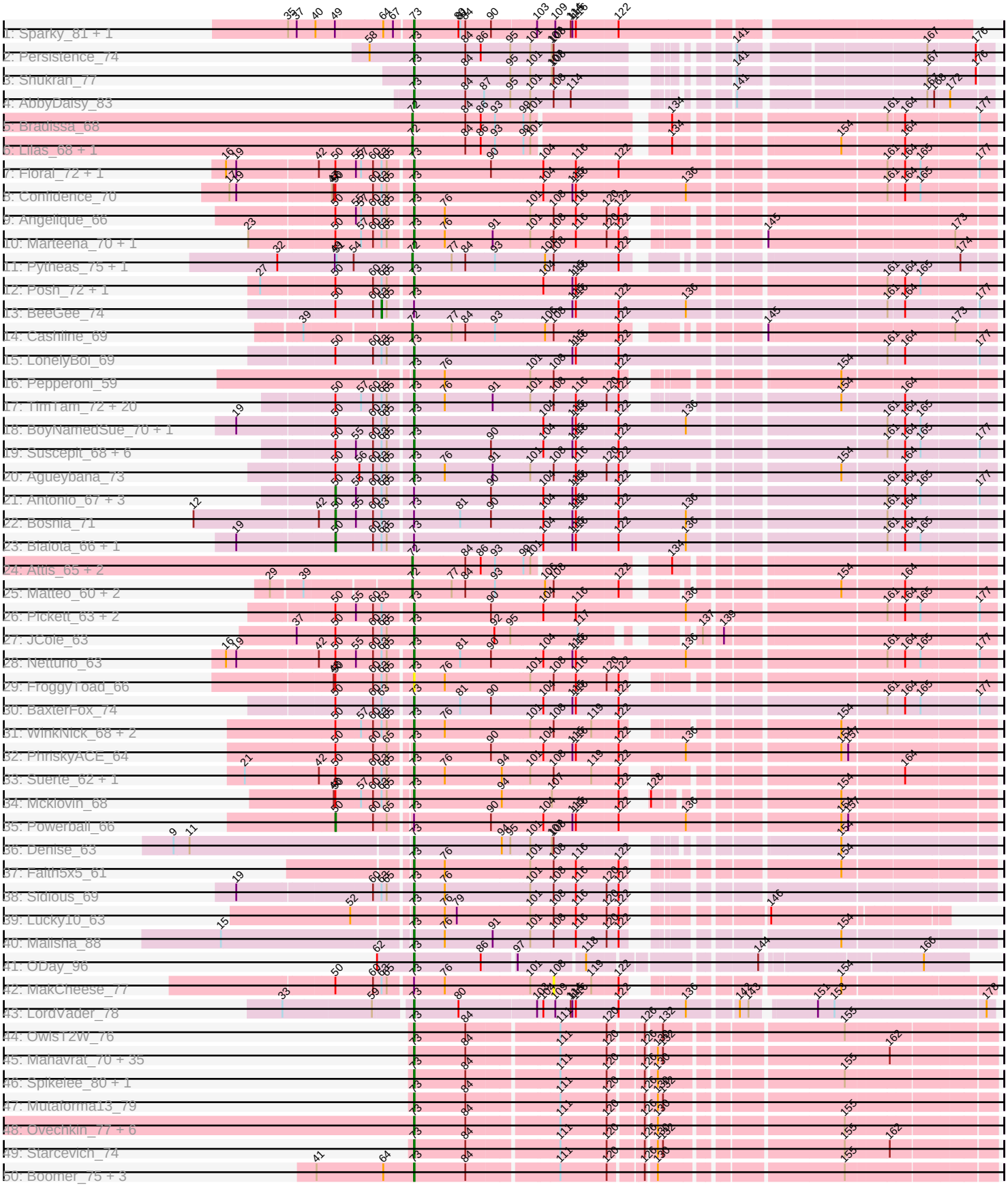
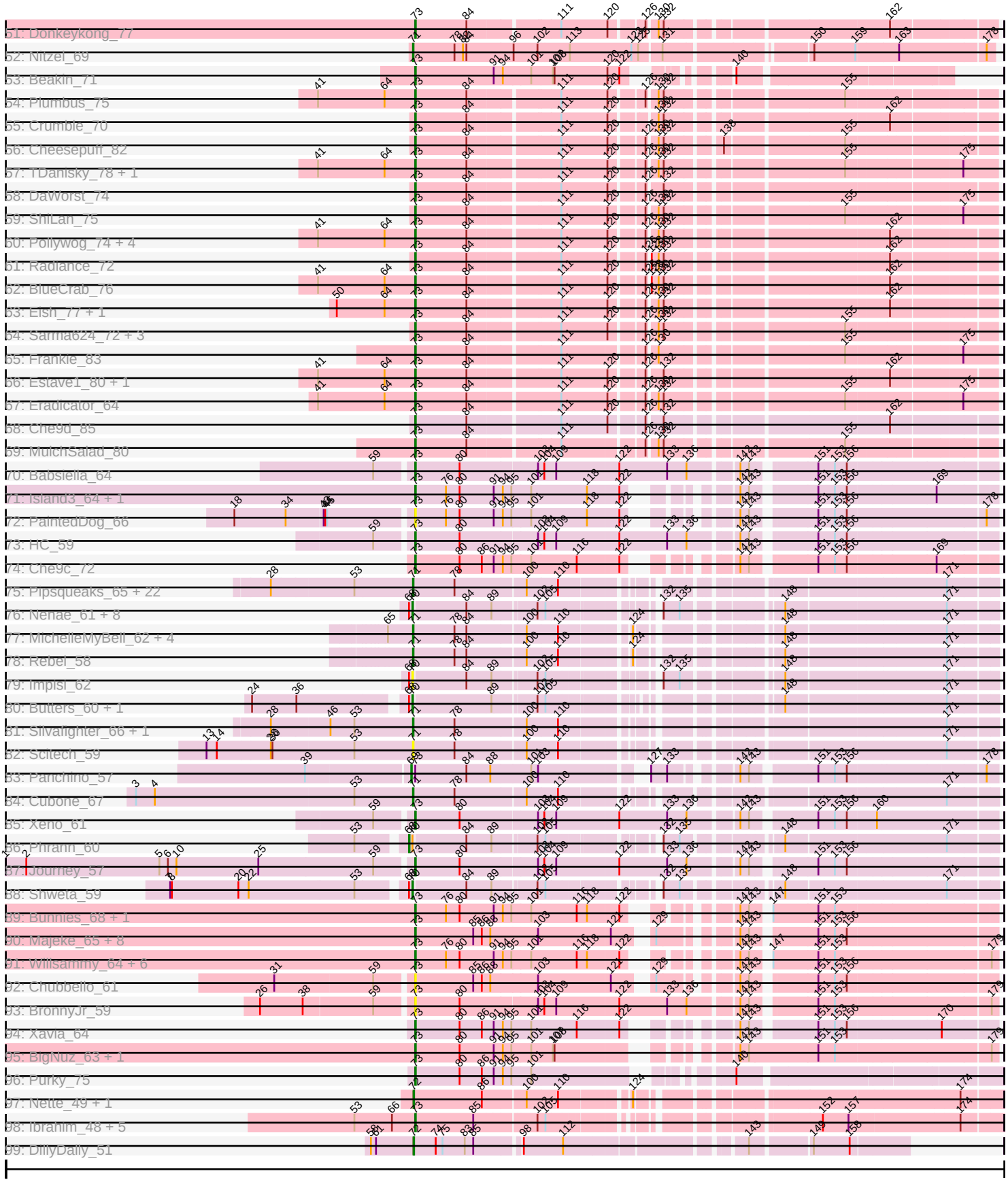
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1: Sparky_81 + 1
2: Persistence_74
3: Shukran_77
4: AbbyDaisy_83
5: Bradissa_68
6: Lilas_68 + 1
7: Floral_72 + 1
8: Confidence_70
9: Angelique_66
10: Marteena_70 + 1
11: Pytheas_75 + 1
12: Posh_72 + 1
13: BeeGee_74
14: Cashline_69
15: LonelyBoi_69
16: Pepperoni_59
17: TimTam_72 + 20
18: BoyNamedSue_70 + 1
19: Suscepit_68 + 6
20: Agueybana_73
21: Antonio_67 + 3
22: Bosnia_71
23: Blabla_66 + 1
24: Attis_65 + 2
25: Matteo_60 + 2
26: Pickett_63 + 2
27: JCole_63
28: Nettuno_63
29: FroggyToad_66
30: BaxterFox_74
31: WinkNick_68 + 2
32: PhinskyACE_64
33: Suerte_62 + 1
34: Micklovin_68
35: Powerball_66
36: Denise_63
37: Faith5x5_61
38: Sidious_69
39: Lucky10_63
40: Mallsha_88
41: ODay_96
42: MakCheese_77
43: LordVader_78
44: OwlsT2W_76
45: Manavrat_70 + 35
46: Spikelee_80 + 1
47: Mutaforma13_79
48: Ovechkin_77 + 6
49: Starcevich_74
50: Boomer_75 + 3

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51: Donkeykong_77
52: Nitzel_69
53: Beakin_71
54: Plumbus_75
55: Crumble_70
56: Cheesepuff_82
57: TDanisky_78 + 1
58: DaWorst_74
59: ShiLan_75
60: Pollywog_74 + 4
61: Radiance_72
62: BlueCrab_76
63: Elsh_77 + 1
64: Sarma624_72 + 3
65: Frankie_83
66: Estave1_80 + 1
67: Eradicator_64
68: Che9d_85
69: MulchSalad_80
70: Babsiella_64
71: Island3_64 + 1
72: PaintedDog_66
73: HC_59
74: Che9c_72
75: Pipsqueaks_65 + 22
76: Nenae_61 + 8
77: MichelleMyBell_62 + 4
78: Rebel_58
79: Impisi_62
80: Butters_60 + 1
81: Silvafighter_66 + 1
82: Scitech_59
83: Panchino_57
84: Cubone_67
85: Xeno_61
86: Phrann_60
87: Journey_57
88: Shweta_59
89: Bunnies_68 + 1
90: Majeke_65 + 8
91: Willsammy_64 + 6
92: Chubbello_61
93: BronnyJr_59
94: Xavia_64
95: BigNuz_63 + 1
96: Purky_75
97: Nette_49 + 1
98: Ibrahim_48 + 5
99: DillyDally_51

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 347209 Report

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

Pham number 347209 has 259 members, 19 are drafts.

Phages represented in each track:
- Track 1 : Sparky_81, Farewell_82
- Track 2 : Persistence_74
- Track 3 : Shukran_77
- Track 4 : AbbyDaisy_83
- Track 5 : Bradissa_68
- Track 6 : Lilas_68, EnalisNailo_67
- Track 7 : Floral_72, Pollux_74
- Track 8 : Confidence_70
- Track 9 : Angelique_66
- Track 10 : Marteena_70, EMsquaredA_71
- Track 11 : Pytheas_75, Jablanski_74
- Track 12 : Posh_72, Wrigley_74
- Track 13 : BeeGee_74
- Track 14 : Cashline_69
- Track 15 : LonelyBoi_69
- Track 16 : Pepperoni_59
- Track 17 : TimTam_72, Sproutie_66, Cynthia_66, Haley23_66, TuertoX_66, Ebert_69, Bjanes7_63, Herod_72, Whiteclaw_66, Clap_66, Mocha12_66, Eviarto_72, BatStarr_71, Hugley_70, Gizermo_66, Yinzer_66, GemG_66, Savage_66, Nymphadora_72, PantheRoc_74, Lamberg_62
- Track 18 : BoyNamedSue_70, AlumE_70
- Track 19 : Suscepit_68, Trumpet_68, Dillpickles_73, Neobush_70, Manasvini_70, Tayonia_68, Zameen_68
- Track 20 : Agueybana_73
- Track 21 : Antonio_67, Eudoria_68, Kita_69, Polly_65
- Track 22 : Bosnia_71
- Track 23 : Bialota_66, Zirinka_66
- Track 24 : Attis_65, LordFarquaad_68, SoilAssassin_65
- Track 25 : Matteo_60, Jalleen_70, Sahara_65
- Track 26 : Pickett_63, Yeet412_64, EdnaMode_65
- Track 27 : JCole_63
- Track 28 : Nettuno_63
- Track 29 : FroggyToad_66
- Track 30 : BaxterFox_74
- Track 31 : WinkNick_68, Dolores_68, Sekhmet_67
- Track 32 : PhriskyACE_64
- Track 33 : Suerte_62, Annalisa_66

• Track 34 : Mcklovin_68
• Track 35 : Powerball_66
• Track 36 : Denise_63
• Track 37 : Faith5x5_61
• Track 38 : Sidious_69
• Track 39 : Lucky10_63
• Track 40 : Malisha_88
• Track 41 : ODay_96
• Track 42 : MakCheese_77
• Track 43 : LordVader_78
• Track 44 : OwlsT2W_76
• Track 45 : Mahavrat_70, Nivrat_70, SimranZ1_74, Ramsey_77, BodEinwohner17_79, PhlipPhlop_75, Juniper1_72, FreddyB_82, Mantra_71, Beanstalk_73, Karhdo_72, Sabbb_75, RockyHorror_74, LilMoolah_72, Violac_75, VRedHorse_73, Emmaloid_78, SeaLumen_78, Cornucopia_75, Doug_74, Enzomatic_81, Che8_78, Emma_76, EmiMonkey_74, LunaBlu_76, Rialto_81, NewHope4_74, Polo2Bam_80, Slim_78, Fancypants_78, Grimmer_80, Moonbeam_74, Peridot_78, Galactic_73, Kersh_75, Pacc40_67
• Track 46 : Spikelee_80, DosHalletts_76
• Track 47 : Mutaforma13_79
• Track 48 : Ovechkin_77, KingJulian_77, PatoPoderoso_71, Hegedechwinu_75, Corium_71, TChen_75, LunaStella_73
• Track 49 : Starcevich_74
• Track 50 : Boomer_75, PMC_68, MilleniumForce_74, Rockne_72
• Track 51 : Donkeykong_77
• Track 52 : Nitzel_69
• Track 53 : Beakin_71
• Track 54 : Plumbus_75
• Track 55 : Crumble_70
• Track 56 : Cheesepuff_82
• Track 57 : TDanisky_78, Sparkdehlily_78
• Track 58 : DaWorst_74
• Track 59 : ShiLan_75
• Track 60 : Pollywog_74, Oksu_79, Spartacus_78, Job42_74, Phasih_70
• Track 61 : Radiance_72
• Track 62 : BlueCrab_76
• Track 63 : Eish_77, BuzzLyseyear_80
• Track 64 : Sarma624_72, CaptainTrips_72, Hades_74, Velveteen_68
• Track 65 : Frankie_83
• Track 66 : Estave1_80, Royals2015_80
• Track 67 : Eradicator_64
• Track 68 : Che9d_85
• Track 69 : MulchSalad_80
• Track 70 : Babsiella_64
• Track 71 : Island3_64, Brujita_63
• Track 72 : PaintedDog_66
• Track 73 : HC_59
• Track 74 : Che9c_72
• Track 75 : Pipsqueaks_65, Smurph_64, SkinnyPete_61, EGUnicorn_59, Charlie_61, Aggie_60, Carcharodon_64, Silvy_60, Magsby_63, Chewbacca_67, Schnauzer_65, Philonius_64, Fulbright_62, Xerxes_64, Tessdabest_65, Parmesanjohn_64, Bosection6_59, Phloss_62, Tapioca_62, Andies_58, Melville_69, Tortoise12_64, Gex_65

