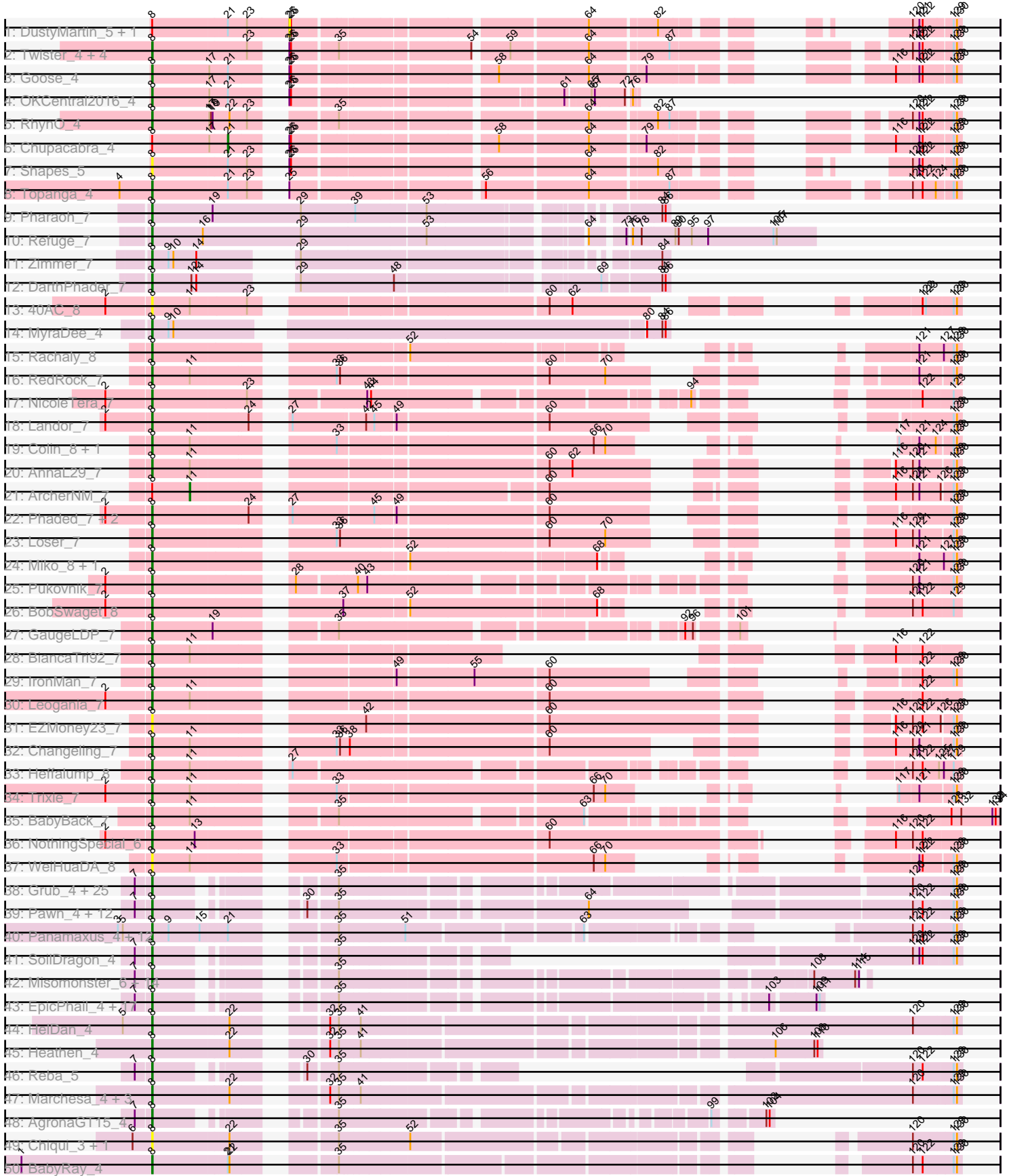
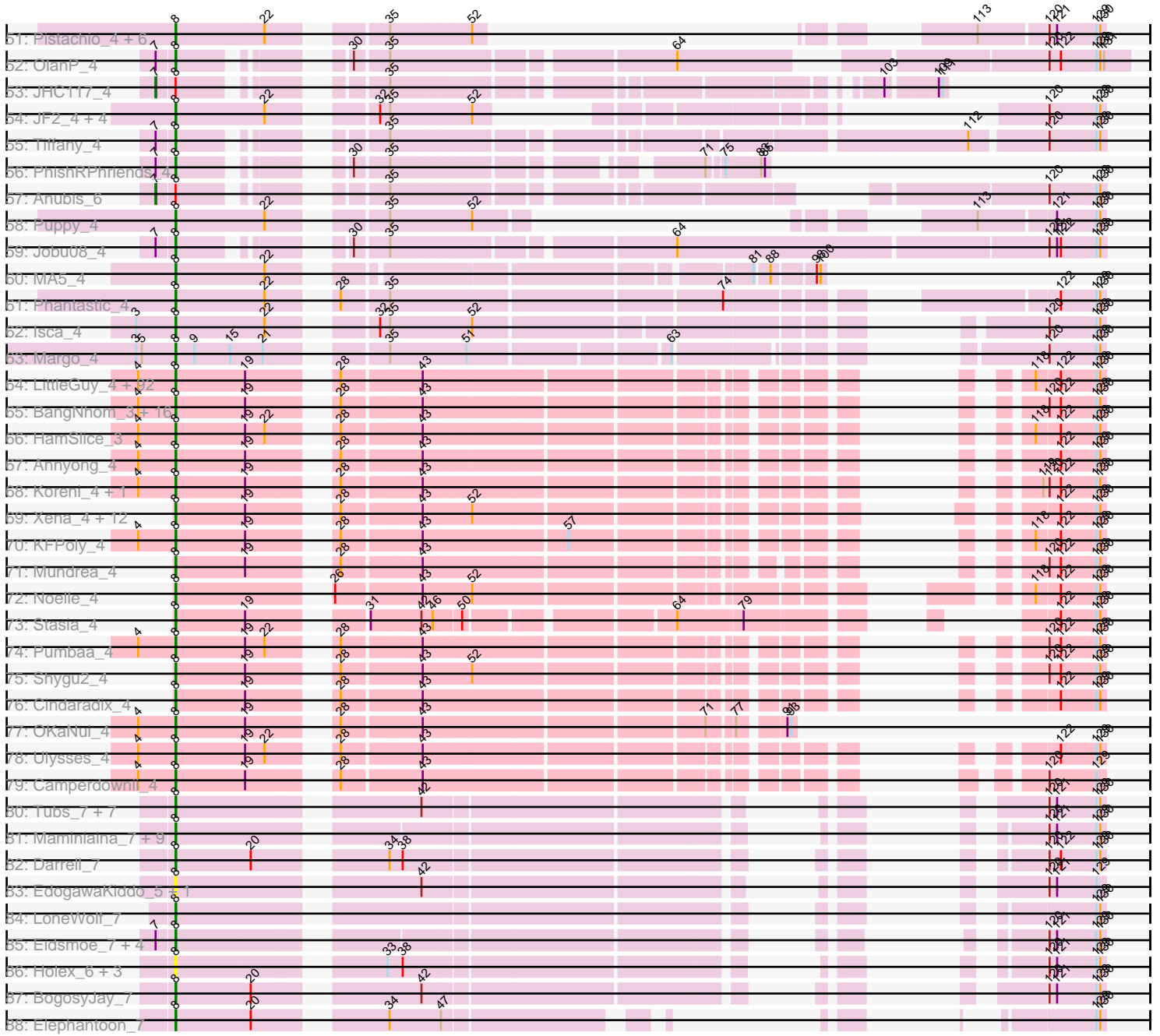


Pham 193664



Pham 193664



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 193664 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193664 has 336 members, 25 are drafts.

Phages represented in each track:

- Track 1 : DustyMartin_5, Rowdy_5
- Track 2 : Twister_4, Edison31_4, Kristoff_5, WalterMcMickey_4, Rebeuca_5
- Track 3 : Goose_4
- Track 4 : OKCentral2016_4
- Track 5 : RhynO_4
- Track 6 : Chupacabra_4
- Track 7 : Shapes_5
- Track 8 : Topanga_4
- Track 9 : Pharaoh_7
- Track 10 : Refuge_7
- Track 11 : Zimmer_7
- Track 12 : DarthPhader_7
- Track 13 : 40AC_8
- Track 14 : MyraDee_4
- Track 15 : Rachaly_8
- Track 16 : RedRock_7
- Track 17 : NicoleTera_7
- Track 18 : Landor_7
- Track 19 : Colin_8, Kalpine_7
- Track 20 : AnnaL29_7
- Track 21 : ArcherNM_7
- Track 22 : Phaded_7, Bactobuster_7, Jaan_7
- Track 23 : Loser_7
- Track 24 : Miko_8, Lokk_8
- Track 25 : Pukovnik_7
- Track 26 : BobSwaget_8
- Track 27 : GaugeLDP_7
- Track 28 : BiancaTri92_7
- Track 29 : IronMan_7
- Track 30 : Leogania_7
- Track 31 : EZMoney23_7
- Track 32 : Changeling_7
- Track 33 : Heffalump_8
- Track 34 : Trixie_7
- Track 35 : BabyBack_7
- Track 36 : NothingSpecial_6
- Track 37 : WeiHuaDA_8

