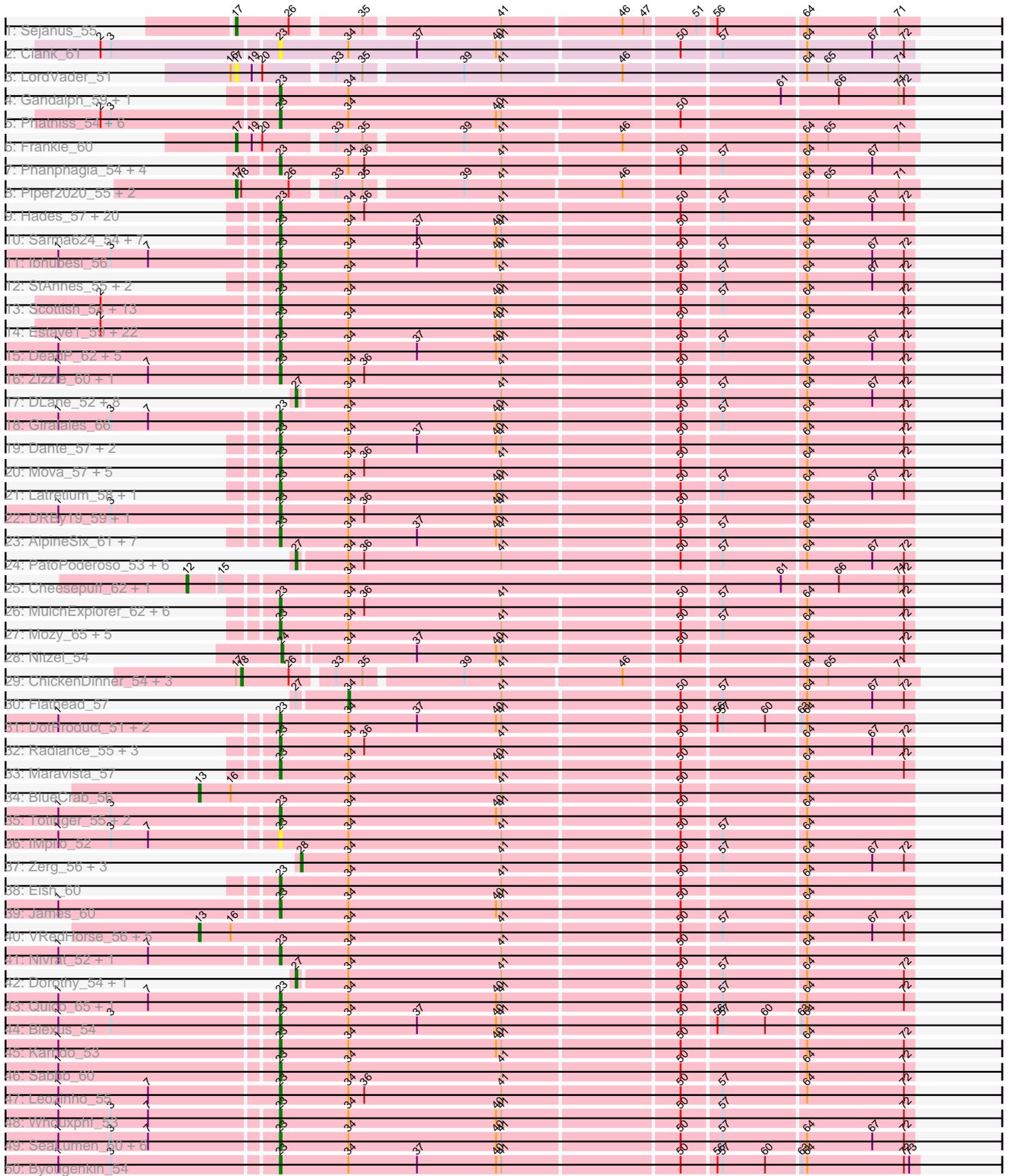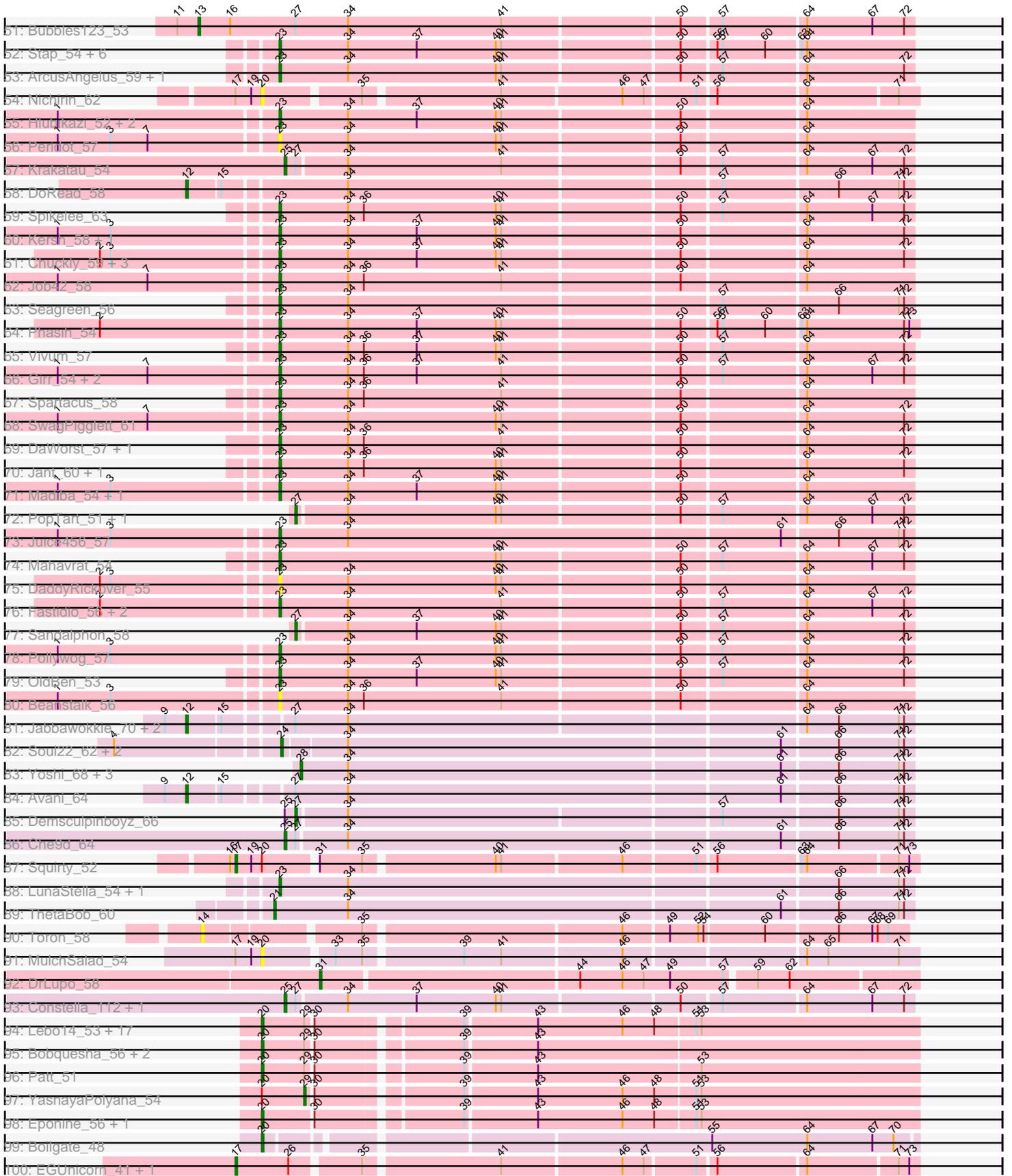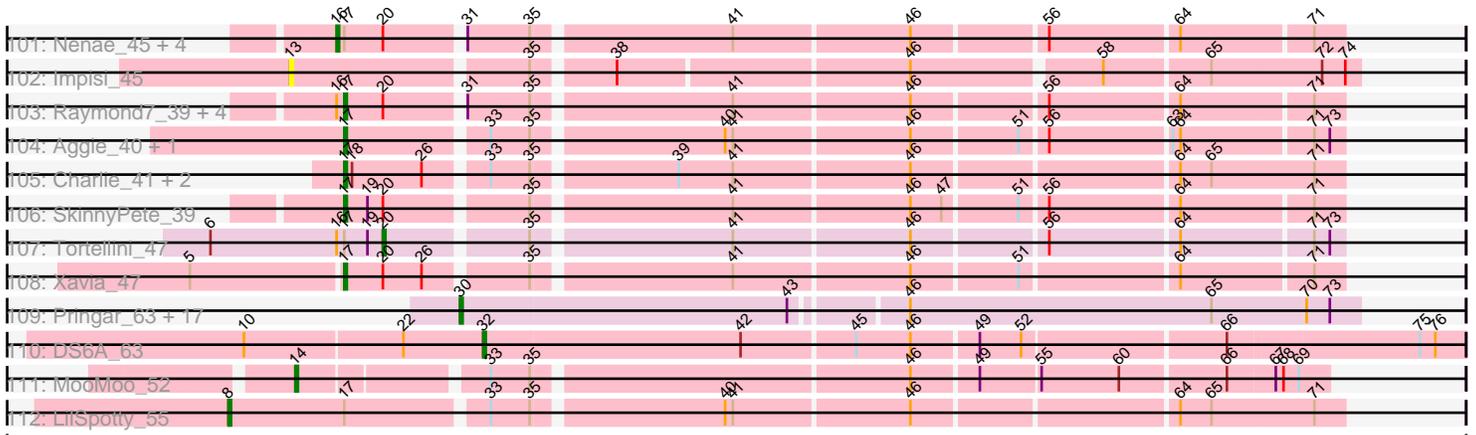# Pham 290750

Pham 290750

Pham 290750

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 290750 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290750 has 343 members, 37 are drafts.

Phages represented in each track:
• Track 1 : Sejanus_55
• Track 2 : Clank_61
• Track 3 : LordVader_51
• Track 4 : Gandalph_59, Cornucopia_58
• Track 5 : Phatniss_54, Llij_52, UncleRicky_55, Lucia_56, Drago_54, DirtMcgirt_55, Lorde_56
• Track 6 : Frankie_60
• Track 7 : Phanphagia_54, Shauna1_55, Donkeykong_60, MilanaBonita_47, Akhila_48
• Track 8 : Piper2020_55, TootsiePop_53, Misha28_53
• Track 9 : Hades_57, CaptainTrips_53, MinionDave_55, TDanisky_64, Doomslug_65, SG4_53, GUmbie_54, OwlsT2W_56, SilverChicken_67, Inventum_51, PhesterPhotato_57, Eradicator_49, Juniper1_54, Wachhund_58, BuzzLyseyear_62, Mwanjiwa_62, Enby_57, Sassafras_54, Veteran_53, Bipolar_55, Sparkdehlily_64
• Track 10 : Sarma624_54, BigPhil_52, Kingsley_53, Cerasum_52, Tootsieroll_57, Brookers_53, Coco12_55, Velveteen_51
• Track 11 : Ibhubesi_56
• Track 12 : StAnnes_55, Medindi_53, SimranZ1_56
• Track 13 : Scottish_54, Daenerys_50, Rockne_57, Pacc40_50, KingMidas_55, Deb65_51, PMC_53, Boomer_61, Nimbo_50, JoeyJr_51, PHappiness_51, Geralt_51, Leperchaun_48, RitaG_51
• Track 14 : Estave1_59, Pippy_54, LastJedi_50, Crumble_51, Lizziana_62, Starcevich_55, ShowerHandel_59, OlympiaSaint_58, Burwell21_54, NormanBulbieJr_56, Priscilla_56, FreddyB_57, Yorick_55, Cabrinians_57, Jarcob_56, Martik_56, Koella_50, Brocalys_51, ShiLan_55, Clifton_51, Saal_58, Gorge_60, Jennelsea_53
• Track 15 : DeadP_62, Taj_60, Tchotchke_57, Wee_59, KristaRAM_59, Tweety_56
• Track 16 : Zizzle_60, Mattes_60
• Track 17 : DLane_52, Moonbeam_55, Filuzino_55, Bobi_62, Ardmore_49, Melissauren88_55, Emma_58, Phalconet_55, Fruitloop_54
• Track 18 : Girafales_66
• Track 19 : Dante_57, Ramsey_56, Ovechkin_55
• Track 20 : Mova_57, Brushbloom_59, Whatsapiecost_57, Minnie_60, MilleniumForce_60, Squirty_59
• Track 21 : Latretium_58, Grimmer_66
• Track 22 : DRBy19_59, Philus_59

- Track 23 : AlpineSix_61, Seabastian_61, Jinglebell_61, Modragons_60, Ochi17_59, OfUltron_61, Oksu_60, Llama_61
- Track 24 : PatoPoderoso_53, XFactor_55, Ms6_52, Hamulus_58, Batiatus_55, KingJulian_56, Corium_53
- Track 25 : Cheesepuff_62, Cornie_51
- Track 26 : MulchExplorer_62, GigiOuiOui_52, QuickMath_57, EmiMonkey_54, DosHalletts_58, Kimberlium_58, PhlipPhlop_56
- Track 27 : Mozy_65, SiSi_54, Alexphander_60, SuperGrey_60, Mantra_52, Plumbus_58
- Track 28 : Nitzel_54
- Track 29 : ChickenDinner_54, DocMcStuffins_54, Awesomesauce_55, Aloeri_55
- Track 30 : Flathead_57
- Track 31 : DotProduct_51, Firehouse51_57, Mutaforma13_60
- Track 32 : Radiance_55, Renaud18_61, Hegedechwinu_56, IbOuu_55
- Track 33 : Maravista_57
- Track 34 : BlueCrab_56
- Track 35 : Totinger_55, ByChance_48, LittleShirley_55
- Track 36 : IMpilo_52
- Track 37 : Zerg_56, Ogopogo_62, RockyHorror_57, Kenuha5_54
- Track 38 : Eish_60
- Track 39 : James_60
- Track 40 : VRedHorse_56, Emmaloid_57, Royals2015_59, Slim_57, Beakin_58, Rialto_62
- Track 41 : Nivrat_52, LilMoolah_54
- Track 42 : Dorothy_54, RedBird_54
- Track 43 : Quico_65, Florinda_68
- Track 44 : Blexus_54
- Track 45 : Karhdo_53
- Track 46 : Sabbb_60
- Track 47 : Leozinho_55
- Track 48 : Whouxphf_53
- Track 49 : SeaLumen_60, LunaBlu_58, NewHope4_57, Fancypants_58, Polo2Bam_61, Galactic_55, Enzomatic_62
- Track 50 : Byougenkin_54
- Track 51 : Bubbles123_53
- Track 52 : Stap_54, Doomphist_56, Empress_54, Poenanya_56, Spoonbill_53, BodEinwohner17_56, Polka14_54
- Track 53 : ArcusAngelus_59, Chevrolet_62
- Track 54 : Nichirin_62
- Track 55 : Hlubikazi_52, Mandlovu_52, Strokeseat_52
- Track 56 : Peridot_57
- Track 57 : Krakatau_54
- Track 58 : DoRead_58
- Track 59 : Spikelee_63
- Track 60 : Kersh_58, ShroomBoi_58
- Track 61 : Chuckly_59, Rita_57, BobaPhett_60, MadMen_54
- Track 62 : Job42_58
- Track 63 : Seagreen_56
- Track 64 : Phasih_54
- Track 65 : Vivum_57
- Track 66 : Girr_54, Ruby_52, MisterCuddles_54
- Track 67 : Spartacus_58
- Track 68 : SwagPigglett_61

- Track 69 : DaWorst_57, Doug_58
- Track 70 : Jant_60, Guppsters_57
- Track 71 : Madiba_54, Violac_58
- Track 72 : PopTart_51, SassyB_51
- Track 73 : Juice456_57
- Track 74 : Mahavrat_54
- Track 75 : DaddyRickover_55
- Track 76 : Fastidio_56, Aubs_57, DillTech15_53
- Track 77 : Sandalphon_58
- Track 78 : Pollywog_57
- Track 79 : OldBen_53
- Track 80 : Beanstalk_56
- Track 81 : Jabbawokkie_70, Blarby_68, Zapner_69
- Track 82 : Soul22_62, EleanorGeorge_57, Che8_61
- Track 83 : Yoshi_68, Harley_59, Topiatin_63, JalFarm20_69
- Track 84 : Avani_64
- Track 85 : Demsculpinboyz_66
- Track 86 : Che9d_64
- Track 87 : Squirty_52
- Track 88 : LunaStella_54, TChen_56
- Track 89 : ThetaBob_60
- Track 90 : Toron_58
- Track 91 : MulchSalad_54
- Track 92 : DrLupo_58
- Track 93 : Constella_112, Marker_58
- Track 94 : Lebo14_53, Fionnbharth_54, Juliette_56, OmniCritical_53, Taquito_54, Wintermute_54, Y10_53, Mitti_54, Kraw_54, DanSyl44_57, JF1_54, Malthus_55, Qhanda_56, Chancellor_54, SamScheppers_52, Cheetobro_54, Slarp_54, Y2_53
- Track 95 : Bobquesha_56, Reptar3000_52, MissDaisy_52
- Track 96 : Patt_51
- Track 97 : YasnayaPolyana_54
- Track 98 : Eponine_56, Ruthiejr_55
- Track 99 : Boilgate_48
- Track 100 : EGUnicorn_41, Bosection6_40
- Track 101 : Nenae_45, Redi_45, PhancyPhin_45, Hanako_45, ShrimpFriedEgg_45
- Track 102 : Impisi_45
- Track 103 : Raymond7_39, BabeRuth_46, Purgamenstris_45, Spinach_45, Rebel_37
- Track 104 : Aggie_40, Silvy_40
- Track 105 : Charlie_41, Cubone_43, Journey_40
- Track 106 : SkinnyPete_39
- Track 107 : Tortellini_47
- Track 108 : Xavia_47
- Track 109 : Pringar_63, FeliMaine_66, VasuNzinga_63, Huphlepuff_66, RedRaider77_63, Tesla_61, Beelzebub_68, Poise_64, Clarkson_65, Gattaca_62, Raela_64, JoieB_65, MosMoris_61, Corazon_62, Marvin_60, Blackbeetle_64, Caprice_59, GoongGoong_61
- Track 110 : DS6A_63
- Track 111 : MooMoo_52
- Track 112 : LilSpotty_55

