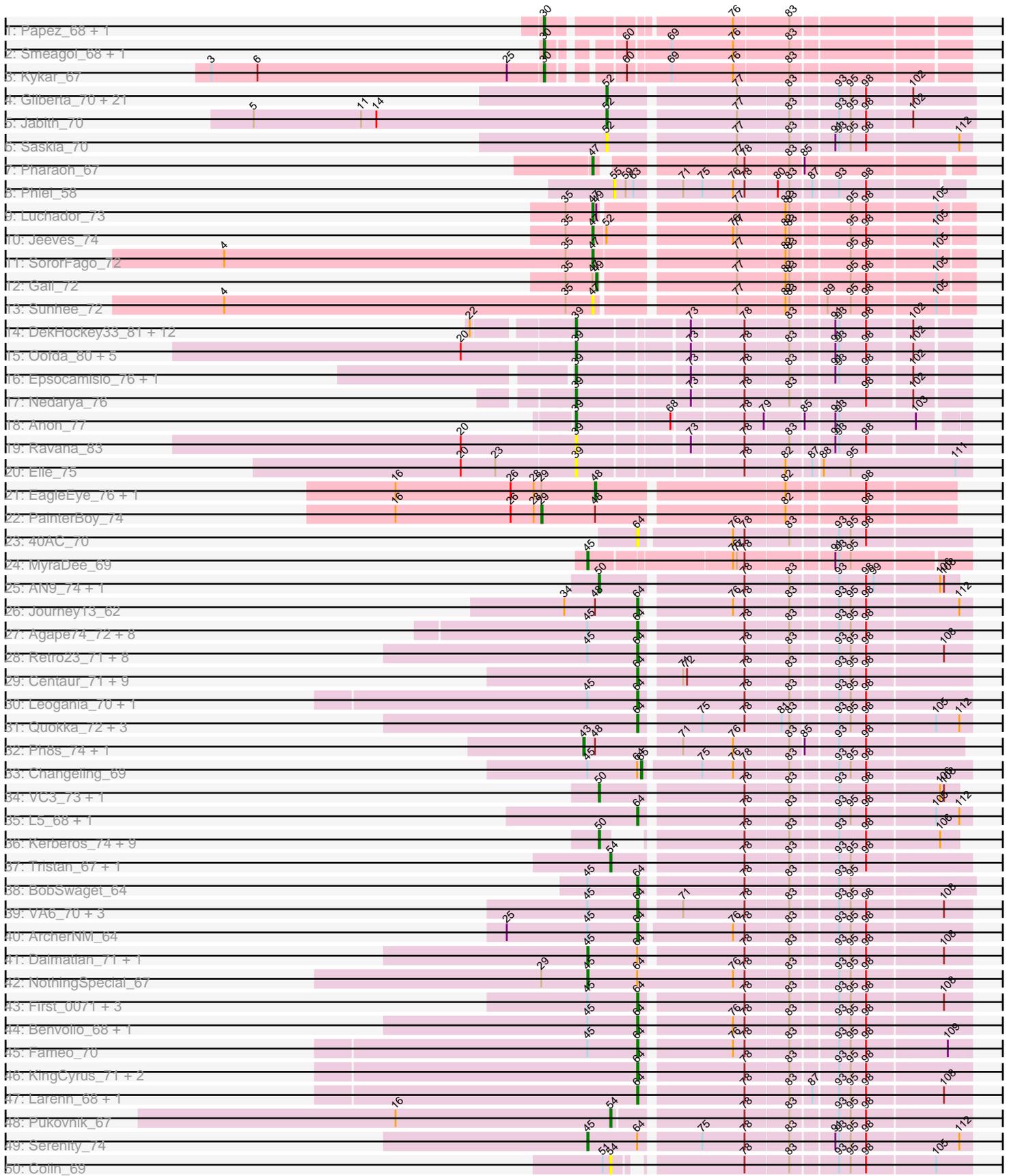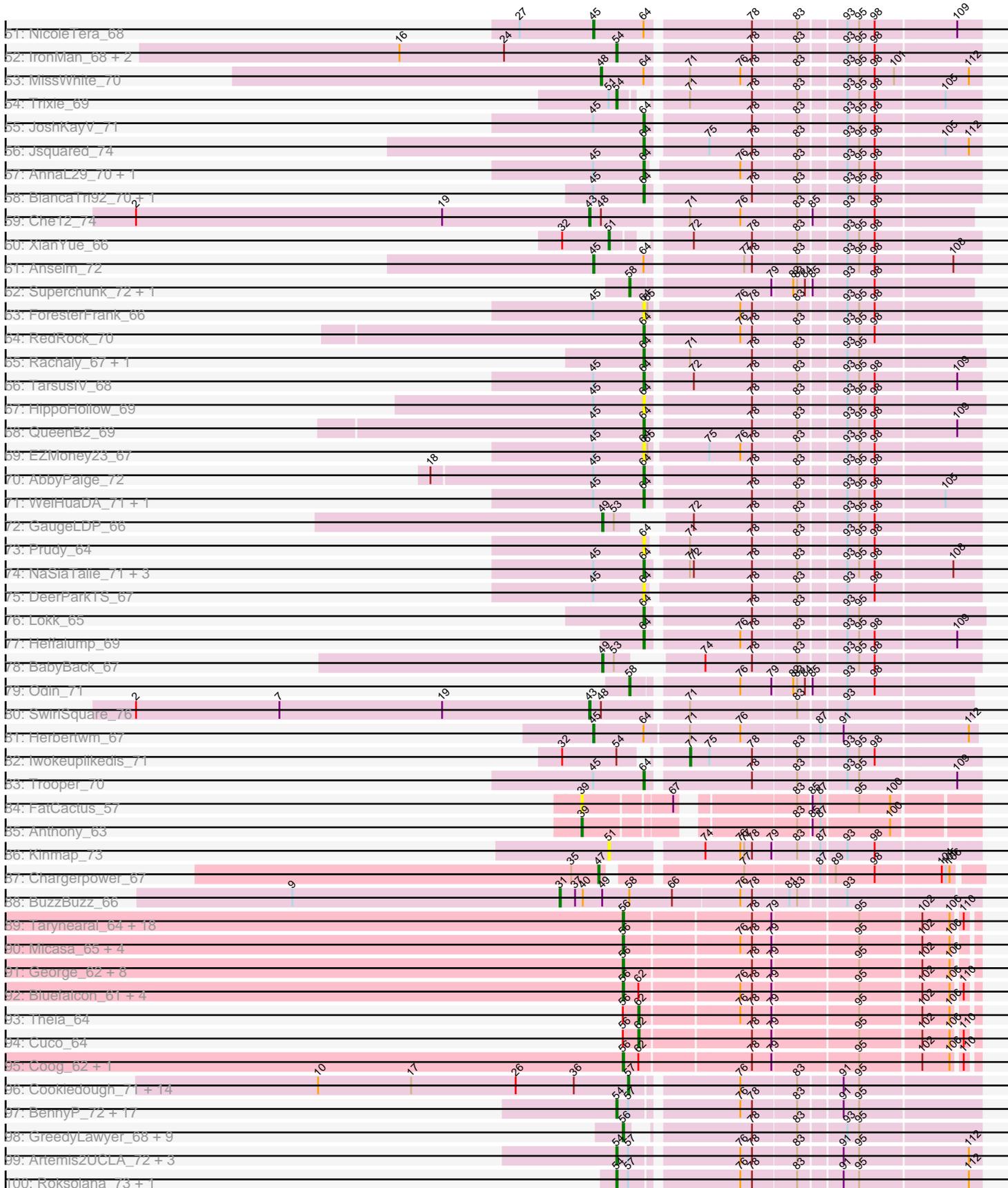# Pham 290747

Pham 290747

Pham 290747

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 290747 Report

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

Pham number 290747 has 349 members, 51 are drafts.

Phages represented in each track:
• Track 1 : Papez_68, Alvin_65
• Track 2 : Smeagol_68, EnzoK_66
• Track 3 : Kykar_67
• Track 4 : Gilberta_70, Timothy_69, Bachome_71, Bud_68, Aneem_70, Mabel_69, Ebony_69, Salz_68, Hutc2_68, Flaverint_70, Orange_68, Sham4_69, Lucivia_70, Snape_69, Munch_69, Bowtie_70, Et2Brutus_68, MaCh_69, Fibonacci_69, Wolpertinger_67, Mulciber_68, Petersenfast_67
• Track 5 : Jabith_70
• Track 6 : Saskia_70
• Track 7 : Pharaoh_67
• Track 8 : Phlei_58
• Track 9 : Luchador_73
• Track 10 : Jeeves_74
• Track 11 : SororFago_72
• Track 12 : Gail_72
• Track 13 : Sunhee_72
• Track 14 : DekHockey33_81, Switzerland_79, Anaysia_80, Boohoo_80, LastResort_78, Rosalind_78, Battleship_82, MinecraftSteve_80, KatherineG_80, Looper_79, ReMo_78, Nebulosus_77, ShayRa_80
• Track 15 : Oofda_80, Remus_81, Strosahl_81, Waits_80, Soups_80, Warrior24_81
• Track 16 : Epsocamisio_76, JSwag_79
• Track 17 : Nedarya_76
• Track 18 : Anon_77
• Track 19 : Ravana_83
• Track 20 : Elle_75
• Track 21 : EagleEye_76, Lucyedi_75
• Track 22 : PainterBoy_74
• Track 23 : 40AC_70
• Track 24 : MyraDee_69
• Track 25 : AN9_74, ANI8_74
• Track 26 : Journey13_62
• Track 27 : Agape74_72, LilTurb_71, Turbido_71, Bugsy_72, Dignity_72, Jerm_72, Leviathan_72, Smeagan_73, Whabigail7_71
• Track 28 : Retro23_71, SnapTap_70, Crucio_71, QueenBeesly_71, Georgie2_72, FiringLine_71, Power_70, SemperFi_71, SweetiePie_70
• Track 29 : Centaur_71, WideWale_71, Terrific_71, Gratitude_68, Equemioh13_70, Drake55_72, Baehexic_69, Piro94_70, HarryHoudini_71, Updawg_71

- Track 30 : Leogania_70, LionsBait_71
- Track 31 : Quokka_72, TipsytheTRex_70, MajorMajor_72, Bradman_73
- Track 32 : Ph8s_74, Adzzy_74
- Track 33 : Changeling_69
- Track 34 : VC3_73, C3_67
- Track 35 : L5_68, Koduck_73
- Track 36 : Kerberos_74, Tomathan_74, D32_73, StarStuff_74, Duplo_74, DBQu4n_74, D29_68, Pomar16_73, Travvers_73, Naji_74
- Track 37 : Tristan_67, Landor_69
- Track 38 : BobSwaget_64
- Track 39 : VA6_70, AN3_72, Deloris_70, BengiVuitton_70
- Track 40 : ArcherNM_64
- Track 41 : Dalmatian_71, DudeLittle_69
- Track 42 : NothingSpecial_67
- Track 43 : First_0071, 20ES_72, LadyBird_74, CRB1_72
- Track 44 : Benvolio_68, Echild_71
- Track 45 : Fameo_70
- Track 46 : KingCyrus_71, ChipMunk_72, EvilGenius_71
- Track 47 : Larenn_68, Malec_69
- Track 48 : Pukovnik_67
- Track 49 : Serenity_74
- Track 50 : Colin_69
- Track 51 : NicoleTera_68
- Track 52 : IronMan_68, Phaded_66, Jaan_69
- Track 53 : MissWhite_70
- Track 54 : Trixie_69
- Track 55 : JoshKayV_71
- Track 56 : Jsquared_74
- Track 57 : AnnaL29_70, Loser_72
- Track 58 : BiancaTri92_70, Acolyte_62
- Track 59 : Che12_74
- Track 60 : XianYue_66
- Track 61 : Anselm_72
- Track 62 : Superchunk_72, Caraxes_73
- Track 63 : ForesterFrank_66
- Track 64 : RedRock_70
- Track 65 : Rachaly_67, Miko_65
- Track 66 : TarsusIV_68
- Track 67 : HippoHollow_69
- Track 68 : QueenB2_69
- Track 69 : EZMoney23_67
- Track 70 : AbbyPaige_72
- Track 71 : WeiHuaDA_71, Kalpine_70
- Track 72 : GaugeLDP_66
- Track 73 : Prudy_64
- Track 74 : NaSiaTalie_71, Flare16_71, Sknot_71, MiculUcigas_71
- Track 75 : DeerParkTS_67
- Track 76 : Lokk_65
- Track 77 : Heffalump_69
- Track 78 : BabyBack_67
- Track 79 : Odin_71
- Track 80 : SwirlSquare_76
- Track 81 : Herbertwm_67

- Track 82 : Iwokeuplikedis_71
- Track 83 : Trooper_70
- Track 84 : FatCactus_57
- Track 85 : Anthony_63
- Track 86 : Kinmap_73
- Track 87 : Chargerpower_67
- Track 88 : BuzzBuzz_66
- Track 89 : Tarynearal_64, Tiger_65, AgentM_65, Jabiru_67, Phlorence_64, Jovo_66, PickleBack_66, UnionJack_69, Florence1_62, Lev2_66, Benedict_69, Aragog_65, ElTiger69_71, ForGetIt_66, Naca_68, Florence4_64, Discoknowium_63, Conspiracy_66, Airmid_68
- Track 90 : Micasa_65, Bonamassa_65, Twigg_62, Dublin_65, MarysWell_65
- Track 91 : George_62, LittleCherry_64, Swirley_65, Scorpia_69, Chadwick_69, PetterN_73, Prinashe11_63, HuhtaEnerson15_63, Milcery_65
- Track 92 : Bluefalcon_61, Ghoulboy_65, Archetta_63, Zolita_64, SydNat_65
- Track 93 : Theia_64
- Track 94 : Cuco_64
- Track 95 : Coog_62, Midas2_62
- Track 96 : Cookiedough_71, SuperAwesome_71, JewelBug_71, Gladiator_69, Polyphemus_73, Neeharika16_70, Priamo_73, Pmask_70, Isiphiwo_69, BABullseye_64, Newrala_71, Dorothea_71, Jordennis_70, McFly_71, SuperCallie99_68
- Track 97 : BennyP_72, Zulu_74, Helmet_75, Indra_76, Garak_74, Temprado_74, Zaka_73, Jeffabunny_73, WunderPhul_73, BlessJoy_73, Wiks_72, Lilbunny_72, Hammer_73, Yokurt_72, Blue7_74, Rifter_73, Tucker_73, ToneTone_70
- Track 98 : GreedyLawyer_68, Kazan_72, Candra_69, EricB_70, Kipper29_71, Chartreuse_70, VohminGhazi_71, DaVinci_69, SmellyB_71, Hoot_66
- Track 99 : Artemis2UCLA_72, Hexamo_72, Koko_74, CloudWang3_73
- Track 100 : Roksolana_73, Gruunaga_72
- Track 101 : Blinn1_75
- Track 102 : DelvinSonDorr_68
- Track 103 : Timshel_68
- Track 104 : Phillis_77, NearlyHeadless_81
- Track 105 : Roary_82
- Track 106 : Stephig9_79, Dixon_79, Danforth_81, Smeadley_80, Astro_80, Caitlin_78, Expelliarmus_77, Saintus_76
- Track 107 : Groundhog_78
- Track 108 : Holex_71, Fayely_71, Myxus_73, Priya_71, Jiawan_70, Phaeder_73, Catalina_75, Aliter_74, Lilleskat_70, Phonnegut_73, Conquerage_71, Alma_71, Ayanochan_71, HortumSL17_74, PackMan_72, Pioneer_73, EmyBug_70, Tubs_73, Spouty_71, Qobbit_71, Beemo_73, RyeScarlet_74, Sachima_69, ExplosioNervosa_71, Scherzo_72, Ugenie5_68, Hanray_71, Eidsmoe_71
- Track 109 : CogOmlette_70, Bellris_70, Rahalelujah_72, WorldCup_70, Minispark_70
- Track 110 : Darrell_74
- Track 111 : Toaka_73
- Track 112 : BogosyJay_73, Maminiaina_73
- Track 113 : Vanisoa_70
- Track 114 : Celestialunch_67, MegTheThird_67
- Track 115 : Klodlith_68, Charm_67
- Track 116 : Elephantoon_73
- Track 117 : Keziacharles14_69
- Track 118 : Arissanae_70

• Track 119 : SheaKeira_67
• Track 120 : DreamTeam1_67
• Track 121 : Yecey3_74
• Track 122 : LoneWolf_73

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

The start number called the most often in the published annotations is 64, it was called in 66 of the 298 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 20ES_72, 40AC_70, AN3_72, AbbyPaige_72, Acolyte_62, Agape74_72, AnnaL29_70, ArcherNM_64, Baehexic_69, BengiVuitton_70, Benvolio_68, BiancaTri92_70, BobSwaget_64, Bradman_73, Bugsy_72, CRB1_72, Centaur_71, ChipMunk_72, Crucio_71, DeerParkTS_67, Deloris_70, Dignity_72, Drake55_72, EZMoney23_67, Echild_71, Equemioh13_70, EvilGenius_71, Fameo_70, FiringLine_71, First_0071, Flare16_71, ForesterFrank_66, Georgie2_72, Gratitude_68, HarryHoudini_71, Heffalump_69, HippoHollow_69, Jerm_72, JoshKayV_71, Journey13_62, Jsquared_74, Kalpine_70, KingCyrus_71, Koduck_73, L5_68, LadyBird_74, Larenn_68, Leogania_70, Leviathan_72, LilTurb_71, LionsBait_71, Lokk_65, Loser_72, MajorMajor_72, Malec_69, MiculUcigas_71, Miko_65, NaSiaTalie_71, Piro94_70, Power_70, Prudy_64, QueenB2_69, QueenBeesly_71, Quokka_72, Rachaly_67, RedRock_70, Retro23_71, SemperFi_71, Sknot_71, Smeagan_73, SnapTap_70, SweetiePie_70, TarsusIV_68, Terrific_71, TipsytheTRex_70, Trooper_70, Turbido_71, Updawg_71, VA6_70, WeiHuaDA_71, Whabigail7_71, WideWale_71,

