

Candidate Starts for Dreamboat_67:

(Start: 71 @41780 has 7 MA's), (99, 41720),

Gene: Duke13_141 Start: 74732, Stop: 74977, Start Num: 109

Candidate Starts for Duke13_141:

(60, 74597), (92, 74672), (97, 74687), (Start: 109 @74732 has 34 MA's), (136, 74804), (137, 74807),

Gene: Eish_57 Start: 38353, Stop: 38628, Start Num: 56

Candidate Starts for Eish_57:

(Start: 56 @38353 has 181 MA's), (99, 38464),

Gene: Ejimix_138 Start: 77580, Stop: 77825, Start Num: 109

Candidate Starts for Ejimix_138:

(60, 77445), (92, 77520), (97, 77535), (Start: 109 @77580 has 34 MA's), (136, 77652), (137, 77655),

Gene: Ejimix_87 Start: 57171, Stop: 57389, Start Num: 57

Candidate Starts for Ejimix_87:

(Start: 56 @57159 has 181 MA's), (Start: 57 @57171 has 1 MA's), (98, 57258), (104, 57282),

Gene: Emma_52 Start: 36405, Stop: 36638, Start Num: 56

Candidate Starts for Emma_52:

(Start: 40 @36375 has 1 MA's), (Start: 56 @36405 has 181 MA's), (Start: 63 @36441 has 5 MA's), (98, 36501), (99, 36504),

Gene: Empress_71 Start: 45691, Stop: 45918, Start Num: 56

Candidate Starts for Empress_71:

(Start: 56 @45691 has 181 MA's), (93, 45790),

Gene: Enby_53 Start: 35552, Stop: 35782, Start Num: 56

Candidate Starts for Enby_53:

(38, 35519), (Start: 40 @35522 has 1 MA's), (Start: 56 @35552 has 181 MA's), (Start: 63 @35588 has 5 MA's), (98, 35648), (99, 35651),

Gene: EricMillard_83 Start: 55716, Stop: 55994, Start Num: 56

Candidate Starts for EricMillard_83:

(52, 55710), (Start: 56 @55716 has 181 MA's), (99, 55827),

Gene: EricMillard_137 Start: 76084, Stop: 76329, Start Num: 109

Candidate Starts for EricMillard_137:

(60, 75949), (92, 76024), (97, 76039), (Start: 109 @76084 has 34 MA's), (136, 76156), (137, 76159),

Gene: Estave1_55 Start: 37717, Stop: 37980, Start Num: 56

Candidate Starts for Estave1_55:

(Start: 56 @37717 has 181 MA's), (99, 37828),

Gene: Etoile_52 Start: 36036, Stop: 36263, Start Num: 56

Candidate Starts for Etoile_52:

(29, 35973), (Start: 56 @36036 has 181 MA's), (93, 36135),

Gene: FeliMaine_7 Start: 2312, Stop: 2584, Start Num: 56

Candidate Starts for FeliMaine_7:

(Start: 56 @2312 has 181 MA's), (85, 2375), (99, 2417),

Gene: Firehouse51_53 Start: 39958, Stop: 40203, Start Num: 56

Candidate Starts for Firehouse51_53:

(Start: 40 @39928 has 1 MA's), (Start: 56 @39958 has 181 MA's), (99, 40069),

Gene: FirstPlacePfu_54 Start: 36068, Stop: 36295, Start Num: 56

Candidate Starts for FirstPlacePfu_54:

(29, 36005), (Start: 56 @36068 has 181 MA's), (93, 36167),

Gene: Fishburne_52 Start: 36036, Stop: 36263, Start Num: 56

Candidate Starts for Fishburne_52:

(29, 35973), (Start: 56 @36036 has 181 MA's), (93, 36135),

Gene: FrayBell_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for FrayBell_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: GMA1_52 Start: 32897, Stop: 33145, Start Num: 52

Candidate Starts for GMA1_52:

(27, 32816), (29, 32828), (36, 32855), (44, 32882), (52, 32897),

Gene: GMA2_107 Start: 94211, Stop: 93939, Start Num: 52

Candidate Starts for GMA2_107:

(52, 94211), (122, 94031),

Gene: Gaia_57 Start: 40635, Stop: 40414, Start Num: 56

Candidate Starts for Gaia_57:

(Start: 56 @40635 has 181 MA's), (Start: 57 @40623 has 1 MA's), (72, 40581), (128, 40443), (135, 40422),

Gene: Gaia_56 Start: 40287, Stop: 40042, Start Num: 56

Candidate Starts for Gaia_56:

(Start: 56 @40287 has 181 MA's), (Start: 73 @40230 has 1 MA's), (124, 40089),

Gene: Gambino_79 Start: 48141, Stop: 48380, Start Num: 67

Candidate Starts for Gambino_79:

(1, 47394), (2, 47400), (3, 47406), (4, 47451), (10, 47889), (12, 47916), (20, 47979), (25, 48003), (48, 48078), (53, 48087), (Start: 67 @48141 has 4 MA's), (76, 48168), (123, 48306), (132, 48327), (146, 48375),

Gene: Gandolph_55 Start: 37415, Stop: 37660, Start Num: 56

Candidate Starts for Gandolph_55:

(Start: 56 @37415 has 181 MA's), (98, 37523),

Gene: Geralt_66 Start: 44787, Stop: 45014, Start Num: 56

Candidate Starts for Geralt_66:

(Start: 56 @44787 has 181 MA's), (93, 44886),

Gene: GigiOuiOui_49 Start: 36354, Stop: 36596, Start Num: 56

Candidate Starts for GigiOuiOui_49:

(Start: 40 @36324 has 1 MA's), (Start: 56 @36354 has 181 MA's), (98, 36462),

Gene: GoldenSnow_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for GoldenSnow_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Gudmit_51 Start: 32451, Stop: 32681, Start Num: 54

Candidate Starts for Gudmit_51:

(Start: 54 @32451 has 8 MA's), (61, 32481), (Start: 63 @32490 has 5 MA's), (79, 32514), (128, 32625),

Gene: Gumball_84 Start: 60133, Stop: 60360, Start Num: 56

Candidate Starts for Gumball_84:

(17, 60010), (Start: 56 @60133 has 181 MA's), (Start: 63 @60169 has 5 MA's), (70, 60178), (99, 60232),

Gene: Halley_147 Start: 77896, Stop: 78141, Start Num: 109

Candidate Starts for Halley_147:

(60, 77761), (92, 77836), (97, 77851), (Start: 109 @77896 has 34 MA's), (136, 77968), (137, 77971),