- Track 38 : Grub_4, BreSam8_4, SoYo_4, Microwolf_4, Sabia_4, Watson_4, Malinsilva_6, Aglet_4, Dieselweasel_4, GingkoMaracino_4, AugsMagnumOpus_6, DaHudson_4, Stagni_4, GtownJaz_4, Lilith_4, PGHhamlin_6, MarQuardt_4, StepMih_4, MadMarie_4, Ollie_4, MuchMore_6, Farber_4, Mainiac_4, Pembroke_4, Wooldri_6, Snickers_4
- Track 39 : Pawn_4, HaveUMetTed_5, Kalb97_5, Marius_5, Kalnoky_5, Groupthink_5, Gemma_4, Phranny_5, PurpleHaze_4, Manu_5, Heliosoles_4, ACFishhook_4, JeppNRM_5
- Track 40 : Panamaxus_4, QuinnKiro_3, Todacoro_4, Popcicle_4, Pocahontas_4, Noella_4, ResDef_4, Caviar_4, Veracruz_3, Texage_3, Norbert_3, Hookmount_4, Lambert1_4
- Track 41 : SoilDragon_4
- Track 42 : Misomonster_6, LarryKay_4, Vix_4, Grif_4, Louie6_4, KADY_5, Bxz2_4, HashRod_5, Zetzy_4, BuzzBuzz_3, Phoxy_4, Spike509_4, Methuselah_4, Rummer_4, Soshari_6
- Track 43 : EpicPhail_4, P28Green_4, Fernando_4, LBerry_4, Phoebe_4, Beauxregard13_4, Taurus_4, Grum1_4, JenCasNa_4, Colbster_4, Hercules11_4, Cullens_4, LugYA_6, Sabinator_4, Penny1_4, Marie_4, PotatoSplit_5, MoneyMay_4
- Track 44 : HelDan_4
- Track 45 : Heathen_4
- Track 46 : Reba_5
- Track 47 : Marchesa_4, Kachowdy_4, Fred313_4, DropBear_4
- Track 48 : AgronaGT15_4
- Track 49 : Chiqui_3, BabyJohn_3
- Track 50 : BabyRay_4
- Track 51 : Pistachio_4, Idleandcovert_3, SaturnRing_3, BlueBird_4, Bugatti_3, TNguyen7_4, Giroux_3
- Track 52 : OlanP_4
- Track 53 : JHC117_4
- Track 54 : JF2_4, Rockstar_4, JF4_4, MK4_4, B1_03
- Track 55 : Tiffany_4
- Track 56 : PhishRPhriends_4
- Track 57 : Anubis_6
- Track 58 : Puppy_4
- Track 59 : Jobu08_4
- Track 60 : MA5_4
- Track 61 : Phantastic_4
- Track 62 : Isca_4
- Track 63 : Margo_4
- Track 64 : LittleGuy_4, Blackmoor_4, ICleared_4, Flux_4, Cocoaberry_4, Taquarus_4, Avle17_4, TiroTheta9_4, Holli_4, Polymorphads_4, Kratak_4, BellusTerra_4, Kamy_4, Medusa_4, Palestino_4, TinaFeyge_4, Sabertooth_4, Lunsford_4, Bruiser_4, Phontbonne_4, LeoAvram_4, Lorenzo_4, TroyPia_4, Nemo27_4, MeeZee_4, Commander_4, Broseidon_4, BubbleTrouble_4, Citius_4, Jaykayelowell_4, Millski_4, Clarenza_4, CentreCat_4, JetBlade_4, Lemur_4, Sparxx_4, Romney_4, Caelakin_4, Eagle_3, Iceman_4, Nebs_4, NotAPhaseMom_4, Pipcraft_4, Arturo_3, Kyee_4, Maxo_4, Bombshell_4, YoSam321_4, Shaka_4, Skipitt_4, Nyxis_4, Bartimeaus_4, Ruin_4, TygerBlood_4, Relief_4, Eris_4, JoongJeon_4, LappelDuVide_4, Eapen_4, Druantia_4, Abdiel_4, Phacado_4, Roosevelt_4, Spino_4, Eros_4, Gadost_4, Eurydice_4, Ohfah_4, Albee_4, Florean_4, Thanksgivukkah_4, Connomayer_4, Maverick_4, NorthStar_4, Scamp_4, LittleB_4, Morrow_4, Baby16_4, Felipe_4, Peaches_4, Burger_3, Deano_4, Mazhar510_4, Houdini22_4, Wizard007_4, Dhanush_4, Wilbur_4, Wander_4, Funston_4,

Kingmustik0402_4, Melvin_4, PeterPeter_4, Chaph_4

- Track 65 : BangNhom_3, ChampagnePapi_4, Iracema64_4, AvatarAhPeg_4, Tinybot_3, Obama12_4, SheldonCooper_4, Cintron_4, DirtyDunning_4, Happiness_4, Cerulean_4, Phighter1804_4, Rosa24_3, LochMonster_4, Stink_4, Miramae_4, LHTSCC_4
- Track 66 : HamSlice_3
- Track 67 : Annyong_4
- Track 68 : Koreni_4, Alberto7_4
- Track 69 : Xena_4, Wile_4, Datway_4, AbbysRanger_4, PetiteSangsue_4, Badger_4, Morpher26_4, Katalie136_4, Achebe_4, Perplexer_4, Backyardigan_4, Bumblebee11_4, Cici_4
- Track 70 : KFPoly_4
- Track 71 : Mundrea_4
- Track 72 : Noelle_4
- Track 73 : Stasia_4
- Track 74 : Pumbaa_4
- Track 75 : Shygu2_4
- Track 76 : Cindaradix_4
- Track 77 : OKaNui_4
- Track 78 : Ulysses_4
- Track 79 : Camperdownii_4
- Track 80 : Tubs_7, Phaeder_7, Catalina_7, HortumSL17_7, Lilleskat_5, Aliter_7, PackMan_7, Myxus_7
- Track 81 : Maminiaina_7, ExplosioNervosa_7, Beemo_7, Alma_7, EmyBug_7, Scherzo_7, Ugenie5_5, Pioneer_7, Phonnegut_7, Fayely_7
- Track 82 : Darrell_7
- Track 83 : EdogawaKiddo_5, Sachima_5
- Track 84 : LoneWolf_7
- Track 85 : Eidsmoe_7, Priya_7, Conquerage_7, Spouty_7, Qobbit_7
- Track 86 : Holecx_6, Hanray_6, RyeScarlet_8, Jiawan_6
- Track 87 : BogosyJay_7
- Track 88 : Elephantoon_7

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

The start number called the most often in the published annotations is 8, it was called in 307 of the 311 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 40AC_8, ACFishhook_4, AbbysRanger_4, Abdiel_4, Achebe_4, Aglet_4, AgronaGT15_4, Albee_4, Alberto7_4, Aliter_7, Alma_7, AnnaL29_7, Annyong_4, Arturo_3, AugsMagnumOpus_6, AvatarAhPeg_4, Avle17_4, B1_03, Baby16_4, BabyBack_7, BabyJohn_3, BabyRay_4, Backyardigan_4, Bactobuster_7, Badger_4, BangNhom_3, Bartimeaus_4, Beauxregard13_4, Beemo_7, BellusTerra_4, BiancaTri92_7, Blackmoor_4, BlueBird_4, BobSwaget_8, BogosyJay_7, Bombshell_4, BreSam8_4, Broseidon_4, Bruiser_4, BubbleTrouble_4, Bugatti_3, Bumblebee11_4, Burger_3, BuzzBuzz_3, Bxz2_4, Caelakin_4, Camperdownii_4, Catalina_7, Caviar_4, CentreCat_4, Cerulean_4, ChampagnePapi_4, Changeling_7, Chaph_4, Chiqui_3, Cici_4, Cindaradix_4, Cintron_4, Citius_4, Clarenza_4, Cocoaberry_4, Colbster_4, Colin_8, Commander_4, Connomayer_4, Conquerage_7,

Cullens_4, DaHudson_4, Darrell_7, DARTHPhader_7, Datway_4, Deano_4, Dhanush_4, Dieselweasel_4, DirtyDunning_4, DropBear_4, Druantia_4, EZMoney23_7, Eagle_3, Eapen_4, Edison31_4, EdogawaKiddo_5, Eidsmoe_7, Elephantoon_7, EmyBug_7, EpicPhail_4, Eris_4, Eros_4, Eurydice_4, ExplosioNervosa_7, Farber_4, Fayely_7, Fernando_4, Florean_4, Flux_4, Fred313_4, Funston_4, Gadost_4, GaugeLDP_7, Gemma_4, GinkgoMaracino_4, Giroux_3, Goose_4, Grif_4, Groupthink_5, Grub_4, Grum1_4, GtownJaz_4, HamSlice_3, Hanray_6, Happiness_4, HashRod_5, HaveUMetTed_5, Heathen_4, Heffalump_8, HelDan_4, Heliosoles_4, Hercules11_4, Horex_6, Holli_4, Hookmount_4, HortumSL17_7, Houdini22_4, ICleared_4, Iceman_4, Idleandcovert_3, Iracema64_4, IronMan_7, Isca_4, JF2_4, JF4_4, Jaan_7, Jaykayelowell_4, JenCasNa_4, JeppNRM_5, JetBlade_4, Jiawan_6, Jobu08_4, JoongJeon_4, KADY_5, KFPoly_4, Kachowdy_4, Kalb97_5, Kalnok_5, Kalpine_7, Kamy_4, Katalie136_4, Kingmustik0402_4, Koreni_4, Kratark_4, Kristoff_5, Kyee_4, LBerry_4, LHTSCC_4, Lambert1_4, Landor_7, LappelDuVide_4, LarryKay_4, Lemur_4, LeoAvram_4, Leogania_7, Lilith_4, Lilleskat_5, LittleB_4, LittleGuy_4, LochMonster_4, Lokk_8, LoneWolf_7, Lorenzo_4, Loser_7, Louie6_4, LugYA_6, Lunsford_4, MA5_4, MK4_4, MadMarie_4, Mainiac_4, Malinsilva_6, Maminiaina_7, Manu_5, MarQuardt_4, Marchesa_4, Margo_4, Marie_4, Marius_5, Maverick_4, Maxo_4, Mazhar510_4, Medusa_4, MeeZee_4, Melvin_4, Methuselah_4, Microwolf_4, Miko_8, Millski_4, Miramae_4, Misomonster_6, MoneyMay_4, Morpher26_4, Morrow_4, MuchMore_6, Mundrea_4, MyraDee_4, Myxus_7, Nebs_4, Nemo27_4, NicoleTera_7, Noella_4, Noelle_4, Norbert_3, NorthStar_4, NotAPhaseMom_4, NothingSpecial_6, Nyxis_4, OKCentral2016_4, OKaNui_4, Obama12_4, Ohfah_4, OlanP_4, Ollie_4, P28Green_4, PGHhamlin_6, PackMan_7, Palestino_4, Panamaxus_4, Pawn_4, Peaches_4, Pembroke_4, Penny1_4, Perplexer_4, PeterPeter_4, PetiteSangsue_4, Phacado_4, Phaded_7, Phaeder_7, Phantastic_4, Pharaoh_7, Phelipe_4, Phighter1804_4, PhishRPhriends_4, Phoebe_4, Phonnegut_7, Phontbonne_4, Phoxy_4, Phranny_5, Pioneer_7, Pipcraft_4, Pistachio_4, Pocahontas_4, Polymorphads_4, Popcicle_4, PotatoSplit_5, Priya_7, Pukovnik_7, Pumbaa_4, Puppy_4, PurpleHaze_4, Qobbit_7, QuinnKiro_3, Rachaly_8, Reba_5, Rebeuca_5, RedRock_7, Refuge_7, Relief_4, ResDef_4, RhynO_4, Rockstar_4, Romney_4, Roosevelt_4, Rosa24_3, Ruin_4, Rummer_4, RyeScarlet_8, Sabertooth_4, Sabia_4, Sabinator_4, Sachima_5, SaturnRing_3, Scamp_4, Scherzo_7, Shaka_4, Shapes_5, SheldonCooper_4, Shygu2_4, Skipitt_4, Snickers_4, SoYo_4, SoilDragon_4, Soshari_6, Sparxx_4, Spike509_4, Spino_4, Spouty_7, Stagni_4, Stasia_4, StepMih_4, Stink_4, TNguyen7_4, Taquarus_4, Taurus_4, Texage_3, Thanksgivukkah_4, Tiffany_4, TinaFeyge_4, Tinybot_3, TiroTheta9_4, Todacoro_4, Topanga_4, Trixie_7, TroyPia_4, Tubs_7, Twister_4, TygerBlood_4, Ugenie5_5, Ulysses_4, Veracruz_3, Vix_4, WalterMcMickey_4, Wander_4, Watson_4, WeiHuaDA_8, Wilbur_4, Wile_4, Wizard007_4, Wooldri_6, Xena_4, YoSam321_4, Zetzy_4, Zimmer_7,

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

- Anubis_6, ArcherNM_7, Chupacabra_4, DustyMartin_5, JHC117_4, Rowdy_5,

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

-

Summary by start number:

Start 7:

- Found in 86 of 336 (25.6%) of genes in pham

- Manual Annotations of this start: 2 of 311
- Called 2.3% of time when present
- Phage (with cluster) where this start called: Anubis_6 (A3), JHC117_4 (A3),

Start 8:

- Found in 336 of 336 (100.0%) of genes in pham
- Manual Annotations of this start: 307 of 311
- Called 98.2% of time when present
- Phage (with cluster) where this start called: 40AC_8 (A17), ACFishhook_4 (A3), AbbyssRanger_4 (A4), Abdiel_4 (A4), Achebe_4 (A4), Aglet_4 (A3), AgronaGT15_4 (A3), Albee_4 (A4), Alberto7_4 (A4), Aliter_7 (A9), Alma_7 (A9), AnnaL29_7 (A2), Annyong_4 (A4), Arturo_3 (A4), AugsMagnumOpus_6 (A3), AvatarAhPeg_4 (A4), Avle17_4 (A4), B1_03 (A3), Baby16_4 (A4), BabyBack_7 (A2), BabyJohn_3 (A3), BabyRay_4 (A3), Backyardigan_4 (A4), Bactobuster_7 (A2), Badger_4 (A4), BangNhom_3 (A4), Bartimeaus_4 (A4), Beauxregard13_4 (A3), Beemo_7 (A9), BellusTerra_4 (A4), BiancaTri92_7 (A2), Blackmoor_4 (A4), BlueBird_4 (A3), BobSwaget_8 (A2), BogosyJay_7 (A9), Bombshell_4 (A4), BreSam8_4 (A3), Broseidon_4 (A4), Bruiser_4 (A4), BubbleTrouble_4 (A4), Bugatti_3 (A3), Bumblebee11_4 (A4), Burger_3 (A4), BuzzBuzz_3 (A3), Bxz2_4 (A3), Caelakin_4 (A4), Camperdownii_4 (A4), Catalina_7 (A9), Caviar_4 (A3), CentreCat_4 (A4), Cerulean_4 (A4), ChampagnePapi_4 (A4), Changeling_7 (A2), Chaph_4 (A4), Chiqui_3 (A3), Cici_4 (A4), Cindaradix_4 (A4), Cintron_4 (A4), Citius_4 (A4), Clarenza_4 (A4), Cocoaberry_4 (A4), Colbster_4 (A3), Colin_8 (A2), Commander_4 (A4), Connomayer_4 (A4), Conquerage_7 (A9), Cullens_4 (A3), DaHudson_4 (A3), Darrell_7 (A9), DarthPhader_7 (A12), Datway_4 (A4), Deano_4 (A4), Dhanush_4 (A4), Dieselweasel_4 (A3), DirtyDunning_4 (A4), DropBear_4 (A3), Druantia_4 (A4), EZMoney23_7 (A2), Eagle_3 (A4), Eapen_4 (A4), Edison31_4 (A10), EdogawaKiddo_5 (A9), Eidsmoe_7 (A9), Elephantoon_7 (A9), EmyBug_7 (A9), EpicPhail_4 (A3), Eris_4 (A4), Eros_4 (A4), Eurydice_4 (A4), ExplosioNervosa_7 (A9), Farber_4 (A3), Fayely_7 (A9), Fernando_4 (A3), Florean_4 (A4), Flux_4 (A4), Fred313_4 (A3), Funston_4 (A4), Gadost_4 (A4), GaugeLDP_7 (A2), Gemma_4 (A3), GingkoMaracino_4 (A3), Giroux_3 (A3), Goose_4 (A10), Grif_4 (A3), Groupthink_5 (A3), Grub_4 (A3), Grum1_4 (A3), GtownJaz_4 (A3), HamSlice_3 (A4), Hanray_6 (A9), Happiness_4 (A4), HashRod_5 (A3), HaveUMetTed_5 (A3), Heathen_4 (A3), Heffalump_8 (A2), HelDan_4 (A3), Heliosoles_4 (A3), Hercules11_4 (A3), Horex_6 (A9), Holli_4 (A4), Hookmount_4 (A3), HortumSL17_7 (A9), Houdini22_4 (A4), ICleared_4 (A4), Iceman_4 (A4), Idleandcovert_3 (A3), Iracema64_4 (A4), IronMan_7 (A2), Isca_4 (A3), JF2_4 (A3), JF4_4 (A3), Jaan_7 (A2), Jaykayelowell_4 (A4), JenCasNa_4 (A3), JeppNRM_5 (A3), JetBlade_4 (A4), Jiawan_6 (A9), Jobu08_4 (A3), JoongJeon_4 (A4), KADY_5 (A3), KFPoly_4 (A4), Kachowdy_4 (A3), Kalb97_5 (A3), Kalnoky_5 (A3), Kalpine_7 (A2), Kampy_4 (A4), Katalie136_4 (A4), Kingmustik0402_4 (A4), Koreni_4 (A4), Kratark_4 (A4), Kristoff_5 (A10), Kyee_4 (A4), LBerry_4 (A3), LHTSCC_4 (A4), Lambert1_4 (A3), Landor_7 (A2), LappelDuVide_4 (A4), LarryKay_4 (A3), Lemur_4 (A4), LeoAvram_4 (A4), Leogania_7 (A2), Lilith_4 (A3), Lilleskat_5 (A9), LittleB_4 (A4), LittleGuy_4 (A4), LochMonster_4 (A4), Lokk_8 (A2), LoneWolf_7 (A9), Lorenzo_4 (A4), Loser_7 (A2), Louie6_4 (A3), LugYA_6 (A3), Lunsford_4 (A4), MA5_4 (A3), MK4_4 (A3), MadMarie_4 (A3), Mainiac_4 (A3), Malinsilva_6 (A3), Maminiaina_7 (A9), Manu_5 (A3), MarQuardt_4 (A3), Marchesa_4 (A3), Margo_4 (A3), Marie_4 (A3), Marius_5 (A3), Maverick_4 (A4), Maxo_4 (A4), Mazhar510_4 (A4), Medusa_4 (A4), MeeZee_4 (A4), Melvin_4 (A4), Methuselah_4 (A3), Microwolf_4 (A3), Miko_8 (A2), Millski_4 (A4), Miramae_4 (A4), Misomonster_6 (A3), MoneyMay_4 (A3), Morpher26_4 (A4), Morrow_4 (A4), MuchMore_6 (A3), Mundrea_4 (A4), MyraDee_4 (A18), Myxus_7

(A9), Nebs_4 (A4), Nemo27_4 (A4), NicoleTera_7 (A2), Noella_4 (A3), Noelle_4 (A4), Norbert_3 (A3), NorthStar_4 (A4), NotAPhaseMom_4 (A4), NothingSpecial_6 (A2), Nyxis_4 (A4), OKCentral2016_4 (A10), OKaNui_4 (A4), Obama12_4 (A4), Ohfah_4 (A4), OlanP_4 (A3), Ollie_4 (A3), P28Green_4 (A3), PGHhamlin_6 (A3), PackMan_7 (A9), Palestino_4 (A4), Panamaxus_4 (A3), Pawn_4 (A3), Peaches_4 (A4), Pembroke_4 (A3), Penny1_4 (A3), Perplexer_4 (A4), PeterPeter_4 (A4), PetiteSangsue_4 (A4), Phacado_4 (A4), Phaded_7 (A2), Phaeder_7 (A9), Phantastic_4 (A3), Pharaoh_7 (A12), Phelipe_4 (A4), Phighter1804_4 (A4), PhishRPhriends_4 (A3), Phoebe_4 (A3), Phonnegut_7 (A9), Phontbonne_4 (A4), Phoxy_4 (A3), Phranny_5 (A3), Pioneer_7 (A9), Pipcraft_4 (A4), Pistachio_4 (A3), Pocahontas_4 (A3), Polymorphads_4 (A4), Popcicle_4 (A3), PotatoSplit_5 (A3), Priya_7 (A9), Pukovnik_7 (A2), Pumbaa_4 (A4), Puppy_4 (A3), PurpleHaze_4 (A3), Qobbit_7 (A9), QuinnKiro_3 (A3), Rachaly_8 (A2), Reba_5 (A3), Rebeuca_5 (A10), RedRock_7 (A2), Refuge_7 (A12), Relief_4 (A4), ResDef_4 (A3), RhynO_4 (A10), Rockstar_4 (A3), Romney_4 (A4), Roosevelt_4 (A4), Rosa24_3 (A4), Ruin_4 (A4), Rummer_4 (A3), RyeScarlet_8 (A9), Sabertooth_4 (A4), Sabia_4 (A3), Sabinator_4 (A3), Sachima_5 (A9), SaturnRing_3 (A3), Scamp_4 (A4), Scherzo_7 (A9), Shaka_4 (A4), Shapes_5 (A10), SheldonCooper_4 (A4), Shygu2_4 (A4), Skipitt_4 (A4), Snickers_4 (A3), SoYo_4 (A3), SoilDragon_4 (A3), Soshari_6 (A3), Sparxx_4 (A4), Spike509_4 (A3), Spino_4 (A4), Spouty_7 (A9), Stagni_4 (A3), Stasia_4 (A4), StepMih_4 (A3), Stink_4 (A4), TNguyen7_4 (A3), Taquarus_4 (A4), Taurus_4 (A3), Texage_3 (A3), Thanksgivukkah_4 (A4), Tiffany_4 (A3), TinaFeyge_4 (A4), Tinybot_3 (A4), TiroTheta9_4 (A4), Todacoro_4 (A3), Topanga_4 (A10), Trixie_7 (A2), TroyPia_4 (A4), Tubs_7 (A9), Twister_4 (A10), TygerBlood_4 (A4), Ugenie5_5 (A9), Ulysses_4 (A4), Veracruz_3 (A3), Vix_4 (A3), WalterMcMickey_4 (A10), Wander_4 (A4), Watson_4 (A3), WeiHuaDA_8 (A2), Wilbur_4 (A4), Wile_4 (A4), Wizard007_4 (A4), Wooldri_6 (A3), Xena_4 (A4), YoSam321_4 (A4), Zetzy_4 (A3), Zimmer_7 (A12),

Start 11:

- Found in 13 of 336 (3.9%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 7.7% of time when present
- Phage (with cluster) where this start called: ArcherNM_7 (A2),

Start 21:

- Found in 22 of 336 (6.5%) of genes in pham
- Manual Annotations of this start: 1 of 311
- Called 4.5% of time when present
- Phage (with cluster) where this start called: Chupacabra_4 (A10),

Start 25:

- Found in 12 of 336 (3.6%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: DustyMartin_5 (A10), Rowdy_5 (A10),

Summary by clusters:

There are 8 clusters represented in this pham: A17, A10, A12, A18, A3, A2, A4, A9,

Info for manual annotations of cluster A10:

- Start number 8 was manually annotated 9 times for cluster A10.

- Start number 21 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A12:

- Start number 8 was manually annotated 4 times for cluster A12.

Info for manual annotations of cluster A18:

- Start number 8 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 8 was manually annotated 23 times for cluster A2.
- Start number 11 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A3:

- Start number 7 was manually annotated 2 times for cluster A3.
- Start number 8 was manually annotated 108 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 8 was manually annotated 136 times for cluster A4.

Info for manual annotations of cluster A9:

- Start number 8 was manually annotated 26 times for cluster A9.

