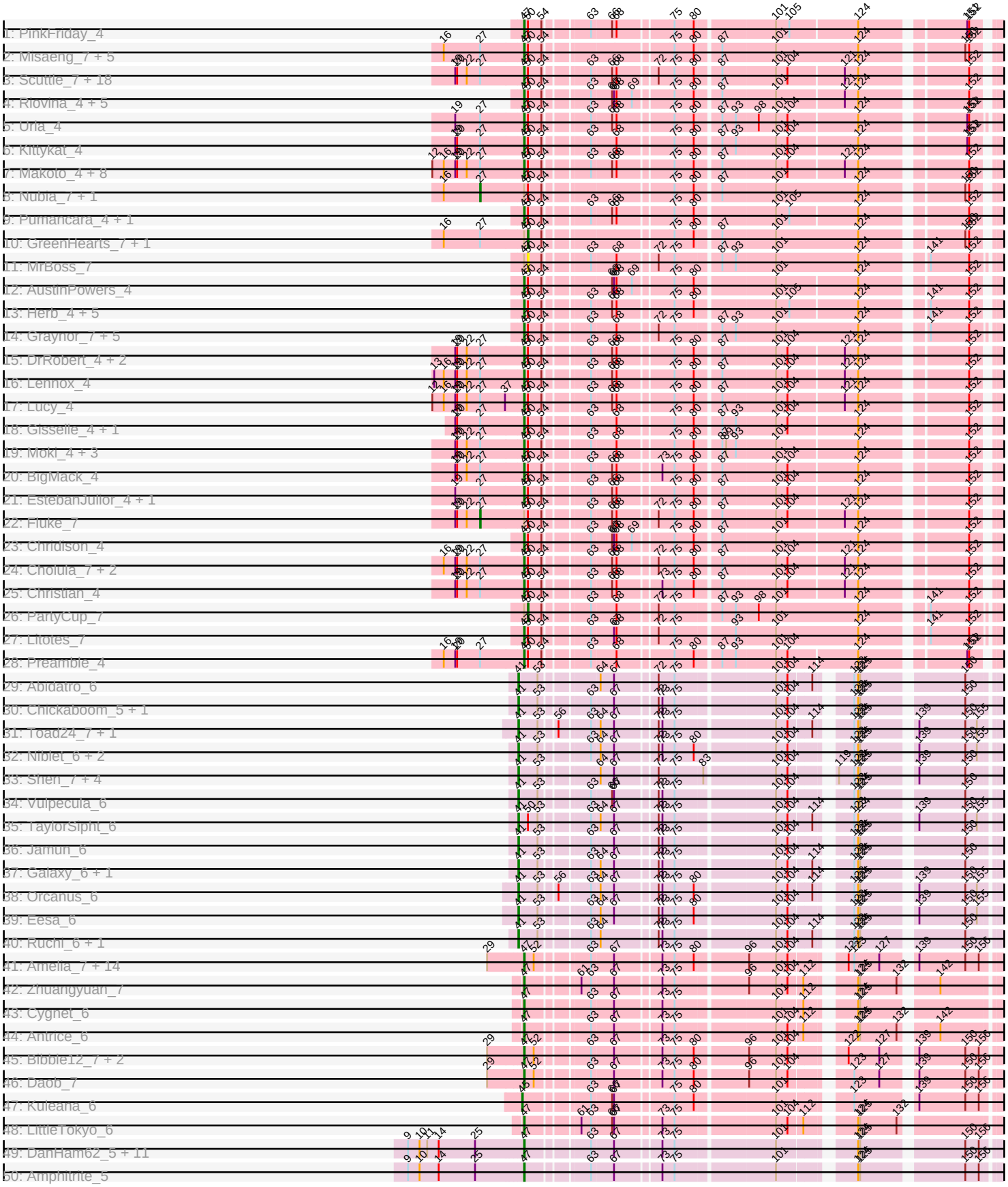
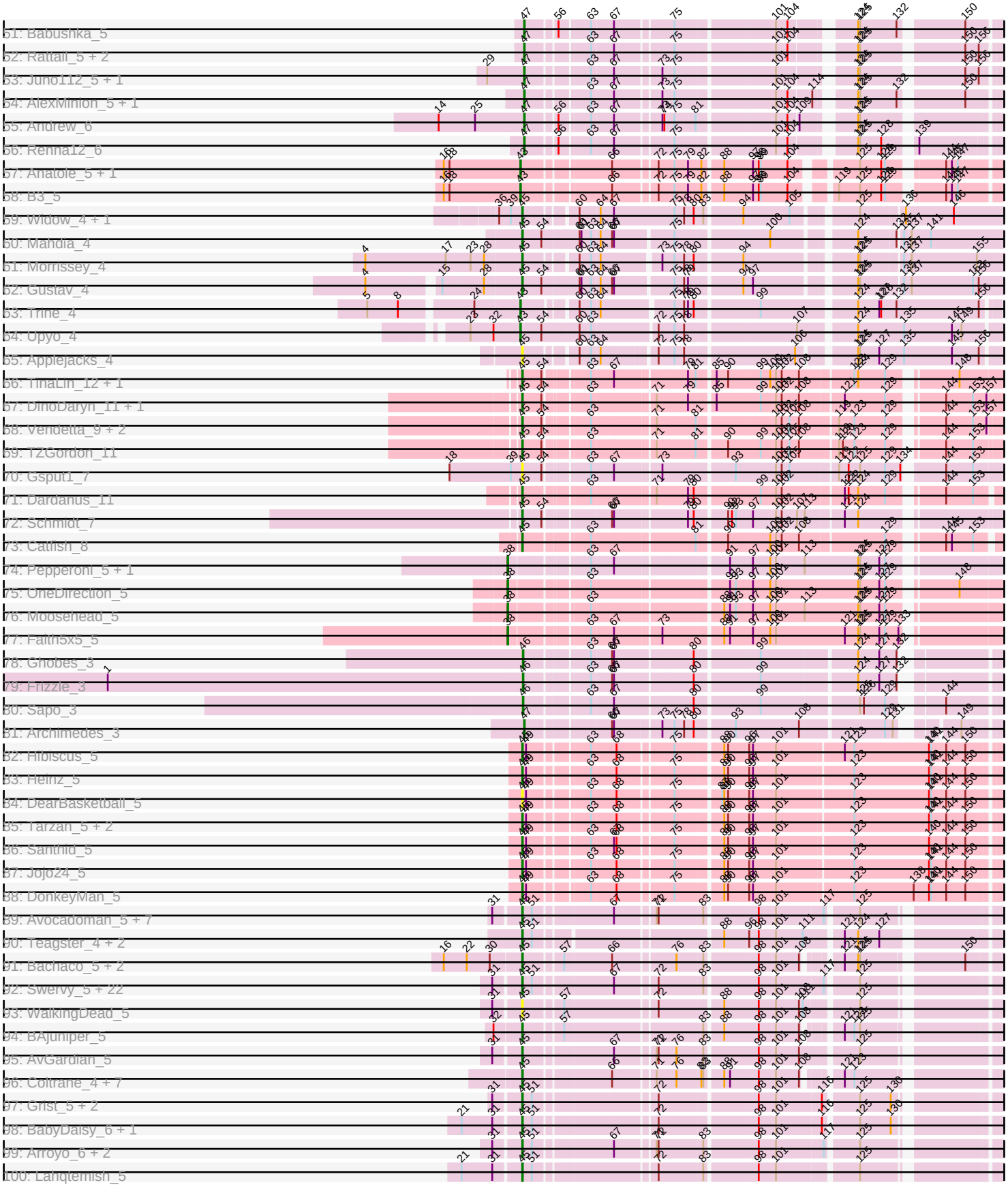
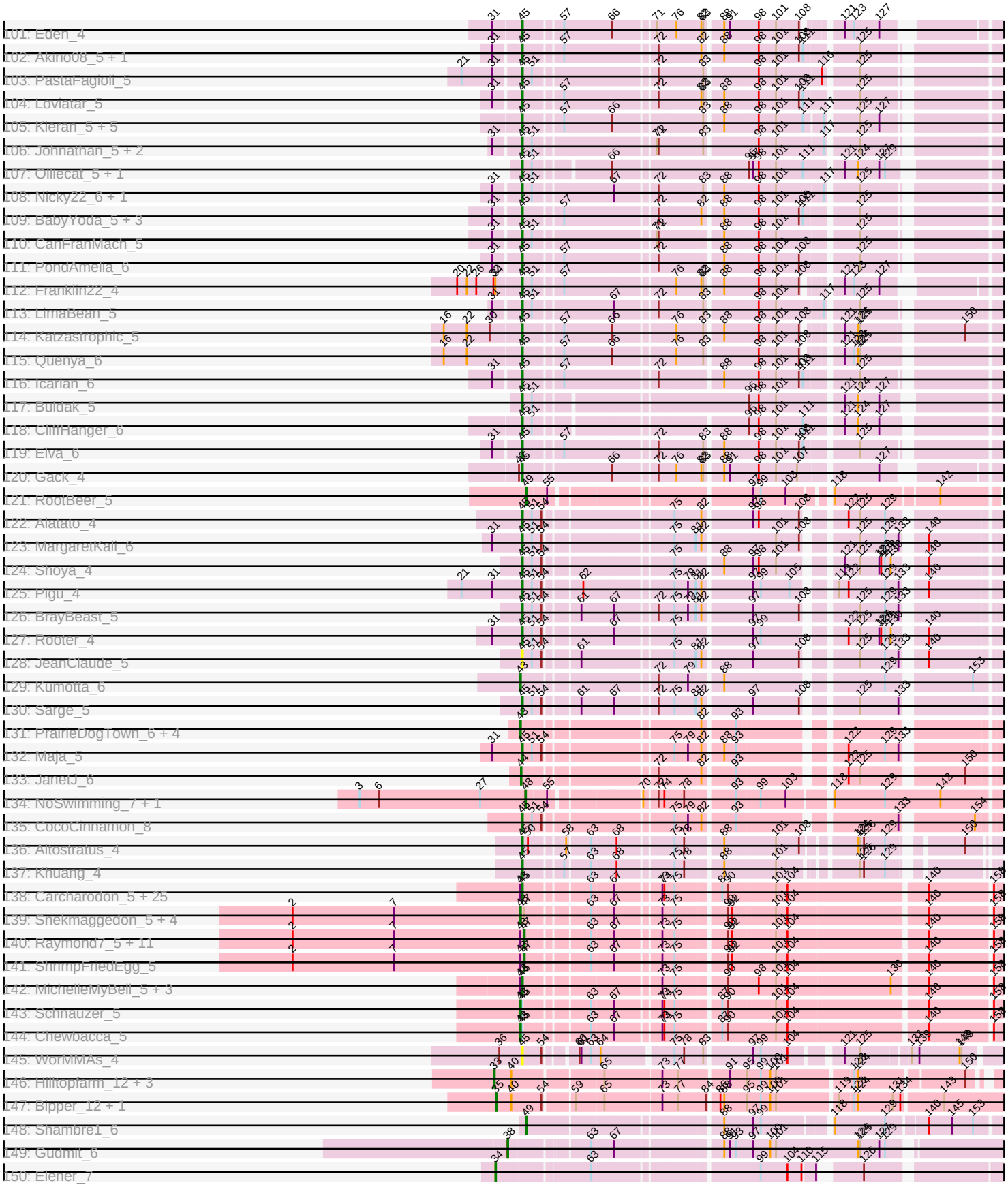
Zoomed Pham 343514



Zoomed Pham 343514



Zoomed Pham 343514



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 343514 Report

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

Pham number 343514 has 368 members, 29 are drafts.

Phages represented in each track:
• Track 1 : PinkFriday_4
• Track 2 : Misaeng_7, Greenhouse_7, Albanese_7, RcigaStruga_7, Lakshmi_7, Huntingdon_7
• Track 3 : Scuttle_7, Vallejo_7, Beethoven_7, Savage2526_7, MrGloopy_7, Dino_7, Zorro_7, MeganNoll_7, Kalizoi_7, Immaculata_7, Wawa_7, Glenn_7, TattModd_7, Rozby_7, BrotherBLo_7, RAP15_7, Korra_7, Jumboset_7, Riverdale_7
• Track 4 : Riovina_4, Eunoia_4, HunterDalle_4, Aledel_4, Vulture_4, OMalley_4
• Track 5 : Urla_4
• Track 6 : Kittykat_4
• Track 7 : Makoto_4, Pterodactyl_4, Bodacious_4, ChewChew_4, Nancia_4, Lasagna_4, WonderBoy_4, CristinaYang_4, LilStuart_4
• Track 8 : Nubia_7, Oxynfrius_7
• Track 9 : Pumancara_4, Supakev_4
• Track 10 : GreenHearts_7, Joann_7
• Track 11 : MrBoss_7
• Track 12 : AustinPowers_4
• Track 13 : Herb_4, Maria1952_4, Temper16_4, Daiboju_4, KingBob_4, Sergei_4
• Track 14 : Graynor_7, CallieOMalley_7, AppleCider_7, Canowicakte_7, Suppi_7, Wayne_7
• Track 15 : DrRobert_4, PitaDog_4, OurGirlNessie_4
• Track 16 : Lennox_4
• Track 17 : Lucy_4
• Track 18 : Gisselle_4, DreamTeam_4
• Track 19 : Moki_4, Huckleberry_4, Bennie_4, HeadNerd_4
• Track 20 : BigMack_4
• Track 21 : EstebanJulior_4, MamaPearl_4
• Track 22 : Fluke_7
• Track 23 : Chridison_4
• Track 24 : Cholula_7, Carpal_7, Potatoes_7
• Track 25 : Christian_4
• Track 26 : PartyCup_7
• Track 27 : Litotes_7
• Track 28 : Preamble_4
• Track 29 : Abidatro_6
• Track 30 : Chickaboom_5, WileyE_5
• Track 31 : Toad24_7, KendraB23_7
• Track 32 : Niblet_6, Zixiang_6, Chicken_6

• Track 33 : Shen_7, Pelletreau_7, Westrich_7, Amanises_7, Gravel_7
• Track 34 : Vulpecula_6
• Track 35 : TaylorSipht_6
• Track 36 : Jamun_6
• Track 37 : Galaxy_6, Basilisk_6
• Track 38 : Orcanus_6
• Track 39 : Eesa_6
• Track 40 : Ruchi_6, Brynnie_6
• Track 41 : Amelia_7, Lunar_7, Polka_6, Coral_6, Colusalem_6, Pineda_7, GramZayde_6, Jerole_7, Kepler_6, Cote_7, BadWillHunting_7, OtsoOtso_6, Melons_7, Bedetta_7, Damocles_7
• Track 42 : Zhuangyuan_7
• Track 43 : Cygnet_6
• Track 44 : Antrice_6
• Track 45 : Bibble12_7, HannahPhantana_7, PhirstandPhine_7
• Track 46 : Daob_7
• Track 47 : Kuleana_6
• Track 48 : LittleTokyo_6
• Track 49 : DanHam62_5, Atlantica_5, Oppalora_5, Laphuphu24k_5, AdoptaAdorbs_5, PhluffyCoco_5, KHumphrey_5, HamCheese_5, Glotell_5, RedFox_5, AmiCi24_5, Camara_5
• Track 50 : Amphitrite_5
• Track 51 : Babushka_5
• Track 52 : Rattail_5, Leona_5, Azaz_5
• Track 53 : Juno112_5, Fingolfin_5
• Track 54 : AlexMinion_5, StuartMinion_5
• Track 55 : Andrew_6
• Track 56 : Renna12_6
• Track 57 : Anatole_5, E1_5
• Track 58 : B3_5
• Track 59 : Widow_4, Puppers_4
• Track 60 : Mahdia_4
• Track 61 : Morrissey_4
• Track 62 : Gustav_4
• Track 63 : Trine_4
• Track 64 : Upyo_4
• Track 65 : Applejacks_4
• Track 66 : TinaLin_12, Banquo_13
• Track 67 : DinoDaryn_11, Huffy_11
• Track 68 : Vendetta_9, Goib_10, Splinter_9
• Track 69 : TZGordon_11
• Track 70 : Gsput1_7
• Track 71 : Dardanus_11
• Track 72 : Schmidt_7
• Track 73 : Catfish_8
• Track 74 : Pepperoni_5, Lton_5
• Track 75 : OneDirection_5
• Track 76 : Moosehead_5
• Track 77 : Faith5x5_5
• Track 78 : Ghobes_3
• Track 79 : Frizzle_3
• Track 80 : Sapo_3
• Track 81 : Archimedes_3

• Track 82 : Hibiscus_5
• Track 83 : Heinz_5
• Track 84 : DearBasketball_5
• Track 85 : Tarzan_5, DinoNuggs_6, Reyja_6
• Track 86 : Santhid_5
• Track 87 : Jojo24_5
• Track 88 : DonkeyMan_5
• Track 89 : Avocadoman_5, Milomuff_6, DickRichards_5, Burritobowl_5, Cashington_5, Bengal_5, Solea_6, Abigail_5
• Track 90 : Teagster_4, Shayna_4, SunnyD_4
• Track 91 : Bachaco_5, Celaena_5, FlameThrower_5
• Track 92 : Swervy_5, Jovita_5, SarBear_5, SansAfet_5, Phisb_5, BelmontSKP_6, Jabb_5, TukTuk_5, BubbaBear_5, Eula_5, Softsoap_5, MsUbiquitous_5, Albedo_5, AylexOG_6, Pecas_5, Slay_5, AnnaLie_6, QMacho_6, Lynlen_5, CupcakePrincess_5, Finalfrontier_6, SirBeanington_5, Kenzers_5
• Track 93 : WalkingDead_5
• Track 94 : BAjuniper_5
• Track 95 : AvGardian_5
• Track 96 : Coltrane_4, Skylord_4, Clayda5_4, Rollins_4, Vitas_4, Brahms_4, Armstrong_4, Bernstein_4
• Track 97 : Grist_5, IndyLu_5, Kate33_5
• Track 98 : BabyDaisy_6, Didgeridoo_6
• Track 99 : Arroyo_6, CroZenni_5, PhigPhack_5
• Track 100 : Lahqtemish_5
• Track 101 : Eden_4
• Track 102 : Akino08_5, SanaSana_6
• Track 103 : PastaFagioli_5
• Track 104 : Loviatar_5
• Track 105 : Kieran_5, Rona_5, ChiliPepper_5, Sharkboy_5, Dismas_5, Kamdara_5
• Track 106 : Johnathan_5, Albright_5, Doobus_5
• Track 107 : Olliecat_5, Squircle_5
• Track 108 : Nicky22_6, Lilo27_5
• Track 109 : BabyYoda_5, Stromboli_5, Stoor_5, DirtyBubble_5
• Track 110 : CanFranMach_5
• Track 111 : PondAmelia_6
• Track 112 : Franklin22_4
• Track 113 : LimaBean_5
• Track 114 : Katzastrophic_5
• Track 115 : Quenya_6
• Track 116 : Icarian_6
• Track 117 : Buldak_5
• Track 118 : CliffHanger_6
• Track 119 : Elva_6
• Track 120 : Gack_4
• Track 121 : RootBeer_5
• Track 122 : Alatato_4
• Track 123 : MargaretKali_6
• Track 124 : Shoya_4
• Track 125 : Pigu_4
• Track 126 : BrayBeast_5
• Track 127 : Rooter_4
• Track 128 : JeanClaude_5
• Track 129 : Kumotta_6