Genes that have the "Most Annotated" start but do not call it:
• Anselm_72, Changeling_69, Dalmatian_71, DudeLittle_69, Herbertwm_67, MissWhite_70, NicoleTera_68, NothingSpecial_67, Serenity_74,

Genes that do not have the "Most Annotated" start:
• AN9_74, ANI8_74, Adzzy_74, AgentM_65, Airmid_68, Aliter_74, Alma_71, Alvin_65, Anaysia_80, Aneem_70, Anon_77, Anthony_63, Aragog_65, Archetta_63, Arissanae_70, Artemis2UCLA_72, Astro_80, Ayanochan_71, BABullseye_64, BabyBack_67, Bachome_71, Battleship_82, Beemo_73, Bellris_70, Benedict_69, BennyP_72, BlessJoy_73, Blinn1_75, Blue7_74, Bluefalcon_61, Bonamassa_65, Boohoo_80, Bowtie_70, Bud_68, BuzzBuzz_66, C3_67, Caitlin_78, Candra_69, Caraxes_73, Catalina_75, Celestialunch_67, Chadwick_69, Chargerpower_67, Charm_67, Chartreuse_70, Che12_74, CloudWang3_73, CogOmlette_70, Colin_69, Conquerage_71, Conspiracy_66, Coog_62, Cookiedough_71, Cuco_64, D29_68, D32_73, DBQu4n_74, DaVinci_69, Danforth_81, Darrell_74, DekHockey33_81, DelvinSonDorr_68, Discoknowium_63, Dixon_79, Dorothea_71, DreamTeam1_67, Dublin_65, Duplo_74, EagleEye_76, Ebony_69, Eidsmoe_71, ElTiger69_71, Elephantoon_73, Elle_75, EmyBug_70, EnzoK_66, Epsocamisio_76, EricB_70, Et2Brutus_68, Expelliarmus_77, ExplosioNervosa_71, FatCactus_57, Fayely_71, Fibonacci_69, Flaverint_70, Florence1_62, Florence4_64, ForGetIt_66, Gail_72, Garak_74, GaugeLDP_66, George_62, Ghoulboy_65, Gilberta_70, Gladiator_69, GreedyLawyer_68, Groundhog_78, Gruunaga_72, Hammer_73, Hanray_71, Helmet_75, Hexamo_72,

Holex_71, Hoot_66, HortumSL17_74, HuhtaEnerson15_63, Hutc2_68, Indra_76, IronMan_68, Isiphiwo_69, Iwokeuplikedis_71, JSwag_79, Jaan_69, Jabiru_67, Jabith_70, Jeeves_74, Jeffabunny_73, JewelBug_71, Jiawan_70, Jordennis_70, Jovo_66, KatherineG_80, Kazan_72, Kerberos_74, Keziacharles14_69, Kinmap_73, Kipper29_71, Klodlith_68, Koko_74, Kykar_67, Landor_69, LastResort_78, Lev2_66, Lilbunny_72, Lilleskat_70, LittleCherry_64, LoneWolf_73, Looper_79, Luchador_73, Lucivia_70, Lucyedi_75, MaCh_69, Mabel_69, Maminiaina_73, MarysWell_65, McFly_71, MegTheThird_67, Micasa_65, Midas2_62, Milcery_65, MinecraftSteve_80, Minispark_70, Mulciber_68, Munch_69, MyraDee_69, Myxus_73, Naca_68, Naji_74, NearlyHeadless_81, Nebulosus_77, Nedarya_76, Neeharika16_70, Newrala_71, Odin_71, Oofda_80, Orange_68, PackMan_72, PainterBoy_74, Papez_68, Petersenfast_67, PetterN_73, Ph8s_74, Phaded_66, Phaeder_73, Pharaoh_67, Phillis_77, Phlei_58, Phlorence_64, Phonnegut_73, PickleBack_66, Pioneer_73, Pmask_70, Polyphemus_73, Pomar16_73, Priamo_73, Prinashe11_63, Priya_71, Pukovnik_67, Qobbit_71, Rahalelujah_72, Ravana_83, ReMo_78, Remus_81, Rifter_73, Roary_82, Roksolana_73, Rosalind_78, RyeScarlet_74, Sachima_69, Saintus_76, Salz_68, Saskia_70, Scherzo_72, Scorpia_69, Sham4_69, ShayRa_80, SheaKeira_67, Smeadley_80, Smeagol_68, SmellyB_71, Snape_69, SororFago_72, Soups_80, Spouty_71, StarStuff_74, Stephig9_79, Strosahl_81, Sunhee_72, SuperAwesome_71, SuperCallie99_68, Superchunk_72, SwirlSquare_76, Swirley_65, Switzerland_79, SydNat_65, Tarynearal_64, Temprado_74, Theia_64, Tiger_65, Timothy_69, Timshel_68, Toaka_73, Tomathan_74, ToneTone_70, Travvers_73, Tristan_67, Trixie_69, Tubs_73, Tucker_73, Twigg_62, Ugenie5_68, UnionJack_69, VC3_73, Vanisoa_70, VohminGhazi_71, Waits_80, Warrior24_81, Wiks_72, Wolpertinger_67, WorldCup_70, WunderPhul_73, XianYue_66, Yecey3_74, Yokurt_72, Zaka_73, Zolita_64, Zulu_74,

Summary by start number:

Start 29:
• Found in 4 of 349 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 25.0% of time when present
• Phage (with cluster) where this start called: PainterBoy_74 (A16),

Start 30:
• Found in 5 of 349 (1.4%) of genes in pham
• Manual Annotations of this start: 5 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alvin_65 (A1), EnzoK_66 (A1), Kykar_67 (A1), Papez_68 (A1), Smeagol_68 (A1),

Start 31:
• Found in 1 of 349 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BuzzBuzz_66 (A3),

Start 33:
• Found in 9 of 349 (2.6%) of genes in pham
• Manual Annotations of this start: 5 of 298
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Bellris_70 (A9), BogosyJay_73 (A9), CogOmlette_70 (A9), Darrell_74 (A9), LoneWolf_73 (A9), Maminiaina_73 (A9), Minispark_70 (A9), Rahalelujah_72 (A9), WorldCup_70 (A9),

Start 34:
• Found in 4 of 349 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Celestialunch_67 (A9), Elephantoon_73 (A9), MegTheThird_67 (A9),

Start 38:
• Found in 1 of 349 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DreamTeam1_67 (A9),

Start 39:
• Found in 28 of 349 (8.0%) of genes in pham
• Manual Annotations of this start: 24 of 298
• Called 96.4% of time when present
• Phage (with cluster) where this start called: Anaysia_80 (A15), Anon_77 (A15), Anthony_63 (A20), Battleship_82 (A15), Boohoo_80 (A15), DekHockey33_81 (A15), Elle_75 (A15), Epsocamisio_76 (A15), FatCactus_57 (A20), JSwag_79 (A15), KatherineG_80 (A15), LastResort_78 (A15), Looper_79 (A15), MinecraftSteve_80 (A15), Nebulosus_77 (A15), Nedarya_76 (A15), Oofda_80 (A15), Ravana_83 (A15), ReMo_78 (A15), Remus_81 (A15), Rosalind_78 (A15), ShayRa_80 (A15), Soups_80 (A15), Strosahl_81 (A15), Switzerland_79 (A15), Waits_80 (A15), Warrior24_81 (A15),

Start 41:
• Found in 1 of 349 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Timshel_68 (A7),

Start 42:
• Found in 1 of 349 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arissanae_70 (A9),

Start 43:
• Found in 6 of 349 (1.7%) of genes in pham
• Manual Annotations of this start: 5 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adzzy_74 (A2), Charm_67 (A9), Che12_74 (A2), Klodlith_68 (A9), Ph8s_74 (A2), SwirlSquare_76 (A2),

Start 44:
• Found in 29 of 349 (8.3%) of genes in pham
• Manual Annotations of this start: 22 of 298
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Aliter_74 (A9), Alma_71 (A9), Ayanochan_71 (A9), Beemo_73 (A9), Catalina_75 (A9), Conquerage_71 (A9), Eidsmoe_71 (A9), EmyBug_70 (A9), ExplosioNervosa_71 (A9), Fayely_71 (A9), Hanray_71 (A9), Holex_71 (A9), HortumSL17_74 (A9), Jiawan_70 (A9), Keziacharles14_69 (A9), Lilleskat_70 (A9), Myxus_73 (A9), PackMan_72 (A9), Phaeder_73 (A9), Phonnegut_73 (A9), Pioneer_73 (A9), Priya_71 (A9), Qobbit_71 (A9), RyeScarlet_74 (A9), Sachima_69 (A9), Scherzo_72 (A9), Spouty_71 (A9), Tubs_73 (A9), Ugenie5_68 (A9),

Start 45:
• Found in 61 of 349 (17.5%) of genes in pham
• Manual Annotations of this start: 8 of 298
• Called 13.1% of time when present
• Phage (with cluster) where this start called: Anselm_72 (A2), Dalmatian_71 (A2), DudeLittle_69 (A2), Herbertwm_67 (A2), MyraDee_69 (A18), NicoleTera_68 (A2), NothingSpecial_67 (A2), Serenity_74 (A2),

Start 46:
• Found in 1 of 349 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Toaka_73 (A9),

Start 47:
• Found in 8 of 349 (2.3%) of genes in pham
• Manual Annotations of this start: 6 of 298
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Chargerpower_67 (A22), Jeeves_74 (A14), Luchador_73 (A14), Pharaoh_67 (A12), SororFago_72 (A14), Sunhee_72 (A14), Vanisoa_70 (A9),

Start 48:
• Found in 10 of 349 (2.9%) of genes in pham
• Manual Annotations of this start: 3 of 298
• Called 30.0% of time when present
• Phage (with cluster) where this start called: EagleEye_76 (A16), Lucyedi_75 (A16), MissWhite_70 (A2),

Start 49:
• Found in 7 of 349 (2.0%) of genes in pham
• Manual Annotations of this start: 5 of 298
• Called 71.4% of time when present
• Phage (with cluster) where this start called: BabyBack_67 (A2), Gail_72 (A14), GaugeLDP_66 (A2), SheaKeira_67 (A9), Yecey3_74 (A9),

Start 50:
• Found in 14 of 349 (4.0%) of genes in pham
• Manual Annotations of this start: 13 of 298
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AN9_74 (A2), ANI8_74 (A2), C3_67 (A2), D29_68 (A2), D32_73 (A2), DBQu4n_74 (A2), Duplo_74 (A2), Kerberos_74 (A2), Naji_74 (A2), Pomar16_73 (A2), StarStuff_74 (A2), Tomathan_74 (A2), Travvers_73 (A2), VC3_73 (A2),

Start 51:
• Found in 4 of 349 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Kinmap_73 (A21), XianYue_66 (A2),

Start 52:
• Found in 25 of 349 (7.2%) of genes in pham
• Manual Annotations of this start: 21 of 298
• Called 96.0% of time when present
• Phage (with cluster) where this start called: Aneem_70 (A11), Bachome_71 (A11), Bowtie_70 (A11), Bud_68 (A11), Ebony_69 (A11), Et2Brutus_68 (A11), Fibonacci_69 (A11), Flaverint_70 (A11), Gilberta_70 (A11), Hutc2_68 (A11), Jabith_70 (A11), Lucivia_70 (A11), MaCh_69 (A11), Mabel_69 (A11), Mulciber_68 (A11), Munch_69 (A11), Orange_68 (A11), Petersenfast_67 (A11), Salz_68 (A11), Saskia_70 (A11), Sham4_69 (A11), Snape_69 (A11), Timothy_69 (A11), Wolpertinger_67 (A11),

Start 54:
• Found in 34 of 349 (9.7%) of genes in pham
• Manual Annotations of this start: 29 of 298
• Called 97.1% of time when present
• Phage (with cluster) where this start called: Artemis2UCLA_72 (A6), BennyP_72 (A6), BlessJoy_73 (A6), Blue7_74 (A6), CloudWang3_73 (A6), Colin_69 (A2), DelvinSonDorr_68 (A6), Garak_74 (A6), Gruunaga_72 (A6), Hammer_73 (A6), Helmet_75 (A6), Hexamo_72 (A6), Indra_76 (A6), IronMan_68 (A2), Jaan_69 (A2), Jeffabunny_73 (A6), Koko_74 (A6), Landor_69 (A2), Lilbunny_72 (A6), Phaded_66 (A2), Pukovnik_67 (A2), Rifter_73 (A6), Roksolana_73 (A6), Temprado_74 (A6), ToneTone_70 (A6), Tristan_67 (A2), Trixie_69 (A2), Tucker_73 (A6), Wiks_72 (A6), WunderPhul_73 (A6), Yokurt_72 (A6), Zaka_73 (A6), Zulu_74 (A6),

Start 55:
• Found in 1 of 349 (0.3%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phlei_58 (A13),

Start 56:
• Found in 52 of 349 (14.9%) of genes in pham
• Manual Annotations of this start: 45 of 298
• Called 96.2% of time when present
• Phage (with cluster) where this start called: AgentM_65 (A5), Airmid_68 (A5), Aragog_65 (A5), Archetta_63 (A5), Benedict_69 (A5), Bluefalcon_61 (A5), Bonamassa_65 (A5), Candra_69 (A6), Chadwick_69 (A5), Chartreuse_70 (A6), Conspiracy_66 (A5), Coog_62 (A5), DaVinci_69 (A6), Discoknowium_63 (A5), Dublin_65 (A5), ElTiger69_71 (A5), EricB_70 (A6), Florence1_62 (A5), Florence4_64 (A5), ForGetIt_66 (A5), George_62 (A5), Ghoulboy_65 (A5), GreedyLawyer_68 (A6), Hoot_66 (A6), HuhtaEnerson15_63 (A5), Jabiru_67 (A5), Jovo_66 (A5), Kazan_72 (A6), Kipper29_71 (A6), Lev2_66 (A5), LittleCherry_64 (A5), MarysWell_65 (A5), Micasa_65 (A5), Midas2_62 (A5), Milcery_65 (A5), Naca_68 (A5), PetterN_73 (A5), Phlorence_64 (A5), PickleBack_66 (A5), Prinashe11_63 (A5), Scorpia_69 (A5), SmellyB_71 (A6), Swirley_65 (A5), SydNat_65 (A5), Tarynearal_64 (A5), Tiger_65 (A5), Twigg_62 (A5), UnionJack_69 (A5), VohminGhazi_71 (A6), Zolita_64 (A5),

Start 57:
• Found in 41 of 349 (11.7%) of genes in pham
• Manual Annotations of this start: 16 of 298
• Called 39.0% of time when present
• Phage (with cluster) where this start called: BABullseye_64 (A6), Blinn1_75 (A6), Cookiedough_71 (A6), Dorothea_71 (A6), Gladiator_69 (A6), Isiphiwo_69 (A6), JewelBug_71 (A6), Jordennis_70 (A6), McFly_71 (A6), Neeharika16_70 (A6), Newrala_71 (A6), Pmask_70 (A6), Polyphemus_73 (A6), Priamo_73 (A6), SuperAwesome_71 (A6), SuperCallie99_68 (A6),

Start 58:
• Found in 4 of 349 (1.1%) of genes in pham
• Manual Annotations of this start: 2 of 298
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Caraxes_73 (A2), Odin_71 (A2), Superchunk_72 (A2),

Start 61:
• Found in 12 of 349 (3.4%) of genes in pham
• Manual Annotations of this start: 10 of 298
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Astro_80 (A8), Caitlin_78 (A8), Danforth_81 (A8), Dixon_79 (A8), Expelliarmus_77 (A8), NearlyHeadless_81 (A8), Phillis_77 (A8), Roary_82 (A8), Saintus_76 (A8), Smeadley_80 (A8), Stephig9_79 (A8),

Start 62:
• Found in 9 of 349 (2.6%) of genes in pham
• Manual Annotations of this start: 2 of 298
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Cuco_64 (A5), Theia_64 (A5),

Start 64:
• Found in 91 of 349 (26.1%) of genes in pham
• Manual Annotations of this start: 66 of 298
• Called 90.1% of time when present
• Phage (with cluster) where this start called: 20ES_72 (A2), 40AC_70 (A17), AN3_72 (A2), AbbyPaige_72 (A2), Acolyte_62 (A2), Agape74_72 (A2), AnnaL29_70 (A2), ArcherNM_64 (A2), Baehexic_69 (A2), BengiVuitton_70 (A2), Benvolio_68 (A2), BiancaTri92_70 (A2), BobSwaget_64 (A2), Bradman_73 (A2), Bugsy_72 (A2), CRB1_72 (A2), Centaur_71 (A2), ChipMunk_72 (A2), Crucio_71 (A2), DeerParkTS_67 (A2), Deloris_70 (A2), Dignity_72 (A2), Drake55_72 (A2), EZMoney23_67 (A2), Echild_71 (A2), Equemioh13_70 (A2), EvilGenius_71 (A2), Fameo_70 (A2), FiringLine_71 (A2), First_0071 (A2), Flare16_71 (A2), ForesterFrank_66 (A2), Georgie2_72 (A2), Gratitude_68 (A2), HarryHoudini_71 (A2), Heffalump_69 (A2), HippoHollow_69 (A2), Jerm_72 (A2), JoshKayV_71 (A2), Journey13_62 (A2), Jsquared_74 (A2), Kalpine_70 (A2), KingCyrus_71 (A2), Koduck_73 (A2), L5_68 (A2), LadyBird_74 (A2), Larenn_68 (A2), Leogania_70 (A2), Leviathan_72 (A2), LilTurb_71 (A2), LionsBait_71 (A2), Lokk_65 (A2), Loser_72 (A2), MajorMajor_72 (A2), Malec_69 (A2), MiculUcigas_71 (A2), Miko_65 (A2), NaSiaTalie_71 (A2), Piro94_70 (A2), Power_70 (A2), Prudy_64 (A2), QueenB2_69 (A2), QueenBeesly_71 (A2), Quokka_72 (A2), Rachaly_67 (A2), RedRock_70 (A2),

Retro23_71 (A2), SemperFi_71 (A2), Sknot_71 (A2), Smeagan_73 (A2), SnapTap_70 (A2), SweetiePie_70 (A2), TarsusIV_68 (A2), Terrific_71 (A2), TipsytheTRex_70 (A2), Trooper_70 (A2), Turbido_71 (A2), Updawg_71 (A2), VA6_70 (A2), WeiHuaDA_71 (A2), Whabigail7_71 (A2), WideWale_71 (A2),

Start 65:
• Found in 3 of 349 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Changeling_69 (A2),

Start 70:
• Found in 12 of 349 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Groundhog_78 (A8),

Start 71:
• Found in 32 of 349 (9.2%) of genes in pham
• Manual Annotations of this start: 1 of 298
• Called 3.1% of time when present
• Phage (with cluster) where this start called: Iwokeuplikedis_71 (A2),

Summary by clusters:

There are 19 clusters represented in this pham: A15, A14, A22, A16, A11, A13, A12, A18, A21, A1, A20, A3, A2, A5, A7, A6, A9, A8, A17,

Info for manual annotations of cluster A1:
•Start number 30 was manually annotated 5 times for cluster A1.