Gene Information:

Gene: 40AC_8 Start: 4152, Stop: 5285, Start Num: 8

Candidate Starts for 40AC_8:

(2, 4071), (Start: 8 @4152 has 307 MA's), (Start: 11 @4221 has 1 MA's), (23, 4320), (60, 4791), (62, 4833), (122, 5217), (123, 5223), (129, 5271), (130, 5277),

Gene: ACFishhook_4 Start: 1685, Stop: 2965, Start Num: 8

Candidate Starts for ACFishhook_4:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2879), (122, 2897), (129, 2951), (130, 2957),

Gene: AbbysRanger_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for AbbysRanger_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Abdiel_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Abdiel_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Achebe_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Achebe_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Aglet_4 Start: 1681, Stop: 2895, Start Num: 8

Candidate Starts for Aglet_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2809), (129, 2881), (130, 2887),

Gene: AgronaGT15_4 Start: 1682, Stop: 2536, Start Num: 8

Candidate Starts for AgronaGT15_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (99, 2450), (102, 2522), (104, 2528),

Gene: Albee_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Albee_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Alberto7_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for Alberto7_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (119, 2624), (120, 2630), (122, 2648), (129, 2705), (130, 2711),

Gene: Aliter_7 Start: 4192, Stop: 5163, Start Num: 8

Candidate Starts for Aliter_7:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5080), (121, 5092), (129, 5149), (130, 5155),

Gene: Alma_7 Start: 4190, Stop: 5221, Start Num: 8

Candidate Starts for Alma_7:

(Start: 8 @4190 has 307 MA's), (120, 5138), (121, 5150), (129, 5207), (130, 5213),

Gene: AnnaL29_7 Start: 4133, Stop: 5236, Start Num: 8

Candidate Starts for AnnaL29_7:

(Start: 8 @4133 has 307 MA's), (Start: 11 @4202 has 1 MA's), (60, 4772), (62, 4814), (116, 5126), (120, 5153), (121, 5165), (129, 5222), (130, 5228),

Gene: Annyong_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for Annyong_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (122, 2648), (129, 2705), (130, 2711),

Gene: Anubis_6 Start: 1654, Stop: 2805, Start Num: 7

Candidate Starts for Anubis_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2719), (129, 2791), (130, 2797),

Gene: ArcherNM_7 Start: 4221, Stop: 5246, Start Num: 11

Candidate Starts for ArcherNM_7:

(Start: 8 @4152 has 307 MA's), (Start: 11 @4221 has 1 MA's), (60, 4782), (116, 5136), (120, 5163), (121, 5175), (126, 5214), (129, 5232), (130, 5238),

Gene: Arturo_3 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Arturo_3:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: AugsMagnumOpus_6 Start: 1681, Stop: 2886, Start Num: 8

Candidate Starts for AugsMagnumOpus_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872), (130, 2878),

Gene: AvatarAhPeg_4 Start: 1638, Stop: 2714, Start Num: 8

Candidate Starts for AvatarAhPeg_4:

(4, 1578), (Start: 8 @1638 has 307 MA's), (19, 1746), (28, 1842), (43, 1956), (120, 2625), (122, 2643), (129, 2700), (130, 2706),

Gene: Avle17_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Avle17_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: B1_03 Start: 1608, Stop: 2510, Start Num: 8

Candidate Starts for B1_03:

(Start: 8 @1608 has 307 MA's), (22, 1743), (32, 1866), (35, 1881), (52, 1995), (120, 2424), (129, 2496), (130, 2502),

Gene: Baby16_4 Start: 1645, Stop: 2727, Start Num: 8

Candidate Starts for Baby16_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2620), (122, 2656), (129, 2713), (130, 2719),

Gene: BabyBack_7 Start: 3957, Stop: 5108, Start Num: 8

Candidate Starts for BabyBack_7:

(Start: 8 @3957 has 307 MA's), (Start: 11 @4026 has 1 MA's), (35, 4233), (63, 4629), (128, 5019), (132, 5037), (133, 5094), (134, 5100),

Gene: BabyJohn_3 Start: 1627, Stop: 2763, Start Num: 8

Candidate Starts for BabyJohn_3:

(6, 1591), (Start: 8 @1627 has 307 MA's), (22, 1762), (35, 1900), (52, 2014), (120, 2677), (129, 2749), (130, 2755),

Gene: BabyRay_4 Start: 1650, Stop: 2777, Start Num: 8

Candidate Starts for BabyRay_4:

(1, 1410), (Start: 8 @1650 has 307 MA's), (Start: 21 @1782 has 1 MA's), (22, 1785), (35, 1923), (120, 2691), (122, 2709), (129, 2763), (130, 2769),

Gene: Backyardigan_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Backyardigan_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Bactobuster_7 Start: 3964, Stop: 5064, Start Num: 8

Candidate Starts for Bactobuster_7:

(2, 3883), (Start: 8 @3964 has 307 MA's), (24, 4135), (27, 4165), (45, 4306), (49, 4339), (60, 4603), (129, 5050), (130, 5056),

Gene: Badger_4 Start: 1645, Stop: 2730, Start Num: 8

Candidate Starts for Badger_4:

(Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (52, 2035), (122, 2659), (129, 2716), (130, 2722),

Gene: BangNhom_3 Start: 1642, Stop: 2718, Start Num: 8

Candidate Starts for BangNhom_3:

(4, 1582), (Start: 8 @1642 has 307 MA's), (19, 1750), (28, 1846), (43, 1960), (120, 2629), (122, 2647), (129, 2704), (130, 2710),

Gene: Bartimeaus_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Bartimeaus_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Beauxregard13_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Beauxregard13_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Beemo_7 Start: 4193, Stop: 5224, Start Num: 8

Candidate Starts for Beemo_7:

(Start: 8 @4193 has 307 MA's), (120, 5141), (121, 5153), (129, 5210), (130, 5216),

Gene: BellusTerra_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for BellusTerra_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: BiancaTri92_7 Start: 4180, Stop: 5040, Start Num: 8

Candidate Starts for BiancaTri92_7:

(Start: 8 @4180 has 307 MA's), (Start: 11 @4249 has 1 MA's), (116, 4927), (122, 4972),

Gene: Blackmoor_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Blackmoor_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: BlueBird_4 Start: 1612, Stop: 2826, Start Num: 8

Candidate Starts for BlueBird_4:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2641), (120, 2743), (121, 2755), (129, 2812), (130, 2818),

Gene: BobSwaget_8 Start: 4394, Stop: 5380, Start Num: 8

Candidate Starts for BobSwaget_8:

(2, 4313), (Start: 8 @4394 has 307 MA's), (37, 4688), (52, 4793), (68, 5111), (120, 5294), (122, 5312), (129, 5366),

Gene: BogosyJay_7 Start: 3953, Stop: 5005, Start Num: 8

Candidate Starts for BogosyJay_7:

(Start: 8 @3953 has 307 MA's), (20, 4070), (42, 4286), (120, 4922), (121, 4934), (129, 4991), (130, 4997),

Gene: Bombshell_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Bombshell_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: BreSam8_4 Start: 1682, Stop: 2887, Start Num: 8

Candidate Starts for BreSam8_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873), (130, 2879),

Gene: Broseidon_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Broseidon_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Bruiser_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Bruiser_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: BubbleTrouble_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for BubbleTrouble_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Bugatti_3 Start: 1612, Stop: 2826, Start Num: 8

Candidate Starts for Bugatti_3:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2641), (120, 2743), (121, 2755), (129, 2812), (130, 2818),

Gene: Bumblebee11_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Bumblebee11_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Burger_3 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Burger_3:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: BuzzBuzz_3 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for BuzzBuzz_3:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: Bxz2_4 Start: 1692, Stop: 2726, Start Num: 8

Candidate Starts for Bxz2_4:

(Start: 7 @1665 has 2 MA's), (Start: 8 @1692 has 307 MA's), (35, 1920), (108, 2640), (114, 2712), (115, 2718),

Gene: Caelakin_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Caelakin_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Camperdownii_4 Start: 1646, Stop: 2725, Start Num: 8

Candidate Starts for Camperdownii_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (120, 2639), (129, 2711),

Gene: Catalina_7 Start: 4193, Stop: 5236, Start Num: 8

Candidate Starts for Catalina_7:

(Start: 8 @4193 has 307 MA's), (42, 4526), (120, 5153), (121, 5165), (129, 5222), (130, 5228),

Gene: Caviar_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Caviar_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: CentreCat_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for CentreCat_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648), (129, 2705), (130, 2711),

Gene: Cerulean_4 Start: 1643, Stop: 2719, Start Num: 8

Candidate Starts for Cerulean_4:

(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (28, 1847), (43, 1961), (120, 2630), (122, 2648), (129, 2705), (130, 2711),

Gene: ChampagnePapi_4 Start: 1642, Stop: 2718, Start Num: 8

Candidate Starts for ChampagnePapi_4:

(4, 1582), (Start: 8 @1642 has 307 MA's), (19, 1750), (28, 1846), (43, 1960), (120, 2629), (122, 2647), (129, 2704), (130, 2710),

Gene: Changeling_7 Start: 4153, Stop: 5271, Start Num: 8

Candidate Starts for Changeling_7:

(Start: 8 @4153 has 307 MA's), (Start: 11 @4222 has 1 MA's), (33, 4435), (36, 4441), (38, 4456), (60, 4798), (116, 5161), (120, 5188), (121, 5200), (129, 5257), (130, 5263),

Gene: Chaph_4 Start: 1645, Stop: 2727, Start Num: 8

Candidate Starts for Chaph_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2620), (122, 2656), (129, 2713), (130, 2719),

Gene: Chiqui_3 Start: 1627, Stop: 2763, Start Num: 8

Candidate Starts for Chiqui_3:

(6, 1591), (Start: 8 @1627 has 307 MA's), (22, 1762), (35, 1900), (52, 2014), (120, 2677), (129, 2749), (130, 2755),

Gene: Chupacabra_4 Start: 1765, Stop: 2814, Start Num: 21

Candidate Starts for Chupacabra_4:

(Start: 8 @1633 has 307 MA's), (17, 1735), (Start: 21 @1765 has 1 MA's), (25, 1825), (26, 1828), (58, 2158), (64, 2314), (79, 2407), (116, 2704), (121, 2743), (122, 2749), (129, 2800), (130, 2806),

Gene: Cici_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Cici_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Cindaradix_4 Start: 1642, Stop: 2718, Start Num: 8

Candidate Starts for Cindaradix_4:

(Start: 8 @1642 has 307 MA's), (19, 1750), (28, 1846), (43, 1960), (122, 2647), (129, 2704), (130, 2710),

Gene: Cintron_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Cintron_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (120, 2629), (122, 2647), (129, 2704), (130, 2710),

Gene: Citius_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Citius_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Clarenza_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Clarenza_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Cocoaberry_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Cocoaberry_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Colbster_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Colbster_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Colin_8 Start: 4293, Stop: 5243, Start Num: 8

Candidate Starts for Colin_8:

(Start: 8 @4293 has 307 MA's), (Start: 11 @4362 has 1 MA's), (33, 4575), (66, 5013), (70, 5034), (117, 5139), (121, 5172), (124, 5202), (129, 5229), (130, 5235),

Gene: Commander_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Commander_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Connomayer_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Connomayer_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Conquerage_7 Start: 4189, Stop: 5220, Start Num: 8

Candidate Starts for Conquerage_7:

(Start: 7 @4162 has 2 MA's), (Start: 8 @4189 has 307 MA's), (120, 5137), (121, 5149), (129, 5206), (130, 5212),

Gene: Cullens_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Cullens_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: DaHudson_4 Start: 1681, Stop: 2886, Start Num: 8
Candidate Starts for DaHudson_4:
(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872),
(130, 2878),

Gene: Darrell_7 Start: 4069, Stop: 5115, Start Num: 8
Candidate Starts for Darrell_7:
(Start: 8 @4069 has 307 MA's), (20, 4186), (34, 4354), (38, 4372), (120, 5029), (122, 5047), (129,
5101), (130, 5107),

Gene: DARTHPhader_7 Start: 4505, Stop: 5314, Start Num: 8
Candidate Starts for DARTHPhader_7:
(Start: 8 @4505 has 307 MA's), (12, 4577), (14, 4586), (29, 4697), (48, 4865), (69, 5201), (84, 5300),
(86, 5306),