• Track 130 : Sarge_5
• Track 131 : PrairieDogTown_6, EvenBluerMoon_6, Hereford_7, Aoka_6, Morrey_8
• Track 132 : Maja_5
• Track 133 : JanetJ_6
• Track 134 : NoSwimming_7, Scotia_7
• Track 135 : CocoCinnamon_8
• Track 136 : Altostratus_4
• Track 137 : Khuang_4
• Track 138 : Carcharodon_5, Bosection6_5, Parmesanjohn_5, Duplicity_5, Andies_5, Scitech_5, Silvafighter_5, Journey_5, Silvy_5, Phloss_5, Cubone_5, Melville_5, Xeno_5, Tapioca_5, Tessdabest_4, Pipsqueaks_5, Philonius_5, Fulbright_5, Tortoise12_5, EGUnicorn_5, Magsby_5, Charlie_5, Xerxes_5, Aggie_5, Gex_5, Smurph_5
• Track 139 : Snekmaggedon_5, PhancyPhin_5, Shweta_5, BabeRuth_5, SpongeBob_5
• Track 140 : Raymond7_5, Redi_5, Panchino_5, Rebel_5, Spinach_5, Impisi_5, Purgamenstris_5, Jamie19_5, Hanako_5, SkinnyPete_5, Phrann_5, Nenae_5
• Track 141 : ShrimpFriedEgg_5
• Track 142 : MichelleMyBell_5, Rubeelu_5, Butters_5, Kevin1_5
• Track 143 : Schnauzer_5
• Track 144 : Chewbacca_5
• Track 145 : WorMMAs_4
• Track 146 : Hilltopfarm_12, Faiyaz_12, Typha_12, AuntGwenStacy_12
• Track 147 : Bipper_12, Cracklewink_12
• Track 148 : Shambre1_6
• Track 149 : Gudmit_6
• Track 150 : Elener_7

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

The start number called the most often in the published annotations is 45, it was called in 149 of the 339 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abigail_5, Aggie_5, Akino08_5, Alatato_4, Albedo_5, Albright_5, Altostratus_4, Andies_5, AnnaLie_6, Applejacks_4, Armstrong_4, Arroyo_6, AvGardian_5, Avocadoman_5, AylexOG_6, BAjuniper_5, BabyDaisy_6, BabyYoda_5, Bachaco_5, Banquo_13, BelmontSKP_6, Bengal_5, Bernstein_4, Bosection6_5, Brahms_4, BrayBeast_5, BubbaBear_5, Buldak_5, Burritobowl_5, Butters_5, CanFranMach_5, Carcharodon_5, Cashington_5, Catfish_8, Celaena_5, Charlie_5, ChiliPepper_5, Clayda5_4, CliffHanger_6, CocoCinnamon_8, Coltrane_4, CroZenni_5, Cubone_5, CupcakePrincess_5, Dardanus_11, DearBasketball_5, DickRichards_5, Didgeridoo_6, DinoDaryn_11, DinoNuggs_6, DirtyBubble_5, Dismas_5, DonkeyMan_5, Doobus_5, Duplicity_5, EGUnicorn_5, Eden_4, Elva_6, Eula_5, Finalfrontier_6, FlameThrower_5, Franklin22_4, Fulbright_5, Gack_4, Gex_5, Goib_10, Grist_5, Gsput1_7, Gustav_4, Heinz_5, Hibiscus_5, Huffy_11, Icarian_6, IndyLu_5, Jabb_5, JeanClaude_5, Johnathan_5, Jojo24_5, Journey_5, Jovita_5, Kamdara_5, Kate33_5, Katzastrophic_5, Kenzers_5, Kevin1_5, Khuang_4, Kieran_5, Kuleana_6, Lahqtemish_5, Lilo27_5, LimaBean_5, Loviatar_5, Lynlen_5, Magsby_5, Mahdia_4, Maja_5, MargaretKali_6, Melville_5, MichelleMyBell_5, Milomuff_6,

Morrissey_4, MsUbiquitous_5, Nicky22_6, Olliecat_5, Parmesanjohn_5, PastaFagioli_5, Pecas_5, PhigPhack_5, Philonius_5, Phisb_5, Phloss_5, Pigu_4, Pipsqueaks_5, PondAmelia_6, Puppers_4, QMacho_6, Quenya_6, Reyja_6, Rollins_4, Rona_5, Rooter_4, Rubeelu_5, SanaSana_6, SansAfet_5, Santhid_5, SarBear_5, Sarge_5, Schmidt_7, Scitech_5, Sharkboy_5, Shayna_4, Shoya_4, Silvafighter_5, Silvy_5, SirBeanington_5, Skylord_4, Slay_5, Smurph_5, Softsoap_5, Solea_6, Splinter_9, Squircle_5, Stoor_5, Stromboli_5, SunnyD_4, Swervy_5, TZGordon_11, Tapioca_5, Tarzan_5, Teagster_4, Tessdabest_4, TinaLin_12, Tortoise12_5, TukTuk_5, Vendetta_9, Vitas_4, WalkingDead_5, Widow_4, WorMMAs_4, Xeno_5, Xerxes_5,

Genes that have the "Most Annotated" start but do not call it:
• Chewbacca_5, Schnauzer_5,

Genes that do not have the "Most Annotated" start:
• Abidatro_6, AdoptaAdorbs_5, Albanese_7, Aledel_4, AlexMinion_5, Amanises_7, Amelia_7, AmiCi24_5, Amphitrite_5, Anatole_5, Andrew_6, Antrice_6, Aoka_6, AppleCider_7, Archimedes_3, Atlantica_5, AuntGwenStacy_12, AustinPowers_4, Azaz_5, B3_5, BabeRuth_5, Babushka_5, BadWillHunting_7, Basilisk_6, Bedetta_7, Beethoven_7, Bennie_4, Bibble12_7, BigMack_4, Bipper_12, Bodacious_4, BrotherBLo_7, Brynnie_6, CallieOMalley_7, Camara_5, Canowicakte_7, Carpal_7, ChewChew_4, Chickaboom_5, Chicken_6, Cholula_7, Chridison_4, Christian_4, Colusalem_6, Coral_6, Cote_7, Cracklewink_12, CristinaYang_4, Cygnet_6, Daiboju_4, Damocles_7, DanHam62_5, Daob_7, Dino_7, DrRobert_4, DreamTeam_4, E1_5, Eesa_6, Elener_7, EstebanJulior_4, Eunoia_4, EvenBluerMoon_6, Faith5x5_5, Faiyaz_12, Fingolfin_5, Fluke_7, Frizzle_3, Galaxy_6, Ghobes_3, Gisselle_4, Glenn_7, Glotell_5, GramZayde_6, Gravel_7, Graynor_7, GreenHearts_7, Greenhouse_7, Gudmit_6, HamCheese_5, Hanako_5, HannahPhantana_7, HeadNerd_4, Herb_4, Hereford_7, Hilltopfarm_12, Huckleberry_4, HunterDalle_4, Huntingdon_7, Immaculata_7, Impisi_5, Jamie19_5, Jamun_6, JanetJ_6, Jerole_7, Joann_7, Jumboset_7, Juno112_5, KHumphrey_5, Kalizoi_7, KendraB23_7, Kepler_6, KingBob_4, Kittykat_4, Korra_7, Kumotta_6, Lakshmi_7, Laphuphu24k_5, Lasagna_4, Lennox_4, Leona_5, LilStuart_4, Litotes_7, LittleTokyo_6, Lton_5, Lucy_4, Lunar_7, Makoto_4, MamaPearl_4, Maria1952_4, MeganNoll_7, Melons_7, Misaeng_7, Moki_4, Moosehead_5, Morrey_8, MrBoss_7, MrGloopy_7, Nancia_4, Nenae_5, Niblet_6, NoSwimming_7, Nubia_7, OMalley_4, OneDirection_5, Oppalora_5, Orcanus_6, OtsoOtso_6, OurGirlNessie_4, Oxynfrius_7, Panchino_5, PartyCup_7, Pelletreau_7, Pepperoni_5, PhancyPhin_5, PhirstandPhine_7, PhluffyCoco_5, Phrann_5, Pineda_7, PinkFriday_4, PitaDog_4, Polka_6, Potatoes_7, PrairieDogTown_6, Preamble_4, Pterodactyl_4, Pumancara_4, Purgamenstris_5, RAP15_7, Rattail_5, Raymond7_5, RcigaStruga_7, Rebel_5, RedFox_5, Redi_5, Renna12_6, Riovina_4, Riverdale_7, RootBeer_5, Rozby_7, Ruchi_6, Sapo_3, Savage2526_7, Scotia_7, Scuttle_7, Sergei_4, Shambre1_6, Shen_7, ShrimpFriedEgg_5, Shweta_5, SkinnyPete_5, Snekmaggedon_5, Spinach_5, SpongeBob_5, StuartMinion_5, Supakev_4, Suppi_7, TattModd_7, TaylorSipht_6, Temper16_4, Toad24_7, Trine_4, Typha_12, Upyo_4, Urla_4, Vallejo_7, Vulpecula_6, Vulture_4, Wawa_7, Wayne_7, Westrich_7, WileyE_5, WonderBoy_4, Zhuangyuan_7, Zixiang_6, Zorro_7,

Summary by start number:

Start 27:
• Found in 62 of 368 (16.8%) of genes in pham

• Manual Annotations of this start: 3 of 339
• Called 4.8% of time when present
• Phage (with cluster) where this start called: Fluke_7 (AK), Nubia_7 (AK), Oxynfrius_7 (AK),

Start 33:
• Found in 4 of 368 (1.1%) of genes in pham
• Manual Annotations of this start: 4 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_12 (Y), Faiyaz_12 (Y), Hilltopfarm_12 (Y), Typha_12 (Y),

Start 34:
• Found in 2 of 368 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 339
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Elener_7 (singleton),

Start 35:
• Found in 2 of 368 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bipper_12 (Y), Cracklewink_12 (Y),

Start 38:
• Found in 6 of 368 (1.6%) of genes in pham
• Manual Annotations of this start: 6 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Faith5x5_5 (CZ6), Gudmit_6 (singleton), Lton_5 (CZ), Moosehead_5 (CZ6), OneDirection_5 (CZ6), Pepperoni_5 (CZ),

Start 41:
• Found in 22 of 368 (6.0%) of genes in pham
• Manual Annotations of this start: 18 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abidatro_6 (AS1), Amanises_7 (AS1), Basilisk_6 (AS1), Brynnie_6 (AS1), Chickaboom_5 (AS1), Chicken_6 (AS1), Eesa_6 (AS1), Galaxy_6 (AS1), Gravel_7 (AS1), Jamun_6 (AS1), KendraB23_7 (AS1), Niblet_6 (AS1), Orcanus_6 (AS1), Pelletreau_7 (AS1), Ruchi_6 (AS1), Shen_7 (AS1), TaylorSipht_6 (AS1), Toad24_7 (AS1), Vulpecula_6 (AS1), Westrich_7 (AS1), WileyE_5 (AS1), Zixiang_6 (AS1),

Start 43:
• Found in 61 of 368 (16.6%) of genes in pham
• Manual Annotations of this start: 17 of 339
• Called 29.5% of time when present
• Phage (with cluster) where this start called: Anatole_5 (BV), Aoka_6 (FO), B3_5 (BV), BabeRuth_5 (N), Chewbacca_5 (N), E1_5 (BV), EvenBluerMoon_6 (FO), Hereford_7 (FO), Kumotta_6 (FB), Morrey_8 (FO), PhancyPhin_5 (N), PrairieDogTown_6 (FO), Schnauzer_5 (N), Shweta_5 (N), Snekmaggedon_5 (N), SpongeBob_5 (N), Trine_4 (CD), Upyo_4 (CD),

Start 44:

• Found in 1 of 368 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JanetJ_6 (FO),

Start 45:
• Found in 163 of 368 (44.3%) of genes in pham
• Manual Annotations of this start: 149 of 339
• Called 98.8% of time when present
• Phage (with cluster) where this start called: Abigail_5 (EB), Aggie_5 (N), Akino08_5 (EB), Alatato_4 (FB), Albedo_5 (EB), Albright_5 (EB), Altostratus_4 (FS), Andies_5 (N), AnnaLie_6 (EB), Applejacks_4 (CD), Armstrong_4 (EB), Arroyo_6 (EB), AvGardian_5 (EB), Avocadoman_5 (EB), AylexOG_6 (EB), BAjuniper_5 (EB), BabyDaisy_6 (EB), BabyYoda_5 (EB), Bachaco_5 (EB), Banquo_13 (CU1), BelmontSKP_6 (EB), Bengal_5 (EB), Bernstein_4 (EB), Bosection6_5 (N), Brahms_4 (EB), BrayBeast_5 (FB), BubbaBear_5 (EB), Buldak_5 (EB), Burritobowl_5 (EB), Butters_5 (N), CanFranMach_5 (EB), Carcharodon_5 (N), Cashington_5 (EB), Catfish_8 (CU5), Celaena_5 (EB), Charlie_5 (N), ChiliPepper_5 (EB), Clayda5_4 (EB), CliffHanger_6 (EB), CocoCinnamon_8 (FO), Coltrane_4 (EB), CroZenni_5 (EB), Cubone_5 (N), CupcakePrincess_5 (EB), Dardanus_11 (CU3), DearBasketball_5 (DY), DickRichards_5 (EB), Didgeridoo_6 (EB), DinoDaryn_11 (CU1), DinoNuggs_6 (DY), DirtyBubble_5 (EB), Dismas_5 (EB), DonkeyMan_5 (DY), Doobus_5 (EB), Duplicity_5 (N), EGUnicorn_5 (N), Eden_4 (EB), Elva_6 (EB), Eula_5 (EB), Finalfrontier_6 (EB), FlameThrower_5 (EB), Franklin22_4 (EB), Fulbright_5 (N), Gack_4 (EB), Gex_5 (N), Goib_10 (CU1), Grist_5 (EB), Gsput1_7 (CU2), Gustav_4 (CD), Heinz_5 (DY), Hibiscus_5 (DY), Huffy_11 (CU1), Icarian_6 (EB), IndyLu_5 (EB), Jabb_5 (EB), JeanClaude_5 (FB), Johnathan_5 (EB), Jojo24_5 (DY), Journey_5 (N), Jovita_5 (EB), Kamdara_5 (EB), Kate33_5 (EB), Katzastrophic_5 (EB), Kenzers_5 (EB), Kevin1_5 (N), Khuang_4 (FS), Kieran_5 (EB), Kuleana_6 (AS2), Lahqtemish_5 (EB), Lilo27_5 (EB), LimaBean_5 (EB), Loviatar_5 (EB), Lynlen_5 (EB), Magsby_5 (N), Mahdia_4 (CD), Maja_5 (FO), MargaretKali_6 (FB), Melville_5 (N), MichelleMyBell_5 (N), Milomuff_6 (EB), Morrissey_4 (CD), MsUbiquitous_5 (EB), Nicky22_6 (EB), Olliecat_5 (EB), Parmesanjohn_5 (N), PastaFagioli_5 (EB), Pecas_5 (EB), PhigPhack_5 (EB), Philonius_5 (N), Phisb_5 (EB), Phloss_5 (N), Pigu_4 (FB), Pipsqueaks_5 (N), PondAmelia_6 (EB), Puppers_4 (CD), QMacho_6 (EB), Quenya_6 (EB), Reyja_6 (DY), Rollins_4 (EB), Rona_5 (EB), Rooter_4 (FB), Rubeelu_5 (N), SanaSana_6 (EB), SansAfet_5 (EB), Santhid_5 (DY), SarBear_5 (EB), Sarge_5 (FB), Schmidt_7 (CU4), Scitech_5 (N), Sharkboy_5 (EB), Shayna_4 (EB), Shoya_4 (FB), Silvafighter_5 (N), Silvy_5 (N), SirBeanington_5 (EB), Skylord_4 (EB), Slay_5 (EB), Smurph_5 (N), Softsoap_5 (EB), Solea_6 (EB), Splinter_9 (CU1), Squircle_5 (EB), Stoor_5 (EB), Stromboli_5 (EB), SunnyD_4 (EB), Swervy_5 (EB), TZGordon_11 (CU1), Tapioca_5 (N), Tarzan_5 (DY), Teagster_4 (EB), Tessdabest_4 (N), TinaLin_12 (CU1), Tortoise12_5 (N), TukTuk_5 (EB), Vendetta_9 (CU1), Vitas_4 (EB), WalkingDead_5 (EB), Widow_4 (CD), WorMMAs_4 (UNK), Xeno_5 (N), Xerxes_5 (N),

Start 46:
• Found in 3 of 368 (0.8%) of genes in pham
• Manual Annotations of this start: 3 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Frizzle_3 (DA), Ghobes_3 (DA), Sapo_3 (DA),

Start 47:
• Found in 151 of 368 (41.0%) of genes in pham
• Manual Annotations of this start: 128 of 339
• Called 92.1% of time when present
• Phage (with cluster) where this start called: AdoptaAdorbs_5 (AS3), Albanese_7 (AK), Aledel_4 (AK), AlexMinion_5 (AS3), Amelia_7 (AS2), AmiCi24_5 (AS3), Amphitrite_5 (AS3), Andrew_6 (AS3), Antrice_6 (AS2), AppleCider_7 (AK), Archimedes_3 (DA), Atlantica_5 (AS3), AustinPowers_4 (AK), Azaz_5 (AS3), Babushka_5 (AS3), BadWillHunting_7 (AS2), Bedetta_7 (AS2), Beethoven_7 (AK), Bennie_4 (AK), Bibble12_7 (AS2), BigMack_4 (AK), Bodacious_4 (AK), BrotherBLo_7 (AK), CallieOMalley_7 (AK), Camara_5 (AS3), Canowicakte_7 (AK), Carpal_7 (AK), ChewChew_4 (AK), Cholula_7 (AK), Chridison_4 (AK), Christian_4 (AK), Colusalem_6 (AS2), Coral_6 (AS2), Cote_7 (AS2), CristinaYang_4 (AK), Cygnet_6 (AS2), Daiboju_4 (AK), Damocles_7 (AS2), DanHam62_5 (AS3), Daob_7 (AS2), Dino_7 (AK), DrRobert_4 (AK), DreamTeam_4 (AK), EstebanJulior_4 (AK), Eunoia_4 (AK), Fingolfin_5 (AS3), Gisselle_4 (AK), Glenn_7 (AK), Glotell_5 (AS3), GramZayde_6 (AS2), Graynor_7 (AK), Greenhouse_7 (AK), HamCheese_5 (AS3), Hanako_5 (N), HannahPhantana_7 (AS2), HeadNerd_4 (AK), Herb_4 (AK), Huckleberry_4 (AK), HunterDalle_4 (AK), Huntingdon_7 (AK), Immaculata_7 (AK), Impisi_5 (N), Jamie19_5 (N), Jerole_7 (AS2), Jumboset_7 (AK), Juno112_5 (AS3), KHumphrey_5 (AS3), Kalizoi_7 (AK), Kepler_6 (AS2), KingBob_4 (AK), Kittykat_4 (AK), Korra_7 (AK), Lakshmi_7 (AK), Laphuphu24k_5 (AS3), Lasagna_4 (AK), Lennox_4 (AK), Leona_5 (AS3), LilStuart_4 (AK), Litotes_7 (AK), LittleTokyo_6 (AS2), Lucy_4 (AK), Lunar_7 (AS2), Makoto_4 (AK), MamaPearl_4 (AK), Maria1952_4 (AK), MeganNoll_7 (AK), Melons_7 (AS2), Misaeng_7 (AK), Moki_4 (AK), MrGloopy_7 (AK), Nancia_4 (AK), Nenae_5 (N), OMalley_4 (AK), Oppalora_5 (AS3), OtsoOtso_6 (AS2), OurGirlNessie_4 (AK), Panchino_5 (N), PhirstandPhine_7 (AS2), PhluffyCoco_5 (AS3), Phrann_5 (N), Pineda_7 (AS2), PinkFriday_4 (AK), PitaDog_4 (AK), Polka_6 (AS2), Potatoes_7 (AK), Preamble_4 (AK), Pterodactyl_4 (AK), Pumancara_4 (AK), Purgamenstris_5 (N), RAP15_7 (AK), Rattail_5 (AS3), Raymond7_5 (N), RcigaStruga_7 (AK), Rebel_5 (N), RedFox_5 (AS3), Redi_5 (N), Renna12_6 (AS3), Riovina_4 (AK), Riverdale_7 (AK), Rozby_7 (AK), Savage2526_7 (AK), Scuttle_7 (AK), Sergei_4 (AK), ShrimpFriedEgg_5 (N), SkinnyPete_5 (N), Spinach_5 (N), StuartMinion_5 (AS3), Supakev_4 (AK), Suppi_7 (AK), TattModd_7 (AK), Temper16_4 (AK), Urla_4 (AK), Vallejo_7 (AK), Vulture_4 (AK), Wawa_7 (AK), Wayne_7 (AK), WonderBoy_4 (AK), Zhuangyuan_7 (AS2), Zorro_7 (AK),

Start 48:
• Found in 2 of 368 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 339
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NoSwimming_7 (FO), Scotia_7 (FO),

Start 49:
• Found in 11 of 368 (3.0%) of genes in pham
• Manual Annotations of this start: 2 of 339
• Called 18.2% of time when present
• Phage (with cluster) where this start called: RootBeer_5 (FA), Shambre1_6 (singleton),

Start 50:
• Found in 88 of 368 (23.9%) of genes in pham
• Manual Annotations of this start: 3 of 339

• Called 4.5% of time when present
• Phage (with cluster) where this start called: GreenHearts_7 (AK), Joann_7 (AK), MrBoss_7 (AK), PartyCup_7 (AK),

Summary by clusters:

There are 24 clusters represented in this pham: singleton, FS, CZ6, DA, FA, FB, DY, FO, CU5, UNK, CU3, CU2, CU1, AS3, AS2, AS1, AK, EB, CZ, CU4, Y, CD, BV, N,

Info for manual annotations of cluster AK:
•Start number 27 was manually annotated 3 times for cluster AK.
•Start number 47 was manually annotated 78 times for cluster AK.
•Start number 50 was manually annotated 3 times for cluster AK.