Info for manual annotations of cluster A11:
•Start number 52 was manually annotated 21 times for cluster A11.

Info for manual annotations of cluster A12:
•Start number 47 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:
•Start number 47 was manually annotated 3 times for cluster A14.
•Start number 49 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A15:
•Start number 39 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:
•Start number 29 was manually annotated 1 time for cluster A16.
•Start number 48 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A18:
•Start number 45 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:
•Start number 43 was manually annotated 4 times for cluster A2.
•Start number 45 was manually annotated 7 times for cluster A2.
•Start number 48 was manually annotated 1 time for cluster A2.
•Start number 49 was manually annotated 2 times for cluster A2.
•Start number 50 was manually annotated 13 times for cluster A2.
•Start number 51 was manually annotated 1 time for cluster A2.
•Start number 54 was manually annotated 7 times for cluster A2.
•Start number 58 was manually annotated 2 times for cluster A2.
•Start number 64 was manually annotated 66 times for cluster A2.
•Start number 65 was manually annotated 1 time for cluster A2.
•Start number 71 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:
•Start number 39 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A22:
•Start number 47 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:
•Start number 31 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A5:
•Start number 56 was manually annotated 36 times for cluster A5.
•Start number 62 was manually annotated 2 times for cluster A5.

Info for manual annotations of cluster A6:
•Start number 54 was manually annotated 22 times for cluster A6.
•Start number 56 was manually annotated 9 times for cluster A6.
•Start number 57 was manually annotated 16 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 41 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A8:
•Start number 61 was manually annotated 10 times for cluster A8.
•Start number 70 was manually annotated 1 time for cluster A8.

Info for manual annotations of cluster A9:
•Start number 33 was manually annotated 5 times for cluster A9.
•Start number 34 was manually annotated 1 time for cluster A9.
•Start number 38 was manually annotated 1 time for cluster A9.
•Start number 42 was manually annotated 1 time for cluster A9.
•Start number 43 was manually annotated 1 time for cluster A9.
•Start number 44 was manually annotated 22 times for cluster A9.
•Start number 46 was manually annotated 1 time for cluster A9.
•Start number 47 was manually annotated 1 time for cluster A9.
•Start number 49 was manually annotated 2 times for cluster A9.

Gene Information:

Gene: 20ES_72 Start: 43073, Stop: 42834, Start Num: 64
Candidate Starts for 20ES_72:
(Start: 45 @43112 has 8 MA's), (Start: 64 @43073 has 66 MA's), (78, 42998), (83, 42965), (93, 42932), (95, 42923), (98, 42911), (108, 42854),

Gene: 40AC_70 Start: 43765, Stop: 43523, Start Num: 64
Candidate Starts for 40AC_70:
(Start: 64 @43765 has 66 MA's), (76, 43696), (78, 43687), (83, 43654), (93, 43621), (95, 43612), (98, 43600),

Gene: AN3_72 Start: 41788, Stop: 41549, Start Num: 64
Candidate Starts for AN3_72:
(Start: 45 @41827 has 8 MA's), (Start: 64 @41788 has 66 MA's), (Start: 71 @41761 has 1 MA's), (78, 41713), (83, 41680), (93, 41647), (95, 41638), (98, 41626), (108, 41569),

Gene: AN9_74 Start: 43176, Stop: 42916, Start Num: 50
Candidate Starts for AN9_74:
(Start: 50 @43176 has 13 MA's), (78, 43071), (83, 43038), (93, 43005), (98, 42984), (99, 42978), (106, 42930), (108, 42927),

Gene: ANI8_74 Start: 43176, Stop: 42916, Start Num: 50
Candidate Starts for ANI8_74:
(Start: 50 @43176 has 13 MA's), (78, 43071), (83, 43038), (93, 43005), (98, 42984), (99, 42978), (106, 42930), (108, 42927),

Gene: AbbyPaige_72 Start: 43323, Stop: 43084, Start Num: 64
Candidate Starts for AbbyPaige_72:
(18, 43485), (Start: 45 @43362 has 8 MA's), (Start: 64 @43323 has 66 MA's), (78, 43248), (83, 43215), (93, 43182), (95, 43173), (98, 43161),

Gene: Acolyte_62 Start: 41272, Stop: 41048, Start Num: 64
Candidate Starts for Acolyte_62:
(Start: 45 @41311 has 8 MA's), (Start: 64 @41272 has 66 MA's), (78, 41200), (83, 41167), (93, 41134), (95, 41125), (98, 41113),

Gene: Adzzy_74 Start: 41977, Stop: 41702, Start Num: 43
Candidate Starts for Adzzy_74:
(Start: 43 @41977 has 5 MA's), (Start: 48 @41968 has 3 MA's), (Start: 71 @41908 has 1 MA's), (76, 41869), (83, 41827), (85, 41818), (93, 41794), (98, 41773),

Gene: Agape74_72 Start: 43317, Stop: 43078, Start Num: 64
Candidate Starts for Agape74_72:
(Start: 45 @43356 has 8 MA's), (Start: 64 @43317 has 66 MA's), (78, 43242), (83, 43209), (93, 43176), (95, 43167), (98, 43155),

Gene: AgentM_65 Start: 41621, Stop: 41370, Start Num: 56
Candidate Starts for AgentM_65:
(Start: 56 @41621 has 45 MA's), (78, 41528), (79, 41513), (95, 41450), (102, 41405), (106, 41384), (110, 41378),

Gene: Airmid_68 Start: 42454, Stop: 42200, Start Num: 56
Candidate Starts for Airmid_68:

(Start: 56 @42454 has 45 MA's), (78, 42361), (79, 42346), (95, 42283), (102, 42238), (106, 42217), (110, 42211),

Gene: Aliter_74 Start: 42621, Stop: 42343, Start Num: 44
Candidate Starts for Aliter_74:
(Start: 44 @42621 has 22 MA's), (77, 42513), (87, 42459), (89, 42450), (98, 42420),

Gene: Alma_71 Start: 42598, Stop: 42323, Start Num: 44
Candidate Starts for Alma_71:
(Start: 44 @42598 has 22 MA's), (77, 42490), (87, 42436), (89, 42427), (98, 42397),

Gene: Alvin_65 Start: 42599, Stop: 42303, Start Num: 30
Candidate Starts for Alvin_65:
(Start: 30 @42599 has 5 MA's), (76, 42473), (83, 42431),

Gene: Anaysia_80 Start: 43699, Stop: 43421, Start Num: 39
Candidate Starts for Anaysia_80:
(22, 43759), (Start: 39 @43699 has 24 MA's), (73, 43621), (78, 43582), (83, 43549), (91, 43519), (93, 43516), (98, 43495), (102, 43462),

Gene: Aneem_70 Start: 42035, Stop: 41769, Start Num: 52
Candidate Starts for Aneem_70:
(Start: 52 @42035 has 21 MA's), (77, 41942), (83, 41903), (93, 41870), (95, 41861), (98, 41849), (102, 41816),

Gene: AnnaL29_70 Start: 43273, Stop: 43034, Start Num: 64
Candidate Starts for AnnaL29_70:
(Start: 45 @43312 has 8 MA's), (Start: 64 @43273 has 66 MA's), (76, 43207), (78, 43198), (83, 43165), (93, 43132), (95, 43123), (98, 43111),

Gene: Anon_77 Start: 43390, Stop: 43115, Start Num: 39
Candidate Starts for Anon_77:
(Start: 39 @43390 has 24 MA's), (68, 43324), (78, 43273), (79, 43258), (85, 43231), (91, 43210), (93, 43207), (103, 43147),

Gene: Anselm_72 Start: 43506, Stop: 43228, Start Num: 45
Candidate Starts for Anselm_72:
(Start: 45 @43506 has 8 MA's), (Start: 64 @43467 has 66 MA's), (77, 43398), (78, 43392), (83, 43359), (93, 43326), (95, 43317), (98, 43305), (108, 43248),

Gene: Anthony_63 Start: 40063, Stop: 39797, Start Num: 39
Candidate Starts for Anthony_63:
(Start: 39 @40063 has 24 MA's), (83, 39925), (85, 39916), (87, 39910), (100, 39859),

Gene: Aragog_65 Start: 41641, Stop: 41390, Start Num: 56
Candidate Starts for Aragog_65:
(Start: 56 @41641 has 45 MA's), (78, 41548), (79, 41533), (95, 41470), (102, 41425), (106, 41404), (110, 41398),

Gene: ArcherNM_64 Start: 42544, Stop: 42302, Start Num: 64
Candidate Starts for ArcherNM_64:
(25, 42646), (Start: 45 @42583 has 8 MA's), (Start: 64 @42544 has 66 MA's), (76, 42475), (78, 42466), (83, 42433), (93, 42400), (95, 42391), (98, 42379),

Gene: Archetta_63 Start: 41587, Stop: 41336, Start Num: 56
Candidate Starts for Archetta_63:
(Start: 56 @41587 has 45 MA's), (Start: 62 @41575 has 2 MA's), (76, 41503), (78, 41494), (79, 41479), (95, 41416), (102, 41371), (106, 41350), (110, 41344),

Gene: Arissanae_70 Start: 42870, Stop: 42583, Start Num: 42
Candidate Starts for Arissanae_70:
(Start: 42 @42870 has 1 MA's), (Start: 48 @42861 has 3 MA's), (83, 42723), (94, 42684), (98, 42669),

Gene: Artemis2UCLA_72 Start: 41385, Stop: 41128, Start Num: 54
Candidate Starts for Artemis2UCLA_72:
(Start: 54 @41385 has 29 MA's), (Start: 57 @41376 has 16 MA's), (76, 41301), (78, 41292), (83, 41259), (91, 41229), (95, 41217), (112, 41136),

Gene: Astro_80 Start: 44089, Stop: 43805, Start Num: 61
Candidate Starts for Astro_80:
(Start: 61 @44089 has 10 MA's), (Start: 70 @44047 has 1 MA's), (77, 44005), (78, 43999), (101, 43891),

Gene: Ayanochan_71 Start: 42384, Stop: 42106, Start Num: 44
Candidate Starts for Ayanochan_71:
(Start: 44 @42384 has 22 MA's), (77, 42276), (87, 42222), (89, 42213), (98, 42183),

Gene: BABullseye_64 Start: 38991, Stop: 38743, Start Num: 57
Candidate Starts for BABullseye_64:
(10, 39231), (17, 39159), (26, 39078), (36, 39033), (Start: 57 @38991 has 16 MA's), (76, 38916), (83, 38874), (91, 38844), (95, 38832),

Gene: BabyBack_67 Start: 43084, Stop: 42833, Start Num: 49
Candidate Starts for BabyBack_67:
(Start: 49 @43084 has 5 MA's), (53, 43075), (74, 43033), (78, 42997), (83, 42964), (93, 42931), (95, 42922), (98, 42910),

Gene: Bachome_71 Start: 42031, Stop: 41765, Start Num: 52
Candidate Starts for Bachome_71:
(Start: 52 @42031 has 21 MA's), (77, 41938), (83, 41899), (93, 41866), (95, 41857), (98, 41845), (102, 41812),

Gene: Baehexic_69 Start: 42795, Stop: 42556, Start Num: 64
Candidate Starts for Baehexic_69:
(Start: 64 @42795 has 66 MA's), (Start: 71 @42768 has 1 MA's), (72, 42765), (78, 42720), (83, 42687), (93, 42654), (95, 42645), (98, 42633),

Gene: Battleship_82 Start: 43572, Stop: 43294, Start Num: 39
Candidate Starts for Battleship_82:
(22, 43632), (Start: 39 @43572 has 24 MA's), (73, 43494), (78, 43455), (83, 43422), (91, 43392), (93, 43389), (98, 43368), (102, 43335),

Gene: Beemo_73 Start: 42639, Stop: 42361, Start Num: 44
Candidate Starts for Beemo_73:
(Start: 44 @42639 has 22 MA's), (77, 42531), (87, 42477), (89, 42468), (98, 42438),

Gene: Bellris_70 Start: 42330, Stop: 42028, Start Num: 33
Candidate Starts for Bellris_70:
(8, 42540), (Start: 33 @42330 has 5 MA's), (83, 42168), (98, 42114),

Gene: Benedict_69 Start: 42186, Stop: 41932, Start Num: 56
Candidate Starts for Benedict_69:
(Start: 56 @42186 has 45 MA's), (78, 42093), (79, 42078), (95, 42015), (102, 41970), (106, 41949),
(110, 41943),

Gene: BengiVuitton_70 Start: 43050, Stop: 42811, Start Num: 64
Candidate Starts for BengiVuitton_70:
(Start: 45 @43089 has 8 MA's), (Start: 64 @43050 has 66 MA's), (Start: 71 @43023 has 1 MA's), (78,
42975), (83, 42942), (93, 42909), (95, 42900), (98, 42888), (108, 42831),

Gene: BennyP_72 Start: 41551, Stop: 41294, Start Num: 54
Candidate Starts for BennyP_72:
(Start: 54 @41551 has 29 MA's), (Start: 57 @41542 has 16 MA's), (76, 41467), (78, 41458), (83,
41425), (91, 41395), (95, 41383),

Gene: Benvolio_68 Start: 42707, Stop: 42468, Start Num: 64
Candidate Starts for Benvolio_68:
(Start: 45 @42746 has 8 MA's), (Start: 64 @42707 has 66 MA's), (76, 42641), (78, 42632), (83, 42599),
(93, 42566), (95, 42557), (98, 42545),

Gene: BiancaTri92_70 Start: 43252, Stop: 43013, Start Num: 64
Candidate Starts for BiancaTri92_70:
(Start: 45 @43291 has 8 MA's), (Start: 64 @43252 has 66 MA's), (78, 43177), (83, 43144), (93, 43111),
(95, 43102), (98, 43090),

Gene: BlessJoy_73 Start: 41907, Stop: 41650, Start Num: 54
Candidate Starts for BlessJoy_73:
(Start: 54 @41907 has 29 MA's), (Start: 57 @41898 has 16 MA's), (76, 41823), (78, 41814), (83,
41781), (91, 41751), (95, 41739),

Gene: Blinn1_75 Start: 41595, Stop: 41347, Start Num: 57
Candidate Starts for Blinn1_75:
(36, 41637), (Start: 57 @41595 has 16 MA's), (83, 41478), (93, 41445), (95, 41436), (98, 41424), (113,
41352),

Gene: Blue7_74 Start: 41605, Stop: 41348, Start Num: 54
Candidate Starts for Blue7_74:
(Start: 54 @41605 has 29 MA's), (Start: 57 @41596 has 16 MA's), (76, 41521), (78, 41512), (83,
41479), (91, 41449), (95, 41437),

Gene: Bluefalcon_61 Start: 41607, Stop: 41356, Start Num: 56
Candidate Starts for Bluefalcon_61:
(Start: 56 @41607 has 45 MA's), (Start: 62 @41595 has 2 MA's), (76, 41523), (78, 41514), (79, 41499),
(95, 41436), (102, 41391), (106, 41370), (110, 41364),

Gene: BobSwaget_64 Start: 41129, Stop: 40887, Start Num: 64
Candidate Starts for BobSwaget_64:
(Start: 45 @41168 has 8 MA's), (Start: 64 @41129 has 66 MA's), (78, 41054), (83, 41021), (93, 40988),
(95, 40979),

Gene: BogosyJay_73 Start: 42852, Stop: 42568, Start Num: 33
Candidate Starts for BogosyJay_73:
(Start: 33 @42852 has 5 MA's), (77, 42741), (83, 42702), (98, 42648),

Gene: Bonamassa_65 Start: 41816, Stop: 41565, Start Num: 56
Candidate Starts for Bonamassa_65:
(Start: 56 @41816 has 45 MA's), (76, 41732), (78, 41723), (79, 41708), (95, 41645), (102, 41600),
(106, 41579),

Gene: Boohoo_80 Start: 43699, Stop: 43421, Start Num: 39
Candidate Starts for Boohoo_80:
(22, 43759), (Start: 39 @43699 has 24 MA's), (73, 43621), (78, 43582), (83, 43549), (91, 43519), (93,
43516), (98, 43495), (102, 43462),

