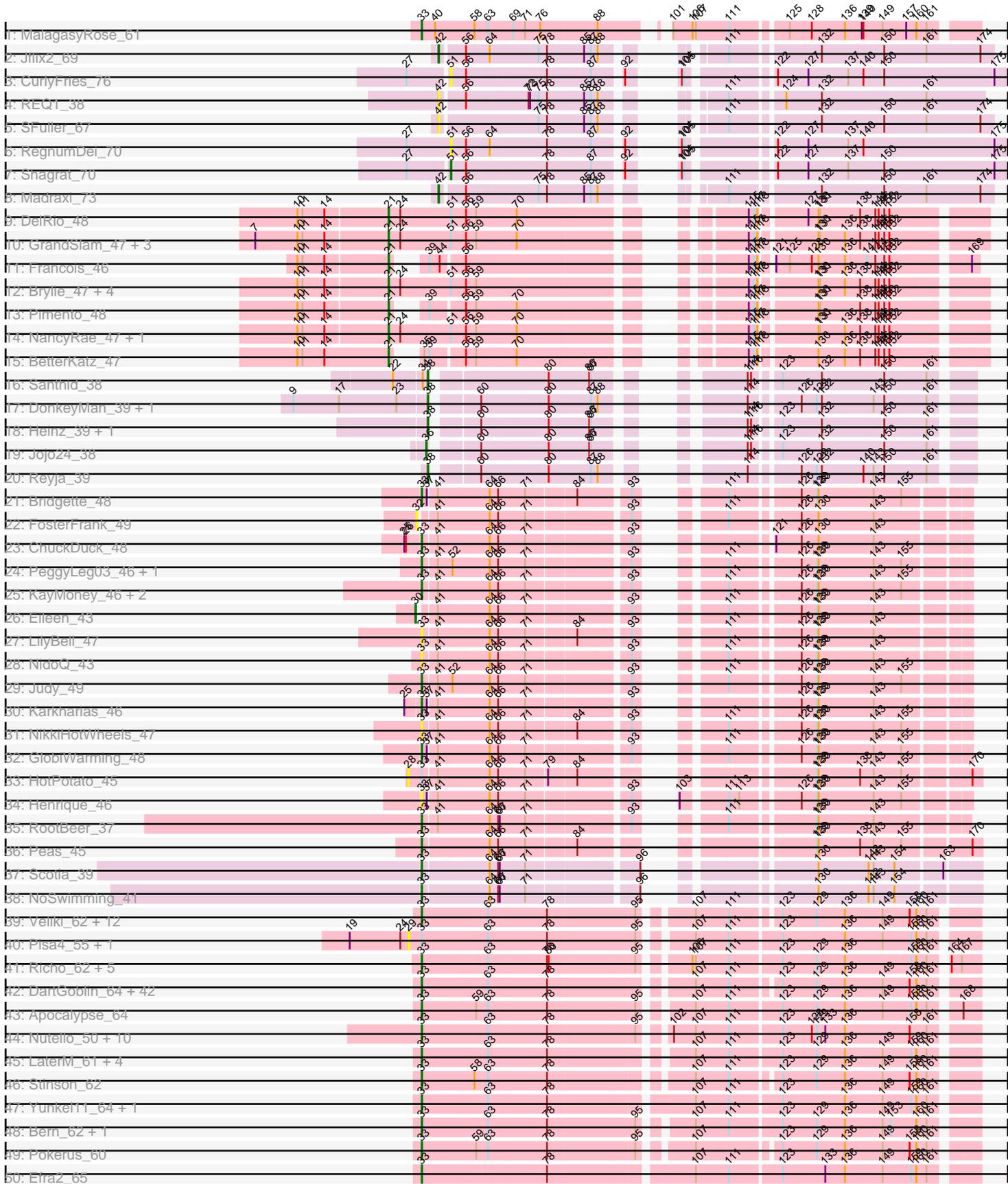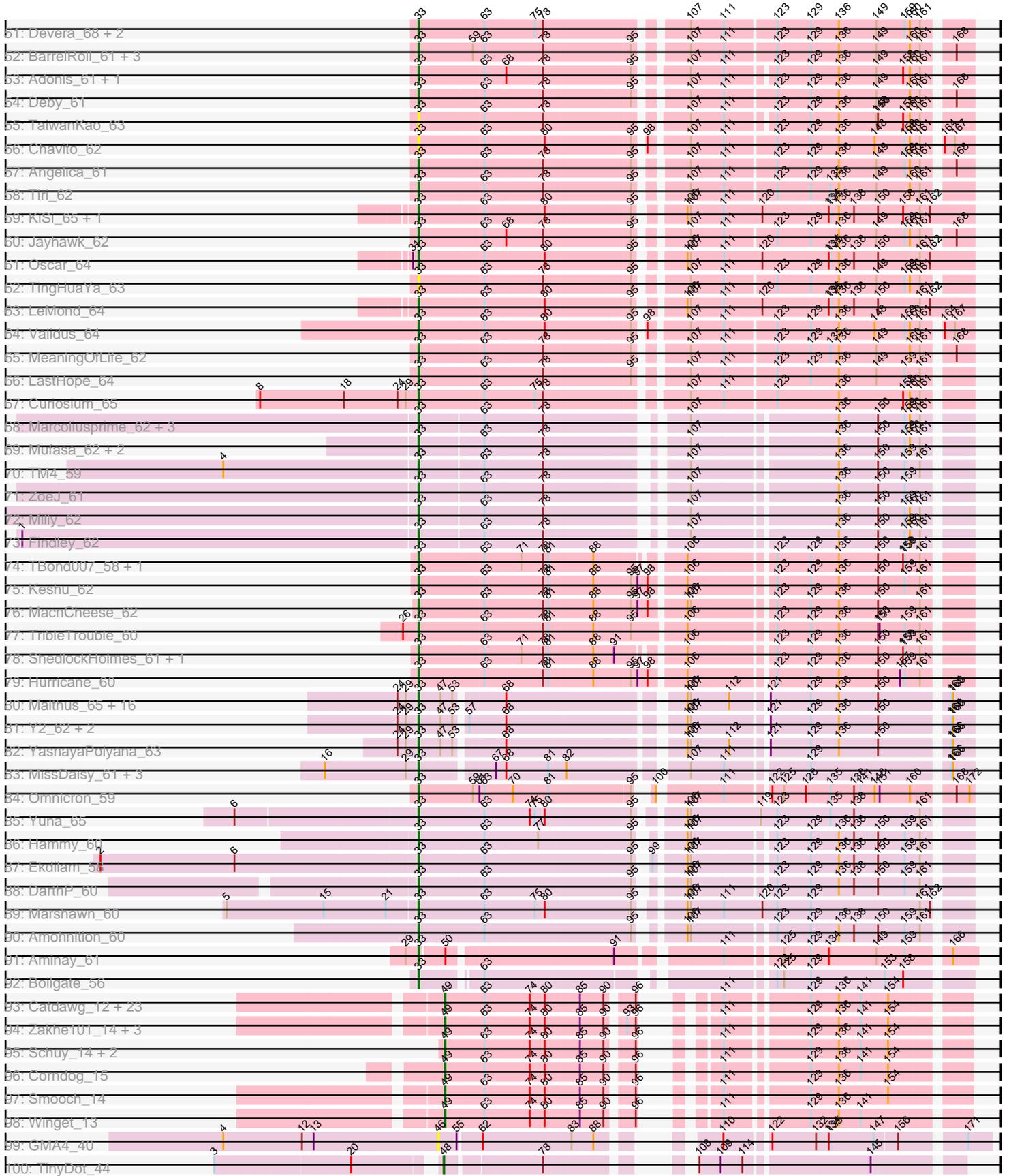# Pham 290800

Pham 290800

Pham 290800

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 290800 Report

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

Pham number 290800 has 254 members, 33 are drafts.

Phages represented in each track:
• Track 1 : MalagasyRose_61
• Track 2 : Jflix2_69
• Track 3 : CurlyFries_76
• Track 4 : REQ1_38
• Track 5 : SFuller_67
• Track 6 : RegnumDei_70
• Track 7 : Shagrat_70
• Track 8 : Madraxi_73
• Track 9 : DelRio_48
• Track 10 : GrandSlam_47, Hamood_47, Chop_47, Ayotoya_47
• Track 11 : Francois_46
• Track 12 : Brylie_47, WheatThin_47, Mulch_47, Nadeem_47, Parada_47
• Track 13 : Pimento_48
• Track 14 : NancyRae_47, Bock_47
• Track 15 : BetterKatz_47
• Track 16 : Santhid_38
• Track 17 : DonkeyMan_39, Tarzan_39
• Track 18 : Heinz_39, Hibiscus_40
• Track 19 : Jojo24_38
• Track 20 : Reyja_39
• Track 21 : Bridgette_48
• Track 22 : FosterFrank_49
• Track 23 : ChuckDuck_48
• Track 24 : PeggyLeg03_46, Pucara_43
• Track 25 : KayMoney_46, Constance_46, LittleRon_44
• Track 26 : Eileen_43
• Track 27 : LilyBell_47
• Track 28 : NidoQ_43
• Track 29 : Judy_49
• Track 30 : Karkharias_46
• Track 31 : NikkiHotWheels_47
• Track 32 : GlobiWarming_48
• Track 33 : HotPotato_45
• Track 34 : Henrique_46
• Track 35 : RootBeer_37
• Track 36 : Peas_45
• Track 37 : Scotia_39

• Track 38 : NoSwimming_41
• Track 39 : Veliki_62, Emerson_62, Ganymede_62, Clipper_64, MacKat_56, QuincyRose_60, YoureAdopted_60, Beezoo_63, JAWS_61, Padpat_63, Mynx_62, Anaya_63, Geraldini_64
• Track 40 : Pisa4_55, Pisa1_61
• Track 41 : Richo_62, Dartin_62, Niklas_62, Shaobing_62, McMater_62, Peanam_62
• Track 42 : DartGoblin_64, Tachez_61, BGlluviae_61, Anma_63, Jarvi_61, TiniBug_62, Blizzard_61, DrHayes_62, Atiba_62, Hyperbowlee_61, Adephagia_61, LindNT_60, Llorens_61, Homura_61, CaseJules_63, Spock_61, Capricorn_61, Rosmarinus_61, ShiaSurprise_62, Lunahalos_61, Boiiii_61, Bella96_62, SamuelLPlaqson_62, Joy99_61, CrimD_62, Urkel_62, Durfee_61, Peel_61, Belladonna_61, Padfoot_61, Topper_61, Piatt_61, Dalmuri_61, Inky_61, TreyKay_62, CallaLilly_61, Prithvi_62, Jeckyll_61, Twitch_61, AlishaPH_61, BEEST_61, CREW_61, Asayake_61
• Track 43 : Apocalypse_64
• Track 44 : Nutello_50, Teejan_52, SgtBeansprout_50, Nikao_53, Biglebops_50, LilPharaoh_50, Torres_53, Enkosi_52, Amelie_50, Mdavu_51, Trice_50
• Track 45 : LaterM_61, Ageofdapage_64, Sulley_61, Megsy_63, Murucutumbu_62
• Track 46 : Stinson_62
• Track 47 : Yunkel11_64, Guanica15_64
• Track 48 : Bern_62, CheetoDust_60
• Track 49 : Pokerus_60
• Track 50 : Efra2_65
• Track 51 : Devera_68, Dole_66, Illumine_66
• Track 52 : BarrelRoll_61, Rapunzel97_62, TruffulaTree_61, Slimphazie_61
• Track 53 : Adonis_61, Zavala_63
• Track 54 : Deby_61
• Track 55 : TaiwanKao_63
• Track 56 : Chavito_62
• Track 57 : Angelica_61
• Track 58 : Tiri_62
• Track 59 : KiSi_65, Scarlett_65
• Track 60 : Jayhawk_62
• Track 61 : Oscar_64
• Track 62 : TingHuaYa_63
• Track 63 : LeMond_64
• Track 64 : Validus_64
• Track 65 : MeaningOfLife_62
• Track 66 : LastHope_64
• Track 67 : Curiosium_65
• Track 68 : Marcoliusprime_62, DismalFunk_62, DismalStressor_62, Strobilo_63
• Track 69 : Mufasa_62, Doughnut_62, BoostSeason_62
• Track 70 : TM4_59
• Track 71 : ZoeJ_61
• Track 72 : Milly_62
• Track 73 : Findley_62
• Track 74 : TBond007_58, Pixie_59
• Track 75 : Keshu_62
• Track 76 : MacnCheese_62
• Track 77 : TribleTrouble_60
• Track 78 : ShedlockHolmes_61, Lea83_60
• Track 79 : Hurricane_60

- Track 80 : Malthus_65, Eponine_66, Juliette_66, Chancellor_64, Mitti_64, Cheetobro_64, Ruthiejr_65, DanSyl44_67, Taquito_63, Fionnbharth_64, Slarp_64, Wintermute_64, Qhanda_66, Kraw_64, SamScheppers_62, OmniCritical_63, Lebo14_63
- Track 81 : Y2_62, Y10_62, JF1_64
- Track 82 : YasnayaPolyana_63
- Track 83 : MissDaisy_61, Bobquesha_65, Patt_60, Reptar3000_61
- Track 84 : Omnicron_59
- Track 85 : Yuna_65
- Track 86 : Hammy_60
- Track 87 : Ekdilam_58
- Track 88 : DarthP_60
- Track 89 : Marshawn_60
- Track 90 : Amohnition_60
- Track 91 : Aminay_61
- Track 92 : Boilgate_56
- Track 93 : Catdawg_12, JangDynasty_12, Bora_13, Alkhayr_13, Idergollasper_12, Blessica_12, FoulBall_12, Vorrps_13, Mori_13, KingPhillip3_12, Imara_13, Murai_13, YoyoKar_13, Familton_13, YungJamal_14, Zebo_12, Vagabond_13, Shida_13, Ryadel_15, Firecracker_13, Wogge42_13, NiebruSaylor_13, TelAviv_12, SchoolBus_12
- Track 94 : Zakhe101_14, Dylan_13, Ashwin_14, Wildflower_13
- Track 95 : Schuy_14, Krili_13, MadKillah_14
- Track 96 : Corndog_15
- Track 97 : Smooch_14
- Track 98 : Winget_13
- Track 99 : GMA4_40
- Track 100 : TinyDot_44
- Track 101 : Shambre1_40
- Track 102 : TPA4_47

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

The start number called the most often in the published annotations is 33, it was called in 163 of the 221 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Adephagia_61, Adonis_61, Ageofdapage_64, AlishaPH_61, Amelie_50, Aminay_61, Amohnition_60, Anaya_63, Angelica_61, Anma_63, Apocalypse_64, Asayake_61, Atiba_62, BEEST_61, BGlluviae_61, BarrelRoll_61, Beezoo_63, Bella96_62, Belladonna_61, Bern_62, Biglebops_50, Blizzard_61, Bobquesha_65, Boiiii_61, Boilgate_56, BoostSeason_62, Bridgette_48, CREW_61, CallaLilly_61, Capricorn_61, CaseJules_63, Chancellor_64, Chavito_62, CheetoDust_60, Cheetobro_64, ChuckDuck_48, Clipper_64, Constance_46, CrimD_62, Curiosium_65, Dalmuri_61, DanSyl44_67, DartGoblin_64, DarthP_60, Dartin_62, Deby_61, Devera_68, DismalFunk_62, DismalStressor_62, Dole_66, Doughnut_62, DrHayes_62, Durfee_61, Efra2_65, Ekdilam_58, Emerson_62, Enkosi_52, Eponine_66, Findley_62, Fionnbharth_64, Ganymede_62, Geraldini_64, GlobiWarming_48, Guanica15_64, Hammy_60, Henrique_46, Homura_61, Hurricane_60, Hyperbowlee_61, Illumine_66, Inky_61, JAWS_61, JF1_64, Jarvi_61, Jayhawk_62,