Info for manual annotations of cluster AS1:
•Start number 41 was manually annotated 18 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 45 was manually annotated 1 time for cluster AS2.
•Start number 47 was manually annotated 18 times for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 47 was manually annotated 19 times for cluster AS3.

Info for manual annotations of cluster BV:
•Start number 43 was manually annotated 3 times for cluster BV.

Info for manual annotations of cluster CD:
•Start number 43 was manually annotated 2 times for cluster CD.
•Start number 45 was manually annotated 5 times for cluster CD.

Info for manual annotations of cluster CU1:
•Start number 45 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:
•Start number 45 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:
•Start number 45 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:
•Start number 45 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CZ:
•Start number 38 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ6:
•Start number 38 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster DA:
•Start number 46 was manually annotated 3 times for cluster DA.
•Start number 47 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DY:
•Start number 45 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster EB:
•Start number 45 was manually annotated 86 times for cluster EB.

Info for manual annotations of cluster FA:
•Start number 49 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FB:
•Start number 43 was manually annotated 1 time for cluster FB.
•Start number 45 was manually annotated 7 times for cluster FB.

Info for manual annotations of cluster FO:
•Start number 43 was manually annotated 4 times for cluster FO.
•Start number 44 was manually annotated 1 time for cluster FO.
•Start number 45 was manually annotated 2 times for cluster FO.
•Start number 48 was manually annotated 2 times for cluster FO.

Info for manual annotations of cluster FS:
•Start number 45 was manually annotated 2 times for cluster FS.

Info for manual annotations of cluster N:
•Start number 43 was manually annotated 7 times for cluster N.
•Start number 45 was manually annotated 28 times for cluster N.
•Start number 47 was manually annotated 12 times for cluster N.

Info for manual annotations of cluster Y:
•Start number 33 was manually annotated 4 times for cluster Y.
•Start number 35 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: Abidatro_6 Start: 4661, Stop: 5419, Start Num: 41
Candidate Starts for Abidatro_6:
(Start: 41 @4661 has 18 MA's), (53, 4688), (64, 4763), (67, 4784), (72, 4841), (75, 4865), (101, 5009), (104, 5027), (114, 5060), (123, 5099), (124, 5105), (125, 5108), (150, 5252), (176, 5375),

Gene: Abigail_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for Abigail_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (67, 4482), (71, 4536), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: AdoptaAdorbs_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for AdoptaAdorbs_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Aggie_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Aggie_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Akino08_5 Start: 4603, Stop: 5358, Start Num: 45
Candidate Starts for Akino08_5:
(31, 4570), (Start: 45 @4603 has 149 MA's), (57, 4657), (72, 4789), (82, 4852), (88, 4879), (98, 4930), (101, 4957), (108, 4993), (111, 4999), (125, 5074), (171, 5338),

Gene: Alatato_4 Start: 3756, Stop: 4559, Start Num: 45
Candidate Starts for Alatato_4:
(Start: 45 @3756 has 149 MA's), (51, 3771), (54, 3786), (75, 3960), (82, 3999), (97, 4068), (98, 4077), (108, 4140), (122, 4188), (125, 4206), (129, 4245), (167, 4458),

Gene: Albanese_7 Start: 6754, Stop: 7527, Start Num: 47
Candidate Starts for Albanese_7:
(16, 6631), (Start: 27 @6688 has 3 MA's), (Start: 47 @6754 has 128 MA's), (Start: 50 @6760 has 3 MA's), (54, 6781), (75, 6952), (80, 6982), (87, 7015), (101, 7096), (124, 7225), (150, 7366), (152, 7372),

Gene: Albedo_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for Albedo_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Albright_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for Albright_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (71, 4536), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Aledel_4 Start: 4059, Stop: 4832, Start Num: 47
Candidate Starts for Aledel_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (121, 4503), (124, 4524), (152, 4671), (185, 4815),

Gene: AlexMinion_5 Start: 4289, Stop: 5038, Start Num: 47
Candidate Starts for AlexMinion_5:
(Start: 47 @4289 has 128 MA's), (63, 4373), (67, 4406), (73, 4469), (75, 4487), (101, 4631), (104, 4649), (114, 4682), (124, 4727), (125, 4730), (132, 4787), (150, 4874), (170, 4976), (176, 4994),

Gene: Altostratus_4 Start: 3505, Stop: 4272, Start Num: 45
Candidate Starts for Altostratus_4:
(Start: 45 @3505 has 149 MA's), (Start: 50 @3514 has 3 MA's), (58, 3562), (63, 3592), (68, 3628), (75, 3706), (78, 3721), (88, 3772), (101, 3850), (108, 3886), (124, 3955), (125, 3958), (126, 3964), (129, 3997), (150, 4090), (168, 4192),

Gene: Amanises_7 Start: 4888, Stop: 5646, Start Num: 41
Candidate Starts for Amanises_7:
(Start: 41 @4888 has 18 MA's), (53, 4915), (64, 4990), (67, 5011), (72, 5068), (75, 5092), (83, 5134), (101, 5236), (104, 5254), (119, 5302), (123, 5326), (124, 5332), (125, 5335), (139, 5407), (150, 5479),

(176, 5602),

Gene: Amelia_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Amelia_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: AmiCi24_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for AmiCi24_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Amphitrite_5 Start: 4278, Stop: 5030, Start Num: 47
Candidate Starts for Amphitrite_5:
(9, 4101), (10, 4119), (14, 4149), (25, 4206), (Start: 47 @4278 has 128 MA's), (63, 4362), (67, 4395), (73, 4458), (75, 4476), (101, 4620), (124, 4716), (125, 4719), (150, 4863), (156, 4884), (170, 4968), (176, 4986),

Gene: Anatole_5 Start: 4230, Stop: 5030, Start Num: 43
Candidate Starts for Anatole_5:
(16, 4113), (18, 4122), (Start: 43 @4230 has 17 MA's), (66, 4353), (72, 4413), (75, 4437), (79, 4458), (82, 4476), (88, 4503), (97, 4545), (98, 4554), (99, 4557), (104, 4599), (125, 4683), (128, 4716), (129, 4722), (144, 4794), (145, 4803), (147, 4812),

Gene: Andies_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Andies_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Andrew_6 Start: 4668, Stop: 5420, Start Num: 47
Candidate Starts for Andrew_6:
(14, 4539), (25, 4596), (Start: 47 @4668 has 128 MA's), (56, 4710), (63, 4752), (67, 4785), (73, 4848), (74, 4851), (75, 4866), (81, 4899), (101, 5010), (104, 5028), (109, 5043), (124, 5106), (125, 5109), (170, 5358), (176, 5376),

Gene: AnnaLie_6 Start: 4699, Stop: 5451, Start Num: 45
Candidate Starts for AnnaLie_6:
(31, 4666), (Start: 45 @4699 has 149 MA's), (51, 4714), (67, 4828), (72, 4885), (83, 4951), (98, 5026), (101, 5053), (117, 5125), (125, 5170), (171, 5431),

Gene: Antrice_6 Start: 4626, Stop: 5378, Start Num: 47
Candidate Starts for Antrice_6:
(Start: 47 @4626 has 128 MA's), (63, 4710), (67, 4743), (73, 4806), (75, 4824), (101, 4968), (104, 4986), (112, 5007), (124, 5064), (125, 5067), (132, 5124), (142, 5172), (176, 5334),

Gene: Aoka_6 Start: 5098, Stop: 5856, Start Num: 43
Candidate Starts for Aoka_6:
(Start: 43 @5098 has 17 MA's), (82, 5341), (93, 5386),

Gene: AppleCider_7 Start: 6692, Stop: 7474, Start Num: 47

Candidate Starts for AppleCider_7:
(Start: 47 @6692 has 128 MA's), (Start: 50 @6698 has 3 MA's), (54, 6719), (63, 6776), (68, 6812), (72, 6866), (75, 6890), (87, 6953), (93, 6974), (101, 7034), (124, 7163), (141, 7250), (152, 7310), (185, 7457),

Gene: Applejacks_4 Start: 3511, Stop: 4437, Start Num: 45
Candidate Starts for Applejacks_4:
(Start: 45 @3511 has 149 MA's), (60, 3580), (63, 3598), (64, 3610), (72, 3688), (75, 3712), (78, 3727), (106, 3883), (124, 3955), (125, 3958), (127, 3988), (135, 4027), (145, 4102), (156, 4144), (192, 4348), (197, 4393), (198, 4408),

Gene: Archimedes_3 Start: 3087, Stop: 3833, Start Num: 47
Candidate Starts for Archimedes_3:
(Start: 47 @3087 has 128 MA's), (66, 3204), (67, 3207), (73, 3273), (75, 3291), (78, 3306), (80, 3321), (93, 3375), (108, 3471), (129, 3594), (131, 3606), (149, 3672),

Gene: Armstrong_4 Start: 4230, Stop: 4970, Start Num: 45
Candidate Starts for Armstrong_4:
(Start: 45 @4230 has 149 MA's), (66, 4356), (71, 4413), (76, 4443), (82, 4479), (83, 4482), (88, 4506), (91, 4515), (98, 4557), (101, 4584), (108, 4620), (121, 4662), (123, 4677), (171, 4950),

Gene: Arroyo_6 Start: 4823, Stop: 5575, Start Num: 45
Candidate Starts for Arroyo_6:
(31, 4790), (Start: 45 @4823 has 149 MA's), (51, 4838), (67, 4952), (71, 5006), (72, 5009), (83, 5075), (98, 5150), (101, 5177), (117, 5249), (125, 5294), (171, 5555),

Gene: Atlantica_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for Atlantica_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: AuntGwenStacy_12 Start: 7815, Stop: 8768, Start Num: 33
Candidate Starts for AuntGwenStacy_12:
(Start: 33 @7815 has 4 MA's), (40, 7842), (65, 7965), (73, 8052), (77, 8076), (91, 8148), (95, 8172), (99, 8193), (100, 8208), (101, 8217), (123, 8328), (124, 8334), (150, 8487), (165, 8550), (170, 8586), (180, 8613), (195, 8730),

Gene: AustinPowers_4 Start: 4059, Stop: 4835, Start Num: 47
Candidate Starts for AustinPowers_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (101, 4401), (124, 4524), (152, 4671), (185, 4815),

Gene: AvGardian_5 Start: 4413, Stop: 5171, Start Num: 45
Candidate Starts for AvGardian_5:
(31, 4380), (Start: 45 @4413 has 149 MA's), (67, 4542), (71, 4596), (72, 4599), (76, 4626), (83, 4665), (98, 4740), (101, 4767), (108, 4803), (125, 4887), (171, 5151),

Gene: Avocadoman_5 Start: 4411, Stop: 5163, Start Num: 45
Candidate Starts for Avocadoman_5:
(31, 4378), (Start: 45 @4411 has 149 MA's), (51, 4426), (67, 4540), (71, 4594), (72, 4597), (83, 4663), (98, 4738), (101, 4765), (117, 4837), (125, 4882), (171, 5143),

Gene: AylexOG_6 Start: 4708, Stop: 5460, Start Num: 45
Candidate Starts for AylexOG_6:
(31, 4675), (Start: 45 @4708 has 149 MA's), (51, 4723), (67, 4837), (72, 4894), (83, 4960), (98, 5035), (101, 5062), (117, 5134), (125, 5179), (171, 5440),

Gene: Azaz_5 Start: 4328, Stop: 5080, Start Num: 47
Candidate Starts for Azaz_5:
(Start: 47 @4328 has 128 MA's), (63, 4412), (67, 4445), (75, 4526), (101, 4670), (104, 4688), (124, 4766), (125, 4769), (150, 4913), (156, 4934), (170, 5018), (176, 5036),

Gene: B3_5 Start: 4230, Stop: 5030, Start Num: 43
Candidate Starts for B3_5:
(16, 4113), (18, 4122), (Start: 43 @4230 has 17 MA's), (66, 4353), (72, 4413), (75, 4437), (79, 4458), (82, 4476), (88, 4503), (97, 4545), (98, 4554), (99, 4557), (104, 4599), (119, 4650), (125, 4683), (128, 4716), (129, 4722), (144, 4794), (145, 4803), (147, 4812),

Gene: BAjuniper_5 Start: 4412, Stop: 5149, Start Num: 45
Candidate Starts for BAjuniper_5:
(32, 4376), (Start: 45 @4412 has 149 MA's), (57, 4466), (83, 4664), (88, 4688), (98, 4739), (101, 4766), (108, 4802), (121, 4844), (123, 4859), (125, 4868), (160, 5066),

Gene: BabeRuth_5 Start: 3549, Stop: 4361, Start Num: 43
Candidate Starts for BabeRuth_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Babushka_5 Start: 4321, Stop: 5073, Start Num: 47
Candidate Starts for Babushka_5:
(Start: 47 @4321 has 128 MA's), (56, 4363), (63, 4405), (67, 4438), (75, 4519), (101, 4663), (104, 4681), (124, 4759), (125, 4762), (132, 4819), (150, 4906), (170, 5011), (176, 5029),

Gene: BabyDaisy_6 Start: 4605, Stop: 5357, Start Num: 45
Candidate Starts for BabyDaisy_6:
(21, 4524), (31, 4572), (Start: 45 @4605 has 149 MA's), (51, 4620), (72, 4791), (98, 4932), (101, 4959), (116, 5028), (125, 5076), (130, 5124), (171, 5337),

Gene: BabyYoda_5 Start: 4609, Stop: 5364, Start Num: 45
Candidate Starts for BabyYoda_5:
(31, 4576), (Start: 45 @4609 has 149 MA's), (57, 4663), (72, 4795), (82, 4858), (88, 4885), (98, 4936), (101, 4963), (108, 4999), (111, 5005), (125, 5080), (171, 5344),

Gene: Bachaco_5 Start: 4538, Stop: 5275, Start Num: 45
Candidate Starts for Bachaco_5:
(16, 4424), (22, 4460), (30, 4496), (Start: 45 @4538 has 149 MA's), (57, 4592), (66, 4664), (76, 4751), (83, 4790), (98, 4865), (101, 4892), (108, 4928), (121, 4970), (124, 4991), (125, 4994), (150, 5132), (160, 5192),

Gene: BadWillHunting_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for BadWillHunting_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Banquo_13 Start: 7501, Stop: 8301, Start Num: 45
Candidate Starts for Banquo_13:
(Start: 45 @7501 has 149 MA's), (54, 7531), (63, 7588), (67, 7621), (79, 7723), (81, 7735), (85, 7756), (90, 7774), (99, 7822), (100, 7837), (101, 7846), (102, 7855), (108, 7882), (123, 7960), (124, 7966), (129, 8008), (148, 8098), (183, 8281),

Gene: Basilisk_6 Start: 4924, Stop: 5682, Start Num: 41
Candidate Starts for Basilisk_6:
(Start: 41 @4924 has 18 MA's), (53, 4951), (63, 5014), (64, 5026), (67, 5047), (72, 5104), (73, 5110), (75, 5128), (101, 5272), (104, 5290), (114, 5323), (123, 5362), (124, 5368), (125, 5371), (150, 5515), (176, 5638),

Gene: Bedetta_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Bedetta_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Beethoven_7 Start: 6689, Stop: 7456, Start Num: 47
Candidate Starts for Beethoven_7:
(19, 6584), (20, 6587), (22, 6602), (Start: 27 @6623 has 3 MA's), (Start: 47 @6689 has 128 MA's), (Start: 50 @6695 has 3 MA's), (54, 6716), (63, 6773), (66, 6803), (68, 6809), (72, 6863), (75, 6887), (80, 6917), (87, 6950), (101, 7031), (104, 7049), (121, 7133), (124, 7154), (152, 7301),

Gene: BelmontSKP_6 Start: 4699, Stop: 5451, Start Num: 45
Candidate Starts for BelmontSKP_6:
(31, 4666), (Start: 45 @4699 has 149 MA's), (51, 4714), (67, 4828), (72, 4885), (83, 4951), (98, 5026), (101, 5053), (117, 5125), (125, 5170), (171, 5431),

Gene: Bengal_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for Bengal_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (67, 4482), (71, 4536), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Bennie_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Bennie_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (89, 4315), (93, 4330), (101, 4390), (124, 4513), (152, 4660),

Gene: Bernstein_4 Start: 4290, Stop: 5030, Start Num: 45
Candidate Starts for Bernstein_4:
(Start: 45 @4290 has 149 MA's), (66, 4416), (71, 4473), (76, 4503), (82, 4539), (83, 4542), (88, 4566), (91, 4575), (98, 4617), (101, 4644), (108, 4680), (121, 4722), (123, 4737), (171, 5010),