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

The start number called the most often in the published annotations is 23, it was called in 185 of the 306 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akhila_48, Alexphander_60, AlpineSix_61, ArcusAngelus_59, Aubs_57, Beanstalk_56, BigPhil_52, Bipolar_55, Blexus_54, BobaPhett_60, BodEinwohner17_56, Boomer_61, Brocalys_51, Brookers_53, Brushbloom_59, Burwell21_54, BuzzLyseyear_62, ByChance_48, Byougenkin_54, Cabrinians_57, CaptainTrips_53, Cerasum_52, Chevrolet_62, Chuckly_59, Clank_61, Clifton_51, Coco12_55, Cornucopia_58, Crumble_51, DRBy19_59, DaWorst_57, DaddyRickover_55, Daenerys_50, Dante_57, DeadP_62, Deb65_51, DillTech15_53, DirtMcgirt_55, Donkeykong_60, Doomphist_56, Doomslug_65, DosHalletts_58, DotProduct_51, Doug_58, Drago_54, Eish_60, EmiMonkey_54, Empress_54, Enby_57, Enzomatic_62, Eradicator_49, Estave1_59, Fancypants_58, Fastidio_56, Firehouse51_57, Florinda_68, FreddyB_57, GUmbie_54, Galactic_55, Gandalph_59, Geralt_51, GigiOuiOui_52, Girafales_66, Girr_54, Gorge_60, Grimmer_66, Guppsters_57, Hades_57, Hegedechwinu_56, Hlubikazi_52, IMpilo_52, IbOuu_55, Ibhubesi_56, Inventum_51, James_60, Jant_60, Jarcob_56, Jennelsea_53, Jinglebell_61, Job42_58, JoeyJr_51, Juice456_57, Juniper1_54, Karhdo_53, Kersh_58, Kimberlium_58, KingMidas_55, Kingsley_53, Koella_50, KristaRAM_59, LastJedi_50, Latretium_58, Leozinho_55, Leperchaun_48, LilMoolah_54, LittleShirley_55, Lizziana_62, Llama_61, Llij_52, Lorde_56, Lucia_56, LunaBlu_58, LunaStella_54, MadMen_54, Madiba_54, Mahavrat_54, Mandlovu_52, Mantra_52, Maravista_57, Martik_56, Mattes_60, Medindi_53, MilanaBonita_47, MilleniumForce_60, MinionDave_55, Minnie_60, MisterCuddles_54, Modragons_60, Mova_57, Mozy_65, MulchExplorer_62, Mutaforma13_60, Mwanjiwa_62, NewHope4_57, Nimbo_50, Nivrat_52, NormanBulbieJr_56, Ochi17_59, OfUltron_61, Oksu_60, OldBen_53, OlympiaSaint_58, Ovechkin_55, OwlsT2W_56, PHappiness_51, PMC_53, Pacc40_50, Peridot_57, Phanphagia_54, Phasih_54, Phatniss_54, PhesterPhotato_57, Philus_59, PhlipPhlop_56, Pippy_54, Plumbus_58, Poenanya_56, Polka14_54, Pollywog_57, Polo2Bam_61, Priscilla_56, QuickMath_57, Quico_65, Radiance_55, Ramsey_56, Renaud18_61, RitaG_51, Rita_57, Rockne_57, Ruby_52, SG4_53, Saal_58, Sabbb_60, Sarma624_54, Sassafras_54, Scottish_54, SeaLumen_60, Seabastian_61, Seagreen_56, Shauna1_55, ShiLan_55, ShowerHandel_59, ShroomBoi_58, SiSi_54, SilverChicken_67, SimranZ1_56, Sparkdehlily_64, Spartacus_58, Spikelee_63, Spoonbill_53, Squirty_59, StAnnes_55, Stap_54, Starcevich_55, Strokeseat_52, SuperGrey_60, SwagPigglett_61, TChen_56, TDanisky_64, Taj_60, Tchotchke_57, Tootsieroll_57, Totinger_55, Tweety_56, UncleRicky_55, Velveteen_51, Veteran_53, Violac_58, Vivum_57, Wachhund_58, Wee_59, Whatsapiecost_57, Whouxphf_53, Yorick_55, Zizzle_60,

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

Genes that do not have the "Most Annotated" start:
• Aggie_40, Aloeri_55, Ardmore_49, Avani_64, Awesomesauce_55, BabeRuth_46, Batiatus_55, Beakin_58, Beelzebub_68, Blackbeetle_64, Blarby_68, BlueCrab_56, Bobi_62, Bobquesha_56, Boilgate_48, Bosection6_40, Bubbles123_53, Caprice_59, Chancellor_54, Charlie_41, Che8_61, Che9d_64, Cheesepuff_62, Cheetobro_54, ChickenDinner_54, Clarkson_65, Constella_112, Corazon_62, Corium_53,

Cornie_51, Cubone_43, DLane_52, DS6A_63, DanSyl44_57, Demsculpinboyz_66, DoRead_58, DocMcStuffins_54, Dorothy_54, DrLupo_58, EGUnicorn_41, EleanorGeorge_57, Emma_58, Emmaloid_57, Eponine_56, FeliMaine_66, Filuzino_55, Fionnbharth_54, Flathead_57, Frankie_60, Fruitloop_54, Gattaca_62, GoongGoong_61, Hamulus_58, Hanako_45, Harley_59, Huphlepuff_66, Impisi_45, JF1_54, Jabbawokkie_70, JalFarm20_69, JoieB_65, Journey_40, Juliette_56, Kenuha5_54, KingJulian_56, Krakatau_54, Kraw_54, Lebo14_53, LilSpotty_55, LordVader_51, Malthus_55, Marker_58, Marvin_60, Melissauren88_55, Misha28_53, MissDaisy_52, Mitti_54, MooMoo_52, Moonbeam_55, MosMoris_61, Ms6_52, MulchSalad_54, Nenae_45, Nichirin_62, Nitzel_54, Ogopogo_62, OmniCritical_53, PatoPoderoso_53, Patt_51, Phalconet_55, PhancyPhin_45, Piper2020_55, Poise_64, PopTart_51, Pringar_63, Purgamenstris_45, Qhanda_56, Raela_64, Raymond7_39, Rebel_37, RedBird_54, RedRaider77_63, Redi_45, Reptar3000_52, Rialto_62, RockyHorror_57, Royals2015_59, Ruthiejr_55, SamScheppers_52, Sandalphon_58, SassyB_51, Sejanus_55, ShrimpFriedEgg_45, Silvy_40, SkinnyPete_39, Slarp_54, Slim_57, Soul22_62, Spinach_45, Squirty_52, Taquito_54, Tesla_61, ThetaBob_60, TootsiePop_53, Topiatin_63, Toron_58, Tortellini_47, VRedHorse_56, VasuNzinga_63, Wintermute_54, XFactor_55, Xavia_47, Y10_53, Y2_53, YasnayaPolyana_54, Yoshi_68, Zapner_69, Zerg_56,

Summary by start number:

Start 8:
• Found in 1 of 343 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LilSpotty_55 (singleton),

Start 12:
• Found in 7 of 343 (2.0%) of genes in pham
• Manual Annotations of this start: 6 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Avani_64 (F2), Blarby_68 (F), Cheesepuff_62 (F1), Cornie_51 (F5), DoRead_58 (F1), Jabbawokkie_70 (F2), Zapner_69 (F2),

Start 13:
• Found in 9 of 343 (2.6%) of genes in pham
• Manual Annotations of this start: 8 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beakin_58 (F1), BlueCrab_56 (F1), Bubbles123_53 (F1), Emmaloid_57 (F1), Impisi_45 (N), Rialto_62 (F1), Royals2015_59 (F1), Slim_57 (F1), VRedHorse_56 (F1),

Start 14:
• Found in 2 of 343 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MooMoo_52 (singleton), Toron_58 (F6),

Start 16:
• Found in 21 of 343 (6.1%) of genes in pham
• Manual Annotations of this start: 5 of 306

• Called 23.8% of time when present
• Phage (with cluster) where this start called: Hanako_45 (N), Nenae_45 (N), PhancyPhin_45 (N), Redi_45 (N), ShrimpFriedEgg_45 (N),

Start 17:
• Found in 34 of 343 (9.9%) of genes in pham
• Manual Annotations of this start: 19 of 306
• Called 61.8% of time when present
• Phage (with cluster) where this start called: Aggie_40 (N), BabeRuth_46 (N), Bosection6_40 (N), Charlie_41 (N), Cubone_43 (N), EGUnicorn_41 (N), Frankie_60 (F1), Journey_40 (N), LordVader_51 (F), Misha28_53 (F1), Piper2020_55 (F1), Purgamenstris_45 (N), Raymond7_39 (N), Rebel_37 (N), Sejanus_55 (AD), Silvy_40 (N), SkinnyPete_39 (N), Spinach_45 (N), Squirty_52 (F3), TootsiePop_53 (F1), Xavia_47 (P3),

Start 18:
• Found in 10 of 343 (2.9%) of genes in pham
• Manual Annotations of this start: 4 of 306
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Aloeri_55 (F1), Awesomesauce_55 (F1), ChickenDinner_54 (F1), DocMcStuffins_54 (F1),

Start 20:
• Found in 44 of 343 (12.8%) of genes in pham
• Manual Annotations of this start: 23 of 306
• Called 63.6% of time when present
• Phage (with cluster) where this start called: Bobquesha_56 (K4), Boilgate_48 (K8), Chancellor_54 (K4), Cheetobro_54 (K4), DanSyl44_57 (K4), Eponine_56 (K4), Fionnbharth_54 (K4), JF1_54 (K4), Juliette_56 (K4), Kraw_54 (K4), Lebo14_53 (K4), Malthus_55 (K4), MissDaisy_52 (K4), Mitti_54 (K4), MulchSalad_54 (F7), Nichirin_62 (F1), OmniCritical_53 (K4), Patt_51 (K4), Qhanda_56 (K4), Reptar3000_52 (K4), Ruthiejr_55 (K4), SamScheppers_52 (K4), Slarp_54 (K4), Taquito_54 (K4), Tortellini_47 (P2), Wintermute_54 (K4), Y10_53 (K4), Y2_53 (K4),

Start 21:
• Found in 1 of 343 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ThetaBob_60 (F4),

Start 23:
• Found in 205 of 343 (59.8%) of genes in pham
• Manual Annotations of this start: 185 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akhila_48 (F1), Alexphander_60 (F1), AlpineSix_61 (F1), ArcusAngelus_59 (F1), Aubs_57 (F1), Beanstalk_56 (F1), BigPhil_52 (F1), Bipolar_55 (F1), Blexus_54 (F1), BobaPhett_60 (F1), BodEinwohner17_56 (F1), Boomer_61 (F1), Brocalys_51 (F1), Brookers_53 (F1), Brushbloom_59 (F1), Burwell21_54 (F1), BuzzLyseyear_62 (F1), ByChance_48 (F1), Byougenkin_54 (F1), Cabrinians_57 (F1), CaptainTrips_53 (F1), Cerasum_52 (F1), Chevrolet_62 (F1), Chuckly_59 (F1), Clank_61 (F), Clifton_51 (F1), Coco12_55 (F1), Cornucopia_58 (F1), Crumble_51 (F1), DRBy19_59 (F1), DaWorst_57 (F1), DaddyRickover_55 (F1), Daenerys_50 (F1), Dante_57 (F1), DeadP_62 (F1),

Deb65_51 (F1), DillTech15_53 (F1), DirtMcgirt_55 (F1), Donkeykong_60 (F1), Doomphist_56 (F1), Doomslug_65 (F), DosHalletts_58 (F1), DotProduct_51 (F1), Doug_58 (F1), Drago_54 (F1), Eish_60 (F1), EmiMonkey_54 (F1), Empress_54 (F1), Enby_57 (F1), Enzomatic_62 (F1), Eradicator_49 (F1), Estave1_59 (F1), Fancypants_58 (F1), Fastidio_56 (F1), Firehouse51_57 (F1), Florinda_68 (F1), FreddyB_57 (F1), GUmbie_54 (F1), Galactic_55 (F1), Gandalph_59 (F1), Geralt_51 (F1), GigiOuiOui_52 (F1), Girafales_66 (F1), Girr_54 (F1), Gorge_60 (F1), Grimmer_66 (F1), Guppsters_57 (F1), Hades_57 (F1), Hegedechwinu_56 (F1), Hlubikazi_52 (F1), IMpilo_52 (F1), IbOuu_55 (F1), Ibhubesi_56 (F1), Inventum_51 (F1), James_60 (F1), Jant_60 (F1), Jarcob_56 (F1), Jennelsea_53 (F1), Jinglebell_61 (F1), Job42_58 (F1), JoeyJr_51 (F1), Juice456_57 (F1), Juniper1_54 (F1), Karhdo_53 (F1), Kersh_58 (F1), Kimberlium_58 (F1), KingMidas_55 (F1), Kingsley_53 (F1), Koella_50 (F1), KristaRAM_59 (F1), LastJedi_50 (F1), Latretium_58 (F1), Leozinho_55 (F1), Leperchaun_48 (F1), LilMoolah_54 (F1), LittleShirley_55 (F1), Lizziana_62 (F1), Llama_61 (F1), Llij_52 (F1), Lorde_56 (F1), Lucia_56 (F1), LunaBlu_58 (F1), LunaStella_54 (F4), MadMen_54 (F1), Madiba_54 (F1), Mahavrat_54 (F1), Mandlovu_52 (F1), Mantra_52 (F1), Maravista_57 (F1), Martik_56 (F1), Mattes_60 (F1), Medindi_53 (F1), MilanaBonita_47 (F1), MilleniumForce_60 (F1), MinionDave_55 (F1), Minnie_60 (F1), MisterCuddles_54 (F1), Modragons_60 (F1), Mova_57 (F1), Mozy_65 (F1), MulchExplorer_62 (F1), Mutaforma13_60 (F1), Mwanjiwa_62 (F1), NewHope4_57 (F1), Nimbo_50 (F1), Nivrat_52 (F1), NormanBulbieJr_56 (F1), Ochi17_59 (F1), OfUltron_61 (F1), Oksu_60 (F1), OldBen_53 (F1), OlympiaSaint_58 (F1), Ovechkin_55 (F1), OwlsT2W_56 (F1), PHappiness_51 (F1), PMC_53 (F1), Pacc40_50 (F1), Peridot_57 (F1), Phanphagia_54 (F1), Phasih_54 (F1), Phatniss_54 (F1), PhesterPhotato_57 (F1), Philus_59 (F1), PhlipPhlop_56 (F1), Pippy_54 (F1), Plumbus_58 (F1), Poenanya_56 (F1), Polka14_54 (F1), Pollywog_57 (F1), Polo2Bam_61 (F1), Priscilla_56 (F1), QuickMath_57 (F1), Quico_65 (F1), Radiance_55 (F1), Ramsey_56 (F1), Renaud18_61 (F4), RitaG_51 (F1), Rita_57 (F1), Rockne_57 (F1), Ruby_52 (F1), SG4_53 (F1), Saal_58 (F1), Sabbb_60 (F1), Sarma624_54 (F1), Sassafras_54 (F1), Scottish_54 (F1), SeaLumen_60 (F1), Seabastian_61 (F1), Seagreen_56 (F1), Shauna1_55 (F1), ShiLan_55 (F1), ShowerHandel_59 (F1), ShroomBoi_58 (F1), SiSi_54 (F1), SilverChicken_67 (F2), SimranZ1_56 (F1), Sparkdehlily_64 (F1), Spartacus_58 (F1), Spikelee_63 (F1), Spoonbill_53 (F1), Squirty_59 (F3), StAnnes_55 (F1), Stap_54 (F1), Starcevich_55 (F1), Strokeseat_52 (F1), SuperGrey_60 (F1), SwagPigglett_61 (F1), TChen_56 (F4), TDanisky_64 (F1), Taj_60 (F1), Tchotchke_57 (F1), Tootsieroll_57 (F1), Totinger_55 (F1), Tweety_56 (F1), UncleRicky_55 (F1), Velveteen_51 (F1), Veteran_53 (F1), Violac_58 (F1), Vivum_57 (F1), Wachhund_58 (F1), Wee_59 (F1), Whatsapiecost_57 (F1), Whouxphf_53 (F1), Yorick_55 (F1), Zizzle_60 (F1),

Start 24:
• Found in 4 of 343 (1.2%) of genes in pham
• Manual Annotations of this start: 4 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Che8_61 (F1), EleanorGeorge_57 (F1), Nitzel_54 (F1), Soul22_62 (F2),

Start 25:
• Found in 5 of 343 (1.5%) of genes in pham
• Manual Annotations of this start: 4 of 306
• Called 80.0% of time when present

• Phage (with cluster) where this start called: Che9d_64 (F2), Constella_112 (J), Krakatau_54 (F1), Marker_58 (F1),

Start 27:
• Found in 32 of 343 (9.3%) of genes in pham
• Manual Annotations of this start: 18 of 306
• Called 68.8% of time when present
• Phage (with cluster) where this start called: Ardmore_49 (F1), Batiatus_55 (F1), Bobi_62 (F1), Corium_53 (F1), DLane_52 (F1), Demsculpinboyz_66 (F2), Dorothy_54 (F1), Emma_58 (F1), Filuzino_55 (F1), Fruitloop_54 (F1), Hamulus_58 (F1), KingJulian_56 (F1), Melissauren88_55 (F1), Moonbeam_55 (F1), Ms6_52 (F1), PatoPoderoso_53 (F1), Phalconet_55 (F1), PopTart_51 (F1), RedBird_54 (F1), Sandalphon_58 (F1), SassyB_51 (F1), XFactor_55 (F1),

Start 28:
• Found in 8 of 343 (2.3%) of genes in pham
• Manual Annotations of this start: 7 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Harley_59 (F1), JalFarm20_69 (F1), Kenuha5_54 (F1), Ogopogo_62 (F1), RockyHorror_57 (F1), Topiatin_63 (F1), Yoshi_68 (F2), Zerg_56 (F1),

Start 29:
• Found in 23 of 343 (6.7%) of genes in pham
• Manual Annotations of this start: 1 of 306
• Called 4.3% of time when present
• Phage (with cluster) where this start called: YasnayaPolyana_54 (K4),

Start 30:
• Found in 43 of 343 (12.5%) of genes in pham
• Manual Annotations of this start: 16 of 306
• Called 41.9% of time when present
• Phage (with cluster) where this start called: Beelzebub_68 (S), Blackbeetle_64 (S), Caprice_59 (S), Clarkson_65 (S), Corazon_62 (S), FeliMaine_66 (S), Gattaca_62 (S), GoongGoong_61 (S), Huphlepuff_66 (S), JoieB_65 (S), Marvin_60 (S), MosMoris_61 (S), Poise_64 (S), Pringar_63 (S), Raela_64 (S), RedRaider77_63 (S), Tesla_61 (S), VasuNzinga_63 (S),

Start 31:
• Found in 12 of 343 (3.5%) of genes in pham
• Manual Annotations of this start: 1 of 306
• Called 8.3% of time when present
• Phage (with cluster) where this start called: DrLupo_58 (H2),

Start 32:
• Found in 1 of 343 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 306
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DS6A_63 (singleton),

Start 34:
• Found in 259 of 343 (75.5%) of genes in pham
• Manual Annotations of this start: 1 of 306

• Called 0.4% of time when present
• Phage (with cluster) where this start called: Flathead_57 (F1),

Summary by clusters:

There are 18 clusters represented in this pham: P2, F1, F2, F7, F4, AD, F6, F, H2, P3, J, singleton, N, S, F3, K4, K8, F5,

Info for manual annotations of cluster AD:
•Start number 17 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster F1:
•Start number 12 was manually annotated 2 times for cluster F1.
•Start number 13 was manually annotated 8 times for cluster F1.
•Start number 17 was manually annotated 4 times for cluster F1.
•Start number 18 was manually annotated 4 times for cluster F1.
•Start number 23 was manually annotated 181 times for cluster F1.
•Start number 24 was manually annotated 3 times for cluster F1.
•Start number 25 was manually annotated 2 times for cluster F1.
•Start number 27 was manually annotated 17 times for cluster F1.
•Start number 28 was manually annotated 6 times for cluster F1.
•Start number 34 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 12 was manually annotated 3 times for cluster F2.
•Start number 24 was manually annotated 1 time for cluster F2.
•Start number 25 was manually annotated 1 time for cluster F2.
•Start number 27 was manually annotated 1 time for cluster F2.
•Start number 28 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F3:
•Start number 17 was manually annotated 1 time for cluster F3.
•Start number 23 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:
•Start number 21 was manually annotated 1 time for cluster F4.
•Start number 23 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 12 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster H2:
•Start number 31 was manually annotated 1 time for cluster H2.