Jeckyll_61, Joy99_61, Judy_49, Juliette_66, Karkharias_46, KayMoney_46, Keshu_62, KiSi_65, Kraw_64, LastHope_64, LaterM_61, LeMond_64, Lea83_60, Lebo14_63, LilPharaoh_50, LilyBell_47, LindNT_60, LittleRon_44, Llorens_61, Lunahalos_61, MacKat_56, MacnCheese_62, MalagasyRose_61, Malthus_65, Marcoliusprime_62, Marshawn_60, McMater_62, Mdavu_51, MeaningOfLife_62, Megsy_63, Milly_62, MissDaisy_61, Mitti_64, Mufasa_62, Murucutumbu_62, Mynx_62, NidoQ_43, Nikao_53, NikkiHotWheels_47, Niklas_62, NoSwimming_41, Nutello_50, OmniCritical_63, Omnicron_59, Oscar_64, Padfoot_61, Padpat_63, Patt_60, Peanam_62, Peas_45, Peel_61, PeggyLeg03_46, Piatt_61, Pixie_59, Pokerus_60, Prithvi_62, Pucara_43, Qhanda_66, QuincyRose_60, Rapunzel97_62, Reptar3000_61, Richo_62, RootBeer_37, Rosmarinus_61, Ruthiejr_65, SamScheppers_62, SamuelLPlaqson_62, Scarlett_65, Scotia_39, SgtBeansprout_50, Shaobing_62, ShedlockHolmes_61, ShiaSurprise_62, Slarp_64, Slimphazie_61, Spock_61, Stinson_62, Strobilo_63, Sulley_61, TBond007_58, TM4_59, Tachez_61, TaiwanKao_63, Taquito_63, Teejan_52, TingHuaYa_63, TiniBug_62, Tiri_62, Topper_61, Torres_53, TreyKay_62, TribleTrouble_60, Trice_50, TruffulaTree_61, Twitch_61, Urkel_62, Validus_64, Veliki_62, Wintermute_64, Y10_62, Y2_62, YasnayaPolyana_63, YoureAdopted_60, Yuna_65, Yunkel11_64, Zavala_63, ZoeJ_61,

Genes that have the "Most Annotated" start but do not call it:
• HotPotato_45, Pisa1_61, Pisa4_55,

Genes that do not have the "Most Annotated" start:
• Alkhayr_13, Ashwin_14, Ayotoya_47, BetterKatz_47, Blessica_12, Bock_47, Bora_13, Brylie_47, Catdawg_12, Chop_47, Corndog_15, CurlyFries_76, DelRio_48, DonkeyMan_39, Dylan_13, Eileen_43, Familton_13, Firecracker_13, FosterFrank_49, FoulBall_12, Francois_46, GMA4_40, GrandSlam_47, Hamood_47, Heinz_39, Hibiscus_40, Idergollasper_12, Imara_13, JangDynasty_12, Jflix2_69, Jojo24_38, KingPhillip3_12, Krili_13, MadKillah_14, Madraxi_73, Mori_13, Mulch_47, Murai_13, Nadeem_47, NancyRae_47, NiebruSaylor_13, Parada_47, Pimento_48, REQ1_38, RegnumDei_70, Reyja_39, Ryadel_15, SFuller_67, Santhid_38, SchoolBus_12, Schuy_14, Shagrat_70, Shambre1_40, Shida_13, Smooch_14, TPA4_47, Tarzan_39, TelAviv_12, TinyDot_44, Vagabond_13, Vorrps_13, WheatThin_47, Wildflower_13, Winget_13, Wogge42_13, YoyoKar_13, YungJamal_14, Zakhe101_14, Zebo_12,

Summary by start number:

Start 21:
• Found in 16 of 254 (6.3%) of genes in pham
• Manual Annotations of this start: 15 of 221
• Called 93.8% of time when present
• Phage (with cluster) where this start called: Ayotoya_47 (DI), BetterKatz_47 (DI), Bock_47 (DI), Brylie_47 (DI), Chop_47 (DI), DelRio_48 (DI), Francois_46 (DI), GrandSlam_47 (DI), Hamood_47 (DI), Mulch_47 (DI), Nadeem_47 (DI), NancyRae_47 (DI), Parada_47 (DI), Pimento_48 (DI), WheatThin_47 (DI),

Start 28:
• Found in 1 of 254 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: HotPotato_45 (FA),

Start 29:
- Found in 29 of 254 (11.4%) of genes in pham
- No Manual Annotations of this start.
- Called 6.9% of time when present
- Phage (with cluster) where this start called: Pisa1_61 (K1), Pisa4_55 (K1),

Start 30:
- Found in 1 of 254 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 221
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eileen_43 (FA),

Start 32:
- Found in 1 of 254 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FosterFrank_49 (FA),

Start 33:
- Found in 185 of 254 (72.8%) of genes in pham
- Manual Annotations of this start: 163 of 221
- Called 98.4% of time when present
- Phage (with cluster) where this start called: Adephagia_61 (K1), Adonis_61 (K1), Ageofdapage_64 (K1), AlishaPH_61 (K1), Amelie_50 (K1), Aminay_61 (K7), Amohnition_60 (K6), Anaya_63 (K1), Angelica_61 (K1), Anma_63 (K1), Apocalypse_64 (K1), Asayake_61 (K1), Atiba_62 (K1), BEEST_61 (K1), BGlluviae_61 (K1), BarrelRoll_61 (K1), Beezoo_63 (K1), Bella96_62 (K1), Belladonna_61 (K1), Bern_62 (K1), Biglebops_50 (K1), Blizzard_61 (K1), Bobquesha_65 (K4), Boiiii_61 (K1), Boilgate_56 (K8), BoostSeason_62 (K2), Bridgette_48 (FA), CREW_61 (K1), CallaLilly_61 (K1), Capricorn_61 (K1), CaseJules_63 (K1), Chancellor_64 (K4), Chavito_62 (K1), CheetoDust_60 (K1), Cheetobro_64 (K4), ChuckDuck_48 (FA), Clipper_64 (K1), Constance_46 (FA), CrimD_62 (K1), Curiosium_65 (K1), Dalmuri_61 (K1), DanSyl44_67 (K4), DartGoblin_64 (K1), DarthP_60 (K6), Dartin_62 (K1), Deby_61 (K1), Devera_68 (K1), DismalFunk_62 (K2), DismalStressor_62 (K2), Dole_66 (K1), Doughnut_62 (K2), DrHayes_62 (K1), Durfee_61 (K1), Efra2_65 (K1), Ekdilam_58 (K6), Emerson_62 (K1), Enkosi_52 (K1), Eponine_66 (K4), Findley_62 (K2), Fionnbharth_64 (K4), Ganymede_62 (K1), Geraldini_64 (K1), GlobiWarming_48 (FA), Guanica15_64 (K1), Hammy_60 (K6), Henrique_46 (FA), Homura_61 (K1), Hurricane_60 (K3), Hyperbowlee_61 (K1), Illumine_66 (K1), Inky_61 (K1), JAWS_61 (K1), JF1_64 (K4), Jarvi_61 (K1), Jayhawk_62 (K1), Jeckyll_61 (K1), Joy99_61 (K1), Judy_49 (FA), Juliette_66 (K4), Karkharias_46 (FA), KayMoney_46 (FA), Keshu_62 (K3), KiSi_65 (K1), Kraw_64 (K4), LastHope_64 (K1), LaterM_61 (K1), LeMond_64 (K1), Lea83_60 (K3), Lebo14_63 (K4), LilPharaoh_50 (K1), LilyBell_47 (FA), LindNT_60 (K1), LittleRon_44 (FA), Llorens_61 (K1), Lunahalos_61 (K1), MacKat_56 (K1), MacnCheese_62 (K3), MalagasyRose_61 (AG), Malthus_65 (K4), Marcoliusprime_62 (K2), Marshawn_60 (K6), McMater_62 (K1), Mdavu_51 (K1), MeaningOfLife_62 (K1), Megsy_63 (K1), Milly_62 (K2), MissDaisy_61 (K4), Mitti_64 (K4), Mufasa_62 (K2), Murucutumbu_62 (K1), Mynx_62 (K1), NidoQ_43 (FA), Nikao_53 (K1), NikkiHotWheels_47 (FA), Niklas_62 (K1), NoSwimming_41 (FO), Nutello_50 (K1), OmniCritical_63 (K4), Omnicron_59 (K5), Oscar_64 (K1), Padfoot_61 (K1), Padpat_63 (K1), Patt_60 (K4), Peanam_62 (K1), Peas_45 (FA), Peel_61 (K1), PeggyLeg03_46 (FA), Piatt_61 (K1), Pixie_59 (K3), Pokerus_60 (K1), Prithvi_62 (K1), Pucara_43 (FA), Qhanda_66 (K4), QuincyRose_60 (K1),

Rapunzel97_62 (K1), Reptar3000_61 (K4), Richo_62 (K1), RootBeer_37 (FA), Rosmarinus_61 (K1), Ruthiejr_65 (K4), SamScheppers_62 (K4), SamuelLPlaqson_62 (K1), Scarlett_65 (K1), Scotia_39 (FO), SgtBeansprout_50 (K1), Shaobing_62 (K1), ShedlockHolmes_61 (K3), ShiaSurprise_62 (K1), Slarp_64 (K4), Slimphazie_61 (K1), Spock_61 (K1), Stinson_62 (K1), Strobilo_63 (K2), Sulley_61 (K1), TBond007_58 (K3), TM4_59 (K2), Tachez_61 (K1), TaiwanKao_63 (K1), Taquito_63 (K4), Teejan_52 (K1), TingHuaYa_63 (K1), TiniBug_62 (K1), Tiri_62 (K1), Topper_61 (K1), Torres_53 (K1), TreyKay_62 (K1), TribleTrouble_60 (K3), Trice_50 (K1), TruffulaTree_61 (K1), Twitch_61 (K1), Urkel_62 (K1), Validus_64 (K1), Veliki_62 (K1), Wintermute_64 (K4), Y10_62 (K4), Y2_62 (K4), YasnayaPolyana_63 (K4), YoureAdopted_60 (K1), Yuna_65 (K6), Yunkel11_64 (K1), Zavala_63 (K1), ZoeJ_61 (K2),

Start 36:
• Found in 1 of 254 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jojo24_38 (DY),

Start 38:
• Found in 6 of 254 (2.4%) of genes in pham
• Manual Annotations of this start: 6 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DonkeyMan_39 (DY), Heinz_39 (DY), Hibiscus_40 (DY), Reyja_39 (DY), Santhid_38 (DY), Tarzan_39 (DY),

Start 42:
• Found in 4 of 254 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jflix2_69 (CF), Madraxi_73 (CF), REQ1_38 (CF), SFuller_67 (CF),

Start 43:
• Found in 1 of 254 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shambre1_40 (singleton),

Start 45:
• Found in 1 of 254 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TPA4_47 (singleton),

Start 46:
• Found in 1 of 254 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA4_40 (singleton),

Start 48:
• Found in 1 of 254 (0.4%) of genes in pham

• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TinyDot_44 (singleton),

Start 49:
• Found in 34 of 254 (13.4%) of genes in pham
• Manual Annotations of this start: 30 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alkhayr_13 (O), Ashwin_14 (O), Blessica_12 (O), Bora_13 (O), Catdawg_12 (O), Corndog_15 (O), Dylan_13 (O), Familton_13 (O), Firecracker_13 (O), FoulBall_12 (O), Idergollasper_12 (O), Imara_13 (O), JangDynasty_12 (O), KingPhillip3_12 (O), Krili_13 (O), MadKillah_14 (O), Mori_13 (O), Murai_13 (O), NiebruSaylor_13 (O), Ryadel_15 (O), SchoolBus_12 (O), Schuy_14 (O), Shida_13 (O), Smooch_14 (O), TelAviv_12 (O), Vagabond_13 (O), Vorrps_13 (O), Wildflower_13 (O), Winget_13 (O), Wogge42_13 (O), YoyoKar_13 (O), YungJamal_14 (O), Zakhe101_14 (O), Zebo_12 (O),

Start 51:
• Found in 15 of 254 (5.9%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 20.0% of time when present
• Phage (with cluster) where this start called: CurlyFries_76 (CF), RegnumDei_70 (CF), Shagrat_70 (CF),

Summary by clusters:

There are 16 clusters represented in this pham: singleton, AG, K2, DI, CF, O, K4, K3, FA, K1, K7, K6, K5, DY, K8, FO,

Info for manual annotations of cluster AG:
•Start number 33 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster CF:
•Start number 42 was manually annotated 2 times for cluster CF.
•Start number 51 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster DI:
•Start number 21 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster DY:
•Start number 36 was manually annotated 1 time for cluster DY.
•Start number 38 was manually annotated 6 times for cluster DY.

Info for manual annotations of cluster FA:
•Start number 30 was manually annotated 1 time for cluster FA.
•Start number 33 was manually annotated 10 times for cluster FA.

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

Info for manual annotations of cluster K1:
•Start number 33 was manually annotated 100 times for cluster K1.

Info for manual annotations of cluster K2:
•Start number 33 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:
•Start number 33 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:
•Start number 33 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:
•Start number 33 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:
•Start number 33 was manually annotated 6 times for cluster K6.

Info for manual annotations of cluster K7:
•Start number 33 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:
•Start number 33 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster O:
•Start number 49 was manually annotated 30 times for cluster O.