Gene: Bibble12_7 Start: 4848, Stop: 5603, Start Num: 47
Candidate Starts for Bibble12_7:
(29, 4794), (Start: 47 @4848 has 128 MA's), (52, 4863), (63, 4932), (67, 4965), (73, 5028), (75, 5046), (80, 5076), (96, 5148), (101, 5190), (104, 5208), (122, 5271), (127, 5319), (139, 5361), (150, 5433), (156, 5454), (159, 5481), (176, 5556),

Gene: BigMack_4 Start: 4048, Stop: 4815, Start Num: 47

Candidate Starts for BigMack_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (73, 4228), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (124, 4513), (152, 4660),

Gene: Bipper_12 Start: 7870, Stop: 8895, Start Num: 35
Candidate Starts for Bipper_12:
(Start: 35 @7870 has 2 MA's), (40, 7891), (54, 7936), (59, 7972), (65, 8014), (73, 8101), (77, 8125), (84, 8167), (86, 8182), (88, 8188), (95, 8221), (99, 8242), (100, 8257), (101, 8266), (119, 8356), (123, 8377), (124, 8383), (131, 8437), (134, 8449), (143, 8509), (164, 8647), (170, 8707), (176, 8725), (188, 8788),

Gene: Bodacious_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Bodacious_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Bosection6_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Bosection6_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Brahms_4 Start: 4230, Stop: 4970, Start Num: 45
Candidate Starts for Brahms_4:
(Start: 45 @4230 has 149 MA's), (66, 4356), (71, 4413), (76, 4443), (82, 4479), (83, 4482), (88, 4506), (91, 4515), (98, 4557), (101, 4584), (108, 4620), (121, 4662), (123, 4677), (171, 4950),

Gene: BrayBeast_5 Start: 4000, Stop: 4755, Start Num: 45
Candidate Starts for BrayBeast_5:
(Start: 45 @4000 has 149 MA's), (51, 4015), (54, 4030), (61, 4072), (67, 4123), (72, 4180), (75, 4204), (79, 4225), (81, 4237), (82, 4243), (97, 4312), (108, 4384), (125, 4450), (129, 4489), (133, 4510),

Gene: BrotherBLo_7 Start: 6695, Stop: 7462, Start Num: 47
Candidate Starts for BrotherBLo_7:
(19, 6590), (20, 6593), (22, 6608), (Start: 27 @6629 has 3 MA's), (Start: 47 @6695 has 128 MA's), (Start: 50 @6701 has 3 MA's), (54, 6722), (63, 6779), (66, 6809), (68, 6815), (72, 6869), (75, 6893), (80, 6923), (87, 6956), (101, 7037), (104, 7055), (121, 7139), (124, 7160), (152, 7307),

Gene: Brynnie_6 Start: 4721, Stop: 5479, Start Num: 41
Candidate Starts for Brynnie_6:
(Start: 41 @4721 has 18 MA's), (53, 4748), (63, 4811), (64, 4823), (72, 4901), (73, 4907), (75, 4925), (101, 5069), (104, 5087), (114, 5120), (123, 5159), (124, 5165), (125, 5168), (150, 5312), (176, 5435),

Gene: BubbaBear_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for BubbaBear_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Buldak_5 Start: 4660, Stop: 5427, Start Num: 45
Candidate Starts for Buldak_5:

(Start: 45 @4660 has 149 MA's), (51, 4675), (96, 4978), (98, 4993), (101, 5020), (121, 5116), (124, 5137), (127, 5170),

Gene: Burritobowl_5 Start: 4351, Stop: 5103, Start Num: 45
Candidate Starts for Burritobowl_5:
(31, 4318), (Start: 45 @4351 has 149 MA's), (51, 4366), (67, 4480), (71, 4534), (72, 4537), (83, 4603), (98, 4678), (101, 4705), (117, 4777), (125, 4822), (171, 5083),

Gene: Butters_5 Start: 3535, Stop: 4341, Start Num: 45
Candidate Starts for Butters_5:
(Start: 43 @3532 has 17 MA's), (Start: 45 @3535 has 149 MA's), (73, 3715), (75, 3733), (90, 3805), (98, 3850), (101, 3877), (104, 3895), (130, 4054), (140, 4102), (158, 4195),

Gene: CallieOMalley_7 Start: 6692, Stop: 7474, Start Num: 47
Candidate Starts for CallieOMalley_7:
(Start: 47 @6692 has 128 MA's), (Start: 50 @6698 has 3 MA's), (54, 6719), (63, 6776), (68, 6812), (72, 6866), (75, 6890), (87, 6953), (93, 6974), (101, 7034), (124, 7163), (141, 7250), (152, 7310), (185, 7457),

Gene: Camara_5 Start: 4281, Stop: 5033, Start Num: 47
Candidate Starts for Camara_5:
(9, 4104), (10, 4122), (11, 4134), (14, 4152), (25, 4209), (Start: 47 @4281 has 128 MA's), (63, 4365), (67, 4398), (73, 4461), (75, 4479), (101, 4623), (124, 4719), (125, 4722), (150, 4866), (156, 4887), (170, 4971), (176, 4989),

Gene: CanFranMach_5 Start: 4352, Stop: 5104, Start Num: 45
Candidate Starts for CanFranMach_5:
(31, 4319), (Start: 45 @4352 has 149 MA's), (51, 4367), (71, 4535), (72, 4538), (88, 4628), (98, 4679), (101, 4706), (125, 4823), (171, 5084),

Gene: Canowicakte_7 Start: 6727, Stop: 7509, Start Num: 47
Candidate Starts for Canowicakte_7:
(Start: 47 @6727 has 128 MA's), (Start: 50 @6733 has 3 MA's), (54, 6754), (63, 6811), (68, 6847), (72, 6901), (75, 6925), (87, 6988), (93, 7009), (101, 7069), (124, 7198), (141, 7285), (152, 7345), (185, 7492),

Gene: Carcharodon_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Carcharodon_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Carpal_7 Start: 6695, Stop: 7462, Start Num: 47
Candidate Starts for Carpal_7:
(16, 6572), (19, 6590), (20, 6593), (22, 6608), (Start: 27 @6629 has 3 MA's), (Start: 47 @6695 has 128 MA's), (Start: 50 @6701 has 3 MA's), (54, 6722), (63, 6779), (66, 6809), (68, 6815), (72, 6869), (75, 6893), (80, 6923), (87, 6956), (101, 7037), (104, 7055), (121, 7139), (124, 7160), (152, 7307),

Gene: Cashington_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for Cashington_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (71, 4524), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Catfish_8 Start: 5463, Stop: 6221, Start Num: 45
Candidate Starts for Catfish_8:
(Start: 45 @5463 has 149 MA's), (63, 5553), (81, 5703), (90, 5742), (100, 5805), (101, 5814), (102, 5823), (108, 5850), (129, 5976), (144, 6045), (145, 6054), (153, 6087), (182, 6195),

Gene: Celaena_5 Start: 4475, Stop: 5212, Start Num: 45
Candidate Starts for Celaena_5:
(16, 4361), (22, 4397), (30, 4433), (Start: 45 @4475 has 149 MA's), (57, 4529), (66, 4601), (76, 4688), (83, 4727), (98, 4802), (101, 4829), (108, 4865), (121, 4907), (124, 4928), (125, 4931), (150, 5069), (160, 5129),

Gene: Charlie_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Charlie_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: ChewChew_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for ChewChew_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Chewbacca_5 Start: 3535, Stop: 4344, Start Num: 43
Candidate Starts for Chewbacca_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198),

Gene: Chickaboom_5 Start: 4370, Stop: 5128, Start Num: 41
Candidate Starts for Chickaboom_5:
(Start: 41 @4370 has 18 MA's), (53, 4397), (63, 4460), (67, 4493), (72, 4550), (73, 4556), (75, 4574), (101, 4718), (104, 4736), (123, 4808), (124, 4814), (125, 4817), (150, 4961), (161, 5009), (176, 5084),

Gene: Chicken_6 Start: 4670, Stop: 5428, Start Num: 41
Candidate Starts for Chicken_6:
(Start: 41 @4670 has 18 MA's), (53, 4697), (63, 4760), (64, 4772), (67, 4793), (72, 4850), (73, 4856), (75, 4874), (80, 4904), (101, 5018), (104, 5036), (123, 5108), (124, 5114), (125, 5117), (139, 5189), (150, 5261), (155, 5279), (176, 5384),

Gene: ChiliPepper_5 Start: 4605, Stop: 5360, Start Num: 45
Candidate Starts for ChiliPepper_5:
(Start: 45 @4605 has 149 MA's), (57, 4659), (66, 4731), (83, 4857), (88, 4881), (98, 4932), (101, 4959), (111, 5001), (117, 5028), (125, 5073), (127, 5103),

Gene: Cholula_7 Start: 6740, Stop: 7507, Start Num: 47
Candidate Starts for Cholula_7:
(16, 6617), (19, 6635), (20, 6638), (22, 6653), (Start: 27 @6674 has 3 MA's), (Start: 47 @6740 has 128 MA's), (Start: 50 @6746 has 3 MA's), (54, 6767), (63, 6824), (66, 6854), (68, 6860), (72, 6914), (75, 6938), (80, 6968), (87, 7001), (101, 7082), (104, 7100), (121, 7184), (124, 7205), (152, 7352),

Gene: Chridison_4 Start: 4059, Stop: 4835, Start Num: 47
Candidate Starts for Chridison_4:

(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (124, 4524), (152, 4671), (185, 4815),

Gene: Christian_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Christian_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (73, 4228), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Clayda5_4 Start: 4230, Stop: 4970, Start Num: 45
Candidate Starts for Clayda5_4:
(Start: 45 @4230 has 149 MA's), (66, 4356), (71, 4413), (76, 4443), (82, 4479), (83, 4482), (88, 4506), (91, 4515), (98, 4557), (101, 4584), (108, 4620), (121, 4662), (123, 4677), (171, 4950),

Gene: CliffHanger_6 Start: 4461, Stop: 5219, Start Num: 45
Candidate Starts for CliffHanger_6:
(Start: 45 @4461 has 149 MA's), (51, 4476), (96, 4767), (98, 4782), (101, 4809), (111, 4851), (121, 4905), (124, 4926), (127, 4959),

Gene: CocoCinnamon_8 Start: 5162, Stop: 5917, Start Num: 45
Candidate Starts for CocoCinnamon_8:
(Start: 45 @5162 has 149 MA's), (51, 5177), (54, 5192), (75, 5366), (79, 5387), (82, 5405), (93, 5450), (133, 5672), (154, 5771),

Gene: Coltrane_4 Start: 4230, Stop: 4970, Start Num: 45
Candidate Starts for Coltrane_4:
(Start: 45 @4230 has 149 MA's), (66, 4356), (71, 4413), (76, 4443), (82, 4479), (83, 4482), (88, 4506), (91, 4515), (98, 4557), (101, 4584), (108, 4620), (121, 4662), (123, 4677), (171, 4950),

Gene: Colusalem_6 Start: 4684, Stop: 5439, Start Num: 47
Candidate Starts for Colusalem_6:
(29, 4630), (Start: 47 @4684 has 128 MA's), (52, 4699), (63, 4768), (67, 4801), (73, 4864), (75, 4882), (80, 4912), (96, 4984), (101, 5026), (104, 5044), (122, 5107), (123, 5116), (127, 5155), (139, 5197), (150, 5269), (156, 5290), (159, 5317), (176, 5392),

Gene: Coral_6 Start: 4684, Stop: 5439, Start Num: 47
Candidate Starts for Coral_6:
(29, 4630), (Start: 47 @4684 has 128 MA's), (52, 4699), (63, 4768), (67, 4801), (73, 4864), (75, 4882), (80, 4912), (96, 4984), (101, 5026), (104, 5044), (122, 5107), (123, 5116), (127, 5155), (139, 5197), (150, 5269), (156, 5290), (159, 5317), (176, 5392),

Gene: Cote_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Cote_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Cracklewink_12 Start: 7870, Stop: 8895, Start Num: 35
Candidate Starts for Cracklewink_12:
(Start: 35 @7870 has 2 MA's), (40, 7891), (54, 7936), (59, 7972), (65, 8014), (73, 8101), (77, 8125), (84, 8167), (86, 8182), (88, 8188), (95, 8221), (99, 8242), (100, 8257), (101, 8266), (119, 8356), (123, 8377), (124, 8383), (131, 8437), (134, 8449), (143, 8509), (164, 8647), (170, 8707), (176, 8725), (188,

8788),

Gene: CristinaYang_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for CristinaYang_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: CroZenni_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for CroZenni_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (67, 4482), (71, 4536), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Cubone_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Cubone_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: CupcakePrincess_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for CupcakePrincess_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Cygnet_6 Start: 4649, Stop: 5401, Start Num: 47
Candidate Starts for Cygnet_6:
(Start: 47 @4649 has 128 MA's), (63, 4733), (67, 4766), (73, 4829), (75, 4847), (101, 4991), (112, 5030), (124, 5087), (125, 5090), (176, 5357), (178, 5363),

Gene: Daiboju_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Daiboju_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (141, 4610), (152, 4670), (185, 4814),

Gene: Damocles_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Damocles_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: DanHam62_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for DanHam62_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Daob_7 Start: 4848, Stop: 5603, Start Num: 47
Candidate Starts for Daob_7:
(29, 4794), (Start: 47 @4848 has 128 MA's), (52, 4863), (63, 4932), (67, 4965), (73, 5028), (75, 5046), (80, 5076), (96, 5148), (101, 5190), (104, 5208), (123, 5280), (127, 5319), (139, 5361), (150, 5433), (156, 5454), (159, 5481), (176, 5556),

Gene: Dardanus_11 Start: 6545, Stop: 7303, Start Num: 45
Candidate Starts for Dardanus_11:
(Start: 45 @6545 has 149 MA's), (63, 6632), (71, 6719), (79, 6767), (80, 6776), (99, 6866), (101, 6890), (102, 6899), (121, 6989), (122, 6995), (124, 7010), (129, 7052), (144, 7121), (153, 7163), (175, 7256), (183, 7283),

Gene: DearBasketball_5 Start: 3658, Stop: 4458, Start Num: 45
Candidate Starts for DearBasketball_5:
(Start: 45 @3658 has 149 MA's), (Start: 49 @3664 has 2 MA's), (63, 3745), (68, 3781), (75, 3859), (87, 3922), (88, 3925), (90, 3931), (96, 3961), (97, 3967), (101, 4003), (123, 4117), (140, 4234), (141, 4237), (144, 4261), (150, 4291), (178, 4408),

Gene: DickRichards_5 Start: 4818, Stop: 5570, Start Num: 45
Candidate Starts for DickRichards_5:
(31, 4785), (Start: 45 @4818 has 149 MA's), (51, 4833), (67, 4947), (71, 5001), (72, 5004), (83, 5070), (98, 5145), (101, 5172), (117, 5244), (125, 5289), (171, 5550),

Gene: Didgeridoo_6 Start: 4605, Stop: 5357, Start Num: 45
Candidate Starts for Didgeridoo_6:
(21, 4524), (31, 4572), (Start: 45 @4605 has 149 MA's), (51, 4620), (72, 4791), (98, 4932), (101, 4959), (116, 5028), (125, 5076), (130, 5124), (171, 5337),

Gene: Dino_7 Start: 6695, Stop: 7462, Start Num: 47
Candidate Starts for Dino_7:
(19, 6590), (20, 6593), (22, 6608), (Start: 27 @6629 has 3 MA's), (Start: 47 @6695 has 128 MA's), (Start: 50 @6701 has 3 MA's), (54, 6722), (63, 6779), (66, 6809), (68, 6815), (72, 6869), (75, 6893), (80, 6923), (87, 6956), (101, 7037), (104, 7055), (121, 7139), (124, 7160), (152, 7307),

Gene: DinoDaryn_11 Start: 6590, Stop: 7387, Start Num: 45
Candidate Starts for DinoDaryn_11:
(Start: 45 @6590 has 149 MA's), (54, 6620), (63, 6677), (71, 6764), (79, 6812), (85, 6845), (99, 6911), (101, 6935), (102, 6944), (108, 6971), (121, 7034), (129, 7097), (144, 7166), (153, 7208), (157, 7229), (183, 7367),

Gene: DinoNuggs_6 Start: 3771, Stop: 4571, Start Num: 45
Candidate Starts for DinoNuggs_6:
(Start: 45 @3771 has 149 MA's), (Start: 49 @3777 has 2 MA's), (63, 3858), (68, 3894), (75, 3972), (88, 4038), (90, 4044), (96, 4074), (97, 4080), (101, 4116), (123, 4230), (140, 4347), (141, 4350), (144, 4374), (150, 4404), (178, 4521),

Gene: DirtyBubble_5 Start: 4608, Stop: 5363, Start Num: 45
Candidate Starts for DirtyBubble_5:
(31, 4575), (Start: 45 @4608 has 149 MA's), (57, 4662), (72, 4794), (82, 4857), (88, 4884), (98, 4935), (101, 4962), (108, 4998), (111, 5004), (125, 5079), (171, 5343),

Gene: Dismas_5 Start: 4605, Stop: 5360, Start Num: 45
Candidate Starts for Dismas_5:
(Start: 45 @4605 has 149 MA's), (57, 4659), (66, 4731), (83, 4857), (88, 4881), (98, 4932), (101, 4959), (111, 5001), (117, 5028), (125, 5073), (127, 5103),

Gene: DonkeyMan_5 Start: 3652, Stop: 4452, Start Num: 45
Candidate Starts for DonkeyMan_5:

(Start: 45 @3652 has 149 MA's), (Start: 49 @3658 has 2 MA's), (63, 3739), (68, 3775), (75, 3853), (88, 3919), (90, 3925), (96, 3955), (97, 3961), (101, 3997), (123, 4111), (138, 4204), (140, 4228), (141, 4231), (144, 4255), (150, 4285), (178, 4402),

Gene: Doobus_5 Start: 4575, Stop: 5327, Start Num: 45
Candidate Starts for Doobus_5:
(31, 4542), (Start: 45 @4575 has 149 MA's), (51, 4590), (71, 4758), (72, 4761), (83, 4827), (98, 4902), (101, 4929), (117, 5001), (125, 5046), (171, 5307),

Gene: DrRobert_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for DrRobert_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: DreamTeam_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for DreamTeam_4:
(19, 3943), (20, 3946), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (93, 4330), (101, 4390), (104, 4408), (124, 4513), (152, 4660),

Gene: Duplicity_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Duplicity_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: E1_5 Start: 4230, Stop: 5030, Start Num: 43
Candidate Starts for E1_5:
(16, 4113), (18, 4122), (Start: 43 @4230 has 17 MA's), (66, 4353), (72, 4413), (75, 4437), (79, 4458), (82, 4476), (88, 4503), (97, 4545), (98, 4554), (99, 4557), (104, 4599), (125, 4683), (128, 4716), (129, 4722), (144, 4794), (145, 4803), (147, 4812),

Gene: EGUnicorn_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for EGUnicorn_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Eden_4 Start: 4291, Stop: 5025, Start Num: 45
Candidate Starts for Eden_4:
(31, 4252), (Start: 45 @4291 has 149 MA's), (57, 4345), (66, 4417), (71, 4474), (76, 4504), (82, 4540), (83, 4543), (88, 4567), (91, 4576), (98, 4618), (101, 4645), (108, 4681), (121, 4723), (123, 4738), (127, 4777), (160, 4936), (174, 5005),