Info for manual annotations of cluster J:
•Start number 25 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster K4:
•Start number 20 was manually annotated 21 times for cluster K4.
•Start number 29 was manually annotated 1 time for cluster K4.

Info for manual annotations of cluster K8:
•Start number 20 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster N:
•Start number 16 was manually annotated 5 times for cluster N.
•Start number 17 was manually annotated 12 times for cluster N.

Info for manual annotations of cluster P2:
•Start number 20 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:
•Start number 17 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster S:
•Start number 30 was manually annotated 16 times for cluster S.

Gene Information:

Gene: Aggie_40 Start: 29489, Stop: 29848, Start Num: 17
Candidate Starts for Aggie_40:
(Start: 17 @29489 has 19 MA's), (33, 29540), (35, 29555), (40, 29624), (41, 29627), (46, 29693), (51, 29732), (56, 29741), (63, 29786), (64, 29789), (71, 29837), (73, 29843),

Gene: Akhila_48 Start: 35145, Stop: 35492, Start Num: 23
Candidate Starts for Akhila_48:
(Start: 23 @35145 has 185 MA's), (Start: 34 @35184 has 1 MA's), (36, 35193), (41, 35271), (50, 35367), (57, 35388), (64, 35433), (67, 35469),

Gene: Alexphander_60 Start: 39102, Stop: 39449, Start Num: 23
Candidate Starts for Alexphander_60:
(Start: 23 @39102 has 185 MA's), (Start: 34 @39141 has 1 MA's), (41, 39228), (50, 39324), (57, 39345), (64, 39390), (72, 39444),

Gene: Aloeri_55 Start: 37992, Stop: 38351, Start Num: 18
Candidate Starts for Aloeri_55:
(Start: 17 @37989 has 19 MA's), (Start: 18 @37992 has 4 MA's), (26, 38019), (33, 38040), (35, 38055), (39, 38106), (41, 38127), (46, 38193), (64, 38289), (65, 38301), (71, 38340),

Gene: AlpineSix_61 Start: 41221, Stop: 41568, Start Num: 23
Candidate Starts for AlpineSix_61:
(Start: 23 @41221 has 185 MA's), (Start: 34 @41260 has 1 MA's), (37, 41299), (40, 41344), (41, 41347), (50, 41443), (57, 41464), (64, 41509),

Gene: ArcusAngelus_59 Start: 39698, Stop: 40045, Start Num: 23
Candidate Starts for ArcusAngelus_59:
(Start: 23 @39698 has 185 MA's), (Start: 34 @39737 has 1 MA's), (40, 39821), (41, 39824), (50, 39920), (57, 39941), (64, 39986), (72, 40040),

Gene: Ardmore_49 Start: 37243, Stop: 37578, Start Num: 27
Candidate Starts for Ardmore_49:

(Start: 27 @37243 has 18 MA's), (Start: 34 @37270 has 1 MA's), (41, 37357), (50, 37453), (57, 37474), (64, 37519), (67, 37555), (72, 37573),

Gene: Aubs_57 Start: 39395, Stop: 39742, Start Num: 23
Candidate Starts for Aubs_57:
(2, 39299), (Start: 23 @39395 has 185 MA's), (Start: 34 @39434 has 1 MA's), (41, 39521), (50, 39617), (57, 39638), (64, 39683), (67, 39719), (72, 39737),

Gene: Avani_64 Start: 39374, Stop: 39766, Start Num: 12
Candidate Starts for Avani_64:
(9, 39362), (Start: 12 @39374 has 6 MA's), (15, 39392), (Start: 27 @39425 has 18 MA's), (Start: 34 @39455 has 1 MA's), (61, 39695), (66, 39725), (71, 39758), (72, 39761),

Gene: Awesomesauce_55 Start: 37254, Stop: 37613, Start Num: 18
Candidate Starts for Awesomesauce_55:
(Start: 17 @37251 has 19 MA's), (Start: 18 @37254 has 4 MA's), (26, 37281), (33, 37302), (35, 37317), (39, 37368), (41, 37389), (46, 37455), (64, 37551), (65, 37563), (71, 37602),

Gene: BabeRuth_46 Start: 31707, Stop: 32066, Start Num: 17
Candidate Starts for BabeRuth_46:
(Start: 16 @31704 has 5 MA's), (Start: 17 @31707 has 19 MA's), (Start: 20 @31722 has 23 MA's), (Start: 31 @31749 has 1 MA's), (35, 31773), (41, 31845), (46, 31911), (56, 31959), (64, 32007), (71, 32055),

Gene: Batiatus_55 Start: 39111, Stop: 39446, Start Num: 27
Candidate Starts for Batiatus_55:
(Start: 27 @39111 has 18 MA's), (Start: 34 @39138 has 1 MA's), (36, 39147), (41, 39225), (50, 39321), (57, 39342), (64, 39387), (67, 39423), (72, 39441),

Gene: Beakin_58 Start: 38189, Stop: 38581, Start Num: 13
Candidate Starts for Beakin_58:
(Start: 13 @38189 has 8 MA's), (Start: 16 @38207 has 5 MA's), (Start: 34 @38273 has 1 MA's), (41, 38360), (50, 38456), (57, 38477), (64, 38522), (67, 38558), (72, 38576),

Gene: Beanstalk_56 Start: 37421, Stop: 37768, Start Num: 23
Candidate Starts for Beanstalk_56:
(1, 37301), (3, 37331), (Start: 23 @37421 has 185 MA's), (Start: 34 @37460 has 1 MA's), (36, 37469), (41, 37547), (50, 37643), (64, 37709),

Gene: Beelzebub_68 Start: 36994, Stop: 37332, Start Num: 30
Candidate Starts for Beelzebub_68:
(Start: 30 @36994 has 16 MA's), (43, 37120), (46, 37159), (65, 37276), (70, 37312), (73, 37321),

Gene: BigPhil_52 Start: 34814, Stop: 35161, Start Num: 23
Candidate Starts for BigPhil_52:
(Start: 23 @34814 has 185 MA's), (Start: 34 @34853 has 1 MA's), (37, 34892), (40, 34937), (41, 34940), (50, 35036), (64, 35102),

Gene: Bipolar_55 Start: 38855, Stop: 39202, Start Num: 23
Candidate Starts for Bipolar_55:
(Start: 23 @38855 has 185 MA's), (Start: 34 @38894 has 1 MA's), (36, 38903), (41, 38981), (50, 39077), (57, 39098), (64, 39143), (67, 39179), (72, 39197),

Gene: Blackbeetle_64 Start: 36039, Stop: 36377, Start Num: 30
Candidate Starts for Blackbeetle_64:
(Start: 30 @36039 has 16 MA's), (43, 36165), (46, 36204), (65, 36321), (70, 36357), (73, 36366),

Gene: Blarby_68 Start: 40472, Stop: 40861, Start Num: 12
Candidate Starts for Blarby_68:
(9, 40460), (Start: 12 @40472 has 6 MA's), (15, 40490), (Start: 27 @40523 has 18 MA's), (Start: 34 @40553 has 1 MA's), (64, 40802), (66, 40820), (71, 40853), (72, 40856),

Gene: Blexus_54 Start: 39072, Stop: 39419, Start Num: 23
Candidate Starts for Blexus_54:
(1, 38952), (3, 38982), (Start: 23 @39072 has 185 MA's), (Start: 34 @39111 has 1 MA's), (37, 39150), (40, 39195), (41, 39198), (50, 39294), (56, 39312), (57, 39315), (60, 39339), (63, 39357), (64, 39360),

Gene: BlueCrab_56 Start: 39335, Stop: 39727, Start Num: 13
Candidate Starts for BlueCrab_56:
(Start: 13 @39335 has 8 MA's), (Start: 16 @39353 has 5 MA's), (Start: 34 @39419 has 1 MA's), (41, 39506), (50, 39602), (64, 39668),

Gene: BobaPhett_60 Start: 41331, Stop: 41678, Start Num: 23
Candidate Starts for BobaPhett_60:
(2, 41235), (3, 41241), (Start: 23 @41331 has 185 MA's), (Start: 34 @41370 has 1 MA's), (37, 41409), (40, 41454), (41, 41457), (50, 41553), (64, 41619), (72, 41673),

Gene: Bobi_62 Start: 40720, Stop: 41055, Start Num: 27
Candidate Starts for Bobi_62:
(Start: 27 @40720 has 18 MA's), (Start: 34 @40747 has 1 MA's), (41, 40834), (50, 40930), (57, 40951), (64, 40996), (67, 41032), (72, 41050),

Gene: Bobquesha_56 Start: 37125, Stop: 37478, Start Num: 20
Candidate Starts for Bobquesha_56:
(Start: 20 @37125 has 23 MA's), (Start: 29 @37149 has 1 MA's), (Start: 30 @37152 has 16 MA's), (39, 37227), (43, 37266),

Gene: BodEinwohner17_56 Start: 38142, Stop: 38489, Start Num: 23
Candidate Starts for BodEinwohner17_56:
(Start: 23 @38142 has 185 MA's), (Start: 34 @38181 has 1 MA's), (37, 38220), (40, 38265), (41, 38268), (50, 38364), (56, 38382), (57, 38385), (60, 38409), (63, 38427), (64, 38430),

Gene: Boilgate_48 Start: 37518, Stop: 37862, Start Num: 20
Candidate Starts for Boilgate_48:
(Start: 20 @37518 has 23 MA's), (55, 37749), (64, 37803), (67, 37839), (70, 37851),

Gene: Boomer_61 Start: 41006, Stop: 41353, Start Num: 23
Candidate Starts for Boomer_61:
(2, 40910), (Start: 23 @41006 has 185 MA's), (Start: 34 @41045 has 1 MA's), (40, 41129), (41, 41132), (50, 41228), (57, 41249), (64, 41294), (72, 41348),

Gene: Bosection6_40 Start: 29385, Stop: 29744, Start Num: 17
Candidate Starts for Bosection6_40:
(Start: 17 @29385 has 19 MA's), (26, 29415), (35, 29451), (41, 29523), (46, 29589), (47, 29601), (51, 29628), (56, 29637), (64, 29685), (71, 29733), (73, 29739),

Gene: Brocalys_51 Start: 35516, Stop: 35863, Start Num: 23
Candidate Starts for Brocalys_51:
(2, 35420), (Start: 23 @35516 has 185 MA's), (Start: 34 @35555 has 1 MA's), (40, 35639), (41, 35642), (50, 35738), (64, 35804), (72, 35858),

Gene: Brookers_53 Start: 37765, Stop: 38112, Start Num: 23
Candidate Starts for Brookers_53:
(Start: 23 @37765 has 185 MA's), (Start: 34 @37804 has 1 MA's), (37, 37843), (40, 37888), (41, 37891), (50, 37987), (64, 38053),

Gene: Brushbloom_59 Start: 40031, Stop: 40378, Start Num: 23
Candidate Starts for Brushbloom_59:
(Start: 23 @40031 has 185 MA's), (Start: 34 @40070 has 1 MA's), (36, 40079), (41, 40157), (50, 40253), (64, 40319), (72, 40373),

Gene: Bubbles123_53 Start: 38975, Stop: 39367, Start Num: 13
Candidate Starts for Bubbles123_53:
(11, 38963), (Start: 13 @38975 has 8 MA's), (Start: 16 @38993 has 5 MA's), (Start: 27 @39029 has 18 MA's), (Start: 34 @39059 has 1 MA's), (41, 39146), (50, 39242), (57, 39263), (64, 39308), (67, 39344), (72, 39362),

Gene: Burwell21_54 Start: 38614, Stop: 38961, Start Num: 23
Candidate Starts for Burwell21_54:
(2, 38518), (Start: 23 @38614 has 185 MA's), (Start: 34 @38653 has 1 MA's), (40, 38737), (41, 38740), (50, 38836), (64, 38902), (72, 38956),

Gene: BuzzLyseyear_62 Start: 40038, Stop: 40385, Start Num: 23
Candidate Starts for BuzzLyseyear_62:
(Start: 23 @40038 has 185 MA's), (Start: 34 @40077 has 1 MA's), (36, 40086), (41, 40164), (50, 40260), (57, 40281), (64, 40326), (67, 40362), (72, 40380),

Gene: ByChance_48 Start: 34305, Stop: 34652, Start Num: 23
Candidate Starts for ByChance_48:
(1, 34185), (3, 34215), (Start: 23 @34305 has 185 MA's), (Start: 34 @34344 has 1 MA's), (40, 34428), (41, 34431), (50, 34527), (64, 34593),

Gene: Byougenkin_54 Start: 38377, Stop: 38727, Start Num: 23
Candidate Starts for Byougenkin_54:
(1, 38257), (3, 38287), (Start: 23 @38377 has 185 MA's), (Start: 34 @38416 has 1 MA's), (37, 38455), (40, 38500), (41, 38503), (50, 38599), (56, 38617), (57, 38620), (60, 38644), (63, 38662), (64, 38665), (72, 38719), (73, 38722),

Gene: Cabrinians_57 Start: 38692, Stop: 39039, Start Num: 23
Candidate Starts for Cabrinians_57:
(2, 38596), (Start: 23 @38692 has 185 MA's), (Start: 34 @38731 has 1 MA's), (40, 38815), (41, 38818), (50, 38914), (64, 38980), (72, 39034),

Gene: Caprice_59 Start: 36353, Stop: 36691, Start Num: 30
Candidate Starts for Caprice_59:
(Start: 30 @36353 has 16 MA's), (43, 36479), (46, 36518), (65, 36635), (70, 36671), (73, 36680),

Gene: CaptainTrips_53 Start: 38188, Stop: 38535, Start Num: 23
Candidate Starts for CaptainTrips_53:

(Start: 23 @38188 has 185 MA's), (Start: 34 @38227 has 1 MA's), (36, 38236), (41, 38314), (50, 38410), (57, 38431), (64, 38476), (67, 38512), (72, 38530),

Gene: Cerasum_52 Start: 34832, Stop: 35179, Start Num: 23
Candidate Starts for Cerasum_52:
(Start: 23 @34832 has 185 MA's), (Start: 34 @34871 has 1 MA's), (37, 34910), (40, 34955), (41, 34958), (50, 35054), (64, 35120),

Gene: Chancellor_54 Start: 37618, Stop: 37968, Start Num: 20
Candidate Starts for Chancellor_54:
(Start: 20 @37618 has 23 MA's), (Start: 29 @37642 has 1 MA's), (Start: 30 @37645 has 16 MA's), (39, 37720), (43, 37759), (46, 37804), (48, 37822), (51, 37843), (53, 37846),

Gene: Charlie_41 Start: 29383, Stop: 29745, Start Num: 17
Candidate Starts for Charlie_41:
(Start: 17 @29383 has 19 MA's), (Start: 18 @29386 has 4 MA's), (26, 29413), (33, 29434), (35, 29449), (39, 29500), (41, 29521), (46, 29587), (64, 29683), (65, 29695), (71, 29734),

Gene: Che8_61 Start: 41323, Stop: 41667, Start Num: 24
Candidate Starts for Che8_61:
(4, 41236), (Start: 24 @41323 has 4 MA's), (Start: 34 @41356 has 1 MA's), (61, 41596), (66, 41626), (71, 41659), (72, 41662),

Gene: Che9d_64 Start: 38405, Stop: 38749, Start Num: 25
Candidate Starts for Che9d_64:
(Start: 25 @38405 has 4 MA's), (Start: 27 @38411 has 18 MA's), (Start: 34 @38438 has 1 MA's), (61, 38678), (66, 38708), (71, 38741), (72, 38744),

Gene: Cheesepuff_62 Start: 40396, Stop: 40791, Start Num: 12
Candidate Starts for Cheesepuff_62:
(Start: 12 @40396 has 6 MA's), (15, 40414), (Start: 34 @40480 has 1 MA's), (61, 40720), (66, 40750), (71, 40783), (72, 40786),

Gene: Cheetobro_54 Start: 37615, Stop: 37965, Start Num: 20
Candidate Starts for Cheetobro_54:
(Start: 20 @37615 has 23 MA's), (Start: 29 @37639 has 1 MA's), (Start: 30 @37642 has 16 MA's), (39, 37717), (43, 37756), (46, 37801), (48, 37819), (51, 37840), (53, 37843),

Gene: Chevrolet_62 Start: 39699, Stop: 40046, Start Num: 23
Candidate Starts for Chevrolet_62:
(Start: 23 @39699 has 185 MA's), (Start: 34 @39738 has 1 MA's), (40, 39822), (41, 39825), (50, 39921), (57, 39942), (64, 39987), (72, 40041),

Gene: ChickenDinner_54 Start: 37992, Stop: 38351, Start Num: 18
Candidate Starts for ChickenDinner_54:
(Start: 17 @37989 has 19 MA's), (Start: 18 @37992 has 4 MA's), (26, 38019), (33, 38040), (35, 38055), (39, 38106), (41, 38127), (46, 38193), (64, 38289), (65, 38301), (71, 38340),

Gene: Chuckly_59 Start: 39334, Stop: 39681, Start Num: 23
Candidate Starts for Chuckly_59:
(2, 39238), (3, 39244), (Start: 23 @39334 has 185 MA's), (Start: 34 @39373 has 1 MA's), (37, 39412), (40, 39457), (41, 39460), (50, 39556), (64, 39622), (72, 39676),

Gene: Clank_61 Start: 39664, Stop: 40011, Start Num: 23
Candidate Starts for Clank_61:
(2, 39568), (3, 39574), (Start: 23 @39664 has 185 MA's), (Start: 34 @39703 has 1 MA's), (37, 39742), (40, 39787), (41, 39790), (50, 39886), (57, 39907), (64, 39952), (67, 39988), (72, 40006),

Gene: Clarkson_65 Start: 36722, Stop: 37060, Start Num: 30
Candidate Starts for Clarkson_65:
(Start: 30 @36722 has 16 MA's), (43, 36848), (46, 36887), (65, 37004), (70, 37040), (73, 37049),

Gene: Clifton_51 Start: 35867, Stop: 36214, Start Num: 23
Candidate Starts for Clifton_51:
(2, 35771), (Start: 23 @35867 has 185 MA's), (Start: 34 @35906 has 1 MA's), (40, 35990), (41, 35993), (50, 36089), (64, 36155), (72, 36209),

Gene: Coco12_55 Start: 38889, Stop: 39236, Start Num: 23
Candidate Starts for Coco12_55:
(Start: 23 @38889 has 185 MA's), (Start: 34 @38928 has 1 MA's), (37, 38967), (40, 39012), (41, 39015), (50, 39111), (64, 39177),

Gene: Constella_112 Start: 64955, Stop: 65296, Start Num: 25
Candidate Starts for Constella_112:
(Start: 25 @64955 has 4 MA's), (Start: 27 @64961 has 18 MA's), (Start: 34 @64988 has 1 MA's), (37, 65027), (40, 65072), (41, 65075), (50, 65171), (57, 65192), (64, 65237), (67, 65273), (72, 65291),

Gene: Corazon_62 Start: 36916, Stop: 37254, Start Num: 30
Candidate Starts for Corazon_62:
(Start: 30 @36916 has 16 MA's), (43, 37042), (46, 37081), (65, 37198), (70, 37234), (73, 37243),

Gene: Corium_53 Start: 37743, Stop: 38078, Start Num: 27
Candidate Starts for Corium_53:
(Start: 27 @37743 has 18 MA's), (Start: 34 @37770 has 1 MA's), (36, 37779), (41, 37857), (50, 37953), (57, 37974), (64, 38019), (67, 38055), (72, 38073),