Gene: Hami1_60 Start: 38171, Stop: 37893, Start Num: 54

Candidate Starts for Hami1_60:

(Start: 54 @38171 has 8 MA's), (62, 38138), (Start: 68 @38126 has 1 MA's), (77, 38105), (86, 38081), (98, 38045), (99, 38042), (125, 37982),

Gene: Hamulus_53 Start: 37796, Stop: 38026, Start Num: 56

Candidate Starts for Hamulus_53:

(Start: 40 @37766 has 1 MA's), (Start: 56 @37796 has 181 MA's), (Start: 63 @37832 has 5 MA's), (98, 37892), (99, 37895),

Gene: Harley_54 Start: 37188, Stop: 37382, Start Num: 63

Candidate Starts for Harley_54:

(Start: 40 @37122 has 1 MA's), (Start: 56 @37152 has 181 MA's), (Start: 63 @37188 has 5 MA's), (98, 37248), (99, 37251),

Gene: Hawkeye_97 Start: 61659, Stop: 61895, Start Num: 56

Candidate Starts for Hawkeye_97:

(23, 61557), (37, 61620), (39, 61626), (Start: 56 @61659 has 181 MA's), (88, 61728), (99, 61758), (123, 61809), (141, 61830), (151, 61872),

Gene: Hegedechwinu_72 Start: 43105, Stop: 43332, Start Num: 56

Candidate Starts for Hegedechwinu_72:

(Start: 56 @43105 has 181 MA's), (93, 43204),

Gene: Heinz_57 Start: 37331, Stop: 37591, Start Num: 56

Candidate Starts for Heinz_57:

(Start: 56 @37331 has 181 MA's), (107, 37496), (130, 37544),

Gene: Helpful_87 Start: 60143, Stop: 60346, Start Num: 56

Candidate Starts for Helpful_87:

(17, 60017), (19, 60026), (Start: 56 @60143 has 181 MA's), (59, 60167), (99, 60245), (132, 60296),

Gene: Hidrated_129 Start: 76215, Stop: 76493, Start Num: 109

Candidate Starts for Hidrated_129:

(60, 76080), (97, 76170), (Start: 109 @76215 has 34 MA's), (136, 76287), (137, 76290), (153, 76410),

Gene: HokkenD_138 Start: 77055, Stop: 77300, Start Num: 109

Candidate Starts for HokkenD_138:

(60, 76920), (97, 77010), (Start: 109 @77055 has 34 MA's), (136, 77127), (137, 77130),

Gene: Hughesyang_144 Start: 77666, Stop: 77911, Start Num: 109

Candidate Starts for Hughesyang_144:

(60, 77531), (92, 77606), (97, 77621), (Start: 109 @77666 has 34 MA's), (136, 77738), (137, 77741),

Gene: InterFolia_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for InterFolia_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Inventum_71 Start: 45703, Stop: 45930, Start Num: 56

Candidate Starts for Inventum_71:

(Start: 56 @45703 has 181 MA's), (93, 45802),

Gene: Inventum_47 Start: 36162, Stop: 36395, Start Num: 56

Candidate Starts for Inventum_47:

(Start: 40 @36132 has 1 MA's), (Start: 56 @36162 has 181 MA's), (59, 36186), (84, 36228), (94, 36243), (98, 36261), (99, 36264),

Gene: JalFarm20_60 Start: 39595, Stop: 39840, Start Num: 56

Candidate Starts for JalFarm20_60:

(42, 39571), (Start: 56 @39595 has 181 MA's), (99, 39706),

Gene: Jant_56 Start: 38892, Stop: 39086, Start Num: 63

Candidate Starts for Jant_56:

(Start: 40 @38826 has 1 MA's), (Start: 56 @38856 has 181 MA's), (Start: 63 @38892 has 5 MA's), (98, 38952), (99, 38955),

Gene: Jasper_66 Start: 41666, Stop: 41439, Start Num: 71

Candidate Starts for Jasper_66:

(Start: 71 @41666 has 7 MA's), (99, 41606),

Gene: JayJay_6 Start: 1730, Stop: 1996, Start Num: 50

Candidate Starts for JayJay_6:

(Start: 50 @1730 has 3 MA's), (Start: 56 @1739 has 181 MA's), (59, 1763), (87, 1805), (94, 1820), (98, 1838), (99, 1841), (138, 1937),

Gene: Jinglebell_38 Start: 31199, Stop: 31008, Start Num: 56

Candidate Starts for Jinglebell_38:

(Start: 56 @31199 has 181 MA's), (100, 31109),

Gene: Job42_55 Start: 39394, Stop: 39636, Start Num: 56
Candidate Starts for Job42_55:
(19, 39280), (22, 39292), (32, 39328), (46, 39379), (Start: 56 @39394 has 181 MA's), (99, 39505),

Gene: JoeyJr_73 Start: 46692, Stop: 46919, Start Num: 56
Candidate Starts for JoeyJr_73:
(Start: 56 @46692 has 181 MA's), (93, 46791),

Gene: Jorgensen_69 Start: 42799, Stop: 42503, Start Num: 41
Candidate Starts for Jorgensen_69:
(Start: 41 @42799 has 1 MA's), (80, 42721), (92, 42694), (98, 42673), (99, 42670),

Gene: JuicyJay_141 Start: 79181, Stop: 79426, Start Num: 109
Candidate Starts for JuicyJay_141:
(60, 79046), (97, 79136), (Start: 109 @79181 has 34 MA's), (136, 79253), (137, 79256),

Gene: Juniper1_50 Start: 36588, Stop: 36851, Start Num: 56
Candidate Starts for Juniper1_50:
(Start: 40 @36558 has 1 MA's), (Start: 56 @36588 has 181 MA's), (99, 36699), (143, 36819),

Gene: Kalah2_136 Start: 76787, Stop: 77032, Start Num: 109
Candidate Starts for Kalah2_136:
(60, 76652), (97, 76742), (Start: 109 @76787 has 34 MA's), (136, 76859), (137, 76862),

Gene: KandZ_82 Start: 59971, Stop: 60174, Start Num: 56
Candidate Starts for KandZ_82:
(17, 59845), (19, 59854), (Start: 56 @59971 has 181 MA's), (59, 59995), (99, 60073), (132, 60124),

Gene: Kari_52 Start: 36033, Stop: 36260, Start Num: 56
Candidate Starts for Kari_52:
(29, 35970), (Start: 56 @36033 has 181 MA's), (93, 36132),