Gene: Eesa_6 Start: 4891, Stop: 5649, Start Num: 41
Candidate Starts for Eesa_6:
(Start: 41 @4891 has 18 MA's), (53, 4918), (63, 4981), (64, 4993), (67, 5014), (72, 5071), (73, 5077), (75, 5095), (80, 5125), (101, 5239), (104, 5257), (123, 5329), (124, 5335), (125, 5338), (139, 5410), (150, 5482), (155, 5500), (176, 5605),

Gene: Elener_7 Start: 5933, Stop: 6664, Start Num: 34
Candidate Starts for Elener_7:

(Start: 34 @5933 has 1 MA's), (63, 6071), (99, 6308), (104, 6350), (110, 6371), (115, 6389), (126, 6437), (163, 6647),

Gene: Elva_6 Start: 4677, Stop: 5432, Start Num: 45
Candidate Starts for Elva_6:
(31, 4644), (Start: 45 @4677 has 149 MA's), (57, 4731), (72, 4863), (83, 4929), (88, 4953), (98, 5004), (101, 5031), (108, 5067), (111, 5073), (125, 5148), (171, 5412),

Gene: EstebanJulior_4 Start: 4039, Stop: 4806, Start Num: 47
Candidate Starts for EstebanJulior_4:
(19, 3934), (Start: 27 @3973 has 3 MA's), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (101, 4381), (104, 4399), (124, 4504), (152, 4651),

Gene: Eula_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for Eula_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Eunoia_4 Start: 4059, Stop: 4832, Start Num: 47
Candidate Starts for Eunoia_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (121, 4503), (124, 4524), (152, 4671), (185, 4815),

Gene: EvenBluerMoon_6 Start: 5096, Stop: 5854, Start Num: 43
Candidate Starts for EvenBluerMoon_6:
(Start: 43 @5096 has 17 MA's), (82, 5339), (93, 5384),

Gene: Faith5x5_5 Start: 3480, Stop: 4325, Start Num: 38
Candidate Starts for Faith5x5_5:
(Start: 38 @3480 has 6 MA's), (63, 3585), (67, 3618), (73, 3681), (88, 3765), (91, 3774), (97, 3807), (100, 3834), (101, 3843), (121, 3951), (124, 3972), (125, 3975), (127, 4005), (129, 4014), (133, 4035), (166, 4230), (182, 4284),

Gene: Faiyaz_12 Start: 7815, Stop: 8768, Start Num: 33
Candidate Starts for Faiyaz_12:
(Start: 33 @7815 has 4 MA's), (40, 7842), (65, 7965), (73, 8052), (77, 8076), (91, 8148), (95, 8172), (99, 8193), (100, 8208), (101, 8217), (123, 8328), (124, 8334), (150, 8487), (165, 8550), (170, 8586), (180, 8613), (195, 8730),

Gene: Finalfrontier_6 Start: 4846, Stop: 5598, Start Num: 45
Candidate Starts for Finalfrontier_6:
(31, 4813), (Start: 45 @4846 has 149 MA's), (51, 4861), (67, 4975), (72, 5032), (83, 5098), (98, 5173), (101, 5200), (117, 5272), (125, 5317), (171, 5578),

Gene: Fingolfin_5 Start: 4282, Stop: 5034, Start Num: 47
Candidate Starts for Fingolfin_5:
(29, 4228), (Start: 47 @4282 has 128 MA's), (63, 4366), (67, 4399), (73, 4462), (75, 4480), (101, 4624), (124, 4720), (125, 4723), (150, 4867), (156, 4888), (170, 4972), (176, 4990),

Gene: FlameThrower_5 Start: 4471, Stop: 5208, Start Num: 45
Candidate Starts for FlameThrower_5:

(16, 4357), (22, 4393), (30, 4429), (Start: 45 @4471 has 149 MA's), (57, 4525), (66, 4597), (76, 4684), (83, 4723), (98, 4798), (101, 4825), (108, 4861), (121, 4903), (124, 4924), (125, 4927), (150, 5065), (160, 5125),

Gene: Fluke_7 Start: 6670, Stop: 7503, Start Num: 27
Candidate Starts for Fluke_7:
(19, 6631), (20, 6634), (22, 6649), (Start: 27 @6670 has 3 MA's), (Start: 47 @6736 has 128 MA's), (Start: 50 @6742 has 3 MA's), (54, 6763), (63, 6820), (66, 6850), (68, 6856), (72, 6910), (75, 6934), (80, 6964), (87, 6997), (101, 7078), (104, 7096), (121, 7180), (124, 7201), (152, 7348),

Gene: Franklin22_4 Start: 4286, Stop: 5020, Start Num: 45
Candidate Starts for Franklin22_4:
(20, 4193), (22, 4208), (26, 4223), (32, 4250), (Start: 34 @4253 has 1 MA's), (Start: 45 @4286 has 149 MA's), (51, 4301), (57, 4340), (76, 4499), (82, 4535), (83, 4538), (88, 4562), (98, 4613), (101, 4640), (108, 4676), (121, 4718), (123, 4733), (127, 4772), (160, 4931),

Gene: Frizzle_3 Start: 3135, Stop: 3887, Start Num: 46
Candidate Starts for Frizzle_3:
(1, 2487), (Start: 46 @3135 has 3 MA's), (63, 3222), (66, 3252), (67, 3255), (80, 3372), (99, 3462), (124, 3603), (127, 3636), (132, 3663), (173, 3849),

Gene: Fulbright_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Fulbright_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Gack_4 Start: 4335, Stop: 5084, Start Num: 45
Candidate Starts for Gack_4:
(42, 4332), (Start: 45 @4335 has 149 MA's), (66, 4461), (72, 4521), (76, 4548), (82, 4584), (83, 4587), (88, 4611), (91, 4620), (98, 4662), (101, 4689), (107, 4722), (127, 4836),

Gene: Galaxy_6 Start: 4670, Stop: 5428, Start Num: 41
Candidate Starts for Galaxy_6:
(Start: 41 @4670 has 18 MA's), (53, 4697), (63, 4760), (64, 4772), (67, 4793), (72, 4850), (73, 4856), (75, 4874), (101, 5018), (104, 5036), (114, 5069), (123, 5108), (124, 5114), (125, 5117), (150, 5261), (176, 5384),

Gene: Gex_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Gex_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Ghobes_3 Start: 3135, Stop: 3887, Start Num: 46
Candidate Starts for Ghobes_3:
(Start: 46 @3135 has 3 MA's), (63, 3222), (66, 3252), (67, 3255), (80, 3372), (99, 3462), (124, 3603), (127, 3636), (132, 3663), (173, 3849),

Gene: Gisselle_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Gisselle_4:
(19, 3943), (20, 3946), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (93, 4330),

(101, 4390), (104, 4408), (124, 4513), (152, 4660),

Gene: Glenn_7 Start: 6746, Stop: 7513, Start Num: 47
Candidate Starts for Glenn_7:
(19, 6641), (20, 6644), (22, 6659), (Start: 27 @6680 has 3 MA's), (Start: 47 @6746 has 128 MA's), (Start: 50 @6752 has 3 MA's), (54, 6773), (63, 6830), (66, 6860), (68, 6866), (72, 6920), (75, 6944), (80, 6974), (87, 7007), (101, 7088), (104, 7106), (121, 7190), (124, 7211), (152, 7358),

Gene: Glotell_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for Glotell_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Goib_10 Start: 6360, Stop: 7160, Start Num: 45
Candidate Starts for Goib_10:
(Start: 45 @6360 has 149 MA's), (54, 6390), (63, 6447), (71, 6534), (81, 6594), (101, 6705), (102, 6714), (105, 6726), (108, 6741), (119, 6798), (123, 6822), (129, 6870), (144, 6939), (153, 6981), (157, 7002), (183, 7140),

Gene: GramZayde_6 Start: 4685, Stop: 5440, Start Num: 47
Candidate Starts for GramZayde_6:
(29, 4631), (Start: 47 @4685 has 128 MA's), (52, 4700), (63, 4769), (67, 4802), (73, 4865), (75, 4883), (80, 4913), (96, 4985), (101, 5027), (104, 5045), (122, 5108), (123, 5117), (127, 5156), (139, 5198), (150, 5270), (156, 5291), (159, 5318), (176, 5393),

Gene: Gravel_7 Start: 4888, Stop: 5646, Start Num: 41
Candidate Starts for Gravel_7:
(Start: 41 @4888 has 18 MA's), (53, 4915), (64, 4990), (67, 5011), (72, 5068), (75, 5092), (83, 5134), (101, 5236), (104, 5254), (119, 5302), (123, 5326), (124, 5332), (125, 5335), (139, 5407), (150, 5479), (176, 5602),

Gene: Graynor_7 Start: 6716, Stop: 7498, Start Num: 47
Candidate Starts for Graynor_7:
(Start: 47 @6716 has 128 MA's), (Start: 50 @6722 has 3 MA's), (54, 6743), (63, 6800), (68, 6836), (72, 6890), (75, 6914), (87, 6977), (93, 6998), (101, 7058), (124, 7187), (141, 7274), (152, 7334), (185, 7481),

Gene: GreenHearts_7 Start: 6760, Stop: 7527, Start Num: 50
Candidate Starts for GreenHearts_7:
(16, 6631), (Start: 27 @6688 has 3 MA's), (Start: 47 @6754 has 128 MA's), (Start: 50 @6760 has 3 MA's), (54, 6781), (75, 6952), (80, 6982), (87, 7015), (101, 7096), (124, 7225), (150, 7366), (152, 7372),

Gene: Greenhouse_7 Start: 6723, Stop: 7496, Start Num: 47
Candidate Starts for Greenhouse_7:
(16, 6600), (Start: 27 @6657 has 3 MA's), (Start: 47 @6723 has 128 MA's), (Start: 50 @6729 has 3 MA's), (54, 6750), (75, 6921), (80, 6951), (87, 6984), (101, 7065), (124, 7194), (150, 7335), (152, 7341),

Gene: Grist_5 Start: 4429, Stop: 5181, Start Num: 45
Candidate Starts for Grist_5:

(31, 4396), (Start: 45 @4429 has 149 MA's), (51, 4444), (72, 4615), (98, 4756), (101, 4783), (116, 4852), (125, 4900), (130, 4948), (171, 5161),

Gene: Gsput1_7 Start: 4923, Stop: 5735, Start Num: 45
Candidate Starts for Gsput1_7:
(18, 4809), (39, 4905), (Start: 45 @4923 has 149 MA's), (54, 4953), (63, 5010), (67, 5043), (73, 5106), (93, 5208), (101, 5268), (102, 5277), (105, 5289), (119, 5358), (122, 5373), (125, 5391), (129, 5430), (134, 5454), (144, 5505), (153, 5547), (171, 5676), (180, 5700), (183, 5715), (185, 5724),

Gene: Gudmit_6 Start: 4248, Stop: 5093, Start Num: 38
Candidate Starts for Gudmit_6:
(Start: 38 @4248 has 6 MA's), (63, 4353), (67, 4386), (88, 4533), (91, 4542), (93, 4551), (97, 4575), (100, 4602), (101, 4611), (124, 4740), (125, 4743), (127, 4773), (129, 4782), (182, 5055),

Gene: Gustav_4 Start: 3513, Stop: 4499, Start Num: 45
Candidate Starts for Gustav_4:
(4, 3300), (15, 3399), (28, 3459), (Start: 45 @3513 has 149 MA's), (54, 3543), (60, 3597), (61, 3600), (63, 3615), (64, 3627), (66, 3645), (67, 3648), (75, 3732), (78, 3747), (79, 3753), (94, 3825), (97, 3837), (124, 3975), (125, 3978), (135, 4038), (137, 4047), (153, 4143), (156, 4152), (189, 4359), (196, 4449), (197, 4452),

Gene: HamCheese_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for HamCheese_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Hanako_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Hanako_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: HannahPhantana_7 Start: 4848, Stop: 5603, Start Num: 47
Candidate Starts for HannahPhantana_7:
(29, 4794), (Start: 47 @4848 has 128 MA's), (52, 4863), (63, 4932), (67, 4965), (73, 5028), (75, 5046), (80, 5076), (96, 5148), (101, 5190), (104, 5208), (122, 5271), (127, 5319), (139, 5361), (150, 5433), (156, 5454), (159, 5481), (176, 5556),

Gene: HeadNerd_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for HeadNerd_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (89, 4315), (93, 4330), (101, 4390), (124, 4513), (152, 4660),

Gene: Heinz_5 Start: 3654, Stop: 4454, Start Num: 45
Candidate Starts for Heinz_5:
(Start: 45 @3654 has 149 MA's), (Start: 49 @3660 has 2 MA's), (63, 3741), (68, 3777), (75, 3855), (88, 3921), (90, 3927), (96, 3957), (97, 3963), (101, 3999), (123, 4113), (140, 4230), (141, 4233), (144, 4257), (150, 4287), (178, 4404),

Gene: Herb_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Herb_4:

(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (141, 4610), (152, 4670), (185, 4814),

Gene: Hereford_7 Start: 5277, Stop: 6035, Start Num: 43
Candidate Starts for Hereford_7:
(Start: 43 @5277 has 17 MA's), (82, 5520), (93, 5565),

Gene: Hibiscus_5 Start: 3654, Stop: 4454, Start Num: 45
Candidate Starts for Hibiscus_5:
(Start: 45 @3654 has 149 MA's), (Start: 49 @3660 has 2 MA's), (63, 3741), (68, 3777), (75, 3855), (88, 3921), (90, 3927), (96, 3957), (97, 3963), (101, 3999), (121, 4098), (123, 4113), (140, 4230), (141, 4233), (144, 4257), (150, 4287), (178, 4404), (187, 4449),

Gene: Hilltopfarm_12 Start: 7845, Stop: 8798, Start Num: 33
Candidate Starts for Hilltopfarm_12:
(Start: 33 @7845 has 4 MA's), (40, 7872), (65, 7995), (73, 8082), (77, 8106), (91, 8178), (95, 8202), (99, 8223), (100, 8238), (101, 8247), (123, 8358), (124, 8364), (150, 8517), (165, 8580), (170, 8616), (180, 8643), (195, 8760),

Gene: Huckleberry_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Huckleberry_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (89, 4315), (93, 4330), (101, 4390), (124, 4513), (152, 4660),

Gene: Huffy_11 Start: 6590, Stop: 7387, Start Num: 45
Candidate Starts for Huffy_11:
(Start: 45 @6590 has 149 MA's), (54, 6620), (63, 6677), (71, 6764), (79, 6812), (85, 6845), (99, 6911), (101, 6935), (102, 6944), (108, 6971), (121, 7034), (129, 7097), (144, 7166), (153, 7208), (157, 7229), (183, 7367),

Gene: HunterDalle_4 Start: 4059, Stop: 4832, Start Num: 47
Candidate Starts for HunterDalle_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (121, 4503), (124, 4524), (152, 4671), (185, 4815),

Gene: Huntingdon_7 Start: 6702, Stop: 7475, Start Num: 47
Candidate Starts for Huntingdon_7:
(16, 6579), (Start: 27 @6636 has 3 MA's), (Start: 47 @6702 has 128 MA's), (Start: 50 @6708 has 3 MA's), (54, 6729), (75, 6900), (80, 6930), (87, 6963), (101, 7044), (124, 7173), (150, 7314), (152, 7320),

Gene: Icarian_6 Start: 4600, Stop: 5352, Start Num: 45
Candidate Starts for Icarian_6:
(31, 4567), (Start: 45 @4600 has 149 MA's), (57, 4654), (72, 4786), (88, 4876), (98, 4927), (101, 4954), (108, 4990), (111, 4996), (125, 5068), (171, 5332),

Gene: Immaculata_7 Start: 6740, Stop: 7507, Start Num: 47
Candidate Starts for Immaculata_7:
(19, 6635), (20, 6638), (22, 6653), (Start: 27 @6674 has 3 MA's), (Start: 47 @6740 has 128 MA's), (Start: 50 @6746 has 3 MA's), (54, 6767), (63, 6824), (66, 6854), (68, 6860), (72, 6914), (75, 6938),

(80, 6968), (87, 7001), (101, 7082), (104, 7100), (121, 7184), (124, 7205), (152, 7352),

Gene: Impisi_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Impisi_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: IndyLu_5 Start: 4429, Stop: 5181, Start Num: 45
Candidate Starts for IndyLu_5:
(31, 4396), (Start: 45 @4429 has 149 MA's), (51, 4444), (72, 4615), (98, 4756), (101, 4783), (116, 4852), (125, 4900), (130, 4948), (171, 5161),

Gene: Jabb_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for Jabb_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Jamie19_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Jamie19_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Jamun_6 Start: 4941, Stop: 5699, Start Num: 41
Candidate Starts for Jamun_6:
(Start: 41 @4941 has 18 MA's), (53, 4968), (63, 5031), (67, 5064), (72, 5121), (73, 5127), (75, 5145), (101, 5289), (104, 5307), (123, 5379), (124, 5385), (125, 5388), (150, 5532), (176, 5655),

Gene: JanetJ_6 Start: 4872, Stop: 5633, Start Num: 44
Candidate Starts for JanetJ_6:
(Start: 44 @4872 has 1 MA's), (72, 5052), (82, 5115), (93, 5160), (122, 5304), (125, 5322), (150, 5466),

Gene: JeanClaude_5 Start: 4000, Stop: 4755, Start Num: 45
Candidate Starts for JeanClaude_5:
(Start: 45 @4000 has 149 MA's), (51, 4015), (54, 4030), (61, 4072), (75, 4204), (81, 4237), (82, 4243), (97, 4312), (108, 4384), (125, 4450), (129, 4489), (133, 4510), (140, 4537), (169, 4693),

Gene: Jerole_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Jerole_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Joann_7 Start: 6700, Stop: 7467, Start Num: 50
Candidate Starts for Joann_7:
(16, 6571), (Start: 27 @6628 has 3 MA's), (Start: 47 @6694 has 128 MA's), (Start: 50 @6700 has 3 MA's), (54, 6721), (75, 6892), (80, 6922), (87, 6955), (101, 7036), (124, 7165), (150, 7306), (152, 7312),

Gene: Johnathan_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for Johnathan_5:

(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (71, 4536), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Jojo24_5 Start: 3649, Stop: 4449, Start Num: 45
Candidate Starts for Jojo24_5:
(Start: 45 @3649 has 149 MA's), (Start: 49 @3655 has 2 MA's), (63, 3736), (68, 3772), (75, 3850), (88, 3916), (90, 3922), (96, 3952), (97, 3958), (101, 3994), (123, 4108), (140, 4225), (141, 4228), (144, 4252), (150, 4282), (178, 4399), (187, 4444),

Gene: Journey_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Journey_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Jovita_5 Start: 4466, Stop: 5218, Start Num: 45
Candidate Starts for Jovita_5:
(31, 4433), (Start: 45 @4466 has 149 MA's), (51, 4481), (67, 4595), (72, 4652), (83, 4718), (98, 4793), (101, 4820), (117, 4892), (125, 4937), (171, 5198),

Gene: Jumboset_7 Start: 6689, Stop: 7456, Start Num: 47
Candidate Starts for Jumboset_7:
(19, 6584), (20, 6587), (22, 6602), (Start: 27 @6623 has 3 MA's), (Start: 47 @6689 has 128 MA's), (Start: 50 @6695 has 3 MA's), (54, 6716), (63, 6773), (66, 6803), (68, 6809), (72, 6863), (75, 6887), (80, 6917), (87, 6950), (101, 7031), (104, 7049), (121, 7133), (124, 7154), (152, 7301),