• Track 76 : Nenae_61, ShrimpFriedEgg_61, Raymond7_54, BabeRuth_61, Purgamenstris_61, Spinach_60, Redi_61, Hanako_60, PhancyPhin_61
• Track 77 : MichelleMyBell_62, SpongeBob_56, Snekmaggedon_56, Jamie19_56, Kevin1_63
• Track 78 : Rebel_58
• Track 79 : Impisi_62
• Track 80 : Butters_60, Rubeelu_60
• Track 81 : Silvafighter_66, Duplicity_62
• Track 82 : Scitech_59
• Track 83 : Panchino_57
• Track 84 : Cubone_67
• Track 85 : Xeno_61
• Track 86 : Phrann_60
• Track 87 : Journey_57
• Track 88 : Shweta_59
• Track 89 : Bunnies_68, Ksquared_66
• Track 90 : Majeke_65, Etoile_61, Donovan_62, Phegasus_65, Kari_62, Fishburne_61, Stuck_73, Langerak_62, Mangethe_65
• Track 91 : Willsammy_64, Gavriela_62, CactusJack_63, StressBall_62, Glaske_62, Phalm_63, KilKor_63
• Track 92 : Chubbello_61
• Track 93 : BronnyJr_59
• Track 94 : Xavia_64
• Track 95 : BigNuz_63, Nazo_64
• Track 96 : Purky_75
• Track 97 : Nette_49, Mendokysei_46
• Track 98 : Ibrahim_48, Bernal13_48, ZenTime222_47, Whitty_47, RonRayGun_48, Nairb_47
• Track 99 : DillyDally_51

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

The start number called the most often in the published annotations is 73, it was called in 172 of the 240 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AbbyDaisy_83, Agueybana_73, AlumE_70, Angelique_66, Annalisa_66, Babsiella_64, BatStarr_71, BaxterFox_74, Beakin_71, Beanstalk_73, Bernal13_48, BigNuz_63, Bjanes7_63, BlueCrab_76, BodEinwohner17_79, Boomer_75, BoyNamedSue_70, BronnyJr_59, Brujita_63, Bunnies_68, BuzzLyseyear_80, CactusJack_63, CaptainTrips_72, Che8_78, Che9c_72, Che9d_85, Cheesepuff_82, Chubbello_61, Clap_66, Confidence_70, Corium_71, Cornucopia_75, Crumble_70, Cynthia_66, DaWorst_74, Denise_63, Dillpickles_73, Dolores_68, Donkeykong_77, Donovan_62, DosHalletts_76, Doug_74, EMsquaredA_71, Ebert_69, EdnaMode_65, Eish_77, EmiMonkey_74, Emma_76, Emmaloid_78, Enzomatic_81, Eradicator_64, Estave1_80, Etoile_61, Eviarto_72, Faith5x5_61, Fancypants_78, Farewell_82, Fishburne_61, Floral_72, Frankie_83, FreddyB_82, FroggyToad_66, Galactic_73, Gavriela_62, GemG_66, Gizermo_66, Glaske_62, Grimmer_80, HC_59, Hades_74, Haley23_66, Hegedechwinu_75, Herod_72, Hugley_70, Ibrahim_48, Island3_64, JCole_63, Job42_74, Journey_57, Juniper1_72, Karhdo_72, Kari_62, Kersh_75,

KilKor_63, KingJulian_77, Ksquared_66, Lamberg_62, Langerak_62, LilMoolah_72, LonelyBoi_69, LordVader_78, Lucky10_63, LunaBlu_76, LunaStella_73, Mahavrat_70, Majeke_65, Malisha_88, Manasvini_70, Mangethe_65, Mantra_71, Marteena_70, Mcklovin_68, MilleniumForce_74, Mocha12_66, Moonbeam_74, MulchSalad_80, Mutaforma13_79, Nairb_47, Nazo_64, Neobush_70, Nettuno_63, NewHope4_74, Nivrat_70, Nymphadora_72, ODay_96, Oksu_79, Ovechkin_77, OwlsT2W_76, PMC_68, Pacc40_67, PaintedDog_66, PantheRoc_74, PatoPoderoso_71, Pepperoni_59, Peridot_78, Persistence_74, Phalm_63, Phasih_70, Phegasus_65, PhlipPhlop_75, PhriskyACE_64, Pickett_63, Plumbus_75, Pollux_74, Pollywog_74, Polo2Bam_80, Posh_72, Purky_75, Radiance_72, Ramsey_77, Rialto_81, Rockne_72, RockyHorror_74, RonRayGun_48, Royals2015_80, Sabbb_75, Sarma624_72, Savage_66, SeaLumen_78, Sekhmet_67, ShiLan_75, Shukran_77, Sidious_69, SimranZ1_74, Slim_78, Sparkdehlily_78, Sparky_81, Spartacus_78, Spikelee_80, Sproutie_66, Starcevich_74, StressBall_62, Stuck_73, Suerte_62, Suscepit_68, TChen_75, TDanisky_78, Tayonia_68, TimTam_72, Trumpet_68, TuertoX_66, VRedHorse_73, Velveteen_68, Violac_75, Whiteclaw_66, Whitty_47, Willsammy_64, WinkNick_68, Wrigley_74, Xavia_64, Xeno_61, Yeet412_64, Yinzer_66, Zameen_68, ZenTime222_47,

Genes that have the "Most Annotated" start but do not call it:
• Antonio_67, BeeGee_74, Bialota_66, Bosnia_71, Eudoria_68, Kita_69, MakCheese_77, Panchino_57, Polly_65, Powerball_66, Zirinka_66,

Genes that do not have the "Most Annotated" start:
• Aggie_60, Andies_58, Attis_65, BabeRuth_61, Bosection6_59, Bradissa_68, Butters_60, Carcharodon_64, Cashline_69, Charlie_61, Chewbacca_67, Cubone_67, DillyDally_51, Duplicity_62, EGUnicorn_59, EnalisNailo_67, Fulbright_62, Gex_65, Hanako_60, Impisi_62, Jablanski_74, Jalleen_70, Jamie19_56, Kevin1_63, Lilas_68, LordFarquaad_68, Magsby_63, Matteo_60, Melville_69, Mendokysei_46, MichelleMyBell_62, Nenae_61, Nette_49, Nitzel_69, Parmesanjohn_64, PhancyPhin_61, Philonius_64, Phloss_62, Phrann_60, Pipsqueaks_65, Purgamenstris_61, Pytheas_75, Raymond7_54, Rebel_58, Redi_61, Rubeelu_60, Sahara_65, Schnauzer_65, Scitech_59, ShrimpFriedEgg_61, Shweta_59, Silvafighter_66, Silvy_60, SkinnyPete_61, Smurph_64, Snekmaggedon_56, SoilAssassin_65, Spinach_60, SpongeBob_56, Tapioca_62, Tessdabest_65, Tortoise12_64, Xerxes_64,

**Summary by start number:**

Start 50:
• Found in 66 of 259 ( 25.5% ) of genes in pham
• Manual Annotations of this start: 8 of 240
• Called 12.1% of time when present
• Phage (with cluster) where this start called: Antonio_67 (CZ1), Bialota_66 (CZ1), Bosnia_71 (CZ1), Eudoria_68 (CZ1), Kita_69 (CZ1), Polly_65 (CZ1), Powerball_66 (CZ4), Zirinka_66 (CZ1),

Start 63:
• Found in 63 of 259 ( 24.3% ) of genes in pham
• Manual Annotations of this start: 1 of 240
• Called 1.6% of time when present
• Phage (with cluster) where this start called: BeeGee_74 (CY5),

Start 68:
• Found in 14 of 259 ( 5.4% ) of genes in pham
• Manual Annotations of this start: 1 of 240
• Called 7.1% of time when present
• Phage (with cluster) where this start called: Phrann_60 (N),

Start 69:
• Found in 1 of 259 ( 0.4% ) of genes in pham
• Manual Annotations of this start: 1 of 240
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Panchino_57 (N),

Start 70:
• Found in 14 of 259 ( 5.4% ) of genes in pham
• Manual Annotations of this start: 12 of 240
• Called 92.9% of time when present
• Phage (with cluster) where this start called: BabeRuth_61 (N), Butters_60 (N), Hanako_60 (N), Impisi_62 (N), Nenae_61 (N), PhancyPhin_61 (N), Purgamenstris_61 (N), Raymond7_54 (N), Redi_61 (N), Rubeelu_60 (N), ShrimpFriedEgg_61 (N), Shweta_59 (N), Spinach_60 (N),

Start 71:
• Found in 34 of 259 ( 13.1% ) of genes in pham
• Manual Annotations of this start: 32 of 240
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aggie_60 (N), Andies_58 (N), Bosection6_59 (N), Carcharodon_64 (N), Charlie_61 (N), Chewbacca_67 (N), Cubone_67 (N), Duplicity_62 (N), EGUnicorn_59 (N), Fulbright_62 (N), Gex_65 (N), Jamie19_56 (N), Kevin1_63 (N), Magsby_63 (N), Melville_69 (N), MichelleMyBell_62 (N), Nitzel_69 (F1), Parmesanjohn_64 (N), Philonius_64 (N), Phloss_62 (N), Pipsqueaks_65 (N), Rebel_58 (N), Schnauzer_65 (N), Scitech_59 (N), Silvafighter_66 (N), Silvy_60 (N), SkinnyPete_61 (N), Smurph_64 (N), Snekmaggedon_56 (N), SpongeBob_56 (N), Tapioca_62 (N), Tessdabest_65 (N), Tortoise12_64 (N), Xerxes_64 (N),

Start 72:
• Found in 15 of 259 ( 5.8% ) of genes in pham
• Manual Annotations of this start: 13 of 240
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Attis_65 (CZ2), Bradissa_68 (CY1), Cashline_69 (CY6), DillyDally_51 (singleton), EnalisNailo_67 (CY1), Jablanski_74 (CY3), Jalleen_70 (CZ2), Lilas_68 (CY1), LordFarquaad_68 (CZ2), Matteo_60 (CZ2), Mendokysei_46 (T), Nette_49 (T), Pytheas_75 (CY3), Sahara_65 (CZ2), SoilAssassin_65 (CZ2),

Start 73:
• Found in 196 of 259 ( 75.7% ) of genes in pham
• Manual Annotations of this start: 172 of 240
• Called 94.4% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_83 (AY), Agueybana_73 (CZ1), AlumE_70 (CZ1), Angelique_66 (CY1), Annalisa_66 (CZ4), Babsiella_64 (I1), BatStarr_71 (CZ1), BaxterFox_74 (CZ3), Beakin_71 (F1), Beanstalk_73 (F1), Bernal13_48 (T), BigNuz_63 (P4), Bjanes7_63 (CZ2), BlueCrab_76 (F1),

BodEinwohner17_79 (F1), Boomer_75 (F1), BoyNamedSue_70 (CZ1), BronnyJr_59 (P1), Brujita_63 (I1), Bunnies_68 (P1), BuzzLyseyear_80 (F1), CactusJack_63 (P1), CaptainTrips_72 (F1), Che8_78 (F1), Che9c_72 (I2), Che9d_85 (F2), Cheesepuff_82 (F1), Chubbello_61 (P1), Clap_66 (CZ2), Confidence_70 (CY1), Corium_71 (F1), Cornucopia_75 (F1), Crumble_70 (F1), Cynthia_66 (CZ2), DaWorst_74 (F1), Denise_63 (CZ5), Dillpickles_73 (CZ1), Dolores_68 (CZ4), Donkeykong_77 (F1), Donovan_62 (P1), DosHalletts_76 (F1), Doug_74 (F1), EMsquaredA_71 (CY1), Ebert_69 (CZ2), EdnaMode_65 (CZ2), Eish_77 (F1), EmiMonkey_74 (F1), Emma_76 (F1), Emmaloid_78 (F1), Enzomatic_81 (F1), Eradicator_64 (F1), Estave1_80 (F1), Etoile_61 (P1), Eviarto_72 (CZ1), Faith5x5_61 (CZ6), Fancypants_78 (F1), Farewell_82 (AF), Fishburne_61 (P1), Floral_72 (CY1), Frankie_83 (F1), FreddyB_82 (F1), FroggyToad_66 (CZ2), Galactic_73 (F1), Gavriela_62 (P1), GemG_66 (CZ2), Gizermo_66 (CZ2), Glaske_62 (P1), Grimmer_80 (F1), HC_59 (I1), Hades_74 (F1), Haley23_66 (CZ2), Hegedechwinu_75 (F1), Herod_72 (CZ1), Hugley_70 (CZ1), Ibrahim_48 (T), Island3_64 (I1), JCole_63 (CZ2), Job42_74 (F1), Journey_57 (N), Juniper1_72 (F1), Karhdo_72 (F1), Kari_62 (P1), Kersh_75 (F1), KilKor_63 (P1), KingJulian_77 (F1), Ksquared_66 (P1), Lamberg_62 (CZ2), Langerak_62 (P1), LilMoolah_72 (F1), LonelyBoi_69 (CY7), LordVader_78 (F), Lucky10_63 (DH), LunaBlu_76 (F1), LunaStella_73 (F4), Mahavrat_70 (F1), Majeke_65 (P1), Malisha_88 (DN), Manasvini_70 (CZ1), Mangethe_65 (P1), Mantra_71 (F1), Marteena_70 (CY1), Mcklovin_68 (CZ4), MilleniumForce_74 (F1), Mocha12_66 (CZ2), Moonbeam_74 (F1), MulchSalad_80 (F7), Mutaforma13_79 (F1), Nairb_47 (T), Nazo_64 (P4), Neobush_70 (CZ1), Nettuno_63 (CZ2), NewHope4_74 (F1), Nivrat_70 (F1), Nymphadora_72 (CZ1), ODay_96 (DN), Oksu_79 (F1), Ovechkin_77 (F1), OwlsT2W_76 (F1), PMC_68 (F1), Pacc40_67 (F1), PaintedDog_66 (I1), PantheRoc_74 (CZ3), PatoPoderoso_71 (F1), Pepperoni_59 (CZ), Peridot_78 (F1), Persistence_74 (AY), Phalm_63 (P1), Phasih_70 (F1), Phegasus_65 (P1), PhlipPhlop_75 (F1), PhriskyACE_64 (CZ4), Pickett_63 (CZ2), Plumbus_75 (F1), Pollux_74 (CY1), Pollywog_74 (F1), Polo2Bam_80 (F1), Posh_72 (CY4), Purky_75 (P6), Radiance_72 (F1), Ramsey_77 (F1), Rialto_81 (F1), Rockne_72 (F1), RockyHorror_74 (F1), RonRayGun_48 (T), Royals2015_80 (F1), Sabbb_75 (F1), Sarma624_72 (F1), Savage_66 (CZ2), SeaLumen_78 (F1), Sekhmet_67 (CZ4), ShiLan_75 (F1), Shukran_77 (AY), Sidious_69 (CZ7), SimranZ1_74 (F1), Slim_78 (F1), Sparkdehlily_78 (F1), Sparky_81 (AF), Spartacus_78 (F1), Spikelee_80 (F1), Sproutie_66 (CZ2), Starcevich_74 (F1), StressBall_62 (P1), Stuck_73 (I2), Suerte_62 (CZ4), Suscepit_68 (CZ1), TChen_75 (F4), TDanisky_78 (F1), Tayonia_68 (CZ1), TimTam_72 (CZ1), Trumpet_68 (CZ1), TuertoX_66 (CZ2), VRedHorse_73 (F1), Velveteen_68 (F1), Violac_75 (F1), Whiteclaw_66 (CZ2), Whitty_47 (T), Willsammy_64 (P1), WinkNick_68 (CZ4), Wrigley_74 (CY4), Xavia_64 (P3), Xeno_61 (N), Yeet412_64 (CZ2), Yinzer_66 (CZ2), Zameen_68 (CZ1), ZenTime222_47 (T),

Start 108:
• Found in 50 of 259 ( 19.3% ) of genes in pham
• No Manual Annotations of this start.
• Called 2.0% of time when present
• Phage (with cluster) where this start called: MakCheese_77 (DW),

**Summary by clusters:**

There are 33 clusters represented in this pham: DN, singleton, I2, DH, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, CZ5, AF, DW, P6, CY5, I1, CY4, CY3, P3, CY1, P1, CY7, CY6, P4, F, N, CZ, T, AY, F1, F2, F4, F7,

Info for manual annotations of cluster AF:
•Start number 73 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AY:
•Start number 73 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster CY1:
•Start number 72 was manually annotated 3 times for cluster CY1.
•Start number 73 was manually annotated 6 times for cluster CY1.