Gene: Datway_4 Start: 1644, Stop: 2729, Start Num: 8
Candidate Starts for Datway_4:
(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129,
2715), (130, 2721),

Gene: Deano_4 Start: 1645, Stop: 2718, Start Num: 8
Candidate Starts for Deano_4:
(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647),
(129, 2704), (130, 2710),

Gene: Dhanush_4 Start: 1644, Stop: 2717, Start Num: 8
Candidate Starts for Dhanush_4:
(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646),
(129, 2703), (130, 2709),

Gene: Dieselweasel_4 Start: 1681, Stop: 2895, Start Num: 8
Candidate Starts for Dieselweasel_4:
(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2809), (129, 2881),
(130, 2887),

Gene: DirtyDunning_4 Start: 1643, Stop: 2716, Start Num: 8
Candidate Starts for DirtyDunning_4:
(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (28, 1847), (43, 1961), (120, 2627), (122, 2645),
(129, 2702), (130, 2708),

Gene: DropBear_4 Start: 1605, Stop: 2909, Start Num: 8
Candidate Starts for DropBear_4:
(Start: 8 @1605 has 307 MA's), (22, 1740), (32, 1863), (35, 1878), (41, 1911), (120, 2826), (129,
2895), (130, 2901),

Gene: Druantia_4 Start: 1646, Stop: 2719, Start Num: 8
Candidate Starts for Druantia_4:
(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648),
(129, 2705), (130, 2711),

Gene: DustyMartin_5 Start: 1860, Stop: 2750, Start Num: 25
Candidate Starts for DustyMartin_5:

(Start: 8 @1668 has 307 MA's), (Start: 21 @1800 has 1 MA's), (23, 1833), (25, 1860), (26, 1863), (64, 2349), (82, 2463), (120, 2667), (121, 2679), (122, 2685), (129, 2736), (130, 2742),

Gene: EZMoney23_7 Start: 4151, Stop: 5341, Start Num: 8

Candidate Starts for EZMoney23_7:

(Start: 8 @4151 has 307 MA's), (42, 4484), (60, 4796), (116, 5231), (120, 5258), (122, 5276), (126, 5309), (129, 5327), (130, 5333),

Gene: Eagle_3 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Eagle_3:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Eapen_4 Start: 1647, Stop: 2720, Start Num: 8

Candidate Starts for Eapen_4:

(4, 1587), (Start: 8 @1647 has 307 MA's), (19, 1755), (28, 1851), (43, 1965), (118, 2613), (122, 2649), (129, 2706), (130, 2712),

Gene: Edison31_4 Start: 1662, Stop: 2834, Start Num: 8

Candidate Starts for Edison31_4:

(Start: 8 @1662 has 307 MA's), (23, 1827), (25, 1854), (26, 1857), (35, 1935), (54, 2154), (59, 2208), (64, 2343), (87, 2478), (120, 2751), (121, 2763), (122, 2769), (129, 2820), (130, 2826),

Gene: EdogawaKiddo_5 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for EdogawaKiddo_5:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221),

Gene: Eidsmoe_7 Start: 4189, Stop: 5220, Start Num: 8

Candidate Starts for Eidsmoe_7:

(Start: 7 @4162 has 2 MA's), (Start: 8 @4189 has 307 MA's), (120, 5137), (121, 5149), (129, 5206), (130, 5212),

Gene: Elephantoon_7 Start: 3947, Stop: 4801, Start Num: 8

Candidate Starts for Elephantoon_7:

(Start: 8 @3947 has 307 MA's), (20, 4064), (34, 4232), (47, 4310), (129, 4787), (130, 4793),

Gene: EmyBug_7 Start: 4189, Stop: 5220, Start Num: 8

Candidate Starts for EmyBug_7:

(Start: 8 @4189 has 307 MA's), (120, 5137), (121, 5149), (129, 5206), (130, 5212),

Gene: EpicPhail_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for EpicPhail_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Eris_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Eris_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Eros_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Eros_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Eurydice_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Eurydice_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: ExplosioNervosa_7 Start: 4192, Stop: 5223, Start Num: 8

Candidate Starts for ExplosioNervosa_7:

(Start: 8 @4192 has 307 MA's), (120, 5140), (121, 5152), (129, 5209), (130, 5215),

Gene: Farber_4 Start: 1682, Stop: 2887, Start Num: 8

Candidate Starts for Farber_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873), (130, 2879),

Gene: Fayely_7 Start: 4192, Stop: 5223, Start Num: 8

Candidate Starts for Fayely_7:

(Start: 8 @4192 has 307 MA's), (120, 5140), (121, 5152), (129, 5209), (130, 5215),

Gene: Fernando_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Fernando_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Florean_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Florean_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Flux_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Flux_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Fred313_4 Start: 1605, Stop: 2732, Start Num: 8

Candidate Starts for Fred313_4:

(Start: 8 @1605 has 307 MA's), (22, 1740), (32, 1863), (35, 1878), (41, 1911), (120, 2646), (129, 2718), (130, 2724),

Gene: Funston_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Funston_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Gadost_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Gadost_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: GaugeLDP_7 Start: 3954, Stop: 4844, Start Num: 8

Candidate Starts for GaugeLDP_7:

(Start: 8 @3954 has 307 MA's), (19, 4062), (35, 4230), (92, 4761), (96, 4773), (101, 4830),

Gene: Gemma_4 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Gemma_4:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: GingkoMaracino_4 Start: 1681, Stop: 2805, Start Num: 8

Candidate Starts for GingkoMaracino_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2719), (129, 2791), (130, 2797),

Gene: Giroux_3 Start: 1612, Stop: 2826, Start Num: 8

Candidate Starts for Giroux_3:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2641), (120, 2743), (121, 2755), (129, 2812), (130, 2818),

Gene: Goose_4 Start: 1635, Stop: 2816, Start Num: 8

Candidate Starts for Goose_4:

(Start: 8 @1635 has 307 MA's), (17, 1737), (Start: 21 @1767 has 1 MA's), (25, 1827), (26, 1830), (58, 2160), (64, 2316), (79, 2409), (116, 2706), (121, 2745), (122, 2751), (129, 2802), (130, 2808),

Gene: Grif_4 Start: 1681, Stop: 2715, Start Num: 8

Candidate Starts for Grif_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (108, 2629), (114, 2701), (115, 2707),

Gene: Groupthink_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Groupthink_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Grub_4 Start: 1681, Stop: 2886, Start Num: 8

Candidate Starts for Grub_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872), (130, 2878),

Gene: Grum1_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Grum1_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: GtownJaz_4 Start: 1681, Stop: 2895, Start Num: 8

Candidate Starts for GtownJaz_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2809), (129, 2881), (130, 2887),

Gene: HamSlice_3 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for HamSlice_3:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (22, 1781), (28, 1850), (43, 1964), (118, 2612), (122, 2648), (129, 2705), (130, 2711),

Gene: Hanray_6 Start: 4192, Stop: 5226, Start Num: 8

Candidate Starts for Hanray_6:

(Start: 8 @4192 has 307 MA's), (33, 4474), (38, 4495), (120, 5143), (121, 5155), (129, 5212), (130, 5218),

Gene: Happiness_4 Start: 1644, Stop: 2720, Start Num: 8

Candidate Starts for Happiness_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (120, 2631), (122, 2649), (129, 2706), (130, 2712),

Gene: HashRod_5 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for HashRod_5:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: HaveUMetTed_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for HaveUMetTed_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Heathen_4 Start: 1605, Stop: 2657, Start Num: 8

Candidate Starts for Heathen_4:

(Start: 8 @1605 has 307 MA's), (22, 1740), (32, 1863), (35, 1878), (41, 1911), (106, 2574), (108, 2643), (110, 2649),

Gene: Heffalump_8 Start: 4531, Stop: 5598, Start Num: 8

Candidate Starts for Heffalump_8:

(Start: 8 @4531 has 307 MA's), (Start: 11 @4600 has 1 MA's), (27, 4732), (120, 5512), (122, 5530), (125, 5560), (127, 5566), (129, 5584),

Gene: HelDan_4 Start: 1605, Stop: 2909, Start Num: 8

Candidate Starts for HelDan_4:

(5, 1551), (Start: 8 @1605 has 307 MA's), (22, 1740), (32, 1863), (35, 1878), (41, 1911), (120, 2826), (129, 2895), (130, 2901),

Gene: Heliosoles_4 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Heliosoles_4:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Hercules11_4 Start: 1681, Stop: 2634, Start Num: 8

Candidate Starts for Hercules11_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2548), (109, 2620), (111, 2626),

Gene: Horex_6 Start: 4192, Stop: 5226, Start Num: 8

Candidate Starts for Horex_6:

(Start: 8 @4192 has 307 MA's), (33, 4474), (38, 4495), (120, 5143), (121, 5155), (129, 5212), (130, 5218),

Gene: Holli_4 Start: 1645, Stop: 2511, Start Num: 8

Candidate Starts for Holli_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2404), (122, 2440), (129, 2497), (130, 2503),

Gene: Hookmount_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Hookmount_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: HortumSL17_7 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for HortumSL17_7:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221), (130, 5227),

Gene: Houdini22_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Houdini22_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: ICleared_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for ICleared_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Iceman_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Iceman_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Idleandcovert_3 Start: 1612, Stop: 2826, Start Num: 8

Candidate Starts for Idleandcovert_3:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2641), (120, 2743), (121, 2755), (129, 2812), (130, 2818),

Gene: Iracema64_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Iracema64_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (120, 2629), (122, 2647), (129, 2704), (130, 2710),

Gene: IronMan_7 Start: 3972, Stop: 5072, Start Num: 8

Candidate Starts for IronMan_7:

(Start: 8 @3972 has 307 MA's), (49, 4347), (55, 4482), (60, 4611), (122, 5001), (129, 5058), (130, 5064),

Gene: Isca_4 Start: 1610, Stop: 2746, Start Num: 8

Candidate Starts for Isca_4:

(3, 1547), (Start: 8 @1610 has 307 MA's), (22, 1745), (32, 1868), (35, 1883), (52, 1997), (120, 2660), (129, 2732), (130, 2738),

Gene: JF2_4 Start: 1608, Stop: 2510, Start Num: 8

Candidate Starts for JF2_4:

(Start: 8 @1608 has 307 MA's), (22, 1743), (32, 1866), (35, 1881), (52, 1995), (120, 2424), (129, 2496), (130, 2502),

Gene: JF4_4 Start: 1608, Stop: 2510, Start Num: 8

Candidate Starts for JF4_4:

(Start: 8 @1608 has 307 MA's), (22, 1743), (32, 1866), (35, 1881), (52, 1995), (120, 2424), (129, 2496), (130, 2502),

Gene: JHC117_4 Start: 1654, Stop: 2625, Start Num: 7

Candidate Starts for JHC117_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Jaan_7 Start: 3968, Stop: 5068, Start Num: 8

Candidate Starts for Jaan_7:

(2, 3887), (Start: 8 @3968 has 307 MA's), (24, 4139), (27, 4169), (45, 4310), (49, 4343), (60, 4607), (129, 5054), (130, 5060),

Gene: Jaykayelowell_4 Start: 1644, Stop: 2717, Start Num: 8

Candidate Starts for Jaykayelowell_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646), (129, 2703), (130, 2709),

Gene: JenCasNa_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for JenCasNa_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: JeppNRM_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for JeppNRM_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: JetBlade_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for JetBlade_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Jiawan_6 Start: 4192, Stop: 5226, Start Num: 8

Candidate Starts for Jiawan_6:

(Start: 8 @4192 has 307 MA's), (33, 4474), (38, 4495), (120, 5143), (121, 5155), (129, 5212), (130, 5218),

Gene: Jobu08_4 Start: 1681, Stop: 2958, Start Num: 8

Candidate Starts for Jobu08_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (30, 1861), (35, 1909), (64, 2305), (120, 2875), (121, 2887), (122, 2893), (129, 2944), (130, 2950),

Gene: JoongJeon_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for JoongJeon_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: KADY_5 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for KADY_5:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: KFPoly_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for KFPoly_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (57, 2176), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Kachowdy_4 Start: 1605, Stop: 2909, Start Num: 8

Candidate Starts for Kachowdy_4:

(Start: 8 @1605 has 307 MA's), (22, 1740), (32, 1863), (35, 1878), (41, 1911), (120, 2826), (129, 2895), (130, 2901),

Gene: Kalb97_5 Start: 1683, Stop: 2882, Start Num: 8

Candidate Starts for Kalb97_5:

(Start: 7 @1656 has 2 MA's), (Start: 8 @1683 has 307 MA's), (30, 1863), (35, 1911), (64, 2307), (120, 2796), (122, 2814), (129, 2868), (130, 2874),

Gene: Kalnoky_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Kalnoky_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Kalpine_7 Start: 4413, Stop: 5363, Start Num: 8

Candidate Starts for Kalpine_7:

(Start: 8 @4413 has 307 MA's), (Start: 11 @4482 has 1 MA's), (33, 4695), (66, 5133), (70, 5154), (117, 5259), (121, 5292), (124, 5322), (129, 5349), (130, 5355),

Gene: Kamy_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for Kamy_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648), (129, 2705), (130, 2711),

Gene: Katalie136_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Katalie136_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Kingmustik0402_4 Start: 1646, Stop: 2710, Start Num: 8

Candidate Starts for Kingmustik0402_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2603), (122, 2639), (129, 2696), (130, 2702),

Gene: Koreni_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Koreni_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (119, 2623), (120, 2629), (122, 2647), (129, 2704), (130, 2710),

Gene: Kratak_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Kratak_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Kristoff_5 Start: 1827, Stop: 2999, Start Num: 8

Candidate Starts for Kristoff_5:

(Start: 8 @1827 has 307 MA's), (23, 1992), (25, 2019), (26, 2022), (35, 2100), (54, 2319), (59, 2373), (64, 2508), (87, 2643), (120, 2916), (121, 2928), (122, 2934), (129, 2985), (130, 2991),

Gene: Kyee_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Kyee_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: LBerry_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for LBerry_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: LHTSCC_4 Start: 1642, Stop: 2718, Start Num: 8

Candidate Starts for LHTSCC_4:

(4, 1582), (Start: 8 @1642 has 307 MA's), (19, 1750), (28, 1846), (43, 1960), (120, 2629), (122, 2647), (129, 2704), (130, 2710),

Gene: Lambert1_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Lambert1_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Landor_7 Start: 3970, Stop: 5070, Start Num: 8

Candidate Starts for Landor_7:

(2, 3889), (Start: 8 @3970 has 307 MA's), (24, 4141), (27, 4171), (42, 4297), (45, 4312), (49, 4345), (60, 4609), (129, 5056), (130, 5062),

Gene: LappelDuVide_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for LappelDuVide_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: LarryKay_4 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for LarryKay_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: Lemur_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Lemur_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: LeoAvram_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for LeoAvram_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Leogania_7 Start: 4183, Stop: 5397, Start Num: 8

Candidate Starts for Leogania_7:

(2, 4102), (Start: 8 @4183 has 307 MA's), (Start: 11 @4252 has 1 MA's), (60, 4822), (122, 5329),

Gene: Lilith_4 Start: 1682, Stop: 2887, Start Num: 8

Candidate Starts for Lilith_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873), (130, 2879),

Gene: Lilleskat_5 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for Lilleskat_5:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221), (130, 5227),

Gene: LittleB_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for LittleB_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: LittleGuy_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for LittleGuy_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: LochMonster_4 Start: 1643, Stop: 2716, Start Num: 8

Candidate Starts for LochMonster_4:

(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (28, 1847), (43, 1961), (120, 2627), (122, 2645), (129, 2702), (130, 2708),

Gene: Lokk_8 Start: 4396, Stop: 5382, Start Num: 8

Candidate Starts for Lokk_8:

(Start: 8 @4396 has 307 MA's), (52, 4795), (68, 5113), (121, 5308), (127, 5350), (129, 5368), (130, 5374),

Gene: LoneWolf_7 Start: 3950, Stop: 4993, Start Num: 8

Candidate Starts for LoneWolf_7:

(Start: 8 @3950 has 307 MA's), (129, 4979), (130, 4985),

Gene: Lorenzo_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Lorenzo_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Loser_7 Start: 4131, Stop: 5249, Start Num: 8

Candidate Starts for Loser_7:

(Start: 8 @4131 has 307 MA's), (33, 4413), (36, 4419), (60, 4776), (70, 4878), (116, 5139), (120, 5166), (121, 5178), (129, 5235), (130, 5241),

Gene: Louie6_4 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for Louie6_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: LugYA_6 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for LugYA_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Lunsford_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Lunsford_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: MA5_4 Start: 1622, Stop: 2464, Start Num: 8

Candidate Starts for MA5_4:

(Start: 8 @1622 has 307 MA's), (22, 1757), (81, 2381), (88, 2399), (98, 2450), (100, 2456),

Gene: MK4_4 Start: 1608, Stop: 2744, Start Num: 8

Candidate Starts for MK4_4:

(Start: 8 @1608 has 307 MA's), (22, 1743), (32, 1866), (35, 1881), (52, 1995), (120, 2658), (129, 2730), (130, 2736),

Gene: MadMarie_4 Start: 1682, Stop: 2896, Start Num: 8

Candidate Starts for MadMarie_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2810), (129, 2882), (130, 2888),

Gene: Mainiac_4 Start: 1682, Stop: 2887, Start Num: 8

Candidate Starts for Mainiac_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873), (130, 2879),

Gene: Malinsilva_6 Start: 1681, Stop: 2886, Start Num: 8

Candidate Starts for Malinsilva_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872), (130, 2878),

Gene: Maminiaina_7 Start: 3953, Stop: 4984, Start Num: 8

Candidate Starts for Maminiaina_7:

(Start: 8 @3953 has 307 MA's), (120, 4901), (121, 4913), (129, 4970), (130, 4976),

Gene: Manu_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Manu_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: MarQuardt_4 Start: 1681, Stop: 2895, Start Num: 8

Candidate Starts for MarQuardt_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2809), (129, 2881), (130, 2887),

Gene: Marchesa_4 Start: 1605, Stop: 2909, Start Num: 8

Candidate Starts for Marchesa_4:

(Start: 8 @1605 has 307 MA's), (22, 1740), (32, 1863), (35, 1878), (41, 1911), (120, 2826), (129, 2895), (130, 2901),

Gene: Margo_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Margo_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (129, 2746), (130, 2752),

Gene: Marie_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Marie_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Marius_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Marius_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Maverick_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Maverick_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Maxo_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for Maxo_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648), (129, 2705), (130, 2711),

Gene: Mazhar510_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for Mazhar510_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648), (129, 2705), (130, 2711),

Gene: Medusa_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Medusa_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: MeeZee_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for MeeZee_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Melvin_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Melvin_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Methuselah_4 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for Methuselah_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: Microwolf_4 Start: 1681, Stop: 2895, Start Num: 8

Candidate Starts for Microwolf_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2809), (129, 2881), (130, 2887),

Gene: Miko_8 Start: 4374, Stop: 5360, Start Num: 8

Candidate Starts for Miko_8:

(Start: 8 @4374 has 307 MA's), (52, 4773), (68, 5091), (121, 5286), (127, 5328), (129, 5346), (130, 5352),

Gene: Millski_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Millski_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Miramae_4 Start: 1638, Stop: 2714, Start Num: 8

Candidate Starts for Miramae_4:

(4, 1578), (Start: 8 @1638 has 307 MA's), (19, 1746), (28, 1842), (43, 1956), (120, 2625), (122, 2643), (129, 2700), (130, 2706),

Gene: Misomonster_6 Start: 1681, Stop: 2715, Start Num: 8

Candidate Starts for Misomonster_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (108, 2629), (114, 2701), (115, 2707),

Gene: MoneyMay_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for MoneyMay_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Morpher26_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Morpher26_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Morrow_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Morrow_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: MuchMore_6 Start: 1681, Stop: 2886, Start Num: 8

Candidate Starts for MuchMore_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872), (130, 2878),

Gene: Mundrea_4 Start: 1642, Stop: 2709, Start Num: 8

Candidate Starts for Mundrea_4:

(Start: 8 @1642 has 307 MA's), (19, 1750), (28, 1846), (43, 1960), (120, 2620), (122, 2638), (129, 2695), (130, 2701),

Gene: MyraDee_4 Start: 1517, Stop: 2386, Start Num: 8

Candidate Starts for MyraDee_4:

(Start: 8 @1517 has 307 MA's), (9, 1547), (10, 1556), (80, 2345), (84, 2372), (86, 2378),

Gene: Myxus_7 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for Myxus_7:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221), (130, 5227),

Gene: Nebs_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Nebs_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Nemo27_4 Start: 1644, Stop: 2717, Start Num: 8

Candidate Starts for Nemo27_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646), (129, 2703), (130, 2709),

Gene: NicoleTera_7 Start: 4172, Stop: 5248, Start Num: 8

Candidate Starts for NicoleTera_7:

(2, 4091), (Start: 8 @4172 has 307 MA's), (23, 4340), (43, 4496), (44, 4502), (94, 4988), (122, 5180), (129, 5234),

Gene: Noella_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Noella_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Noelle_4 Start: 1629, Stop: 2783, Start Num: 8

Candidate Starts for Noelle_4:

(Start: 8 @1629 has 307 MA's), (26, 1824), (43, 1947), (52, 2016), (118, 2676), (122, 2712), (129, 2769), (130, 2775),

Gene: Norbert_3 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Norbert_3:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: NorthStar_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for NorthStar_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: NotAPhaseMom_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for NotAPhaseMom_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: NothingSpecial_6 Start: 4006, Stop: 5202, Start Num: 8

Candidate Starts for NothingSpecial_6:

(2, 3925), (Start: 8 @4006 has 307 MA's), (13, 4084), (60, 4645), (116, 5089), (120, 5116), (122, 5134),

Gene: Nyxis_4 Start: 1648, Stop: 2721, Start Num: 8

Candidate Starts for Nyxis_4:

(4, 1588), (Start: 8 @1648 has 307 MA's), (19, 1756), (28, 1852), (43, 1966), (118, 2614), (122, 2650), (129, 2707), (130, 2713),

Gene: OKCentral2016_4 Start: 1637, Stop: 2374, Start Num: 8

Candidate Starts for OKCentral2016_4:

(Start: 8 @1637 has 307 MA's), (17, 1739), (Start: 21 @1769 has 1 MA's), (25, 1829), (26, 1832), (61, 2264), (65, 2303), (67, 2309), (72, 2360), (76, 2366),

Gene: OKaNui_4 Start: 1644, Stop: 2483, Start Num: 8

Candidate Starts for OKaNui_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (71, 2376), (77, 2412), (91, 2469), (93, 2475),

Gene: Obama12_4 Start: 1644, Stop: 2720, Start Num: 8

Candidate Starts for Obama12_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (120, 2631), (122, 2649), (129, 2706), (130, 2712),