Gene: Juno112_5 Start: 4281, Stop: 5033, Start Num: 47
Candidate Starts for Juno112_5:
(29, 4227), (Start: 47 @4281 has 128 MA's), (63, 4365), (67, 4398), (73, 4461), (75, 4479), (101, 4623), (124, 4719), (125, 4722), (150, 4866), (156, 4887), (170, 4971), (176, 4989),

Gene: KHumphrey_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for KHumphrey_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Kalizoi_7 Start: 6689, Stop: 7456, Start Num: 47
Candidate Starts for Kalizoi_7:
(19, 6584), (20, 6587), (22, 6602), (Start: 27 @6623 has 3 MA's), (Start: 47 @6689 has 128 MA's), (Start: 50 @6695 has 3 MA's), (54, 6716), (63, 6773), (66, 6803), (68, 6809), (72, 6863), (75, 6887), (80, 6917), (87, 6950), (101, 7031), (104, 7049), (121, 7133), (124, 7154), (152, 7301),

Gene: Kamdara_5 Start: 4604, Stop: 5359, Start Num: 45
Candidate Starts for Kamdara_5:
(Start: 45 @4604 has 149 MA's), (57, 4658), (66, 4730), (83, 4856), (88, 4880), (98, 4931), (101, 4958), (111, 5000), (117, 5027), (125, 5072), (127, 5102),

Gene: Kate33_5 Start: 4429, Stop: 5181, Start Num: 45
Candidate Starts for Kate33_5:
(31, 4396), (Start: 45 @4429 has 149 MA's), (51, 4444), (72, 4615), (98, 4756), (101, 4783), (116, 4852), (125, 4900), (130, 4948), (171, 5161),

Gene: Katzastrophic_5 Start: 4538, Stop: 5275, Start Num: 45
Candidate Starts for Katzastrophic_5:
(16, 4424), (22, 4460), (30, 4496), (Start: 45 @4538 has 149 MA's), (57, 4592), (66, 4664), (76, 4751), (83, 4790), (88, 4814), (98, 4865), (101, 4892), (108, 4928), (121, 4970), (124, 4991), (125, 4994), (150, 5132), (160, 5192),

Gene: KendraB23_7 Start: 4885, Stop: 5646, Start Num: 41
Candidate Starts for KendraB23_7:
(Start: 41 @4885 has 18 MA's), (53, 4915), (56, 4936), (63, 4978), (64, 4990), (67, 5011), (72, 5068), (73, 5074), (75, 5092), (101, 5236), (104, 5254), (114, 5287), (123, 5326), (124, 5332), (125, 5335), (139, 5407), (150, 5479), (155, 5497), (176, 5602),

Gene: Kenzers_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for Kenzers_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Kepler_6 Start: 4683, Stop: 5438, Start Num: 47
Candidate Starts for Kepler_6:
(29, 4629), (Start: 47 @4683 has 128 MA's), (52, 4698), (63, 4767), (67, 4800), (73, 4863), (75, 4881), (80, 4911), (96, 4983), (101, 5025), (104, 5043), (122, 5106), (123, 5115), (127, 5154), (139, 5196), (150, 5268), (156, 5289), (159, 5316), (176, 5391),

Gene: Kevin1_5 Start: 3535, Stop: 4341, Start Num: 45
Candidate Starts for Kevin1_5:
(Start: 43 @3532 has 17 MA's), (Start: 45 @3535 has 149 MA's), (73, 3715), (75, 3733), (90, 3805), (98, 3850), (101, 3877), (104, 3895), (130, 4054), (140, 4102), (158, 4195),

Gene: Khuang_4 Start: 3505, Stop: 4266, Start Num: 45
Candidate Starts for Khuang_4:
(Start: 45 @3505 has 149 MA's), (57, 3559), (63, 3592), (68, 3628), (75, 3706), (78, 3721), (88, 3772), (101, 3850), (125, 3952), (126, 3958), (129, 3991), (168, 4186),

Gene: Kieran_5 Start: 4605, Stop: 5360, Start Num: 45
Candidate Starts for Kieran_5:
(Start: 45 @4605 has 149 MA's), (57, 4659), (66, 4731), (83, 4857), (88, 4881), (98, 4932), (101, 4959), (111, 5001), (117, 5028), (125, 5073), (127, 5103),

Gene: KingBob_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for KingBob_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (141, 4610), (152, 4670), (185, 4814),

Gene: Kittykat_4 Start: 4045, Stop: 4812, Start Num: 47
Candidate Starts for Kittykat_4:
(19, 3940), (20, 3943), (Start: 27 @3979 has 3 MA's), (Start: 47 @4045 has 128 MA's), (Start: 50 @4051 has 3 MA's), (54, 4072), (63, 4129), (68, 4165), (75, 4243), (80, 4273), (87, 4306), (93, 4327), (101, 4387), (104, 4405), (124, 4510), (151, 4654), (152, 4657),

Gene: Korra_7 Start: 6695, Stop: 7462, Start Num: 47
Candidate Starts for Korra_7:

(19, 6590), (20, 6593), (22, 6608), (Start: 27 @6629 has 3 MA's), (Start: 47 @6695 has 128 MA's), (Start: 50 @6701 has 3 MA's), (54, 6722), (63, 6779), (66, 6809), (68, 6815), (72, 6869), (75, 6893), (80, 6923), (87, 6956), (101, 7037), (104, 7055), (121, 7139), (124, 7160), (152, 7307),

Gene: Kuleana_6 Start: 4646, Stop: 5404, Start Num: 45
Candidate Starts for Kuleana_6:
(Start: 45 @4646 has 149 MA's), (63, 4733), (66, 4763), (67, 4766), (75, 4847), (80, 4877), (101, 4991), (123, 5081), (139, 5162), (150, 5234), (156, 5255), (176, 5357),

Gene: Kumotta_6 Start: 5106, Stop: 5909, Start Num: 43
Candidate Starts for Kumotta_6:
(Start: 43 @5106 has 17 MA's), (72, 5286), (79, 5331), (88, 5376), (129, 5595), (153, 5712), (167, 5808),

Gene: Lahqtemish_5 Start: 4427, Stop: 5179, Start Num: 45
Candidate Starts for Lahqtemish_5:
(21, 4346), (31, 4394), (Start: 45 @4427 has 149 MA's), (51, 4442), (72, 4613), (83, 4679), (98, 4754), (101, 4781), (125, 4898), (171, 5159),

Gene: Lakshmi_7 Start: 6730, Stop: 7503, Start Num: 47
Candidate Starts for Lakshmi_7:
(16, 6607), (Start: 27 @6664 has 3 MA's), (Start: 47 @6730 has 128 MA's), (Start: 50 @6736 has 3 MA's), (54, 6757), (75, 6928), (80, 6958), (87, 6991), (101, 7072), (124, 7201), (150, 7342), (152, 7348),

Gene: Laphuphu24k_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for Laphuphu24k_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Lasagna_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Lasagna_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Lennox_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Lennox_4:
(13, 3910), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Leona_5 Start: 4328, Stop: 5080, Start Num: 47
Candidate Starts for Leona_5:
(Start: 47 @4328 has 128 MA's), (63, 4412), (67, 4445), (75, 4526), (101, 4670), (104, 4688), (124, 4766), (125, 4769), (150, 4913), (156, 4934), (170, 5018), (176, 5036),

Gene: LilStuart_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for LilStuart_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Lilo27_5 Start: 4347, Stop: 5099, Start Num: 45
Candidate Starts for Lilo27_5:
(31, 4314), (Start: 45 @4347 has 149 MA's), (51, 4362), (67, 4476), (72, 4533), (83, 4599), (88, 4623), (98, 4674), (101, 4701), (117, 4773), (125, 4818), (171, 5079),

Gene: LimaBean_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for LimaBean_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (67, 4482), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Litotes_7 Start: 6680, Stop: 7462, Start Num: 47
Candidate Starts for Litotes_7:
(Start: 47 @6680 has 128 MA's), (Start: 50 @6686 has 3 MA's), (54, 6707), (63, 6764), (67, 6797), (68, 6800), (72, 6854), (75, 6878), (93, 6962), (101, 7022), (124, 7151), (141, 7238), (152, 7298), (185, 7445),

Gene: LittleTokyo_6 Start: 4619, Stop: 5371, Start Num: 47
Candidate Starts for LittleTokyo_6:
(Start: 47 @4619 has 128 MA's), (61, 4688), (63, 4703), (66, 4733), (67, 4736), (73, 4799), (75, 4817), (101, 4961), (104, 4979), (112, 5000), (124, 5057), (125, 5060), (132, 5117), (176, 5327),

Gene: Loviatar_5 Start: 4611, Stop: 5366, Start Num: 45
Candidate Starts for Loviatar_5:
(31, 4578), (Start: 45 @4611 has 149 MA's), (57, 4665), (72, 4797), (82, 4860), (83, 4863), (88, 4887), (98, 4938), (101, 4965), (108, 5001), (111, 5007), (125, 5082), (171, 5346),

Gene: Lton_5 Start: 3484, Stop: 4323, Start Num: 38
Candidate Starts for Lton_5:
(Start: 38 @3484 has 6 MA's), (63, 3589), (67, 3622), (91, 3778), (97, 3811), (100, 3838), (101, 3847), (113, 3892), (124, 3976), (125, 3979), (127, 4009), (129, 4018), (182, 4285),

Gene: Lucy_4 Start: 4039, Stop: 4806, Start Num: 47
Candidate Starts for Lucy_4:
(12, 3898), (16, 3916), (19, 3934), (20, 3937), (22, 3952), (Start: 27 @3973 has 3 MA's), (37, 4012), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (101, 4381), (104, 4399), (121, 4483), (124, 4504), (152, 4651),

Gene: Lunar_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Lunar_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Lynlen_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for Lynlen_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Magsby_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Magsby_5:

(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Mahdia_4 Start: 3528, Stop: 4496, Start Num: 45
Candidate Starts for Mahdia_4:
(Start: 45 @3528 has 149 MA's), (54, 3558), (60, 3612), (61, 3615), (63, 3630), (64, 3642), (66, 3660), (67, 3663), (75, 3747), (100, 3879), (124, 3990), (132, 4047), (135, 4053), (137, 4062), (141, 4092), (188, 4350), (189, 4359), (193, 4401), (196, 4449), (197, 4452), (199, 4473),

Gene: Maja_5 Start: 4417, Stop: 5172, Start Num: 45
Candidate Starts for Maja_5:
(31, 4375), (Start: 45 @4417 has 149 MA's), (51, 4432), (54, 4447), (75, 4621), (79, 4642), (82, 4660), (88, 4687), (93, 4705), (122, 4849), (129, 4906), (133, 4927),

Gene: Makoto_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Makoto_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: MamaPearl_4 Start: 4039, Stop: 4806, Start Num: 47
Candidate Starts for MamaPearl_4:
(19, 3934), (Start: 27 @3973 has 3 MA's), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (101, 4381), (104, 4399), (124, 4504), (152, 4651),

Gene: MargaretKali_6 Start: 4498, Stop: 5253, Start Num: 45
Candidate Starts for MargaretKali_6:
(31, 4456), (Start: 45 @4498 has 149 MA's), (51, 4513), (54, 4528), (75, 4702), (81, 4735), (82, 4741), (101, 4846), (108, 4882), (125, 4948), (129, 4987), (133, 5008), (140, 5035), (169, 5191),

Gene: Maria1952_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Maria1952_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (141, 4610), (152, 4670), (185, 4814),

Gene: MeganNoll_7 Start: 6746, Stop: 7513, Start Num: 47
Candidate Starts for MeganNoll_7:
(19, 6641), (20, 6644), (22, 6659), (Start: 27 @6680 has 3 MA's), (Start: 47 @6746 has 128 MA's), (Start: 50 @6752 has 3 MA's), (54, 6773), (63, 6830), (66, 6860), (68, 6866), (72, 6920), (75, 6944), (80, 6974), (87, 7007), (101, 7088), (104, 7106), (121, 7190), (124, 7211), (152, 7358),

Gene: Melons_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Melons_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Melville_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Melville_5:

(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: MichelleMyBell_5 Start: 3549, Stop: 4355, Start Num: 45
Candidate Starts for MichelleMyBell_5:
(Start: 43 @3546 has 17 MA's), (Start: 45 @3549 has 149 MA's), (73, 3729), (75, 3747), (90, 3819), (98, 3864), (101, 3891), (104, 3909), (130, 4068), (140, 4116), (158, 4209),

Gene: Milomuff_6 Start: 4710, Stop: 5462, Start Num: 45
Candidate Starts for Milomuff_6:
(31, 4677), (Start: 45 @4710 has 149 MA's), (51, 4725), (67, 4839), (71, 4893), (72, 4896), (83, 4962), (98, 5037), (101, 5064), (117, 5136), (125, 5181), (171, 5442),

Gene: Misaeng_7 Start: 6767, Stop: 7540, Start Num: 47
Candidate Starts for Misaeng_7:
(16, 6644), (Start: 27 @6701 has 3 MA's), (Start: 47 @6767 has 128 MA's), (Start: 50 @6773 has 3 MA's), (54, 6794), (75, 6965), (80, 6995), (87, 7028), (101, 7109), (124, 7238), (150, 7379), (152, 7385),

Gene: Moki_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Moki_4:
(19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (89, 4315), (93, 4330), (101, 4390), (124, 4513), (152, 4660),

Gene: Moosehead_5 Start: 3474, Stop: 4316, Start Num: 38
Candidate Starts for Moosehead_5:
(Start: 38 @3474 has 6 MA's), (63, 3579), (88, 3759), (91, 3768), (93, 3777), (97, 3801), (100, 3828), (101, 3837), (113, 3882), (124, 3966), (125, 3969), (127, 3999), (129, 4008), (182, 4275),

Gene: Morrey_8 Start: 5098, Stop: 5856, Start Num: 43
Candidate Starts for Morrey_8:
(Start: 43 @5098 has 17 MA's), (82, 5341), (93, 5386),

Gene: Morrissey_4 Start: 3526, Stop: 4506, Start Num: 45
Candidate Starts for Morrissey_4:
(4, 3289), (17, 3415), (23, 3451), (28, 3472), (Start: 45 @3526 has 149 MA's), (60, 3595), (63, 3613), (64, 3625), (73, 3709), (75, 3727), (78, 3742), (80, 3757), (94, 3820), (124, 3970), (125, 3973), (135, 4033), (137, 4042), (155, 4144), (181, 4315), (188, 4366), (191, 4390), (197, 4462), (200, 4489),

Gene: MrBoss_7 Start: 6686, Stop: 7462, Start Num: 50
Candidate Starts for MrBoss_7:
(Start: 47 @6680 has 128 MA's), (Start: 50 @6686 has 3 MA's), (54, 6707), (63, 6764), (68, 6800), (72, 6854), (75, 6878), (87, 6941), (93, 6962), (101, 7022), (124, 7151), (141, 7238), (152, 7298), (185, 7445),

Gene: MrGloopy_7 Start: 6679, Stop: 7446, Start Num: 47
Candidate Starts for MrGloopy_7:
(19, 6574), (20, 6577), (22, 6592), (Start: 27 @6613 has 3 MA's), (Start: 47 @6679 has 128 MA's), (Start: 50 @6685 has 3 MA's), (54, 6706), (63, 6763), (66, 6793), (68, 6799), (72, 6853), (75, 6877), (80, 6907), (87, 6940), (101, 7021), (104, 7039), (121, 7123), (124, 7144), (152, 7291),

Gene: MsUbiquitous_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for MsUbiquitous_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Nancia_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Nancia_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: Nenae_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Nenae_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Niblet_6 Start: 4670, Stop: 5428, Start Num: 41
Candidate Starts for Niblet_6:
(Start: 41 @4670 has 18 MA's), (53, 4697), (63, 4760), (64, 4772), (67, 4793), (72, 4850), (73, 4856), (75, 4874), (80, 4904), (101, 5018), (104, 5036), (123, 5108), (124, 5114), (125, 5117), (139, 5189), (150, 5261), (155, 5279), (176, 5384),

Gene: Nicky22_6 Start: 4815, Stop: 5567, Start Num: 45
Candidate Starts for Nicky22_6:
(31, 4782), (Start: 45 @4815 has 149 MA's), (51, 4830), (67, 4944), (72, 5001), (83, 5067), (88, 5091), (98, 5142), (101, 5169), (117, 5241), (125, 5286), (171, 5547),

Gene: NoSwimming_7 Start: 6150, Stop: 6911, Start Num: 48
Candidate Starts for NoSwimming_7:
(3, 5892), (6, 5922), (Start: 27 @6081 has 3 MA's), (Start: 48 @6150 has 2 MA's), (55, 6180), (70, 6306), (72, 6324), (74, 6333), (78, 6363), (93, 6432), (99, 6468), (103, 6507), (118, 6567), (129, 6645), (142, 6732),

Gene: Nubia_7 Start: 6624, Stop: 7463, Start Num: 27
Candidate Starts for Nubia_7:
(16, 6567), (Start: 27 @6624 has 3 MA's), (Start: 47 @6690 has 128 MA's), (Start: 50 @6696 has 3 MA's), (54, 6717), (75, 6888), (80, 6918), (87, 6951), (101, 7032), (124, 7161), (150, 7302), (152, 7308),

Gene: OMalley_4 Start: 4059, Stop: 4832, Start Num: 47
Candidate Starts for OMalley_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (121, 4503), (124, 4524), (152, 4671), (185, 4815),

Gene: Olliecat_5 Start: 4616, Stop: 5383, Start Num: 45
Candidate Starts for Olliecat_5:
(Start: 45 @4616 has 149 MA's), (51, 4631), (66, 4736), (96, 4934), (97, 4940), (98, 4949), (101, 4976), (111, 5018), (121, 5072), (124, 5093), (127, 5126), (129, 5135),

Gene: OneDirection_5 Start: 3469, Stop: 4311, Start Num: 38
Candidate Starts for OneDirection_5:

(Start: 38 @3469 has 6 MA's), (63, 3574), (91, 3763), (93, 3772), (97, 3796), (100, 3823), (101, 3832), (124, 3961), (125, 3964), (127, 3994), (129, 4003), (148, 4093), (166, 4216), (182, 4270),

Gene: Oppalora_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for Oppalora_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Orcanus_6 Start: 4678, Stop: 5439, Start Num: 41
Candidate Starts for Orcanus_6:
(Start: 41 @4678 has 18 MA's), (53, 4708), (56, 4729), (63, 4771), (64, 4783), (67, 4804), (72, 4861), (73, 4867), (75, 4885), (80, 4915), (101, 5029), (104, 5047), (114, 5080), (123, 5119), (124, 5125), (125, 5128), (139, 5200), (150, 5272), (155, 5290), (176, 5395),

Gene: OtsoOtso_6 Start: 4684, Stop: 5439, Start Num: 47
Candidate Starts for OtsoOtso_6:
(29, 4630), (Start: 47 @4684 has 128 MA's), (52, 4699), (63, 4768), (67, 4801), (73, 4864), (75, 4882), (80, 4912), (96, 4984), (101, 5026), (104, 5044), (122, 5107), (123, 5116), (127, 5155), (139, 5197), (150, 5269), (156, 5290), (159, 5317), (176, 5392),

Gene: OurGirlNessie_4 Start: 4039, Stop: 4806, Start Num: 47
Candidate Starts for OurGirlNessie_4:
(19, 3934), (20, 3937), (22, 3952), (Start: 27 @3973 has 3 MA's), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (101, 4381), (104, 4399), (121, 4483), (124, 4504), (152, 4651),