Gene: Bowtie_70 Start: 42042, Stop: 41776, Start Num: 52
Candidate Starts for Bowtie_70:
(Start: 52 @42042 has 21 MA's), (77, 41949), (83, 41910), (93, 41877), (95, 41868), (98, 41856), (102,
41823),

Gene: Bradman_73 Start: 42401, Stop: 42162, Start Num: 64
Candidate Starts for Bradman_73:
(Start: 64 @42401 has 66 MA's), (75, 42359), (78, 42326), (81, 42299), (83, 42293), (93, 42260), (95,
42251), (98, 42239), (105, 42188), (112, 42170),

Gene: Bud_68 Start: 41589, Stop: 41323, Start Num: 52
Candidate Starts for Bud_68:
(Start: 52 @41589 has 21 MA's), (77, 41496), (83, 41457), (93, 41424), (95, 41415), (98, 41403), (102,
41370),

Gene: Bugsy_72 Start: 43370, Stop: 43131, Start Num: 64
Candidate Starts for Bugsy_72:
(Start: 45 @43409 has 8 MA's), (Start: 64 @43370 has 66 MA's), (78, 43295), (83, 43262), (93, 43229),
(95, 43220), (98, 43208),

Gene: BuzzBuzz_66 Start: 42469, Stop: 42161, Start Num: 31
Candidate Starts for BuzzBuzz_66:
(9, 42676), (Start: 31 @42469 has 1 MA's), (37, 42457), (40, 42451), (Start: 49 @42436 has 5 MA's),
(Start: 58 @42415 has 2 MA's), (66, 42382), (76, 42331), (78, 42322), (81, 42295), (83, 42289), (93,
42256),

Gene: C3_67 Start: 43176, Stop: 42916, Start Num: 50
Candidate Starts for C3_67:
(Start: 50 @43176 has 13 MA's), (78, 43071), (83, 43038), (93, 43005), (98, 42984), (106, 42930),
(108, 42927),

Gene: CRB1_72 Start: 43596, Stop: 43357, Start Num: 64
Candidate Starts for CRB1_72:
(Start: 45 @43635 has 8 MA's), (Start: 64 @43596 has 66 MA's), (78, 43521), (83, 43488), (93, 43455),
(95, 43446), (98, 43434), (108, 43377),

Gene: Caitlin_78 Start: 43781, Stop: 43497, Start Num: 61
Candidate Starts for Caitlin_78:

(Start: 61 @43781 has 10 MA's), (Start: 70 @43739 has 1 MA's), (77, 43697), (78, 43691), (101, 43583),

Gene: Candra_69 Start: 41351, Stop: 41112, Start Num: 56
Candidate Starts for Candra_69:
(Start: 56 @41351 has 45 MA's), (78, 41276), (83, 41243), (93, 41210), (95, 41201),

Gene: Caraxes_73 Start: 41714, Stop: 41472, Start Num: 58
Candidate Starts for Caraxes_73:
(Start: 58 @41714 has 2 MA's), (79, 41615), (82, 41600), (83, 41597), (84, 41591), (85, 41588), (93, 41564), (98, 41543),

Gene: Catalina_75 Start: 42695, Stop: 42417, Start Num: 44
Candidate Starts for Catalina_75:
(Start: 44 @42695 has 22 MA's), (77, 42587), (87, 42533), (89, 42524), (98, 42494),

Gene: Celestialunch_67 Start: 41585, Stop: 41286, Start Num: 34
Candidate Starts for Celestialunch_67:
(1, 42011), (Start: 34 @41585 has 1 MA's), (77, 41468), (83, 41429), (98, 41375),

Gene: Centaur_71 Start: 43010, Stop: 42771, Start Num: 64
Candidate Starts for Centaur_71:
(Start: 64 @43010 has 66 MA's), (Start: 71 @42983 has 1 MA's), (72, 42980), (78, 42935), (83, 42902), (93, 42869), (95, 42860), (98, 42848),

Gene: Chadwick_69 Start: 41930, Stop: 41679, Start Num: 56
Candidate Starts for Chadwick_69:
(Start: 56 @41930 has 45 MA's), (78, 41837), (79, 41822), (95, 41759), (102, 41714), (106, 41693),

Gene: Changeling_69 Start: 43249, Stop: 43010, Start Num: 65
Candidate Starts for Changeling_69:
(Start: 45 @43291 has 8 MA's), (Start: 64 @43252 has 66 MA's), (Start: 65 @43249 has 1 MA's), (75, 43207), (76, 43183), (78, 43174), (83, 43141), (93, 43108), (95, 43099), (98, 43087),

Gene: Chargerpower_67 Start: 40705, Stop: 40445, Start Num: 47
Candidate Starts for Chargerpower_67:
(35, 40726), (Start: 47 @40705 has 6 MA's), (77, 40612), (87, 40558), (89, 40549), (98, 40519), (104, 40471), (105, 40468), (106, 40465),

Gene: Charm_67 Start: 41703, Stop: 41416, Start Num: 43
Candidate Starts for Charm_67:
(Start: 43 @41703 has 5 MA's), (77, 41598), (83, 41559), (98, 41505),

Gene: Chartreuse_70 Start: 40662, Stop: 40423, Start Num: 56
Candidate Starts for Chartreuse_70:
(Start: 56 @40662 has 45 MA's), (78, 40587), (83, 40554), (93, 40521), (95, 40512),

Gene: Che12_74 Start: 41861, Stop: 41586, Start Num: 43
Candidate Starts for Che12_74:
(2, 42212), (19, 41975), (Start: 43 @41861 has 5 MA's), (Start: 48 @41852 has 3 MA's), (Start: 71 @41792 has 1 MA's), (76, 41753), (83, 41711), (85, 41702), (93, 41678), (98, 41657),

Gene: ChipMunk_72 Start: 44601, Stop: 44362, Start Num: 64

Candidate Starts for ChipMunk_72:
(Start: 64 @44601 has 66 MA's), (78, 44526), (83, 44493), (93, 44460), (95, 44451), (98, 44439),

Gene: CloudWang3_73 Start: 41897, Stop: 41640, Start Num: 54
Candidate Starts for CloudWang3_73:
(Start: 54 @41897 has 29 MA's), (Start: 57 @41888 has 16 MA's), (76, 41813), (78, 41804), (83, 41771), (91, 41741), (95, 41729), (112, 41648),

Gene: CogOmlette_70 Start: 42327, Stop: 42025, Start Num: 33
Candidate Starts for CogOmlette_70:
(8, 42537), (Start: 33 @42327 has 5 MA's), (83, 42165), (98, 42111),

Gene: Colin_69 Start: 43242, Stop: 42997, Start Num: 54
Candidate Starts for Colin_69:
(Start: 51 @43248 has 1 MA's), (Start: 54 @43242 has 29 MA's), (78, 43161), (83, 43128), (93, 43095), (95, 43086), (98, 43074), (105, 43023),

Gene: Conquerage_71 Start: 42370, Stop: 42092, Start Num: 44
Candidate Starts for Conquerage_71:
(Start: 44 @42370 has 22 MA's), (77, 42262), (87, 42208), (89, 42199), (98, 42169),

Gene: Conspiracy_66 Start: 41863, Stop: 41612, Start Num: 56
Candidate Starts for Conspiracy_66:
(Start: 56 @41863 has 45 MA's), (78, 41770), (79, 41755), (95, 41692), (102, 41647), (106, 41626), (110, 41620),

Gene: Coog_62 Start: 41634, Stop: 41383, Start Num: 56
Candidate Starts for Coog_62:
(Start: 56 @41634 has 45 MA's), (Start: 62 @41622 has 2 MA's), (78, 41541), (79, 41526), (95, 41463), (102, 41418), (106, 41397), (110, 41391),

Gene: Cookiedough_71 Start: 41299, Stop: 41051, Start Num: 57
Candidate Starts for Cookiedough_71:
(10, 41539), (17, 41467), (26, 41386), (36, 41341), (Start: 57 @41299 has 16 MA's), (76, 41224), (83, 41182), (91, 41152), (95, 41140),

Gene: Crucio_71 Start: 43367, Stop: 43128, Start Num: 64
Candidate Starts for Crucio_71:
(Start: 45 @43406 has 8 MA's), (Start: 64 @43367 has 66 MA's), (78, 43292), (83, 43259), (93, 43226), (95, 43217), (98, 43205), (108, 43148),

Gene: Cuco_64 Start: 41482, Stop: 41243, Start Num: 62
Candidate Starts for Cuco_64:
(Start: 56 @41494 has 45 MA's), (Start: 62 @41482 has 2 MA's), (78, 41401), (79, 41386), (95, 41323), (102, 41278), (106, 41257), (110, 41251),

Gene: D29_68 Start: 43721, Stop: 43488, Start Num: 50
Candidate Starts for D29_68:
(Start: 50 @43721 has 13 MA's), (78, 43643), (83, 43610), (93, 43577), (98, 43556), (106, 43502),

Gene: D32_73 Start: 43721, Stop: 43488, Start Num: 50
Candidate Starts for D32_73:
(Start: 50 @43721 has 13 MA's), (78, 43643), (83, 43610), (93, 43577), (98, 43556), (106, 43502),

Gene: DBQu4n_74 Start: 43701, Stop: 43468, Start Num: 50
Candidate Starts for DBQu4n_74:
(Start: 50 @43701 has 13 MA's), (78, 43623), (83, 43590), (93, 43557), (98, 43536), (106, 43482),

Gene: DaVinci_69 Start: 40716, Stop: 40477, Start Num: 56
Candidate Starts for DaVinci_69:
(Start: 56 @40716 has 45 MA's), (78, 40641), (83, 40608), (93, 40575), (95, 40566),

Gene: Dalmatian_71 Start: 43225, Stop: 42947, Start Num: 45
Candidate Starts for Dalmatian_71:
(Start: 45 @43225 has 8 MA's), (Start: 64 @43186 has 66 MA's), (78, 43111), (83, 43078), (93, 43045), (95, 43036), (98, 43024), (108, 42967),

Gene: Danforth_81 Start: 44166, Stop: 43882, Start Num: 61
Candidate Starts for Danforth_81:
(Start: 61 @44166 has 10 MA's), (Start: 70 @44124 has 1 MA's), (77, 44082), (78, 44076), (101, 43968),

Gene: Darrell_74 Start: 43196, Stop: 42921, Start Num: 33
Candidate Starts for Darrell_74:
(12, 43346), (15, 43328), (Start: 33 @43196 has 5 MA's), (77, 43094), (83, 43055), (98, 43001),

Gene: DeerParkTS_67 Start: 42018, Stop: 41779, Start Num: 64
Candidate Starts for DeerParkTS_67:
(Start: 45 @42057 has 8 MA's), (Start: 64 @42018 has 66 MA's), (78, 41943), (83, 41910), (93, 41877), (98, 41856),

Gene: DekHockey33_81 Start: 43657, Stop: 43379, Start Num: 39
Candidate Starts for DekHockey33_81:
(22, 43717), (Start: 39 @43657 has 24 MA's), (73, 43579), (78, 43540), (83, 43507), (91, 43477), (93, 43474), (98, 43453), (102, 43420),

Gene: Deloris_70 Start: 42746, Stop: 42507, Start Num: 64
Candidate Starts for Deloris_70:
(Start: 45 @42785 has 8 MA's), (Start: 64 @42746 has 66 MA's), (Start: 71 @42719 has 1 MA's), (78, 42671), (83, 42638), (93, 42605), (95, 42596), (98, 42584), (108, 42527),

Gene: DelvinSonDorr_68 Start: 41542, Stop: 41282, Start Num: 54
Candidate Starts for DelvinSonDorr_68:
(Start: 54 @41542 has 29 MA's), (Start: 57 @41533 has 16 MA's), (76, 41455), (83, 41413), (91, 41383), (95, 41371),

Gene: Dignity_72 Start: 43408, Stop: 43169, Start Num: 64
Candidate Starts for Dignity_72:
(Start: 45 @43447 has 8 MA's), (Start: 64 @43408 has 66 MA's), (78, 43333), (83, 43300), (93, 43267), (95, 43258), (98, 43246),

Gene: Discoknowium_63 Start: 41380, Stop: 41129, Start Num: 56
Candidate Starts for Discoknowium_63:
(Start: 56 @41380 has 45 MA's), (78, 41287), (79, 41272), (95, 41209), (102, 41164), (106, 41143), (110, 41137),

Gene: Dixon_79 Start: 43648, Stop: 43364, Start Num: 61
Candidate Starts for Dixon_79:
(Start: 61 @43648 has 10 MA's), (Start: 70 @43606 has 1 MA's), (77, 43564), (78, 43558), (101, 43450),

Gene: Dorothea_71 Start: 41297, Stop: 41049, Start Num: 57
Candidate Starts for Dorothea_71:
(10, 41537), (17, 41465), (26, 41384), (36, 41339), (Start: 57 @41297 has 16 MA's), (76, 41222), (83, 41180), (91, 41150), (95, 41138),

Gene: Drake55_72 Start: 43111, Stop: 42872, Start Num: 64
Candidate Starts for Drake55_72:
(Start: 64 @43111 has 66 MA's), (Start: 71 @43084 has 1 MA's), (72, 43081), (78, 43036), (83, 43003), (93, 42970), (95, 42961), (98, 42949),

Gene: DreamTeam1_67 Start: 41535, Stop: 41248, Start Num: 38
Candidate Starts for DreamTeam1_67:
(Start: 38 @41535 has 1 MA's), (76, 41421), (77, 41418), (87, 41364), (89, 41355), (98, 41325),

Gene: Dublin_65 Start: 41773, Stop: 41522, Start Num: 56
Candidate Starts for Dublin_65:
(Start: 56 @41773 has 45 MA's), (76, 41689), (78, 41680), (79, 41665), (95, 41602), (102, 41557), (106, 41536),

Gene: DudeLittle_69 Start: 42991, Stop: 42713, Start Num: 45
Candidate Starts for DudeLittle_69:
(Start: 45 @42991 has 8 MA's), (Start: 64 @42952 has 66 MA's), (78, 42877), (83, 42844), (93, 42811), (95, 42802), (98, 42790), (108, 42733),

Gene: Duplo_74 Start: 43758, Stop: 43525, Start Num: 50
Candidate Starts for Duplo_74:
(Start: 50 @43758 has 13 MA's), (78, 43680), (83, 43647), (93, 43614), (98, 43593), (106, 43539),

Gene: EZMoney23_67 Start: 42794, Stop: 42552, Start Num: 64
Candidate Starts for EZMoney23_67:
(Start: 45 @42833 has 8 MA's), (Start: 64 @42794 has 66 MA's), (Start: 65 @42791 has 1 MA's), (75, 42749), (76, 42725), (78, 42716), (83, 42683), (93, 42650), (95, 42641), (98, 42629),

Gene: EagleEye_76 Start: 43298, Stop: 43038, Start Num: 48
Candidate Starts for EagleEye_76:
(16, 43454), (26, 43364), (28, 43346), (Start: 29 @43340 has 1 MA's), (Start: 48 @43298 has 3 MA's), (82, 43160), (98, 43103),

Gene: Ebony_69 Start: 41606, Stop: 41340, Start Num: 52
Candidate Starts for Ebony_69:
(Start: 52 @41606 has 21 MA's), (77, 41513), (83, 41474), (93, 41441), (95, 41432), (98, 41420), (102, 41387),

Gene: Echild_71 Start: 42731, Stop: 42492, Start Num: 64
Candidate Starts for Echild_71:
(Start: 45 @42770 has 8 MA's), (Start: 64 @42731 has 66 MA's), (76, 42665), (78, 42656), (83, 42623), (93, 42590), (95, 42581), (98, 42569),

Gene: Eidsmoe_71 Start: 42362, Stop: 42084, Start Num: 44
Candidate Starts for Eidsmoe_71:
(Start: 44 @42362 has 22 MA's), (77, 42254), (87, 42200), (89, 42191), (98, 42161),

Gene: ElTiger69_71 Start: 42857, Stop: 42603, Start Num: 56
Candidate Starts for ElTiger69_71:
(Start: 56 @42857 has 45 MA's), (78, 42764), (79, 42749), (95, 42686), (102, 42641), (106, 42620),
(110, 42614),

Gene: Elephantoon_73 Start: 42479, Stop: 42192, Start Num: 34
Candidate Starts for Elephantoon_73:
(Start: 34 @42479 has 1 MA's), (Start: 39 @42473 has 24 MA's), (Start: 71 @42413 has 1 MA's), (77,
42371), (83, 42332), (98, 42278),

Gene: Elle_75 Start: 42755, Stop: 42471, Start Num: 39
Candidate Starts for Elle_75:
(20, 42842), (23, 42815), (Start: 39 @42755 has 24 MA's), (78, 42638), (82, 42608), (87, 42590), (88,
42584), (95, 42563), (111, 42482),

Gene: EmyBug_70 Start: 42364, Stop: 42086, Start Num: 44
Candidate Starts for EmyBug_70:
(Start: 44 @42364 has 22 MA's), (77, 42256), (87, 42202), (89, 42193), (98, 42163),

Gene: EnzoK_66 Start: 40168, Stop: 39875, Start Num: 30
Candidate Starts for EnzoK_66:
(Start: 30 @40168 has 5 MA's), (60, 40123), (69, 40093), (76, 40045), (83, 40003),

Gene: Epsocamisio_76 Start: 42795, Stop: 42517, Start Num: 39
Candidate Starts for Epsocamisio_76:
(Start: 39 @42795 has 24 MA's), (73, 42717), (78, 42678), (83, 42645), (91, 42615), (93, 42612), (98,
42591), (102, 42558),