Gene: KashFlow_144 Start: 76087, Stop: 76332, Start Num: 109
Candidate Starts for KashFlow_144:
(60, 75952), (97, 76042), (Start: 109 @76087 has 34 MA's), (136, 76159), (137, 76162),

Gene: Kenuha5_50 Start: 36123, Stop: 36365, Start Num: 56
Candidate Starts for Kenuha5_50:
(26, 36039), (31, 36057), (42, 36099), (Start: 56 @36123 has 181 MA's), (99, 36234),

Gene: Khan1_53 Start: 47573, Stop: 47304, Start Num: 56
Candidate Starts for Khan1_53:
(13, 47732), (21, 47675), (28, 47648), (34, 47627), (35, 47621), (Start: 56 @47573 has 181 MA's), (59, 47549), (90, 47501), (92, 47495), (99, 47471),

Gene: Kimberlium_67 Start: 43095, Stop: 43343, Start Num: 56
Candidate Starts for Kimberlium_67:
(Start: 56 @43095 has 181 MA's), (76, 43158), (95, 43200),

Gene: KingMidas_72 Start: 46106, Stop: 46333, Start Num: 56
Candidate Starts for KingMidas_72:
(Start: 56 @46106 has 181 MA's), (93, 46205),

Gene: Klein_143 Start: 75389, Stop: 75634, Start Num: 109

Candidate Starts for Klein_143:

(60, 75254), (97, 75344), (Start: 109 @75389 has 34 MA's), (136, 75461), (137, 75464),

Gene: Krakatau_50 Start: 36883, Stop: 37077, Start Num: 63

Candidate Starts for Krakatau_50:

(Start: 40 @36817 has 1 MA's), (Start: 56 @36847 has 181 MA's), (Start: 63 @36883 has 5 MA's), (98, 36943), (99, 36946),

Gene: KristaRAM_51 Start: 38223, Stop: 38468, Start Num: 56

Candidate Starts for KristaRAM_51:

(26, 38139), (31, 38157), (42, 38199), (Start: 56 @38223 has 181 MA's), (99, 38334),

Gene: Langerak_53 Start: 36052, Stop: 36279, Start Num: 56

Candidate Starts for Langerak_53:

(29, 35989), (Start: 56 @36052 has 181 MA's), (93, 36151),

Gene: Latretium_77 Start: 46947, Stop: 47177, Start Num: 71

Candidate Starts for Latretium_77:

(33, 46854), (Start: 56 @46911 has 181 MA's), (Start: 71 @46947 has 7 MA's), (98, 47007), (99, 47010),

Gene: Leperchaun_71 Start: 45926, Stop: 46153, Start Num: 56

Candidate Starts for Leperchaun_71:

(Start: 56 @45926 has 181 MA's), (93, 46025),

Gene: Lilbit_7 Start: 2312, Stop: 2584, Start Num: 56

Candidate Starts for Lilbit_7:

(Start: 56 @2312 has 181 MA's), (85, 2375), (99, 2417),

Gene: LinStu_6 Start: 2738, Stop: 2995, Start Num: 56

Candidate Starts for LinStu_6:

(Start: 50 @2729 has 3 MA's), (Start: 56 @2738 has 181 MA's), (59, 2762), (87, 2804), (94, 2819), (98, 2837), (99, 2840), (138, 2936),

Gene: Llama_39 Start: 31198, Stop: 31007, Start Num: 56

Candidate Starts for Llama_39:

(Start: 56 @31198 has 181 MA's), (100, 31108),

Gene: LolaVince_6 Start: 1879, Stop: 2115, Start Num: 50

Candidate Starts for LolaVince_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: LordLeafolot_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for LordLeafolot_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Lorde_53 Start: 35527, Stop: 35757, Start Num: 56

Candidate Starts for Lorde_53:

(38, 35494), (Start: 40 @35497 has 1 MA's), (Start: 56 @35527 has 181 MA's), (Start: 63 @35563 has 5 MA's), (98, 35623), (99, 35626),

Gene: Lucky10_55 Start: 35945, Stop: 36226, Start Num: 54

Candidate Starts for Lucky10_55:

(Start: 54 @35945 has 8 MA's), (69, 35993), (78, 36011), (86, 36032), (98, 36068), (102, 36080), (107, 36101), (110, 36107), (114, 36116),

Gene: Lucky2013_137 Start: 73141, Stop: 73386, Start Num: 109

Candidate Starts for Lucky2013_137:

(60, 73006), (92, 73081), (97, 73096), (Start: 109 @73141 has 34 MA's), (136, 73213), (137, 73216), (139, 73219),

Gene: MadMen_62 Start: 41080, Stop: 41310, Start Num: 71

Candidate Starts for MadMen_62:

(Start: 56 @41044 has 181 MA's), (Start: 71 @41080 has 7 MA's), (98, 41140), (99, 41143),

Gene: MadMen_50 Start: 36869, Stop: 37144, Start Num: 56

Candidate Starts for MadMen_50:

(52, 36863), (Start: 56 @36869 has 181 MA's), (99, 36980),

Gene: Madiba_63 Start: 40537, Stop: 40815, Start Num: 56

Candidate Starts for Madiba_63:

(52, 40531), (Start: 56 @40537 has 181 MA's), (99, 40648),

Gene: Madiba_50 Start: 35664, Stop: 35894, Start Num: 56

Candidate Starts for Madiba_50:

(Start: 40 @35634 has 1 MA's), (Start: 56 @35664 has 181 MA's), (Start: 63 @35700 has 5 MA's), (98, 35760), (99, 35763),

Gene: Maguvora_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for Maguvora_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Malisha_79 Start: 48584, Stop: 48868, Start Num: 54

Candidate Starts for Malisha_79:

(Start: 54 @48584 has 8 MA's), (83, 48656), (103, 48716), (127, 48773), (139, 48809),

Gene: Maravista_54 Start: 38807, Stop: 39082, Start Num: 56

Candidate Starts for Maravista_54:

(Start: 40 @38777 has 1 MA's), (Start: 56 @38807 has 181 MA's), (99, 38918),

Gene: Marker_53 Start: 37153, Stop: 37359, Start Num: 56

Candidate Starts for Marker_53:

(Start: 40 @37123 has 1 MA's), (Start: 56 @37153 has 181 MA's), (99, 37264),

Gene: Marleymoo_128 Start: 73628, Stop: 73906, Start Num: 109

Candidate Starts for Marleymoo_128:

(60, 73493), (97, 73583), (Start: 109 @73628 has 34 MA's), (136, 73700), (137, 73703), (153, 73823),

Gene: Marsha_65 Start: 43596, Stop: 43360, Start Num: 56

Candidate Starts for Marsha_65:

(Start: 56 @43596 has 181 MA's), (85, 43536),

Gene: Melissauren88_50 Start: 36304, Stop: 36534, Start Num: 56

Candidate Starts for Melissauren88_50:

(Start: 40 @36274 has 1 MA's), (Start: 56 @36304 has 181 MA's), (Start: 63 @36340 has 5 MA's), (98, 36400), (99, 36403),

Gene: MiaZeal_144 Start: 74280, Stop: 74525, Start Num: 109

Candidate Starts for MiaZeal_144:

(60, 74145), (92, 74220), (97, 74235), (Start: 109 @74280 has 34 MA's), (136, 74352), (137, 74355), (139, 74358),

Gene: MilleniumForce_52 Start: 38325, Stop: 38558, Start Num: 56

Candidate Starts for MilleniumForce_52:

(Start: 40 @38295 has 1 MA's), (Start: 56 @38325 has 181 MA's), (Start: 63 @38361 has 5 MA's), (98, 38421), (99, 38424),

Gene: Minerva_89 Start: 56566, Stop: 56844, Start Num: 56

Candidate Starts for Minerva_89:

(52, 56560), (Start: 56 @56566 has 181 MA's), (99, 56677),

Gene: Minerva_145 Start: 76838, Stop: 77116, Start Num: 109

Candidate Starts for Minerva_145:

(60, 76703), (97, 76793), (Start: 109 @76838 has 34 MA's), (136, 76910), (137, 76913), (150, 76955), (153, 77033),

Gene: MinionDave_51 Start: 36841, Stop: 37071, Start Num: 56

Candidate Starts for MinionDave_51:

(Start: 40 @36811 has 1 MA's), (Start: 56 @36841 has 181 MA's), (Start: 63 @36877 has 5 MA's), (98, 36937), (99, 36940),

Gene: MissRona_77 Start: 48142, Stop: 48381, Start Num: 67

Candidate Starts for MissRona_77:

(1, 47395), (2, 47401), (3, 47407), (4, 47452), (10, 47890), (12, 47917), (20, 47980), (25, 48004), (48, 48079), (53, 48088), (Start: 67 @48142 has 4 MA's), (76, 48169), (123, 48307), (132, 48328), (146, 48376),

Gene: Modragons_38 Start: 31043, Stop: 30852, Start Num: 56

Candidate Starts for Modragons_38:

(Start: 56 @31043 has 181 MA's), (100, 30953),

Gene: Moonbeam_48 Start: 36361, Stop: 36591, Start Num: 56

Candidate Starts for Moonbeam_48:

(Start: 40 @36331 has 1 MA's), (Start: 56 @36361 has 181 MA's), (Start: 63 @36397 has 5 MA's), (98, 36457), (99, 36460),

Gene: Mova_66 Start: 41041, Stop: 41319, Start Num: 56

Candidate Starts for Mova_66:

(52, 41035), (Start: 56 @41041 has 181 MA's), (99, 41152),

Gene: Mova_53 Start: 36684, Stop: 36917, Start Num: 56

Candidate Starts for Mova_53:

(Start: 40 @36654 has 1 MA's), (Start: 56 @36684 has 181 MA's), (Start: 63 @36720 has 5 MA's), (98, 36780), (99, 36783),

Gene: Mozy_62 Start: 39946, Stop: 40173, Start Num: 56

Candidate Starts for Mozy_62:

(Start: 40 @39916 has 1 MA's), (Start: 56 @39946 has 181 MA's), (59, 39970), (87, 40012), (94, 40027), (98, 40045), (99, 40048), (111, 40078),

Gene: MrPhizzler_55 Start: 47550, Stop: 47281, Start Num: 56

Candidate Starts for MrPhizzler_55:

(13, 47709), (21, 47652), (28, 47625), (34, 47604), (35, 47598), (Start: 56 @47550 has 181 MA's), (59, 47526), (90, 47478), (92, 47472), (99, 47448),

Gene: MulchExplorer_66 Start: 43094, Stop: 43342, Start Num: 56

Candidate Starts for MulchExplorer_66:

(Start: 56 @43094 has 181 MA's), (76, 43157), (95, 43199),

Gene: Mule_62 Start: 41651, Stop: 41406, Start Num: 56

Candidate Starts for Mule_62:

(Start: 56 @41651 has 181 MA's), (Start: 73 @41609 has 1 MA's), (82, 41597), (85, 41594), (99, 41555), (105, 41537),

Gene: Mwanjiwa_58 Start: 37785, Stop: 38027, Start Num: 56

Candidate Starts for Mwanjiwa_58:

(Start: 40 @37755 has 1 MA's), (Start: 56 @37785 has 181 MA's), (99, 37896),

Gene: Nappy_5 Start: 1734, Stop: 1961, Start Num: 56

Candidate Starts for Nappy_5:

(Start: 50 @1725 has 3 MA's), (Start: 56 @1734 has 181 MA's), (Start: 63 @1770 has 5 MA's), (74, 1779), (99, 1833), (119, 1872),

Gene: Nazo_58 Start: 40075, Stop: 40302, Start Num: 56

Candidate Starts for Nazo_58:

(29, 40012), (Start: 56 @40075 has 181 MA's), (93, 40174), (114, 40237),

Gene: Nekros_77 Start: 50383, Stop: 50132, Start Num: 56

Candidate Starts for Nekros_77:

(Start: 56 @50383 has 181 MA's), (144, 50146),

Gene: Nibley_71 Start: 47231, Stop: 46980, Start Num: 56

Candidate Starts for Nibley_71:

(Start: 56 @47231 has 181 MA's), (144, 46994),

Gene: Nichirin_39 Start: 31227, Stop: 31036, Start Num: 56

Candidate Starts for Nichirin_39:

(Start: 56 @31227 has 181 MA's), (100, 31137),

Gene: NihilNomen_147 Start: 77126, Stop: 77371, Start Num: 109

Candidate Starts for NihilNomen_147:

(60, 76991), (97, 77081), (Start: 109 @77126 has 34 MA's), (136, 77198), (137, 77201),

Gene: Nimbo_65 Start: 44790, Stop: 45017, Start Num: 56

Candidate Starts for Nimbo_65:

(Start: 56 @44790 has 181 MA's), (93, 44889),

Gene: NuevoMundo_6 Start: 1876, Stop: 2112, Start Num: 50

Candidate Starts for NuevoMundo_6:

(Start: 50 @1876 has 3 MA's), (Start: 56 @1885 has 181 MA's), (Start: 63 @1921 has 5 MA's), (74, 1930), (99, 1984), (119, 2023),