Gene: Oxynfrius_7 Start: 6637, Stop: 7476, Start Num: 27
Candidate Starts for Oxynfrius_7:
(16, 6580), (Start: 27 @6637 has 3 MA's), (Start: 47 @6703 has 128 MA's), (Start: 50 @6709 has 3 MA's), (54, 6730), (75, 6901), (80, 6931), (87, 6964), (101, 7045), (124, 7174), (150, 7315), (152, 7321),

Gene: Panchino_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Panchino_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Parmesanjohn_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Parmesanjohn_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: PartyCup_7 Start: 6733, Stop: 7509, Start Num: 50
Candidate Starts for PartyCup_7:
(Start: 47 @6727 has 128 MA's), (Start: 50 @6733 has 3 MA's), (54, 6754), (63, 6811), (68, 6847), (72, 6901), (75, 6925), (87, 6988), (93, 7009), (98, 7042), (101, 7069), (124, 7198), (141, 7285), (152, 7345), (185, 7492),

Gene: PastaFagioli_5 Start: 4427, Stop: 5179, Start Num: 45
Candidate Starts for PastaFagioli_5:

(21, 4346), (31, 4394), (Start: 45 @4427 has 149 MA's), (51, 4442), (72, 4613), (83, 4679), (98, 4754), (101, 4781), (116, 4850), (125, 4898), (171, 5159),

Gene: Pecas_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for Pecas_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Pelletreau_7 Start: 4888, Stop: 5646, Start Num: 41
Candidate Starts for Pelletreau_7:
(Start: 41 @4888 has 18 MA's), (53, 4915), (64, 4990), (67, 5011), (72, 5068), (75, 5092), (83, 5134), (101, 5236), (104, 5254), (119, 5302), (123, 5326), (124, 5332), (125, 5335), (139, 5407), (150, 5479), (176, 5602),

Gene: Pepperoni_5 Start: 3778, Stop: 4617, Start Num: 38
Candidate Starts for Pepperoni_5:
(Start: 38 @3778 has 6 MA's), (63, 3883), (67, 3916), (91, 4072), (97, 4105), (100, 4132), (101, 4141), (113, 4186), (124, 4270), (125, 4273), (127, 4303), (129, 4312), (182, 4579),

Gene: PhancyPhin_5 Start: 3549, Stop: 4361, Start Num: 43
Candidate Starts for PhancyPhin_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: PhigPhack_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for PhigPhack_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (67, 4482), (71, 4536), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Philonius_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Philonius_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: PhirstandPhine_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for PhirstandPhine_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: Phisb_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for Phisb_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Phloss_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Phloss_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: PhluffyCoco_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for PhluffyCoco_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Phrann_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Phrann_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Pigu_4 Start: 3751, Stop: 4551, Start Num: 45
Candidate Starts for Pigu_4:
(21, 3661), (31, 3709), (Start: 45 @3751 has 149 MA's), (51, 3766), (54, 3781), (62, 3826), (75, 3955), (79, 3976), (81, 3988), (82, 3994), (97, 4063), (99, 4075), (105, 4120), (119, 4168), (122, 4183), (129, 4240), (133, 4261), (140, 4288),

Gene: Pineda_7 Start: 4845, Stop: 5600, Start Num: 47
Candidate Starts for Pineda_7:
(29, 4791), (Start: 47 @4845 has 128 MA's), (52, 4860), (63, 4929), (67, 4962), (73, 5025), (75, 5043), (80, 5073), (96, 5145), (101, 5187), (104, 5205), (122, 5268), (123, 5277), (127, 5316), (139, 5358), (150, 5430), (156, 5451), (159, 5478), (176, 5553),

Gene: PinkFriday_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for PinkFriday_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (151, 4667), (152, 4670), (185, 4814),

Gene: Pipsqueaks_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Pipsqueaks_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: PitaDog_4 Start: 4039, Stop: 4806, Start Num: 47
Candidate Starts for PitaDog_4:
(19, 3934), (20, 3937), (22, 3952), (Start: 27 @3973 has 3 MA's), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (101, 4381), (104, 4399), (121, 4483), (124, 4504), (152, 4651),

Gene: Polka_6 Start: 4684, Stop: 5439, Start Num: 47
Candidate Starts for Polka_6:
(29, 4630), (Start: 47 @4684 has 128 MA's), (52, 4699), (63, 4768), (67, 4801), (73, 4864), (75, 4882), (80, 4912), (96, 4984), (101, 5026), (104, 5044), (122, 5107), (123, 5116), (127, 5155), (139, 5197), (150, 5269), (156, 5290), (159, 5317), (176, 5392),

Gene: PondAmelia_6 Start: 4611, Stop: 5366, Start Num: 45
Candidate Starts for PondAmelia_6:
(31, 4578), (Start: 45 @4611 has 149 MA's), (57, 4665), (72, 4797), (88, 4887), (98, 4938), (101, 4965), (108, 5001), (125, 5082), (171, 5346),

Gene: Potatoes_7 Start: 6740, Stop: 7507, Start Num: 47
Candidate Starts for Potatoes_7:
(16, 6617), (19, 6635), (20, 6638), (22, 6653), (Start: 27 @6674 has 3 MA's), (Start: 47 @6740 has 128 MA's), (Start: 50 @6746 has 3 MA's), (54, 6767), (63, 6824), (66, 6854), (68, 6860), (72, 6914), (75, 6938), (80, 6968), (87, 7001), (101, 7082), (104, 7100), (121, 7184), (124, 7205), (152, 7352),

Gene: PrairieDogTown_6 Start: 5098, Stop: 5856, Start Num: 43
Candidate Starts for PrairieDogTown_6:
(Start: 43 @5098 has 17 MA's), (82, 5341), (93, 5386),

Gene: Preamble_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for Preamble_4:
(16, 3925), (19, 3943), (20, 3946), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (93, 4330), (101, 4390), (104, 4408), (124, 4513), (151, 4657), (152, 4660),

Gene: Pterodactyl_4 Start: 4039, Stop: 4806, Start Num: 47
Candidate Starts for Pterodactyl_4:
(12, 3898), (16, 3916), (19, 3934), (20, 3937), (22, 3952), (Start: 27 @3973 has 3 MA's), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (101, 4381), (104, 4399), (121, 4483), (124, 4504), (152, 4651),

Gene: Pumancara_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Pumancara_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (152, 4670), (185, 4814),

Gene: Puppers_4 Start: 3441, Stop: 4391, Start Num: 45
Candidate Starts for Puppers_4:
(36, 3408), (39, 3426), (Start: 45 @3441 has 149 MA's), (60, 3510), (64, 3540), (67, 3561), (75, 3654), (78, 3669), (80, 3684), (83, 3696), (94, 3747), (105, 3816), (125, 3900), (136, 3963), (146, 4035), (176, 4218),

Gene: Purgamenstris_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Purgamenstris_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: QMacho_6 Start: 4823, Stop: 5575, Start Num: 45
Candidate Starts for QMacho_6:
(31, 4790), (Start: 45 @4823 has 149 MA's), (51, 4838), (67, 4952), (72, 5009), (83, 5075), (98, 5150), (101, 5177), (117, 5249), (125, 5294), (171, 5555),

Gene: Quenya_6 Start: 4534, Stop: 5280, Start Num: 45
Candidate Starts for Quenya_6:
(16, 4420), (22, 4456), (Start: 45 @4534 has 149 MA's), (57, 4588), (66, 4660), (76, 4747), (83, 4786), (98, 4861), (101, 4888), (108, 4924), (121, 4966), (123, 4981), (124, 4987), (125, 4990),

Gene: RAP15_7 Start: 6746, Stop: 7513, Start Num: 47
Candidate Starts for RAP15_7:
(19, 6641), (20, 6644), (22, 6659), (Start: 27 @6680 has 3 MA's), (Start: 47 @6746 has 128 MA's), (Start: 50 @6752 has 3 MA's), (54, 6773), (63, 6830), (66, 6860), (68, 6866), (72, 6920), (75, 6944),

(80, 6974), (87, 7007), (101, 7088), (104, 7106), (121, 7190), (124, 7211), (152, 7358),

Gene: Rattail_5 Start: 4328, Stop: 5080, Start Num: 47
Candidate Starts for Rattail_5:
(Start: 47 @4328 has 128 MA's), (63, 4412), (67, 4445), (75, 4526), (101, 4670), (104, 4688), (124, 4766), (125, 4769), (150, 4913), (156, 4934), (170, 5018), (176, 5036),

Gene: Raymond7_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Raymond7_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: RcigaStruga_7 Start: 6702, Stop: 7475, Start Num: 47
Candidate Starts for RcigaStruga_7:
(16, 6579), (Start: 27 @6636 has 3 MA's), (Start: 47 @6702 has 128 MA's), (Start: 50 @6708 has 3 MA's), (54, 6729), (75, 6900), (80, 6930), (87, 6963), (101, 7044), (124, 7173), (150, 7314), (152, 7320),

Gene: Rebel_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Rebel_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: RedFox_5 Start: 4280, Stop: 5032, Start Num: 47
Candidate Starts for RedFox_5:
(9, 4103), (10, 4121), (11, 4133), (14, 4151), (25, 4208), (Start: 47 @4280 has 128 MA's), (63, 4364), (67, 4397), (73, 4460), (75, 4478), (101, 4622), (124, 4718), (125, 4721), (150, 4865), (156, 4886), (170, 4970), (176, 4988),

Gene: Redi_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Redi_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Renna12_6 Start: 4477, Stop: 5226, Start Num: 47
Candidate Starts for Renna12_6:
(Start: 47 @4477 has 128 MA's), (56, 4519), (63, 4561), (67, 4594), (75, 4675), (101, 4819), (104, 4837), (124, 4915), (125, 4918), (128, 4951), (139, 4990), (170, 5164), (176, 5182),

Gene: Reyja_6 Start: 3771, Stop: 4571, Start Num: 45
Candidate Starts for Reyja_6:
(Start: 45 @3771 has 149 MA's), (Start: 49 @3777 has 2 MA's), (63, 3858), (68, 3894), (75, 3972), (88, 4038), (90, 4044), (96, 4074), (97, 4080), (101, 4116), (123, 4230), (140, 4347), (141, 4350), (144, 4374), (150, 4404), (178, 4521),

Gene: Riovina_4 Start: 4059, Stop: 4832, Start Num: 47
Candidate Starts for Riovina_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (121, 4503), (124, 4524), (152, 4671), (185, 4815),

Gene: Riverdale_7 Start: 6677, Stop: 7444, Start Num: 47
Candidate Starts for Riverdale_7:
(19, 6572), (20, 6575), (22, 6590), (Start: 27 @6611 has 3 MA's), (Start: 47 @6677 has 128 MA's), (Start: 50 @6683 has 3 MA's), (54, 6704), (63, 6761), (66, 6791), (68, 6797), (72, 6851), (75, 6875), (80, 6905), (87, 6938), (101, 7019), (104, 7037), (121, 7121), (124, 7142), (152, 7289),

Gene: Rollins_4 Start: 4290, Stop: 5030, Start Num: 45
Candidate Starts for Rollins_4:
(Start: 45 @4290 has 149 MA's), (66, 4416), (71, 4473), (76, 4503), (82, 4539), (83, 4542), (88, 4566), (91, 4575), (98, 4617), (101, 4644), (108, 4680), (121, 4722), (123, 4737), (171, 5010),

Gene: Rona_5 Start: 4605, Stop: 5360, Start Num: 45
Candidate Starts for Rona_5:
(Start: 45 @4605 has 149 MA's), (57, 4659), (66, 4731), (83, 4857), (88, 4881), (98, 4932), (101, 4959), (111, 5001), (117, 5028), (125, 5073), (127, 5103),

Gene: RootBeer_5 Start: 3756, Stop: 4487, Start Num: 49
Candidate Starts for RootBeer_5:
(Start: 49 @3756 has 2 MA's), (55, 3786), (97, 4062), (99, 4074), (103, 4113), (118, 4164), (142, 4317),

Gene: Rooter_4 Start: 3782, Stop: 4582, Start Num: 45
Candidate Starts for Rooter_4:
(31, 3740), (Start: 45 @3782 has 149 MA's), (51, 3797), (54, 3812), (67, 3905), (75, 3986), (97, 4094), (99, 4106), (122, 4214), (125, 4232), (127, 4262), (128, 4265), (129, 4271), (130, 4280), (140, 4319), (167, 4481),

Gene: Rozby_7 Start: 6677, Stop: 7444, Start Num: 47
Candidate Starts for Rozby_7:
(19, 6572), (20, 6575), (22, 6590), (Start: 27 @6611 has 3 MA's), (Start: 47 @6677 has 128 MA's), (Start: 50 @6683 has 3 MA's), (54, 6704), (63, 6761), (66, 6791), (68, 6797), (72, 6851), (75, 6875), (80, 6905), (87, 6938), (101, 7019), (104, 7037), (121, 7121), (124, 7142), (152, 7289),

Gene: Rubeelu_5 Start: 3535, Stop: 4341, Start Num: 45
Candidate Starts for Rubeelu_5:
(Start: 43 @3532 has 17 MA's), (Start: 45 @3535 has 149 MA's), (73, 3715), (75, 3733), (90, 3805), (98, 3850), (101, 3877), (104, 3895), (130, 4054), (140, 4102), (158, 4195),

Gene: Ruchi_6 Start: 4924, Stop: 5682, Start Num: 41
Candidate Starts for Ruchi_6:
(Start: 41 @4924 has 18 MA's), (53, 4951), (63, 5014), (64, 5026), (72, 5104), (73, 5110), (75, 5128), (101, 5272), (104, 5290), (114, 5323), (123, 5362), (124, 5368), (125, 5371), (150, 5515), (176, 5638),

Gene: SanaSana_6 Start: 4611, Stop: 5366, Start Num: 45
Candidate Starts for SanaSana_6:
(31, 4578), (Start: 45 @4611 has 149 MA's), (57, 4665), (72, 4797), (82, 4860), (88, 4887), (98, 4938), (101, 4965), (108, 5001), (111, 5007), (125, 5082), (171, 5346),

Gene: SansAfet_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for SansAfet_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: Santhid_5 Start: 3651, Stop: 4451, Start Num: 45
Candidate Starts for Santhid_5:
(Start: 45 @3651 has 149 MA's), (Start: 49 @3657 has 2 MA's), (63, 3738), (67, 3771), (68, 3774), (75, 3852), (88, 3918), (90, 3924), (96, 3954), (97, 3960), (101, 3996), (123, 4110), (140, 4227), (144, 4254), (150, 4284), (178, 4401), (187, 4446),

Gene: Sapo_3 Start: 3129, Stop: 3881, Start Num: 46
Candidate Starts for Sapo_3:
(Start: 46 @3129 has 3 MA's), (63, 3216), (67, 3249), (80, 3366), (99, 3456), (125, 3600), (126, 3606), (129, 3639), (144, 3702), (173, 3843), (177, 3858),

Gene: SarBear_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for SarBear_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Sarge_5 Start: 4000, Stop: 4755, Start Num: 45
Candidate Starts for Sarge_5:
(Start: 45 @4000 has 149 MA's), (51, 4015), (54, 4030), (61, 4072), (67, 4123), (72, 4180), (75, 4204), (81, 4237), (82, 4243), (97, 4312), (108, 4384), (125, 4450), (133, 4510),

Gene: Savage2526_7 Start: 6740, Stop: 7507, Start Num: 47
Candidate Starts for Savage2526_7:
(19, 6635), (20, 6638), (22, 6653), (Start: 27 @6674 has 3 MA's), (Start: 47 @6740 has 128 MA's), (Start: 50 @6746 has 3 MA's), (54, 6767), (63, 6824), (66, 6854), (68, 6860), (72, 6914), (75, 6938), (80, 6968), (87, 7001), (101, 7082), (104, 7100), (121, 7184), (124, 7205), (152, 7352),

Gene: Schmidt_7 Start: 4845, Stop: 5636, Start Num: 45
Candidate Starts for Schmidt_7:
(Start: 45 @4845 has 149 MA's), (54, 4875), (66, 4962), (67, 4965), (79, 5067), (80, 5076), (90, 5118), (92, 5124), (93, 5130), (97, 5154), (101, 5190), (102, 5199), (107, 5223), (113, 5235), (121, 5289), (124, 5310),

Gene: Schnauzer_5 Start: 3535, Stop: 4344, Start Num: 43
Candidate Starts for Schnauzer_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Scitech_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Scitech_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Scotia_7 Start: 6150, Stop: 6911, Start Num: 48
Candidate Starts for Scotia_7:
(3, 5892), (6, 5922), (Start: 27 @6081 has 3 MA's), (Start: 48 @6150 has 2 MA's), (55, 6180), (70, 6306), (72, 6324), (74, 6333), (78, 6363), (93, 6432), (99, 6468), (103, 6507), (118, 6567), (129, 6645), (142, 6732),

Gene: Scuttle_7 Start: 6746, Stop: 7513, Start Num: 47
Candidate Starts for Scuttle_7:

(19, 6641), (20, 6644), (22, 6659), (Start: 27 @6680 has 3 MA's), (Start: 47 @6746 has 128 MA's), (Start: 50 @6752 has 3 MA's), (54, 6773), (63, 6830), (66, 6860), (68, 6866), (72, 6920), (75, 6944), (80, 6974), (87, 7007), (101, 7088), (104, 7106), (121, 7190), (124, 7211), (152, 7358),

Gene: Sergei_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Sergei_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (141, 4610), (152, 4670), (185, 4814),

Gene: Shambre1_6 Start: 5256, Stop: 6029, Start Num: 49
Candidate Starts for Shambre1_6:
(Start: 49 @5256 has 2 MA's), (88, 5532), (97, 5574), (99, 5586), (118, 5682), (129, 5760), (140, 5817), (145, 5853), (153, 5886), (172, 6000), (179, 6021),

Gene: Sharkboy_5 Start: 4604, Stop: 5359, Start Num: 45
Candidate Starts for Sharkboy_5:
(Start: 45 @4604 has 149 MA's), (57, 4658), (66, 4730), (83, 4856), (88, 4880), (98, 4931), (101, 4958), (111, 5000), (117, 5027), (125, 5072), (127, 5102),

Gene: Shayna_4 Start: 4357, Stop: 5115, Start Num: 45
Candidate Starts for Shayna_4:
(Start: 45 @4357 has 149 MA's), (51, 4372), (88, 4627), (96, 4663), (98, 4678), (101, 4705), (111, 4747), (121, 4801), (124, 4822), (127, 4855),

Gene: Shen_7 Start: 4888, Stop: 5646, Start Num: 41
Candidate Starts for Shen_7:
(Start: 41 @4888 has 18 MA's), (53, 4915), (64, 4990), (67, 5011), (72, 5068), (75, 5092), (83, 5134), (101, 5236), (104, 5254), (119, 5302), (123, 5326), (124, 5332), (125, 5335), (139, 5407), (150, 5479), (176, 5602),

Gene: Shoya_4 Start: 3781, Stop: 4581, Start Num: 45
Candidate Starts for Shoya_4:
(Start: 45 @3781 has 149 MA's), (51, 3796), (54, 3811), (75, 3985), (88, 4051), (97, 4093), (98, 4102), (101, 4129), (121, 4207), (125, 4231), (127, 4261), (128, 4264), (129, 4270), (130, 4279), (140, 4318), (167, 4480),

Gene: ShrimpFriedEgg_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for ShrimpFriedEgg_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215), (178, 4317),