Gene: Equemioh13_70 Start: 42915, Stop: 42676, Start Num: 64
Candidate Starts for Equemioh13_70:
(Start: 64 @42915 has 66 MA's), (Start: 71 @42888 has 1 MA's), (72, 42885), (78, 42840), (83, 42807),
(93, 42774), (95, 42765), (98, 42753),

Gene: EricB_70 Start: 41308, Stop: 41069, Start Num: 56
Candidate Starts for EricB_70:
(Start: 56 @41308 has 45 MA's), (78, 41233), (83, 41200), (93, 41167), (95, 41158),

Gene: Et2Brutus_68 Start: 41569, Stop: 41303, Start Num: 52
Candidate Starts for Et2Brutus_68:
(Start: 52 @41569 has 21 MA's), (77, 41476), (83, 41437), (93, 41404), (95, 41395), (98, 41383), (102,
41350),

Gene: EvilGenius_71 Start: 44602, Stop: 44363, Start Num: 64
Candidate Starts for EvilGenius_71:
(Start: 64 @44602 has 66 MA's), (78, 44527), (83, 44494), (93, 44461), (95, 44452), (98, 44440),

Gene: Expelliarmus_77 Start: 43862, Stop: 43578, Start Num: 61
Candidate Starts for Expelliarmus_77:

(Start: 61 @43862 has 10 MA's), (Start: 70 @43820 has 1 MA's), (77, 43778), (78, 43772), (101, 43664),

Gene: ExplosioNervosa_71 Start: 42430, Stop: 42152, Start Num: 44
Candidate Starts for ExplosioNervosa_71:
(Start: 44 @42430 has 22 MA's), (77, 42322), (87, 42268), (89, 42259), (98, 42229),

Gene: Fameo_70 Start: 43185, Stop: 42946, Start Num: 64
Candidate Starts for Fameo_70:
(Start: 45 @43224 has 8 MA's), (Start: 64 @43185 has 66 MA's), (76, 43119), (78, 43110), (83, 43077), (93, 43044), (95, 43035), (98, 43023), (109, 42963),

Gene: FatCactus_57 Start: 38993, Stop: 38727, Start Num: 39
Candidate Starts for FatCactus_57:
(Start: 39 @38993 has 24 MA's), (67, 38930), (83, 38855), (85, 38846), (87, 38840), (95, 38813), (100, 38789),

Gene: Fayely_71 Start: 42331, Stop: 42053, Start Num: 44
Candidate Starts for Fayely_71:
(Start: 44 @42331 has 22 MA's), (77, 42223), (87, 42169), (89, 42160), (98, 42130),

Gene: Fibonacci_69 Start: 41575, Stop: 41309, Start Num: 52
Candidate Starts for Fibonacci_69:
(Start: 52 @41575 has 21 MA's), (77, 41482), (83, 41443), (93, 41410), (95, 41401), (98, 41389), (102, 41356),

Gene: FiringLine_71 Start: 43349, Stop: 43110, Start Num: 64
Candidate Starts for FiringLine_71:
(Start: 45 @43388 has 8 MA's), (Start: 64 @43349 has 66 MA's), (78, 43274), (83, 43241), (93, 43208), (95, 43199), (98, 43187), (108, 43130),

Gene: First_0071 Start: 42973, Stop: 42734, Start Num: 64
Candidate Starts for First_0071:
(Start: 45 @43012 has 8 MA's), (Start: 64 @42973 has 66 MA's), (78, 42898), (83, 42865), (93, 42832), (95, 42823), (98, 42811), (108, 42754),

Gene: Flare16_71 Start: 43054, Stop: 42815, Start Num: 64
Candidate Starts for Flare16_71:
(Start: 45 @43093 has 8 MA's), (Start: 64 @43054 has 66 MA's), (Start: 71 @43027 has 1 MA's), (72, 43024), (78, 42979), (83, 42946), (93, 42913), (95, 42904), (98, 42892), (108, 42835),

Gene: Flaverint_70 Start: 42033, Stop: 41767, Start Num: 52
Candidate Starts for Flaverint_70:
(Start: 52 @42033 has 21 MA's), (77, 41940), (83, 41901), (93, 41868), (95, 41859), (98, 41847), (102, 41814),

Gene: Florence1_62 Start: 41328, Stop: 41077, Start Num: 56
Candidate Starts for Florence1_62:
(Start: 56 @41328 has 45 MA's), (78, 41235), (79, 41220), (95, 41157), (102, 41112), (106, 41091), (110, 41085),

Gene: Florence4_64 Start: 41328, Stop: 41077, Start Num: 56
Candidate Starts for Florence4_64:

(Start: 56 @41328 has 45 MA's), (78, 41235), (79, 41220), (95, 41157), (102, 41112), (106, 41091), (110, 41085),

Gene: ForGetIt_66 Start: 41888, Stop: 41637, Start Num: 56
Candidate Starts for ForGetIt_66:
(Start: 56 @41888 has 45 MA's), (78, 41795), (79, 41780), (95, 41717), (102, 41672), (106, 41651), (110, 41645),

Gene: ForesterFrank_66 Start: 43066, Stop: 42824, Start Num: 64
Candidate Starts for ForesterFrank_66:
(Start: 45 @43105 has 8 MA's), (Start: 64 @43066 has 66 MA's), (Start: 65 @43063 has 1 MA's), (76, 42997), (78, 42988), (83, 42955), (93, 42922), (95, 42913), (98, 42901),

Gene: Gail_72 Start: 43458, Stop: 43192, Start Num: 49
Candidate Starts for Gail_72:
(35, 43482), (Start: 47 @43461 has 6 MA's), (Start: 49 @43458 has 5 MA's), (77, 43362), (82, 43326), (83, 43323), (95, 43281), (98, 43269), (105, 43218),

Gene: Garak_74 Start: 41848, Stop: 41591, Start Num: 54
Candidate Starts for Garak_74:
(Start: 54 @41848 has 29 MA's), (Start: 57 @41839 has 16 MA's), (76, 41764), (78, 41755), (83, 41722), (91, 41692), (95, 41680),

Gene: GaugeLDP_66 Start: 42652, Stop: 42401, Start Num: 49
Candidate Starts for GaugeLDP_66:
(Start: 49 @42652 has 5 MA's), (53, 42643), (72, 42610), (78, 42565), (83, 42532), (93, 42499), (95, 42490), (98, 42478),

Gene: George_62 Start: 41560, Stop: 41309, Start Num: 56
Candidate Starts for George_62:
(Start: 56 @41560 has 45 MA's), (78, 41467), (79, 41452), (95, 41389), (102, 41344), (106, 41323),

Gene: Georgie2_72 Start: 43394, Stop: 43155, Start Num: 64
Candidate Starts for Georgie2_72:
(Start: 45 @43433 has 8 MA's), (Start: 64 @43394 has 66 MA's), (78, 43319), (83, 43286), (93, 43253), (95, 43244), (98, 43232), (108, 43175),

Gene: Ghoulboy_65 Start: 41861, Stop: 41610, Start Num: 56
Candidate Starts for Ghoulboy_65:
(Start: 56 @41861 has 45 MA's), (Start: 62 @41849 has 2 MA's), (76, 41777), (78, 41768), (79, 41753), (95, 41690), (102, 41645), (106, 41624), (110, 41618),

Gene: Gilberta_70 Start: 42026, Stop: 41760, Start Num: 52
Candidate Starts for Gilberta_70:
(Start: 52 @42026 has 21 MA's), (77, 41933), (83, 41894), (93, 41861), (95, 41852), (98, 41840), (102, 41807),

Gene: Gladiator_69 Start: 40925, Stop: 40677, Start Num: 57
Candidate Starts for Gladiator_69:
(10, 41165), (17, 41093), (26, 41012), (36, 40967), (Start: 57 @40925 has 16 MA's), (76, 40850), (83, 40808), (91, 40778), (95, 40766),

Gene: Gratitude_68 Start: 42915, Stop: 42676, Start Num: 64

Candidate Starts for Gratitude_68:
(Start: 64 @42915 has 66 MA's), (Start: 71 @42888 has 1 MA's), (72, 42885), (78, 42840), (83, 42807), (93, 42774), (95, 42765), (98, 42753),

Gene: GreedyLawyer_68 Start: 41281, Stop: 41042, Start Num: 56
Candidate Starts for GreedyLawyer_68:
(Start: 56 @41281 has 45 MA's), (78, 41206), (83, 41173), (93, 41140), (95, 41131),

Gene: Groundhog_78 Start: 43876, Stop: 43634, Start Num: 70
Candidate Starts for Groundhog_78:
(Start: 61 @43918 has 10 MA's), (Start: 70 @43876 has 1 MA's), (77, 43834), (78, 43828), (101, 43720),

Gene: Gruunaga_72 Start: 41706, Stop: 41449, Start Num: 54
Candidate Starts for Gruunaga_72:
(Start: 54 @41706 has 29 MA's), (Start: 57 @41697 has 16 MA's), (76, 41622), (78, 41613), (83, 41580), (91, 41550), (95, 41538), (112, 41457),

Gene: Hammer_73 Start: 41413, Stop: 41156, Start Num: 54
Candidate Starts for Hammer_73:
(Start: 54 @41413 has 29 MA's), (Start: 57 @41404 has 16 MA's), (76, 41329), (78, 41320), (83, 41287), (91, 41257), (95, 41245),

Gene: Hanray_71 Start: 42693, Stop: 42415, Start Num: 44
Candidate Starts for Hanray_71:
(Start: 44 @42693 has 22 MA's), (77, 42585), (87, 42531), (89, 42522), (98, 42492),

Gene: HarryHoudini_71 Start: 43112, Stop: 42873, Start Num: 64
Candidate Starts for HarryHoudini_71:
(Start: 64 @43112 has 66 MA's), (Start: 71 @43085 has 1 MA's), (72, 43082), (78, 43037), (83, 43004), (93, 42971), (95, 42962), (98, 42950),

Gene: Heffalump_69 Start: 43653, Stop: 43414, Start Num: 64
Candidate Starts for Heffalump_69:
(Start: 64 @43653 has 66 MA's), (76, 43587), (78, 43578), (83, 43545), (93, 43512), (95, 43503), (98, 43491), (109, 43431),

Gene: Helmet_75 Start: 41848, Stop: 41591, Start Num: 54
Candidate Starts for Helmet_75:
(Start: 54 @41848 has 29 MA's), (Start: 57 @41839 has 16 MA's), (76, 41764), (78, 41755), (83, 41722), (91, 41692), (95, 41680),

Gene: Herbertwm_67 Start: 42568, Stop: 42287, Start Num: 45
Candidate Starts for Herbertwm_67:
(Start: 45 @42568 has 8 MA's), (Start: 64 @42529 has 66 MA's), (Start: 71 @42496 has 1 MA's), (76, 42457), (87, 42400), (91, 42385), (112, 42292),

Gene: Hexamo_72 Start: 41382, Stop: 41125, Start Num: 54
Candidate Starts for Hexamo_72:
(Start: 54 @41382 has 29 MA's), (Start: 57 @41373 has 16 MA's), (76, 41298), (78, 41289), (83, 41256), (91, 41226), (95, 41214), (112, 41133),

Gene: HippoHollow_69 Start: 44278, Stop: 44036, Start Num: 64

Candidate Starts for HippoHollow_69:
(Start: 45 @44317 has 8 MA's), (Start: 64 @44278 has 66 MA's), (78, 44203), (83, 44170), (93, 44137), (95, 44128), (98, 44116),

Gene: Holex_71 Start: 42709, Stop: 42431, Start Num: 44
Candidate Starts for Holex_71:
(Start: 44 @42709 has 22 MA's), (77, 42601), (87, 42547), (89, 42538), (98, 42508),

Gene: Hoot_66 Start: 39166, Stop: 38927, Start Num: 56
Candidate Starts for Hoot_66:
(Start: 56 @39166 has 45 MA's), (78, 39091), (83, 39058), (93, 39025), (95, 39016),

Gene: HortumSL17_74 Start: 42693, Stop: 42415, Start Num: 44
Candidate Starts for HortumSL17_74:
(Start: 44 @42693 has 22 MA's), (77, 42585), (87, 42531), (89, 42522), (98, 42492),

Gene: HuhtaEnerson15_63 Start: 41469, Stop: 41218, Start Num: 56
Candidate Starts for HuhtaEnerson15_63:
(Start: 56 @41469 has 45 MA's), (78, 41376), (79, 41361), (95, 41298), (102, 41253), (106, 41232),

Gene: Hutc2_68 Start: 41575, Stop: 41309, Start Num: 52
Candidate Starts for Hutc2_68:
(Start: 52 @41575 has 21 MA's), (77, 41482), (83, 41443), (93, 41410), (95, 41401), (98, 41389), (102, 41356),

Gene: Indra_76 Start: 41849, Stop: 41592, Start Num: 54
Candidate Starts for Indra_76:
(Start: 54 @41849 has 29 MA's), (Start: 57 @41840 has 16 MA's), (76, 41765), (78, 41756), (83, 41723), (91, 41693), (95, 41681),

Gene: IronMan_68 Start: 43620, Stop: 43360, Start Num: 54
Candidate Starts for IronMan_68:
(16, 43788), (24, 43707), (Start: 54 @43620 has 29 MA's), (78, 43524), (83, 43491), (93, 43458), (95, 43449), (98, 43437),

Gene: Isiphiwo_69 Start: 40857, Stop: 40609, Start Num: 57
Candidate Starts for Isiphiwo_69:
(10, 41097), (17, 41025), (26, 40944), (36, 40899), (Start: 57 @40857 has 16 MA's), (76, 40782), (83, 40740), (91, 40710), (95, 40698),

Gene: Iwokeuplikedis_71 Start: 42572, Stop: 42360, Start Num: 71
Candidate Starts for Iwokeuplikedis_71:
(32, 42650), (Start: 54 @42608 has 29 MA's), (Start: 71 @42572 has 1 MA's), (75, 42557), (78, 42524), (83, 42491), (93, 42458), (95, 42449), (98, 42437),

Gene: JSwag_79 Start: 43080, Stop: 42802, Start Num: 39
Candidate Starts for JSwag_79:
(Start: 39 @43080 has 24 MA's), (73, 43002), (78, 42963), (83, 42930), (91, 42900), (93, 42897), (98, 42876), (102, 42843),

Gene: Jaan_69 Start: 43788, Stop: 43528, Start Num: 54
Candidate Starts for Jaan_69:

(16, 43956), (24, 43875), (Start: 54 @43788 has 29 MA's), (78, 43692), (83, 43659), (93, 43626), (95, 43617), (98, 43605),

Gene: Jabiru_67 Start: 42041, Stop: 41787, Start Num: 56
Candidate Starts for Jabiru_67:
(Start: 56 @42041 has 45 MA's), (78, 41948), (79, 41933), (95, 41870), (102, 41825), (106, 41804), (110, 41798),

Gene: Jabith_70 Start: 42031, Stop: 41765, Start Num: 52
Candidate Starts for Jabith_70:
(5, 42307), (11, 42223), (14, 42211), (Start: 52 @42031 has 21 MA's), (77, 41938), (83, 41899), (93, 41866), (95, 41857), (98, 41845), (102, 41812),

Gene: Jeeves_74 Start: 42446, Stop: 42174, Start Num: 47
Candidate Starts for Jeeves_74:
(35, 42467), (Start: 47 @42446 has 6 MA's), (Start: 52 @42437 has 21 MA's), (76, 42347), (77, 42344), (82, 42308), (83, 42305), (95, 42263), (98, 42251), (105, 42200),

Gene: Jeffabunny_73 Start: 41475, Stop: 41218, Start Num: 54
Candidate Starts for Jeffabunny_73:
(Start: 54 @41475 has 29 MA's), (Start: 57 @41466 has 16 MA's), (76, 41391), (78, 41382), (83, 41349), (91, 41319), (95, 41307),

Gene: Jerm_72 Start: 43390, Stop: 43151, Start Num: 64
Candidate Starts for Jerm_72:
(Start: 45 @43429 has 8 MA's), (Start: 64 @43390 has 66 MA's), (78, 43315), (83, 43282), (93, 43249), (95, 43240), (98, 43228),

Gene: JewelBug_71 Start: 41591, Stop: 41343, Start Num: 57
Candidate Starts for JewelBug_71:
(10, 41831), (17, 41759), (26, 41678), (36, 41633), (Start: 57 @41591 has 16 MA's), (76, 41516), (83, 41474), (91, 41444), (95, 41432),

Gene: Jiawan_70 Start: 42725, Stop: 42447, Start Num: 44
Candidate Starts for Jiawan_70:
(Start: 44 @42725 has 22 MA's), (77, 42617), (87, 42563), (89, 42554), (98, 42524),

Gene: Jordennis_70 Start: 41072, Stop: 40824, Start Num: 57
Candidate Starts for Jordennis_70:
(10, 41312), (17, 41240), (26, 41159), (36, 41114), (Start: 57 @41072 has 16 MA's), (76, 40997), (83, 40955), (91, 40925), (95, 40913),

Gene: JoshKayV_71 Start: 43441, Stop: 43202, Start Num: 64
Candidate Starts for JoshKayV_71:
(Start: 45 @43480 has 8 MA's), (Start: 64 @43441 has 66 MA's), (78, 43366), (83, 43333), (93, 43300), (95, 43291), (98, 43279),

Gene: Journey13_62 Start: 40039, Stop: 39803, Start Num: 64
Candidate Starts for Journey13_62:
(Start: 34 @40096 has 1 MA's), (Start: 48 @40072 has 3 MA's), (Start: 64 @40039 has 66 MA's), (76, 39976), (78, 39967), (83, 39934), (93, 39901), (95, 39892), (98, 39880), (112, 39811),

Gene: Jovo_66 Start: 42144, Stop: 41893, Start Num: 56

Candidate Starts for Jovo_66:
(Start: 56 @42144 has 45 MA's), (78, 42051), (79, 42036), (95, 41973), (102, 41928), (106, 41907), (110, 41901),