Info for manual annotations of cluster CY3:
•Start number 72 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 73 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:
•Start number 63 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:
•Start number 72 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:
•Start number 73 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:
•Start number 73 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 50 was manually annotated 7 times for cluster CZ1.
•Start number 73 was manually annotated 14 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 72 was manually annotated 5 times for cluster CZ2.
•Start number 73 was manually annotated 18 times for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 73 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 50 was manually annotated 1 time for cluster CZ4.
•Start number 73 was manually annotated 7 times for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 73 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:
•Start number 73 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ7:
•Start number 73 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DH:

•Start number 73 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:
•Start number 73 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster F:
•Start number 73 was manually annotated 1 time for cluster F.

Info for manual annotations of cluster F1:
•Start number 71 was manually annotated 1 time for cluster F1.
•Start number 73 was manually annotated 70 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 73 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:
•Start number 73 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster F7:
•Start number 73 was manually annotated 1 time for cluster F7.

Info for manual annotations of cluster I1:
•Start number 73 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster I2:
•Start number 73 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster N:
•Start number 68 was manually annotated 1 time for cluster N.
•Start number 69 was manually annotated 1 time for cluster N.
•Start number 70 was manually annotated 12 times for cluster N.
•Start number 71 was manually annotated 31 times for cluster N.
•Start number 73 was manually annotated 2 times for cluster N.

Info for manual annotations of cluster P1:
•Start number 73 was manually annotated 17 times for cluster P1.

Info for manual annotations of cluster P3:
•Start number 73 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:
•Start number 73 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P6:
•Start number 73 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster T:
•Start number 72 was manually annotated 1 time for cluster T.
•Start number 73 was manually annotated 6 times for cluster T.

### *Gene Information:*

Gene: AbbyDaisy_83 Start: 47605, Stop: 48462, Start Num: 73
Candidate Starts for AbbyDaisy_83:
(Start: 73 @47605 has 172 MA's), (84, 47692), (87, 47725), (95, 47770), (101, 47803), (108, 47842), (114, 47872), (141, 48061), (167, 48355), (168, 48367), (172, 48391),

Gene: Aggie_60 Start: 40157, Stop: 41050, Start Num: 71
Candidate Starts for Aggie_60:
(28, 39917), (53, 40055), (Start: 71 @40157 has 32 MA's), (78, 40226), (100, 40346), (110, 40400), (171, 40967),

Gene: Agueybana_73 Start: 47501, Stop: 48382, Start Num: 73
Candidate Starts for Agueybana_73:
(Start: 50 @47375 has 8 MA's), (56, 47414), (60, 47438), (Start: 63 @47453 has 1 MA's), (65, 47462), (Start: 73 @47501 has 172 MA's), (76, 47555), (91, 47636), (101, 47699), (108, 47738), (116, 47777), (120, 47828), (122, 47849), (154, 48134), (164, 48236),

Gene: AlumE_70 Start: 47357, Stop: 48307, Start Num: 73
Candidate Starts for AlumE_70:
(19, 47069), (Start: 50 @47231 has 8 MA's), (60, 47294), (Start: 63 @47309 has 1 MA's), (65, 47318), (Start: 73 @47357 has 172 MA's), (104, 47573), (115, 47624), (116, 47630), (122, 47702), (136, 47819), (161, 48134), (164, 48161), (165, 48188),

Gene: Andies_58 Start: 39602, Stop: 40495, Start Num: 71
Candidate Starts for Andies_58:
(28, 39362), (53, 39500), (Start: 71 @39602 has 32 MA's), (78, 39671), (100, 39791), (110, 39845), (171, 40412),

Gene: Angelique_66 Start: 45818, Stop: 46699, Start Num: 73
Candidate Starts for Angelique_66:
(Start: 50 @45692 has 8 MA's), (55, 45725), (57, 45734), (60, 45755), (Start: 63 @45770 has 1 MA's), (65, 45779), (Start: 73 @45818 has 172 MA's), (76, 45872), (101, 46016), (108, 46055), (116, 46094), (120, 46145), (122, 46166),

Gene: Annalisa_66 Start: 42612, Stop: 43493, Start Num: 73
Candidate Starts for Annalisa_66:
(21, 42333), (42, 42462), (Start: 50 @42486 has 8 MA's), (60, 42549), (Start: 63 @42564 has 1 MA's), (65, 42573), (Start: 73 @42612 has 172 MA's), (76, 42666), (94, 42762), (101, 42810), (108, 42849), (119, 42915), (122, 42960), (164, 43347),

Gene: Antonio_67 Start: 44748, Stop: 45824, Start Num: 50
Candidate Starts for Antonio_67:
(Start: 50 @44748 has 8 MA's), (55, 44781), (60, 44811), (Start: 63 @44826 has 1 MA's), (65, 44835), (Start: 73 @44874 has 172 MA's), (90, 45006), (104, 45090), (115, 45141), (116, 45147), (122, 45219), (161, 45651), (164, 45678), (165, 45705), (177, 45795),

Gene: Attis_65 Start: 43651, Stop: 44541, Start Num: 72
Candidate Starts for Attis_65:
(Start: 72 @43651 has 13 MA's), (84, 43738), (86, 43765), (93, 43789), (99, 43837), (101, 43846), (134, 44050),

Gene: BabeRuth_61 Start: 38268, Stop: 39146, Start Num: 70

Candidate Starts for BabeRuth_61:
(Start: 68 @38262 has 1 MA's), (Start: 70 @38268 has 12 MA's), (84, 38358), (89, 38400), (102, 38469), (105, 38481), (132, 38631), (135, 38658), (148, 38793), (171, 39063),

Gene: Babsiella_64 Start: 40664, Stop: 41602, Start Num: 73
Candidate Starts for Babsiella_64:
(59, 40604), (Start: 73 @40664 has 172 MA's), (80, 40739), (103, 40871), (104, 40880), (109, 40901), (122, 41009), (133, 41093), (136, 41126), (142, 41201), (143, 41216), (151, 41309), (153, 41336), (156, 41357),

Gene: BatStarr_71 Start: 47905, Stop: 48786, Start Num: 73
Candidate Starts for BatStarr_71:
(Start: 50 @47779 has 8 MA's), (57, 47821), (60, 47842), (Start: 63 @47857 has 1 MA's), (65, 47866), (Start: 73 @47905 has 172 MA's), (76, 47959), (91, 48040), (101, 48103), (108, 48142), (116, 48181), (120, 48232), (122, 48253), (154, 48538), (164, 48640),

Gene: BaxterFox_74 Start: 48420, Stop: 49370, Start Num: 73
Candidate Starts for BaxterFox_74:
(Start: 50 @48294 has 8 MA's), (60, 48357), (Start: 63 @48372 has 1 MA's), (Start: 73 @48420 has 172 MA's), (81, 48498), (90, 48552), (104, 48636), (115, 48687), (116, 48693), (122, 48765), (161, 49197), (164, 49224), (165, 49251), (177, 49341),

Gene: Beakin_71 Start: 42319, Stop: 43122, Start Num: 73
Candidate Starts for Beakin_71:
(Start: 73 @42319 has 172 MA's), (91, 42454), (94, 42469), (101, 42517), (107, 42553), (108, 42556), (120, 42646), (122, 42667), (140, 42772),

Gene: Beanstalk_73 Start: 45763, Stop: 46668, Start Num: 73
Candidate Starts for Beanstalk_73:
(Start: 73 @45763 has 172 MA's), (84, 45850), (111, 46000), (120, 46078), (126, 46126), (130, 46141), (132, 46150), (162, 46498),

Gene: BeeGee_74 Start: 46893, Stop: 47891, Start Num: 63
Candidate Starts for BeeGee_74:
(Start: 50 @46815 has 8 MA's), (60, 46878), (Start: 63 @46893 has 1 MA's), (65, 46902), (Start: 73 @46941 has 172 MA's), (115, 47208), (116, 47214), (122, 47286), (136, 47403), (161, 47718), (164, 47745), (177, 47862),

Gene: Bernal13_48 Start: 35076, Stop: 35957, Start Num: 73
Candidate Starts for Bernal13_48:
(53, 34971), (66, 35037), (Start: 73 @35076 has 172 MA's), (85, 35175), (102, 35274), (105, 35286), (152, 35658), (157, 35703), (174, 35889),

Gene: Bialota_66 Start: 46422, Stop: 47498, Start Num: 50
Candidate Starts for Bialota_66:
(19, 46260), (Start: 50 @46422 has 8 MA's), (60, 46485), (Start: 63 @46500 has 1 MA's), (65, 46509), (Start: 73 @46548 has 172 MA's), (104, 46764), (115, 46815), (116, 46821), (122, 46893), (136, 47010), (161, 47325), (164, 47352), (165, 47379),

Gene: BigNuz_63 Start: 41443, Stop: 42339, Start Num: 73
Candidate Starts for BigNuz_63:
(Start: 73 @41443 has 172 MA's), (80, 41518), (91, 41578), (94, 41593), (95, 41608), (101, 41641), (107, 41677), (108, 41680), (142, 41905), (143, 41920), (151, 42040), (153, 42067), (179, 42328),

Gene: Bjanes7_63 Start: 41285, Stop: 42166, Start Num: 73
Candidate Starts for Bjanes7_63:
(Start: 50 @41159 has 8 MA's), (57, 41201), (60, 41222), (Start: 63 @41237 has 1 MA's), (65, 41246), (Start: 73 @41285 has 172 MA's), (76, 41339), (91, 41420), (101, 41483), (108, 41522), (116, 41561), (120, 41612), (122, 41633), (154, 41918), (164, 42020),

Gene: BlueCrab_76 Start: 47486, Stop: 48391, Start Num: 73
Candidate Starts for BlueCrab_76:
(41, 47318), (64, 47435), (Start: 73 @47486 has 172 MA's), (84, 47573), (111, 47723), (120, 47801), (126, 47849), (128, 47852), (130, 47864), (132, 47873), (162, 48221),

Gene: BodEinwohner17_79 Start: 48575, Stop: 49480, Start Num: 73
Candidate Starts for BodEinwohner17_79:
(Start: 73 @48575 has 172 MA's), (84, 48662), (111, 48812), (120, 48890), (126, 48938), (130, 48953), (132, 48962), (162, 49310),

Gene: Boomer_75 Start: 46670, Stop: 47575, Start Num: 73
Candidate Starts for Boomer_75:
(41, 46502), (64, 46619), (Start: 73 @46670 has 172 MA's), (84, 46757), (111, 46907), (120, 46985), (126, 47033), (130, 47048), (155, 47333),

Gene: Bosection6_59 Start: 39206, Stop: 40099, Start Num: 71
Candidate Starts for Bosection6_59:
(28, 38966), (53, 39104), (Start: 71 @39206 has 32 MA's), (78, 39275), (100, 39395), (110, 39449), (171, 40016),

Gene: Bosnia_71 Start: 49075, Stop: 50151, Start Num: 50
Candidate Starts for Bosnia_71:
(12, 48838), (42, 49048), (Start: 50 @49075 has 8 MA's), (55, 49108), (60, 49138), (Start: 63 @49153 has 1 MA's), (Start: 73 @49201 has 172 MA's), (81, 49279), (90, 49333), (104, 49417), (115, 49468), (116, 49474), (122, 49546), (136, 49663), (161, 49978), (164, 50005),

Gene: BoyNamedSue_70 Start: 47357, Stop: 48307, Start Num: 73
Candidate Starts for BoyNamedSue_70:
(19, 47069), (Start: 50 @47231 has 8 MA's), (60, 47294), (Start: 63 @47309 has 1 MA's), (65, 47318), (Start: 73 @47357 has 172 MA's), (104, 47573), (115, 47624), (116, 47630), (122, 47702), (136, 47819), (161, 48134), (164, 48161), (165, 48188),

Gene: Bradissa_68 Start: 47335, Stop: 48228, Start Num: 72
Candidate Starts for Bradissa_68:
(Start: 72 @47335 has 13 MA's), (84, 47422), (86, 47449), (93, 47473), (99, 47521), (101, 47530), (134, 47734), (161, 48055), (164, 48082), (177, 48199),

Gene: BronnyJr_59 Start: 40610, Stop: 41554, Start Num: 73
Candidate Starts for BronnyJr_59:
(26, 40358), (38, 40433), (59, 40550), (Start: 73 @40610 has 172 MA's), (80, 40685), (103, 40817), (104, 40826), (109, 40847), (122, 40955), (133, 41039), (136, 41072), (142, 41147), (143, 41162), (151, 41258), (153, 41285), (179, 41543),

Gene: Brujita_63 Start: 40794, Stop: 41660, Start Num: 73
Candidate Starts for Brujita_63:

(Start: 73 @40794 has 172 MA's), (76, 40848), (80, 40869), (91, 40929), (94, 40944), (95, 40959), (101, 40992), (118, 41088), (122, 41142), (142, 41256), (143, 41271), (151, 41367), (153, 41394), (156, 41415), (169, 41565),

Gene: Bunnies_68 Start: 42545, Stop: 43414, Start Num: 73
Candidate Starts for Bunnies_68:
(Start: 73 @42545 has 172 MA's), (76, 42599), (80, 42620), (91, 42680), (94, 42695), (95, 42710), (101, 42743), (116, 42821), (118, 42839), (122, 42893), (142, 43007), (143, 43022), (147, 43043), (151, 43121), (153, 43148),

Gene: Butters_60 Start: 37566, Stop: 38435, Start Num: 70
Candidate Starts for Butters_60:
(24, 37308), (36, 37386), (Start: 68 @37560 has 1 MA's), (Start: 70 @37566 has 12 MA's), (89, 37698), (102, 37767), (105, 37779), (148, 38082), (171, 38352),

Gene: BuzzLyseyear_80 Start: 48620, Stop: 49525, Start Num: 73
Candidate Starts for BuzzLyseyear_80:
(Start: 50 @48485 has 8 MA's), (64, 48569), (Start: 73 @48620 has 172 MA's), (84, 48707), (111, 48857), (120, 48935), (126, 48983), (130, 48998), (132, 49007), (162, 49355),