Gene: Cornie_51 Start: 36858, Stop: 37253, Start Num: 12
Candidate Starts for Cornie_51:
(Start: 12 @36858 has 6 MA's), (15, 36876), (Start: 34 @36942 has 1 MA's), (61, 37182), (66, 37212), (71, 37245), (72, 37248),

Gene: Cornucopia_58 Start: 39344, Stop: 39694, Start Num: 23
Candidate Starts for Cornucopia_58:
(Start: 23 @39344 has 185 MA's), (Start: 34 @39383 has 1 MA's), (61, 39623), (66, 39653), (71, 39686), (72, 39689),

Gene: Crumble_51 Start: 34628, Stop: 34975, Start Num: 23
Candidate Starts for Crumble_51:
(2, 34532), (Start: 23 @34628 has 185 MA's), (Start: 34 @34667 has 1 MA's), (40, 34751), (41, 34754), (50, 34850), (64, 34916), (72, 34970),

Gene: Cubone_43 Start: 29405, Stop: 29767, Start Num: 17
Candidate Starts for Cubone_43:
(Start: 17 @29405 has 19 MA's), (Start: 18 @29408 has 4 MA's), (26, 29435), (33, 29456), (35, 29471), (39, 29522), (41, 29543), (46, 29609), (64, 29705), (65, 29717), (71, 29756),

Gene: DLane_52 Start: 37767, Stop: 38102, Start Num: 27
Candidate Starts for DLane_52:
(Start: 27 @37767 has 18 MA's), (Start: 34 @37794 has 1 MA's), (41, 37881), (50, 37977), (57, 37998), (64, 38043), (67, 38079), (72, 38097),

Gene: DRBy19_59 Start: 39792, Stop: 40139, Start Num: 23
Candidate Starts for DRBy19_59:
(1, 39672), (3, 39702), (Start: 23 @39792 has 185 MA's), (Start: 34 @39831 has 1 MA's), (36, 39840), (40, 39915), (41, 39918), (50, 40014), (64, 40080),

Gene: DS6A_63 Start: 41803, Stop: 42168, Start Num: 32
Candidate Starts for DS6A_63:
(10, 41713), (22, 41773), (Start: 32 @41803 has 1 MA's), (42, 41902), (45, 41944), (46, 41965), (49, 41989), (52, 42004), (66, 42079), (75, 42151), (76, 42157),

Gene: DaWorst_57 Start: 39093, Stop: 39440, Start Num: 23
Candidate Starts for DaWorst_57:
(Start: 23 @39093 has 185 MA's), (Start: 34 @39132 has 1 MA's), (36, 39141), (41, 39219), (50, 39315), (64, 39381), (72, 39435),

Gene: DaddyRickover_55 Start: 38831, Stop: 39178, Start Num: 23
Candidate Starts for DaddyRickover_55:
(2, 38735), (3, 38741), (Start: 23 @38831 has 185 MA's), (Start: 34 @38870 has 1 MA's), (40, 38954), (41, 38957), (50, 39053), (64, 39119),

Gene: Daenerys_50 Start: 36947, Stop: 37294, Start Num: 23
Candidate Starts for Daenerys_50:
(2, 36851), (Start: 23 @36947 has 185 MA's), (Start: 34 @36986 has 1 MA's), (40, 37070), (41, 37073), (50, 37169), (57, 37190), (64, 37235), (72, 37289),

Gene: DanSyl44_57 Start: 38740, Stop: 39093, Start Num: 20
Candidate Starts for DanSyl44_57:
(Start: 20 @38740 has 23 MA's), (Start: 29 @38764 has 1 MA's), (Start: 30 @38767 has 16 MA's), (39, 38842), (43, 38881), (46, 38929), (48, 38947), (51, 38968), (53, 38971),

Gene: Dante_57 Start: 38616, Stop: 38963, Start Num: 23
Candidate Starts for Dante_57:
(Start: 23 @38616 has 185 MA's), (Start: 34 @38655 has 1 MA's), (37, 38694), (40, 38739), (41, 38742), (50, 38838), (64, 38904), (72, 38958),

Gene: DeadP_62 Start: 41268, Stop: 41615, Start Num: 23
Candidate Starts for DeadP_62:
(1, 41148), (Start: 23 @41268 has 185 MA's), (Start: 34 @41307 has 1 MA's), (37, 41346), (40, 41391), (41, 41394), (50, 41490), (57, 41511), (64, 41556), (67, 41592), (72, 41610),

Gene: Deb65_51 Start: 36916, Stop: 37263, Start Num: 23
Candidate Starts for Deb65_51:
(2, 36820), (Start: 23 @36916 has 185 MA's), (Start: 34 @36955 has 1 MA's), (40, 37039), (41, 37042), (50, 37138), (57, 37159), (64, 37204), (72, 37258),

Gene: Demsculpinboyz_66 Start: 38415, Stop: 38750, Start Num: 27
Candidate Starts for Demsculpinboyz_66:

(Start: 25 @38409 has 4 MA's), (Start: 27 @38415 has 18 MA's), (Start: 34 @38442 has 1 MA's), (57, 38646), (66, 38709), (71, 38742), (72, 38745),

Gene: DillTech15_53 Start: 37281, Stop: 37628, Start Num: 23
Candidate Starts for DillTech15_53:
(2, 37185), (Start: 23 @37281 has 185 MA's), (Start: 34 @37320 has 1 MA's), (41, 37407), (50, 37503), (57, 37524), (64, 37569), (67, 37605), (72, 37623),

Gene: DirtMcgirt_55 Start: 37356, Stop: 37703, Start Num: 23
Candidate Starts for DirtMcgirt_55:
(2, 37260), (3, 37266), (Start: 23 @37356 has 185 MA's), (Start: 34 @37395 has 1 MA's), (40, 37479), (41, 37482), (50, 37578),

Gene: DoRead_58 Start: 37770, Stop: 38162, Start Num: 12
Candidate Starts for DoRead_58:
(Start: 12 @37770 has 6 MA's), (15, 37788), (Start: 34 @37854 has 1 MA's), (57, 38058), (66, 38121), (71, 38154), (72, 38157),

Gene: DocMcStuffins_54 Start: 37992, Stop: 38351, Start Num: 18
Candidate Starts for DocMcStuffins_54:
(Start: 17 @37989 has 19 MA's), (Start: 18 @37992 has 4 MA's), (26, 38019), (33, 38040), (35, 38055), (39, 38106), (41, 38127), (46, 38193), (64, 38289), (65, 38301), (71, 38340),

Gene: Donkeykong_60 Start: 41650, Stop: 41997, Start Num: 23
Candidate Starts for Donkeykong_60:
(Start: 23 @41650 has 185 MA's), (Start: 34 @41689 has 1 MA's), (36, 41698), (41, 41776), (50, 41872), (57, 41893), (64, 41938), (67, 41974),

Gene: Doomphist_56 Start: 39792, Stop: 40139, Start Num: 23
Candidate Starts for Doomphist_56:
(Start: 23 @39792 has 185 MA's), (Start: 34 @39831 has 1 MA's), (37, 39870), (40, 39915), (41, 39918), (50, 40014), (56, 40032), (57, 40035), (60, 40059), (63, 40077), (64, 40080),

Gene: Doomslug_65 Start: 39212, Stop: 39559, Start Num: 23
Candidate Starts for Doomslug_65:
(Start: 23 @39212 has 185 MA's), (Start: 34 @39251 has 1 MA's), (36, 39260), (41, 39338), (50, 39434), (57, 39455), (64, 39500), (67, 39536), (72, 39554),

Gene: Dorothy_54 Start: 38023, Stop: 38358, Start Num: 27
Candidate Starts for Dorothy_54:
(Start: 27 @38023 has 18 MA's), (Start: 34 @38050 has 1 MA's), (41, 38137), (50, 38233), (57, 38254), (64, 38299), (72, 38353),

Gene: DosHalletts_58 Start: 40147, Stop: 40494, Start Num: 23
Candidate Starts for DosHalletts_58:
(Start: 23 @40147 has 185 MA's), (Start: 34 @40186 has 1 MA's), (36, 40195), (41, 40273), (50, 40369), (57, 40390), (64, 40435), (72, 40489),

Gene: DotProduct_51 Start: 37410, Stop: 37757, Start Num: 23
Candidate Starts for DotProduct_51:
(1, 37290), (Start: 23 @37410 has 185 MA's), (Start: 34 @37449 has 1 MA's), (37, 37488), (40, 37533), (41, 37536), (50, 37632), (56, 37650), (57, 37653), (60, 37677), (63, 37695), (64, 37698),

Gene: Doug_58 Start: 39359, Stop: 39706, Start Num: 23
Candidate Starts for Doug_58:
(Start: 23 @39359 has 185 MA's), (Start: 34 @39398 has 1 MA's), (36, 39407), (41, 39485), (50, 39581), (64, 39647), (72, 39701),

Gene: DrLupo_58 Start: 42483, Stop: 42806, Start Num: 31
Candidate Starts for DrLupo_58:
(Start: 31 @42483 has 1 MA's), (44, 42624), (46, 42648), (47, 42660), (49, 42675), (57, 42705), (59, 42720), (62, 42738),

Gene: Drago_54 Start: 37359, Stop: 37706, Start Num: 23
Candidate Starts for Drago_54:
(2, 37263), (3, 37269), (Start: 23 @37359 has 185 MA's), (Start: 34 @37398 has 1 MA's), (40, 37482), (41, 37485), (50, 37581),

Gene: EGUnicorn_41 Start: 29430, Stop: 29789, Start Num: 17
Candidate Starts for EGUnicorn_41:
(Start: 17 @29430 has 19 MA's), (26, 29460), (35, 29496), (41, 29568), (46, 29634), (47, 29646), (51, 29673), (56, 29682), (64, 29730), (71, 29778), (73, 29784),

Gene: Eish_60 Start: 39608, Stop: 39955, Start Num: 23
Candidate Starts for Eish_60:
(Start: 23 @39608 has 185 MA's), (Start: 34 @39647 has 1 MA's), (41, 39734), (50, 39830), (64, 39896),

Gene: EleanorGeorge_57 Start: 39477, Stop: 39821, Start Num: 24
Candidate Starts for EleanorGeorge_57:
(4, 39390), (Start: 24 @39477 has 4 MA's), (Start: 34 @39510 has 1 MA's), (61, 39750), (66, 39780), (71, 39813), (72, 39816),

Gene: EmiMonkey_54 Start: 40322, Stop: 40669, Start Num: 23
Candidate Starts for EmiMonkey_54:
(Start: 23 @40322 has 185 MA's), (Start: 34 @40361 has 1 MA's), (36, 40370), (41, 40448), (50, 40544), (57, 40565), (64, 40610), (72, 40664),

Gene: Emma_58 Start: 38779, Stop: 39114, Start Num: 27
Candidate Starts for Emma_58:
(Start: 27 @38779 has 18 MA's), (Start: 34 @38806 has 1 MA's), (41, 38893), (50, 38989), (57, 39010), (64, 39055), (67, 39091), (72, 39109),

Gene: Emmaloid_57 Start: 39373, Stop: 39765, Start Num: 13
Candidate Starts for Emmaloid_57:
(Start: 13 @39373 has 8 MA's), (Start: 16 @39391 has 5 MA's), (Start: 34 @39457 has 1 MA's), (41, 39544), (50, 39640), (57, 39661), (64, 39706), (67, 39742), (72, 39760),

Gene: Empress_54 Start: 38361, Stop: 38708, Start Num: 23
Candidate Starts for Empress_54:
(Start: 23 @38361 has 185 MA's), (Start: 34 @38400 has 1 MA's), (37, 38439), (40, 38484), (41, 38487), (50, 38583), (56, 38601), (57, 38604), (60, 38628), (63, 38646), (64, 38649),

Gene: Enby_57 Start: 37635, Stop: 37982, Start Num: 23
Candidate Starts for Enby_57:

(Start: 23 @37635 has 185 MA's), (Start: 34 @37674 has 1 MA's), (36, 37683), (41, 37761), (50, 37857), (57, 37878), (64, 37923), (67, 37959), (72, 37977),

Gene: Enzomatic_62 Start: 38465, Stop: 38812, Start Num: 23
Candidate Starts for Enzomatic_62:
(1, 38345), (3, 38375), (7, 38396), (Start: 23 @38465 has 185 MA's), (Start: 34 @38504 has 1 MA's), (40, 38588), (41, 38591), (50, 38687), (57, 38708), (64, 38753), (67, 38789), (72, 38807),

Gene: Eponine_56 Start: 38452, Stop: 38805, Start Num: 20
Candidate Starts for Eponine_56:
(Start: 20 @38452 has 23 MA's), (Start: 30 @38479 has 16 MA's), (39, 38554), (43, 38593), (46, 38641), (48, 38659), (51, 38680), (53, 38683),

Gene: Eradicator_49 Start: 36888, Stop: 37235, Start Num: 23
Candidate Starts for Eradicator_49:
(Start: 23 @36888 has 185 MA's), (Start: 34 @36927 has 1 MA's), (36, 36936), (41, 37014), (50, 37110), (57, 37131), (64, 37176), (67, 37212), (72, 37230),

Gene: Estave1_59 Start: 39812, Stop: 40159, Start Num: 23
Candidate Starts for Estave1_59:
(2, 39716), (Start: 23 @39812 has 185 MA's), (Start: 34 @39851 has 1 MA's), (40, 39935), (41, 39938), (50, 40034), (64, 40100), (72, 40154),

Gene: Fancypants_58 Start: 39326, Stop: 39673, Start Num: 23
Candidate Starts for Fancypants_58:
(1, 39206), (3, 39236), (7, 39257), (Start: 23 @39326 has 185 MA's), (Start: 34 @39365 has 1 MA's), (40, 39449), (41, 39452), (50, 39548), (57, 39569), (64, 39614), (67, 39650), (72, 39668),

Gene: Fastidio_56 Start: 37428, Stop: 37775, Start Num: 23
Candidate Starts for Fastidio_56:
(2, 37332), (Start: 23 @37428 has 185 MA's), (Start: 34 @37467 has 1 MA's), (41, 37554), (50, 37650), (57, 37671), (64, 37716), (67, 37752), (72, 37770),

Gene: FeliMaine_66 Start: 36964, Stop: 37302, Start Num: 30
Candidate Starts for FeliMaine_66:
(Start: 30 @36964 has 16 MA's), (43, 37090), (46, 37129), (65, 37246), (70, 37282), (73, 37291),

Gene: Filuzino_55 Start: 38069, Stop: 38404, Start Num: 27
Candidate Starts for Filuzino_55:
(Start: 27 @38069 has 18 MA's), (Start: 34 @38096 has 1 MA's), (41, 38183), (50, 38279), (57, 38300), (64, 38345), (67, 38381), (72, 38399),

Gene: Fionnbharth_54 Start: 37850, Stop: 38203, Start Num: 20
Candidate Starts for Fionnbharth_54:
(Start: 20 @37850 has 23 MA's), (Start: 29 @37874 has 1 MA's), (Start: 30 @37877 has 16 MA's), (39, 37952), (43, 37991), (46, 38039), (48, 38057), (51, 38078), (53, 38081),

Gene: Firehouse51_57 Start: 42210, Stop: 42557, Start Num: 23
Candidate Starts for Firehouse51_57:
(1, 42090), (Start: 23 @42210 has 185 MA's), (Start: 34 @42249 has 1 MA's), (37, 42288), (40, 42333), (41, 42336), (50, 42432), (56, 42450), (57, 42453), (60, 42477), (63, 42495), (64, 42498),

Gene: Flathead_57 Start: 39563, Stop: 39871, Start Num: 34

Candidate Starts for Flathead_57:
(Start: 27 @39536 has 18 MA's), (Start: 34 @39563 has 1 MA's), (41, 39650), (50, 39746), (57, 39767), (64, 39812), (67, 39848), (72, 39866),

Gene: Florinda_68 Start: 41148, Stop: 41495, Start Num: 23
Candidate Starts for Florinda_68:
(1, 41028), (7, 41079), (Start: 23 @41148 has 185 MA's), (Start: 34 @41187 has 1 MA's), (40, 41271), (41, 41274), (50, 41370), (57, 41391), (64, 41436), (72, 41490),

Gene: Frankie_60 Start: 40470, Stop: 40832, Start Num: 17
Candidate Starts for Frankie_60:
(Start: 17 @40470 has 19 MA's), (19, 40479), (Start: 20 @40485 has 23 MA's), (33, 40521), (35, 40536), (39, 40587), (41, 40608), (46, 40674), (64, 40770), (65, 40782), (71, 40821),

Gene: FreddyB_57 Start: 37540, Stop: 37887, Start Num: 23
Candidate Starts for FreddyB_57:
(2, 37444), (Start: 23 @37540 has 185 MA's), (Start: 34 @37579 has 1 MA's), (40, 37663), (41, 37666), (50, 37762), (64, 37828), (72, 37882),

Gene: Fruitloop_54 Start: 39383, Stop: 39718, Start Num: 27
Candidate Starts for Fruitloop_54:
(Start: 27 @39383 has 18 MA's), (Start: 34 @39410 has 1 MA's), (41, 39497), (50, 39593), (57, 39614), (64, 39659), (67, 39695), (72, 39713),

Gene: GUmbie_54 Start: 38115, Stop: 38462, Start Num: 23
Candidate Starts for GUmbie_54:
(Start: 23 @38115 has 185 MA's), (Start: 34 @38154 has 1 MA's), (36, 38163), (41, 38241), (50, 38337), (57, 38358), (64, 38403), (67, 38439), (72, 38457),

Gene: Galactic_55 Start: 38581, Stop: 38928, Start Num: 23
Candidate Starts for Galactic_55:
(1, 38461), (3, 38491), (7, 38512), (Start: 23 @38581 has 185 MA's), (Start: 34 @38620 has 1 MA's), (40, 38704), (41, 38707), (50, 38803), (57, 38824), (64, 38869), (67, 38905), (72, 38923),

Gene: Gandalph_59 Start: 38933, Stop: 39283, Start Num: 23
Candidate Starts for Gandalph_59:
(Start: 23 @38933 has 185 MA's), (Start: 34 @38972 has 1 MA's), (61, 39212), (66, 39242), (71, 39275), (72, 39278),

Gene: Gattaca_62 Start: 36143, Stop: 36481, Start Num: 30
Candidate Starts for Gattaca_62:
(Start: 30 @36143 has 16 MA's), (43, 36269), (46, 36308), (65, 36425), (70, 36461), (73, 36470),

Gene: Geralt_51 Start: 36915, Stop: 37262, Start Num: 23
Candidate Starts for Geralt_51:
(2, 36819), (Start: 23 @36915 has 185 MA's), (Start: 34 @36954 has 1 MA's), (40, 37038), (41, 37041), (50, 37137), (57, 37158), (64, 37203), (72, 37257),

Gene: GigiOuiOui_52 Start: 37555, Stop: 37902, Start Num: 23
Candidate Starts for GigiOuiOui_52:
(Start: 23 @37555 has 185 MA's), (Start: 34 @37594 has 1 MA's), (36, 37603), (41, 37681), (50, 37777), (57, 37798), (64, 37843), (72, 37897),