Gene: Jsquared_74 Start: 42531, Stop: 42292, Start Num: 64
Candidate Starts for Jsquared_74:
(Start: 64 @42531 has 66 MA's), (75, 42489), (78, 42456), (83, 42423), (93, 42390), (95, 42381), (98, 42369), (105, 42318), (112, 42300),

Gene: Kalpine_70 Start: 43417, Stop: 43178, Start Num: 64
Candidate Starts for Kalpine_70:
(Start: 45 @43456 has 8 MA's), (Start: 64 @43417 has 66 MA's), (78, 43342), (83, 43309), (93, 43276), (95, 43267), (98, 43255), (105, 43204),

Gene: KatherineG_80 Start: 43544, Stop: 43266, Start Num: 39
Candidate Starts for KatherineG_80:
(22, 43604), (Start: 39 @43544 has 24 MA's), (73, 43466), (78, 43427), (83, 43394), (91, 43364), (93, 43361), (98, 43340), (102, 43307),

Gene: Kazan_72 Start: 41321, Stop: 41082, Start Num: 56
Candidate Starts for Kazan_72:
(Start: 56 @41321 has 45 MA's), (78, 41246), (83, 41213), (93, 41180), (95, 41171),

Gene: Kerberos_74 Start: 43720, Stop: 43487, Start Num: 50
Candidate Starts for Kerberos_74:
(Start: 50 @43720 has 13 MA's), (78, 43642), (83, 43609), (93, 43576), (98, 43555), (106, 43501),

Gene: Keziacharles14_69 Start: 43094, Stop: 42822, Start Num: 44
Candidate Starts for Keziacharles14_69:
(Start: 44 @43094 has 22 MA's), (77, 42989), (83, 42950), (87, 42935), (91, 42920), (98, 42896),

Gene: KingCyrus_71 Start: 44597, Stop: 44358, Start Num: 64
Candidate Starts for KingCyrus_71:
(Start: 64 @44597 has 66 MA's), (78, 44522), (83, 44489), (93, 44456), (95, 44447), (98, 44435),

Gene: Kinmap_73 Start: 41794, Stop: 41531, Start Num: 51
Candidate Starts for Kinmap_73:
(Start: 51 @41794 has 1 MA's), (74, 41728), (76, 41701), (77, 41698), (78, 41692), (79, 41677), (83, 41659), (87, 41644), (93, 41626), (98, 41605),

Gene: Kipper29_71 Start: 41334, Stop: 41095, Start Num: 56
Candidate Starts for Kipper29_71:
(Start: 56 @41334 has 45 MA's), (78, 41259), (83, 41226), (93, 41193), (95, 41184),

Gene: Klodlith_68 Start: 41770, Stop: 41483, Start Num: 43
Candidate Starts for Klodlith_68:
(Start: 43 @41770 has 5 MA's), (77, 41665), (83, 41626), (98, 41572),

Gene: Koduck_73 Start: 42427, Stop: 42188, Start Num: 64
Candidate Starts for Koduck_73:
(Start: 64 @42427 has 66 MA's), (78, 42352), (83, 42319), (93, 42286), (95, 42277), (98, 42265), (105, 42214), (112, 42196),

Gene: Koko_74 Start: 42237, Stop: 41980, Start Num: 54
Candidate Starts for Koko_74:
(Start: 54 @42237 has 29 MA's), (Start: 57 @42228 has 16 MA's), (76, 42153), (78, 42144), (83, 42111), (91, 42081), (95, 42069), (112, 41988),

Gene: Kykar_67 Start: 43161, Stop: 42868, Start Num: 30
Candidate Starts for Kykar_67:
(3, 43419), (6, 43383), (25, 43188), (Start: 30 @43161 has 5 MA's), (60, 43116), (69, 43086), (76, 43038), (83, 42996),

Gene: L5_68 Start: 42580, Stop: 42341, Start Num: 64
Candidate Starts for L5_68:
(Start: 64 @42580 has 66 MA's), (78, 42505), (83, 42472), (93, 42439), (95, 42430), (98, 42418), (105, 42367), (112, 42349),

Gene: LadyBird_74 Start: 43662, Stop: 43423, Start Num: 64
Candidate Starts for LadyBird_74:
(Start: 45 @43701 has 8 MA's), (Start: 64 @43662 has 66 MA's), (78, 43587), (83, 43554), (93, 43521), (95, 43512), (98, 43500), (108, 43443),

Gene: Landor_69 Start: 43695, Stop: 43435, Start Num: 54
Candidate Starts for Landor_69:
(Start: 54 @43695 has 29 MA's), (78, 43599), (83, 43566), (93, 43533), (95, 43524), (98, 43512),

Gene: Larenn_68 Start: 42943, Stop: 42704, Start Num: 64
Candidate Starts for Larenn_68:
(Start: 64 @42943 has 66 MA's), (78, 42868), (83, 42835), (87, 42820), (93, 42802), (95, 42793), (98, 42781), (108, 42724),

Gene: LastResort_78 Start: 43475, Stop: 43197, Start Num: 39
Candidate Starts for LastResort_78:
(22, 43535), (Start: 39 @43475 has 24 MA's), (73, 43397), (78, 43358), (83, 43325), (91, 43295), (93, 43292), (98, 43271), (102, 43238),

Gene: Leogania_70 Start: 43630, Stop: 43391, Start Num: 64
Candidate Starts for Leogania_70:
(Start: 45 @43669 has 8 MA's), (Start: 64 @43630 has 66 MA's), (78, 43555), (83, 43522), (93, 43489), (95, 43480), (98, 43468),

Gene: Lev2_66 Start: 41776, Stop: 41525, Start Num: 56
Candidate Starts for Lev2_66:
(Start: 56 @41776 has 45 MA's), (78, 41683), (79, 41668), (95, 41605), (102, 41560), (106, 41539), (110, 41533),

Gene: Leviathan_72 Start: 43457, Stop: 43218, Start Num: 64
Candidate Starts for Leviathan_72:
(Start: 45 @43496 has 8 MA's), (Start: 64 @43457 has 66 MA's), (78, 43382), (83, 43349), (93, 43316), (95, 43307), (98, 43295),

Gene: LilTurb_71 Start: 43271, Stop: 43032, Start Num: 64
Candidate Starts for LilTurb_71:
(Start: 45 @43310 has 8 MA's), (Start: 64 @43271 has 66 MA's), (78, 43196), (83, 43163), (93, 43130), (95, 43121), (98, 43109),

Gene: Lilbunny_72 Start: 41479, Stop: 41222, Start Num: 54
Candidate Starts for Lilbunny_72:
(Start: 54 @41479 has 29 MA's), (Start: 57 @41470 has 16 MA's), (76, 41395), (78, 41386), (83, 41353), (91, 41323), (95, 41311),

Gene: Lilleskat_70 Start: 42650, Stop: 42372, Start Num: 44
Candidate Starts for Lilleskat_70:
(Start: 44 @42650 has 22 MA's), (77, 42542), (87, 42488), (89, 42479), (98, 42449),

Gene: LionsBait_71 Start: 44279, Stop: 44037, Start Num: 64
Candidate Starts for LionsBait_71:
(Start: 45 @44318 has 8 MA's), (Start: 64 @44279 has 66 MA's), (78, 44204), (83, 44171), (93, 44138), (95, 44129), (98, 44117),

Gene: LittleCherry_64 Start: 41339, Stop: 41088, Start Num: 56
Candidate Starts for LittleCherry_64:
(Start: 56 @41339 has 45 MA's), (78, 41246), (79, 41231), (95, 41168), (102, 41123), (106, 41102),

Gene: Lokk_65 Start: 41753, Stop: 41511, Start Num: 64
Candidate Starts for Lokk_65:
(Start: 64 @41753 has 66 MA's), (78, 41678), (83, 41645), (93, 41612), (95, 41603),

Gene: LoneWolf_73 Start: 42713, Stop: 42423, Start Num: 33
Candidate Starts for LoneWolf_73:
(Start: 33 @42713 has 5 MA's), (77, 42602), (87, 42548), (98, 42509),

Gene: Looper_79 Start: 43387, Stop: 43109, Start Num: 39
Candidate Starts for Looper_79:
(22, 43447), (Start: 39 @43387 has 24 MA's), (73, 43309), (78, 43270), (83, 43237), (91, 43207), (93, 43204), (98, 43183), (102, 43150),

Gene: Loser_72 Start: 43514, Stop: 43275, Start Num: 64
Candidate Starts for Loser_72:
(Start: 45 @43553 has 8 MA's), (Start: 64 @43514 has 66 MA's), (76, 43448), (78, 43439), (83, 43406), (93, 43373), (95, 43364), (98, 43352),

Gene: Luchador_73 Start: 43928, Stop: 43659, Start Num: 47
Candidate Starts for Luchador_73:
(35, 43949), (Start: 47 @43928 has 6 MA's), (Start: 49 @43925 has 5 MA's), (77, 43829), (82, 43793), (83, 43790), (95, 43748), (98, 43736), (105, 43685),

Gene: Lucivia_70 Start: 42084, Stop: 41818, Start Num: 52
Candidate Starts for Lucivia_70:
(Start: 52 @42084 has 21 MA's), (77, 41991), (83, 41952), (93, 41919), (95, 41910), (98, 41898), (102, 41865),

Gene: Lucyedi_75 Start: 43494, Stop: 43234, Start Num: 48
Candidate Starts for Lucyedi_75:
(16, 43650), (26, 43560), (28, 43542), (Start: 29 @43536 has 1 MA's), (Start: 48 @43494 has 3 MA's), (82, 43356), (98, 43299),

Gene: MaCh_69 Start: 42030, Stop: 41764, Start Num: 52

Candidate Starts for MaCh_69:
(Start: 52 @42030 has 21 MA's), (77, 41937), (83, 41898), (93, 41865), (95, 41856), (98, 41844), (102, 41811),

Gene: Mabel_69 Start: 42031, Stop: 41765, Start Num: 52
Candidate Starts for Mabel_69:
(Start: 52 @42031 has 21 MA's), (77, 41938), (83, 41899), (93, 41866), (95, 41857), (98, 41845), (102, 41812),

Gene: MajorMajor_72 Start: 42401, Stop: 42162, Start Num: 64
Candidate Starts for MajorMajor_72:
(Start: 64 @42401 has 66 MA's), (75, 42359), (78, 42326), (81, 42299), (83, 42293), (93, 42260), (95, 42251), (98, 42239), (105, 42188), (112, 42170),

Gene: Malec_69 Start: 43510, Stop: 43271, Start Num: 64
Candidate Starts for Malec_69:
(Start: 64 @43510 has 66 MA's), (78, 43435), (83, 43402), (87, 43387), (93, 43369), (95, 43360), (98, 43348), (108, 43291),

Gene: Maminiaina_73 Start: 42834, Stop: 42550, Start Num: 33
Candidate Starts for Maminiaina_73:
(Start: 33 @42834 has 5 MA's), (77, 42723), (83, 42684), (98, 42630),

Gene: MarysWell_65 Start: 42016, Stop: 41765, Start Num: 56
Candidate Starts for MarysWell_65:
(Start: 56 @42016 has 45 MA's), (76, 41932), (78, 41923), (79, 41908), (95, 41845), (102, 41800), (106, 41779),

Gene: McFly_71 Start: 41284, Stop: 41036, Start Num: 57
Candidate Starts for McFly_71:
(10, 41524), (17, 41452), (26, 41371), (36, 41326), (Start: 57 @41284 has 16 MA's), (76, 41209), (83, 41167), (91, 41137), (95, 41125),

Gene: MegTheThird_67 Start: 41584, Stop: 41285, Start Num: 34
Candidate Starts for MegTheThird_67:
(1, 42010), (Start: 34 @41584 has 1 MA's), (77, 41467), (83, 41428), (98, 41374),

Gene: Micasa_65 Start: 41738, Stop: 41487, Start Num: 56
Candidate Starts for Micasa_65:
(Start: 56 @41738 has 45 MA's), (76, 41654), (78, 41645), (79, 41630), (95, 41567), (102, 41522), (106, 41501),

Gene: MiculUcigas_71 Start: 42957, Stop: 42718, Start Num: 64
Candidate Starts for MiculUcigas_71:
(Start: 45 @42996 has 8 MA's), (Start: 64 @42957 has 66 MA's), (Start: 71 @42930 has 1 MA's), (72, 42927), (78, 42882), (83, 42849), (93, 42816), (95, 42807), (98, 42795), (108, 42738),

Gene: Midas2_62 Start: 41634, Stop: 41383, Start Num: 56
Candidate Starts for Midas2_62:
(Start: 56 @41634 has 45 MA's), (Start: 62 @41622 has 2 MA's), (78, 41541), (79, 41526), (95, 41463), (102, 41418), (106, 41397), (110, 41391),

Gene: Miko_65 Start: 42531, Stop: 42289, Start Num: 64

Candidate Starts for Miko_65:
(Start: 64 @42531 has 66 MA's), (Start: 71 @42504 has 1 MA's), (78, 42456), (83, 42423), (93, 42390), (95, 42381),

Gene: Milcery_65 Start: 41528, Stop: 41277, Start Num: 56
Candidate Starts for Milcery_65:
(Start: 56 @41528 has 45 MA's), (78, 41435), (79, 41420), (95, 41357), (102, 41312), (106, 41291),

Gene: MinecraftSteve_80 Start: 43368, Stop: 43090, Start Num: 39
Candidate Starts for MinecraftSteve_80:
(22, 43428), (Start: 39 @43368 has 24 MA's), (73, 43290), (78, 43251), (83, 43218), (91, 43188), (93, 43185), (98, 43164), (102, 43131),

Gene: Minispark_70 Start: 42324, Stop: 42022, Start Num: 33
Candidate Starts for Minispark_70:
(8, 42534), (Start: 33 @42324 has 5 MA's), (83, 42162), (98, 42108),

Gene: MissWhite_70 Start: 41650, Stop: 41378, Start Num: 48
Candidate Starts for MissWhite_70:
(Start: 48 @41650 has 3 MA's), (Start: 64 @41617 has 66 MA's), (Start: 71 @41590 has 1 MA's), (76, 41551), (78, 41542), (83, 41509), (93, 41476), (95, 41467), (98, 41455), (101, 41440), (112, 41386),

Gene: Mulciber_68 Start: 41572, Stop: 41306, Start Num: 52
Candidate Starts for Mulciber_68:
(Start: 52 @41572 has 21 MA's), (77, 41479), (83, 41440), (93, 41407), (95, 41398), (98, 41386), (102, 41353),

Gene: Munch_69 Start: 42035, Stop: 41769, Start Num: 52
Candidate Starts for Munch_69:
(Start: 52 @42035 has 21 MA's), (77, 41942), (83, 41903), (93, 41870), (95, 41861), (98, 41849), (102, 41816),

Gene: MyraDee_69 Start: 40422, Stop: 40147, Start Num: 45
Candidate Starts for MyraDee_69:
(Start: 45 @40422 has 8 MA's), (76, 40317), (77, 40314), (78, 40308), (91, 40245), (93, 40242), (95, 40233),

Gene: Myxus_73 Start: 42693, Stop: 42415, Start Num: 44
Candidate Starts for Myxus_73:
(Start: 44 @42693 has 22 MA's), (77, 42585), (87, 42531), (89, 42522), (98, 42492),

Gene: NaSiaTalie_71 Start: 43051, Stop: 42812, Start Num: 64
Candidate Starts for NaSiaTalie_71:
(Start: 45 @43090 has 8 MA's), (Start: 64 @43051 has 66 MA's), (Start: 71 @43024 has 1 MA's), (72, 43021), (78, 42976), (83, 42943), (93, 42910), (95, 42901), (98, 42889), (108, 42832),

Gene: Naca_68 Start: 42929, Stop: 42675, Start Num: 56
Candidate Starts for Naca_68:
(Start: 56 @42929 has 45 MA's), (78, 42836), (79, 42821), (95, 42758), (102, 42713), (106, 42692), (110, 42686),

Gene: Naji_74 Start: 43721, Stop: 43488, Start Num: 50
Candidate Starts for Naji_74:

(Start: 50 @43721 has 13 MA's), (78, 43643), (83, 43610), (93, 43577), (98, 43556), (106, 43502),

Gene: NearlyHeadless_81 Start: 43932, Stop: 43648, Start Num: 61
Candidate Starts for NearlyHeadless_81:
(Start: 61 @43932 has 10 MA's), (Start: 70 @43890 has 1 MA's), (77, 43848), (78, 43842), (93, 43770), (95, 43761), (96, 43752),

Gene: Nebulosus_77 Start: 43032, Stop: 42754, Start Num: 39
Candidate Starts for Nebulosus_77:
(22, 43092), (Start: 39 @43032 has 24 MA's), (73, 42954), (78, 42915), (83, 42882), (91, 42852), (93, 42849), (98, 42828), (102, 42795),

Gene: Nedarya_76 Start: 43628, Stop: 43350, Start Num: 39
Candidate Starts for Nedarya_76:
(Start: 39 @43628 has 24 MA's), (73, 43550), (78, 43511), (83, 43478), (98, 43424), (102, 43391),

Gene: Neeharika16_70 Start: 40751, Stop: 40503, Start Num: 57
Candidate Starts for Neeharika16_70:
(10, 40991), (17, 40919), (26, 40838), (36, 40793), (Start: 57 @40751 has 16 MA's), (76, 40676), (83, 40634), (91, 40604), (95, 40592),

Gene: Newrala_71 Start: 41291, Stop: 41043, Start Num: 57
Candidate Starts for Newrala_71:
(10, 41531), (17, 41459), (26, 41378), (36, 41333), (Start: 57 @41291 has 16 MA's), (76, 41216), (83, 41174), (91, 41144), (95, 41132),