Gene Information:

Gene: Adephagia_61 Start: 41293, Stop: 42171, Start Num: 33
Candidate Starts for Adephagia_61:
(Start: 33 @41293 has 163 MA's), (63, 41404), (78, 41503), (107, 41725), (111, 41779), (123, 41854), (129, 41911), (136, 41959), (149, 42025), (158, 42073), (160, 42085), (161, 42100),

Gene: Adonis_61 Start: 41528, Stop: 42406, Start Num: 33
Candidate Starts for Adonis_61:
(Start: 33 @41528 has 163 MA's), (63, 41639), (68, 41675), (78, 41738), (95, 41888), (107, 41960), (111, 42014), (123, 42089), (129, 42146), (136, 42194), (149, 42260), (158, 42308), (160, 42320), (161, 42335),

Gene: Ageofdapage_64 Start: 42266, Stop: 43153, Start Num: 33
Candidate Starts for Ageofdapage_64:
(Start: 33 @42266 has 163 MA's), (63, 42377), (78, 42476), (107, 42698), (111, 42752), (123, 42836), (129, 42893), (136, 42941), (149, 43007), (159, 43058), (160, 43067), (161, 43082),

Gene: AlishaPH_61 Start: 41554, Stop: 42432, Start Num: 33
Candidate Starts for AlishaPH_61:
(Start: 33 @41554 has 163 MA's), (63, 41665), (78, 41764), (107, 41986), (111, 42040), (123, 42115), (129, 42172), (136, 42220), (149, 42286), (158, 42334), (160, 42346), (161, 42361),

Gene: Alkhayr_13 Start: 5075, Stop: 5824, Start Num: 49
Candidate Starts for Alkhayr_13:
(Start: 49 @5075 has 30 MA's), (63, 5141), (74, 5219), (80, 5243), (85, 5303), (90, 5345), (96, 5381), (111, 5441), (129, 5570), (136, 5618), (141, 5657), (154, 5705),

Gene: Amelie_50 Start: 38595, Stop: 39482, Start Num: 33
Candidate Starts for Amelie_50:
(Start: 33 @38595 has 163 MA's), (63, 38706), (78, 38805), (95, 38955), (102, 38988), (107, 39027), (111, 39081), (123, 39165), (128, 39213), (129, 39222), (133, 39237), (136, 39270), (158, 39384), (161, 39411),

Gene: Aminay_61 Start: 40983, Stop: 41852, Start Num: 33
Candidate Starts for Aminay_61:
(29, 40962), (Start: 33 @40983 has 163 MA's), (50, 41019), (91, 41292), (111, 41448), (125, 41535), (129, 41580), (134, 41610), (149, 41694), (159, 41745), (166, 41808),

Gene: Amohnition_60 Start: 41578, Stop: 42447, Start Num: 33
Candidate Starts for Amohnition_60:
(Start: 33 @41578 has 163 MA's), (63, 41689), (95, 41938), (106, 41998), (107, 42004), (123, 42133), (129, 42190), (136, 42238), (138, 42265), (150, 42307), (159, 42355), (161, 42379),

Gene: Anaya_63 Start: 41812, Stop: 42690, Start Num: 33
Candidate Starts for Anaya_63:
(Start: 33 @41812 has 163 MA's), (63, 41923), (78, 42022), (95, 42172), (107, 42244), (111, 42298), (123, 42373), (129, 42430), (136, 42478), (149, 42544), (158, 42592), (160, 42604), (161, 42619),

Gene: Angelica_61 Start: 41436, Stop: 42323, Start Num: 33
Candidate Starts for Angelica_61:
(Start: 33 @41436 has 163 MA's), (63, 41547), (78, 41646), (95, 41796), (107, 41868), (111, 41922), (123, 42006), (129, 42063), (136, 42111), (149, 42177), (159, 42228), (160, 42237), (161, 42252), (168, 42294),

Gene: Anma_63 Start: 42174, Stop: 43055, Start Num: 33
Candidate Starts for Anma_63:
(Start: 33 @42174 has 163 MA's), (63, 42285), (78, 42384), (107, 42609), (111, 42663), (123, 42738), (129, 42795), (136, 42843), (149, 42909), (158, 42957), (160, 42969), (161, 42984),

Gene: Apocalypse_64 Start: 42202, Stop: 43089, Start Num: 33
Candidate Starts for Apocalypse_64:
(Start: 33 @42202 has 163 MA's), (59, 42295), (63, 42313), (78, 42412), (95, 42562), (107, 42634), (111, 42688), (123, 42772), (129, 42829), (136, 42877), (149, 42943), (159, 42994), (160, 43003), (161, 43018), (168, 43060),

Gene: Asayake_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for Asayake_61:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Ashwin_14 Start: 5310, Stop: 6059, Start Num: 49
Candidate Starts for Ashwin_14:
(Start: 49 @5310 has 30 MA's), (63, 5376), (74, 5454), (80, 5478), (85, 5538), (90, 5580), (93, 5601), (96, 5616), (111, 5676), (129, 5805), (136, 5853), (141, 5892), (154, 5940),

Gene: Atiba_62 Start: 41256, Stop: 42134, Start Num: 33
Candidate Starts for Atiba_62:
(Start: 33 @41256 has 163 MA's), (63, 41367), (78, 41466), (107, 41688), (111, 41742), (123, 41817), (129, 41874), (136, 41922), (149, 41988), (158, 42036), (160, 42048), (161, 42063),

Gene: Ayotoya_47 Start: 34657, Stop: 35544, Start Num: 21
Candidate Starts for Ayotoya_47:
(7, 34429), (10, 34504), (11, 34513), (14, 34552), (Start: 21 @34657 has 15 MA's), (24, 34678), (Start: 51 @34768 has 1 MA's), (56, 34795), (59, 34813), (70, 34882), (115, 35167), (117, 35176), (118, 35182), (130, 35269), (131, 35272), (136, 35314), (138, 35341), (144, 35368), (146, 35374), (150, 35383), (152, 35392),

Gene: BEEST_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for BEEST_61:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: BGlluviae_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for BGlluviae_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: BarrelRoll_61 Start: 41260, Stop: 42147, Start Num: 33
Candidate Starts for BarrelRoll_61:
(Start: 33 @41260 has 163 MA's), (59, 41353), (63, 41371), (78, 41470), (95, 41620), (107, 41692), (111, 41746), (123, 41830), (129, 41887), (136, 41935), (149, 42001), (160, 42061), (161, 42076), (168, 42118),

Gene: Beezoo_63 Start: 42244, Stop: 43122, Start Num: 33
Candidate Starts for Beezoo_63:
(Start: 33 @42244 has 163 MA's), (63, 42355), (78, 42454), (95, 42604), (107, 42676), (111, 42730), (123, 42805), (129, 42862), (136, 42910), (149, 42976), (158, 43024), (160, 43036), (161, 43051),

Gene: Bella96_62 Start: 42019, Stop: 42900, Start Num: 33
Candidate Starts for Bella96_62:
(Start: 33 @42019 has 163 MA's), (63, 42130), (78, 42229), (107, 42454), (111, 42508), (123, 42583), (129, 42640), (136, 42688), (149, 42754), (158, 42802), (160, 42814), (161, 42829),

Gene: Belladonna_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Belladonna_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: Bern_62 Start: 40230, Stop: 41117, Start Num: 33
Candidate Starts for Bern_62:
(Start: 33 @40230 has 163 MA's), (63, 40341), (78, 40440), (95, 40590), (107, 40662), (111, 40716), (123, 40800), (129, 40857), (136, 40905), (149, 40971), (153, 40986), (160, 41031), (161, 41046),

Gene: BetterKatz_47 Start: 34191, Stop: 35018, Start Num: 21
Candidate Starts for BetterKatz_47:
(10, 34029), (11, 34038), (14, 34077), (Start: 21 @34191 has 15 MA's), (35, 34206), (39, 34215), (56, 34269), (59, 34287), (70, 34356), (115, 34641), (117, 34650), (118, 34656), (130, 34743), (136, 34788), (138, 34815), (144, 34842), (146, 34848), (150, 34857), (152, 34866),

Gene: Biglebops_50 Start: 38595, Stop: 39482, Start Num: 33
Candidate Starts for Biglebops_50:

(Start: 33 @38595 has 163 MA's), (63, 38706), (78, 38805), (95, 38955), (102, 38988), (107, 39027), (111, 39081), (123, 39165), (128, 39213), (129, 39222), (133, 39237), (136, 39270), (158, 39384), (161, 39411),

Gene: Blessica_12 Start: 4707, Stop: 5456, Start Num: 49
Candidate Starts for Blessica_12:
(Start: 49 @4707 has 30 MA's), (63, 4773), (74, 4851), (80, 4875), (85, 4935), (90, 4977), (96, 5013), (111, 5073), (129, 5202), (136, 5250), (141, 5289), (154, 5337),

Gene: Blizzard_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for Blizzard_61:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Bobquesha_65 Start: 39808, Stop: 40671, Start Num: 33
Candidate Starts for Bobquesha_65:
(16, 39643), (29, 39787), (Start: 33 @39808 has 163 MA's), (67, 39919), (68, 39937), (81, 40009), (82, 40039), (107, 40222), (111, 40276), (129, 40408), (165, 40633), (166, 40636),

Gene: Bock_47 Start: 33880, Stop: 34767, Start Num: 21
Candidate Starts for Bock_47:
(10, 33727), (11, 33736), (14, 33775), (Start: 21 @33880 has 15 MA's), (24, 33901), (Start: 51 @33991 has 1 MA's), (56, 34018), (59, 34036), (70, 34105), (115, 34390), (117, 34399), (118, 34405), (130, 34492), (131, 34495), (136, 34537), (138, 34564), (144, 34591), (146, 34597), (150, 34606), (152, 34615),

Gene: Boiiii_61 Start: 41610, Stop: 42488, Start Num: 33
Candidate Starts for Boiiii_61:
(Start: 33 @41610 has 163 MA's), (63, 41721), (78, 41820), (107, 42042), (111, 42096), (123, 42171), (129, 42228), (136, 42276), (149, 42342), (158, 42390), (160, 42402), (161, 42417),

Gene: Boilgate_56 Start: 40641, Stop: 41474, Start Num: 33
Candidate Starts for Boilgate_56:
(Start: 33 @40641 has 163 MA's), (63, 40722), (123, 41154), (125, 41166), (129, 41211), (153, 41340), (158, 41373),

Gene: BoostSeason_62 Start: 42960, Stop: 43817, Start Num: 33
Candidate Starts for BoostSeason_62:
(Start: 33 @42960 has 163 MA's), (63, 43065), (78, 43164), (107, 43374), (136, 43608), (150, 43677), (159, 43725), (160, 43734), (161, 43749),

Gene: Bora_13 Start: 5108, Stop: 5857, Start Num: 49
Candidate Starts for Bora_13:
(Start: 49 @5108 has 30 MA's), (63, 5174), (74, 5252), (80, 5276), (85, 5336), (90, 5378), (96, 5414), (111, 5474), (129, 5603), (136, 5651), (141, 5690), (154, 5738),

Gene: Bridgette_48 Start: 31057, Stop: 31863, Start Num: 33
Candidate Starts for Bridgette_48:
(Start: 33 @31057 has 163 MA's), (37, 31066), (41, 31081), (64, 31168), (66, 31180), (71, 31228), (84, 31312), (93, 31393), (111, 31480), (126, 31588), (129, 31612), (130, 31615), (143, 31711), (155, 31759),

Gene: Brylie_47 Start: 33927, Stop: 34814, Start Num: 21

Candidate Starts for Brylie_47:
(10, 33774), (11, 33783), (14, 33822), (Start: 21 @33927 has 15 MA's), (24, 33948), (Start: 51 @34038 has 1 MA's), (56, 34065), (59, 34083), (115, 34437), (117, 34446), (118, 34452), (130, 34539), (131, 34542), (136, 34584), (138, 34611), (144, 34638), (146, 34644), (150, 34653), (152, 34662),

Gene: CREW_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for CREW_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: CallaLilly_61 Start: 41334, Stop: 42212, Start Num: 33
Candidate Starts for CallaLilly_61:
(Start: 33 @41334 has 163 MA's), (63, 41445), (78, 41544), (107, 41766), (111, 41820), (123, 41895), (129, 41952), (136, 42000), (149, 42066), (158, 42114), (160, 42126), (161, 42141),

Gene: Capricorn_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Capricorn_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: CaseJules_63 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for CaseJules_63:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Catdawg_12 Start: 4747, Stop: 5496, Start Num: 49
Candidate Starts for Catdawg_12:
(Start: 49 @4747 has 30 MA's), (63, 4813), (74, 4891), (80, 4915), (85, 4975), (90, 5017), (96, 5053), (111, 5113), (129, 5242), (136, 5290), (141, 5329), (154, 5377),

Gene: Chancellor_64 Start: 40918, Stop: 41781, Start Num: 33
Candidate Starts for Chancellor_64:
(24, 40882), (29, 40897), (Start: 33 @40918 has 163 MA's), (47, 40951), (53, 40972), (68, 41047), (106, 41326), (107, 41332), (112, 41395), (121, 41449), (129, 41518), (136, 41566), (150, 41635), (165, 41743), (166, 41746),

Gene: Chavito_62 Start: 42011, Stop: 42898, Start Num: 33
Candidate Starts for Chavito_62:
(Start: 33 @42011 has 163 MA's), (63, 42122), (80, 42224), (95, 42371), (98, 42383), (107, 42443), (111, 42497), (123, 42581), (129, 42638), (136, 42686), (148, 42749), (159, 42803), (160, 42812), (161, 42827), (164, 42851), (167, 42866),

Gene: CheetoDust_60 Start: 40684, Stop: 41571, Start Num: 33
Candidate Starts for CheetoDust_60:
(Start: 33 @40684 has 163 MA's), (63, 40795), (78, 40894), (95, 41044), (107, 41116), (111, 41170), (123, 41254), (129, 41311), (136, 41359), (149, 41425), (153, 41440), (160, 41485), (161, 41500),

Gene: Cheetobro_64 Start: 40915, Stop: 41778, Start Num: 33
Candidate Starts for Cheetobro_64:
(24, 40879), (29, 40894), (Start: 33 @40915 has 163 MA's), (47, 40948), (53, 40969), (68, 41044), (106, 41323), (107, 41329), (112, 41392), (121, 41446), (129, 41515), (136, 41563), (150, 41632), (165, 41740), (166, 41743),

Gene: Chop_47 Start: 34404, Stop: 35291, Start Num: 21
Candidate Starts for Chop_47:
(7, 34176), (10, 34251), (11, 34260), (14, 34299), (Start: 21 @34404 has 15 MA's), (24, 34425), (Start: 51 @34515 has 1 MA's), (56, 34542), (59, 34560), (70, 34629), (115, 34914), (117, 34923), (118, 34929), (130, 35016), (131, 35019), (136, 35061), (138, 35088), (144, 35115), (146, 35121), (150, 35130), (152, 35139),

Gene: ChuckDuck_48 Start: 30497, Stop: 31303, Start Num: 33
Candidate Starts for ChuckDuck_48:
(25, 30470), (26, 30473), (Start: 33 @30497 has 163 MA's), (41, 30521), (64, 30608), (66, 30620), (71, 30668), (93, 30833), (121, 30983), (126, 31028), (130, 31055), (143, 31151),

Gene: Clipper_64 Start: 41859, Stop: 42737, Start Num: 33
Candidate Starts for Clipper_64:
(Start: 33 @41859 has 163 MA's), (63, 41970), (78, 42069), (95, 42219), (107, 42291), (111, 42345), (123, 42420), (129, 42477), (136, 42525), (149, 42591), (158, 42639), (160, 42651), (161, 42666),

Gene: Constance_46 Start: 30686, Stop: 31492, Start Num: 33
Candidate Starts for Constance_46:
(Start: 33 @30686 has 163 MA's), (41, 30710), (64, 30797), (66, 30809), (71, 30857), (93, 31022), (111, 31109), (126, 31217), (129, 31241), (130, 31244), (143, 31340), (155, 31388),

Gene: Corndog_15 Start: 5422, Stop: 6171, Start Num: 49
Candidate Starts for Corndog_15:
(Start: 49 @5422 has 30 MA's), (63, 5488), (74, 5566), (80, 5590), (85, 5650), (90, 5692), (96, 5728), (111, 5788), (129, 5917), (136, 5965), (141, 6004), (154, 6052),