Gene: Girafales_66 Start: 40939, Stop: 41286, Start Num: 23
Candidate Starts for Girafales_66:
(1, 40819), (3, 40849), (7, 40870), (Start: 23 @40939 has 185 MA's), (Start: 34 @40978 has 1 MA's), (40, 41062), (41, 41065), (50, 41161), (57, 41182), (64, 41227), (72, 41281),

Gene: Girr_54 Start: 38422, Stop: 38769, Start Num: 23
Candidate Starts for Girr_54:
(1, 38299), (7, 38350), (Start: 23 @38422 has 185 MA's), (Start: 34 @38461 has 1 MA's), (36, 38470), (37, 38500), (41, 38548), (50, 38644), (57, 38665), (64, 38710), (67, 38746), (72, 38764),

Gene: GoongGoong_61 Start: 35942, Stop: 36280, Start Num: 30
Candidate Starts for GoongGoong_61:
(Start: 30 @35942 has 16 MA's), (43, 36068), (46, 36107), (65, 36224), (70, 36260), (73, 36269),

Gene: Gorge_60 Start: 40057, Stop: 40404, Start Num: 23
Candidate Starts for Gorge_60:
(2, 39961), (Start: 23 @40057 has 185 MA's), (Start: 34 @40096 has 1 MA's), (40, 40180), (41, 40183), (50, 40279), (64, 40345), (72, 40399),

Gene: Grimmer_66 Start: 40217, Stop: 40564, Start Num: 23
Candidate Starts for Grimmer_66:
(Start: 23 @40217 has 185 MA's), (Start: 34 @40256 has 1 MA's), (40, 40340), (41, 40343), (50, 40439), (57, 40460), (64, 40505), (67, 40541), (72, 40559),

Gene: Guppsters_57 Start: 38245, Stop: 38592, Start Num: 23
Candidate Starts for Guppsters_57:
(Start: 23 @38245 has 185 MA's), (Start: 34 @38284 has 1 MA's), (36, 38293), (40, 38368), (41, 38371), (50, 38467), (64, 38533), (72, 38587),

Gene: Hades_57 Start: 39513, Stop: 39860, Start Num: 23
Candidate Starts for Hades_57:
(Start: 23 @39513 has 185 MA's), (Start: 34 @39552 has 1 MA's), (36, 39561), (41, 39639), (50, 39735), (57, 39756), (64, 39801), (67, 39837), (72, 39855),

Gene: Hamulus_58 Start: 39523, Stop: 39858, Start Num: 27
Candidate Starts for Hamulus_58:
(Start: 27 @39523 has 18 MA's), (Start: 34 @39550 has 1 MA's), (36, 39559), (41, 39637), (50, 39733), (57, 39754), (64, 39799), (67, 39835), (72, 39853),

Gene: Hanako_45 Start: 31703, Stop: 32065, Start Num: 16
Candidate Starts for Hanako_45:
(Start: 16 @31703 has 5 MA's), (Start: 17 @31706 has 19 MA's), (Start: 20 @31721 has 23 MA's), (Start: 31 @31748 has 1 MA's), (35, 31772), (41, 31844), (46, 31910), (56, 31958), (64, 32006), (71, 32054),

Gene: Harley_59 Start: 39484, Stop: 39822, Start Num: 28
Candidate Starts for Harley_59:
(Start: 28 @39484 has 7 MA's), (Start: 34 @39511 has 1 MA's), (61, 39751), (66, 39781), (71, 39814), (72, 39817),

Gene: Hegedechwinu_56 Start: 37727, Stop: 38074, Start Num: 23
Candidate Starts for Hegedechwinu_56:

(Start: 23 @37727 has 185 MA's), (Start: 34 @37766 has 1 MA's), (36, 37775), (41, 37853), (50, 37949), (64, 38015), (67, 38051), (72, 38069),

Gene: Hlubikazi_52 Start: 36733, Stop: 37080, Start Num: 23
Candidate Starts for Hlubikazi_52:
(1, 36613), (Start: 23 @36733 has 185 MA's), (Start: 34 @36772 has 1 MA's), (37, 36811), (40, 36856), (41, 36859), (50, 36955), (64, 37021),

Gene: Huphlepuff_66 Start: 36527, Stop: 36865, Start Num: 30
Candidate Starts for Huphlepuff_66:
(Start: 30 @36527 has 16 MA's), (43, 36653), (46, 36692), (65, 36809), (70, 36845), (73, 36854),

Gene: IMpilo_52 Start: 36571, Stop: 36918, Start Num: 23
Candidate Starts for IMpilo_52:
(1, 36451), (3, 36481), (7, 36502), (Start: 23 @36571 has 185 MA's), (Start: 34 @36610 has 1 MA's), (41, 36697), (50, 36793), (57, 36814), (64, 36859),

Gene: IbOuu_55 Start: 39092, Stop: 39439, Start Num: 23
Candidate Starts for IbOuu_55:
(Start: 23 @39092 has 185 MA's), (Start: 34 @39131 has 1 MA's), (36, 39140), (41, 39218), (50, 39314), (64, 39380), (67, 39416), (72, 39434),

Gene: Ibhubesi_56 Start: 38705, Stop: 39052, Start Num: 23
Candidate Starts for Ibhubesi_56:
(1, 38585), (3, 38615), (7, 38636), (Start: 23 @38705 has 185 MA's), (Start: 34 @38744 has 1 MA's), (37, 38783), (40, 38828), (41, 38831), (50, 38927), (57, 38948), (64, 38993), (67, 39029), (72, 39047),

Gene: Impisi_45 Start: 31232, Stop: 31618, Start Num: 13
Candidate Starts for Impisi_45:
(Start: 13 @31232 has 8 MA's), (35, 31319), (38, 31346), (46, 31454), (58, 31523), (65, 31562), (72, 31604), (74, 31613),

Gene: Inventum_51 Start: 38209, Stop: 38556, Start Num: 23
Candidate Starts for Inventum_51:
(Start: 23 @38209 has 185 MA's), (Start: 34 @38248 has 1 MA's), (36, 38257), (41, 38335), (50, 38431), (57, 38452), (64, 38497), (67, 38533), (72, 38551),

Gene: JF1_54 Start: 37767, Stop: 38120, Start Num: 20
Candidate Starts for JF1_54:
(Start: 20 @37767 has 23 MA's), (Start: 29 @37791 has 1 MA's), (Start: 30 @37794 has 16 MA's), (39, 37869), (43, 37908), (46, 37956), (48, 37974), (51, 37995), (53, 37998),

Gene: Jabbawokkie_70 Start: 40392, Stop: 40781, Start Num: 12
Candidate Starts for Jabbawokkie_70:
(9, 40380), (Start: 12 @40392 has 6 MA's), (15, 40410), (Start: 27 @40443 has 18 MA's), (Start: 34 @40473 has 1 MA's), (64, 40722), (66, 40740), (71, 40773), (72, 40776),

Gene: JalFarm20_69 Start: 42632, Stop: 42970, Start Num: 28
Candidate Starts for JalFarm20_69:
(Start: 28 @42632 has 7 MA's), (Start: 34 @42659 has 1 MA's), (61, 42899), (66, 42929), (71, 42962), (72, 42965),

Gene: James_60 Start: 40182, Stop: 40529, Start Num: 23

Candidate Starts for James_60:
(1, 40062), (Start: 23 @40182 has 185 MA's), (Start: 34 @40221 has 1 MA's), (40, 40305), (41, 40308), (50, 40404), (64, 40470),

Gene: Jant_60 Start: 40202, Stop: 40549, Start Num: 23
Candidate Starts for Jant_60:
(Start: 23 @40202 has 185 MA's), (Start: 34 @40241 has 1 MA's), (36, 40250), (40, 40325), (41, 40328), (50, 40424), (64, 40490), (72, 40544),

Gene: Jarcob_56 Start: 38660, Stop: 39007, Start Num: 23
Candidate Starts for Jarcob_56:
(2, 38564), (Start: 23 @38660 has 185 MA's), (Start: 34 @38699 has 1 MA's), (40, 38783), (41, 38786), (50, 38882), (64, 38948), (72, 39002),

Gene: Jennelsea_53 Start: 37345, Stop: 37692, Start Num: 23
Candidate Starts for Jennelsea_53:
(2, 37249), (Start: 23 @37345 has 185 MA's), (Start: 34 @37384 has 1 MA's), (40, 37468), (41, 37471), (50, 37567), (64, 37633), (72, 37687),

Gene: Jinglebell_61 Start: 41220, Stop: 41567, Start Num: 23
Candidate Starts for Jinglebell_61:
(Start: 23 @41220 has 185 MA's), (Start: 34 @41259 has 1 MA's), (37, 41298), (40, 41343), (41, 41346), (50, 41442), (57, 41463), (64, 41508),

Gene: Job42_58 Start: 40600, Stop: 40947, Start Num: 23
Candidate Starts for Job42_58:
(1, 40480), (7, 40531), (Start: 23 @40600 has 185 MA's), (Start: 34 @40639 has 1 MA's), (36, 40648), (41, 40726), (50, 40822), (64, 40888),

Gene: JoeyJr_51 Start: 37115, Stop: 37462, Start Num: 23
Candidate Starts for JoeyJr_51:
(2, 37019), (Start: 23 @37115 has 185 MA's), (Start: 34 @37154 has 1 MA's), (40, 37238), (41, 37241), (50, 37337), (57, 37358), (64, 37403), (72, 37457),

Gene: JoieB_65 Start: 36960, Stop: 37298, Start Num: 30
Candidate Starts for JoieB_65:
(Start: 30 @36960 has 16 MA's), (43, 37086), (46, 37125), (65, 37242), (70, 37278), (73, 37287),

Gene: Journey_40 Start: 29383, Stop: 29745, Start Num: 17
Candidate Starts for Journey_40:
(Start: 17 @29383 has 19 MA's), (Start: 18 @29386 has 4 MA's), (26, 29413), (33, 29434), (35, 29449), (39, 29500), (41, 29521), (46, 29587), (64, 29683), (65, 29695), (71, 29734),

Gene: Juice456_57 Start: 40576, Stop: 40926, Start Num: 23
Candidate Starts for Juice456_57:
(1, 40456), (3, 40486), (Start: 23 @40576 has 185 MA's), (Start: 34 @40615 has 1 MA's), (61, 40855), (66, 40885), (71, 40918), (72, 40921),

Gene: Juliette_56 Start: 37923, Stop: 38273, Start Num: 20
Candidate Starts for Juliette_56:
(Start: 20 @37923 has 23 MA's), (Start: 29 @37947 has 1 MA's), (Start: 30 @37950 has 16 MA's), (39, 38025), (43, 38064), (46, 38109), (48, 38127), (51, 38148), (53, 38151),

Gene: Juniper1_54 Start: 38516, Stop: 38863, Start Num: 23
Candidate Starts for Juniper1_54:
(Start: 23 @38516 has 185 MA's), (Start: 34 @38555 has 1 MA's), (36, 38564), (41, 38642), (50, 38738), (57, 38759), (64, 38804), (67, 38840), (72, 38858),

Gene: Karhdo_53 Start: 38205, Stop: 38552, Start Num: 23
Candidate Starts for Karhdo_53:
(1, 38085), (Start: 23 @38205 has 185 MA's), (Start: 34 @38244 has 1 MA's), (40, 38328), (41, 38331), (50, 38427), (64, 38493), (72, 38547),

Gene: Kenuha5_54 Start: 37650, Stop: 37985, Start Num: 28
Candidate Starts for Kenuha5_54:
(Start: 28 @37650 has 7 MA's), (Start: 34 @37677 has 1 MA's), (41, 37764), (50, 37860), (57, 37881), (64, 37926), (67, 37962), (72, 37980),

Gene: Kersh_58 Start: 40958, Stop: 41305, Start Num: 23
Candidate Starts for Kersh_58:
(1, 40838), (3, 40868), (Start: 23 @40958 has 185 MA's), (Start: 34 @40997 has 1 MA's), (37, 41036), (40, 41081), (41, 41084), (50, 41180), (64, 41246), (72, 41300),

Gene: Kimberlium_58 Start: 40279, Stop: 40626, Start Num: 23
Candidate Starts for Kimberlium_58:
(Start: 23 @40279 has 185 MA's), (Start: 34 @40318 has 1 MA's), (36, 40327), (41, 40405), (50, 40501), (57, 40522), (64, 40567), (72, 40621),

Gene: KingJulian_56 Start: 37743, Stop: 38078, Start Num: 27
Candidate Starts for KingJulian_56:
(Start: 27 @37743 has 18 MA's), (Start: 34 @37770 has 1 MA's), (36, 37779), (41, 37857), (50, 37953), (57, 37974), (64, 38019), (67, 38055), (72, 38073),

Gene: KingMidas_55 Start: 38777, Stop: 39124, Start Num: 23
Candidate Starts for KingMidas_55:
(2, 38681), (Start: 23 @38777 has 185 MA's), (Start: 34 @38816 has 1 MA's), (40, 38900), (41, 38903), (50, 38999), (57, 39020), (64, 39065), (72, 39119),

Gene: Kingsley_53 Start: 37622, Stop: 37969, Start Num: 23
Candidate Starts for Kingsley_53:
(Start: 23 @37622 has 185 MA's), (Start: 34 @37661 has 1 MA's), (37, 37700), (40, 37745), (41, 37748), (50, 37844), (64, 37910),

Gene: Koella_50 Start: 34590, Stop: 34937, Start Num: 23
Candidate Starts for Koella_50:
(2, 34494), (Start: 23 @34590 has 185 MA's), (Start: 34 @34629 has 1 MA's), (40, 34713), (41, 34716), (50, 34812), (64, 34878), (72, 34932),

Gene: Krakatau_54 Start: 38333, Stop: 38674, Start Num: 25
Candidate Starts for Krakatau_54:
(Start: 25 @38333 has 4 MA's), (Start: 27 @38339 has 18 MA's), (Start: 34 @38366 has 1 MA's), (41, 38453), (50, 38549), (57, 38570), (64, 38615), (67, 38651), (72, 38669),

Gene: Kraw_54 Start: 37611, Stop: 37961, Start Num: 20
Candidate Starts for Kraw_54:

(Start: 20 @37611 has 23 MA's), (Start: 29 @37635 has 1 MA's), (Start: 30 @37638 has 16 MA's), (39, 37713), (43, 37752), (46, 37797), (48, 37815), (51, 37836), (53, 37839),

Gene: KristaRAM_59 Start: 41162, Stop: 41509, Start Num: 23
Candidate Starts for KristaRAM_59:
(1, 41042), (Start: 23 @41162 has 185 MA's), (Start: 34 @41201 has 1 MA's), (37, 41240), (40, 41285), (41, 41288), (50, 41384), (57, 41405), (64, 41450), (67, 41486), (72, 41504),

Gene: LastJedi_50 Start: 35910, Stop: 36257, Start Num: 23
Candidate Starts for LastJedi_50:
(2, 35814), (Start: 23 @35910 has 185 MA's), (Start: 34 @35949 has 1 MA's), (40, 36033), (41, 36036), (50, 36132), (64, 36198), (72, 36252),

Gene: Latretium_58 Start: 39236, Stop: 39583, Start Num: 23
Candidate Starts for Latretium_58:
(Start: 23 @39236 has 185 MA's), (Start: 34 @39275 has 1 MA's), (40, 39359), (41, 39362), (50, 39458), (57, 39479), (64, 39524), (67, 39560), (72, 39578),

Gene: Lebo14_53 Start: 37875, Stop: 38228, Start Num: 20
Candidate Starts for Lebo14_53:
(Start: 20 @37875 has 23 MA's), (Start: 29 @37899 has 1 MA's), (Start: 30 @37902 has 16 MA's), (39, 37977), (43, 38016), (46, 38064), (48, 38082), (51, 38103), (53, 38106),

Gene: Leozinho_55 Start: 37995, Stop: 38342, Start Num: 23
Candidate Starts for Leozinho_55:
(1, 37872), (7, 37923), (Start: 23 @37995 has 185 MA's), (Start: 34 @38034 has 1 MA's), (36, 38043), (41, 38121), (50, 38217), (57, 38238), (64, 38283), (72, 38337),

Gene: Leperchaun_48 Start: 36345, Stop: 36692, Start Num: 23
Candidate Starts for Leperchaun_48:
(2, 36249), (Start: 23 @36345 has 185 MA's), (Start: 34 @36384 has 1 MA's), (40, 36468), (41, 36471), (50, 36567), (57, 36588), (64, 36633), (72, 36687),

Gene: LilMoolah_54 Start: 38105, Stop: 38452, Start Num: 23
Candidate Starts for LilMoolah_54:
(1, 37985), (7, 38036), (Start: 23 @38105 has 185 MA's), (Start: 34 @38144 has 1 MA's), (41, 38231), (50, 38327), (64, 38393),

Gene: LilSpotty_55 Start: 36520, Stop: 36927, Start Num: 8
Candidate Starts for LilSpotty_55:
(Start: 8 @36520 has 1 MA's), (Start: 17 @36565 has 19 MA's), (33, 36616), (35, 36631), (40, 36700), (41, 36703), (46, 36769), (64, 36865), (65, 36877), (71, 36916),

Gene: LittleShirley_55 Start: 39149, Stop: 39496, Start Num: 23
Candidate Starts for LittleShirley_55:
(1, 39029), (3, 39059), (Start: 23 @39149 has 185 MA's), (Start: 34 @39188 has 1 MA's), (40, 39272), (41, 39275), (50, 39371), (64, 39437),

Gene: Lizziana_62 Start: 39663, Stop: 40010, Start Num: 23
Candidate Starts for Lizziana_62:
(2, 39567), (Start: 23 @39663 has 185 MA's), (Start: 34 @39702 has 1 MA's), (40, 39786), (41, 39789), (50, 39885), (64, 39951), (72, 40005),

Gene: Llama_61 Start: 41074, Stop: 41421, Start Num: 23
Candidate Starts for Llama_61:
(Start: 23 @41074 has 185 MA's), (Start: 34 @41113 has 1 MA's), (37, 41152), (40, 41197), (41, 41200), (50, 41296), (57, 41317), (64, 41362),

Gene: Llij_52 Start: 37513, Stop: 37860, Start Num: 23
Candidate Starts for Llij_52:
(2, 37417), (3, 37423), (Start: 23 @37513 has 185 MA's), (Start: 34 @37552 has 1 MA's), (40, 37636), (41, 37639), (50, 37735),

Gene: LordVader_51 Start: 33831, Stop: 34193, Start Num: 17
Candidate Starts for LordVader_51:
(Start: 16 @33828 has 5 MA's), (Start: 17 @33831 has 19 MA's), (19, 33840), (Start: 20 @33846 has 23 MA's), (33, 33882), (35, 33897), (39, 33948), (41, 33969), (46, 34035), (64, 34131), (65, 34143), (71, 34182),

Gene: Lorde_56 Start: 36800, Stop: 37147, Start Num: 23
Candidate Starts for Lorde_56:
(2, 36704), (3, 36710), (Start: 23 @36800 has 185 MA's), (Start: 34 @36839 has 1 MA's), (40, 36923), (41, 36926), (50, 37022),

Gene: Lucia_56 Start: 37657, Stop: 38004, Start Num: 23
Candidate Starts for Lucia_56:
(2, 37561), (3, 37567), (Start: 23 @37657 has 185 MA's), (Start: 34 @37696 has 1 MA's), (40, 37780), (41, 37783), (50, 37879),

Gene: LunaBlu_58 Start: 39240, Stop: 39587, Start Num: 23
Candidate Starts for LunaBlu_58:
(1, 39120), (3, 39150), (7, 39171), (Start: 23 @39240 has 185 MA's), (Start: 34 @39279 has 1 MA's), (40, 39363), (41, 39366), (50, 39462), (57, 39483), (64, 39528), (67, 39564), (72, 39582),