Gene: NicoleTera_68 Start: 43116, Stop: 42838, Start Num: 45
Candidate Starts for NicoleTera_68:
(27, 43173), (Start: 45 @43116 has 8 MA's), (Start: 64 @43077 has 66 MA's), (78, 43002), (83, 42969), (93, 42936), (95, 42927), (98, 42915), (109, 42855),

Gene: NothingSpecial_67 Start: 43318, Stop: 43031, Start Num: 45
Candidate Starts for NothingSpecial_67:
(Start: 29 @43354 has 1 MA's), (Start: 45 @43318 has 8 MA's), (Start: 64 @43279 has 66 MA's), (76, 43204), (78, 43195), (83, 43162), (93, 43129), (95, 43120), (98, 43108),

Gene: Odin_71 Start: 42102, Stop: 41860, Start Num: 58
Candidate Starts for Odin_71:
(Start: 58 @42102 has 2 MA's), (76, 42027), (79, 42003), (82, 41988), (83, 41985), (84, 41979), (85, 41976), (93, 41952), (98, 41931),

Gene: Oofda_80 Start: 43721, Stop: 43443, Start Num: 39
Candidate Starts for Oofda_80:
(20, 43796), (Start: 39 @43721 has 24 MA's), (73, 43643), (78, 43604), (83, 43571), (91, 43541), (93, 43538), (98, 43517), (102, 43484),

Gene: Orange_68 Start: 41584, Stop: 41318, Start Num: 52
Candidate Starts for Orange_68:
(Start: 52 @41584 has 21 MA's), (77, 41491), (83, 41452), (93, 41419), (95, 41410), (98, 41398), (102, 41365),

Gene: PackMan_72 Start: 42568, Stop: 42290, Start Num: 44
Candidate Starts for PackMan_72:

(Start: 44 @42568 has 22 MA's), (77, 42460), (87, 42406), (89, 42397), (98, 42367),

Gene: PainterBoy_74 Start: 43245, Stop: 42943, Start Num: 29
Candidate Starts for PainterBoy_74:
(16, 43359), (26, 43269), (28, 43251), (Start: 29 @43245 has 1 MA's), (Start: 48 @43203 has 3 MA's), (82, 43065), (98, 43008),

Gene: Papez_68 Start: 44027, Stop: 43731, Start Num: 30
Candidate Starts for Papez_68:
(Start: 30 @44027 has 5 MA's), (76, 43901), (83, 43859),

Gene: Petersenfast_67 Start: 41583, Stop: 41317, Start Num: 52
Candidate Starts for Petersenfast_67:
(Start: 52 @41583 has 21 MA's), (77, 41490), (83, 41451), (93, 41418), (95, 41409), (98, 41397), (102, 41364),

Gene: PetterN_73 Start: 42716, Stop: 42465, Start Num: 56
Candidate Starts for PetterN_73:
(Start: 56 @42716 has 45 MA's), (78, 42623), (79, 42608), (95, 42545), (102, 42500), (106, 42479),

Gene: Ph8s_74 Start: 42194, Stop: 41919, Start Num: 43
Candidate Starts for Ph8s_74:
(Start: 43 @42194 has 5 MA's), (Start: 48 @42185 has 3 MA's), (Start: 71 @42125 has 1 MA's), (76, 42086), (83, 42044), (85, 42035), (93, 42011), (98, 41990),

Gene: Phaded_66 Start: 43672, Stop: 43412, Start Num: 54
Candidate Starts for Phaded_66:
(16, 43840), (24, 43759), (Start: 54 @43672 has 29 MA's), (78, 43576), (83, 43543), (93, 43510), (95, 43501), (98, 43489),

Gene: Phaeder_73 Start: 42568, Stop: 42290, Start Num: 44
Candidate Starts for Phaeder_73:
(Start: 44 @42568 has 22 MA's), (77, 42460), (87, 42406), (89, 42397), (98, 42367),

Gene: Pharaoh_67 Start: 42614, Stop: 42354, Start Num: 47
Candidate Starts for Pharaoh_67:
(Start: 47 @42614 has 6 MA's), (77, 42521), (78, 42515), (83, 42482), (85, 42473),

Gene: Phillis_77 Start: 42884, Stop: 42600, Start Num: 61
Candidate Starts for Phillis_77:
(Start: 61 @42884 has 10 MA's), (Start: 70 @42842 has 1 MA's), (77, 42800), (78, 42794), (93, 42722), (95, 42713), (96, 42704),

Gene: Phlei_58 Start: 41698, Stop: 41450, Start Num: 55
Candidate Starts for Phlei_58:
(55, 41698), (59, 41689), (63, 41683), (Start: 71 @41653 has 1 MA's), (75, 41638), (76, 41614), (78, 41605), (80, 41581), (83, 41572), (87, 41557), (93, 41539), (98, 41518),

Gene: Phlorence_64 Start: 41521, Stop: 41270, Start Num: 56
Candidate Starts for Phlorence_64:
(Start: 56 @41521 has 45 MA's), (78, 41428), (79, 41413), (95, 41350), (102, 41305), (106, 41284), (110, 41278),

Gene: Phonnegut_73 Start: 42638, Stop: 42360, Start Num: 44
Candidate Starts for Phonnegut_73:
(Start: 44 @42638 has 22 MA's), (77, 42530), (87, 42476), (89, 42467), (98, 42437),

Gene: PickleBack_66 Start: 41698, Stop: 41447, Start Num: 56
Candidate Starts for PickleBack_66:
(Start: 56 @41698 has 45 MA's), (78, 41605), (79, 41590), (95, 41527), (102, 41482), (106, 41461),
(110, 41455),

Gene: Pioneer_73 Start: 42638, Stop: 42360, Start Num: 44
Candidate Starts for Pioneer_73:
(Start: 44 @42638 has 22 MA's), (77, 42530), (87, 42476), (89, 42467), (98, 42437),

Gene: Piro94_70 Start: 43019, Stop: 42780, Start Num: 64
Candidate Starts for Piro94_70:
(Start: 64 @43019 has 66 MA's), (Start: 71 @42992 has 1 MA's), (72, 42989), (78, 42944), (83, 42911),
(93, 42878), (95, 42869), (98, 42857),

Gene: Pmask_70 Start: 41287, Stop: 41039, Start Num: 57
Candidate Starts for Pmask_70:
(10, 41527), (17, 41455), (26, 41374), (36, 41329), (Start: 57 @41287 has 16 MA's), (76, 41212), (83,
41170), (91, 41140), (95, 41128),

Gene: Polyphemus_73 Start: 41677, Stop: 41429, Start Num: 57
Candidate Starts for Polyphemus_73:
(10, 41917), (17, 41845), (26, 41764), (36, 41719), (Start: 57 @41677 has 16 MA's), (76, 41602), (83,
41560), (91, 41530), (95, 41518),

Gene: Pomar16_73 Start: 43761, Stop: 43528, Start Num: 50
Candidate Starts for Pomar16_73:
(Start: 50 @43761 has 13 MA's), (78, 43683), (83, 43650), (93, 43617), (98, 43596), (106, 43542),

Gene: Power_70 Start: 43392, Stop: 43153, Start Num: 64
Candidate Starts for Power_70:
(Start: 45 @43431 has 8 MA's), (Start: 64 @43392 has 66 MA's), (78, 43317), (83, 43284), (93, 43251),
(95, 43242), (98, 43230), (108, 43173),

Gene: Priamo_73 Start: 41142, Stop: 40894, Start Num: 57
Candidate Starts for Priamo_73:
(10, 41382), (17, 41310), (26, 41229), (36, 41184), (Start: 57 @41142 has 16 MA's), (76, 41067), (83,
41025), (91, 40995), (95, 40983),

Gene: Prinashe11_63 Start: 41348, Stop: 41097, Start Num: 56
Candidate Starts for Prinashe11_63:
(Start: 56 @41348 has 45 MA's), (78, 41255), (79, 41240), (95, 41177), (102, 41132), (106, 41111),

Gene: Priya_71 Start: 42365, Stop: 42087, Start Num: 44
Candidate Starts for Priya_71:
(Start: 44 @42365 has 22 MA's), (77, 42257), (87, 42203), (89, 42194), (98, 42164),

Gene: Prudy_64 Start: 43039, Stop: 42800, Start Num: 64
Candidate Starts for Prudy_64:

(Start: 64 @43039 has 66 MA's), (Start: 71 @43012 has 1 MA's), (78, 42964), (83, 42931), (93, 42898), (95, 42889), (98, 42877),

Gene: Pukovnik_67 Start: 43337, Stop: 43080, Start Num: 54
Candidate Starts for Pukovnik_67:
(16, 43505), (Start: 54 @43337 has 29 MA's), (78, 43244), (83, 43211), (93, 43178), (95, 43169), (98, 43157),

Gene: Qobbit_71 Start: 42327, Stop: 42049, Start Num: 44
Candidate Starts for Qobbit_71:
(Start: 44 @42327 has 22 MA's), (77, 42219), (87, 42165), (89, 42156), (98, 42126),

Gene: QueenB2_69 Start: 42866, Stop: 42627, Start Num: 64
Candidate Starts for QueenB2_69:
(Start: 45 @42905 has 8 MA's), (Start: 64 @42866 has 66 MA's), (78, 42791), (83, 42758), (93, 42725), (95, 42716), (98, 42704), (109, 42644),

Gene: QueenBeesly_71 Start: 43349, Stop: 43110, Start Num: 64
Candidate Starts for QueenBeesly_71:
(Start: 45 @43388 has 8 MA's), (Start: 64 @43349 has 66 MA's), (78, 43274), (83, 43241), (93, 43208), (95, 43199), (98, 43187), (108, 43130),

Gene: Quokka_72 Start: 42401, Stop: 42162, Start Num: 64
Candidate Starts for Quokka_72:
(Start: 64 @42401 has 66 MA's), (75, 42359), (78, 42326), (81, 42299), (83, 42293), (93, 42260), (95, 42251), (98, 42239), (105, 42188), (112, 42170),

Gene: Rachaly_67 Start: 42676, Stop: 42434, Start Num: 64
Candidate Starts for Rachaly_67:
(Start: 64 @42676 has 66 MA's), (Start: 71 @42649 has 1 MA's), (78, 42601), (83, 42568), (93, 42535), (95, 42526),

Gene: Rahalelujah_72 Start: 42339, Stop: 42037, Start Num: 33
Candidate Starts for Rahalelujah_72:
(8, 42549), (Start: 33 @42339 has 5 MA's), (83, 42177), (98, 42123),

Gene: Ravana_83 Start: 45133, Stop: 44855, Start Num: 39
Candidate Starts for Ravana_83:
(20, 45208), (Start: 39 @45133 has 24 MA's), (73, 45055), (78, 45016), (83, 44983), (91, 44953), (93, 44950), (98, 44929),

Gene: ReMo_78 Start: 43472, Stop: 43194, Start Num: 39
Candidate Starts for ReMo_78:
(22, 43532), (Start: 39 @43472 has 24 MA's), (73, 43394), (78, 43355), (83, 43322), (91, 43292), (93, 43289), (98, 43268), (102, 43235),

Gene: RedRock_70 Start: 43508, Stop: 43269, Start Num: 64
Candidate Starts for RedRock_70:
(Start: 64 @43508 has 66 MA's), (76, 43442), (78, 43433), (83, 43400), (93, 43367), (95, 43358), (98, 43346),

Gene: Remus_81 Start: 43800, Stop: 43522, Start Num: 39
Candidate Starts for Remus_81:

(20, 43875), (Start: 39 @43800 has 24 MA's), (73, 43722), (78, 43683), (83, 43650), (91, 43620), (93, 43617), (98, 43596), (102, 43563),

Gene: Retro23_71 Start: 43080, Stop: 42841, Start Num: 64
Candidate Starts for Retro23_71:
(Start: 45 @43119 has 8 MA's), (Start: 64 @43080 has 66 MA's), (78, 43005), (83, 42972), (93, 42939), (95, 42930), (98, 42918), (108, 42861),

Gene: Rifter_73 Start: 41009, Stop: 40752, Start Num: 54
Candidate Starts for Rifter_73:
(Start: 54 @41009 has 29 MA's), (Start: 57 @41000 has 16 MA's), (76, 40925), (78, 40916), (83, 40883), (91, 40853), (95, 40841),

Gene: Roary_82 Start: 44168, Stop: 43884, Start Num: 61
Candidate Starts for Roary_82:
(Start: 61 @44168 has 10 MA's), (Start: 70 @44126 has 1 MA's), (76, 44087), (77, 44084), (78, 44078), (101, 43970),

Gene: Roksolana_73 Start: 41743, Stop: 41486, Start Num: 54
Candidate Starts for Roksolana_73:
(Start: 54 @41743 has 29 MA's), (Start: 57 @41734 has 16 MA's), (76, 41659), (78, 41650), (83, 41617), (91, 41587), (95, 41575), (112, 41494),

Gene: Rosalind_78 Start: 43296, Stop: 43018, Start Num: 39
Candidate Starts for Rosalind_78:
(22, 43356), (Start: 39 @43296 has 24 MA's), (73, 43218), (78, 43179), (83, 43146), (91, 43116), (93, 43113), (98, 43092), (102, 43059),

Gene: RyeScarlet_74 Start: 42613, Stop: 42335, Start Num: 44
Candidate Starts for RyeScarlet_74:
(Start: 44 @42613 has 22 MA's), (77, 42505), (87, 42451), (89, 42442), (98, 42412),

Gene: Sachima_69 Start: 42594, Stop: 42316, Start Num: 44
Candidate Starts for Sachima_69:
(Start: 44 @42594 has 22 MA's), (77, 42486), (87, 42432), (89, 42423), (98, 42393),

Gene: Saintus_76 Start: 40816, Stop: 40532, Start Num: 61
Candidate Starts for Saintus_76:
(Start: 61 @40816 has 10 MA's), (Start: 70 @40774 has 1 MA's), (77, 40732), (78, 40726), (101, 40618),

Gene: Salz_68 Start: 41498, Stop: 41232, Start Num: 52
Candidate Starts for Salz_68:
(Start: 52 @41498 has 21 MA's), (77, 41405), (83, 41366), (93, 41333), (95, 41324), (98, 41312), (102, 41279),

Gene: Saskia_70 Start: 42046, Stop: 41783, Start Num: 52
Candidate Starts for Saskia_70:
(Start: 52 @42046 has 21 MA's), (77, 41953), (83, 41914), (91, 41884), (93, 41881), (95, 41872), (98, 41860), (112, 41791),

Gene: Scherzo_72 Start: 42857, Stop: 42579, Start Num: 44
Candidate Starts for Scherzo_72:

(Start: 44 @42857 has 22 MA's), (77, 42749), (87, 42695), (89, 42686), (98, 42656),

Gene: Scorpia_69 Start: 42287, Stop: 42036, Start Num: 56
Candidate Starts for Scorpia_69:
(Start: 56 @42287 has 45 MA's), (78, 42194), (79, 42179), (95, 42116), (102, 42071), (106, 42050),

Gene: SemperFi_71 Start: 43237, Stop: 42998, Start Num: 64
Candidate Starts for SemperFi_71:
(Start: 45 @43276 has 8 MA's), (Start: 64 @43237 has 66 MA's), (78, 43162), (83, 43129), (93, 43096), (95, 43087), (98, 43075), (108, 43018),

Gene: Serenity_74 Start: 42637, Stop: 42359, Start Num: 45
Candidate Starts for Serenity_74:
(Start: 45 @42637 has 8 MA's), (Start: 64 @42598 has 66 MA's), (75, 42556), (78, 42523), (83, 42490), (91, 42460), (93, 42457), (95, 42448), (98, 42436), (112, 42367),

Gene: Sham4_69 Start: 41582, Stop: 41316, Start Num: 52
Candidate Starts for Sham4_69:
(Start: 52 @41582 has 21 MA's), (77, 41489), (83, 41450), (93, 41417), (95, 41408), (98, 41396), (102, 41363),

Gene: ShayRa_80 Start: 43325, Stop: 43047, Start Num: 39
Candidate Starts for ShayRa_80:
(22, 43385), (Start: 39 @43325 has 24 MA's), (73, 43247), (78, 43208), (83, 43175), (91, 43145), (93, 43142), (98, 43121), (102, 43088),

Gene: SheaKeira_67 Start: 41628, Stop: 41359, Start Num: 49
Candidate Starts for SheaKeira_67:
(Start: 49 @41628 has 5 MA's), (76, 41532), (77, 41529), (87, 41475), (89, 41466), (98, 41436),

Gene: Sknot_71 Start: 43051, Stop: 42812, Start Num: 64
Candidate Starts for Sknot_71:
(Start: 45 @43090 has 8 MA's), (Start: 64 @43051 has 66 MA's), (Start: 71 @43024 has 1 MA's), (72, 43021), (78, 42976), (83, 42943), (93, 42910), (95, 42901), (98, 42889), (108, 42832),

Gene: Smeadley_80 Start: 43984, Stop: 43700, Start Num: 61
Candidate Starts for Smeadley_80:
(Start: 61 @43984 has 10 MA's), (Start: 70 @43942 has 1 MA's), (77, 43900), (78, 43894), (101, 43786),

Gene: Smeagan_73 Start: 43548, Stop: 43309, Start Num: 64
Candidate Starts for Smeagan_73:
(Start: 45 @43587 has 8 MA's), (Start: 64 @43548 has 66 MA's), (78, 43473), (83, 43440), (93, 43407), (95, 43398), (98, 43386),

Gene: Smeagol_68 Start: 44353, Stop: 44060, Start Num: 30
Candidate Starts for Smeagol_68:
(Start: 30 @44353 has 5 MA's), (60, 44308), (69, 44278), (76, 44230), (83, 44188),