Gene: CrimD_62 Start: 41817, Stop: 42695, Start Num: 33
Candidate Starts for CrimD_62:
(Start: 33 @41817 has 163 MA's), (63, 41928), (78, 42027), (107, 42249), (111, 42303), (123, 42378), (129, 42435), (136, 42483), (149, 42549), (158, 42597), (160, 42609), (161, 42624),

Gene: Curiosium_65 Start: 40936, Stop: 41826, Start Num: 33
Candidate Starts for Curiosium_65:
(8, 40654), (18, 40804), (24, 40900), (29, 40915), (Start: 33 @40936 has 163 MA's), (63, 41047), (75, 41134), (78, 41146), (107, 41371), (111, 41425), (123, 41509), (136, 41614), (158, 41728), (160, 41740), (161, 41755),

Gene: CurlyFries_76 Start: 41313, Stop: 42152, Start Num: 51
Candidate Starts for CurlyFries_76:
(27, 41247), (Start: 51 @41313 has 1 MA's), (56, 41340), (78, 41478), (87, 41553), (92, 41595), (104, 41619), (105, 41622), (122, 41748), (127, 41802), (137, 41871), (140, 41898), (150, 41934), (175, 42129),

Gene: Dalmuri_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Dalmuri_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: DanSyl44_67 Start: 42109, Stop: 42972, Start Num: 33
Candidate Starts for DanSyl44_67:
(24, 42073), (29, 42088), (Start: 33 @42109 has 163 MA's), (47, 42142), (53, 42163), (68, 42238), (106, 42517), (107, 42523), (112, 42586), (121, 42640), (129, 42709), (136, 42757), (150, 42826),

(165, 42934), (166, 42937),

Gene: DartGoblin_64 Start: 41991, Stop: 42872, Start Num: 33
Candidate Starts for DartGoblin_64:
(Start: 33 @41991 has 163 MA's), (63, 42102), (78, 42201), (107, 42426), (111, 42480), (123, 42555),
(129, 42612), (136, 42660), (149, 42726), (158, 42774), (160, 42786), (161, 42801),

Gene: DarthP_60 Start: 41432, Stop: 42301, Start Num: 33
Candidate Starts for DarthP_60:
(Start: 33 @41432 has 163 MA's), (63, 41543), (95, 41792), (106, 41852), (107, 41858), (123, 41987),
(129, 42044), (136, 42092), (138, 42119), (150, 42161), (159, 42209), (161, 42233),

Gene: Dartin_62 Start: 41510, Stop: 42397, Start Num: 33
Candidate Starts for Dartin_62:
(Start: 33 @41510 has 163 MA's), (63, 41621), (78, 41720), (80, 41723), (95, 41870), (106, 41936),
(107, 41942), (111, 41996), (123, 42080), (129, 42137), (136, 42185), (159, 42302), (160, 42311),
(161, 42326), (164, 42350), (167, 42365),

Gene: Deby_61 Start: 41461, Stop: 42348, Start Num: 33
Candidate Starts for Deby_61:
(Start: 33 @41461 has 163 MA's), (63, 41572), (78, 41671), (95, 41821), (107, 41893), (111, 41947),
(123, 42031), (129, 42088), (136, 42136), (149, 42202), (160, 42262), (161, 42277), (168, 42319),

Gene: DelRio_48 Start: 35109, Stop: 35996, Start Num: 21
Candidate Starts for DelRio_48:
(10, 34956), (11, 34965), (14, 35004), (Start: 21 @35109 has 15 MA's), (24, 35130), (Start: 51 @35220
has 1 MA's), (56, 35247), (59, 35265), (70, 35334), (115, 35619), (117, 35628), (118, 35634), (127,
35703), (130, 35721), (131, 35724), (138, 35793), (144, 35820), (146, 35826), (150, 35835), (152,
35844),

Gene: Devera_68 Start: 42823, Stop: 43710, Start Num: 33
Candidate Starts for Devera_68:
(Start: 33 @42823 has 163 MA's), (63, 42934), (75, 43021), (78, 43033), (107, 43255), (111, 43309),
(123, 43393), (129, 43450), (136, 43498), (149, 43564), (159, 43615), (160, 43624), (161, 43639),

Gene: DismalFunk_62 Start: 43382, Stop: 44239, Start Num: 33
Candidate Starts for DismalFunk_62:
(Start: 33 @43382 has 163 MA's), (63, 43487), (78, 43586), (107, 43796), (136, 44030), (150, 44099),
(159, 44147), (160, 44156), (161, 44171),

Gene: DismalStressor_62 Start: 43382, Stop: 44239, Start Num: 33
Candidate Starts for DismalStressor_62:
(Start: 33 @43382 has 163 MA's), (63, 43487), (78, 43586), (107, 43796), (136, 44030), (150, 44099),
(159, 44147), (160, 44156), (161, 44171),

Gene: Dole_66 Start: 42826, Stop: 43713, Start Num: 33
Candidate Starts for Dole_66:
(Start: 33 @42826 has 163 MA's), (63, 42937), (75, 43024), (78, 43036), (107, 43258), (111, 43312),
(123, 43396), (129, 43453), (136, 43501), (149, 43567), (159, 43618), (160, 43627), (161, 43642),

Gene: DonkeyMan_39 Start: 29056, Stop: 29817, Start Num: 38
Candidate Starts for DonkeyMan_39:

(9, 28825), (17, 28906), (23, 29005), (Start: 38 @29056 has 6 MA's), (60, 29122), (80, 29233), (87, 29308), (88, 29320), (114, 29464), (126, 29539), (129, 29563), (132, 29572), (143, 29662), (150, 29680), (161, 29752),

Gene: Doughnut_62 Start: 43001, Stop: 43858, Start Num: 33
Candidate Starts for Doughnut_62:
(Start: 33 @43001 has 163 MA's), (63, 43106), (78, 43205), (107, 43415), (136, 43649), (150, 43718), (159, 43766), (160, 43775), (161, 43790),

Gene: DrHayes_62 Start: 42174, Stop: 43055, Start Num: 33
Candidate Starts for DrHayes_62:
(Start: 33 @42174 has 163 MA's), (63, 42285), (78, 42384), (107, 42609), (111, 42663), (123, 42738), (129, 42795), (136, 42843), (149, 42909), (158, 42957), (160, 42969), (161, 42984),

Gene: Durfee_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for Durfee_61:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Dylan_13 Start: 5310, Stop: 6059, Start Num: 49
Candidate Starts for Dylan_13:
(Start: 49 @5310 has 30 MA's), (63, 5376), (74, 5454), (80, 5478), (85, 5538), (90, 5580), (93, 5601), (96, 5616), (111, 5676), (129, 5805), (136, 5853), (141, 5892), (154, 5940),

Gene: Efra2_65 Start: 41374, Stop: 42279, Start Num: 33
Candidate Starts for Efra2_65:
(Start: 33 @41374 has 163 MA's), (78, 41584), (107, 41824), (111, 41878), (123, 41962), (133, 42034), (136, 42067), (149, 42133), (159, 42184), (160, 42193), (161, 42208),

Gene: Eileen_43 Start: 29004, Stop: 29810, Start Num: 30
Candidate Starts for Eileen_43:
(Start: 30 @29004 has 1 MA's), (41, 29028), (64, 29115), (66, 29127), (71, 29175), (93, 29340), (111, 29427), (126, 29535), (129, 29559), (130, 29562), (143, 29658),

Gene: Ekdilam_58 Start: 41462, Stop: 42331, Start Num: 33
Candidate Starts for Ekdilam_58:
(2, 40907), (6, 41147), (Start: 33 @41462 has 163 MA's), (63, 41573), (95, 41822), (99, 41834), (106, 41882), (107, 41888), (123, 42017), (129, 42074), (136, 42122), (138, 42149), (150, 42191), (159, 42239), (161, 42263),

Gene: Emerson_62 Start: 41277, Stop: 42155, Start Num: 33
Candidate Starts for Emerson_62:
(Start: 33 @41277 has 163 MA's), (63, 41388), (78, 41487), (95, 41637), (107, 41709), (111, 41763), (123, 41838), (129, 41895), (136, 41943), (149, 42009), (158, 42057), (160, 42069), (161, 42084),

Gene: Enkosi_52 Start: 41208, Stop: 42095, Start Num: 33
Candidate Starts for Enkosi_52:
(Start: 33 @41208 has 163 MA's), (63, 41319), (78, 41418), (95, 41568), (102, 41601), (107, 41640), (111, 41694), (123, 41778), (128, 41826), (129, 41835), (133, 41850), (136, 41883), (158, 41997), (161, 42024),

Gene: Eponine_66 Start: 41761, Stop: 42624, Start Num: 33
Candidate Starts for Eponine_66:

(24, 41725), (29, 41740), (Start: 33 @41761 has 163 MA's), (47, 41794), (53, 41815), (68, 41890), (106, 42169), (107, 42175), (112, 42238), (121, 42292), (129, 42361), (136, 42409), (150, 42478), (165, 42586), (166, 42589),

Gene: Familton_13 Start: 4748, Stop: 5497, Start Num: 49
Candidate Starts for Familton_13:
(Start: 49 @4748 has 30 MA's), (63, 4814), (74, 4892), (80, 4916), (85, 4976), (90, 5018), (96, 5054), (111, 5114), (129, 5243), (136, 5291), (141, 5330), (154, 5378),

Gene: Findley_62 Start: 43375, Stop: 44232, Start Num: 33
Candidate Starts for Findley_62:
(1, 42673), (Start: 33 @43375 has 163 MA's), (63, 43480), (78, 43579), (107, 43789), (136, 44023), (150, 44092), (159, 44140), (160, 44149), (161, 44164),

Gene: Fionnbharth_64 Start: 41159, Stop: 42022, Start Num: 33
Candidate Starts for Fionnbharth_64:
(24, 41123), (29, 41138), (Start: 33 @41159 has 163 MA's), (47, 41192), (53, 41213), (68, 41288), (106, 41567), (107, 41573), (112, 41636), (121, 41690), (129, 41759), (136, 41807), (150, 41876), (165, 41984), (166, 41987),

Gene: Firecracker_13 Start: 5043, Stop: 5792, Start Num: 49
Candidate Starts for Firecracker_13:
(Start: 49 @5043 has 30 MA's), (63, 5109), (74, 5187), (80, 5211), (85, 5271), (90, 5313), (96, 5349), (111, 5409), (129, 5538), (136, 5586), (141, 5625), (154, 5673),

Gene: FosterFrank_49 Start: 30685, Stop: 31491, Start Num: 32
Candidate Starts for FosterFrank_49:
(32, 30685), (41, 30709), (64, 30796), (66, 30808), (71, 30856), (93, 31021), (111, 31108), (126, 31216), (130, 31243), (143, 31339),

Gene: FoulBall_12 Start: 4748, Stop: 5497, Start Num: 49
Candidate Starts for FoulBall_12:
(Start: 49 @4748 has 30 MA's), (63, 4814), (74, 4892), (80, 4916), (85, 4976), (90, 5018), (96, 5054), (111, 5114), (129, 5243), (136, 5291), (141, 5330), (154, 5378),

Gene: Francois_46 Start: 34002, Stop: 34811, Start Num: 21
Candidate Starts for Francois_46:
(10, 33849), (11, 33858), (14, 33897), (Start: 21 @34002 has 15 MA's), (39, 34026), (44, 34044), (56, 34080), (115, 34452), (117, 34461), (118, 34467), (121, 34482), (125, 34506), (128, 34542), (130, 34554), (136, 34599), (141, 34638), (144, 34653), (150, 34668), (152, 34677), (169, 34800),

Gene: GMA4_40 Start: 30065, Stop: 30856, Start Num: 46
Candidate Starts for GMA4_40:
(4, 29687), (12, 29828), (13, 29849), (46, 30065), (55, 30098), (62, 30137), (83, 30284), (88, 30323), (110, 30437), (122, 30503), (132, 30578), (134, 30599), (135, 30602), (147, 30677), (156, 30716), (171, 30815),

Gene: Ganymede_62 Start: 41672, Stop: 42550, Start Num: 33
Candidate Starts for Ganymede_62:
(Start: 33 @41672 has 163 MA's), (63, 41783), (78, 41882), (95, 42032), (107, 42104), (111, 42158), (123, 42233), (129, 42290), (136, 42338), (149, 42404), (158, 42452), (160, 42464), (161, 42479),

Gene: Geraldini_64 Start: 42329, Stop: 43207, Start Num: 33

Candidate Starts for Geraldini_64:
(Start: 33 @42329 has 163 MA's), (63, 42440), (78, 42539), (95, 42689), (107, 42761), (111, 42815), (123, 42890), (129, 42947), (136, 42995), (149, 43061), (158, 43109), (160, 43121), (161, 43136),

Gene: GlobiWarming_48 Start: 30454, Stop: 31260, Start Num: 33
Candidate Starts for GlobiWarming_48:
(Start: 33 @30454 has 163 MA's), (37, 30463), (41, 30478), (64, 30565), (66, 30577), (71, 30625), (93, 30790), (111, 30877), (126, 30985), (129, 31009), (130, 31012), (143, 31108), (155, 31156),

Gene: GrandSlam_47 Start: 34404, Stop: 35291, Start Num: 21
Candidate Starts for GrandSlam_47:
(7, 34176), (10, 34251), (11, 34260), (14, 34299), (Start: 21 @34404 has 15 MA's), (24, 34425), (Start: 51 @34515 has 1 MA's), (56, 34542), (59, 34560), (70, 34629), (115, 34914), (117, 34923), (118, 34929), (130, 35016), (131, 35019), (136, 35061), (138, 35088), (144, 35115), (146, 35121), (150, 35130), (152, 35139),

Gene: Guanica15_64 Start: 41115, Stop: 42020, Start Num: 33
Candidate Starts for Guanica15_64:
(Start: 33 @41115 has 163 MA's), (63, 41226), (78, 41325), (107, 41565), (111, 41619), (123, 41703), (136, 41808), (149, 41874), (159, 41925), (160, 41934), (161, 41949),

Gene: Hammy_60 Start: 41420, Stop: 42289, Start Num: 33
Candidate Starts for Hammy_60:
(Start: 33 @41420 has 163 MA's), (63, 41531), (77, 41624), (95, 41780), (106, 41840), (107, 41846), (123, 41975), (129, 42032), (136, 42080), (138, 42107), (150, 42149), (159, 42197), (161, 42221),

Gene: Hamood_47 Start: 34404, Stop: 35291, Start Num: 21
Candidate Starts for Hamood_47:
(7, 34176), (10, 34251), (11, 34260), (14, 34299), (Start: 21 @34404 has 15 MA's), (24, 34425), (Start: 51 @34515 has 1 MA's), (56, 34542), (59, 34560), (70, 34629), (115, 34914), (117, 34923), (118, 34929), (130, 35016), (131, 35019), (136, 35061), (138, 35088), (144, 35115), (146, 35121), (150, 35130), (152, 35139),