Gene: LunaStella_54 Start: 37871, Stop: 38221, Start Num: 23
Candidate Starts for LunaStella_54:
(Start: 23 @37871 has 185 MA's), (Start: 34 @37910 has 1 MA's), (66, 38180), (71, 38213), (72, 38216),

Gene: MadMen_54 Start: 38437, Stop: 38784, Start Num: 23
Candidate Starts for MadMen_54:
(2, 38341), (3, 38347), (Start: 23 @38437 has 185 MA's), (Start: 34 @38476 has 1 MA's), (37, 38515), (40, 38560), (41, 38563), (50, 38659), (64, 38725), (72, 38779),

Gene: Madiba_54 Start: 37686, Stop: 38033, Start Num: 23
Candidate Starts for Madiba_54:
(1, 37566), (3, 37596), (Start: 23 @37686 has 185 MA's), (Start: 34 @37725 has 1 MA's), (37, 37764), (40, 37809), (41, 37812), (50, 37908), (64, 37974),

Gene: Mahavrat_54 Start: 38065, Stop: 38412, Start Num: 23
Candidate Starts for Mahavrat_54:
(Start: 23 @38065 has 185 MA's), (40, 38188), (41, 38191), (50, 38287), (57, 38308), (64, 38353), (67, 38389), (72, 38407),

Gene: Malthus_55 Start: 37611, Stop: 37961, Start Num: 20
Candidate Starts for Malthus_55:

(Start: 20 @37611 has 23 MA's), (Start: 29 @37635 has 1 MA's), (Start: 30 @37638 has 16 MA's), (39, 37713), (43, 37752), (46, 37797), (48, 37815), (51, 37836), (53, 37839),

Gene: Mandlovu_52 Start: 36675, Stop: 37022, Start Num: 23
Candidate Starts for Mandlovu_52:
(1, 36555), (Start: 23 @36675 has 185 MA's), (Start: 34 @36714 has 1 MA's), (37, 36753), (40, 36798), (41, 36801), (50, 36897), (64, 36963),

Gene: Mantra_52 Start: 37558, Stop: 37905, Start Num: 23
Candidate Starts for Mantra_52:
(Start: 23 @37558 has 185 MA's), (Start: 34 @37597 has 1 MA's), (41, 37684), (50, 37780), (57, 37801), (64, 37846), (72, 37900),

Gene: Maravista_57 Start: 40112, Stop: 40459, Start Num: 23
Candidate Starts for Maravista_57:
(Start: 23 @40112 has 185 MA's), (Start: 34 @40151 has 1 MA's), (40, 40235), (41, 40238), (50, 40334), (64, 40400), (72, 40454),

Gene: Marker_58 Start: 38786, Stop: 39127, Start Num: 25
Candidate Starts for Marker_58:
(Start: 25 @38786 has 4 MA's), (Start: 27 @38792 has 18 MA's), (Start: 34 @38819 has 1 MA's), (37, 38858), (40, 38903), (41, 38906), (50, 39002), (57, 39023), (64, 39068), (67, 39104), (72, 39122),

Gene: Martik_56 Start: 38616, Stop: 38963, Start Num: 23
Candidate Starts for Martik_56:
(2, 38520), (Start: 23 @38616 has 185 MA's), (Start: 34 @38655 has 1 MA's), (40, 38739), (41, 38742), (50, 38838), (64, 38904), (72, 38958),

Gene: Marvin_60 Start: 36210, Stop: 36548, Start Num: 30
Candidate Starts for Marvin_60:
(Start: 30 @36210 has 16 MA's), (43, 36336), (46, 36375), (65, 36492), (70, 36528), (73, 36537),

Gene: Mattes_60 Start: 40182, Stop: 40529, Start Num: 23
Candidate Starts for Mattes_60:
(1, 40062), (7, 40113), (Start: 23 @40182 has 185 MA's), (Start: 34 @40221 has 1 MA's), (36, 40230), (41, 40308), (50, 40404), (64, 40470), (72, 40524),

Gene: Medindi_53 Start: 36409, Stop: 36756, Start Num: 23
Candidate Starts for Medindi_53:
(Start: 23 @36409 has 185 MA's), (Start: 34 @36448 has 1 MA's), (41, 36535), (50, 36631), (57, 36652), (64, 36697), (67, 36733), (72, 36751),

Gene: Melissauren88_55 Start: 38564, Stop: 38899, Start Num: 27
Candidate Starts for Melissauren88_55:
(Start: 27 @38564 has 18 MA's), (Start: 34 @38591 has 1 MA's), (41, 38678), (50, 38774), (57, 38795), (64, 38840), (67, 38876), (72, 38894),

Gene: MilanaBonita_47 Start: 35145, Stop: 35492, Start Num: 23
Candidate Starts for MilanaBonita_47:
(Start: 23 @35145 has 185 MA's), (Start: 34 @35184 has 1 MA's), (36, 35193), (41, 35271), (50, 35367), (57, 35388), (64, 35433), (67, 35469),

Gene: MilleniumForce_60 Start: 41234, Stop: 41581, Start Num: 23

Candidate Starts for MilleniumForce_60:
(Start: 23 @41234 has 185 MA's), (Start: 34 @41273 has 1 MA's), (36, 41282), (41, 41360), (50, 41456), (64, 41522), (72, 41576),

Gene: MinionDave_55 Start: 38963, Stop: 39310, Start Num: 23
Candidate Starts for MinionDave_55:
(Start: 23 @38963 has 185 MA's), (Start: 34 @39002 has 1 MA's), (36, 39011), (41, 39089), (50, 39185), (57, 39206), (64, 39251), (67, 39287), (72, 39305),

Gene: Minnie_60 Start: 40536, Stop: 40883, Start Num: 23
Candidate Starts for Minnie_60:
(Start: 23 @40536 has 185 MA's), (Start: 34 @40575 has 1 MA's), (36, 40584), (41, 40662), (50, 40758), (64, 40824), (72, 40878),

Gene: Misha28_53 Start: 37256, Stop: 37618, Start Num: 17
Candidate Starts for Misha28_53:
(Start: 17 @37256 has 19 MA's), (Start: 18 @37259 has 4 MA's), (26, 37286), (33, 37307), (35, 37322), (39, 37373), (41, 37394), (46, 37460), (64, 37556), (65, 37568), (71, 37607),

Gene: MissDaisy_52 Start: 37140, Stop: 37493, Start Num: 20
Candidate Starts for MissDaisy_52:
(Start: 20 @37140 has 23 MA's), (Start: 29 @37164 has 1 MA's), (Start: 30 @37167 has 16 MA's), (39, 37242), (43, 37281),

Gene: MisterCuddles_54 Start: 38422, Stop: 38769, Start Num: 23
Candidate Starts for MisterCuddles_54:
(1, 38299), (7, 38350), (Start: 23 @38422 has 185 MA's), (Start: 34 @38461 has 1 MA's), (36, 38470), (37, 38500), (41, 38548), (50, 38644), (57, 38665), (64, 38710), (67, 38746), (72, 38764),

Gene: Mitti_54 Start: 37787, Stop: 38140, Start Num: 20
Candidate Starts for Mitti_54:
(Start: 20 @37787 has 23 MA's), (Start: 29 @37811 has 1 MA's), (Start: 30 @37814 has 16 MA's), (39, 37889), (43, 37928), (46, 37976), (48, 37994), (51, 38015), (53, 38018),

Gene: Modragons_60 Start: 41064, Stop: 41411, Start Num: 23
Candidate Starts for Modragons_60:
(Start: 23 @41064 has 185 MA's), (Start: 34 @41103 has 1 MA's), (37, 41142), (40, 41187), (41, 41190), (50, 41286), (57, 41307), (64, 41352),

Gene: MooMoo_52 Start: 37750, Stop: 38121, Start Num: 14
Candidate Starts for MooMoo_52:
(Start: 14 @37750 has 1 MA's), (33, 37816), (35, 37831), (46, 37969), (49, 37993), (55, 38014), (60, 38044), (66, 38083), (67, 38101), (68, 38104), (69, 38110),

Gene: Moonbeam_55 Start: 38708, Stop: 39043, Start Num: 27
Candidate Starts for Moonbeam_55:
(Start: 27 @38708 has 18 MA's), (Start: 34 @38735 has 1 MA's), (41, 38822), (50, 38918), (57, 38939), (64, 38984), (67, 39020), (72, 39038),

Gene: MosMoris_61 Start: 36143, Stop: 36481, Start Num: 30
Candidate Starts for MosMoris_61:
(Start: 30 @36143 has 16 MA's), (43, 36269), (46, 36308), (65, 36425), (70, 36461), (73, 36470),

Gene: Mova_57 Start: 38190, Stop: 38537, Start Num: 23
Candidate Starts for Mova_57:
(Start: 23 @38190 has 185 MA's), (Start: 34 @38229 has 1 MA's), (36, 38238), (41, 38316), (50, 38412), (64, 38478), (72, 38532),

Gene: Mozy_65 Start: 41197, Stop: 41544, Start Num: 23
Candidate Starts for Mozy_65:
(Start: 23 @41197 has 185 MA's), (Start: 34 @41236 has 1 MA's), (41, 41323), (50, 41419), (57, 41440), (64, 41485), (72, 41539),

Gene: Ms6_52 Start: 34295, Stop: 34630, Start Num: 27
Candidate Starts for Ms6_52:
(Start: 27 @34295 has 18 MA's), (Start: 34 @34322 has 1 MA's), (36, 34331), (41, 34409), (50, 34505), (57, 34526), (64, 34571), (67, 34607), (72, 34625),

Gene: MulchExplorer_62 Start: 40278, Stop: 40625, Start Num: 23
Candidate Starts for MulchExplorer_62:
(Start: 23 @40278 has 185 MA's), (Start: 34 @40317 has 1 MA's), (36, 40326), (41, 40404), (50, 40500), (57, 40521), (64, 40566), (72, 40620),

Gene: MulchSalad_54 Start: 36454, Stop: 36801, Start Num: 20
Candidate Starts for MulchSalad_54:
(Start: 17 @36439 has 19 MA's), (19, 36448), (Start: 20 @36454 has 23 MA's), (33, 36490), (35, 36505), (39, 36556), (41, 36577), (46, 36643), (64, 36739), (65, 36751), (71, 36790),

Gene: Mutaforma13_60 Start: 41520, Stop: 41867, Start Num: 23
Candidate Starts for Mutaforma13_60:
(1, 41400), (Start: 23 @41520 has 185 MA's), (Start: 34 @41559 has 1 MA's), (37, 41598), (40, 41643), (41, 41646), (50, 41742), (56, 41760), (57, 41763), (60, 41787), (63, 41805), (64, 41808),

Gene: Mwanjiwa_62 Start: 39297, Stop: 39644, Start Num: 23
Candidate Starts for Mwanjiwa_62:
(Start: 23 @39297 has 185 MA's), (Start: 34 @39336 has 1 MA's), (36, 39345), (41, 39423), (50, 39519), (57, 39540), (64, 39585), (67, 39621), (72, 39639),

Gene: Nenae_45 Start: 31706, Stop: 32068, Start Num: 16
Candidate Starts for Nenae_45:
(Start: 16 @31706 has 5 MA's), (Start: 17 @31709 has 19 MA's), (Start: 20 @31724 has 23 MA's), (Start: 31 @31751 has 1 MA's), (35, 31775), (41, 31847), (46, 31913), (56, 31961), (64, 32009), (71, 32057),

Gene: NewHope4_57 Start: 38611, Stop: 38958, Start Num: 23
Candidate Starts for NewHope4_57:
(1, 38491), (3, 38521), (7, 38542), (Start: 23 @38611 has 185 MA's), (Start: 34 @38650 has 1 MA's), (40, 38734), (41, 38737), (50, 38833), (57, 38854), (64, 38899), (67, 38935), (72, 38953),

Gene: Nichirin_62 Start: 42111, Stop: 42455, Start Num: 20
Candidate Starts for Nichirin_62:
(Start: 17 @42096 has 19 MA's), (19, 42105), (Start: 20 @42111 has 23 MA's), (35, 42162), (41, 42234), (46, 42300), (47, 42312), (51, 42339), (56, 42348), (64, 42396), (71, 42444),

Gene: Nimbo_50 Start: 36918, Stop: 37265, Start Num: 23
Candidate Starts for Nimbo_50:

(2, 36822), (Start: 23 @36918 has 185 MA's), (Start: 34 @36957 has 1 MA's), (40, 37041), (41, 37044), (50, 37140), (57, 37161), (64, 37206), (72, 37260),

Gene: Nitzel_54 Start: 37977, Stop: 38318, Start Num: 24
Candidate Starts for Nitzel_54:
(Start: 24 @37977 has 4 MA's), (Start: 34 @38010 has 1 MA's), (37, 38049), (40, 38094), (41, 38097), (50, 38193), (64, 38259), (72, 38313),

Gene: Nivrat_52 Start: 37978, Stop: 38325, Start Num: 23
Candidate Starts for Nivrat_52:
(1, 37858), (7, 37909), (Start: 23 @37978 has 185 MA's), (Start: 34 @38017 has 1 MA's), (41, 38104), (50, 38200), (64, 38266),

Gene: NormanBulbieJr_56 Start: 38603, Stop: 38950, Start Num: 23
Candidate Starts for NormanBulbieJr_56:
(2, 38507), (Start: 23 @38603 has 185 MA's), (Start: 34 @38642 has 1 MA's), (40, 38726), (41, 38729), (50, 38825), (64, 38891), (72, 38945),

Gene: Ochi17_59 Start: 40671, Stop: 41018, Start Num: 23
Candidate Starts for Ochi17_59:
(Start: 23 @40671 has 185 MA's), (Start: 34 @40710 has 1 MA's), (37, 40749), (40, 40794), (41, 40797), (50, 40893), (57, 40914), (64, 40959),

Gene: OfUltron_61 Start: 41220, Stop: 41567, Start Num: 23
Candidate Starts for OfUltron_61:
(Start: 23 @41220 has 185 MA's), (Start: 34 @41259 has 1 MA's), (37, 41298), (40, 41343), (41, 41346), (50, 41442), (57, 41463), (64, 41508),

Gene: Ogopogo_62 Start: 39554, Stop: 39889, Start Num: 28
Candidate Starts for Ogopogo_62:
(Start: 28 @39554 has 7 MA's), (Start: 34 @39581 has 1 MA's), (41, 39668), (50, 39764), (57, 39785), (64, 39830), (67, 39866), (72, 39884),

Gene: Oksu_60 Start: 41483, Stop: 41830, Start Num: 23
Candidate Starts for Oksu_60:
(Start: 23 @41483 has 185 MA's), (Start: 34 @41522 has 1 MA's), (37, 41561), (40, 41606), (41, 41609), (50, 41705), (57, 41726), (64, 41771),

Gene: OldBen_53 Start: 38528, Stop: 38875, Start Num: 23
Candidate Starts for OldBen_53:
(Start: 23 @38528 has 185 MA's), (Start: 34 @38567 has 1 MA's), (37, 38606), (40, 38651), (41, 38654), (50, 38750), (57, 38771), (64, 38816), (72, 38870),

Gene: OlympiaSaint_58 Start: 39124, Stop: 39471, Start Num: 23
Candidate Starts for OlympiaSaint_58:
(2, 39028), (Start: 23 @39124 has 185 MA's), (Start: 34 @39163 has 1 MA's), (40, 39247), (41, 39250), (50, 39346), (64, 39412), (72, 39466),

Gene: OmniCritical_53 Start: 37596, Stop: 37949, Start Num: 20
Candidate Starts for OmniCritical_53:
(Start: 20 @37596 has 23 MA's), (Start: 29 @37620 has 1 MA's), (Start: 30 @37623 has 16 MA's), (39, 37698), (43, 37737), (46, 37785), (48, 37803), (51, 37824), (53, 37827),

Gene: Ovechkin_55 Start: 39124, Stop: 39471, Start Num: 23
Candidate Starts for Ovechkin_55:
(Start: 23 @39124 has 185 MA's), (Start: 34 @39163 has 1 MA's), (37, 39202), (40, 39247), (41, 39250), (50, 39346), (64, 39412), (72, 39466),

Gene: OwlsT2W_56 Start: 38846, Stop: 39193, Start Num: 23
Candidate Starts for OwlsT2W_56:
(Start: 23 @38846 has 185 MA's), (Start: 34 @38885 has 1 MA's), (36, 38894), (41, 38972), (50, 39068), (57, 39089), (64, 39134), (67, 39170), (72, 39188),

Gene: PHappiness_51 Start: 36891, Stop: 37238, Start Num: 23
Candidate Starts for PHappiness_51:
(2, 36795), (Start: 23 @36891 has 185 MA's), (Start: 34 @36930 has 1 MA's), (40, 37014), (41, 37017), (50, 37113), (57, 37134), (64, 37179), (72, 37233),

Gene: PMC_53 Start: 39230, Stop: 39577, Start Num: 23
Candidate Starts for PMC_53:
(2, 39134), (Start: 23 @39230 has 185 MA's), (Start: 34 @39269 has 1 MA's), (40, 39353), (41, 39356), (50, 39452), (57, 39473), (64, 39518), (72, 39572),

Gene: Pacc40_50 Start: 36965, Stop: 37312, Start Num: 23
Candidate Starts for Pacc40_50:
(2, 36869), (Start: 23 @36965 has 185 MA's), (Start: 34 @37004 has 1 MA's), (40, 37088), (41, 37091), (50, 37187), (57, 37208), (64, 37253), (72, 37307),

Gene: PatoPoderoso_53 Start: 37743, Stop: 38078, Start Num: 27
Candidate Starts for PatoPoderoso_53:
(Start: 27 @37743 has 18 MA's), (Start: 34 @37770 has 1 MA's), (36, 37779), (41, 37857), (50, 37953), (57, 37974), (64, 38019), (67, 38055), (72, 38073),

Gene: Patt_51 Start: 36864, Stop: 37217, Start Num: 20
Candidate Starts for Patt_51:
(Start: 20 @36864 has 23 MA's), (Start: 29 @36888 has 1 MA's), (Start: 30 @36891 has 16 MA's), (39, 36966), (43, 37005), (53, 37095),

Gene: Peridot_57 Start: 38068, Stop: 38415, Start Num: 23
Candidate Starts for Peridot_57:
(1, 37948), (3, 37978), (7, 37999), (Start: 23 @38068 has 185 MA's), (Start: 34 @38107 has 1 MA's), (40, 38191), (41, 38194), (50, 38290), (64, 38356),

Gene: Phalconet_55 Start: 37835, Stop: 38170, Start Num: 27
Candidate Starts for Phalconet_55:
(Start: 27 @37835 has 18 MA's), (Start: 34 @37862 has 1 MA's), (41, 37949), (50, 38045), (57, 38066), (64, 38111), (67, 38147), (72, 38165),

Gene: PhancyPhin_45 Start: 31700, Stop: 32062, Start Num: 16
Candidate Starts for PhancyPhin_45:
(Start: 16 @31700 has 5 MA's), (Start: 17 @31703 has 19 MA's), (Start: 20 @31718 has 23 MA's), (Start: 31 @31745 has 1 MA's), (35, 31769), (41, 31841), (46, 31907), (56, 31955), (64, 32003), (71, 32051),

Gene: Phanphagia_54 Start: 39414, Stop: 39761, Start Num: 23
Candidate Starts for Phanphagia_54:

(Start: 23 @39414 has 185 MA's), (Start: 34 @39453 has 1 MA's), (36, 39462), (41, 39540), (50, 39636), (57, 39657), (64, 39702), (67, 39738),

Gene: Phasih_54 Start: 39031, Stop: 39381, Start Num: 23
Candidate Starts for Phasih_54:
(2, 38935), (Start: 23 @39031 has 185 MA's), (Start: 34 @39070 has 1 MA's), (37, 39109), (40, 39154), (41, 39157), (50, 39253), (56, 39271), (57, 39274), (60, 39298), (63, 39316), (64, 39319), (72, 39373), (73, 39376),

Gene: Phatniss_54 Start: 38608, Stop: 38955, Start Num: 23
Candidate Starts for Phatniss_54:
(2, 38512), (3, 38518), (Start: 23 @38608 has 185 MA's), (Start: 34 @38647 has 1 MA's), (40, 38731), (41, 38734), (50, 38830),

Gene: PhesterPhotato_57 Start: 38640, Stop: 38987, Start Num: 23
Candidate Starts for PhesterPhotato_57:
(Start: 23 @38640 has 185 MA's), (Start: 34 @38679 has 1 MA's), (36, 38688), (41, 38766), (50, 38862), (57, 38883), (64, 38928), (67, 38964), (72, 38982),

Gene: Philus_59 Start: 39768, Stop: 40115, Start Num: 23
Candidate Starts for Philus_59:
(1, 39648), (3, 39678), (Start: 23 @39768 has 185 MA's), (Start: 34 @39807 has 1 MA's), (36, 39816), (40, 39891), (41, 39894), (50, 39990), (64, 40056),

Gene: PhlipPhlop_56 Start: 40322, Stop: 40669, Start Num: 23
Candidate Starts for PhlipPhlop_56:
(Start: 23 @40322 has 185 MA's), (Start: 34 @40361 has 1 MA's), (36, 40370), (41, 40448), (50, 40544), (57, 40565), (64, 40610), (72, 40664),

Gene: Piper2020_55 Start: 37972, Stop: 38334, Start Num: 17
Candidate Starts for Piper2020_55:
(Start: 17 @37972 has 19 MA's), (Start: 18 @37975 has 4 MA's), (26, 38002), (33, 38023), (35, 38038), (39, 38089), (41, 38110), (46, 38176), (64, 38272), (65, 38284), (71, 38323),

Gene: Pippy_54 Start: 37474, Stop: 37821, Start Num: 23
Candidate Starts for Pippy_54:
(2, 37378), (Start: 23 @37474 has 185 MA's), (Start: 34 @37513 has 1 MA's), (40, 37597), (41, 37600), (50, 37696), (64, 37762), (72, 37816),

Gene: Plumbus_58 Start: 38935, Stop: 39282, Start Num: 23
Candidate Starts for Plumbus_58:
(Start: 23 @38935 has 185 MA's), (Start: 34 @38974 has 1 MA's), (41, 39061), (50, 39157), (57, 39178), (64, 39223), (72, 39277),

Gene: Poenanya_56 Start: 39792, Stop: 40139, Start Num: 23
Candidate Starts for Poenanya_56:
(Start: 23 @39792 has 185 MA's), (Start: 34 @39831 has 1 MA's), (37, 39870), (40, 39915), (41, 39918), (50, 40014), (56, 40032), (57, 40035), (60, 40059), (63, 40077), (64, 40080),

Gene: Poise_64 Start: 36039, Stop: 36377, Start Num: 30
Candidate Starts for Poise_64:
(Start: 30 @36039 has 16 MA's), (43, 36165), (46, 36204), (65, 36321), (70, 36357), (73, 36366),

Gene: Polka14_54 Start: 37988, Stop: 38335, Start Num: 23
Candidate Starts for Polka14_54:
(Start: 23 @37988 has 185 MA's), (Start: 34 @38027 has 1 MA's), (37, 38066), (40, 38111), (41, 38114), (50, 38210), (56, 38228), (57, 38231), (60, 38255), (63, 38273), (64, 38276),

Gene: Pollywog_57 Start: 39439, Stop: 39786, Start Num: 23
Candidate Starts for Pollywog_57:
(1, 39319), (3, 39349), (Start: 23 @39439 has 185 MA's), (Start: 34 @39478 has 1 MA's), (40, 39562), (41, 39565), (50, 39661), (57, 39682), (64, 39727), (72, 39781),

Gene: Polo2Bam_61 Start: 38465, Stop: 38812, Start Num: 23
Candidate Starts for Polo2Bam_61:
(1, 38345), (3, 38375), (7, 38396), (Start: 23 @38465 has 185 MA's), (Start: 34 @38504 has 1 MA's), (40, 38588), (41, 38591), (50, 38687), (57, 38708), (64, 38753), (67, 38789), (72, 38807),

Gene: PopTart_51 Start: 37460, Stop: 37795, Start Num: 27
Candidate Starts for PopTart_51:
(Start: 27 @37460 has 18 MA's), (Start: 34 @37487 has 1 MA's), (40, 37571), (41, 37574), (50, 37670), (57, 37691), (64, 37736), (67, 37772), (72, 37790),

Gene: Pringar_63 Start: 36328, Stop: 36666, Start Num: 30
Candidate Starts for Pringar_63:
(Start: 30 @36328 has 16 MA's), (43, 36454), (46, 36493), (65, 36610), (70, 36646), (73, 36655),

Gene: Priscilla_56 Start: 38702, Stop: 39049, Start Num: 23
Candidate Starts for Priscilla_56:
(2, 38606), (Start: 23 @38702 has 185 MA's), (Start: 34 @38741 has 1 MA's), (40, 38825), (41, 38828), (50, 38924), (64, 38990), (72, 39044),

Gene: Purgamenstris_45 Start: 31707, Stop: 32066, Start Num: 17
Candidate Starts for Purgamenstris_45:
(Start: 16 @31704 has 5 MA's), (Start: 17 @31707 has 19 MA's), (Start: 20 @31722 has 23 MA's), (Start: 31 @31749 has 1 MA's), (35, 31773), (41, 31845), (46, 31911), (56, 31959), (64, 32007), (71, 32055),

Gene: Qhanda_56 Start: 37627, Stop: 37977, Start Num: 20
Candidate Starts for Qhanda_56:
(Start: 20 @37627 has 23 MA's), (Start: 29 @37651 has 1 MA's), (Start: 30 @37654 has 16 MA's), (39, 37729), (43, 37768), (46, 37813), (48, 37831), (51, 37852), (53, 37855),

Gene: QuickMath_57 Start: 40502, Stop: 40849, Start Num: 23
Candidate Starts for QuickMath_57:
(Start: 23 @40502 has 185 MA's), (Start: 34 @40541 has 1 MA's), (36, 40550), (41, 40628), (50, 40724), (57, 40745), (64, 40790), (72, 40844),

Gene: Quico_65 Start: 40968, Stop: 41315, Start Num: 23
Candidate Starts for Quico_65:
(1, 40848), (7, 40899), (Start: 23 @40968 has 185 MA's), (Start: 34 @41007 has 1 MA's), (40, 41091), (41, 41094), (50, 41190), (57, 41211), (64, 41256), (72, 41310),

Gene: Radiance_55 Start: 38727, Stop: 39074, Start Num: 23
Candidate Starts for Radiance_55:

(Start: 23 @38727 has 185 MA's), (Start: 34 @38766 has 1 MA's), (36, 38775), (41, 38853), (50, 38949), (64, 39015), (67, 39051), (72, 39069),

Gene: Raela_64 Start: 36596, Stop: 36934, Start Num: 30
Candidate Starts for Raela_64:
(Start: 30 @36596 has 16 MA's), (43, 36722), (46, 36761), (65, 36878), (70, 36914), (73, 36923),

Gene: Ramsey_56 Start: 39390, Stop: 39737, Start Num: 23
Candidate Starts for Ramsey_56:
(Start: 23 @39390 has 185 MA's), (Start: 34 @39429 has 1 MA's), (37, 39468), (40, 39513), (41, 39516), (50, 39612), (64, 39678), (72, 39732),

Gene: Raymond7_39 Start: 31495, Stop: 31854, Start Num: 17
Candidate Starts for Raymond7_39:
(Start: 16 @31492 has 5 MA's), (Start: 17 @31495 has 19 MA's), (Start: 20 @31510 has 23 MA's), (Start: 31 @31537 has 1 MA's), (35, 31561), (41, 31633), (46, 31699), (56, 31747), (64, 31795), (71, 31843),

Gene: Rebel_37 Start: 27837, Stop: 28196, Start Num: 17
Candidate Starts for Rebel_37:
(Start: 16 @27834 has 5 MA's), (Start: 17 @27837 has 19 MA's), (Start: 20 @27852 has 23 MA's), (Start: 31 @27879 has 1 MA's), (35, 27903), (41, 27975), (46, 28041), (56, 28089), (64, 28137), (71, 28185),

Gene: RedBird_54 Start: 38035, Stop: 38370, Start Num: 27
Candidate Starts for RedBird_54:
(Start: 27 @38035 has 18 MA's), (Start: 34 @38062 has 1 MA's), (41, 38149), (50, 38245), (57, 38266), (64, 38311), (72, 38365),

Gene: RedRaider77_63 Start: 35984, Stop: 36322, Start Num: 30
Candidate Starts for RedRaider77_63:
(Start: 30 @35984 has 16 MA's), (43, 36110), (46, 36149), (65, 36266), (70, 36302), (73, 36311),

Gene: Redi_45 Start: 31703, Stop: 32065, Start Num: 16
Candidate Starts for Redi_45:
(Start: 16 @31703 has 5 MA's), (Start: 17 @31706 has 19 MA's), (Start: 20 @31721 has 23 MA's), (Start: 31 @31748 has 1 MA's), (35, 31772), (41, 31844), (46, 31910), (56, 31958), (64, 32006), (71, 32054),

Gene: Renaud18_61 Start: 39280, Stop: 39627, Start Num: 23
Candidate Starts for Renaud18_61:
(Start: 23 @39280 has 185 MA's), (Start: 34 @39319 has 1 MA's), (36, 39328), (41, 39406), (50, 39502), (64, 39568), (67, 39604), (72, 39622),

Gene: Reptar3000_52 Start: 36852, Stop: 37205, Start Num: 20
Candidate Starts for Reptar3000_52:
(Start: 20 @36852 has 23 MA's), (Start: 29 @36876 has 1 MA's), (Start: 30 @36879 has 16 MA's), (39, 36954), (43, 36993),

Gene: Rialto_62 Start: 41461, Stop: 41853, Start Num: 13
Candidate Starts for Rialto_62:
(Start: 13 @41461 has 8 MA's), (Start: 16 @41479 has 5 MA's), (Start: 34 @41545 has 1 MA's), (41, 41632), (50, 41728), (57, 41749), (64, 41794), (67, 41830), (72, 41848),

Gene: Rita_57 Start: 37333, Stop: 37680, Start Num: 23
Candidate Starts for Rita_57:
(2, 37237), (3, 37243), (Start: 23 @37333 has 185 MA's), (Start: 34 @37372 has 1 MA's), (37, 37411),
(40, 37456), (41, 37459), (50, 37555), (64, 37621), (72, 37675),

Gene: RitaG_51 Start: 37236, Stop: 37583, Start Num: 23
Candidate Starts for RitaG_51:
(2, 37140), (Start: 23 @37236 has 185 MA's), (Start: 34 @37275 has 1 MA's), (40, 37359), (41, 37362),
(50, 37458), (57, 37479), (64, 37524), (72, 37578),

Gene: Rockne_57 Start: 39242, Stop: 39589, Start Num: 23
Candidate Starts for Rockne_57:
(2, 39146), (Start: 23 @39242 has 185 MA's), (Start: 34 @39281 has 1 MA's), (40, 39365), (41, 39368),
(50, 39464), (57, 39485), (64, 39530), (72, 39584),

Gene: RockyHorror_57 Start: 38303, Stop: 38638, Start Num: 28
Candidate Starts for RockyHorror_57:
(Start: 28 @38303 has 7 MA's), (Start: 34 @38330 has 1 MA's), (41, 38417), (50, 38513), (57, 38534),
(64, 38579), (67, 38615), (72, 38633),

Gene: Royals2015_59 Start: 38599, Stop: 38991, Start Num: 13
Candidate Starts for Royals2015_59:
(Start: 13 @38599 has 8 MA's), (Start: 16 @38617 has 5 MA's), (Start: 34 @38683 has 1 MA's), (41,
38770), (50, 38866), (57, 38887), (64, 38932), (67, 38968), (72, 38986),

Gene: Ruby_52 Start: 38423, Stop: 38770, Start Num: 23
Candidate Starts for Ruby_52:
(1, 38300), (7, 38351), (Start: 23 @38423 has 185 MA's), (Start: 34 @38462 has 1 MA's), (36, 38471),
(37, 38501), (41, 38549), (50, 38645), (57, 38666), (64, 38711), (67, 38747), (72, 38765),

Gene: Ruthiejr_55 Start: 37661, Stop: 38011, Start Num: 20
Candidate Starts for Ruthiejr_55:
(Start: 20 @37661 has 23 MA's), (Start: 30 @37688 has 16 MA's), (39, 37763), (43, 37802), (46,
37847), (48, 37865), (51, 37886), (53, 37889),

Gene: SG4_53 Start: 38120, Stop: 38467, Start Num: 23
Candidate Starts for SG4_53:
(Start: 23 @38120 has 185 MA's), (Start: 34 @38159 has 1 MA's), (36, 38168), (41, 38246), (50,
38342), (57, 38363), (64, 38408), (67, 38444), (72, 38462),

Gene: Saal_58 Start: 39876, Stop: 40223, Start Num: 23
Candidate Starts for Saal_58:
(2, 39780), (Start: 23 @39876 has 185 MA's), (Start: 34 @39915 has 1 MA's), (40, 39999), (41, 40002),
(50, 40098), (64, 40164), (72, 40218),

Gene: Sabbb_60 Start: 39564, Stop: 39911, Start Num: 23
Candidate Starts for Sabbb_60:
(1, 39444), (Start: 23 @39564 has 185 MA's), (Start: 34 @39603 has 1 MA's), (41, 39690), (50, 39786),
(64, 39852), (72, 39906),

Gene: SamScheppers_52 Start: 38090, Stop: 38440, Start Num: 20
Candidate Starts for SamScheppers_52:

(Start: 20 @38090 has 23 MA's), (Start: 29 @38114 has 1 MA's), (Start: 30 @38117 has 16 MA's), (39, 38192), (43, 38231), (46, 38276), (48, 38294), (51, 38315), (53, 38318),

Gene: Sandalphon_58 Start: 39526, Stop: 39861, Start Num: 27
Candidate Starts for Sandalphon_58:
(Start: 27 @39526 has 18 MA's), (Start: 34 @39553 has 1 MA's), (37, 39592), (40, 39637), (41, 39640), (50, 39736), (57, 39757), (64, 39802), (72, 39856),

Gene: Sarma624_54 Start: 34814, Stop: 35161, Start Num: 23
Candidate Starts for Sarma624_54:
(Start: 23 @34814 has 185 MA's), (Start: 34 @34853 has 1 MA's), (37, 34892), (40, 34937), (41, 34940), (50, 35036), (64, 35102),

Gene: Sassafras_54 Start: 38208, Stop: 38555, Start Num: 23
Candidate Starts for Sassafras_54:
(Start: 23 @38208 has 185 MA's), (Start: 34 @38247 has 1 MA's), (36, 38256), (41, 38334), (50, 38430), (57, 38451), (64, 38496), (67, 38532), (72, 38550),

Gene: SassyB_51 Start: 37460, Stop: 37795, Start Num: 27
Candidate Starts for SassyB_51:
(Start: 27 @37460 has 18 MA's), (Start: 34 @37487 has 1 MA's), (40, 37571), (41, 37574), (50, 37670), (57, 37691), (64, 37736), (67, 37772), (72, 37790),

Gene: Scottish_54 Start: 38248, Stop: 38595, Start Num: 23
Candidate Starts for Scottish_54:
(2, 38152), (Start: 23 @38248 has 185 MA's), (Start: 34 @38287 has 1 MA's), (40, 38371), (41, 38374), (50, 38470), (57, 38491), (64, 38536), (72, 38590),

Gene: SeaLumen_60 Start: 38465, Stop: 38812, Start Num: 23
Candidate Starts for SeaLumen_60:
(1, 38345), (3, 38375), (7, 38396), (Start: 23 @38465 has 185 MA's), (Start: 34 @38504 has 1 MA's), (40, 38588), (41, 38591), (50, 38687), (57, 38708), (64, 38753), (67, 38789), (72, 38807),

Gene: Seabastian_61 Start: 41221, Stop: 41568, Start Num: 23
Candidate Starts for Seabastian_61:
(Start: 23 @41221 has 185 MA's), (Start: 34 @41260 has 1 MA's), (37, 41299), (40, 41344), (41, 41347), (50, 41443), (57, 41464), (64, 41509),

Gene: Seagreen_56 Start: 38212, Stop: 38559, Start Num: 23
Candidate Starts for Seagreen_56:
(Start: 23 @38212 has 185 MA's), (Start: 34 @38251 has 1 MA's), (57, 38455), (66, 38518), (71, 38551), (72, 38554),

Gene: Sejanus_55 Start: 46982, Stop: 47341, Start Num: 17
Candidate Starts for Sejanus_55:
(Start: 17 @46982 has 19 MA's), (26, 47012), (35, 47048), (41, 47120), (46, 47186), (47, 47198), (51, 47225), (56, 47234), (64, 47282), (71, 47330),

Gene: Shauna1_55 Start: 39323, Stop: 39670, Start Num: 23
Candidate Starts for Shauna1_55:
(Start: 23 @39323 has 185 MA's), (Start: 34 @39362 has 1 MA's), (36, 39371), (41, 39449), (50, 39545), (57, 39566), (64, 39611), (67, 39647),

Gene: ShiLan_55 Start: 38649, Stop: 38996, Start Num: 23
Candidate Starts for ShiLan_55:
(2, 38553), (Start: 23 @38649 has 185 MA's), (Start: 34 @38688 has 1 MA's), (40, 38772), (41, 38775), (50, 38871), (64, 38937), (72, 38991),

Gene: ShowerHandel_59 Start: 38616, Stop: 38963, Start Num: 23
Candidate Starts for ShowerHandel_59:
(2, 38520), (Start: 23 @38616 has 185 MA's), (Start: 34 @38655 has 1 MA's), (40, 38739), (41, 38742), (50, 38838), (64, 38904), (72, 38958),

Gene: ShrimpFriedEgg_45 Start: 31703, Stop: 32065, Start Num: 16
Candidate Starts for ShrimpFriedEgg_45:
(Start: 16 @31703 has 5 MA's), (Start: 17 @31706 has 19 MA's), (Start: 20 @31721 has 23 MA's), (Start: 31 @31748 has 1 MA's), (35, 31772), (41, 31844), (46, 31910), (56, 31958), (64, 32006), (71, 32054),

Gene: ShroomBoi_58 Start: 39576, Stop: 39923, Start Num: 23
Candidate Starts for ShroomBoi_58:
(1, 39456), (3, 39486), (Start: 23 @39576 has 185 MA's), (Start: 34 @39615 has 1 MA's), (37, 39654), (40, 39699), (41, 39702), (50, 39798), (64, 39864), (72, 39918),