Gene: Ochi17_37 Start: 30650, Stop: 30459, Start Num: 56

Candidate Starts for Ochi17_37:

(Start: 56 @30650 has 181 MA's), (100, 30560),

Gene: Odette_149 Start: 79269, Stop: 79514, Start Num: 109

Candidate Starts for Odette_149:

(60, 79134), (97, 79224), (Start: 109 @79269 has 34 MA's), (136, 79341), (137, 79344),

Gene: OfUltron_39 Start: 31199, Stop: 31008, Start Num: 56

Candidate Starts for OfUltron_39:

(Start: 56 @31199 has 181 MA's), (100, 31109),

Gene: Ogopogo_57 Start: 37928, Stop: 38170, Start Num: 56

Candidate Starts for Ogopogo_57:

(52, 37922), (Start: 56 @37928 has 181 MA's), (99, 38039),

Gene: Okabe_47 Start: 33316, Stop: 33510, Start Num: 63

Candidate Starts for Okabe_47:

(Start: 40 @33250 has 1 MA's), (Start: 56 @33280 has 181 MA's), (Start: 63 @33316 has 5 MA's), (98, 33376), (99, 33379),

Gene: Oksu_39 Start: 31043, Stop: 30852, Start Num: 56

Candidate Starts for Oksu_39:

(Start: 56 @31043 has 181 MA's), (100, 30953),

Gene: OldBen_70 Start: 46182, Stop: 46409, Start Num: 56

Candidate Starts for OldBen_70:

(Start: 56 @46182 has 181 MA's), (93, 46281),

Gene: Optimus_84 Start: 55270, Stop: 55548, Start Num: 56

Candidate Starts for Optimus_84:

(52, 55264), (Start: 56 @55270 has 181 MA's), (99, 55381),

Gene: Optimus_136 Start: 74406, Stop: 74651, Start Num: 109

Candidate Starts for Optimus_136:

(60, 74271), (92, 74346), (97, 74361), (Start: 109 @74406 has 34 MA's), (136, 74478), (137, 74481),

Gene: OwlsT2W_53 Start: 37646, Stop: 37888, Start Num: 56

Candidate Starts for OwlsT2W_53:

(Start: 40 @37616 has 1 MA's), (Start: 56 @37646 has 181 MA's), (98, 37754),

Gene: PHappiness_73 Start: 47011, Stop: 47238, Start Num: 56

Candidate Starts for PHappiness_73:

(Start: 56 @47011 has 181 MA's), (93, 47110),

Gene: PMC_49 Start: 37214, Stop: 37471, Start Num: 56

Candidate Starts for PMC_49:

(19, 37100), (22, 37112), (32, 37148), (46, 37199), (Start: 56 @37214 has 181 MA's), (99, 37325),
(Start: 109 @37355 has 34 MA's),

Gene: Pelly_67 Start: 44535, Stop: 44257, Start Num: 54

Candidate Starts for Pelly_67:

(Start: 54 @44535 has 8 MA's), (62, 44502), (Start: 68 @44490 has 1 MA's), (77, 44469), (86, 44445),
(98, 44409), (99, 44406),

Gene: Periwinkle_62 Start: 38089, Stop: 38367, Start Num: 56

Candidate Starts for Periwinkle_62:

(Start: 56 @38089 has 181 MA's), (94, 38185), (115, 38251), (148, 38329),

Gene: Phalaborwa_86 Start: 60456, Stop: 60659, Start Num: 56

Candidate Starts for Phalaborwa_86:

(17, 60330), (19, 60339), (24, 60357), (Start: 56 @60456 has 181 MA's), (70, 60501), (86, 60534), (99,
60558), (132, 60609), (136, 60621),

Gene: Phalconet_51 Start: 36608, Stop: 36838, Start Num: 56

Candidate Starts for Phalconet_51:

(Start: 40 @36578 has 1 MA's), (Start: 56 @36608 has 181 MA's), (Start: 63 @36644 has 5 MA's), (98,
36704), (99, 36707),

Gene: Phanphagia_47 Start: 36555, Stop: 36800, Start Num: 56

Candidate Starts for Phanphagia_47:

(36, 36510), (42, 36531), (Start: 56 @36555 has 181 MA's), (99, 36666),

Gene: PharkleMinkus_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for PharkleMinkus_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74,
1933), (99, 1987), (119, 2026),

Gene: Phasih_51 Start: 37693, Stop: 37935, Start Num: 56

Candidate Starts for Phasih_51:

(52, 37687), (Start: 56 @37693 has 181 MA's), (99, 37804),

Gene: Phayonce_59 Start: 40788, Stop: 41024, Start Num: 65

Candidate Starts for Phayonce_59:

(15, 40608), (Start: 65 @40788 has 1 MA's), (98, 40881), (119, 40929), (131, 40959), (147, 40989),
(151, 41010),

Gene: PherrisBueller_66 Start: 41317, Stop: 41090, Start Num: 71

Candidate Starts for PherrisBueller_66:

(Start: 71 @41317 has 7 MA's), (99, 41257),

Gene: PhesterPhotato_54 Start: 37593, Stop: 37826, Start Num: 56

Candidate Starts for PhesterPhotato_54:

(Start: 40 @37563 has 1 MA's), (Start: 56 @37593 has 181 MA's), (Start: 63 @37629 has 5 MA's), (98,
37689), (99, 37692),

Gene: PhesterPhotato_75 Start: 45749, Stop: 45976, Start Num: 56

Candidate Starts for PhesterPhotato_75:

(29, 45686), (Start: 56 @45749 has 181 MA's), (93, 45848),

Gene: Phoebus_145 Start: 79020, Stop: 79265, Start Num: 109

Candidate Starts for Phoebus_145:

(60, 78885), (92, 78960), (97, 78975), (Start: 109 @79020 has 34 MA's), (136, 79092), (137, 79095),

Gene: PhrostyMug_65 Start: 43825, Stop: 43580, Start Num: 56

Candidate Starts for PhrostyMug_65:

(Start: 56 @43825 has 181 MA's), (Start: 73 @43783 has 1 MA's), (82, 43771), (85, 43768), (99, 43729), (105, 43711),

Gene: Pier_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for Pier_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Poenanya_52 Start: 38179, Stop: 38421, Start Num: 56

Candidate Starts for Poenanya_52:

(Start: 40 @38149 has 1 MA's), (Start: 56 @38179 has 181 MA's), (98, 38287),

Gene: Poenanya_76 Start: 46880, Stop: 47107, Start Num: 56

Candidate Starts for Poenanya_76:

(Start: 56 @46880 has 181 MA's), (93, 46979),

Gene: Polka14_77 Start: 47670, Stop: 47897, Start Num: 56

Candidate Starts for Polka14_77:

(Start: 56 @47670 has 181 MA's), (93, 47769),

Gene: Polka14_51 Start: 36782, Stop: 37027, Start Num: 56

Candidate Starts for Polka14_51:

(Start: 56 @36782 has 181 MA's), (98, 36890),

Gene: Polkaroo_55 Start: 37375, Stop: 37602, Start Num: 56

Candidate Starts for Polkaroo_55:

(29, 37312), (Start: 56 @37375 has 181 MA's), (93, 37474),

Gene: Pollywog_50 Start: 37066, Stop: 37320, Start Num: 56

Candidate Starts for Pollywog_50:

(36, 37018), (43, 37042), (Start: 56 @37066 has 181 MA's), (95, 37177),

Gene: Porcelain_141 Start: 74087, Stop: 74332, Start Num: 109

Candidate Starts for Porcelain_141:

(60, 73952), (92, 74027), (97, 74042), (Start: 109 @74087 has 34 MA's), (136, 74159), (137, 74162), (139, 74165),

Gene: Pound_137 Start: 76839, Stop: 77084, Start Num: 109

Candidate Starts for Pound_137:

(60, 76704), (92, 76779), (97, 76794), (Start: 109 @76839 has 34 MA's), (136, 76911), (137, 76914),

Gene: Pringar_6 Start: 1866, Stop: 2138, Start Num: 56

Candidate Starts for Pringar_6:

(Start: 56 @1866 has 181 MA's), (85, 1929), (99, 1971),

Gene: Puhon_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for Puhon_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Pupusa_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for Pupusa_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Purky_63 Start: 41280, Stop: 41552, Start Num: 56

Candidate Starts for Purky_63:

(Start: 56 @41280 has 181 MA's), (58, 41295), (90, 41364), (98, 41388), (108, 41421), (117, 41439), (147, 41517), (151, 41538),

Gene: Purky_64 Start: 41545, Stop: 41862, Start Num: 56

Candidate Starts for Purky_64:

(14, 41383), (47, 41530), (Start: 56 @41545 has 181 MA's), (98, 41677), (140, 41794), (151, 41848),

Gene: QuickMath_66 Start: 43318, Stop: 43566, Start Num: 56

Candidate Starts for QuickMath_66:

(Start: 56 @43318 has 181 MA's), (76, 43381), (95, 43423),

Gene: Rando14_64 Start: 42240, Stop: 42497, Start Num: 51

Candidate Starts for Rando14_64:

(Start: 41 @42219 has 1 MA's), (Start: 51 @42240 has 1 MA's), (75, 42300), (99, 42360), (108, 42390), (131, 42435),

Gene: RedBird_74 Start: 45372, Stop: 45599, Start Num: 56

Candidate Starts for RedBird_74:

(Start: 56 @45372 has 181 MA's), (93, 45471),

Gene: Redno2_140 Start: 75128, Stop: 75373, Start Num: 109

Candidate Starts for Redno2_140:

(60, 74993), (97, 75083), (Start: 109 @75128 has 34 MA's), (136, 75200), (137, 75203),

Gene: Redno2_84 Start: 53253, Stop: 53483, Start Num: 56

Candidate Starts for Redno2_84:

(Start: 56 @53253 has 181 MA's), (Start: 57 @53265 has 1 MA's), (98, 53352), (104, 53376),

Gene: Renaud18_58 Start: 38221, Stop: 38445, Start Num: 56

Candidate Starts for Renaud18_58:

(Start: 40 @38191 has 1 MA's), (Start: 56 @38221 has 181 MA's), (62, 38254), (85, 38278), (98, 38311),

Gene: Renaud18_70 Start: 41973, Stop: 42221, Start Num: 56

Candidate Starts for Renaud18_70:

(Start: 41 @41946 has 1 MA's), (Start: 56 @41973 has 181 MA's), (91, 42069), (98, 42093), (116, 42126),

Gene: Renaud18_71 Start: 42261, Stop: 42503, Start Num: 54

Candidate Starts for Renaud18_71:

(Start: 54 @42261 has 8 MA's), (58, 42276), (99, 42354), (125, 42414),

Gene: Rimu_54 Start: 47570, Stop: 47301, Start Num: 56

Candidate Starts for Rimu_54:

(13, 47729), (21, 47672), (28, 47645), (34, 47624), (35, 47618), (Start: 56 @47570 has 181 MA's), (59, 47546), (90, 47498), (92, 47492), (99, 47468),

Gene: RitaG_73 Start: 46813, Stop: 47040, Start Num: 56

Candidate Starts for RitaG_73:

(Start: 56 @46813 has 181 MA's), (93, 46912),

Gene: Rockne_53 Start: 37214, Stop: 37471, Start Num: 56

Candidate Starts for Rockne_53:

(19, 37100), (22, 37112), (32, 37148), (46, 37199), (Start: 56 @37214 has 181 MA's), (99, 37325), (Start: 109 @37355 has 34 MA's),

Gene: RockyHorror_53 Start: 37057, Stop: 37299, Start Num: 56

Candidate Starts for RockyHorror_53:

(Start: 40 @37027 has 1 MA's), (Start: 56 @37057 has 181 MA's), (99, 37168),

Gene: Royals2015_55 Start: 37315, Stop: 37545, Start Num: 56

Candidate Starts for Royals2015_55:

(Start: 40 @37285 has 1 MA's), (Start: 56 @37315 has 181 MA's), (Start: 63 @37351 has 5 MA's), (98, 37411), (99, 37414),

Gene: Ryadel_103 Start: 62455, Stop: 62225, Start Num: 71

Candidate Starts for Ryadel_103:

(Start: 56 @62491 has 181 MA's), (Start: 71 @62455 has 7 MA's), (98, 62395), (99, 62392),

Gene: SG4_69 Start: 43478, Stop: 43705, Start Num: 56

Candidate Starts for SG4_69:

(Start: 56 @43478 has 181 MA's), (93, 43577),

Gene: SG4_49 Start: 36037, Stop: 36267, Start Num: 56

Candidate Starts for SG4_49:

(38, 36004), (Start: 40 @36007 has 1 MA's), (Start: 56 @36037 has 181 MA's), (Start: 63 @36073 has 5 MA's), (98, 36133), (99, 36136),

Gene: Sassafras_50 Start: 36161, Stop: 36394, Start Num: 56

Candidate Starts for Sassafras_50:

(Start: 40 @36131 has 1 MA's), (Start: 56 @36161 has 181 MA's), (59, 36185), (84, 36227), (94, 36242), (98, 36260), (99, 36263),

Gene: Sassafras_74 Start: 45702, Stop: 45929, Start Num: 56

Candidate Starts for Sassafras_74:

(Start: 56 @45702 has 181 MA's), (93, 45801),

Gene: Schatzie_141 Start: 77688, Stop: 77933, Start Num: 109

Candidate Starts for Schatzie_141:

(60, 77553), (92, 77628), (97, 77643), (Start: 109 @77688 has 34 MA's), (136, 77760), (137, 77763),

Gene: Scottish_71 Start: 45361, Stop: 45588, Start Num: 56

Candidate Starts for Scottish_71:

(Start: 56 @45361 has 181 MA's), (93, 45460),

Gene: Seabastian_39 Start: 31199, Stop: 31008, Start Num: 56

Candidate Starts for Seabastian_39:

(Start: 56 @31199 has 181 MA's), (100, 31109),

Gene: Sebata_6 Start: 2738, Stop: 2995, Start Num: 56

Candidate Starts for Sebata_6:

(Start: 50 @2729 has 3 MA's), (Start: 56 @2738 has 181 MA's), (59, 2762), (87, 2804), (94, 2819), (98, 2837), (99, 2840), (138, 2936),

Gene: Shauna1_47 Start: 36503, Stop: 36781, Start Num: 56

Candidate Starts for Shauna1_47:

(26, 36419), (31, 36437), (42, 36479), (Start: 56 @36503 has 181 MA's), (99, 36614),

Gene: ShroomBoi_52 Start: 36993, Stop: 37238, Start Num: 56

Candidate Starts for ShroomBoi_52:

(26, 36909), (31, 36927), (42, 36969), (Start: 56 @36993 has 181 MA's), (99, 37104),

Gene: SirHarley_86 Start: 60117, Stop: 60344, Start Num: 56

Candidate Starts for SirHarley_86:

(17, 59994), (Start: 56 @60117 has 181 MA's), (Start: 63 @60153 has 5 MA's), (70, 60162), (99, 60216),

Gene: SiwenD96_4 Start: 1375, Stop: 1566, Start Num: 63

Candidate Starts for SiwenD96_4:

(15, 1198), (30, 1270), (Start: 50 @1330 has 3 MA's), (Start: 56 @1339 has 181 MA's), (Start: 63 @1375 has 5 MA's), (74, 1384), (99, 1438), (119, 1477),

Gene: Smairt_67 Start: 44819, Stop: 44574, Start Num: 56

Candidate Starts for Smairt_67:

(Start: 56 @44819 has 181 MA's), (Start: 73 @44777 has 1 MA's), (82, 44765), (85, 44762), (99, 44723), (105, 44705),

Gene: Sparkdehlily_60 Start: 38797, Stop: 39039, Start Num: 56

Candidate Starts for Sparkdehlily_60:

(52, 38791), (Start: 56 @38797 has 181 MA's), (99, 38908),

Gene: Specks_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for Specks_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Stellammi_132 Start: 62378, Stop: 62599, Start Num: 56

Candidate Starts for Stellammi_132:

(Start: 56 @62378 has 181 MA's), (99, 62471),

Gene: Sunshine924_70 Start: 43095, Stop: 42850, Start Num: 56

Candidate Starts for Sunshine924_70:

(Start: 56 @43095 has 181 MA's), (Start: 73 @43053 has 1 MA's), (82, 43041), (85, 43038), (99, 42999), (105, 42981),

Gene: SuperGrey_52 Start: 37962, Stop: 38207, Start Num: 56

Candidate Starts for SuperGrey_52:

(26, 37878), (31, 37896), (42, 37938), (Start: 56 @37962 has 181 MA's), (99, 38073),

Gene: TDanisky_60 Start: 38797, Stop: 39039, Start Num: 56

Candidate Starts for TDanisky_60:

(52, 38791), (Start: 56 @38797 has 181 MA's), (99, 38908),

Gene: Tainan_6 Start: 1924, Stop: 2115, Start Num: 63

Candidate Starts for Tainan_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: Taj_56 Start: 38142, Stop: 38369, Start Num: 56

Candidate Starts for Taj_56:

(Start: 40 @38112 has 1 MA's), (Start: 56 @38142 has 181 MA's), (62, 38175), (85, 38199), (98, 38232),

Gene: Tarzan_58 Start: 37656, Stop: 37880, Start Num: 56

Candidate Starts for Tarzan_58:

(Start: 56 @37656 has 181 MA's), (66, 37692), (107, 37785), (130, 37833),

Gene: ThetaBob_69 Start: 42635, Stop: 42865, Start Num: 68

Candidate Starts for ThetaBob_69:

(42, 42563), (Start: 56 @42590 has 181 MA's), (62, 42623), (Start: 68 @42635 has 1 MA's), (77, 42656), (86, 42680), (98, 42716), (99, 42719), (144, 42851),

Gene: Thibault_128 Start: 74023, Stop: 74301, Start Num: 109

Candidate Starts for Thibault_128:

(60, 73888), (97, 73978), (Start: 109 @74023 has 34 MA's), (136, 74095), (137, 74098), (150, 74140), (152, 74206), (153, 74218),

Gene: ThreeRngTarjay_140 Start: 77611, Stop: 77856, Start Num: 109

Candidate Starts for ThreeRngTarjay_140:

(60, 77476), (92, 77551), (97, 77566), (Start: 109 @77611 has 34 MA's), (136, 77683), (137, 77686),

Gene: TinyDot_48 Start: 31963, Stop: 32163, Start Num: 73

Candidate Starts for TinyDot_48:

(Start: 73 @31963 has 1 MA's), (120, 32071), (121, 32074),

Gene: Tonenili_49 Start: 15568, Stop: 15810, Start Num: 56

Candidate Starts for Tonenili_49:

(45, 15550), (Start: 56 @15568 has 181 MA's), (59, 15592), (87, 15634), (94, 15649), (99, 15670), (112, 15700), (121, 15718), (134, 15739),

Gene: Tonenili_50 Start: 15803, Stop: 16036, Start Num: 56

Candidate Starts for Tonenili_50:

(49, 15797), (Start: 56 @15803 has 181 MA's), (Start: 63 @15839 has 5 MA's), (88, 15875), (98, 15896), (133, 15962), (136, 15971),

Gene: Topiatin_58 Start: 38825, Stop: 39058, Start Num: 56

Candidate Starts for Topiatin_58:

(Start: 40 @38795 has 1 MA's), (Start: 56 @38825 has 181 MA's), (81, 38879), (99, 38927),

Gene: Toron_84 Start: 50886, Stop: 51176, Start Num: 56

Candidate Starts for Toron_84:

(34, 50841), (Start: 56 @50886 has 181 MA's), (58, 50901), (59, 50910), (98, 51018), (135, 51111), (151, 51162),

Gene: Troll4_84 Start: 59937, Stop: 60161, Start Num: 56

Candidate Starts for Troll4_84:

(17, 59811), (19, 59820), (Start: 56 @59937 has 181 MA's), (91, 60033), (99, 60060), (132, 60111),

Gene: Tweety_52 Start: 37774, Stop: 38004, Start Num: 56

Candidate Starts for Tweety_52:

(Start: 40 @37744 has 1 MA's), (Start: 56 @37774 has 181 MA's), (Start: 63 @37810 has 5 MA's), (98, 37870), (99, 37873),

Gene: Tyke_6 Start: 1888, Stop: 2115, Start Num: 56

Candidate Starts for Tyke_6:

(Start: 50 @1879 has 3 MA's), (Start: 56 @1888 has 181 MA's), (Start: 63 @1924 has 5 MA's), (74, 1933), (99, 1987), (119, 2026),

Gene: VRedHorse_52 Start: 36525, Stop: 36758, Start Num: 56

Candidate Starts for VRedHorse_52:

(Start: 40 @36495 has 1 MA's), (Start: 56 @36525 has 181 MA's), (Start: 63 @36561 has 5 MA's), (98, 36621), (99, 36624),

Gene: VanLee_73 Start: 43882, Stop: 44154, Start Num: 56

Candidate Starts for VanLee_73:

(Start: 56 @43882 has 181 MA's), (85, 43969), (92, 43987), (106, 44041),

Gene: VasuNzinga_8 Start: 2535, Stop: 2807, Start Num: 56

Candidate Starts for VasuNzinga_8:

(Start: 56 @2535 has 181 MA's), (85, 2598), (99, 2640),

Gene: Venti_53 Start: 36036, Stop: 36263, Start Num: 56

Candidate Starts for Venti_53:

(29, 35973), (Start: 56 @36036 has 181 MA's), (93, 36135),

Gene: Vortrix_52 Start: 16078, Stop: 16320, Start Num: 56

Candidate Starts for Vortrix_52:

(18, 15955), (Start: 56 @16078 has 181 MA's), (88, 16153), (98, 16180), (133, 16246), (136, 16255),

Gene: Vortrix_51 Start: 15836, Stop: 16081, Start Num: 56

Candidate Starts for Vortrix_51:

(45, 15818), (Start: 56 @15836 has 181 MA's), (59, 15860), (87, 15902), (94, 15917), (99, 15938), (112, 15968), (121, 15986), (134, 16007),

Gene: Wanda_145 Start: 75318, Stop: 75596, Start Num: 109

Candidate Starts for Wanda_145:

(60, 75183), (97, 75273), (Start: 109 @75318 has 34 MA's), (136, 75390), (137, 75393), (150, 75435), (153, 75513),

Gene: Wee_55 Start: 38414, Stop: 38641, Start Num: 56

Candidate Starts for Wee_55:

(Start: 40 @38384 has 1 MA's), (Start: 56 @38414 has 181 MA's), (62, 38447), (85, 38471), (98, 38504),

Gene: Whatsapiecost_53 Start: 36689, Stop: 36931, Start Num: 56

Candidate Starts for Whatsapiecost_53:

(Start: 56 @36689 has 181 MA's), (99, 36800),

Gene: William_80 Start: 49369, Stop: 49632, Start Num: 56

Candidate Starts for William_80:

(5, 49048), (6, 49063), (7, 49099), (Start: 56 @49369 has 181 MA's), (64, 49405), (89, 49456),

Gene: WilliamBoone_96 Start: 57383, Stop: 57652, Start Num: 56

Candidate Starts for WilliamBoone_96:

(Start: 56 @57383 has 181 MA's), (92, 57488), (113, 57554),

Gene: XFactor_50 Start: 36012, Stop: 36242, Start Num: 56

Candidate Starts for XFactor_50:

(Start: 40 @35982 has 1 MA's), (Start: 56 @36012 has 181 MA's), (Start: 63 @36048 has 5 MA's), (98, 36108), (99, 36111),

Gene: Xiaokay_141 Start: 77151, Stop: 77429, Start Num: 109

Candidate Starts for Xiaokay_141:

(11, 76800), (60, 77016), (97, 77106), (Start: 109 @77151 has 34 MA's), (136, 77223), (137, 77226), (152, 77334), (153, 77346),

Gene: Yeet_139 Start: 77084, Stop: 77329, Start Num: 109

Candidate Starts for Yeet_139:

(60, 76949), (97, 77039), (Start: 109 @77084 has 34 MA's), (136, 77156), (137, 77159),

Gene: Yoshi_64 Start: 38747, Stop: 38995, Start Num: 55

Candidate Starts for Yoshi_64:

(Start: 40 @38717 has 1 MA's), (Start: 55 @38747 has 1 MA's), (91, 38843), (98, 38867), (116, 38900),

Gene: Yoshi_77 Start: 42854, Stop: 43129, Start Num: 56

Candidate Starts for Yoshi_77:

(42, 42827), (Start: 56 @42854 has 181 MA's), (62, 42887), (Start: 68 @42899 has 1 MA's), (77, 42920), (86, 42944), (98, 42980), (99, 42983), (144, 43115),

Gene: Yoshi_44 Start: 30151, Stop: 29960, Start Num: 56

Candidate Starts for Yoshi_44:

(Start: 56 @30151 has 181 MA's), (100, 30061),

Gene: YungJamal_99 Start: 61508, Stop: 61278, Start Num: 71

Candidate Starts for YungJamal_99:

(Start: 56 @61544 has 181 MA's), (Start: 71 @61508 has 7 MA's), (98, 61448), (99, 61445),

Gene: Zelink_140 Start: 78130, Stop: 78408, Start Num: 109

Candidate Starts for Zelink_140:

(60, 77995), (92, 78070), (97, 78085), (Start: 109 @78130 has 34 MA's), (136, 78202), (137, 78205), (150, 78247), (153, 78325),

Gene: Zerg_52 Start: 37166, Stop: 37408, Start Num: 56

Candidate Starts for Zerg_52:

(Start: 40 @37136 has 1 MA's), (Start: 56 @37166 has 181 MA's), (99, 37277),