Gene: CactusJack_63 Start: 41413, Stop: 42285, Start Num: 73
Candidate Starts for CactusJack_63:
(Start: 73 @41413 has 172 MA's), (76, 41467), (80, 41488), (91, 41548), (94, 41563), (95, 41578), (101, 41611), (116, 41689), (118, 41707), (122, 41761), (142, 41875), (143, 41890), (147, 41911), (151, 41989), (153, 42016), (179, 42274),

Gene: CaptainTrips_72 Start: 45876, Stop: 46781, Start Num: 73
Candidate Starts for CaptainTrips_72:
(Start: 73 @45876 has 172 MA's), (84, 45963), (111, 46113), (120, 46191), (126, 46239), (130, 46254), (132, 46263), (155, 46539),

Gene: Carcharodon_64 Start: 39504, Stop: 40397, Start Num: 71
Candidate Starts for Carcharodon_64:
(28, 39264), (53, 39402), (Start: 71 @39504 has 32 MA's), (78, 39573), (100, 39693), (110, 39747), (171, 40314),

Gene: Cashline_69 Start: 48024, Stop: 48923, Start Num: 72
Candidate Starts for Cashline_69:
(39, 47856), (Start: 72 @48024 has 13 MA's), (77, 48090), (84, 48114), (93, 48165), (106, 48252), (108, 48267), (122, 48378), (145, 48552), (173, 48858),

Gene: Charlie_61 Start: 38830, Stop: 39723, Start Num: 71
Candidate Starts for Charlie_61:
(28, 38590), (53, 38728), (Start: 71 @38830 has 32 MA's), (78, 38899), (100, 39019), (110, 39073), (171, 39640),

Gene: Che8_78 Start: 46685, Stop: 47590, Start Num: 73
Candidate Starts for Che8_78:
(Start: 73 @46685 has 172 MA's), (84, 46772), (111, 46922), (120, 47000), (126, 47048), (130, 47063), (132, 47072), (162, 47420),

Gene: Che9c_72 Start: 50505, Stop: 51371, Start Num: 73
Candidate Starts for Che9c_72:

(Start: 73 @50505 has 172 MA's), (80, 50580), (86, 50619), (91, 50640), (94, 50655), (95, 50670), (101, 50703), (116, 50781), (122, 50853), (142, 50967), (143, 50982), (151, 51078), (153, 51105), (156, 51126), (169, 51276),

Gene: Che9d_85 Start: 46409, Stop: 47314, Start Num: 73
Candidate Starts for Che9d_85:
(Start: 73 @46409 has 172 MA's), (84, 46496), (111, 46646), (120, 46724), (126, 46772), (132, 46796), (162, 47144),

Gene: Cheesepuff_82 Start: 46070, Stop: 46975, Start Num: 73
Candidate Starts for Cheesepuff_82:
(Start: 73 @46070 has 172 MA's), (84, 46157), (111, 46307), (120, 46385), (126, 46433), (130, 46448), (132, 46457), (138, 46538), (155, 46733),

Gene: Chewbacca_67 Start: 39399, Stop: 40292, Start Num: 71
Candidate Starts for Chewbacca_67:
(28, 39159), (53, 39297), (Start: 71 @39399 has 32 MA's), (78, 39468), (100, 39588), (110, 39642), (171, 40209),

Gene: Chubbello_61 Start: 39417, Stop: 40307, Start Num: 73
Candidate Starts for Chubbello_61:
(31, 39186), (59, 39357), (Start: 73 @39417 has 172 MA's), (85, 39519), (86, 39534), (88, 39549), (103, 39630), (121, 39753), (129, 39801), (142, 39903), (143, 39918), (151, 40014), (153, 40041), (156, 40062),

Gene: Clap_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Clap_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Confidence_70 Start: 45341, Stop: 46291, Start Num: 73
Candidate Starts for Confidence_70:
(17, 45041), (19, 45053), (47, 45209), (48, 45212), (Start: 50 @45215 has 8 MA's), (60, 45278), (Start: 63 @45293 has 1 MA's), (65, 45302), (Start: 73 @45341 has 172 MA's), (104, 45557), (115, 45608), (116, 45614), (136, 45803), (161, 46118), (164, 46145), (165, 46172),

Gene: Corium_71 Start: 47337, Stop: 48242, Start Num: 73
Candidate Starts for Corium_71:
(Start: 73 @47337 has 172 MA's), (84, 47424), (111, 47574), (120, 47652), (126, 47700), (130, 47715), (155, 48000),

Gene: Cornucopia_75 Start: 45300, Stop: 46205, Start Num: 73
Candidate Starts for Cornucopia_75:
(Start: 73 @45300 has 172 MA's), (84, 45387), (111, 45537), (120, 45615), (126, 45663), (130, 45678), (132, 45687), (162, 46035),

Gene: Crumble_70 Start: 42909, Stop: 43814, Start Num: 73
Candidate Starts for Crumble_70:
(Start: 73 @42909 has 172 MA's), (84, 42996), (111, 43146), (120, 43224), (130, 43287), (132, 43296), (162, 43644),

Gene: Cubone_67 Start: 40126, Stop: 41019, Start Num: 71

Candidate Starts for Cubone_67:
(3, 39646), (4, 39679), (53, 40024), (Start: 71 @40126 has 32 MA's), (78, 40195), (100, 40315), (110, 40369), (171, 40936),

Gene: Cynthia_66 Start: 41462, Stop: 42343, Start Num: 73
Candidate Starts for Cynthia_66:
(Start: 50 @41336 has 8 MA's), (57, 41378), (60, 41399), (Start: 63 @41414 has 1 MA's), (65, 41423), (Start: 73 @41462 has 172 MA's), (76, 41516), (91, 41597), (101, 41660), (108, 41699), (116, 41738), (120, 41789), (122, 41810), (154, 42095), (164, 42197),

Gene: DaWorst_74 Start: 45649, Stop: 46554, Start Num: 73
Candidate Starts for DaWorst_74:
(Start: 73 @45649 has 172 MA's), (84, 45736), (111, 45886), (120, 45964), (126, 46012), (132, 46036),

Gene: Denise_63 Start: 38261, Stop: 39133, Start Num: 73
Candidate Starts for Denise_63:
(9, 37868), (11, 37895), (Start: 73 @38261 has 172 MA's), (94, 38411), (95, 38426), (101, 38459), (107, 38495), (108, 38498), (154, 38885),

Gene: Dillpickles_73 Start: 44918, Stop: 45868, Start Num: 73
Candidate Starts for Dillpickles_73:
(Start: 50 @44792 has 8 MA's), (55, 44825), (60, 44855), (Start: 63 @44870 has 1 MA's), (65, 44879), (Start: 73 @44918 has 172 MA's), (90, 45050), (104, 45134), (115, 45185), (116, 45191), (122, 45263), (161, 45695), (164, 45722), (165, 45749), (177, 45839),

Gene: DillyDally_51 Start: 33082, Stop: 33858, Start Num: 72
Candidate Starts for DillyDally_51:
(58, 33007), (61, 33016), (Start: 72 @33082 has 13 MA's), (74, 33118), (75, 33130), (83, 33169), (85, 33184), (98, 33256), (112, 33325), (143, 33601), (149, 33697), (158, 33760),

Gene: Dolores_68 Start: 42147, Stop: 43028, Start Num: 73
Candidate Starts for Dolores_68:
(Start: 50 @42021 has 8 MA's), (57, 42063), (60, 42084), (Start: 63 @42099 has 1 MA's), (65, 42108), (Start: 73 @42147 has 172 MA's), (76, 42201), (101, 42345), (108, 42384), (119, 42450), (122, 42495), (154, 42780),

Gene: Donkeykong_77 Start: 47602, Stop: 48507, Start Num: 73
Candidate Starts for Donkeykong_77:
(Start: 73 @47602 has 172 MA's), (84, 47689), (111, 47839), (120, 47917), (126, 47965), (130, 47980), (132, 47989), (162, 48337),

Gene: Donovan_62 Start: 40357, Stop: 41247, Start Num: 73
Candidate Starts for Donovan_62:
(Start: 73 @40357 has 172 MA's), (85, 40459), (86, 40474), (88, 40489), (103, 40570), (121, 40693), (129, 40741), (142, 40843), (143, 40858), (151, 40954), (153, 40981), (156, 41002),

Gene: DosHalletts_76 Start: 47904, Stop: 48809, Start Num: 73
Candidate Starts for DosHalletts_76:
(Start: 73 @47904 has 172 MA's), (84, 47991), (111, 48141), (120, 48219), (126, 48267), (130, 48282), (155, 48567),

Gene: Doug_74 Start: 47529, Stop: 48434, Start Num: 73
Candidate Starts for Doug_74:

(Start: 73 @47529 has 172 MA's), (84, 47616), (111, 47766), (120, 47844), (126, 47892), (130, 47907), (132, 47916), (162, 48264),

Gene: Duplicity_62 Start: 38761, Stop: 39654, Start Num: 71
Candidate Starts for Duplicity_62:
(28, 38521), (46, 38617), (53, 38659), (Start: 71 @38761 has 32 MA's), (78, 38830), (100, 38950), (110, 39004), (171, 39571),

Gene: EGUnicorn_59 Start: 37827, Stop: 38720, Start Num: 71
Candidate Starts for EGUnicorn_59:
(28, 37587), (53, 37725), (Start: 71 @37827 has 32 MA's), (78, 37896), (100, 38016), (110, 38070), (171, 38637),

Gene: EMsquaredA_71 Start: 46386, Stop: 47267, Start Num: 73
Candidate Starts for EMsquaredA_71:
(23, 46119), (Start: 50 @46260 has 8 MA's), (57, 46302), (60, 46323), (Start: 63 @46338 has 1 MA's), (65, 46347), (Start: 73 @46386 has 172 MA's), (76, 46440), (91, 46521), (101, 46584), (108, 46623), (116, 46662), (120, 46713), (122, 46734), (145, 46896), (173, 47202),

Gene: Ebert_69 Start: 41896, Stop: 42777, Start Num: 73
Candidate Starts for Ebert_69:
(Start: 50 @41770 has 8 MA's), (57, 41812), (60, 41833), (Start: 63 @41848 has 1 MA's), (65, 41857), (Start: 73 @41896 has 172 MA's), (76, 41950), (91, 42031), (101, 42094), (108, 42133), (116, 42172), (120, 42223), (122, 42244), (154, 42529), (164, 42631),

Gene: EdnaMode_65 Start: 41503, Stop: 42453, Start Num: 73
Candidate Starts for EdnaMode_65:
(Start: 50 @41377 has 8 MA's), (55, 41410), (60, 41440), (Start: 63 @41455 has 1 MA's), (Start: 73 @41503 has 172 MA's), (90, 41635), (104, 41719), (116, 41776), (136, 41965), (161, 42280), (164, 42307), (165, 42334), (177, 42424),

Gene: Eish_77 Start: 47282, Stop: 48187, Start Num: 73
Candidate Starts for Eish_77:
(Start: 50 @47147 has 8 MA's), (64, 47231), (Start: 73 @47282 has 172 MA's), (84, 47369), (111, 47519), (120, 47597), (126, 47645), (130, 47660), (132, 47669), (162, 48017),

Gene: EmiMonkey_74 Start: 50231, Stop: 51136, Start Num: 73
Candidate Starts for EmiMonkey_74:
(Start: 73 @50231 has 172 MA's), (84, 50318), (111, 50468), (120, 50546), (126, 50594), (130, 50609), (132, 50618), (162, 50966),

Gene: Emma_76 Start: 45662, Stop: 46567, Start Num: 73
Candidate Starts for Emma_76:
(Start: 73 @45662 has 172 MA's), (84, 45749), (111, 45899), (120, 45977), (126, 46025), (130, 46040), (132, 46049), (162, 46397),

Gene: Emmaloid_78 Start: 46400, Stop: 47305, Start Num: 73
Candidate Starts for Emmaloid_78:
(Start: 73 @46400 has 172 MA's), (84, 46487), (111, 46637), (120, 46715), (126, 46763), (130, 46778), (132, 46787), (162, 47135),

Gene: EnalisNailo_67 Start: 46869, Stop: 47759, Start Num: 72
Candidate Starts for EnalisNailo_67:

(Start: 72 @46869 has 13 MA's), (84, 46956), (86, 46983), (93, 47007), (99, 47055), (101, 47064), (134, 47268), (154, 47511), (164, 47613),

Gene: Enzomatic_81 Start: 44343, Stop: 45248, Start Num: 73
Candidate Starts for Enzomatic_81:
(Start: 73 @44343 has 172 MA's), (84, 44430), (111, 44580), (120, 44658), (126, 44706), (130, 44721), (132, 44730), (162, 45078),

Gene: Eradicator_64 Start: 44086, Stop: 44997, Start Num: 73
Candidate Starts for Eradicator_64:
(41, 43918), (64, 44035), (Start: 73 @44086 has 172 MA's), (84, 44173), (111, 44323), (120, 44401), (126, 44449), (130, 44464), (132, 44473), (155, 44749), (175, 44938),

Gene: Estave1_80 Start: 49599, Stop: 50504, Start Num: 73
Candidate Starts for Estave1_80:
(41, 49431), (64, 49548), (Start: 73 @49599 has 172 MA's), (84, 49686), (111, 49836), (120, 49914), (126, 49962), (132, 49986), (162, 50334),

Gene: Etoile_61 Start: 40183, Stop: 41073, Start Num: 73
Candidate Starts for Etoile_61:
(Start: 73 @40183 has 172 MA's), (85, 40285), (86, 40300), (88, 40315), (103, 40396), (121, 40519), (129, 40567), (142, 40669), (143, 40684), (151, 40780), (153, 40807), (156, 40828),

Gene: Eudoria_68 Start: 44748, Stop: 45824, Start Num: 50
Candidate Starts for Eudoria_68:
(Start: 50 @44748 has 8 MA's), (55, 44781), (60, 44811), (Start: 63 @44826 has 1 MA's), (65, 44835), (Start: 73 @44874 has 172 MA's), (90, 45006), (104, 45090), (115, 45141), (116, 45147), (122, 45219), (161, 45651), (164, 45678), (165, 45705), (177, 45795),

Gene: Eviarto_72 Start: 47880, Stop: 48761, Start Num: 73
Candidate Starts for Eviarto_72:
(Start: 50 @47754 has 8 MA's), (57, 47796), (60, 47817), (Start: 63 @47832 has 1 MA's), (65, 47841), (Start: 73 @47880 has 172 MA's), (76, 47934), (91, 48015), (101, 48078), (108, 48117), (116, 48156), (120, 48207), (122, 48228), (154, 48513), (164, 48615),

Gene: Faith5x5_61 Start: 36698, Stop: 37582, Start Num: 73
Candidate Starts for Faith5x5_61:
(Start: 73 @36698 has 172 MA's), (76, 36752), (101, 36896), (108, 36935), (116, 36974), (122, 37046), (154, 37334),

Gene: Fancypants_78 Start: 47897, Stop: 48802, Start Num: 73
Candidate Starts for Fancypants_78:
(Start: 73 @47897 has 172 MA's), (84, 47984), (111, 48134), (120, 48212), (126, 48260), (130, 48275), (132, 48284), (162, 48632),

Gene: Farewell_82 Start: 53367, Stop: 54266, Start Num: 73
Candidate Starts for Farewell_82:
(35, 53160), (37, 53175), (40, 53208), (49, 53241), (64, 53322), (67, 53337), (Start: 73 @53367 has 172 MA's), (80, 53442), (81, 53445), (84, 53454), (90, 53499), (103, 53574), (109, 53604), (114, 53631), (115, 53634), (116, 53640), (122, 53712),