Gene: SiSi_54 Start: 38022, Stop: 38369, Start Num: 23
Candidate Starts for SiSi_54:
(Start: 23 @38022 has 185 MA's), (Start: 34 @38061 has 1 MA's), (41, 38148), (50, 38244), (57, 38265), (64, 38310), (72, 38364),

Gene: SilverChicken_67 Start: 39103, Stop: 39450, Start Num: 23
Candidate Starts for SilverChicken_67:
(Start: 23 @39103 has 185 MA's), (Start: 34 @39142 has 1 MA's), (36, 39151), (41, 39229), (50, 39325), (57, 39346), (64, 39391), (67, 39427), (72, 39445),

Gene: Silvy_40 Start: 29489, Stop: 29848, Start Num: 17
Candidate Starts for Silvy_40:
(Start: 17 @29489 has 19 MA's), (33, 29540), (35, 29555), (40, 29624), (41, 29627), (46, 29693), (51, 29732), (56, 29741), (63, 29786), (64, 29789), (71, 29837), (73, 29843),

Gene: SimranZ1_56 Start: 38802, Stop: 39149, Start Num: 23
Candidate Starts for SimranZ1_56:
(Start: 23 @38802 has 185 MA's), (Start: 34 @38841 has 1 MA's), (41, 38928), (50, 39024), (57, 39045), (64, 39090), (67, 39126), (72, 39144),

Gene: SkinnyPete_39 Start: 29165, Stop: 29524, Start Num: 17
Candidate Starts for SkinnyPete_39:
(Start: 17 @29165 has 19 MA's), (19, 29174), (Start: 20 @29180 has 23 MA's), (35, 29231), (41, 29303), (46, 29369), (47, 29381), (51, 29408), (56, 29417), (64, 29465), (71, 29513),

Gene: Slarp_54 Start: 37618, Stop: 37968, Start Num: 20
Candidate Starts for Slarp_54:
(Start: 20 @37618 has 23 MA's), (Start: 29 @37642 has 1 MA's), (Start: 30 @37645 has 16 MA's), (39, 37720), (43, 37759), (46, 37804), (48, 37822), (51, 37843), (53, 37846),

Gene: Slim_57 Start: 39364, Stop: 39756, Start Num: 13
Candidate Starts for Slim_57:

(Start: 13 @39364 has 8 MA's), (Start: 16 @39382 has 5 MA's), (Start: 34 @39448 has 1 MA's), (41, 39535), (50, 39631), (57, 39652), (64, 39697), (67, 39733), (72, 39751),

Gene: Soul22_62 Start: 40209, Stop: 40553, Start Num: 24
Candidate Starts for Soul22_62:
(4, 40122), (Start: 24 @40209 has 4 MA's), (Start: 34 @40242 has 1 MA's), (61, 40482), (66, 40512), (71, 40545), (72, 40548),

Gene: Sparkdehlily_64 Start: 40334, Stop: 40681, Start Num: 23
Candidate Starts for Sparkdehlily_64:
(Start: 23 @40334 has 185 MA's), (Start: 34 @40373 has 1 MA's), (36, 40382), (41, 40460), (50, 40556), (57, 40577), (64, 40622), (67, 40658), (72, 40676),

Gene: Spartacus_58 Start: 39286, Stop: 39633, Start Num: 23
Candidate Starts for Spartacus_58:
(Start: 23 @39286 has 185 MA's), (Start: 34 @39325 has 1 MA's), (36, 39334), (41, 39412), (50, 39508), (64, 39574),

Gene: Spikelee_63 Start: 40906, Stop: 41253, Start Num: 23
Candidate Starts for Spikelee_63:
(Start: 23 @40906 has 185 MA's), (Start: 34 @40945 has 1 MA's), (36, 40954), (40, 41029), (41, 41032), (50, 41128), (57, 41149), (64, 41194), (67, 41230), (72, 41248),

Gene: Spinach_45 Start: 31706, Stop: 32065, Start Num: 17
Candidate Starts for Spinach_45:
(Start: 16 @31703 has 5 MA's), (Start: 17 @31706 has 19 MA's), (Start: 20 @31721 has 23 MA's), (Start: 31 @31748 has 1 MA's), (35, 31772), (41, 31844), (46, 31910), (56, 31958), (64, 32006), (71, 32054),

Gene: Spoonbill_53 Start: 37196, Stop: 37543, Start Num: 23
Candidate Starts for Spoonbill_53:
(Start: 23 @37196 has 185 MA's), (Start: 34 @37235 has 1 MA's), (37, 37274), (40, 37319), (41, 37322), (50, 37418), (56, 37436), (57, 37439), (60, 37463), (63, 37481), (64, 37484),

Gene: Squirty_52 Start: 37353, Stop: 37712, Start Num: 17
Candidate Starts for Squirty_52:
(Start: 16 @37350 has 5 MA's), (Start: 17 @37353 has 19 MA's), (19, 37362), (Start: 20 @37368 has 23 MA's), (Start: 31 @37395 has 1 MA's), (35, 37419), (40, 37488), (41, 37491), (46, 37557), (51, 37596), (56, 37605), (63, 37650), (64, 37653), (71, 37701), (73, 37707),

Gene: Squirty_59 Start: 40095, Stop: 40442, Start Num: 23
Candidate Starts for Squirty_59:
(Start: 23 @40095 has 185 MA's), (Start: 34 @40134 has 1 MA's), (36, 40143), (41, 40221), (50, 40317), (64, 40383), (72, 40437),

Gene: StAnnes_55 Start: 39501, Stop: 39848, Start Num: 23
Candidate Starts for StAnnes_55:
(Start: 23 @39501 has 185 MA's), (Start: 34 @39540 has 1 MA's), (41, 39627), (50, 39723), (57, 39744), (64, 39789), (67, 39825), (72, 39843),

Gene: Stap_54 Start: 37997, Stop: 38344, Start Num: 23
Candidate Starts for Stap_54:

(Start: 23 @37997 has 185 MA's), (Start: 34 @38036 has 1 MA's), (37, 38075), (40, 38120), (41, 38123), (50, 38219), (56, 38237), (57, 38240), (60, 38264), (63, 38282), (64, 38285),

Gene: Starcevich_55 Start: 38573, Stop: 38920, Start Num: 23
Candidate Starts for Starcevich_55:
(2, 38477), (Start: 23 @38573 has 185 MA's), (Start: 34 @38612 has 1 MA's), (40, 38696), (41, 38699), (50, 38795), (64, 38861), (72, 38915),

Gene: Strokeseat_52 Start: 36732, Stop: 37079, Start Num: 23
Candidate Starts for Strokeseat_52:
(1, 36612), (Start: 23 @36732 has 185 MA's), (Start: 34 @36771 has 1 MA's), (37, 36810), (40, 36855), (41, 36858), (50, 36954), (64, 37020),

Gene: SuperGrey_60 Start: 40809, Stop: 41156, Start Num: 23
Candidate Starts for SuperGrey_60:
(Start: 23 @40809 has 185 MA's), (Start: 34 @40848 has 1 MA's), (41, 40935), (50, 41031), (57, 41052), (64, 41097), (72, 41151),

Gene: SwagPigglett_61 Start: 40924, Stop: 41271, Start Num: 23
Candidate Starts for SwagPigglett_61:
(1, 40804), (7, 40855), (Start: 23 @40924 has 185 MA's), (Start: 34 @40963 has 1 MA's), (40, 41047), (41, 41050), (50, 41146), (64, 41212), (72, 41266),

Gene: TChen_56 Start: 39822, Stop: 40172, Start Num: 23
Candidate Starts for TChen_56:
(Start: 23 @39822 has 185 MA's), (Start: 34 @39861 has 1 MA's), (66, 40131), (71, 40164), (72, 40167),

Gene: TDanisky_64 Start: 40334, Stop: 40681, Start Num: 23
Candidate Starts for TDanisky_64:
(Start: 23 @40334 has 185 MA's), (Start: 34 @40373 has 1 MA's), (36, 40382), (41, 40460), (50, 40556), (57, 40577), (64, 40622), (67, 40658), (72, 40676),

Gene: Taj_60 Start: 40382, Stop: 40729, Start Num: 23
Candidate Starts for Taj_60:
(1, 40262), (Start: 23 @40382 has 185 MA's), (Start: 34 @40421 has 1 MA's), (37, 40460), (40, 40505), (41, 40508), (50, 40604), (57, 40625), (64, 40670), (67, 40706), (72, 40724),

Gene: Taquito_54 Start: 37946, Stop: 38296, Start Num: 20
Candidate Starts for Taquito_54:
(Start: 20 @37946 has 23 MA's), (Start: 29 @37970 has 1 MA's), (Start: 30 @37973 has 16 MA's), (39, 38048), (43, 38087), (46, 38132), (48, 38150), (51, 38171), (53, 38174),

Gene: Tchotchke_57 Start: 38726, Stop: 39073, Start Num: 23
Candidate Starts for Tchotchke_57:
(1, 38606), (Start: 23 @38726 has 185 MA's), (Start: 34 @38765 has 1 MA's), (37, 38804), (40, 38849), (41, 38852), (50, 38948), (57, 38969), (64, 39014), (67, 39050), (72, 39068),

Gene: Tesla_61 Start: 35833, Stop: 36171, Start Num: 30
Candidate Starts for Tesla_61:
(Start: 30 @35833 has 16 MA's), (43, 35959), (46, 35998), (65, 36115), (70, 36151), (73, 36160),

Gene: ThetaBob_60 Start: 39893, Stop: 40246, Start Num: 21

Candidate Starts for ThetaBob_60:
(Start: 21 @39893 has 1 MA's), (Start: 34 @39935 has 1 MA's), (61, 40175), (66, 40205), (71, 40238), (72, 40241),

Gene: TootsiePop_53 Start: 37256, Stop: 37618, Start Num: 17
Candidate Starts for TootsiePop_53:
(Start: 17 @37256 has 19 MA's), (Start: 18 @37259 has 4 MA's), (26, 37286), (33, 37307), (35, 37322), (39, 37373), (41, 37394), (46, 37460), (64, 37556), (65, 37568), (71, 37607),

Gene: Tootsieroll_57 Start: 37945, Stop: 38292, Start Num: 23
Candidate Starts for Tootsieroll_57:
(Start: 23 @37945 has 185 MA's), (Start: 34 @37984 has 1 MA's), (37, 38023), (40, 38068), (41, 38071), (50, 38167), (64, 38233),

Gene: Topiatin_63 Start: 41073, Stop: 41411, Start Num: 28
Candidate Starts for Topiatin_63:
(Start: 28 @41073 has 7 MA's), (Start: 34 @41100 has 1 MA's), (61, 41340), (66, 41370), (71, 41403), (72, 41406),

Gene: Toron_58 Start: 39897, Stop: 40268, Start Num: 14
Candidate Starts for Toron_58:
(Start: 14 @39897 has 1 MA's), (35, 39978), (46, 40116), (49, 40140), (52, 40155), (54, 40158), (60, 40191), (66, 40230), (67, 40248), (68, 40251), (69, 40257),

Gene: Tortellini_47 Start: 37188, Stop: 37532, Start Num: 20
Candidate Starts for Tortellini_47:
(6, 37122), (Start: 16 @37170 has 5 MA's), (Start: 17 @37173 has 19 MA's), (19, 37182), (Start: 20 @37188 has 23 MA's), (35, 37239), (41, 37311), (46, 37377), (56, 37425), (64, 37473), (71, 37521), (73, 37527),

Gene: Totinger_55 Start: 37875, Stop: 38222, Start Num: 23
Candidate Starts for Totinger_55:
(1, 37755), (3, 37785), (Start: 23 @37875 has 185 MA's), (Start: 34 @37914 has 1 MA's), (40, 37998), (41, 38001), (50, 38097), (64, 38163),

Gene: Tweety_56 Start: 40125, Stop: 40472, Start Num: 23
Candidate Starts for Tweety_56:
(1, 40005), (Start: 23 @40125 has 185 MA's), (Start: 34 @40164 has 1 MA's), (37, 40203), (40, 40248), (41, 40251), (50, 40347), (57, 40368), (64, 40413), (67, 40449), (72, 40467),

Gene: UncleRicky_55 Start: 38856, Stop: 39203, Start Num: 23
Candidate Starts for UncleRicky_55:
(2, 38760), (3, 38766), (Start: 23 @38856 has 185 MA's), (Start: 34 @38895 has 1 MA's), (40, 38979), (41, 38982), (50, 39078),

Gene: VRedHorse_56 Start: 37887, Stop: 38279, Start Num: 13
Candidate Starts for VRedHorse_56:
(Start: 13 @37887 has 8 MA's), (Start: 16 @37905 has 5 MA's), (Start: 34 @37971 has 1 MA's), (41, 38058), (50, 38154), (57, 38175), (64, 38220), (67, 38256), (72, 38274),

Gene: VasuNzinga_63 Start: 35902, Stop: 36240, Start Num: 30
Candidate Starts for VasuNzinga_63:
(Start: 30 @35902 has 16 MA's), (43, 36028), (46, 36067), (65, 36184), (70, 36220), (73, 36229),

Gene: Velveteen_51 Start: 34814, Stop: 35161, Start Num: 23
Candidate Starts for Velveteen_51:
(Start: 23 @34814 has 185 MA's), (Start: 34 @34853 has 1 MA's), (37, 34892), (40, 34937), (41, 34940), (50, 35036), (64, 35102),

Gene: Veteran_53 Start: 37711, Stop: 38058, Start Num: 23
Candidate Starts for Veteran_53:
(Start: 23 @37711 has 185 MA's), (Start: 34 @37750 has 1 MA's), (36, 37759), (41, 37837), (50, 37933), (57, 37954), (64, 37999), (67, 38035), (72, 38053),

Gene: Violac_58 Start: 40002, Stop: 40349, Start Num: 23
Candidate Starts for Violac_58:
(1, 39882), (3, 39912), (Start: 23 @40002 has 185 MA's), (Start: 34 @40041 has 1 MA's), (37, 40080), (40, 40125), (41, 40128), (50, 40224), (64, 40290),

Gene: Vivum_57 Start: 38934, Stop: 39281, Start Num: 23
Candidate Starts for Vivum_57:
(Start: 23 @38934 has 185 MA's), (Start: 34 @38973 has 1 MA's), (36, 38982), (37, 39012), (40, 39057), (41, 39060), (50, 39156), (57, 39177), (64, 39222), (72, 39276),

Gene: Wachhund_58 Start: 38925, Stop: 39272, Start Num: 23
Candidate Starts for Wachhund_58:
(Start: 23 @38925 has 185 MA's), (Start: 34 @38964 has 1 MA's), (36, 38973), (41, 39051), (50, 39147), (57, 39168), (64, 39213), (67, 39249), (72, 39267),

Gene: Wee_59 Start: 40451, Stop: 40798, Start Num: 23
Candidate Starts for Wee_59:
(1, 40331), (Start: 23 @40451 has 185 MA's), (Start: 34 @40490 has 1 MA's), (37, 40529), (40, 40574), (41, 40577), (50, 40673), (57, 40694), (64, 40739), (67, 40775), (72, 40793),

Gene: Whatsapiecost_57 Start: 38209, Stop: 38556, Start Num: 23
Candidate Starts for Whatsapiecost_57:
(Start: 23 @38209 has 185 MA's), (Start: 34 @38248 has 1 MA's), (36, 38257), (41, 38335), (50, 38431), (64, 38497), (72, 38551),

Gene: Whouxphf_53 Start: 38528, Stop: 38875, Start Num: 23
Candidate Starts for Whouxphf_53:
(1, 38408), (3, 38438), (7, 38459), (Start: 23 @38528 has 185 MA's), (Start: 34 @38567 has 1 MA's), (40, 38651), (41, 38654), (50, 38750), (57, 38771), (72, 38870),

Gene: Wintermute_54 Start: 37848, Stop: 38198, Start Num: 20
Candidate Starts for Wintermute_54:
(Start: 20 @37848 has 23 MA's), (Start: 29 @37872 has 1 MA's), (Start: 30 @37875 has 16 MA's), (39, 37950), (43, 37989), (46, 38034), (48, 38052), (51, 38073), (53, 38076),

Gene: XFactor_55 Start: 38026, Stop: 38361, Start Num: 27
Candidate Starts for XFactor_55:
(Start: 27 @38026 has 18 MA's), (Start: 34 @38053 has 1 MA's), (36, 38062), (41, 38140), (50, 38236), (57, 38257), (64, 38302), (67, 38338), (72, 38356),

Gene: Xavia_47 Start: 37009, Stop: 37368, Start Num: 17
Candidate Starts for Xavia_47:

(5, 36952), (Start: 17 @37009 has 19 MA's), (Start: 20 @37024 has 23 MA's), (26, 37039), (35, 37075), (41, 37147), (46, 37213), (51, 37252), (64, 37309), (71, 37357),

Gene: Y10_53 Start: 37767, Stop: 38120, Start Num: 20
Candidate Starts for Y10_53:
(Start: 20 @37767 has 23 MA's), (Start: 29 @37791 has 1 MA's), (Start: 30 @37794 has 16 MA's), (39, 37869), (43, 37908), (46, 37956), (48, 37974), (51, 37995), (53, 37998),

Gene: Y2_53 Start: 37767, Stop: 38120, Start Num: 20
Candidate Starts for Y2_53:
(Start: 20 @37767 has 23 MA's), (Start: 29 @37791 has 1 MA's), (Start: 30 @37794 has 16 MA's), (39, 37869), (43, 37908), (46, 37956), (48, 37974), (51, 37995), (53, 37998),

Gene: YasnayaPolyana_54 Start: 37722, Stop: 38051, Start Num: 29
Candidate Starts for YasnayaPolyana_54:
(Start: 20 @37698 has 23 MA's), (Start: 29 @37722 has 1 MA's), (Start: 30 @37725 has 16 MA's), (39, 37800), (43, 37839), (46, 37887), (48, 37905), (51, 37926), (53, 37929),

Gene: Yorick_55 Start: 38990, Stop: 39337, Start Num: 23
Candidate Starts for Yorick_55:
(2, 38894), (Start: 23 @38990 has 185 MA's), (Start: 34 @39029 has 1 MA's), (40, 39113), (41, 39116), (50, 39212), (64, 39278), (72, 39332),

Gene: Yoshi_68 Start: 40172, Stop: 40510, Start Num: 28
Candidate Starts for Yoshi_68:
(Start: 28 @40172 has 7 MA's), (Start: 34 @40199 has 1 MA's), (61, 40439), (66, 40469), (71, 40502), (72, 40505),

Gene: Zapner_69 Start: 40486, Stop: 40875, Start Num: 12
Candidate Starts for Zapner_69:
(9, 40474), (Start: 12 @40486 has 6 MA's), (15, 40504), (Start: 27 @40537 has 18 MA's), (Start: 34 @40567 has 1 MA's), (64, 40816), (66, 40834), (71, 40867), (72, 40870),

Gene: Zerg_56 Start: 38412, Stop: 38747, Start Num: 28
Candidate Starts for Zerg_56:
(Start: 28 @38412 has 7 MA's), (Start: 34 @38439 has 1 MA's), (41, 38526), (50, 38622), (57, 38643), (64, 38688), (67, 38724), (72, 38742),

Gene: Zizzle_60 Start: 40243, Stop: 40590, Start Num: 23
Candidate Starts for Zizzle_60:
(1, 40123), (7, 40174), (Start: 23 @40243 has 185 MA's), (Start: 34 @40282 has 1 MA's), (36, 40291), (41, 40369), (50, 40465), (64, 40531), (72, 40585),