Gene: Ohfah_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Ohfah_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: OlanP_4 Start: 1864, Stop: 3102, Start Num: 8

Candidate Starts for OlanP_4:

(Start: 7 @1837 has 2 MA's), (Start: 8 @1864 has 307 MA's), (30, 2044), (35, 2092), (64, 2488), (120, 2977), (122, 2995), (129, 3049), (130, 3055), (131, 3061),

Gene: Ollie_4 Start: 1681, Stop: 2805, Start Num: 8

Candidate Starts for Ollie_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2719), (129, 2791), (130, 2797),

Gene: P28Green_4 Start: 1682, Stop: 2626, Start Num: 8

Candidate Starts for P28Green_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (103, 2540), (109, 2612), (111, 2618),

Gene: PGHhamlin_6 Start: 1681, Stop: 2886, Start Num: 8

Candidate Starts for PGHhamlin_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872), (130, 2878),

Gene: PackMan_7 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for PackMan_7:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221), (130, 5227),

Gene: Palestino_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Palestino_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Panamaxus_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Panamaxus_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Pawn_4 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Pawn_4:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Peaches_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Peaches_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Pembroke_4 Start: 1681, Stop: 2886, Start Num: 8

Candidate Starts for Pembroke_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872), (130, 2878),

Gene: Penny1_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Penny1_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Perplexer_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Perplexer_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: PeterPeter_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for PeterPeter_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: PetiteSangsue_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for PetiteSangsue_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: Phacado_4 Start: 1644, Stop: 2717, Start Num: 8

Candidate Starts for Phacado_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646), (129, 2703), (130, 2709),

Gene: Phaded_7 Start: 3967, Stop: 5067, Start Num: 8

Candidate Starts for Phaded_7:

(2, 3886), (Start: 8 @3967 has 307 MA's), (24, 4138), (27, 4168), (45, 4309), (49, 4342), (60, 4606), (129, 5053), (130, 5059),

Gene: Phaeder_7 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for Phaeder_7:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221), (130, 5227),

Gene: Phantastic_4 Start: 1617, Stop: 2831, Start Num: 8

Candidate Starts for Phantastic_4:

(Start: 8 @1617 has 307 MA's), (22, 1752), (28, 1821), (35, 1890), (74, 2376), (122, 2766), (129, 2817), (130, 2823),

Gene: Pharaoh_7 Start: 4476, Stop: 5333, Start Num: 8

Candidate Starts for Pharaoh_7:

(Start: 8 @4476 has 307 MA's), (19, 4584), (29, 4746), (39, 4845), (53, 4968), (84, 5319), (86, 5325),

Gene: Phelipe_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Phelipe_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Phighter1804_4 Start: 1644, Stop: 2717, Start Num: 8

Candidate Starts for Phighter1804_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (120, 2628), (122, 2646), (129, 2703), (130, 2709),

Gene: PhishRPhriends_4 Start: 1686, Stop: 2396, Start Num: 8

Candidate Starts for PhishRPhriends_4:

(Start: 7 @1659 has 2 MA's), (Start: 8 @1686 has 307 MA's), (30, 1866), (35, 1914), (71, 2310), (75, 2328), (83, 2382), (85, 2388),

Gene: Phoebe_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Phoebe_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Phonnegut_7 Start: 4192, Stop: 5223, Start Num: 8

Candidate Starts for Phonnegut_7:

(Start: 8 @4192 has 307 MA's), (120, 5140), (121, 5152), (129, 5209), (130, 5215),

Gene: Phontbonne_4 Start: 1643, Stop: 2716, Start Num: 8

Candidate Starts for Phontbonne_4:

(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (28, 1847), (43, 1961), (118, 2609), (122, 2645), (129, 2702), (130, 2708),

Gene: Phoxy_4 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for Phoxy_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: Phranny_5 Start: 1685, Stop: 2884, Start Num: 8

Candidate Starts for Phranny_5:

(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (64, 2309), (120, 2798), (122, 2816), (129, 2870), (130, 2876),

Gene: Pioneer_7 Start: 4192, Stop: 5223, Start Num: 8

Candidate Starts for Pioneer_7:

(Start: 8 @4192 has 307 MA's), (120, 5140), (121, 5152), (129, 5209), (130, 5215),

Gene: Pipcraft_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Pipcraft_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Pistachio_4 Start: 1612, Stop: 2373, Start Num: 8

Candidate Starts for Pistachio_4:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2188), (120, 2290), (121, 2302), (129, 2359), (130, 2365),

Gene: Pocahontas_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Pocahontas_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Polymorphads_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Polymorphads_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Popcicle_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Popcicle_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: PotatoSplit_5 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for PotatoSplit_5:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Priya_7 Start: 4190, Stop: 5221, Start Num: 8

Candidate Starts for Priya_7:

(Start: 7 @4163 has 2 MA's), (Start: 8 @4190 has 307 MA's), (120, 5138), (121, 5150), (129, 5207), (130, 5213),

Gene: Pukovnik_7 Start: 3940, Stop: 5010, Start Num: 8

Candidate Starts for Pukovnik_7:

(2, 3859), (Start: 8 @3940 has 307 MA's), (28, 4147), (40, 4246), (43, 4261), (120, 4927), (121, 4939), (129, 4996), (130, 5002),

Gene: Pumbaa_4 Start: 1643, Stop: 2716, Start Num: 8

Candidate Starts for Pumbaa_4:

(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (22, 1778), (28, 1847), (43, 1961), (120, 2627), (122, 2645), (129, 2702), (130, 2708),

Gene: Puppy_4 Start: 1612, Stop: 2445, Start Num: 8

Candidate Starts for Puppy_4:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2260), (121, 2374), (129, 2431), (130, 2437),

Gene: PurpleHaze_4 Start: 1684, Stop: 2883, Start Num: 8

Candidate Starts for PurpleHaze_4:

(Start: 7 @1657 has 2 MA's), (Start: 8 @1684 has 307 MA's), (30, 1864), (35, 1912), (64, 2308), (120, 2797), (122, 2815), (129, 2869), (130, 2875),

Gene: Qobbit_7 Start: 4189, Stop: 5220, Start Num: 8

Candidate Starts for Qobbit_7:

(Start: 7 @4162 has 2 MA's), (Start: 8 @4189 has 307 MA's), (120, 5137), (121, 5149), (129, 5206), (130, 5212),

Gene: QuinnKiro_3 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for QuinnKiro_3:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Rachaly_8 Start: 4394, Stop: 5380, Start Num: 8
Candidate Starts for Rachaly_8:
(Start: 8 @4394 has 307 MA's), (52, 4793), (121, 5306), (127, 5348), (129, 5366), (130, 5372),

Gene: Reba_5 Start: 1685, Stop: 2557, Start Num: 8
Candidate Starts for Reba_5:
(Start: 7 @1658 has 2 MA's), (Start: 8 @1685 has 307 MA's), (30, 1865), (35, 1913), (120, 2471),
(122, 2489), (129, 2543), (130, 2549),

Gene: Rebeuca_5 Start: 1828, Stop: 3000, Start Num: 8
Candidate Starts for Rebeuca_5:
(Start: 8 @1828 has 307 MA's), (23, 1993), (25, 2020), (26, 2023), (35, 2101), (54, 2320), (59, 2374),
(64, 2509), (87, 2644), (120, 2917), (121, 2929), (122, 2935), (129, 2986), (130, 2992),

Gene: RedRock_7 Start: 4133, Stop: 5242, Start Num: 8
Candidate Starts for RedRock_7:
(Start: 8 @4133 has 307 MA's), (Start: 11 @4202 has 1 MA's), (33, 4415), (36, 4421), (60, 4778), (70,
4880), (121, 5171), (129, 5228), (130, 5234),

Gene: Refuge_7 Start: 4506, Stop: 5639, Start Num: 8
Candidate Starts for Refuge_7:
(Start: 8 @4506 has 307 MA's), (16, 4599), (29, 4779), (53, 5001), (64, 5253), (73, 5301), (76, 5307),
(78, 5322), (89, 5382), (90, 5388), (95, 5412), (97, 5442), (105, 5562), (107, 5568),

Gene: Relief_4 Start: 1646, Stop: 2719, Start Num: 8
Candidate Starts for Relief_4:
(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648),
(129, 2705), (130, 2711),

Gene: ResDef_4 Start: 1633, Stop: 2760, Start Num: 8
Candidate Starts for ResDef_4:
(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1
MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: RhynO_4 Start: 1673, Stop: 2839, Start Num: 8
Candidate Starts for RhynO_4:
(Start: 8 @1673 has 307 MA's), (17, 1775), (18, 1778), (19, 1781), (22, 1811), (23, 1841), (35, 1949),
(64, 2357), (82, 2471), (87, 2492), (120, 2756), (121, 2768), (122, 2774), (129, 2825), (130, 2831),

Gene: Rockstar_4 Start: 1608, Stop: 2744, Start Num: 8
Candidate Starts for Rockstar_4:
(Start: 8 @1608 has 307 MA's), (22, 1743), (32, 1866), (35, 1881), (52, 1995), (120, 2658), (129,
2730), (130, 2736),

Gene: Romney_4 Start: 1644, Stop: 2717, Start Num: 8
Candidate Starts for Romney_4:
(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646),
(129, 2703), (130, 2709),

Gene: Roosevelt_4 Start: 1645, Stop: 2718, Start Num: 8
Candidate Starts for Roosevelt_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Rosa24_3 Start: 1643, Stop: 2716, Start Num: 8

Candidate Starts for Rosa24_3:

(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (28, 1847), (43, 1961), (120, 2627), (122, 2645), (129, 2702), (130, 2708),

Gene: Rowdy_5 Start: 1860, Stop: 2750, Start Num: 25

Candidate Starts for Rowdy_5:

(Start: 8 @1668 has 307 MA's), (Start: 21 @1800 has 1 MA's), (23, 1833), (25, 1860), (26, 1863), (64, 2349), (82, 2463), (120, 2667), (121, 2679), (122, 2685), (129, 2736), (130, 2742),

Gene: Ruin_4 Start: 1644, Stop: 2717, Start Num: 8

Candidate Starts for Ruin_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646), (129, 2703), (130, 2709),

Gene: Rummer_4 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for Rummer_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: RyeScarlet_8 Start: 4192, Stop: 5226, Start Num: 8

Candidate Starts for RyeScarlet_8:

(Start: 8 @4192 has 307 MA's), (33, 4474), (38, 4495), (120, 5143), (121, 5155), (129, 5212), (130, 5218),

Gene: Sabertooth_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Sabertooth_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Sabia_4 Start: 1682, Stop: 2887, Start Num: 8

Candidate Starts for Sabia_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873), (130, 2879),

Gene: Sabinator_4 Start: 1681, Stop: 2625, Start Num: 8

Candidate Starts for Sabinator_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Sachima_5 Start: 4192, Stop: 5235, Start Num: 8

Candidate Starts for Sachima_5:

(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221),

Gene: SaturnRing_3 Start: 1612, Stop: 2826, Start Num: 8

Candidate Starts for SaturnRing_3:

(Start: 8 @1612 has 307 MA's), (22, 1747), (35, 1885), (52, 1999), (113, 2641), (120, 2743), (121, 2755), (129, 2812), (130, 2818),

Gene: Scamp_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Scamp_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Scherzo_7 Start: 4192, Stop: 5223, Start Num: 8

Candidate Starts for Scherzo_7:

(Start: 8 @4192 has 307 MA's), (120, 5140), (121, 5152), (129, 5209), (130, 5215),