Gene: Fishburne_61 Start: 40183, Stop: 41073, Start Num: 73
Candidate Starts for Fishburne_61:

(Start: 73 @40183 has 172 MA's), (85, 40285), (86, 40300), (88, 40315), (103, 40396), (121, 40519), (129, 40567), (142, 40669), (143, 40684), (151, 40780), (153, 40807), (156, 40828),

Gene: Floral_72 Start: 48274, Stop: 49224, Start Num: 73
Candidate Starts for Floral_72:
(16, 47968), (19, 47986), (42, 48121), (Start: 50 @48148 has 8 MA's), (55, 48181), (57, 48190), (60, 48211), (Start: 63 @48226 has 1 MA's), (65, 48235), (Start: 73 @48274 has 172 MA's), (90, 48406), (104, 48490), (116, 48547), (122, 48619), (161, 49051), (164, 49078), (165, 49105), (177, 49195),

Gene: Frankie_83 Start: 48012, Stop: 48923, Start Num: 73
Candidate Starts for Frankie_83:
(Start: 73 @48012 has 172 MA's), (84, 48099), (111, 48249), (126, 48375), (130, 48390), (155, 48675), (175, 48864),

Gene: FreddyB_82 Start: 47645, Stop: 48550, Start Num: 73
Candidate Starts for FreddyB_82:
(Start: 73 @47645 has 172 MA's), (84, 47732), (111, 47882), (120, 47960), (126, 48008), (130, 48023), (132, 48032), (162, 48380),

Gene: FroggyToad_66 Start: 42746, Stop: 43627, Start Num: 73
Candidate Starts for FroggyToad_66:
(48, 42617), (Start: 50 @42620 has 8 MA's), (60, 42683), (Start: 63 @42698 has 1 MA's), (65, 42707), (Start: 73 @42746 has 172 MA's), (76, 42800), (101, 42944), (108, 42983), (116, 43022), (120, 43073), (122, 43094),

Gene: Fulbright_62 Start: 38198, Stop: 39091, Start Num: 71
Candidate Starts for Fulbright_62:
(28, 37958), (53, 38096), (Start: 71 @38198 has 32 MA's), (78, 38267), (100, 38387), (110, 38441), (171, 39008),

Gene: Galactic_73 Start: 45921, Stop: 46826, Start Num: 73
Candidate Starts for Galactic_73:
(Start: 73 @45921 has 172 MA's), (84, 46008), (111, 46158), (120, 46236), (126, 46284), (130, 46299), (132, 46308), (162, 46656),

Gene: Gavriela_62 Start: 41106, Stop: 41978, Start Num: 73
Candidate Starts for Gavriela_62:
(Start: 73 @41106 has 172 MA's), (76, 41160), (80, 41181), (91, 41241), (94, 41256), (95, 41271), (101, 41304), (116, 41382), (118, 41400), (122, 41454), (142, 41568), (143, 41583), (147, 41604), (151, 41682), (153, 41709), (179, 41967),

Gene: GemG_66 Start: 41468, Stop: 42349, Start Num: 73
Candidate Starts for GemG_66:
(Start: 50 @41342 has 8 MA's), (57, 41384), (60, 41405), (Start: 63 @41420 has 1 MA's), (65, 41429), (Start: 73 @41468 has 172 MA's), (76, 41522), (91, 41603), (101, 41666), (108, 41705), (116, 41744), (120, 41795), (122, 41816), (154, 42101), (164, 42203),

Gene: Gex_65 Start: 39520, Stop: 40413, Start Num: 71
Candidate Starts for Gex_65:
(28, 39280), (53, 39418), (Start: 71 @39520 has 32 MA's), (78, 39589), (100, 39709), (110, 39763), (171, 40330),

Gene: Gizermo_66 Start: 41464, Stop: 42345, Start Num: 73

Candidate Starts for Gizermo_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Glaske_62 Start: 41413, Stop: 42285, Start Num: 73
Candidate Starts for Glaske_62:
(Start: 73 @41413 has 172 MA's), (76, 41467), (80, 41488), (91, 41548), (94, 41563), (95, 41578), (101, 41611), (116, 41689), (118, 41707), (122, 41761), (142, 41875), (143, 41890), (147, 41911), (151, 41989), (153, 42016), (179, 42274),

Gene: Grimmer_80 Start: 46475, Stop: 47380, Start Num: 73
Candidate Starts for Grimmer_80:
(Start: 73 @46475 has 172 MA's), (84, 46562), (111, 46712), (120, 46790), (126, 46838), (130, 46853), (132, 46862), (162, 47210),

Gene: HC_59 Start: 38210, Stop: 39148, Start Num: 73
Candidate Starts for HC_59:
(59, 38150), (Start: 73 @38210 has 172 MA's), (80, 38285), (103, 38417), (104, 38426), (109, 38447), (122, 38555), (133, 38639), (136, 38672), (142, 38747), (143, 38762), (151, 38855), (153, 38882), (156, 38903),

Gene: Hades_74 Start: 44660, Stop: 45565, Start Num: 73
Candidate Starts for Hades_74:
(Start: 73 @44660 has 172 MA's), (84, 44747), (111, 44897), (120, 44975), (126, 45023), (130, 45038), (132, 45047), (155, 45323),

Gene: Haley23_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Haley23_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Hanako_60 Start: 38268, Stop: 39146, Start Num: 70
Candidate Starts for Hanako_60:
(Start: 68 @38262 has 1 MA's), (Start: 70 @38268 has 12 MA's), (84, 38358), (89, 38400), (102, 38469), (105, 38481), (132, 38631), (135, 38658), (148, 38793), (171, 39063),

Gene: Hegedechwinu_75 Start: 45050, Stop: 45955, Start Num: 73
Candidate Starts for Hegedechwinu_75:
(Start: 73 @45050 has 172 MA's), (84, 45137), (111, 45287), (120, 45365), (126, 45413), (130, 45428), (155, 45713),

Gene: Herod_72 Start: 48299, Stop: 49180, Start Num: 73
Candidate Starts for Herod_72:
(Start: 50 @48173 has 8 MA's), (57, 48215), (60, 48236), (Start: 63 @48251 has 1 MA's), (65, 48260), (Start: 73 @48299 has 172 MA's), (76, 48353), (91, 48434), (101, 48497), (108, 48536), (116, 48575), (120, 48626), (122, 48647), (154, 48932), (164, 49034),

Gene: Hugley_70 Start: 48279, Stop: 49160, Start Num: 73
Candidate Starts for Hugley_70:
(Start: 50 @48153 has 8 MA's), (57, 48195), (60, 48216), (Start: 63 @48231 has 1 MA's), (65, 48240), (Start: 73 @48279 has 172 MA's), (76, 48333), (91, 48414), (101, 48477), (108, 48516), (116, 48555),

(120, 48606), (122, 48627), (154, 48912), (164, 49014),

Gene: Ibrahim_48 Start: 35522, Stop: 36403, Start Num: 73
Candidate Starts for Ibrahim_48:
(53, 35417), (66, 35483), (Start: 73 @35522 has 172 MA's), (85, 35621), (102, 35720), (105, 35732), (152, 36104), (157, 36149), (174, 36335),

Gene: Impisi_62 Start: 37861, Stop: 38739, Start Num: 70
Candidate Starts for Impisi_62:
(Start: 68 @37855 has 1 MA's), (Start: 70 @37861 has 12 MA's), (84, 37951), (89, 37993), (102, 38062), (105, 38074), (132, 38224), (135, 38251), (148, 38386), (171, 38656),

Gene: Island3_64 Start: 40794, Stop: 41660, Start Num: 73
Candidate Starts for Island3_64:
(Start: 73 @40794 has 172 MA's), (76, 40848), (80, 40869), (91, 40929), (94, 40944), (95, 40959), (101, 40992), (118, 41088), (122, 41142), (142, 41256), (143, 41271), (151, 41367), (153, 41394), (156, 41415), (169, 41565),

Gene: JCole_63 Start: 40143, Stop: 41015, Start Num: 73
Candidate Starts for JCole_63:
(37, 39945), (Start: 50 @40011 has 8 MA's), (60, 40074), (Start: 63 @40089 has 1 MA's), (65, 40098), (Start: 73 @40143 has 172 MA's), (92, 40281), (95, 40308), (117, 40422), (137, 40560), (139, 40584),

Gene: Jablanski_74 Start: 49403, Stop: 50302, Start Num: 72
Candidate Starts for Jablanski_74:
(32, 49172), (49, 49268), (51, 49271), (54, 49301), (Start: 72 @49403 has 13 MA's), (77, 49469), (84, 49493), (93, 49544), (106, 49631), (108, 49646), (122, 49757), (174, 50246),

Gene: Jalleen_70 Start: 42173, Stop: 43072, Start Num: 72
Candidate Starts for Jalleen_70:
(29, 41960), (39, 42005), (Start: 72 @42173 has 13 MA's), (77, 42239), (84, 42263), (93, 42314), (106, 42401), (108, 42416), (122, 42527), (154, 42824), (164, 42926),

Gene: Jamie19_56 Start: 36936, Stop: 37826, Start Num: 71
Candidate Starts for Jamie19_56:
(65, 36894), (Start: 71 @36936 has 32 MA's), (78, 37005), (84, 37026), (100, 37125), (110, 37179), (124, 37284), (148, 37473), (171, 37743),

Gene: Job42_74 Start: 49242, Stop: 50147, Start Num: 73
Candidate Starts for Job42_74:
(41, 49074), (64, 49191), (Start: 73 @49242 has 172 MA's), (84, 49329), (111, 49479), (120, 49557), (126, 49605), (130, 49620), (132, 49629), (162, 49977),

Gene: Journey_57 Start: 37762, Stop: 38703, Start Num: 73
Candidate Starts for Journey_57:
(1, 37057), (2, 37093), (5, 37327), (6, 37342), (10, 37357), (25, 37501), (59, 37702), (Start: 73 @37762 has 172 MA's), (80, 37837), (103, 37969), (104, 37978), (109, 37999), (122, 38107), (133, 38191), (136, 38224), (142, 38299), (143, 38314), (151, 38410), (153, 38437), (156, 38458),

Gene: Juniper1_72 Start: 45836, Stop: 46741, Start Num: 73
Candidate Starts for Juniper1_72:
(Start: 73 @45836 has 172 MA's), (84, 45923), (111, 46073), (120, 46151), (126, 46199), (130, 46214), (132, 46223), (162, 46571),

Gene: Karhdo_72 Start: 44899, Stop: 45804, Start Num: 73
Candidate Starts for Karhdo_72:
(Start: 73 @44899 has 172 MA's), (84, 44986), (111, 45136), (120, 45214), (126, 45262), (130, 45277), (132, 45286), (162, 45634),

Gene: Kari_62 Start: 40180, Stop: 41070, Start Num: 73
Candidate Starts for Kari_62:
(Start: 73 @40180 has 172 MA's), (85, 40282), (86, 40297), (88, 40312), (103, 40393), (121, 40516), (129, 40564), (142, 40666), (143, 40681), (151, 40777), (153, 40804), (156, 40825),

Gene: Kersh_75 Start: 48085, Stop: 48990, Start Num: 73
Candidate Starts for Kersh_75:
(Start: 73 @48085 has 172 MA's), (84, 48172), (111, 48322), (120, 48400), (126, 48448), (130, 48463), (132, 48472), (162, 48820),

Gene: Kevin1_63 Start: 38051, Stop: 38941, Start Num: 71
Candidate Starts for Kevin1_63:
(65, 38009), (Start: 71 @38051 has 32 MA's), (78, 38120), (84, 38141), (100, 38240), (110, 38294), (124, 38399), (148, 38588), (171, 38858),

Gene: KilKor_63 Start: 42106, Stop: 42978, Start Num: 73
Candidate Starts for KilKor_63:
(Start: 73 @42106 has 172 MA's), (76, 42160), (80, 42181), (91, 42241), (94, 42256), (95, 42271), (101, 42304), (116, 42382), (118, 42400), (122, 42454), (142, 42568), (143, 42583), (147, 42604), (151, 42682), (153, 42709), (179, 42967),

Gene: KingJulian_77 Start: 47337, Stop: 48242, Start Num: 73
Candidate Starts for KingJulian_77:
(Start: 73 @47337 has 172 MA's), (84, 47424), (111, 47574), (120, 47652), (126, 47700), (130, 47715), (155, 48000),

Gene: Kita_69 Start: 44757, Stop: 45833, Start Num: 50
Candidate Starts for Kita_69:
(Start: 50 @44757 has 8 MA's), (55, 44790), (60, 44820), (Start: 63 @44835 has 1 MA's), (65, 44844), (Start: 73 @44883 has 172 MA's), (90, 45015), (104, 45099), (115, 45150), (116, 45156), (122, 45228), (161, 45660), (164, 45687), (165, 45714), (177, 45804),

Gene: Ksquared_66 Start: 42422, Stop: 43291, Start Num: 73
Candidate Starts for Ksquared_66:
(Start: 73 @42422 has 172 MA's), (76, 42476), (80, 42497), (91, 42557), (94, 42572), (95, 42587), (101, 42620), (116, 42698), (118, 42716), (122, 42770), (142, 42884), (143, 42899), (147, 42920), (151, 42998), (153, 43025),

Gene: Lamberg_62 Start: 39973, Stop: 40854, Start Num: 73
Candidate Starts for Lamberg_62:
(Start: 50 @39847 has 8 MA's), (57, 39889), (60, 39910), (Start: 63 @39925 has 1 MA's), (65, 39934), (Start: 73 @39973 has 172 MA's), (76, 40027), (91, 40108), (101, 40171), (108, 40210), (116, 40249), (120, 40300), (122, 40321), (154, 40606), (164, 40708),

Gene: Langerak_62 Start: 40160, Stop: 41050, Start Num: 73
Candidate Starts for Langerak_62:

(Start: 73 @40160 has 172 MA's), (85, 40262), (86, 40277), (88, 40292), (103, 40373), (121, 40496), (129, 40544), (142, 40646), (143, 40661), (151, 40757), (153, 40784), (156, 40805),

Gene: LilMoolah_72 Start: 46239, Stop: 47144, Start Num: 73
Candidate Starts for LilMoolah_72:
(Start: 73 @46239 has 172 MA's), (84, 46326), (111, 46476), (120, 46554), (126, 46602), (130, 46617), (132, 46626), (162, 46974),

Gene: Lilas_68 Start: 48407, Stop: 49297, Start Num: 72
Candidate Starts for Lilas_68:
(Start: 72 @48407 has 13 MA's), (84, 48494), (86, 48521), (93, 48545), (99, 48593), (101, 48602), (134, 48806), (154, 49049), (164, 49151),

Gene: LonelyBoi_69 Start: 48440, Stop: 49390, Start Num: 73
Candidate Starts for LonelyBoi_69:
(Start: 50 @48314 has 8 MA's), (60, 48377), (Start: 63 @48392 has 1 MA's), (65, 48401), (Start: 73 @48440 has 172 MA's), (115, 48707), (116, 48713), (122, 48785), (161, 49217), (164, 49244), (177, 49361),

Gene: LordFarquaad_68 Start: 43632, Stop: 44522, Start Num: 72
Candidate Starts for LordFarquaad_68:
(Start: 72 @43632 has 13 MA's), (84, 43719), (86, 43746), (93, 43770), (99, 43818), (101, 43827), (134, 44031),