Gene: Heinz_39 Start: 27117, Stop: 27878, Start Num: 38
Candidate Starts for Heinz_39:
(Start: 38 @27117 has 6 MA's), (60, 27183), (80, 27294), (86, 27366), (87, 27369), (114, 27525), (116, 27531), (123, 27567), (132, 27633), (150, 27741), (161, 27813),

Gene: Henrique_46 Start: 29902, Stop: 30708, Start Num: 33
Candidate Starts for Henrique_46:
(Start: 33 @29902 has 163 MA's), (37, 29911), (41, 29926), (64, 30013), (66, 30025), (71, 30073), (93, 30238), (103, 30256), (111, 30325), (113, 30343), (126, 30433), (129, 30457), (130, 30460), (143, 30556), (155, 30604),

Gene: Hibiscus_40 Start: 27066, Stop: 27827, Start Num: 38
Candidate Starts for Hibiscus_40:
(Start: 38 @27066 has 6 MA's), (60, 27132), (80, 27243), (86, 27315), (87, 27318), (114, 27474), (116, 27480), (123, 27516), (132, 27582), (150, 27690), (161, 27762),

Gene: Homura_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Homura_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: HotPotato_45 Start: 30670, Stop: 31515, Start Num: 28
Candidate Starts for HotPotato_45:
(28, 30670), (Start: 33 @30691 has 163 MA's), (41, 30715), (64, 30802), (66, 30814), (71, 30862), (79, 30898), (84, 30946), (129, 31246), (130, 31249), (138, 31321), (143, 31345), (155, 31393), (170, 31498),

Gene: Hurricane_60 Start: 41376, Stop: 42275, Start Num: 33
Candidate Starts for Hurricane_60:
(Start: 33 @41376 has 163 MA's), (63, 41487), (78, 41586), (81, 41595), (88, 41673), (95, 41736), (97, 41748), (98, 41766), (106, 41823), (123, 41958), (129, 42015), (136, 42063), (150, 42132), (157, 42171), (159, 42180), (161, 42204),

Gene: Hyperbowlee_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for Hyperbowlee_61:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Idergollasper_12 Start: 4748, Stop: 5497, Start Num: 49
Candidate Starts for Idergollasper_12:
(Start: 49 @4748 has 30 MA's), (63, 4814), (74, 4892), (80, 4916), (85, 4976), (90, 5018), (96, 5054), (111, 5114), (129, 5243), (136, 5291), (141, 5330), (154, 5378),

Gene: Illumine_66 Start: 42825, Stop: 43712, Start Num: 33
Candidate Starts for Illumine_66:
(Start: 33 @42825 has 163 MA's), (63, 42936), (75, 43023), (78, 43035), (107, 43257), (111, 43311), (123, 43395), (129, 43452), (136, 43500), (149, 43566), (159, 43617), (160, 43626), (161, 43641),

Gene: Imara_13 Start: 5001, Stop: 5750, Start Num: 49
Candidate Starts for Imara_13:
(Start: 49 @5001 has 30 MA's), (63, 5067), (74, 5145), (80, 5169), (85, 5229), (90, 5271), (96, 5307), (111, 5367), (129, 5496), (136, 5544), (141, 5583), (154, 5631),

Gene: Inky_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Inky_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: JAWS_61 Start: 41260, Stop: 42138, Start Num: 33
Candidate Starts for JAWS_61:
(Start: 33 @41260 has 163 MA's), (63, 41371), (78, 41470), (95, 41620), (107, 41692), (111, 41746), (123, 41821), (129, 41878), (136, 41926), (149, 41992), (158, 42040), (160, 42052), (161, 42067),

Gene: JF1_64 Start: 41076, Stop: 41939, Start Num: 33
Candidate Starts for JF1_64:
(24, 41040), (29, 41055), (Start: 33 @41076 has 163 MA's), (47, 41109), (53, 41130), (57, 41145), (68, 41205), (106, 41484), (107, 41490), (121, 41607), (129, 41676), (136, 41724), (150, 41793), (165, 41901), (166, 41904),

Gene: JangDynasty_12 Start: 4837, Stop: 5586, Start Num: 49
Candidate Starts for JangDynasty_12:
(Start: 49 @4837 has 30 MA's), (63, 4903), (74, 4981), (80, 5005), (85, 5065), (90, 5107), (96, 5143), (111, 5203), (129, 5332), (136, 5380), (141, 5419), (154, 5467),

Gene: Jarvi_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Jarvi_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972),
(129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: Jayhawk_62 Start: 41281, Stop: 42168, Start Num: 33
Candidate Starts for Jayhawk_62:
(Start: 33 @41281 has 163 MA's), (63, 41392), (68, 41428), (78, 41491), (95, 41641), (107, 41713),
(111, 41767), (123, 41851), (129, 41908), (136, 41956), (149, 42022), (159, 42073), (160, 42082),
(161, 42097), (168, 42139),

Gene: Jeckyll_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Jeckyll_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972),
(129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: Jflix2_69 Start: 43814, Stop: 44623, Start Num: 42
Candidate Starts for Jflix2_69:
(Start: 42 @43814 has 2 MA's), (56, 43853), (64, 43892), (75, 43976), (78, 43988), (85, 44051), (87,
44063), (88, 44075), (111, 44183), (132, 44324), (150, 44432), (161, 44507), (174, 44600),

Gene: Jojo24_38 Start: 27664, Stop: 28428, Start Num: 36
Candidate Starts for Jojo24_38:
(Start: 36 @27664 has 1 MA's), (60, 27733), (80, 27844), (86, 27916), (87, 27919), (114, 28075), (116,
28081), (123, 28117), (132, 28183), (150, 28291), (161, 28363),

Gene: Joy99_61 Start: 41340, Stop: 42218, Start Num: 33
Candidate Starts for Joy99_61:
(Start: 33 @41340 has 163 MA's), (63, 41451), (78, 41550), (107, 41772), (111, 41826), (123, 41901),
(129, 41958), (136, 42006), (149, 42072), (158, 42120), (160, 42132), (161, 42147),

Gene: Judy_49 Start: 31513, Stop: 32319, Start Num: 33
Candidate Starts for Judy_49:
(Start: 33 @31513 has 163 MA's), (41, 31537), (52, 31561), (64, 31624), (66, 31636), (71, 31684), (93,
31849), (111, 31936), (126, 32044), (129, 32068), (130, 32071), (143, 32167), (155, 32215),

Gene: Juliette_66 Start: 41223, Stop: 42086, Start Num: 33
Candidate Starts for Juliette_66:
(24, 41187), (29, 41202), (Start: 33 @41223 has 163 MA's), (47, 41256), (53, 41277), (68, 41352),
(106, 41631), (107, 41637), (112, 41700), (121, 41754), (129, 41823), (136, 41871), (150, 41940),
(165, 42048), (166, 42051),

Gene: Karkharias_46 Start: 30610, Stop: 31416, Start Num: 33
Candidate Starts for Karkharias_46:
(25, 30586), (Start: 33 @30610 has 163 MA's), (37, 30619), (41, 30634), (64, 30721), (66, 30733), (71,
30781), (93, 30946), (126, 31141), (129, 31165), (130, 31168), (143, 31264),

Gene: KayMoney_46 Start: 30029, Stop: 30835, Start Num: 33
Candidate Starts for KayMoney_46:
(Start: 33 @30029 has 163 MA's), (41, 30053), (64, 30140), (66, 30152), (71, 30200), (93, 30365),
(111, 30452), (126, 30560), (129, 30584), (130, 30587), (143, 30683), (155, 30731),

Gene: Keshu_62 Start: 41474, Stop: 42373, Start Num: 33
Candidate Starts for Keshu_62:
(Start: 33 @41474 has 163 MA's), (63, 41585), (78, 41684), (81, 41693), (88, 41771), (95, 41834), (97, 41846), (98, 41864), (106, 41921), (123, 42056), (129, 42113), (136, 42161), (150, 42230), (159, 42278), (161, 42302),

Gene: KiSi_65 Start: 42230, Stop: 43150, Start Num: 33
Candidate Starts for KiSi_65:
(Start: 33 @42230 has 163 MA's), (63, 42341), (80, 42443), (95, 42590), (106, 42656), (107, 42662), (111, 42716), (120, 42785), (134, 42899), (135, 42902), (136, 42917), (138, 42944), (150, 42986), (158, 43031), (161, 43058), (162, 43076),

Gene: KingPhillip3_12 Start: 4748, Stop: 5497, Start Num: 49
Candidate Starts for KingPhillip3_12:
(Start: 49 @4748 has 30 MA's), (63, 4814), (74, 4892), (80, 4916), (85, 4976), (90, 5018), (96, 5054), (111, 5114), (129, 5243), (136, 5291), (141, 5330), (154, 5378),

Gene: Kraw_64 Start: 40911, Stop: 41774, Start Num: 33
Candidate Starts for Kraw_64:
(24, 40875), (29, 40890), (Start: 33 @40911 has 163 MA's), (47, 40944), (53, 40965), (68, 41040), (106, 41319), (107, 41325), (112, 41388), (121, 41442), (129, 41511), (136, 41559), (150, 41628), (165, 41736), (166, 41739),

Gene: Krili_13 Start: 5076, Stop: 5825, Start Num: 49
Candidate Starts for Krili_13:
(Start: 49 @5076 has 30 MA's), (63, 5142), (74, 5220), (80, 5244), (85, 5304), (90, 5346), (96, 5382), (111, 5442), (129, 5571), (136, 5619), (141, 5658), (154, 5706),

Gene: LastHope_64 Start: 40454, Stop: 41341, Start Num: 33
Candidate Starts for LastHope_64:
(Start: 33 @40454 has 163 MA's), (63, 40565), (78, 40664), (95, 40814), (107, 40886), (111, 40940), (123, 41024), (129, 41081), (136, 41129), (149, 41195), (159, 41246), (161, 41270),

Gene: LaterM_61 Start: 41874, Stop: 42761, Start Num: 33
Candidate Starts for LaterM_61:
(Start: 33 @41874 has 163 MA's), (63, 41985), (78, 42084), (107, 42306), (111, 42360), (123, 42444), (129, 42501), (136, 42549), (149, 42615), (159, 42666), (160, 42675), (161, 42690),

Gene: LeMond_64 Start: 41861, Stop: 42784, Start Num: 33
Candidate Starts for LeMond_64:
(Start: 33 @41861 has 163 MA's), (63, 41972), (80, 42074), (95, 42221), (106, 42287), (107, 42293), (111, 42350), (120, 42419), (134, 42533), (135, 42536), (136, 42551), (138, 42578), (150, 42620), (161, 42692), (162, 42710),

Gene: Lea83_60 Start: 41429, Stop: 42310, Start Num: 33
Candidate Starts for Lea83_60:
(Start: 33 @41429 has 163 MA's), (63, 41540), (71, 41603), (78, 41639), (81, 41648), (88, 41726), (91, 41762), (106, 41858), (123, 41993), (129, 42050), (136, 42098), (150, 42167), (158, 42212), (159, 42215), (161, 42239),

Gene: Lebo14_63 Start: 41244, Stop: 42107, Start Num: 33
Candidate Starts for Lebo14_63:

(24, 41208), (29, 41223), (Start: 33 @41244 has 163 MA's), (47, 41277), (53, 41298), (68, 41373), (106, 41652), (107, 41658), (112, 41721), (121, 41775), (129, 41844), (136, 41892), (150, 41961), (165, 42069), (166, 42072),

Gene: LilPharaoh_50 Start: 38323, Stop: 39210, Start Num: 33
Candidate Starts for LilPharaoh_50:
(Start: 33 @38323 has 163 MA's), (63, 38434), (78, 38533), (95, 38683), (102, 38716), (107, 38755), (111, 38809), (123, 38893), (128, 38941), (129, 38950), (133, 38965), (136, 38998), (158, 39112), (161, 39139),

Gene: LilyBell_47 Start: 30623, Stop: 31429, Start Num: 33
Candidate Starts for LilyBell_47:
(Start: 33 @30623 has 163 MA's), (41, 30647), (64, 30734), (66, 30746), (71, 30794), (84, 30878), (93, 30959), (111, 31046), (126, 31154), (129, 31178), (130, 31181), (143, 31277),

Gene: LindNT_60 Start: 41483, Stop: 42361, Start Num: 33
Candidate Starts for LindNT_60:
(Start: 33 @41483 has 163 MA's), (63, 41594), (78, 41693), (107, 41915), (111, 41969), (123, 42044), (129, 42101), (136, 42149), (149, 42215), (158, 42263), (160, 42275), (161, 42290),

Gene: LittleRon_44 Start: 29626, Stop: 30432, Start Num: 33
Candidate Starts for LittleRon_44:
(Start: 33 @29626 has 163 MA's), (41, 29650), (64, 29737), (66, 29749), (71, 29797), (93, 29962), (111, 30049), (126, 30157), (129, 30181), (130, 30184), (143, 30280), (155, 30328),

Gene: Llorens_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Llorens_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: Lunahalos_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Lunahalos_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: MacKat_56 Start: 36743, Stop: 37621, Start Num: 33
Candidate Starts for MacKat_56:
(Start: 33 @36743 has 163 MA's), (63, 36854), (78, 36953), (95, 37103), (107, 37175), (111, 37229), (123, 37304), (129, 37361), (136, 37409), (149, 37475), (158, 37523), (160, 37535), (161, 37550),

Gene: MacnCheese_62 Start: 41974, Stop: 42873, Start Num: 33
Candidate Starts for MacnCheese_62:
(Start: 33 @41974 has 163 MA's), (63, 42085), (78, 42184), (81, 42193), (88, 42271), (95, 42334), (97, 42346), (98, 42364), (106, 42421), (107, 42427), (123, 42556), (129, 42613), (136, 42661), (150, 42730), (161, 42802),

Gene: MadKillah_14 Start: 5097, Stop: 5846, Start Num: 49
Candidate Starts for MadKillah_14:
(Start: 49 @5097 has 30 MA's), (63, 5163), (74, 5241), (80, 5265), (85, 5325), (90, 5367), (96, 5403), (111, 5463), (129, 5592), (136, 5640), (141, 5679), (154, 5727),

Gene: Madraxi_73 Start: 46508, Stop: 47317, Start Num: 42
Candidate Starts for Madraxi_73:

(Start: 42 @46508 has 2 MA's), (56, 46547), (75, 46670), (78, 46682), (85, 46745), (87, 46757), (88, 46769), (111, 46877), (132, 47018), (150, 47126), (161, 47201), (174, 47294),

Gene: MalagasyRose_61 Start: 40415, Stop: 41278, Start Num: 33
Candidate Starts for MalagasyRose_61:
(Start: 33 @40415 has 163 MA's), (40, 40439), (58, 40508), (63, 40529), (69, 40571), (71, 40592), (76, 40619), (88, 40715), (101, 40793), (106, 40826), (107, 40832), (111, 40886), (125, 40973), (128, 41009), (136, 41066), (139, 41096), (140, 41099), (149, 41132), (157, 41174), (160, 41192), (161, 41207),

Gene: Malthus_65 Start: 40911, Stop: 41774, Start Num: 33
Candidate Starts for Malthus_65:
(24, 40875), (29, 40890), (Start: 33 @40911 has 163 MA's), (47, 40944), (53, 40965), (68, 41040), (106, 41319), (107, 41325), (112, 41388), (121, 41442), (129, 41511), (136, 41559), (150, 41628), (165, 41736), (166, 41739),