Gene: SmellyB_71 Start: 41315, Stop: 41076, Start Num: 56
Candidate Starts for SmellyB_71:
(Start: 56 @41315 has 45 MA's), (78, 41240), (83, 41207), (93, 41174), (95, 41165),

Gene: SnapTap_70 Start: 43048, Stop: 42809, Start Num: 64
Candidate Starts for SnapTap_70:
(Start: 45 @43087 has 8 MA's), (Start: 64 @43048 has 66 MA's), (78, 42973), (83, 42940), (93, 42907), (95, 42898), (98, 42886), (108, 42829),

Gene: Snape_69 Start: 41574, Stop: 41308, Start Num: 52
Candidate Starts for Snape_69:
(Start: 52 @41574 has 21 MA's), (77, 41481), (83, 41442), (93, 41409), (95, 41400), (98, 41388), (102, 41355),

Gene: SororFago_72 Start: 43648, Stop: 43376, Start Num: 47
Candidate Starts for SororFago_72:
(4, 43936), (35, 43669), (Start: 47 @43648 has 6 MA's), (77, 43546), (82, 43510), (83, 43507), (95, 43465), (98, 43453), (105, 43402),

Gene: Soups_80 Start: 43589, Stop: 43311, Start Num: 39
Candidate Starts for Soups_80:
(20, 43664), (Start: 39 @43589 has 24 MA's), (73, 43511), (78, 43472), (83, 43439), (91, 43409), (93, 43406), (98, 43385), (102, 43352),

Gene: Spouty_71 Start: 42364, Stop: 42086, Start Num: 44
Candidate Starts for Spouty_71:
(Start: 44 @42364 has 22 MA's), (77, 42256), (87, 42202), (89, 42193), (98, 42163),

Gene: StarStuff_74 Start: 43723, Stop: 43490, Start Num: 50
Candidate Starts for StarStuff_74:
(Start: 50 @43723 has 13 MA's), (78, 43645), (83, 43612), (93, 43579), (98, 43558), (106, 43504),

Gene: Stephig9_79 Start: 43923, Stop: 43639, Start Num: 61
Candidate Starts for Stephig9_79:
(Start: 61 @43923 has 10 MA's), (Start: 70 @43881 has 1 MA's), (77, 43839), (78, 43833), (101, 43725),

Gene: Strosahl_81 Start: 43800, Stop: 43522, Start Num: 39
Candidate Starts for Strosahl_81:
(20, 43875), (Start: 39 @43800 has 24 MA's), (73, 43722), (78, 43683), (83, 43650), (91, 43620), (93, 43617), (98, 43596), (102, 43563),

Gene: Sunhee_72 Start: 41700, Stop: 41431, Start Num: 47
Candidate Starts for Sunhee_72:
(4, 41988), (35, 41721), (Start: 47 @41700 has 6 MA's), (77, 41601), (82, 41565), (83, 41562), (89, 41538), (95, 41520), (98, 41508), (105, 41457),

Gene: SuperAwesome_71 Start: 41329, Stop: 41081, Start Num: 57
Candidate Starts for SuperAwesome_71:
(10, 41569), (17, 41497), (26, 41416), (36, 41371), (Start: 57 @41329 has 16 MA's), (76, 41254), (83, 41212), (91, 41182), (95, 41170),

Gene: SuperCallie99_68 Start: 41171, Stop: 40923, Start Num: 57
Candidate Starts for SuperCallie99_68:
(10, 41411), (17, 41339), (26, 41258), (36, 41213), (Start: 57 @41171 has 16 MA's), (76, 41096), (83, 41054), (91, 41024), (95, 41012),

Gene: Superchunk_72 Start: 41714, Stop: 41472, Start Num: 58
Candidate Starts for Superchunk_72:
(Start: 58 @41714 has 2 MA's), (79, 41615), (82, 41600), (83, 41597), (84, 41591), (85, 41588), (93, 41564), (98, 41543),

Gene: SweetiePie_70 Start: 43180, Stop: 42941, Start Num: 64
Candidate Starts for SweetiePie_70:
(Start: 45 @43219 has 8 MA's), (Start: 64 @43180 has 66 MA's), (78, 43105), (83, 43072), (93, 43039), (95, 43030), (98, 43018), (108, 42961),

Gene: SwirlSquare_76 Start: 42463, Stop: 42188, Start Num: 43
Candidate Starts for SwirlSquare_76:
(2, 42814), (7, 42703), (19, 42577), (Start: 43 @42463 has 5 MA's), (Start: 48 @42454 has 3 MA's), (Start: 71 @42394 has 1 MA's), (83, 42313), (93, 42280),

Gene: Swirley_65 Start: 41678, Stop: 41427, Start Num: 56
Candidate Starts for Swirley_65:
(Start: 56 @41678 has 45 MA's), (78, 41585), (79, 41570), (95, 41507), (102, 41462), (106, 41441),

Gene: Switzerland_79 Start: 43464, Stop: 43186, Start Num: 39
Candidate Starts for Switzerland_79:
(22, 43524), (Start: 39 @43464 has 24 MA's), (73, 43386), (78, 43347), (83, 43314), (91, 43284), (93, 43281), (98, 43260), (102, 43227),

Gene: SydNat_65 Start: 41870, Stop: 41619, Start Num: 56
Candidate Starts for SydNat_65:
(Start: 56 @41870 has 45 MA's), (Start: 62 @41858 has 2 MA's), (76, 41786), (78, 41777), (79, 41762), (95, 41699), (102, 41654), (106, 41633), (110, 41627),

Gene: TarsusIV_68 Start: 43024, Stop: 42785, Start Num: 64
Candidate Starts for TarsusIV_68:
(Start: 45 @43063 has 8 MA's), (Start: 64 @43024 has 66 MA's), (72, 42994), (78, 42949), (83, 42916), (93, 42883), (95, 42874), (98, 42862), (109, 42802),

Gene: Tarynearal_64 Start: 41514, Stop: 41263, Start Num: 56
Candidate Starts for Tarynearal_64:
(Start: 56 @41514 has 45 MA's), (78, 41421), (79, 41406), (95, 41343), (102, 41298), (106, 41277), (110, 41271),

Gene: Temprado_74 Start: 41848, Stop: 41591, Start Num: 54
Candidate Starts for Temprado_74:
(Start: 54 @41848 has 29 MA's), (Start: 57 @41839 has 16 MA's), (76, 41764), (78, 41755), (83, 41722), (91, 41692), (95, 41680),

Gene: Terrific_71 Start: 43025, Stop: 42786, Start Num: 64
Candidate Starts for Terrific_71:
(Start: 64 @43025 has 66 MA's), (Start: 71 @42998 has 1 MA's), (72, 42995), (78, 42950), (83, 42917), (93, 42884), (95, 42875), (98, 42863),

Gene: Theia_64 Start: 41988, Stop: 41749, Start Num: 62
Candidate Starts for Theia_64:
(Start: 56 @42000 has 45 MA's), (Start: 62 @41988 has 2 MA's), (76, 41916), (78, 41907), (79, 41892), (95, 41829), (102, 41784), (106, 41763),

Gene: Tiger_65 Start: 41442, Stop: 41191, Start Num: 56
Candidate Starts for Tiger_65:
(Start: 56 @41442 has 45 MA's), (78, 41349), (79, 41334), (95, 41271), (102, 41226), (106, 41205), (110, 41199),

Gene: Timothy_69 Start: 41551, Stop: 41285, Start Num: 52
Candidate Starts for Timothy_69:
(Start: 52 @41551 has 21 MA's), (77, 41458), (83, 41419), (93, 41386), (95, 41377), (98, 41365), (102, 41332),

Gene: Timshel_68 Start: 45505, Stop: 45218, Start Num: 41
Candidate Starts for Timshel_68:
(13, 45658), (21, 45583), (26, 45550), (Start: 41 @45505 has 1 MA's), (Start: 71 @45427 has 1 MA's), (76, 45388), (78, 45379), (86, 45331), (90, 45319), (92, 45313), (97, 45292), (107, 45241), (113, 45223),

Gene: TipsytheTRex_70 Start: 42600, Stop: 42361, Start Num: 64
Candidate Starts for TipsytheTRex_70:
(Start: 64 @42600 has 66 MA's), (75, 42558), (78, 42525), (81, 42498), (83, 42492), (93, 42459), (95, 42450), (98, 42438), (105, 42387), (112, 42369),

Gene: Toaka_73 Start: 42844, Stop: 42566, Start Num: 46
Candidate Starts for Toaka_73:
(Start: 46 @42844 has 1 MA's), (77, 42739), (98, 42646),

Gene: Tomathan_74 Start: 43834, Stop: 43601, Start Num: 50
Candidate Starts for Tomathan_74:
(Start: 50 @43834 has 13 MA's), (78, 43756), (83, 43723), (93, 43690), (98, 43669), (106, 43615),

Gene: ToneTone_70 Start: 41408, Stop: 41151, Start Num: 54
Candidate Starts for ToneTone_70:
(Start: 54 @41408 has 29 MA's), (Start: 57 @41399 has 16 MA's), (76, 41324), (78, 41315), (83, 41282), (91, 41252), (95, 41240),

Gene: Travvers_73 Start: 43720, Stop: 43487, Start Num: 50
Candidate Starts for Travvers_73:
(Start: 50 @43720 has 13 MA's), (78, 43642), (83, 43609), (93, 43576), (98, 43555), (106, 43501),

Gene: Tristan_67 Start: 43510, Stop: 43250, Start Num: 54
Candidate Starts for Tristan_67:
(Start: 54 @43510 has 29 MA's), (78, 43414), (83, 43381), (93, 43348), (95, 43339), (98, 43327),

Gene: Trixie_69 Start: 43058, Stop: 42813, Start Num: 54
Candidate Starts for Trixie_69:
(Start: 51 @43064 has 1 MA's), (Start: 54 @43058 has 29 MA's), (Start: 71 @43025 has 1 MA's), (78, 42977), (83, 42944), (93, 42911), (95, 42902), (98, 42890), (105, 42839),

Gene: Trooper_70 Start: 42983, Stop: 42744, Start Num: 64
Candidate Starts for Trooper_70:
(Start: 45 @43022 has 8 MA's), (Start: 64 @42983 has 66 MA's), (78, 42908), (83, 42875), (93, 42842), (95, 42833), (109, 42761),

Gene: Tubs_73 Start: 42568, Stop: 42290, Start Num: 44
Candidate Starts for Tubs_73:
(Start: 44 @42568 has 22 MA's), (77, 42460), (87, 42406), (89, 42397), (98, 42367),

Gene: Tucker_73 Start: 41611, Stop: 41354, Start Num: 54
Candidate Starts for Tucker_73:
(Start: 54 @41611 has 29 MA's), (Start: 57 @41602 has 16 MA's), (76, 41527), (78, 41518), (83, 41485), (91, 41455), (95, 41443),

Gene: Turbido_71 Start: 43267, Stop: 43028, Start Num: 64
Candidate Starts for Turbido_71:
(Start: 45 @43306 has 8 MA's), (Start: 64 @43267 has 66 MA's), (78, 43192), (83, 43159), (93, 43126), (95, 43117), (98, 43105),

Gene: Twigg_62 Start: 41326, Stop: 41075, Start Num: 56
Candidate Starts for Twigg_62:
(Start: 56 @41326 has 45 MA's), (76, 41242), (78, 41233), (79, 41218), (95, 41155), (102, 41110), (106, 41089),

Gene: Ugenie5_68 Start: 42856, Stop: 42578, Start Num: 44
Candidate Starts for Ugenie5_68:
(Start: 44 @42856 has 22 MA's), (77, 42748), (87, 42694), (89, 42685), (98, 42655),

Gene: UnionJack_69 Start: 41951, Stop: 41700, Start Num: 56
Candidate Starts for UnionJack_69:
(Start: 56 @41951 has 45 MA's), (78, 41858), (79, 41843), (95, 41780), (102, 41735), (106, 41714), (110, 41708),

Gene: Updawg_71 Start: 42915, Stop: 42676, Start Num: 64
Candidate Starts for Updawg_71:
(Start: 64 @42915 has 66 MA's), (Start: 71 @42888 has 1 MA's), (72, 42885), (78, 42840), (83, 42807), (93, 42774), (95, 42765), (98, 42753),

Gene: VA6_70 Start: 42966, Stop: 42727, Start Num: 64
Candidate Starts for VA6_70:
(Start: 45 @43005 has 8 MA's), (Start: 64 @42966 has 66 MA's), (Start: 71 @42939 has 1 MA's), (78, 42891), (83, 42858), (93, 42825), (95, 42816), (98, 42804), (108, 42747),

Gene: VC3_73 Start: 43176, Stop: 42916, Start Num: 50
Candidate Starts for VC3_73:
(Start: 50 @43176 has 13 MA's), (78, 43071), (83, 43038), (93, 43005), (98, 42984), (106, 42930), (108, 42927),

Gene: Vanisoa_70 Start: 43200, Stop: 42919, Start Num: 47
Candidate Starts for Vanisoa_70:
(Start: 47 @43200 has 6 MA's), (83, 43059), (98, 43005),

Gene: VohminGhazi_71 Start: 41316, Stop: 41077, Start Num: 56
Candidate Starts for VohminGhazi_71:
(Start: 56 @41316 has 45 MA's), (78, 41241), (83, 41208), (93, 41175), (95, 41166),

Gene: Waits_80 Start: 43700, Stop: 43422, Start Num: 39
Candidate Starts for Waits_80:

(20, 43775), (Start: 39 @43700 has 24 MA's), (73, 43622), (78, 43583), (83, 43550), (91, 43520), (93, 43517), (98, 43496), (102, 43463),

Gene: Warrior24_81 Start: 44177, Stop: 43899, Start Num: 39
Candidate Starts for Warrior24_81:
(20, 44252), (Start: 39 @44177 has 24 MA's), (73, 44099), (78, 44060), (83, 44027), (91, 43997), (93, 43994), (98, 43973), (102, 43940),

Gene: WeiHuaDA_71 Start: 43855, Stop: 43616, Start Num: 64
Candidate Starts for WeiHuaDA_71:
(Start: 45 @43894 has 8 MA's), (Start: 64 @43855 has 66 MA's), (78, 43780), (83, 43747), (93, 43714), (95, 43705), (98, 43693), (105, 43642),

Gene: Whabigail7_71 Start: 43267, Stop: 43028, Start Num: 64
Candidate Starts for Whabigail7_71:
(Start: 45 @43306 has 8 MA's), (Start: 64 @43267 has 66 MA's), (78, 43192), (83, 43159), (93, 43126), (95, 43117), (98, 43105),

Gene: WideWale_71 Start: 42915, Stop: 42676, Start Num: 64
Candidate Starts for WideWale_71:
(Start: 64 @42915 has 66 MA's), (Start: 71 @42888 has 1 MA's), (72, 42885), (78, 42840), (83, 42807), (93, 42774), (95, 42765), (98, 42753),

Gene: Wiks_72 Start: 41479, Stop: 41222, Start Num: 54
Candidate Starts for Wiks_72:
(Start: 54 @41479 has 29 MA's), (Start: 57 @41470 has 16 MA's), (76, 41395), (78, 41386), (83, 41353), (91, 41323), (95, 41311),

Gene: Wolpertinger_67 Start: 41583, Stop: 41317, Start Num: 52
Candidate Starts for Wolpertinger_67:
(Start: 52 @41583 has 21 MA's), (77, 41490), (83, 41451), (93, 41418), (95, 41409), (98, 41397), (102, 41364),

Gene: WorldCup_70 Start: 42333, Stop: 42031, Start Num: 33
Candidate Starts for WorldCup_70:
(8, 42543), (Start: 33 @42333 has 5 MA's), (83, 42171), (98, 42117),

Gene: WunderPhul_73 Start: 41477, Stop: 41220, Start Num: 54
Candidate Starts for WunderPhul_73:
(Start: 54 @41477 has 29 MA's), (Start: 57 @41468 has 16 MA's), (76, 41393), (78, 41384), (83, 41351), (91, 41321), (95, 41309),

Gene: XianYue_66 Start: 42239, Stop: 41988, Start Num: 51
Candidate Starts for XianYue_66:
(32, 42275), (Start: 51 @42239 has 1 MA's), (72, 42197), (78, 42152), (83, 42119), (93, 42086), (95, 42077), (98, 42065),

Gene: Yecey3_74 Start: 42420, Stop: 42151, Start Num: 49
Candidate Starts for Yecey3_74:
(Start: 49 @42420 has 5 MA's), (76, 42324), (77, 42321), (87, 42267), (89, 42258), (98, 42228),

Gene: Yokurt_72 Start: 41479, Stop: 41222, Start Num: 54
Candidate Starts for Yokurt_72:

(Start: 54 @41479 has 29 MA's), (Start: 57 @41470 has 16 MA's), (76, 41395), (78, 41386), (83, 41353), (91, 41323), (95, 41311),

Gene: Zaka_73 Start: 41479, Stop: 41222, Start Num: 54
Candidate Starts for Zaka_73:
(Start: 54 @41479 has 29 MA's), (Start: 57 @41470 has 16 MA's), (76, 41395), (78, 41386), (83, 41353), (91, 41323), (95, 41311),

Gene: Zolita_64 Start: 41874, Stop: 41623, Start Num: 56
Candidate Starts for Zolita_64:
(Start: 56 @41874 has 45 MA's), (Start: 62 @41862 has 2 MA's), (76, 41790), (78, 41781), (79, 41766), (95, 41703), (102, 41658), (106, 41637), (110, 41631),

Gene: Zulu_74 Start: 41857, Stop: 41600, Start Num: 54
Candidate Starts for Zulu_74:
(Start: 54 @41857 has 29 MA's), (Start: 57 @41848 has 16 MA's), (76, 41773), (78, 41764), (83, 41731), (91, 41701), (95, 41689),