Gene: LordVader_78 Start: 46743, Stop: 47675, Start Num: 73
Candidate Starts for LordVader_78:
(33, 46533), (59, 46686), (Start: 73 @46743 has 172 MA's), (80, 46818), (103, 46950), (104, 46959), (109, 46980), (114, 47007), (115, 47010), (116, 47016), (122, 47088), (136, 47205), (142, 47280), (143, 47295), (151, 47388), (153, 47415), (178, 47661),

Gene: Lucky10_63 Start: 39691, Stop: 40488, Start Num: 73
Candidate Starts for Lucky10_63:
(52, 39604), (Start: 73 @39691 has 172 MA's), (76, 39745), (79, 39763), (101, 39889), (108, 39928), (116, 39967), (120, 40018), (122, 40039), (146, 40207),

Gene: LunaBlu_76 Start: 46579, Stop: 47484, Start Num: 73
Candidate Starts for LunaBlu_76:
(Start: 73 @46579 has 172 MA's), (84, 46666), (111, 46816), (120, 46894), (126, 46942), (130, 46957), (132, 46966), (162, 47314),

Gene: LunaStella_73 Start: 46014, Stop: 46916, Start Num: 73
Candidate Starts for LunaStella_73:
(Start: 73 @46014 has 172 MA's), (84, 46101), (111, 46251), (120, 46329), (126, 46377), (130, 46392), (155, 46677),

Gene: Magsby_63 Start: 39466, Stop: 40359, Start Num: 71
Candidate Starts for Magsby_63:
(28, 39226), (53, 39364), (Start: 71 @39466 has 32 MA's), (78, 39535), (100, 39655), (110, 39709), (171, 40276),

Gene: Mahavrat_70 Start: 44044, Stop: 44949, Start Num: 73
Candidate Starts for Mahavrat_70:

(Start: 73 @44044 has 172 MA's), (84, 44131), (111, 44281), (120, 44359), (126, 44407), (130, 44422), (132, 44431), (162, 44779),

Gene: Majeke_65 Start: 40807, Stop: 41697, Start Num: 73
Candidate Starts for Majeke_65:
(Start: 73 @40807 has 172 MA's), (85, 40909), (86, 40924), (88, 40939), (103, 41020), (121, 41143), (129, 41191), (142, 41293), (143, 41308), (151, 41404), (153, 41431), (156, 41452),

Gene: MakCheese_77 Start: 48332, Stop: 48976, Start Num: 108
Candidate Starts for MakCheese_77:
(Start: 50 @47969 has 8 MA's), (60, 48032), (Start: 63 @48047 has 1 MA's), (65, 48056), (Start: 73 @48095 has 172 MA's), (76, 48149), (101, 48293), (108, 48332), (119, 48398), (122, 48443), (154, 48728),

Gene: Malisha_88 Start: 51421, Stop: 52305, Start Num: 73
Candidate Starts for Malisha_88:
(15, 51109), (Start: 73 @51421 has 172 MA's), (76, 51475), (91, 51556), (101, 51619), (108, 51658), (116, 51697), (120, 51748), (122, 51769), (154, 52057),

Gene: Manasvini_70 Start: 44898, Stop: 45848, Start Num: 73
Candidate Starts for Manasvini_70:
(Start: 50 @44772 has 8 MA's), (55, 44805), (60, 44835), (Start: 63 @44850 has 1 MA's), (65, 44859), (Start: 73 @44898 has 172 MA's), (90, 45030), (104, 45114), (115, 45165), (116, 45171), (122, 45243), (161, 45675), (164, 45702), (165, 45729), (177, 45819),

Gene: Mangethe_65 Start: 40807, Stop: 41697, Start Num: 73
Candidate Starts for Mangethe_65:
(Start: 73 @40807 has 172 MA's), (85, 40909), (86, 40924), (88, 40939), (103, 41020), (121, 41143), (129, 41191), (142, 41293), (143, 41308), (151, 41404), (153, 41431), (156, 41452),

Gene: Mantra_71 Start: 45873, Stop: 46778, Start Num: 73
Candidate Starts for Mantra_71:
(Start: 73 @45873 has 172 MA's), (84, 45960), (111, 46110), (120, 46188), (126, 46236), (130, 46251), (132, 46260), (162, 46608),

Gene: Marteena_70 Start: 46386, Stop: 47267, Start Num: 73
Candidate Starts for Marteena_70:
(23, 46119), (Start: 50 @46260 has 8 MA's), (57, 46302), (60, 46323), (Start: 63 @46338 has 1 MA's), (65, 46347), (Start: 73 @46386 has 172 MA's), (76, 46440), (91, 46521), (101, 46584), (108, 46623), (116, 46662), (120, 46713), (122, 46734), (145, 46896), (173, 47202),

Gene: Matteo_60 Start: 39987, Stop: 40886, Start Num: 72
Candidate Starts for Matteo_60:
(29, 39774), (39, 39819), (Start: 72 @39987 has 13 MA's), (77, 40053), (84, 40077), (93, 40128), (106, 40215), (108, 40230), (122, 40341), (154, 40638), (164, 40740),

Gene: Mcklovin_68 Start: 48730, Stop: 49602, Start Num: 73
Candidate Starts for Mcklovin_68:
(48, 48607), (Start: 50 @48610 has 8 MA's), (57, 48652), (60, 48673), (Start: 63 @48688 has 1 MA's), (65, 48697), (Start: 73 @48730 has 172 MA's), (94, 48880), (107, 48964), (122, 49078), (128, 49096), (154, 49354),

Gene: Melville_69 Start: 39075, Stop: 39968, Start Num: 71

Candidate Starts for Melville_69:
(28, 38835), (53, 38973), (Start: 71 @39075 has 32 MA's), (78, 39144), (100, 39264), (110, 39318), (171, 39885),

Gene: Mendokysei_46 Start: 34624, Stop: 35529, Start Num: 72
Candidate Starts for Mendokysei_46:
(Start: 72 @34624 has 13 MA's), (86, 34741), (100, 34813), (110, 34867), (124, 34972), (174, 35461),

Gene: MichelleMyBell_62 Start: 37899, Stop: 38789, Start Num: 71
Candidate Starts for MichelleMyBell_62:
(65, 37857), (Start: 71 @37899 has 32 MA's), (78, 37968), (84, 37989), (100, 38088), (110, 38142), (124, 38247), (148, 38436), (171, 38706),

Gene: MilleniumForce_74 Start: 46544, Stop: 47449, Start Num: 73
Candidate Starts for MilleniumForce_74:
(41, 46376), (64, 46493), (Start: 73 @46544 has 172 MA's), (84, 46631), (111, 46781), (120, 46859), (126, 46907), (130, 46922), (155, 47207),

Gene: Mocha12_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Mocha12_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Moonbeam_74 Start: 46691, Stop: 47596, Start Num: 73
Candidate Starts for Moonbeam_74:
(Start: 73 @46691 has 172 MA's), (84, 46778), (111, 46928), (120, 47006), (126, 47054), (130, 47069), (132, 47078), (162, 47426),

Gene: MulchSalad_80 Start: 48676, Stop: 49581, Start Num: 73
Candidate Starts for MulchSalad_80:
(Start: 73 @48676 has 172 MA's), (84, 48763), (111, 48913), (126, 49039), (130, 49054), (132, 49063), (155, 49339),

Gene: Mutaforma13_79 Start: 47293, Stop: 48198, Start Num: 73
Candidate Starts for Mutaforma13_79:
(Start: 73 @47293 has 172 MA's), (84, 47380), (111, 47530), (120, 47608), (126, 47656), (130, 47671), (132, 47680),

Gene: Nairb_47 Start: 35076, Stop: 35957, Start Num: 73
Candidate Starts for Nairb_47:
(53, 34971), (66, 35037), (Start: 73 @35076 has 172 MA's), (85, 35175), (102, 35274), (105, 35286), (152, 35658), (157, 35703), (174, 35889),

Gene: Nazo_64 Start: 41628, Stop: 42524, Start Num: 73
Candidate Starts for Nazo_64:
(Start: 73 @41628 has 172 MA's), (80, 41703), (91, 41763), (94, 41778), (95, 41793), (101, 41826), (107, 41862), (108, 41865), (142, 42090), (143, 42105), (151, 42225), (153, 42252), (179, 42513),

Gene: Nenae_61 Start: 38270, Stop: 39148, Start Num: 70
Candidate Starts for Nenae_61:
(Start: 68 @38264 has 1 MA's), (Start: 70 @38270 has 12 MA's), (84, 38360), (89, 38402), (102, 38471), (105, 38483), (132, 38633), (135, 38660), (148, 38795), (171, 39065),

Gene: Neobush_70 Start: 45442, Stop: 46392, Start Num: 73
Candidate Starts for Neobush_70:
(Start: 50 @45316 has 8 MA's), (55, 45349), (60, 45379), (Start: 63 @45394 has 1 MA's), (65, 45403), (Start: 73 @45442 has 172 MA's), (90, 45574), (104, 45658), (115, 45709), (116, 45715), (122, 45787), (161, 46219), (164, 46246), (165, 46273), (177, 46363),

Gene: Nette_49 Start: 34633, Stop: 35538, Start Num: 72
Candidate Starts for Nette_49:
(Start: 72 @34633 has 13 MA's), (86, 34750), (100, 34822), (110, 34876), (124, 34981), (174, 35470),

Gene: Nettuno_63 Start: 40349, Stop: 41299, Start Num: 73
Candidate Starts for Nettuno_63:
(16, 40043), (19, 40061), (42, 40196), (Start: 50 @40223 has 8 MA's), (55, 40256), (60, 40286), (Start: 63 @40301 has 1 MA's), (65, 40310), (Start: 73 @40349 has 172 MA's), (81, 40427), (90, 40481), (104, 40565), (115, 40616), (116, 40622), (136, 40811), (161, 41126), (164, 41153), (165, 41180), (177, 41270),

Gene: NewHope4_74 Start: 44489, Stop: 45394, Start Num: 73
Candidate Starts for NewHope4_74:
(Start: 73 @44489 has 172 MA's), (84, 44576), (111, 44726), (120, 44804), (126, 44852), (130, 44867), (132, 44876), (162, 45224),

Gene: Nitzel_69 Start: 43645, Stop: 44598, Start Num: 71
Candidate Starts for Nitzel_69:
(Start: 71 @43645 has 32 MA's), (78, 43714), (82, 43729), (84, 43735), (96, 43816), (102, 43858), (113, 43912), (123, 44020), (125, 44032), (131, 44068), (150, 44296), (159, 44368), (163, 44437), (178, 44584),

Gene: Nivrat_70 Start: 46112, Stop: 47017, Start Num: 73
Candidate Starts for Nivrat_70:
(Start: 73 @46112 has 172 MA's), (84, 46199), (111, 46349), (120, 46427), (126, 46475), (130, 46490), (132, 46499), (162, 46847),

Gene: Nymphadora_72 Start: 47904, Stop: 48785, Start Num: 73
Candidate Starts for Nymphadora_72:
(Start: 50 @47778 has 8 MA's), (57, 47820), (60, 47841), (Start: 63 @47856 has 1 MA's), (65, 47865), (Start: 73 @47904 has 172 MA's), (76, 47958), (91, 48039), (101, 48102), (108, 48141), (116, 48180), (120, 48231), (122, 48252), (154, 48537), (164, 48639),

Gene: ODay_96 Start: 51151, Stop: 51972, Start Num: 73
Candidate Starts for ODay_96:
(62, 51088), (Start: 73 @51151 has 172 MA's), (86, 51265), (97, 51316), (118, 51421), (144, 51661), (166, 51898),

Gene: Oksu_79 Start: 48039, Stop: 48944, Start Num: 73
Candidate Starts for Oksu_79:
(41, 47871), (64, 47988), (Start: 73 @48039 has 172 MA's), (84, 48126), (111, 48276), (120, 48354), (126, 48402), (130, 48417), (132, 48426), (162, 48774),

Gene: Ovechkin_77 Start: 46874, Stop: 47779, Start Num: 73
Candidate Starts for Ovechkin_77:

(Start: 73 @46874 has 172 MA's), (84, 46961), (111, 47111), (120, 47189), (126, 47237), (130, 47252), (155, 47537),

Gene: OwlsT2W_76 Start: 46405, Stop: 47310, Start Num: 73
Candidate Starts for OwlsT2W_76:
(Start: 73 @46405 has 172 MA's), (84, 46492), (111, 46642), (120, 46720), (126, 46768), (132, 46792), (155, 47068),

Gene: PMC_68 Start: 44894, Stop: 45799, Start Num: 73
Candidate Starts for PMC_68:
(41, 44726), (64, 44843), (Start: 73 @44894 has 172 MA's), (84, 44981), (111, 45131), (120, 45209), (126, 45257), (130, 45272), (155, 45557),

Gene: Pacc40_67 Start: 46139, Stop: 47044, Start Num: 73
Candidate Starts for Pacc40_67:
(Start: 73 @46139 has 172 MA's), (84, 46226), (111, 46376), (120, 46454), (126, 46502), (130, 46517), (132, 46526), (162, 46874),

Gene: PaintedDog_66 Start: 42497, Stop: 43360, Start Num: 73
Candidate Starts for PaintedDog_66:
(18, 42197), (34, 42287), (43, 42350), (44, 42353), (45, 42356), (Start: 73 @42497 has 172 MA's), (76, 42551), (80, 42572), (91, 42632), (94, 42647), (95, 42662), (101, 42695), (118, 42791), (122, 42845), (142, 42959), (143, 42974), (151, 43067), (153, 43094), (156, 43115), (178, 43343),

Gene: Panchino_57 Start: 39053, Stop: 39931, Start Num: 69
Candidate Starts for Panchino_57:
(39, 38876), (Start: 69 @39053 has 1 MA's), (Start: 73 @39059 has 172 MA's), (84, 39149), (88, 39191), (101, 39260), (103, 39272), (127, 39422), (133, 39449), (142, 39533), (143, 39548), (151, 39641), (153, 39668), (156, 39689), (178, 39914),

Gene: PantheRoc_74 Start: 47598, Stop: 48479, Start Num: 73
Candidate Starts for PantheRoc_74:
(Start: 50 @47472 has 8 MA's), (57, 47514), (60, 47535), (Start: 63 @47550 has 1 MA's), (65, 47559), (Start: 73 @47598 has 172 MA's), (76, 47652), (91, 47733), (101, 47796), (108, 47835), (116, 47874), (120, 47925), (122, 47946), (154, 48231), (164, 48333),

Gene: Parmesanjohn_64 Start: 39524, Stop: 40417, Start Num: 71
Candidate Starts for Parmesanjohn_64:
(28, 39284), (53, 39422), (Start: 71 @39524 has 32 MA's), (78, 39593), (100, 39713), (110, 39767), (171, 40334),

Gene: PatoPoderoso_71 Start: 47337, Stop: 48242, Start Num: 73
Candidate Starts for PatoPoderoso_71:
(Start: 73 @47337 has 172 MA's), (84, 47424), (111, 47574), (120, 47652), (126, 47700), (130, 47715), (155, 48000),

Gene: Pepperoni_59 Start: 36710, Stop: 37591, Start Num: 73
Candidate Starts for Pepperoni_59:
(Start: 73 @36710 has 172 MA's), (76, 36764), (101, 36908), (108, 36947), (122, 37058), (154, 37343),

Gene: Peridot_78 Start: 46890, Stop: 47795, Start Num: 73
Candidate Starts for Peridot_78:

(Start: 73 @46890 has 172 MA's), (84, 46977), (111, 47127), (120, 47205), (126, 47253), (130, 47268), (132, 47277), (162, 47625),

Gene: Persistence_74 Start: 43581, Stop: 44438, Start Num: 73
Candidate Starts for Persistence_74:
(58, 43503), (Start: 73 @43581 has 172 MA's), (84, 43668), (86, 43695), (95, 43746), (101, 43779), (107, 43815), (108, 43818), (141, 44037), (167, 44331), (176, 44412),

Gene: Phalm_63 Start: 41404, Stop: 42276, Start Num: 73
Candidate Starts for Phalm_63:
(Start: 73 @41404 has 172 MA's), (76, 41458), (80, 41479), (91, 41539), (94, 41554), (95, 41569), (101, 41602), (116, 41680), (118, 41698), (122, 41752), (142, 41866), (143, 41881), (147, 41902), (151, 41980), (153, 42007), (179, 42265),

Gene: PhancyPhin_61 Start: 38264, Stop: 39142, Start Num: 70
Candidate Starts for PhancyPhin_61:
(Start: 68 @38258 has 1 MA's), (Start: 70 @38264 has 12 MA's), (84, 38354), (89, 38396), (102, 38465), (105, 38477), (132, 38627), (135, 38654), (148, 38789), (171, 39059),

Gene: Phasih_70 Start: 45082, Stop: 45987, Start Num: 73
Candidate Starts for Phasih_70:
(41, 44914), (64, 45031), (Start: 73 @45082 has 172 MA's), (84, 45169), (111, 45319), (120, 45397), (126, 45445), (130, 45460), (132, 45469), (162, 45817),

Gene: Phegasus_65 Start: 40774, Stop: 41664, Start Num: 73
Candidate Starts for Phegasus_65:
(Start: 73 @40774 has 172 MA's), (85, 40876), (86, 40891), (88, 40906), (103, 40987), (121, 41110), (129, 41158), (142, 41260), (143, 41275), (151, 41371), (153, 41398), (156, 41419),

Gene: Philonius_64 Start: 39689, Stop: 40582, Start Num: 71
Candidate Starts for Philonius_64:
(28, 39449), (53, 39587), (Start: 71 @39689 has 32 MA's), (78, 39758), (100, 39878), (110, 39932), (171, 40499),

Gene: PhlipPhlop_75 Start: 50231, Stop: 51136, Start Num: 73
Candidate Starts for PhlipPhlop_75:
(Start: 73 @50231 has 172 MA's), (84, 50318), (111, 50468), (120, 50546), (126, 50594), (130, 50609), (132, 50618), (162, 50966),

Gene: Phloss_62 Start: 38931, Stop: 39824, Start Num: 71
Candidate Starts for Phloss_62:
(28, 38691), (53, 38829), (Start: 71 @38931 has 32 MA's), (78, 39000), (100, 39120), (110, 39174), (171, 39741),

Gene: Phrann_60 Start: 40807, Stop: 41691, Start Num: 68
Candidate Starts for Phrann_60:
(53, 40732), (Start: 68 @40807 has 1 MA's), (Start: 70 @40813 has 12 MA's), (84, 40903), (89, 40945), (102, 41014), (105, 41026), (132, 41176), (135, 41203), (148, 41338), (171, 41608),

Gene: PhriskyACE_64 Start: 42694, Stop: 43641, Start Num: 73
Candidate Starts for PhriskyACE_64:
(Start: 50 @42574 has 8 MA's), (60, 42637), (65, 42661), (Start: 73 @42694 has 172 MA's), (90, 42826), (104, 42910), (115, 42961), (116, 42967), (122, 43039), (136, 43156), (154, 43393), (157,

43405),

Gene: Pickett_63 Start: 40108, Stop: 41058, Start Num: 73
Candidate Starts for Pickett_63:
(Start: 50 @39982 has 8 MA's), (55, 40015), (60, 40045), (Start: 63 @40060 has 1 MA's), (Start: 73 @40108 has 172 MA's), (90, 40240), (104, 40324), (116, 40381), (136, 40570), (161, 40885), (164, 40912), (165, 40939), (177, 41029),

Gene: Pipsqueaks_65 Start: 39502, Stop: 40395, Start Num: 71
Candidate Starts for Pipsqueaks_65:
(28, 39262), (53, 39400), (Start: 71 @39502 has 32 MA's), (78, 39571), (100, 39691), (110, 39745), (171, 40312),

Gene: Plumbus_75 Start: 43831, Stop: 44736, Start Num: 73
Candidate Starts for Plumbus_75:
(41, 43663), (64, 43780), (Start: 73 @43831 has 172 MA's), (84, 43918), (111, 44068), (120, 44146), (126, 44194), (130, 44209), (132, 44218), (155, 44494),

Gene: Pollux_74 Start: 48274, Stop: 49224, Start Num: 73
Candidate Starts for Pollux_74:
(16, 47968), (19, 47986), (42, 48121), (Start: 50 @48148 has 8 MA's), (55, 48181), (57, 48190), (60, 48211), (Start: 63 @48226 has 1 MA's), (65, 48235), (Start: 73 @48274 has 172 MA's), (90, 48406), (104, 48490), (116, 48547), (122, 48619), (161, 49051), (164, 49078), (165, 49105), (177, 49195),

Gene: Polly_65 Start: 44191, Stop: 45267, Start Num: 50
Candidate Starts for Polly_65:
(Start: 50 @44191 has 8 MA's), (55, 44224), (60, 44254), (Start: 63 @44269 has 1 MA's), (65, 44278), (Start: 73 @44317 has 172 MA's), (90, 44449), (104, 44533), (115, 44584), (116, 44590), (122, 44662), (161, 45094), (164, 45121), (165, 45148), (177, 45238),

Gene: Pollywog_74 Start: 47154, Stop: 48059, Start Num: 73
Candidate Starts for Pollywog_74:
(41, 46986), (64, 47103), (Start: 73 @47154 has 172 MA's), (84, 47241), (111, 47391), (120, 47469), (126, 47517), (130, 47532), (132, 47541), (162, 47889),

Gene: Polo2Bam_80 Start: 44343, Stop: 45248, Start Num: 73
Candidate Starts for Polo2Bam_80:
(Start: 73 @44343 has 172 MA's), (84, 44430), (111, 44580), (120, 44658), (126, 44706), (130, 44721), (132, 44730), (162, 45078),

Gene: Posh_72 Start: 48148, Stop: 49098, Start Num: 73
Candidate Starts for Posh_72:
(27, 47902), (Start: 50 @48022 has 8 MA's), (60, 48085), (Start: 63 @48100 has 1 MA's), (65, 48109), (Start: 73 @48148 has 172 MA's), (104, 48364), (115, 48415), (116, 48421), (161, 48925), (164, 48952), (165, 48979),

Gene: Powerball_66 Start: 42677, Stop: 43744, Start Num: 50
Candidate Starts for Powerball_66:
(Start: 50 @42677 has 8 MA's), (60, 42740), (65, 42764), (Start: 73 @42797 has 172 MA's), (90, 42929), (104, 43013), (115, 43064), (116, 43070), (122, 43142), (136, 43259), (154, 43496), (157, 43508),

Gene: Purgamenstris_61 Start: 38268, Stop: 39146, Start Num: 70

Candidate Starts for Purgamenstris_61:
(Start: 68 @38262 has 1 MA's), (Start: 70 @38268 has 12 MA's), (84, 38358), (89, 38400), (102, 38469), (105, 38481), (132, 38631), (135, 38658), (148, 38793), (171, 39063),

Gene: Purky_75 Start: 45874, Stop: 46767, Start Num: 73
Candidate Starts for Purky_75:
(Start: 73 @45874 has 172 MA's), (80, 45949), (86, 45988), (91, 46009), (94, 46024), (95, 46039), (101, 46072), (140, 46336),

Gene: Pytheas_75 Start: 49402, Stop: 50301, Start Num: 72
Candidate Starts for Pytheas_75:
(32, 49171), (49, 49267), (51, 49270), (54, 49300), (Start: 72 @49402 has 13 MA's), (77, 49468), (84, 49492), (93, 49543), (106, 49630), (108, 49645), (122, 49756), (174, 50245),

Gene: Radiance_72 Start: 46899, Stop: 47804, Start Num: 73
Candidate Starts for Radiance_72:
(Start: 73 @46899 has 172 MA's), (84, 46986), (111, 47136), (120, 47214), (126, 47262), (128, 47265), (130, 47277), (132, 47286), (162, 47634),

Gene: Ramsey_77 Start: 48381, Stop: 49286, Start Num: 73
Candidate Starts for Ramsey_77:
(Start: 73 @48381 has 172 MA's), (84, 48468), (111, 48618), (120, 48696), (126, 48744), (130, 48759), (132, 48768), (162, 49116),

Gene: Raymond7_54 Start: 38056, Stop: 38934, Start Num: 70
Candidate Starts for Raymond7_54:
(Start: 68 @38050 has 1 MA's), (Start: 70 @38056 has 12 MA's), (84, 38146), (89, 38188), (102, 38257), (105, 38269), (132, 38419), (135, 38446), (148, 38581), (171, 38851),

Gene: Rebel_58 Start: 36361, Stop: 37251, Start Num: 71
Candidate Starts for Rebel_58:
(Start: 71 @36361 has 32 MA's), (78, 36430), (84, 36451), (100, 36550), (110, 36604), (124, 36709), (148, 36898), (171, 37168),

Gene: Redi_61 Start: 38267, Stop: 39145, Start Num: 70
Candidate Starts for Redi_61:
(Start: 68 @38261 has 1 MA's), (Start: 70 @38267 has 12 MA's), (84, 38357), (89, 38399), (102, 38468), (105, 38480), (132, 38630), (135, 38657), (148, 38792), (171, 39062),

Gene: Rialto_81 Start: 47773, Stop: 48678, Start Num: 73
Candidate Starts for Rialto_81:
(Start: 73 @47773 has 172 MA's), (84, 47860), (111, 48010), (120, 48088), (126, 48136), (130, 48151), (132, 48160), (162, 48508),

Gene: Rockne_72 Start: 44906, Stop: 45811, Start Num: 73
Candidate Starts for Rockne_72:
(41, 44738), (64, 44855), (Start: 73 @44906 has 172 MA's), (84, 44993), (111, 45143), (120, 45221), (126, 45269), (130, 45284), (155, 45569),

Gene: RockyHorror_74 Start: 45465, Stop: 46370, Start Num: 73
Candidate Starts for RockyHorror_74:
(Start: 73 @45465 has 172 MA's), (84, 45552), (111, 45702), (120, 45780), (126, 45828), (130, 45843), (132, 45852), (162, 46200),

Gene: RonRayGun_48 Start: 35522, Stop: 36403, Start Num: 73
Candidate Starts for RonRayGun_48:
(53, 35417), (66, 35483), (Start: 73 @35522 has 172 MA's), (85, 35621), (102, 35720), (105, 35732), (152, 36104), (157, 36149), (174, 36335),

Gene: Royals2015_80 Start: 46425, Stop: 47330, Start Num: 73
Candidate Starts for Royals2015_80:
(41, 46257), (64, 46374), (Start: 73 @46425 has 172 MA's), (84, 46512), (111, 46662), (120, 46740), (126, 46788), (132, 46812), (162, 47160),

Gene: Rubeelu_60 Start: 37566, Stop: 38435, Start Num: 70
Candidate Starts for Rubeelu_60:
(24, 37308), (36, 37386), (Start: 68 @37560 has 1 MA's), (Start: 70 @37566 has 12 MA's), (89, 37698), (102, 37767), (105, 37779), (148, 38082), (171, 38352),

Gene: Sabbb_75 Start: 44060, Stop: 44965, Start Num: 73
Candidate Starts for Sabbb_75:
(Start: 73 @44060 has 172 MA's), (84, 44147), (111, 44297), (120, 44375), (126, 44423), (130, 44438), (132, 44447), (162, 44795),

Gene: Sahara_65 Start: 41267, Stop: 42166, Start Num: 72
Candidate Starts for Sahara_65:
(29, 41054), (39, 41099), (Start: 72 @41267 has 13 MA's), (77, 41333), (84, 41357), (93, 41408), (106, 41495), (108, 41510), (122, 41621), (154, 41918), (164, 42020),

Gene: Sarma624_72 Start: 43039, Stop: 43944, Start Num: 73
Candidate Starts for Sarma624_72:
(Start: 73 @43039 has 172 MA's), (84, 43126), (111, 43276), (120, 43354), (126, 43402), (130, 43417), (132, 43426), (155, 43702),

Gene: Savage_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Savage_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Schnauzer_65 Start: 39524, Stop: 40417, Start Num: 71
Candidate Starts for Schnauzer_65:
(28, 39284), (53, 39422), (Start: 71 @39524 has 32 MA's), (78, 39593), (100, 39713), (110, 39767), (171, 40334),

Gene: Scitech_59 Start: 38927, Stop: 39820, Start Num: 71
Candidate Starts for Scitech_59:
(13, 38576), (14, 38594), (28, 38687), (30, 38690), (53, 38825), (Start: 71 @38927 has 32 MA's), (78, 38996), (100, 39116), (110, 39170), (171, 39737),

Gene: SeaLumen_78 Start: 44343, Stop: 45248, Start Num: 73
Candidate Starts for SeaLumen_78:
(Start: 73 @44343 has 172 MA's), (84, 44430), (111, 44580), (120, 44658), (126, 44706), (130, 44721), (132, 44730), (162, 45078),

Gene: Sekhmet_67 Start: 42546, Stop: 43427, Start Num: 73

Candidate Starts for Sekhmet_67:
(Start: 50 @42420 has 8 MA's), (57, 42462), (60, 42483), (Start: 63 @42498 has 1 MA's), (65, 42507), (Start: 73 @42546 has 172 MA's), (76, 42600), (101, 42744), (108, 42783), (119, 42849), (122, 42894), (154, 43179),

Gene: ShiLan_75 Start: 49014, Stop: 49925, Start Num: 73
Candidate Starts for ShiLan_75:
(Start: 73 @49014 has 172 MA's), (84, 49101), (111, 49251), (120, 49329), (126, 49377), (130, 49392), (132, 49401), (155, 49677), (175, 49866),

Gene: ShrimpFriedEgg_61 Start: 38267, Stop: 39145, Start Num: 70
Candidate Starts for ShrimpFriedEgg_61:
(Start: 68 @38261 has 1 MA's), (Start: 70 @38267 has 12 MA's), (84, 38357), (89, 38399), (102, 38468), (105, 38480), (132, 38630), (135, 38657), (148, 38792), (171, 39062),

Gene: Shukran_77 Start: 44448, Stop: 45305, Start Num: 73
Candidate Starts for Shukran_77:
(Start: 73 @44448 has 172 MA's), (84, 44535), (95, 44613), (101, 44646), (107, 44682), (108, 44685), (141, 44904), (167, 45198), (176, 45279),

Gene: Shweta_59 Start: 38499, Stop: 39377, Start Num: 70
Candidate Starts for Shweta_59:
(7, 38097), (8, 38100), (20, 38217), (22, 38235), (53, 38418), (Start: 68 @38493 has 1 MA's), (Start: 70 @38499 has 12 MA's), (84, 38589), (89, 38631), (102, 38700), (105, 38712), (132, 38862), (135, 38889), (148, 39024), (171, 39294),