Gene: Marcoliusprime_62 Start: 43382, Stop: 44239, Start Num: 33
Candidate Starts for Marcoliusprime_62:
(Start: 33 @43382 has 163 MA's), (63, 43487), (78, 43586), (107, 43796), (136, 44030), (150, 44099), (159, 44147), (160, 44156), (161, 44171),

Gene: Marshawn_60 Start: 41598, Stop: 42494, Start Num: 33
Candidate Starts for Marshawn_60:
(5, 41262), (15, 41436), (Start: 21 @41547 has 15 MA's), (Start: 33 @41598 has 163 MA's), (63, 41709), (75, 41796), (80, 41811), (95, 41958), (106, 42024), (107, 42030), (111, 42084), (120, 42153), (123, 42180), (129, 42237), (161, 42426), (162, 42444),

Gene: McMater_62 Start: 41510, Stop: 42397, Start Num: 33
Candidate Starts for McMater_62:
(Start: 33 @41510 has 163 MA's), (63, 41621), (78, 41720), (80, 41723), (95, 41870), (106, 41936), (107, 41942), (111, 41996), (123, 42080), (129, 42137), (136, 42185), (159, 42302), (160, 42311), (161, 42326), (164, 42350), (167, 42365),

Gene: Mdavu_51 Start: 38584, Stop: 39471, Start Num: 33
Candidate Starts for Mdavu_51:
(Start: 33 @38584 has 163 MA's), (63, 38695), (78, 38794), (95, 38944), (102, 38977), (107, 39016), (111, 39070), (123, 39154), (128, 39202), (129, 39211), (133, 39226), (136, 39259), (158, 39373), (161, 39400),

Gene: MeaningOfLife_62 Start: 42154, Stop: 43041, Start Num: 33
Candidate Starts for MeaningOfLife_62:
(Start: 33 @42154 has 163 MA's), (63, 42265), (78, 42364), (95, 42514), (107, 42586), (111, 42640), (123, 42724), (129, 42781), (135, 42814), (136, 42829), (149, 42895), (160, 42955), (161, 42970), (168, 43012),

Gene: Megsy_63 Start: 41551, Stop: 42438, Start Num: 33
Candidate Starts for Megsy_63:
(Start: 33 @41551 has 163 MA's), (63, 41662), (78, 41761), (107, 41983), (111, 42037), (123, 42121), (129, 42178), (136, 42226), (149, 42292), (159, 42343), (160, 42352), (161, 42367),

Gene: Milly_62 Start: 43355, Stop: 44212, Start Num: 33
Candidate Starts for Milly_62:

(Start: 33 @43355 has 163 MA's), (63, 43460), (78, 43559), (107, 43769), (136, 44003), (150, 44072), (159, 44120), (160, 44129), (161, 44144),

Gene: MissDaisy_61 Start: 39823, Stop: 40686, Start Num: 33
Candidate Starts for MissDaisy_61:
(16, 39658), (29, 39802), (Start: 33 @39823 has 163 MA's), (67, 39934), (68, 39952), (81, 40024), (82, 40054), (107, 40237), (111, 40291), (129, 40423), (165, 40648), (166, 40651),

Gene: Mitti_64 Start: 41090, Stop: 41953, Start Num: 33
Candidate Starts for Mitti_64:
(24, 41054), (29, 41069), (Start: 33 @41090 has 163 MA's), (47, 41123), (53, 41144), (68, 41219), (106, 41498), (107, 41504), (112, 41567), (121, 41621), (129, 41690), (136, 41738), (150, 41807), (165, 41915), (166, 41918),

Gene: Mori_13 Start: 4936, Stop: 5685, Start Num: 49
Candidate Starts for Mori_13:
(Start: 49 @4936 has 30 MA's), (63, 5002), (74, 5080), (80, 5104), (85, 5164), (90, 5206), (96, 5242), (111, 5302), (129, 5431), (136, 5479), (141, 5518), (154, 5566),

Gene: Mufasa_62 Start: 42945, Stop: 43802, Start Num: 33
Candidate Starts for Mufasa_62:
(Start: 33 @42945 has 163 MA's), (63, 43050), (78, 43149), (107, 43359), (136, 43593), (150, 43662), (159, 43710), (160, 43719), (161, 43734),

Gene: Mulch_47 Start: 33927, Stop: 34814, Start Num: 21
Candidate Starts for Mulch_47:
(10, 33774), (11, 33783), (14, 33822), (Start: 21 @33927 has 15 MA's), (24, 33948), (Start: 51 @34038 has 1 MA's), (56, 34065), (59, 34083), (115, 34437), (117, 34446), (118, 34452), (130, 34539), (131, 34542), (136, 34584), (138, 34611), (144, 34638), (146, 34644), (150, 34653), (152, 34662),

Gene: Murai_13 Start: 4936, Stop: 5685, Start Num: 49
Candidate Starts for Murai_13:
(Start: 49 @4936 has 30 MA's), (63, 5002), (74, 5080), (80, 5104), (85, 5164), (90, 5206), (96, 5242), (111, 5302), (129, 5431), (136, 5479), (141, 5518), (154, 5566),

Gene: Murucutumbu_62 Start: 42254, Stop: 43141, Start Num: 33
Candidate Starts for Murucutumbu_62:
(Start: 33 @42254 has 163 MA's), (63, 42365), (78, 42464), (107, 42686), (111, 42740), (123, 42824), (129, 42881), (136, 42929), (149, 42995), (159, 43046), (160, 43055), (161, 43070),

Gene: Mynx_62 Start: 41596, Stop: 42474, Start Num: 33
Candidate Starts for Mynx_62:
(Start: 33 @41596 has 163 MA's), (63, 41707), (78, 41806), (95, 41956), (107, 42028), (111, 42082), (123, 42157), (129, 42214), (136, 42262), (149, 42328), (158, 42376), (160, 42388), (161, 42403),

Gene: Nadeem_47 Start: 33927, Stop: 34814, Start Num: 21
Candidate Starts for Nadeem_47:
(10, 33774), (11, 33783), (14, 33822), (Start: 21 @33927 has 15 MA's), (24, 33948), (Start: 51 @34038 has 1 MA's), (56, 34065), (59, 34083), (115, 34437), (117, 34446), (118, 34452), (130, 34539), (131, 34542), (136, 34584), (138, 34611), (144, 34638), (146, 34644), (150, 34653), (152, 34662),

Gene: NancyRae_47 Start: 33937, Stop: 34824, Start Num: 21
Candidate Starts for NancyRae_47:

(10, 33784), (11, 33793), (14, 33832), (Start: 21 @33937 has 15 MA's), (24, 33958), (Start: 51 @34048 has 1 MA's), (56, 34075), (59, 34093), (70, 34162), (115, 34447), (117, 34456), (118, 34462), (130, 34549), (131, 34552), (136, 34594), (138, 34621), (144, 34648), (146, 34654), (150, 34663), (152, 34672),

Gene: NidoQ_43 Start: 29787, Stop: 30593, Start Num: 33
Candidate Starts for NidoQ_43:
(Start: 33 @29787 has 163 MA's), (41, 29811), (64, 29898), (66, 29910), (71, 29958), (93, 30123), (111, 30210), (126, 30318), (129, 30342), (130, 30345), (143, 30441),

Gene: NiebruSaylor_13 Start: 4936, Stop: 5685, Start Num: 49
Candidate Starts for NiebruSaylor_13:
(Start: 49 @4936 has 30 MA's), (63, 5002), (74, 5080), (80, 5104), (85, 5164), (90, 5206), (96, 5242), (111, 5302), (129, 5431), (136, 5479), (141, 5518), (154, 5566),

Gene: Nikao_53 Start: 41208, Stop: 42095, Start Num: 33
Candidate Starts for Nikao_53:
(Start: 33 @41208 has 163 MA's), (63, 41319), (78, 41418), (95, 41568), (102, 41601), (107, 41640), (111, 41694), (123, 41778), (128, 41826), (129, 41835), (133, 41850), (136, 41883), (158, 41997), (161, 42024),

Gene: NikkiHotWheels_47 Start: 30009, Stop: 30815, Start Num: 33
Candidate Starts for NikkiHotWheels_47:
(Start: 33 @30009 has 163 MA's), (41, 30033), (64, 30120), (66, 30132), (71, 30180), (84, 30264), (93, 30345), (111, 30432), (126, 30540), (129, 30564), (130, 30567), (143, 30663), (155, 30711),

Gene: Niklas_62 Start: 41571, Stop: 42458, Start Num: 33
Candidate Starts for Niklas_62:
(Start: 33 @41571 has 163 MA's), (63, 41682), (78, 41781), (80, 41784), (95, 41931), (106, 41997), (107, 42003), (111, 42057), (123, 42141), (129, 42198), (136, 42246), (159, 42363), (160, 42372), (161, 42387), (164, 42411), (167, 42426),

Gene: NoSwimming_41 Start: 29687, Stop: 30514, Start Num: 33
Candidate Starts for NoSwimming_41:
(Start: 33 @29687 has 163 MA's), (64, 29798), (66, 29810), (67, 29813), (71, 29858), (96, 30038), (130, 30245), (142, 30332), (143, 30341), (154, 30377),

Gene: Nutello_50 Start: 38595, Stop: 39482, Start Num: 33
Candidate Starts for Nutello_50:
(Start: 33 @38595 has 163 MA's), (63, 38706), (78, 38805), (95, 38955), (102, 38988), (107, 39027), (111, 39081), (123, 39165), (128, 39213), (129, 39222), (133, 39237), (136, 39270), (158, 39384), (161, 39411),

Gene: OmniCritical_63 Start: 40980, Stop: 41843, Start Num: 33
Candidate Starts for OmniCritical_63:
(24, 40944), (29, 40959), (Start: 33 @40980 has 163 MA's), (47, 41013), (53, 41034), (68, 41109), (106, 41388), (107, 41394), (112, 41457), (121, 41511), (129, 41580), (136, 41628), (150, 41697), (165, 41805), (166, 41808),

Gene: Omnicron_59 Start: 40704, Stop: 41564, Start Num: 33
Candidate Starts for Omnicron_59:
(Start: 33 @40704 has 163 MA's), (59, 40800), (61, 40809), (63, 40818), (70, 40866), (81, 40926), (95, 41067), (100, 41079), (111, 41172), (122, 41238), (125, 41259), (128, 41295), (135, 41337), (138,

41379), (141, 41391), (148, 41415), (151, 41424), (160, 41478), (168, 41535), (172, 41556),

Gene: Oscar_64 Start: 41778, Stop: 42701, Start Num: 33
Candidate Starts for Oscar_64:
(31, 41772), (Start: 33 @41778 has 163 MA's), (63, 41889), (80, 41991), (95, 42138), (106, 42204), (107, 42210), (111, 42267), (120, 42336), (134, 42450), (135, 42453), (136, 42468), (138, 42495), (150, 42537), (161, 42609), (162, 42627),

Gene: Padfoot_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for Padfoot_61:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Padpat_63 Start: 41277, Stop: 42155, Start Num: 33
Candidate Starts for Padpat_63:
(Start: 33 @41277 has 163 MA's), (63, 41388), (78, 41487), (95, 41637), (107, 41709), (111, 41763), (123, 41838), (129, 41895), (136, 41943), (149, 42009), (158, 42057), (160, 42069), (161, 42084),

Gene: Parada_47 Start: 33927, Stop: 34814, Start Num: 21
Candidate Starts for Parada_47:
(10, 33774), (11, 33783), (14, 33822), (Start: 21 @33927 has 15 MA's), (24, 33948), (Start: 51 @34038 has 1 MA's), (56, 34065), (59, 34083), (115, 34437), (117, 34446), (118, 34452), (130, 34539), (131, 34542), (136, 34584), (138, 34611), (144, 34638), (146, 34644), (150, 34653), (152, 34662),

Gene: Patt_60 Start: 39547, Stop: 40410, Start Num: 33
Candidate Starts for Patt_60:
(16, 39382), (29, 39526), (Start: 33 @39547 has 163 MA's), (67, 39658), (68, 39676), (81, 39748), (82, 39778), (107, 39961), (111, 40015), (129, 40147), (165, 40372), (166, 40375),

Gene: Peanam_62 Start: 41529, Stop: 42416, Start Num: 33
Candidate Starts for Peanam_62:
(Start: 33 @41529 has 163 MA's), (63, 41640), (78, 41739), (80, 41742), (95, 41889), (106, 41955), (107, 41961), (111, 42015), (123, 42099), (129, 42156), (136, 42204), (159, 42321), (160, 42330), (161, 42345), (164, 42369), (167, 42384),

Gene: Peas_45 Start: 31548, Stop: 32372, Start Num: 33
Candidate Starts for Peas_45:
(Start: 33 @31548 has 163 MA's), (64, 31659), (66, 31671), (71, 31719), (84, 31803), (129, 32103), (130, 32106), (138, 32178), (143, 32202), (155, 32250), (170, 32355),

Gene: Peel_61 Start: 41413, Stop: 42291, Start Num: 33
Candidate Starts for Peel_61:
(Start: 33 @41413 has 163 MA's), (63, 41524), (78, 41623), (107, 41845), (111, 41899), (123, 41974), (129, 42031), (136, 42079), (149, 42145), (158, 42193), (160, 42205), (161, 42220),

Gene: PeggyLeg03_46 Start: 30698, Stop: 31504, Start Num: 33
Candidate Starts for PeggyLeg03_46:
(Start: 33 @30698 has 163 MA's), (41, 30722), (52, 30746), (64, 30809), (66, 30821), (71, 30869), (93, 31034), (111, 31121), (126, 31229), (129, 31253), (130, 31256), (143, 31352), (155, 31400),

Gene: Piatt_61 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for Piatt_61:

(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Pimento_48 Start: 33578, Stop: 34405, Start Num: 21
Candidate Starts for Pimento_48:
(10, 33425), (11, 33434), (14, 33473), (Start: 21 @33578 has 15 MA's), (39, 33602), (56, 33656), (59, 33674), (70, 33743), (115, 34028), (117, 34037), (118, 34043), (130, 34130), (131, 34133), (138, 34202), (144, 34229), (146, 34235), (150, 34244), (152, 34253),

Gene: Pisa1_61 Start: 42235, Stop: 43143, Start Num: 29
Candidate Starts for Pisa1_61:
(19, 42130), (24, 42220), (29, 42235), (Start: 33 @42256 has 163 MA's), (63, 42367), (78, 42466), (95, 42616), (107, 42688), (111, 42742), (123, 42826), (136, 42931), (149, 42997), (159, 43048), (160, 43057), (161, 43072),

Gene: Pisa4_55 Start: 37604, Stop: 38512, Start Num: 29
Candidate Starts for Pisa4_55:
(19, 37499), (24, 37589), (29, 37604), (Start: 33 @37625 has 163 MA's), (63, 37736), (78, 37835), (95, 37985), (107, 38057), (111, 38111), (123, 38195), (136, 38300), (149, 38366), (159, 38417), (160, 38426), (161, 38441),