Gene: Shweta_5 Start: 3549, Stop: 4361, Start Num: 43
Candidate Starts for Shweta_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Silvafighter_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Silvafighter_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178,

4300),

Gene: Silvy_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Silvy_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: SirBeanington_5 Start: 4341, Stop: 5093, Start Num: 45
Candidate Starts for SirBeanington_5:
(31, 4308), (Start: 45 @4341 has 149 MA's), (51, 4356), (67, 4470), (72, 4527), (83, 4593), (98, 4668), (101, 4695), (117, 4767), (125, 4812), (171, 5073),

Gene: SkinnyPete_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for SkinnyPete_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Skylord_4 Start: 4230, Stop: 4970, Start Num: 45
Candidate Starts for Skylord_4:
(Start: 45 @4230 has 149 MA's), (66, 4356), (71, 4413), (76, 4443), (82, 4479), (83, 4482), (88, 4506), (91, 4515), (98, 4557), (101, 4584), (108, 4620), (121, 4662), (123, 4677), (171, 4950),

Gene: Slay_5 Start: 4817, Stop: 5569, Start Num: 45
Candidate Starts for Slay_5:
(31, 4784), (Start: 45 @4817 has 149 MA's), (51, 4832), (67, 4946), (72, 5003), (83, 5069), (98, 5144), (101, 5171), (117, 5243), (125, 5288), (171, 5549),

Gene: Smurph_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Smurph_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Snekmaggedon_5 Start: 3549, Stop: 4361, Start Num: 43
Candidate Starts for Snekmaggedon_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Softsoap_5 Start: 4353, Stop: 5105, Start Num: 45
Candidate Starts for Softsoap_5:
(31, 4320), (Start: 45 @4353 has 149 MA's), (51, 4368), (67, 4482), (72, 4539), (83, 4605), (98, 4680), (101, 4707), (117, 4779), (125, 4824), (171, 5085),

Gene: Solea_6 Start: 4710, Stop: 5462, Start Num: 45
Candidate Starts for Solea_6:
(31, 4677), (Start: 45 @4710 has 149 MA's), (51, 4725), (67, 4839), (71, 4893), (72, 4896), (83, 4962), (98, 5037), (101, 5064), (117, 5136), (125, 5181), (171, 5442),

Gene: Spinach_5 Start: 3555, Stop: 4361, Start Num: 47
Candidate Starts for Spinach_5:

(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Splinter_9 Start: 6360, Stop: 7160, Start Num: 45
Candidate Starts for Splinter_9:
(Start: 45 @6360 has 149 MA's), (54, 6390), (63, 6447), (71, 6534), (81, 6594), (101, 6705), (102, 6714), (105, 6726), (108, 6741), (119, 6798), (123, 6822), (129, 6870), (144, 6939), (153, 6981), (157, 7002), (183, 7140),

Gene: SpongeBob_5 Start: 3549, Stop: 4361, Start Num: 43
Candidate Starts for SpongeBob_5:
(2, 3195), (7, 3354), (Start: 43 @3549 has 17 MA's), (Start: 47 @3555 has 128 MA's), (63, 3639), (67, 3672), (73, 3735), (75, 3753), (90, 3825), (92, 3831), (101, 3897), (104, 3915), (140, 4122), (158, 4215),

Gene: Squircle_5 Start: 4616, Stop: 5383, Start Num: 45
Candidate Starts for Squircle_5:
(Start: 45 @4616 has 149 MA's), (51, 4631), (66, 4736), (96, 4934), (97, 4940), (98, 4949), (101, 4976), (111, 5018), (121, 5072), (124, 5093), (127, 5126), (129, 5135),

Gene: Stoor_5 Start: 4608, Stop: 5363, Start Num: 45
Candidate Starts for Stoor_5:
(31, 4575), (Start: 45 @4608 has 149 MA's), (57, 4662), (72, 4794), (82, 4857), (88, 4884), (98, 4935), (101, 4962), (108, 4998), (111, 5004), (125, 5079), (171, 5343),

Gene: Stromboli_5 Start: 4608, Stop: 5363, Start Num: 45
Candidate Starts for Stromboli_5:
(31, 4575), (Start: 45 @4608 has 149 MA's), (57, 4662), (72, 4794), (82, 4857), (88, 4884), (98, 4935), (101, 4962), (108, 4998), (111, 5004), (125, 5079), (171, 5343),

Gene: StuartMinion_5 Start: 4289, Stop: 5038, Start Num: 47
Candidate Starts for StuartMinion_5:
(Start: 47 @4289 has 128 MA's), (63, 4373), (67, 4406), (73, 4469), (75, 4487), (101, 4631), (104, 4649), (114, 4682), (124, 4727), (125, 4730), (132, 4787), (150, 4874), (170, 4976), (176, 4994),

Gene: SunnyD_4 Start: 4357, Stop: 5115, Start Num: 45
Candidate Starts for SunnyD_4:
(Start: 45 @4357 has 149 MA's), (51, 4372), (88, 4627), (96, 4663), (98, 4678), (101, 4705), (111, 4747), (121, 4801), (124, 4822), (127, 4855),

Gene: Supakev_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Supakev_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (152, 4670), (185, 4814),

Gene: Suppi_7 Start: 6727, Stop: 7509, Start Num: 47
Candidate Starts for Suppi_7:
(Start: 47 @6727 has 128 MA's), (Start: 50 @6733 has 3 MA's), (54, 6754), (63, 6811), (68, 6847), (72, 6901), (75, 6925), (87, 6988), (93, 7009), (101, 7069), (124, 7198), (141, 7285), (152, 7345), (185, 7492),

Gene: Swervy_5 Start: 4340, Stop: 5092, Start Num: 45

Candidate Starts for Swervy_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: TZGordon_11 Start: 6505, Stop: 7305, Start Num: 45
Candidate Starts for TZGordon_11:
(Start: 45 @6505 has 149 MA's), (54, 6535), (63, 6592), (71, 6679), (81, 6739), (90, 6778), (99, 6826), (101, 6850), (102, 6859), (105, 6871), (108, 6886), (119, 6943), (120, 6949), (123, 6967), (129, 7015), (144, 7084), (153, 7126), (183, 7285),

Gene: Tapioca_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Tapioca_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Tarzan_5 Start: 3657, Stop: 4457, Start Num: 45
Candidate Starts for Tarzan_5:
(Start: 45 @3657 has 149 MA's), (Start: 49 @3663 has 2 MA's), (63, 3744), (68, 3780), (75, 3858), (88, 3924), (90, 3930), (96, 3960), (97, 3966), (101, 4002), (123, 4116), (140, 4233), (141, 4236), (144, 4260), (150, 4290), (178, 4407),

Gene: TattModd_7 Start: 6740, Stop: 7507, Start Num: 47
Candidate Starts for TattModd_7:
(19, 6635), (20, 6638), (22, 6653), (Start: 27 @6674 has 3 MA's), (Start: 47 @6740 has 128 MA's), (Start: 50 @6746 has 3 MA's), (54, 6767), (63, 6824), (66, 6854), (68, 6860), (72, 6914), (75, 6938), (80, 6968), (87, 7001), (101, 7082), (104, 7100), (121, 7184), (124, 7205), (152, 7352),

Gene: TaylorSipht_6 Start: 4690, Stop: 5448, Start Num: 41
Candidate Starts for TaylorSipht_6:
(Start: 41 @4690 has 18 MA's), (Start: 50 @4702 has 3 MA's), (53, 4717), (63, 4780), (64, 4792), (67, 4813), (72, 4870), (73, 4876), (75, 4894), (101, 5038), (104, 5056), (114, 5089), (123, 5128), (124, 5134), (139, 5209), (150, 5281), (155, 5299), (162, 5332), (176, 5404),

Gene: Teagster_4 Start: 4360, Stop: 5118, Start Num: 45
Candidate Starts for Teagster_4:
(Start: 45 @4360 has 149 MA's), (51, 4375), (88, 4630), (96, 4666), (98, 4681), (101, 4708), (111, 4750), (121, 4804), (124, 4825), (127, 4858),

Gene: Temper16_4 Start: 4058, Stop: 4834, Start Num: 47
Candidate Starts for Temper16_4:
(Start: 47 @4058 has 128 MA's), (Start: 50 @4064 has 3 MA's), (54, 4085), (63, 4142), (66, 4172), (68, 4178), (75, 4256), (80, 4286), (101, 4400), (105, 4421), (124, 4523), (141, 4610), (152, 4670), (185, 4814),

Gene: Tessdabest_4 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Tessdabest_4:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: TinaLin_12 Start: 7124, Stop: 7924, Start Num: 45
Candidate Starts for TinaLin_12:

(Start: 45 @7124 has 149 MA's), (54, 7154), (63, 7211), (67, 7244), (79, 7346), (81, 7358), (85, 7379), (90, 7397), (99, 7445), (100, 7460), (101, 7469), (102, 7478), (108, 7505), (123, 7583), (124, 7589), (129, 7631), (148, 7721), (183, 7904),

Gene: Toad24_7 Start: 4885, Stop: 5646, Start Num: 41
Candidate Starts for Toad24_7:
(Start: 41 @4885 has 18 MA's), (53, 4915), (56, 4936), (63, 4978), (64, 4990), (67, 5011), (72, 5068), (73, 5074), (75, 5092), (101, 5236), (104, 5254), (114, 5287), (123, 5326), (124, 5332), (125, 5335), (139, 5407), (150, 5479), (155, 5497), (176, 5602),

Gene: Tortoise12_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Tortoise12_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Trine_4 Start: 3516, Stop: 4445, Start Num: 43
Candidate Starts for Trine_4:
(5, 3300), (8, 3348), (24, 3447), (Start: 43 @3516 has 17 MA's), (60, 3588), (63, 3606), (64, 3618), (75, 3720), (78, 3735), (79, 3741), (80, 3750), (99, 3837), (124, 3975), (127, 4008), (128, 4011), (132, 4035), (156, 4164), (189, 4308), (196, 4398), (197, 4401),

Gene: TukTuk_5 Start: 4340, Stop: 5092, Start Num: 45
Candidate Starts for TukTuk_5:
(31, 4307), (Start: 45 @4340 has 149 MA's), (51, 4355), (67, 4469), (72, 4526), (83, 4592), (98, 4667), (101, 4694), (117, 4766), (125, 4811), (171, 5072),

Gene: Typha_12 Start: 7815, Stop: 8768, Start Num: 33
Candidate Starts for Typha_12:
(Start: 33 @7815 has 4 MA's), (40, 7842), (65, 7965), (73, 8052), (77, 8076), (91, 8148), (95, 8172), (99, 8193), (100, 8208), (101, 8217), (123, 8328), (124, 8334), (150, 8487), (165, 8550), (170, 8586), (180, 8613), (195, 8730),

Gene: Upyo_4 Start: 3520, Stop: 4443, Start Num: 43
Candidate Starts for Upyo_4:
(23, 3442), (32, 3478), (Start: 43 @3520 has 17 MA's), (54, 3550), (60, 3604), (63, 3622), (72, 3715), (75, 3739), (78, 3754), (107, 3913), (124, 3991), (135, 4063), (145, 4138), (149, 4153), (184, 4291), (194, 4354), (197, 4396),

Gene: Urla_4 Start: 4039, Stop: 4815, Start Num: 47
Candidate Starts for Urla_4:
(19, 3934), (Start: 27 @3973 has 3 MA's), (Start: 47 @4039 has 128 MA's), (Start: 50 @4045 has 3 MA's), (54, 4066), (63, 4123), (66, 4153), (68, 4159), (75, 4237), (80, 4267), (87, 4300), (93, 4321), (98, 4354), (101, 4381), (104, 4399), (124, 4504), (151, 4648), (152, 4651),

Gene: Vallejo_7 Start: 6677, Stop: 7444, Start Num: 47
Candidate Starts for Vallejo_7:
(19, 6572), (20, 6575), (22, 6590), (Start: 27 @6611 has 3 MA's), (Start: 47 @6677 has 128 MA's), (Start: 50 @6683 has 3 MA's), (54, 6704), (63, 6761), (66, 6791), (68, 6797), (72, 6851), (75, 6875), (80, 6905), (87, 6938), (101, 7019), (104, 7037), (121, 7121), (124, 7142), (152, 7289),

Gene: Vendetta_9 Start: 6360, Stop: 7160, Start Num: 45
Candidate Starts for Vendetta_9:

(Start: 45 @6360 has 149 MA's), (54, 6390), (63, 6447), (71, 6534), (81, 6594), (101, 6705), (102, 6714), (105, 6726), (108, 6741), (119, 6798), (123, 6822), (129, 6870), (144, 6939), (153, 6981), (157, 7002), (183, 7140),

Gene: Vitas_4 Start: 4230, Stop: 4970, Start Num: 45
Candidate Starts for Vitas_4:
(Start: 45 @4230 has 149 MA's), (66, 4356), (71, 4413), (76, 4443), (82, 4479), (83, 4482), (88, 4506), (91, 4515), (98, 4557), (101, 4584), (108, 4620), (121, 4662), (123, 4677), (171, 4950),

Gene: Vulpecula_6 Start: 5007, Stop: 5765, Start Num: 41
Candidate Starts for Vulpecula_6:
(Start: 41 @5007 has 18 MA's), (53, 5034), (63, 5097), (66, 5127), (67, 5130), (72, 5187), (73, 5193), (75, 5211), (101, 5355), (104, 5373), (123, 5445), (124, 5451), (125, 5454), (150, 5598), (176, 5721), (184, 5748),

Gene: Vulture_4 Start: 4059, Stop: 4832, Start Num: 47
Candidate Starts for Vulture_4:
(Start: 47 @4059 has 128 MA's), (Start: 50 @4065 has 3 MA's), (54, 4086), (63, 4143), (66, 4173), (67, 4176), (68, 4179), (69, 4203), (75, 4257), (80, 4287), (87, 4320), (101, 4401), (121, 4503), (124, 4524), (152, 4671), (185, 4815),

Gene: WalkingDead_5 Start: 4598, Stop: 5353, Start Num: 45
Candidate Starts for WalkingDead_5:
(31, 4565), (Start: 45 @4598 has 149 MA's), (57, 4652), (72, 4784), (88, 4874), (98, 4925), (101, 4952), (108, 4988), (111, 4994), (125, 5069), (171, 5333),

Gene: Wawa_7 Start: 6716, Stop: 7483, Start Num: 47
Candidate Starts for Wawa_7:
(19, 6611), (20, 6614), (22, 6629), (Start: 27 @6650 has 3 MA's), (Start: 47 @6716 has 128 MA's), (Start: 50 @6722 has 3 MA's), (54, 6743), (63, 6800), (66, 6830), (68, 6836), (72, 6890), (75, 6914), (80, 6944), (87, 6977), (101, 7058), (104, 7076), (121, 7160), (124, 7181), (152, 7328),

Gene: Wayne_7 Start: 6773, Stop: 7555, Start Num: 47
Candidate Starts for Wayne_7:
(Start: 47 @6773 has 128 MA's), (Start: 50 @6779 has 3 MA's), (54, 6800), (63, 6857), (68, 6893), (72, 6947), (75, 6971), (87, 7034), (93, 7055), (101, 7115), (124, 7244), (141, 7331), (152, 7391), (185, 7538),

Gene: Westrich_7 Start: 4876, Stop: 5634, Start Num: 41
Candidate Starts for Westrich_7:
(Start: 41 @4876 has 18 MA's), (53, 4903), (64, 4978), (67, 4999), (72, 5056), (75, 5080), (83, 5122), (101, 5224), (104, 5242), (119, 5290), (123, 5314), (124, 5320), (125, 5323), (139, 5395), (150, 5467), (176, 5590),

Gene: Widow_4 Start: 3441, Stop: 4388, Start Num: 45
Candidate Starts for Widow_4:
(36, 3408), (39, 3426), (Start: 45 @3441 has 149 MA's), (60, 3510), (64, 3540), (67, 3561), (75, 3654), (78, 3669), (80, 3684), (83, 3696), (94, 3747), (105, 3816), (125, 3900), (136, 3963), (146, 4035), (176, 4215),

Gene: WileyE_5 Start: 4370, Stop: 5128, Start Num: 41
Candidate Starts for WileyE_5:

(Start: 41 @4370 has 18 MA's), (53, 4397), (63, 4460), (67, 4493), (72, 4550), (73, 4556), (75, 4574), (101, 4718), (104, 4736), (123, 4808), (124, 4814), (125, 4817), (150, 4961), (161, 5009), (176, 5084),

Gene: WonderBoy_4 Start: 4048, Stop: 4815, Start Num: 47
Candidate Starts for WonderBoy_4:
(12, 3907), (16, 3925), (19, 3943), (20, 3946), (22, 3961), (Start: 27 @3982 has 3 MA's), (Start: 47 @4048 has 128 MA's), (Start: 50 @4054 has 3 MA's), (54, 4075), (63, 4132), (66, 4162), (68, 4168), (75, 4246), (80, 4276), (87, 4309), (101, 4390), (104, 4408), (121, 4492), (124, 4513), (152, 4660),

Gene: WorMMAs_4 Start: 3423, Stop: 4310, Start Num: 45
Candidate Starts for WorMMAs_4:
(36, 3390), (Start: 45 @3423 has 149 MA's), (54, 3453), (60, 3492), (61, 3495), (63, 3510), (64, 3522), (75, 3624), (78, 3639), (83, 3666), (97, 3729), (99, 3741), (104, 3783), (121, 3846), (125, 3870), (137, 3939), (139, 3951), (148, 4014), (149, 4017), (176, 4131), (186, 4173), (190, 4200), (199, 4284),

Gene: Xeno_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Xeno_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Xerxes_5 Start: 3538, Stop: 4344, Start Num: 45
Candidate Starts for Xerxes_5:
(Start: 43 @3535 has 17 MA's), (Start: 45 @3538 has 149 MA's), (63, 3622), (67, 3655), (73, 3718), (74, 3721), (75, 3736), (87, 3799), (90, 3808), (101, 3880), (104, 3898), (140, 4105), (158, 4198), (178, 4300),

Gene: Zhuangyuan_7 Start: 5002, Stop: 5754, Start Num: 47
Candidate Starts for Zhuangyuan_7:
(Start: 47 @5002 has 128 MA's), (61, 5071), (63, 5086), (67, 5119), (73, 5182), (75, 5200), (96, 5302), (101, 5344), (104, 5362), (112, 5383), (124, 5440), (125, 5443), (132, 5500), (142, 5548), (176, 5710),

Gene: Zixiang_6 Start: 4670, Stop: 5428, Start Num: 41
Candidate Starts for Zixiang_6:
(Start: 41 @4670 has 18 MA's), (53, 4697), (63, 4760), (64, 4772), (67, 4793), (72, 4850), (73, 4856), (75, 4874), (80, 4904), (101, 5018), (104, 5036), (123, 5108), (124, 5114), (125, 5117), (139, 5189), (150, 5261), (155, 5279), (176, 5384),

Gene: Zorro_7 Start: 6695, Stop: 7462, Start Num: 47
Candidate Starts for Zorro_7:
(19, 6590), (20, 6593), (22, 6608), (Start: 27 @6629 has 3 MA's), (Start: 47 @6695 has 128 MA's), (Start: 50 @6701 has 3 MA's), (54, 6722), (63, 6779), (66, 6809), (68, 6815), (72, 6869), (75, 6893), (80, 6923), (87, 6956), (101, 7037), (104, 7055), (121, 7139), (124, 7160), (152, 7307),