Gene: Sidious_69 Start: 47185, Stop: 48066, Start Num: 73
Candidate Starts for Sidious_69:
(19, 46897), (60, 47122), (Start: 63 @47137 has 1 MA's), (65, 47146), (Start: 73 @47185 has 172 MA's), (76, 47239), (101, 47383), (108, 47422), (116, 47461), (120, 47512), (122, 47533),

Gene: Silvafighter_66 Start: 39067, Stop: 39960, Start Num: 71
Candidate Starts for Silvafighter_66:
(28, 38827), (46, 38923), (53, 38965), (Start: 71 @39067 has 32 MA's), (78, 39136), (100, 39256), (110, 39310), (171, 39877),

Gene: Silvy_60 Start: 40157, Stop: 41050, Start Num: 71
Candidate Starts for Silvy_60:
(28, 39917), (53, 40055), (Start: 71 @40157 has 32 MA's), (78, 40226), (100, 40346), (110, 40400), (171, 40967),

Gene: SimranZ1_74 Start: 45498, Stop: 46403, Start Num: 73
Candidate Starts for SimranZ1_74:
(Start: 73 @45498 has 172 MA's), (84, 45585), (111, 45735), (120, 45813), (126, 45861), (130, 45876), (132, 45885), (162, 46233),

Gene: SkinnyPete_61 Start: 39271, Stop: 40164, Start Num: 71
Candidate Starts for SkinnyPete_61:
(28, 39031), (53, 39169), (Start: 71 @39271 has 32 MA's), (78, 39340), (100, 39460), (110, 39514), (171, 40081),

Gene: Slim_78 Start: 46391, Stop: 47296, Start Num: 73
Candidate Starts for Slim_78:

(Start: 73 @46391 has 172 MA's), (84, 46478), (111, 46628), (120, 46706), (126, 46754), (130, 46769), (132, 46778), (162, 47126),

Gene: Smurph_64 Start: 39524, Stop: 40417, Start Num: 71
Candidate Starts for Smurph_64:
(28, 39284), (53, 39422), (Start: 71 @39524 has 32 MA's), (78, 39593), (100, 39713), (110, 39767), (171, 40334),

Gene: Snekmaggedon_56 Start: 36936, Stop: 37826, Start Num: 71
Candidate Starts for Snekmaggedon_56:
(65, 36894), (Start: 71 @36936 has 32 MA's), (78, 37005), (84, 37026), (100, 37125), (110, 37179), (124, 37284), (148, 37473), (171, 37743),

Gene: SoilAssassin_65 Start: 43650, Stop: 44540, Start Num: 72
Candidate Starts for SoilAssassin_65:
(Start: 72 @43650 has 13 MA's), (84, 43737), (86, 43764), (93, 43788), (99, 43836), (101, 43845), (134, 44049),

Gene: Sparkdehlily_78 Start: 44957, Stop: 45868, Start Num: 73
Candidate Starts for Sparkdehlily_78:
(41, 44789), (64, 44906), (Start: 73 @44957 has 172 MA's), (84, 45044), (111, 45194), (120, 45272), (126, 45320), (130, 45335), (132, 45344), (155, 45620), (175, 45809),

Gene: Sparky_81 Start: 54961, Stop: 55860, Start Num: 73
Candidate Starts for Sparky_81:
(35, 54754), (37, 54769), (40, 54802), (49, 54835), (64, 54916), (67, 54931), (Start: 73 @54961 has 172 MA's), (80, 55036), (81, 55039), (84, 55048), (90, 55093), (103, 55168), (109, 55198), (114, 55225), (115, 55228), (116, 55234), (122, 55306),

Gene: Spartacus_78 Start: 48592, Stop: 49497, Start Num: 73
Candidate Starts for Spartacus_78:
(41, 48424), (64, 48541), (Start: 73 @48592 has 172 MA's), (84, 48679), (111, 48829), (120, 48907), (126, 48955), (130, 48970), (132, 48979), (162, 49327),

Gene: Spikelee_80 Start: 48482, Stop: 49387, Start Num: 73
Candidate Starts for Spikelee_80:
(Start: 73 @48482 has 172 MA's), (84, 48569), (111, 48719), (120, 48797), (126, 48845), (130, 48860), (155, 49145),

Gene: Spinach_60 Start: 38267, Stop: 39145, Start Num: 70
Candidate Starts for Spinach_60:
(Start: 68 @38261 has 1 MA's), (Start: 70 @38267 has 12 MA's), (84, 38357), (89, 38399), (102, 38468), (105, 38480), (132, 38630), (135, 38657), (148, 38792), (171, 39062),

Gene: SpongeBob_56 Start: 36936, Stop: 37826, Start Num: 71
Candidate Starts for SpongeBob_56:
(65, 36894), (Start: 71 @36936 has 32 MA's), (78, 37005), (84, 37026), (100, 37125), (110, 37179), (124, 37284), (148, 37473), (171, 37743),

Gene: Sproutie_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Sproutie_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740),

(120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Starcevich_74 Start: 47456, Stop: 48361, Start Num: 73
Candidate Starts for Starcevich_74:
(Start: 73 @47456 has 172 MA's), (84, 47543), (111, 47693), (120, 47771), (126, 47819), (130, 47834), (132, 47843), (155, 48119), (162, 48191),

Gene: StressBall_62 Start: 41106, Stop: 41978, Start Num: 73
Candidate Starts for StressBall_62:
(Start: 73 @41106 has 172 MA's), (76, 41160), (80, 41181), (91, 41241), (94, 41256), (95, 41271), (101, 41304), (116, 41382), (118, 41400), (122, 41454), (142, 41568), (143, 41583), (147, 41604), (151, 41682), (153, 41709), (179, 41967),

Gene: Stuck_73 Start: 48448, Stop: 49338, Start Num: 73
Candidate Starts for Stuck_73:
(Start: 73 @48448 has 172 MA's), (85, 48550), (86, 48565), (88, 48580), (103, 48661), (121, 48784), (129, 48832), (142, 48934), (143, 48949), (151, 49045), (153, 49072), (156, 49093),

Gene: Suerte_62 Start: 42161, Stop: 43042, Start Num: 73
Candidate Starts for Suerte_62:
(21, 41882), (42, 42011), (Start: 50 @42035 has 8 MA's), (60, 42098), (Start: 63 @42113 has 1 MA's), (65, 42122), (Start: 73 @42161 has 172 MA's), (76, 42215), (94, 42311), (101, 42359), (108, 42398), (119, 42464), (122, 42509), (164, 42896),

Gene: Suscepit_68 Start: 44875, Stop: 45825, Start Num: 73
Candidate Starts for Suscepit_68:
(Start: 50 @44749 has 8 MA's), (55, 44782), (60, 44812), (Start: 63 @44827 has 1 MA's), (65, 44836), (Start: 73 @44875 has 172 MA's), (90, 45007), (104, 45091), (115, 45142), (116, 45148), (122, 45220), (161, 45652), (164, 45679), (165, 45706), (177, 45796),

Gene: TChen_75 Start: 47965, Stop: 48867, Start Num: 73
Candidate Starts for TChen_75:
(Start: 73 @47965 has 172 MA's), (84, 48052), (111, 48202), (120, 48280), (126, 48328), (130, 48343), (155, 48628),

Gene: TDanisky_78 Start: 44957, Stop: 45868, Start Num: 73
Candidate Starts for TDanisky_78:
(41, 44789), (64, 44906), (Start: 73 @44957 has 172 MA's), (84, 45044), (111, 45194), (120, 45272), (126, 45320), (130, 45335), (132, 45344), (155, 45620), (175, 45809),

Gene: Tapioca_62 Start: 40041, Stop: 40934, Start Num: 71
Candidate Starts for Tapioca_62:
(28, 39801), (53, 39939), (Start: 71 @40041 has 32 MA's), (78, 40110), (100, 40230), (110, 40284), (171, 40851),

Gene: Tayonia_68 Start: 44874, Stop: 45824, Start Num: 73
Candidate Starts for Tayonia_68:
(Start: 50 @44748 has 8 MA's), (55, 44781), (60, 44811), (Start: 63 @44826 has 1 MA's), (65, 44835), (Start: 73 @44874 has 172 MA's), (90, 45006), (104, 45090), (115, 45141), (116, 45147), (122, 45219), (161, 45651), (164, 45678), (165, 45705), (177, 45795),

Gene: Tessdabest_65 Start: 39658, Stop: 40551, Start Num: 71
Candidate Starts for Tessdabest_65:

(28, 39418), (53, 39556), (Start: 71 @39658 has 32 MA's), (78, 39727), (100, 39847), (110, 39901), (171, 40468),

Gene: TimTam_72 Start: 47904, Stop: 48785, Start Num: 73
Candidate Starts for TimTam_72:
(Start: 50 @47778 has 8 MA's), (57, 47820), (60, 47841), (Start: 63 @47856 has 1 MA's), (65, 47865), (Start: 73 @47904 has 172 MA's), (76, 47958), (91, 48039), (101, 48102), (108, 48141), (116, 48180), (120, 48231), (122, 48252), (154, 48537), (164, 48639),

Gene: Tortoise12_64 Start: 38645, Stop: 39538, Start Num: 71
Candidate Starts for Tortoise12_64:
(28, 38405), (53, 38543), (Start: 71 @38645 has 32 MA's), (78, 38714), (100, 38834), (110, 38888), (171, 39455),

Gene: Trumpet_68 Start: 44875, Stop: 45825, Start Num: 73
Candidate Starts for Trumpet_68:
(Start: 50 @44749 has 8 MA's), (55, 44782), (60, 44812), (Start: 63 @44827 has 1 MA's), (65, 44836), (Start: 73 @44875 has 172 MA's), (90, 45007), (104, 45091), (115, 45142), (116, 45148), (122, 45220), (161, 45652), (164, 45679), (165, 45706), (177, 45796),

Gene: TuertoX_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for TuertoX_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: VRedHorse_73 Start: 44118, Stop: 45023, Start Num: 73
Candidate Starts for VRedHorse_73:
(Start: 73 @44118 has 172 MA's), (84, 44205), (111, 44355), (120, 44433), (126, 44481), (130, 44496), (132, 44505), (162, 44853),

Gene: Velveteen_68 Start: 43039, Stop: 43944, Start Num: 73
Candidate Starts for Velveteen_68:
(Start: 73 @43039 has 172 MA's), (84, 43126), (111, 43276), (120, 43354), (126, 43402), (130, 43417), (132, 43426), (155, 43702),

Gene: Violac_75 Start: 47313, Stop: 48218, Start Num: 73
Candidate Starts for Violac_75:
(Start: 73 @47313 has 172 MA's), (84, 47400), (111, 47550), (120, 47628), (126, 47676), (130, 47691), (132, 47700), (162, 48048),

Gene: Whiteclaw_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Whiteclaw_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Whitty_47 Start: 35077, Stop: 35958, Start Num: 73
Candidate Starts for Whitty_47:
(53, 34972), (66, 35038), (Start: 73 @35077 has 172 MA's), (85, 35176), (102, 35275), (105, 35287), (152, 35659), (157, 35704), (174, 35890),

Gene: Willsammy_64 Start: 41590, Stop: 42462, Start Num: 73

Candidate Starts for Willsammy_64:
(Start: 73 @41590 has 172 MA's), (76, 41644), (80, 41665), (91, 41725), (94, 41740), (95, 41755), (101, 41788), (116, 41866), (118, 41884), (122, 41938), (142, 42052), (143, 42067), (147, 42088), (151, 42166), (153, 42193), (179, 42451),

Gene: WinkNick_68 Start: 42070, Stop: 42951, Start Num: 73
Candidate Starts for WinkNick_68:
(Start: 50 @41944 has 8 MA's), (57, 41986), (60, 42007), (Start: 63 @42022 has 1 MA's), (65, 42031), (Start: 73 @42070 has 172 MA's), (76, 42124), (101, 42268), (108, 42307), (119, 42373), (122, 42418), (154, 42703),

Gene: Wrigley_74 Start: 47731, Stop: 48681, Start Num: 73
Candidate Starts for Wrigley_74:
(27, 47485), (Start: 50 @47605 has 8 MA's), (60, 47668), (Start: 63 @47683 has 1 MA's), (65, 47692), (Start: 73 @47731 has 172 MA's), (104, 47947), (115, 47998), (116, 48004), (161, 48508), (164, 48535), (165, 48562),

Gene: Xavia_64 Start: 45674, Stop: 46540, Start Num: 73
Candidate Starts for Xavia_64:
(Start: 73 @45674 has 172 MA's), (80, 45749), (86, 45788), (91, 45809), (94, 45824), (95, 45839), (101, 45872), (116, 45950), (122, 46022), (142, 46136), (143, 46151), (151, 46247), (153, 46274), (156, 46295), (170, 46451),

Gene: Xeno_61 Start: 38162, Stop: 39100, Start Num: 73
Candidate Starts for Xeno_61:
(59, 38102), (Start: 73 @38162 has 172 MA's), (80, 38237), (103, 38369), (104, 38378), (109, 38399), (122, 38507), (133, 38591), (136, 38624), (142, 38699), (143, 38714), (151, 38807), (153, 38834), (156, 38855), (160, 38903),

Gene: Xerxes_64 Start: 39521, Stop: 40414, Start Num: 71
Candidate Starts for Xerxes_64:
(28, 39281), (53, 39419), (Start: 71 @39521 has 32 MA's), (78, 39590), (100, 39710), (110, 39764), (171, 40331),

Gene: Yeet412_64 Start: 42394, Stop: 43344, Start Num: 73
Candidate Starts for Yeet412_64:
(Start: 50 @42268 has 8 MA's), (55, 42301), (60, 42331), (Start: 63 @42346 has 1 MA's), (Start: 73 @42394 has 172 MA's), (90, 42526), (104, 42610), (116, 42667), (136, 42856), (161, 43171), (164, 43198), (165, 43225), (177, 43315),

Gene: Yinzer_66 Start: 41464, Stop: 42345, Start Num: 73
Candidate Starts for Yinzer_66:
(Start: 50 @41338 has 8 MA's), (57, 41380), (60, 41401), (Start: 63 @41416 has 1 MA's), (65, 41425), (Start: 73 @41464 has 172 MA's), (76, 41518), (91, 41599), (101, 41662), (108, 41701), (116, 41740), (120, 41791), (122, 41812), (154, 42097), (164, 42199),

Gene: Zameen_68 Start: 44874, Stop: 45824, Start Num: 73
Candidate Starts for Zameen_68:
(Start: 50 @44748 has 8 MA's), (55, 44781), (60, 44811), (Start: 63 @44826 has 1 MA's), (65, 44835), (Start: 73 @44874 has 172 MA's), (90, 45006), (104, 45090), (115, 45141), (116, 45147), (122, 45219), (161, 45651), (164, 45678), (165, 45705), (177, 45795),

Gene: ZenTime222_47 Start: 35076, Stop: 35957, Start Num: 73

Candidate Starts for ZenTime222_47:
(53, 34971), (66, 35037), (Start: 73 @35076 has 172 MA's), (85, 35175), (102, 35274), (105, 35286), (152, 35658), (157, 35703), (174, 35889),

Gene: Zirinka_66 Start: 46410, Stop: 47486, Start Num: 50
Candidate Starts for Zirinka_66:
(19, 46248), (Start: 50 @46410 has 8 MA's), (60, 46473), (Start: 63 @46488 has 1 MA's), (65, 46497), (Start: 73 @46536 has 172 MA's), (104, 46752), (115, 46803), (116, 46809), (122, 46881), (136, 46998), (161, 47313), (164, 47340), (165, 47367),