Gene: Pixie_59 Start: 40914, Stop: 41795, Start Num: 33
Candidate Starts for Pixie_59:
(Start: 33 @40914 has 163 MA's), (63, 41025), (71, 41088), (78, 41124), (81, 41133), (88, 41211), (106, 41343), (123, 41478), (129, 41535), (136, 41583), (150, 41652), (158, 41697), (159, 41700), (161, 41724),

Gene: Pokerus_60 Start: 41329, Stop: 42207, Start Num: 33
Candidate Starts for Pokerus_60:
(Start: 33 @41329 has 163 MA's), (59, 41422), (63, 41440), (78, 41539), (95, 41689), (107, 41761), (123, 41890), (129, 41947), (136, 41995), (149, 42061), (158, 42109), (160, 42121), (161, 42136),

Gene: Prithvi_62 Start: 41483, Stop: 42361, Start Num: 33
Candidate Starts for Prithvi_62:
(Start: 33 @41483 has 163 MA's), (63, 41594), (78, 41693), (107, 41915), (111, 41969), (123, 42044), (129, 42101), (136, 42149), (149, 42215), (158, 42263), (160, 42275), (161, 42290),

Gene: Pucara_43 Start: 30303, Stop: 31109, Start Num: 33
Candidate Starts for Pucara_43:
(Start: 33 @30303 has 163 MA's), (41, 30327), (52, 30351), (64, 30414), (66, 30426), (71, 30474), (93, 30639), (111, 30726), (126, 30834), (129, 30858), (130, 30861), (143, 30957), (155, 31005),

Gene: Qhanda_66 Start: 40927, Stop: 41790, Start Num: 33
Candidate Starts for Qhanda_66:
(24, 40891), (29, 40906), (Start: 33 @40927 has 163 MA's), (47, 40960), (53, 40981), (68, 41056), (106, 41335), (107, 41341), (112, 41404), (121, 41458), (129, 41527), (136, 41575), (150, 41644), (165, 41752), (166, 41755),

Gene: QuincyRose_60 Start: 41672, Stop: 42550, Start Num: 33
Candidate Starts for QuincyRose_60:
(Start: 33 @41672 has 163 MA's), (63, 41783), (78, 41882), (95, 42032), (107, 42104), (111, 42158), (123, 42233), (129, 42290), (136, 42338), (149, 42404), (158, 42452), (160, 42464), (161, 42479),

Gene: REQ1_38 Start: 15432, Stop: 16226, Start Num: 42
Candidate Starts for REQ1_38:
(Start: 42 @15432 has 2 MA's), (56, 15471), (72, 15576), (73, 15579), (75, 15594), (78, 15606), (85, 15669), (87, 15681), (88, 15693), (111, 15801), (124, 15882), (132, 15942), (161, 16125),

Gene: Rapunzel97_62 Start: 41275, Stop: 42162, Start Num: 33
Candidate Starts for Rapunzel97_62:
(Start: 33 @41275 has 163 MA's), (59, 41368), (63, 41386), (78, 41485), (95, 41635), (107, 41707), (111, 41761), (123, 41845), (129, 41902), (136, 41950), (149, 42016), (160, 42076), (161, 42091), (168, 42133),

Gene: RegnumDei_70 Start: 42114, Stop: 42953, Start Num: 51
Candidate Starts for RegnumDei_70:
(27, 42036), (Start: 51 @42114 has 1 MA's), (56, 42141), (64, 42180), (78, 42279), (87, 42354), (92, 42396), (104, 42420), (105, 42423), (122, 42549), (127, 42603), (137, 42672), (140, 42699), (175, 42930),

Gene: Reptar3000_61 Start: 39535, Stop: 40398, Start Num: 33
Candidate Starts for Reptar3000_61:
(16, 39370), (29, 39514), (Start: 33 @39535 has 163 MA's), (67, 39646), (68, 39664), (81, 39736), (82, 39766), (107, 39949), (111, 40003), (129, 40135), (165, 40360), (166, 40363),

Gene: Reyja_39 Start: 28104, Stop: 28865, Start Num: 38
Candidate Starts for Reyja_39:
(Start: 38 @28104 has 6 MA's), (60, 28170), (80, 28281), (87, 28356), (88, 28368), (114, 28512), (126, 28587), (129, 28611), (132, 28620), (140, 28692), (143, 28710), (150, 28728), (161, 28800),

Gene: Richo_62 Start: 41510, Stop: 42397, Start Num: 33
Candidate Starts for Richo_62:
(Start: 33 @41510 has 163 MA's), (63, 41621), (78, 41720), (80, 41723), (95, 41870), (106, 41936), (107, 41942), (111, 41996), (123, 42080), (129, 42137), (136, 42185), (159, 42302), (160, 42311), (161, 42326), (164, 42350), (167, 42365),

Gene: RootBeer_37 Start: 26799, Stop: 27602, Start Num: 33
Candidate Starts for RootBeer_37:
(Start: 33 @26799 has 163 MA's), (41, 26823), (64, 26910), (66, 26922), (67, 26925), (71, 26970), (93, 27135), (111, 27222), (129, 27354), (130, 27357), (143, 27453),

Gene: Rosmarinus_61 Start: 41399, Stop: 42277, Start Num: 33
Candidate Starts for Rosmarinus_61:
(Start: 33 @41399 has 163 MA's), (63, 41510), (78, 41609), (107, 41831), (111, 41885), (123, 41960), (129, 42017), (136, 42065), (149, 42131), (158, 42179), (160, 42191), (161, 42206),

Gene: Ruthiejr_65 Start: 40961, Stop: 41824, Start Num: 33
Candidate Starts for Ruthiejr_65:
(24, 40925), (29, 40940), (Start: 33 @40961 has 163 MA's), (47, 40994), (53, 41015), (68, 41090), (106, 41369), (107, 41375), (112, 41438), (121, 41492), (129, 41561), (136, 41609), (150, 41678), (165, 41786), (166, 41789),

Gene: Ryadel_15 Start: 5530, Stop: 6279, Start Num: 49
Candidate Starts for Ryadel_15:
(Start: 49 @5530 has 30 MA's), (63, 5596), (74, 5674), (80, 5698), (85, 5758), (90, 5800), (96, 5836), (111, 5896), (129, 6025), (136, 6073), (141, 6112), (154, 6160),

Gene: SFuller_67 Start: 43967, Stop: 44776, Start Num: 42
Candidate Starts for SFuller_67:
(Start: 42 @43967 has 2 MA's), (75, 44129), (78, 44141), (85, 44204), (87, 44216), (88, 44228), (111, 44336), (132, 44477), (150, 44585), (161, 44660), (174, 44753),

Gene: SamScheppers_62 Start: 41390, Stop: 42253, Start Num: 33
Candidate Starts for SamScheppers_62:
(24, 41354), (29, 41369), (Start: 33 @41390 has 163 MA's), (47, 41423), (53, 41444), (68, 41519), (106, 41798), (107, 41804), (112, 41867), (121, 41921), (129, 41990), (136, 42038), (150, 42107), (165, 42215), (166, 42218),

Gene: SamuelLPlaqson_62 Start: 42174, Stop: 43055, Start Num: 33
Candidate Starts for SamuelLPlaqson_62:
(Start: 33 @42174 has 163 MA's), (63, 42285), (78, 42384), (107, 42609), (111, 42663), (123, 42738), (129, 42795), (136, 42843), (149, 42909), (158, 42957), (160, 42969), (161, 42984),

Gene: Santhid_38 Start: 26389, Stop: 27150, Start Num: 38
Candidate Starts for Santhid_38:
(22, 26332), (34, 26380), (Start: 38 @26389 has 6 MA's), (80, 26566), (86, 26638), (87, 26641), (114, 26797), (116, 26803), (123, 26839), (132, 26905), (150, 27013), (161, 27085),

Gene: Scarlett_65 Start: 42108, Stop: 43028, Start Num: 33
Candidate Starts for Scarlett_65:
(Start: 33 @42108 has 163 MA's), (63, 42219), (80, 42321), (95, 42468), (106, 42534), (107, 42540), (111, 42594), (120, 42663), (134, 42777), (135, 42780), (136, 42795), (138, 42822), (150, 42864), (158, 42909), (161, 42936), (162, 42954),

Gene: SchoolBus_12 Start: 4748, Stop: 5497, Start Num: 49
Candidate Starts for SchoolBus_12:
(Start: 49 @4748 has 30 MA's), (63, 4814), (74, 4892), (80, 4916), (85, 4976), (90, 5018), (96, 5054), (111, 5114), (129, 5243), (136, 5291), (141, 5330), (154, 5378),

Gene: Schuy_14 Start: 5097, Stop: 5846, Start Num: 49
Candidate Starts for Schuy_14:
(Start: 49 @5097 has 30 MA's), (63, 5163), (74, 5241), (80, 5265), (85, 5325), (90, 5367), (96, 5403), (111, 5463), (129, 5592), (136, 5640), (141, 5679), (154, 5727),

Gene: Scotia_39 Start: 28728, Stop: 29555, Start Num: 33
Candidate Starts for Scotia_39:
(Start: 33 @28728 has 163 MA's), (64, 28839), (66, 28851), (67, 28854), (71, 28899), (96, 29079), (130, 29286), (142, 29373), (143, 29382), (154, 29418), (163, 29496),

Gene: SgtBeansprout_50 Start: 38595, Stop: 39482, Start Num: 33
Candidate Starts for SgtBeansprout_50:
(Start: 33 @38595 has 163 MA's), (63, 38706), (78, 38805), (95, 38955), (102, 38988), (107, 39027), (111, 39081), (123, 39165), (128, 39213), (129, 39222), (133, 39237), (136, 39270), (158, 39384), (161, 39411),

Gene: Shagrat_70 Start: 42104, Stop: 42943, Start Num: 51
Candidate Starts for Shagrat_70:
(27, 42035), (Start: 51 @42104 has 1 MA's), (56, 42131), (78, 42269), (87, 42344), (92, 42386), (104, 42410), (105, 42413), (122, 42539), (127, 42593), (137, 42662), (150, 42725), (175, 42920),

Gene: Shambre1_40 Start: 26325, Stop: 27116, Start Num: 43
Candidate Starts for Shambre1_40:
(Start: 43 @26325 has 1 MA's), (54, 26355), (64, 26412), (65, 26415), (72, 26478), (85, 26568), (94, 26640), (128, 26844), (130, 26856),

Gene: Shaobing_62 Start: 41547, Stop: 42434, Start Num: 33
Candidate Starts for Shaobing_62:
(Start: 33 @41547 has 163 MA's), (63, 41658), (78, 41757), (80, 41760), (95, 41907), (106, 41973), (107, 41979), (111, 42033), (123, 42117), (129, 42174), (136, 42222), (159, 42339), (160, 42348), (161, 42363), (164, 42387), (167, 42402),

Gene: ShedlockHolmes_61 Start: 41433, Stop: 42314, Start Num: 33
Candidate Starts for ShedlockHolmes_61:
(Start: 33 @41433 has 163 MA's), (63, 41544), (71, 41607), (78, 41643), (81, 41652), (88, 41730), (91, 41766), (106, 41862), (123, 41997), (129, 42054), (136, 42102), (150, 42171), (158, 42216), (159, 42219), (161, 42243),

Gene: ShiaSurprise_62 Start: 41608, Stop: 42486, Start Num: 33
Candidate Starts for ShiaSurprise_62:
(Start: 33 @41608 has 163 MA's), (63, 41719), (78, 41818), (107, 42040), (111, 42094), (123, 42169), (129, 42226), (136, 42274), (149, 42340), (158, 42388), (160, 42400), (161, 42415),

Gene: Shida_13 Start: 5002, Stop: 5751, Start Num: 49
Candidate Starts for Shida_13:
(Start: 49 @5002 has 30 MA's), (63, 5068), (74, 5146), (80, 5170), (85, 5230), (90, 5272), (96, 5308), (111, 5368), (129, 5497), (136, 5545), (141, 5584), (154, 5632),

Gene: Slarp_64 Start: 40918, Stop: 41781, Start Num: 33
Candidate Starts for Slarp_64:
(24, 40882), (29, 40897), (Start: 33 @40918 has 163 MA's), (47, 40951), (53, 40972), (68, 41047), (106, 41326), (107, 41332), (112, 41395), (121, 41449), (129, 41518), (136, 41566), (150, 41635), (165, 41743), (166, 41746),

Gene: Slimphazie_61 Start: 41275, Stop: 42162, Start Num: 33
Candidate Starts for Slimphazie_61:
(Start: 33 @41275 has 163 MA's), (59, 41368), (63, 41386), (78, 41485), (95, 41635), (107, 41707), (111, 41761), (123, 41845), (129, 41902), (136, 41950), (149, 42016), (160, 42076), (161, 42091), (168, 42133),

Gene: Smooch_14 Start: 5266, Stop: 6015, Start Num: 49
Candidate Starts for Smooch_14:
(Start: 49 @5266 has 30 MA's), (63, 5332), (74, 5410), (80, 5434), (85, 5494), (90, 5536), (96, 5572), (111, 5632), (129, 5761), (136, 5809), (154, 5896),

Gene: Spock_61 Start: 41412, Stop: 42290, Start Num: 33
Candidate Starts for Spock_61:
(Start: 33 @41412 has 163 MA's), (63, 41523), (78, 41622), (107, 41844), (111, 41898), (123, 41973), (129, 42030), (136, 42078), (149, 42144), (158, 42192), (160, 42204), (161, 42219),

Gene: Stinson_62 Start: 41777, Stop: 42655, Start Num: 33
Candidate Starts for Stinson_62:

(Start: 33 @41777 has 163 MA's), (58, 41867), (63, 41888), (78, 41987), (107, 42209), (111, 42263), (123, 42338), (129, 42395), (136, 42443), (149, 42509), (158, 42557), (160, 42569), (161, 42584),

Gene: Strobilo_63 Start: 43357, Stop: 44214, Start Num: 33
Candidate Starts for Strobilo_63:
(Start: 33 @43357 has 163 MA's), (63, 43462), (78, 43561), (107, 43771), (136, 44005), (150, 44074), (159, 44122), (160, 44131), (161, 44146),

Gene: Sulley_61 Start: 41463, Stop: 42350, Start Num: 33
Candidate Starts for Sulley_61:
(Start: 33 @41463 has 163 MA's), (63, 41574), (78, 41673), (107, 41895), (111, 41949), (123, 42033), (129, 42090), (136, 42138), (149, 42204), (159, 42255), (160, 42264), (161, 42279),

Gene: TBond007_58 Start: 40913, Stop: 41794, Start Num: 33
Candidate Starts for TBond007_58:
(Start: 33 @40913 has 163 MA's), (63, 41024), (71, 41087), (78, 41123), (81, 41132), (88, 41210), (106, 41342), (123, 41477), (129, 41534), (136, 41582), (150, 41651), (158, 41696), (159, 41699), (161, 41723),

Gene: TM4_59 Start: 37712, Stop: 38569, Start Num: 33
Candidate Starts for TM4_59:
(4, 37370), (Start: 33 @37712 has 163 MA's), (63, 37817), (78, 37916), (107, 38126), (136, 38360), (150, 38429), (159, 38477), (161, 38501),