Gene: Shaka_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Shaka_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Shapes_5 Start: 1668, Stop: 2750, Start Num: 8

Candidate Starts for Shapes_5:

(Start: 8 @1668 has 307 MA's), (Start: 21 @1800 has 1 MA's), (23, 1833), (25, 1860), (26, 1863), (64, 2349), (82, 2463), (120, 2667), (121, 2679), (122, 2685), (129, 2736), (130, 2742),

Gene: SheldonCooper_4 Start: 1643, Stop: 2719, Start Num: 8

Candidate Starts for SheldonCooper_4:

(4, 1583), (Start: 8 @1643 has 307 MA's), (19, 1751), (28, 1847), (43, 1961), (120, 2630), (122, 2648), (129, 2705), (130, 2711),

Gene: Shygu2_4 Start: 1644, Stop: 2720, Start Num: 8

Candidate Starts for Shygu2_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (120, 2631), (122, 2649), (129, 2706), (130, 2712),

Gene: Skipitt_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for Skipitt_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Snickers_4 Start: 1681, Stop: 2868, Start Num: 8

Candidate Starts for Snickers_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2782), (129, 2854), (130, 2860),

Gene: SoYo_4 Start: 1681, Stop: 2805, Start Num: 8

Candidate Starts for SoYo_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2719), (129, 2791), (130, 2797),

Gene: SoilDragon_4 Start: 1681, Stop: 2568, Start Num: 8

Candidate Starts for SoilDragon_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2485), (121, 2497), (122, 2503), (129, 2554), (130, 2560),

Gene: Soshari_6 Start: 1682, Stop: 2716, Start Num: 8

Candidate Starts for Soshari_6:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702), (115, 2708),

Gene: Sparxx_4 Start: 1645, Stop: 2718, Start Num: 8
Candidate Starts for Sparxx_4:
(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647),
(129, 2704), (130, 2710),

Gene: Spike509_4 Start: 1682, Stop: 2716, Start Num: 8
Candidate Starts for Spike509_4:
(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (108, 2630), (114, 2702),
(115, 2708),

Gene: Spino_4 Start: 1645, Stop: 2718, Start Num: 8
Candidate Starts for Spino_4:
(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647),
(129, 2704), (130, 2710),

Gene: Spouty_7 Start: 4189, Stop: 5220, Start Num: 8
Candidate Starts for Spouty_7:
(Start: 7 @4162 has 2 MA's), (Start: 8 @4189 has 307 MA's), (120, 5137), (121, 5149), (129, 5206),
(130, 5212),

Gene: Stagni_4 Start: 1682, Stop: 2887, Start Num: 8
Candidate Starts for Stagni_4:
(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873),
(130, 2879),

Gene: Stasia_4 Start: 1647, Stop: 2741, Start Num: 8
Candidate Starts for Stasia_4:
(Start: 8 @1647 has 307 MA's), (19, 1755), (31, 1890), (42, 1968), (46, 1986), (50, 2025), (64, 2316),
(79, 2418), (122, 2670), (129, 2727), (130, 2733),

Gene: StepMih_4 Start: 1682, Stop: 2887, Start Num: 8
Candidate Starts for StepMih_4:
(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (120, 2801), (129, 2873),
(130, 2879),

Gene: Stink_4 Start: 1639, Stop: 2715, Start Num: 8
Candidate Starts for Stink_4:
(4, 1579), (Start: 8 @1639 has 307 MA's), (19, 1747), (28, 1843), (43, 1957), (120, 2626), (122, 2644),
(129, 2701), (130, 2707),

Gene: TNguyen7_4 Start: 1610, Stop: 2824, Start Num: 8
Candidate Starts for TNguyen7_4:
(Start: 8 @1610 has 307 MA's), (22, 1745), (35, 1883), (52, 1997), (113, 2639), (120, 2741), (121,
2753), (129, 2810), (130, 2816),

Gene: Taquarus_4 Start: 1648, Stop: 2721, Start Num: 8
Candidate Starts for Taquarus_4:
(4, 1588), (Start: 8 @1648 has 307 MA's), (19, 1756), (28, 1852), (43, 1966), (118, 2614), (122, 2650),
(129, 2707), (130, 2713),

Gene: Taurus_4 Start: 1681, Stop: 2625, Start Num: 8
Candidate Starts for Taurus_4:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (103, 2539), (109, 2611), (111, 2617),

Gene: Texage_3 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Texage_3:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Thanksgivukkah_4 Start: 1646, Stop: 2719, Start Num: 8

Candidate Starts for Thanksgivukkah_4:

(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (28, 1850), (43, 1964), (118, 2612), (122, 2648), (129, 2705), (130, 2711),

Gene: Tiffany_4 Start: 1682, Stop: 2896, Start Num: 8

Candidate Starts for Tiffany_4:

(Start: 7 @1655 has 2 MA's), (Start: 8 @1682 has 307 MA's), (35, 1910), (112, 2699), (120, 2810), (129, 2882), (130, 2888),

Gene: TinaFeyge_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for TinaFeyge_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Tinybot_3 Start: 1645, Stop: 2721, Start Num: 8

Candidate Starts for Tinybot_3:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (120, 2632), (122, 2650), (129, 2707), (130, 2713),

Gene: TiroTheta9_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for TiroTheta9_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Todacoro_4 Start: 1633, Stop: 2760, Start Num: 8

Candidate Starts for Todacoro_4:

(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1 MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Topanga_4 Start: 1711, Stop: 2889, Start Num: 8

Candidate Starts for Topanga_4:

(4, 1651), (Start: 8 @1711 has 307 MA's), (Start: 21 @1843 has 1 MA's), (23, 1876), (25, 1903), (56, 2218), (64, 2398), (87, 2533), (120, 2806), (122, 2824), (124, 2848), (129, 2875), (130, 2881),

Gene: Trixie_7 Start: 4278, Stop: 5228, Start Num: 8

Candidate Starts for Trixie_7:

(2, 4197), (Start: 8 @4278 has 307 MA's), (Start: 11 @4347 has 1 MA's), (33, 4560), (66, 4998), (70, 5019), (117, 5124), (121, 5157), (129, 5214), (130, 5220),

Gene: TroyPia_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for TroyPia_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Tubs_7 Start: 4192, Stop: 5235, Start Num: 8
Candidate Starts for Tubs_7:
(Start: 8 @4192 has 307 MA's), (42, 4525), (120, 5152), (121, 5164), (129, 5221), (130, 5227),

Gene: Twister_4 Start: 1661, Stop: 2833, Start Num: 8
Candidate Starts for Twister_4:
(Start: 8 @1661 has 307 MA's), (23, 1826), (25, 1853), (26, 1856), (35, 1934), (54, 2153), (59, 2207),
(64, 2342), (87, 2477), (120, 2750), (121, 2762), (122, 2768), (129, 2819), (130, 2825),

Gene: TygerBlood_4 Start: 1647, Stop: 2720, Start Num: 8
Candidate Starts for TygerBlood_4:
(4, 1587), (Start: 8 @1647 has 307 MA's), (19, 1755), (28, 1851), (43, 1965), (118, 2613), (122, 2649),
(129, 2706), (130, 2712),

Gene: Ugenie5_5 Start: 4192, Stop: 5223, Start Num: 8
Candidate Starts for Ugenie5_5:
(Start: 8 @4192 has 307 MA's), (120, 5140), (121, 5152), (129, 5209), (130, 5215),

Gene: Ulysses_4 Start: 1646, Stop: 2719, Start Num: 8
Candidate Starts for Ulysses_4:
(4, 1586), (Start: 8 @1646 has 307 MA's), (19, 1754), (22, 1781), (28, 1850), (43, 1964), (122, 2648),
(129, 2705), (130, 2711),

Gene: Veracruz_3 Start: 1633, Stop: 2760, Start Num: 8
Candidate Starts for Veracruz_3:
(3, 1570), (5, 1579), (Start: 8 @1633 has 307 MA's), (9, 1663), (15, 1720), (Start: 21 @1765 has 1
MA's), (35, 1906), (51, 2014), (63, 2302), (120, 2674), (122, 2692), (129, 2746), (130, 2752),

Gene: Vix_4 Start: 1681, Stop: 2715, Start Num: 8
Candidate Starts for Vix_4:
(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (108, 2629), (114, 2701),
(115, 2707),

Gene: WalterMcMickey_4 Start: 1661, Stop: 2833, Start Num: 8
Candidate Starts for WalterMcMickey_4:
(Start: 8 @1661 has 307 MA's), (23, 1826), (25, 1853), (26, 1856), (35, 1934), (54, 2153), (59, 2207),
(64, 2342), (87, 2477), (120, 2750), (121, 2762), (122, 2768), (129, 2819), (130, 2825),

Gene: Wander_4 Start: 1645, Stop: 2718, Start Num: 8
Candidate Starts for Wander_4:
(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647),
(129, 2704), (130, 2710),

Gene: Watson_4 Start: 1681, Stop: 2886, Start Num: 8
Candidate Starts for Watson_4:
(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2800), (129, 2872),
(130, 2878),

Gene: WeiHuaDA_8 Start: 4411, Stop: 5442, Start Num: 8
Candidate Starts for WeiHuaDA_8:
(Start: 8 @4411 has 307 MA's), (Start: 11 @4480 has 1 MA's), (33, 4693), (66, 5131), (70, 5152),
(121, 5371), (122, 5377), (129, 5428), (130, 5434),

Gene: Wilbur_4 Start: 1644, Stop: 2717, Start Num: 8

Candidate Starts for Wilbur_4:

(4, 1584), (Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (118, 2610), (122, 2646), (129, 2703), (130, 2709),

Gene: Wile_4 Start: 1645, Stop: 2730, Start Num: 8

Candidate Starts for Wile_4:

(Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (52, 2035), (122, 2659), (129, 2716), (130, 2722),

Gene: Wizard007_4 Start: 1647, Stop: 2720, Start Num: 8

Candidate Starts for Wizard007_4:

(4, 1587), (Start: 8 @1647 has 307 MA's), (19, 1755), (28, 1851), (43, 1965), (118, 2613), (122, 2649), (129, 2706), (130, 2712),

Gene: Wooldri_6 Start: 1681, Stop: 2805, Start Num: 8

Candidate Starts for Wooldri_6:

(Start: 7 @1654 has 2 MA's), (Start: 8 @1681 has 307 MA's), (35, 1909), (120, 2719), (129, 2791), (130, 2797),

Gene: Xena_4 Start: 1644, Stop: 2729, Start Num: 8

Candidate Starts for Xena_4:

(Start: 8 @1644 has 307 MA's), (19, 1752), (28, 1848), (43, 1962), (52, 2034), (122, 2658), (129, 2715), (130, 2721),

Gene: YoSam321_4 Start: 1645, Stop: 2718, Start Num: 8

Candidate Starts for YoSam321_4:

(4, 1585), (Start: 8 @1645 has 307 MA's), (19, 1753), (28, 1849), (43, 1963), (118, 2611), (122, 2647), (129, 2704), (130, 2710),

Gene: Zetzy_4 Start: 1683, Stop: 2717, Start Num: 8

Candidate Starts for Zetzy_4:

(Start: 7 @1656 has 2 MA's), (Start: 8 @1683 has 307 MA's), (35, 1911), (108, 2631), (114, 2703), (115, 2709),

Gene: Zimmer_7 Start: 4514, Stop: 5293, Start Num: 8

Candidate Starts for Zimmer_7:

(Start: 8 @4514 has 307 MA's), (9, 4544), (10, 4553), (14, 4595), (29, 4706), (84, 5279),