Gene: TPA4_47 Start: 36087, Stop: 36890, Start Num: 45
Candidate Starts for TPA4_47:
(45, 36087), (76, 36249), (87, 36333), (89, 36360), (115, 36516), (117, 36525), (128, 36606), (129, 36615), (149, 36729), (156, 36768), (173, 36873),

Gene: Tachez_61 Start: 41256, Stop: 42134, Start Num: 33
Candidate Starts for Tachez_61:
(Start: 33 @41256 has 163 MA's), (63, 41367), (78, 41466), (107, 41688), (111, 41742), (123, 41817), (129, 41874), (136, 41922), (149, 41988), (158, 42036), (160, 42048), (161, 42063),

Gene: TaiwanKao_63 Start: 41545, Stop: 42423, Start Num: 33
Candidate Starts for TaiwanKao_63:
(Start: 33 @41545 has 163 MA's), (63, 41656), (78, 41755), (107, 41977), (111, 42031), (123, 42106), (129, 42163), (136, 42211), (149, 42277), (150, 42280), (158, 42325), (160, 42337), (161, 42352),

Gene: Taquito_63 Start: 41153, Stop: 42016, Start Num: 33
Candidate Starts for Taquito_63:
(24, 41117), (29, 41132), (Start: 33 @41153 has 163 MA's), (47, 41186), (53, 41207), (68, 41282), (106, 41561), (107, 41567), (112, 41630), (121, 41684), (129, 41753), (136, 41801), (150, 41870), (165, 41978), (166, 41981),

Gene: Tarzan_39 Start: 27538, Stop: 28299, Start Num: 38
Candidate Starts for Tarzan_39:
(9, 27307), (17, 27388), (23, 27487), (Start: 38 @27538 has 6 MA's), (60, 27604), (80, 27715), (87, 27790), (88, 27802), (114, 27946), (126, 28021), (129, 28045), (132, 28054), (143, 28144), (150, 28162), (161, 28234),

Gene: Teejan_52 Start: 41208, Stop: 42095, Start Num: 33
Candidate Starts for Teejan_52:

(Start: 33 @41208 has 163 MA's), (63, 41319), (78, 41418), (95, 41568), (102, 41601), (107, 41640), (111, 41694), (123, 41778), (128, 41826), (129, 41835), (133, 41850), (136, 41883), (158, 41997), (161, 42024),

Gene: TelAviv_12 Start: 4745, Stop: 5494, Start Num: 49
Candidate Starts for TelAviv_12:
(Start: 49 @4745 has 30 MA's), (63, 4811), (74, 4889), (80, 4913), (85, 4973), (90, 5015), (96, 5051), (111, 5111), (129, 5240), (136, 5288), (141, 5327), (154, 5375),

Gene: TingHuaYa_63 Start: 40622, Stop: 41509, Start Num: 33
Candidate Starts for TingHuaYa_63:
(Start: 33 @40622 has 163 MA's), (63, 40733), (78, 40832), (95, 40982), (107, 41054), (111, 41108), (123, 41192), (129, 41249), (136, 41297), (149, 41363), (159, 41414), (160, 41423), (161, 41438),

Gene: TiniBug_62 Start: 42170, Stop: 43051, Start Num: 33
Candidate Starts for TiniBug_62:
(Start: 33 @42170 has 163 MA's), (63, 42281), (78, 42380), (107, 42605), (111, 42659), (123, 42734), (129, 42791), (136, 42839), (149, 42905), (158, 42953), (160, 42965), (161, 42980),

Gene: TinyDot_44 Start: 29888, Stop: 30616, Start Num: 48
Candidate Starts for TinyDot_44:
(3, 29531), (20, 29756), (Start: 48 @29888 has 1 MA's), (78, 30035), (108, 30194), (109, 30230), (114, 30269), (145, 30473),

Gene: Tiri_62 Start: 41574, Stop: 42461, Start Num: 33
Candidate Starts for Tiri_62:
(Start: 33 @41574 has 163 MA's), (63, 41685), (78, 41784), (95, 41934), (107, 42006), (111, 42060), (123, 42144), (129, 42201), (135, 42234), (136, 42249), (149, 42315), (160, 42375), (161, 42390),

Gene: Topper_61 Start: 41411, Stop: 42289, Start Num: 33
Candidate Starts for Topper_61:
(Start: 33 @41411 has 163 MA's), (63, 41522), (78, 41621), (107, 41843), (111, 41897), (123, 41972), (129, 42029), (136, 42077), (149, 42143), (158, 42191), (160, 42203), (161, 42218),

Gene: Torres_53 Start: 41209, Stop: 42096, Start Num: 33
Candidate Starts for Torres_53:
(Start: 33 @41209 has 163 MA's), (63, 41320), (78, 41419), (95, 41569), (102, 41602), (107, 41641), (111, 41695), (123, 41779), (128, 41827), (129, 41836), (133, 41851), (136, 41884), (158, 41998), (161, 42025),

Gene: TreyKay_62 Start: 41483, Stop: 42361, Start Num: 33
Candidate Starts for TreyKay_62:
(Start: 33 @41483 has 163 MA's), (63, 41594), (78, 41693), (107, 41915), (111, 41969), (123, 42044), (129, 42101), (136, 42149), (149, 42215), (158, 42263), (160, 42275), (161, 42290),

Gene: TribleTrouble_60 Start: 41741, Stop: 42643, Start Num: 33
Candidate Starts for TribleTrouble_60:
(26, 41720), (Start: 33 @41741 has 163 MA's), (63, 41852), (78, 41951), (81, 41960), (88, 42038), (95, 42101), (106, 42191), (123, 42326), (129, 42383), (136, 42431), (150, 42500), (151, 42503), (159, 42548), (161, 42572),

Gene: Trice_50 Start: 38596, Stop: 39483, Start Num: 33
Candidate Starts for Trice_50:

(Start: 33 @38596 has 163 MA's), (63, 38707), (78, 38806), (95, 38956), (102, 38989), (107, 39028), (111, 39082), (123, 39166), (128, 39214), (129, 39223), (133, 39238), (136, 39271), (158, 39385), (161, 39412),

Gene: TruffulaTree_61 Start: 41271, Stop: 42158, Start Num: 33
Candidate Starts for TruffulaTree_61:
(Start: 33 @41271 has 163 MA's), (59, 41364), (63, 41382), (78, 41481), (95, 41631), (107, 41703), (111, 41757), (123, 41841), (129, 41898), (136, 41946), (149, 42012), (160, 42072), (161, 42087), (168, 42129),

Gene: Twitch_61 Start: 41413, Stop: 42291, Start Num: 33
Candidate Starts for Twitch_61:
(Start: 33 @41413 has 163 MA's), (63, 41524), (78, 41623), (107, 41845), (111, 41899), (123, 41974), (129, 42031), (136, 42079), (149, 42145), (158, 42193), (160, 42205), (161, 42220),

Gene: Urkel_62 Start: 42174, Stop: 43055, Start Num: 33
Candidate Starts for Urkel_62:
(Start: 33 @42174 has 163 MA's), (63, 42285), (78, 42384), (107, 42609), (111, 42663), (123, 42738), (129, 42795), (136, 42843), (149, 42909), (158, 42957), (160, 42969), (161, 42984),

Gene: Vagabond_13 Start: 5002, Stop: 5751, Start Num: 49
Candidate Starts for Vagabond_13:
(Start: 49 @5002 has 30 MA's), (63, 5068), (74, 5146), (80, 5170), (85, 5230), (90, 5272), (96, 5308), (111, 5368), (129, 5497), (136, 5545), (141, 5584), (154, 5632),

Gene: Validus_64 Start: 41893, Stop: 42780, Start Num: 33
Candidate Starts for Validus_64:
(Start: 33 @41893 has 163 MA's), (63, 42004), (80, 42106), (95, 42253), (98, 42265), (107, 42325), (111, 42379), (123, 42463), (129, 42520), (136, 42568), (148, 42631), (159, 42685), (160, 42694), (161, 42709), (164, 42733), (167, 42748),

Gene: Veliki_62 Start: 41251, Stop: 42129, Start Num: 33
Candidate Starts for Veliki_62:
(Start: 33 @41251 has 163 MA's), (63, 41362), (78, 41461), (95, 41611), (107, 41683), (111, 41737), (123, 41812), (129, 41869), (136, 41917), (149, 41983), (158, 42031), (160, 42043), (161, 42058),

Gene: Vorrps_13 Start: 4936, Stop: 5685, Start Num: 49
Candidate Starts for Vorrps_13:
(Start: 49 @4936 has 30 MA's), (63, 5002), (74, 5080), (80, 5104), (85, 5164), (90, 5206), (96, 5242), (111, 5302), (129, 5431), (136, 5479), (141, 5518), (154, 5566),

Gene: WheatThin_47 Start: 33927, Stop: 34814, Start Num: 21
Candidate Starts for WheatThin_47:
(10, 33774), (11, 33783), (14, 33822), (Start: 21 @33927 has 15 MA's), (24, 33948), (Start: 51 @34038 has 1 MA's), (56, 34065), (59, 34083), (115, 34437), (117, 34446), (118, 34452), (130, 34539), (131, 34542), (136, 34584), (138, 34611), (144, 34638), (146, 34644), (150, 34653), (152, 34662),

Gene: Wildflower_13 Start: 4962, Stop: 5711, Start Num: 49
Candidate Starts for Wildflower_13:
(Start: 49 @4962 has 30 MA's), (63, 5028), (74, 5106), (80, 5130), (85, 5190), (90, 5232), (93, 5253), (96, 5268), (111, 5328), (129, 5457), (136, 5505), (141, 5544), (154, 5592),

Gene: Winget_13 Start: 5001, Stop: 5750, Start Num: 49

Candidate Starts for Winget_13:
(Start: 49 @5001 has 30 MA's), (63, 5067), (74, 5145), (80, 5169), (85, 5229), (90, 5271), (96, 5307), (111, 5367), (129, 5496), (136, 5544), (141, 5583),

Gene: Wintermute_64 Start: 41148, Stop: 42011, Start Num: 33
Candidate Starts for Wintermute_64:
(24, 41112), (29, 41127), (Start: 33 @41148 has 163 MA's), (47, 41181), (53, 41202), (68, 41277), (106, 41556), (107, 41562), (112, 41625), (121, 41679), (129, 41748), (136, 41796), (150, 41865), (165, 41973), (166, 41976),

Gene: Wogge42_13 Start: 5091, Stop: 5840, Start Num: 49
Candidate Starts for Wogge42_13:
(Start: 49 @5091 has 30 MA's), (63, 5157), (74, 5235), (80, 5259), (85, 5319), (90, 5361), (96, 5397), (111, 5457), (129, 5586), (136, 5634), (141, 5673), (154, 5721),

Gene: Y10_62 Start: 41076, Stop: 41939, Start Num: 33
Candidate Starts for Y10_62:
(24, 41040), (29, 41055), (Start: 33 @41076 has 163 MA's), (47, 41109), (53, 41130), (57, 41145), (68, 41205), (106, 41484), (107, 41490), (121, 41607), (129, 41676), (136, 41724), (150, 41793), (165, 41901), (166, 41904),

Gene: Y2_62 Start: 41076, Stop: 41939, Start Num: 33
Candidate Starts for Y2_62:
(24, 41040), (29, 41055), (Start: 33 @41076 has 163 MA's), (47, 41109), (53, 41130), (57, 41145), (68, 41205), (106, 41484), (107, 41490), (121, 41607), (129, 41676), (136, 41724), (150, 41793), (165, 41901), (166, 41904),

Gene: YasnayaPolyana_63 Start: 41001, Stop: 41864, Start Num: 33
Candidate Starts for YasnayaPolyana_63:
(24, 40965), (29, 40980), (Start: 33 @41001 has 163 MA's), (47, 41034), (53, 41055), (68, 41130), (106, 41409), (107, 41415), (112, 41478), (121, 41532), (129, 41601), (136, 41649), (150, 41718), (165, 41826), (166, 41829),

Gene: YoureAdopted_60 Start: 41400, Stop: 42278, Start Num: 33
Candidate Starts for YoureAdopted_60:
(Start: 33 @41400 has 163 MA's), (63, 41511), (78, 41610), (95, 41760), (107, 41832), (111, 41886), (123, 41961), (129, 42018), (136, 42066), (149, 42132), (158, 42180), (160, 42192), (161, 42207),

Gene: YoyoKar_13 Start: 4749, Stop: 5498, Start Num: 49
Candidate Starts for YoyoKar_13:
(Start: 49 @4749 has 30 MA's), (63, 4815), (74, 4893), (80, 4917), (85, 4977), (90, 5019), (96, 5055), (111, 5115), (129, 5244), (136, 5292), (141, 5331), (154, 5379),

Gene: Yuna_65 Start: 42443, Stop: 43345, Start Num: 33
Candidate Starts for Yuna_65:
(6, 42131), (Start: 33 @42443 has 163 MA's), (63, 42554), (74, 42632), (75, 42641), (80, 42656), (95, 42803), (106, 42872), (107, 42878), (119, 42998), (123, 43028), (135, 43118), (138, 43160), (161, 43274),

Gene: YungJamal_14 Start: 5302, Stop: 6051, Start Num: 49
Candidate Starts for YungJamal_14:
(Start: 49 @5302 has 30 MA's), (63, 5368), (74, 5446), (80, 5470), (85, 5530), (90, 5572), (96, 5608), (111, 5668), (129, 5797), (136, 5845), (141, 5884), (154, 5932),

Gene: Yunkel11_64 Start: 41120, Stop: 42025, Start Num: 33
Candidate Starts for Yunkel11_64:
(Start: 33 @41120 has 163 MA's), (63, 41231), (78, 41330), (107, 41570), (111, 41624), (123, 41708), (136, 41813), (149, 41879), (159, 41930), (160, 41939), (161, 41954),

Gene: Zakhe101_14 Start: 5314, Stop: 6063, Start Num: 49
Candidate Starts for Zakhe101_14:
(Start: 49 @5314 has 30 MA's), (63, 5380), (74, 5458), (80, 5482), (85, 5542), (90, 5584), (93, 5605), (96, 5620), (111, 5680), (129, 5809), (136, 5857), (141, 5896), (154, 5944),

Gene: Zavala_63 Start: 41556, Stop: 42434, Start Num: 33
Candidate Starts for Zavala_63:
(Start: 33 @41556 has 163 MA's), (63, 41667), (68, 41703), (78, 41766), (95, 41916), (107, 41988), (111, 42042), (123, 42117), (129, 42174), (136, 42222), (149, 42288), (158, 42336), (160, 42348), (161, 42363),

Gene: Zebo_12 Start: 4748, Stop: 5497, Start Num: 49
Candidate Starts for Zebo_12:
(Start: 49 @4748 has 30 MA's), (63, 4814), (74, 4892), (80, 4916), (85, 4976), (90, 5018), (96, 5054), (111, 5114), (129, 5243), (136, 5291), (141, 5330), (154, 5378),

Gene: ZoeJ_61 Start: 42753, Stop: 43610, Start Num: 33
Candidate Starts for ZoeJ_61:
(Start: 33 @42753 has 163 MA's), (63, 42858), (78, 42957), (107, 43167), (136, 43401), (150, 43470), (159, 43518),