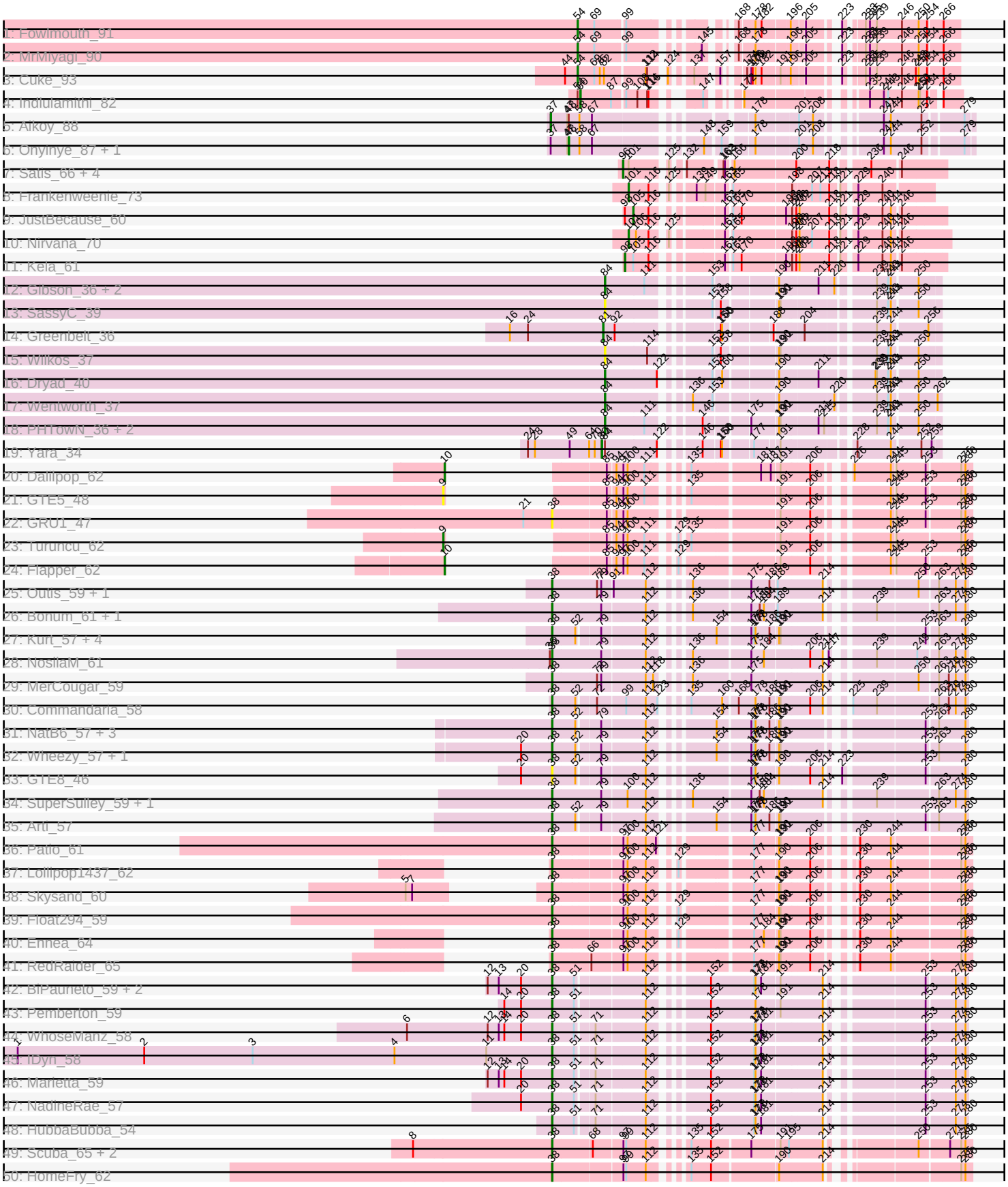
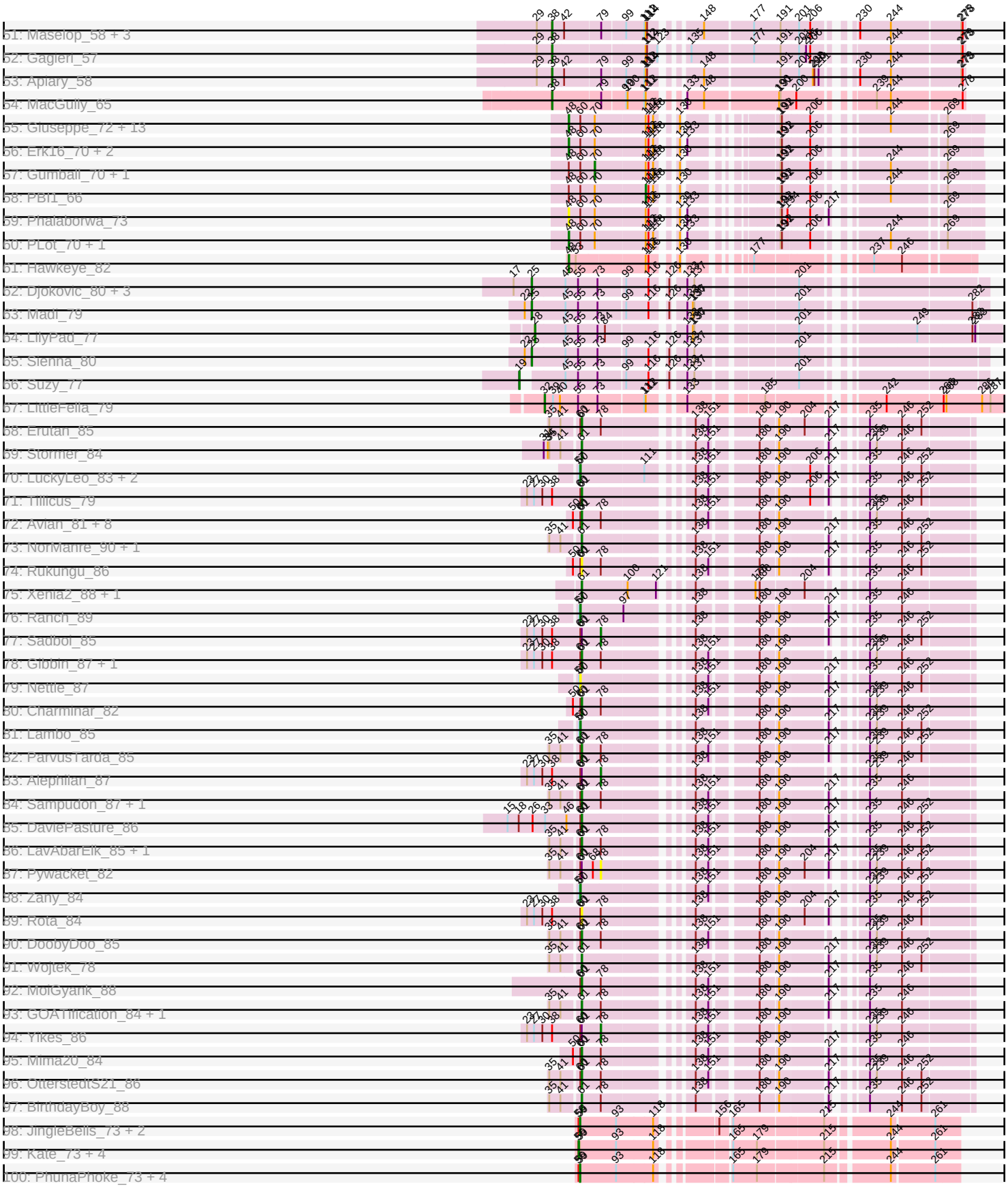
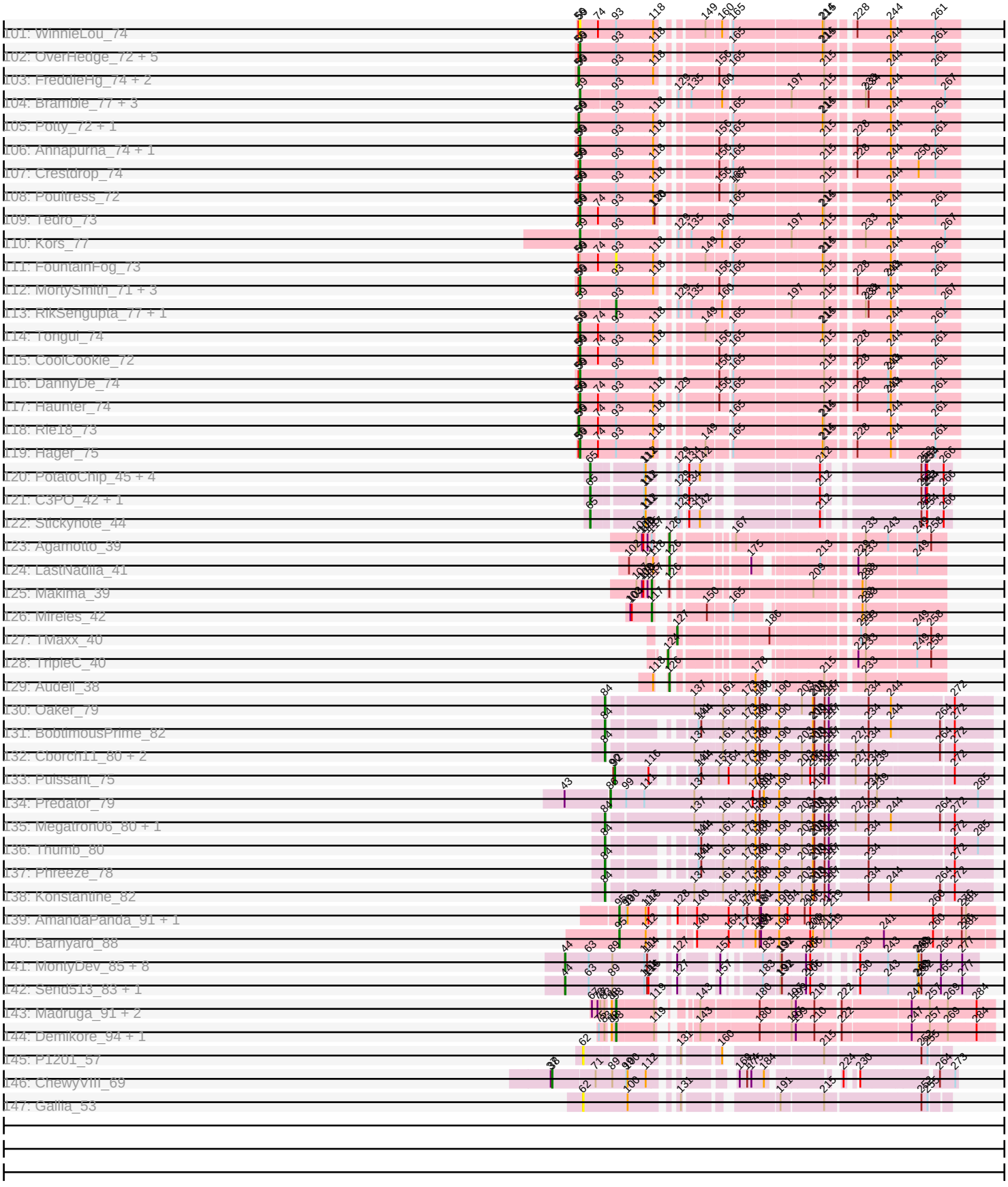
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1: Fowlmouth_91
2: Mmmyagi_90
3: Cuke_93
4: Indulamithi_82
5: Alkoy_88
6: Onyinye_87 + 1
7: Satis_66 + 4
8: Frankenweenie_73
9: JustBecause_60
10: Nirvana_70
11: Kela_61
12: Gibson_36 + 2
13: SassyC_39
14: Greenbelt_36
15: Wilkos_37
16: Dryad_40
17: Wentworth_37
18: PHTowN_36 + 2
19: Yara_34
20: Dallpop_62
21: GTE5_48
22: GRU1_47
23: Turuncu_62
24: Flapper_62
25: Outis_59 + 1
26: Bonum_61 + 1
27: Kuri_57 + 4
28: NosilaM_61
29: MerCougar_59
30: Commandaria_58
31: NatB6_57 + 3
32: Wheezy_57 + 1
33: GTE8_46
34: SuperSulley_59 + 1
35: Arti_57
36: Patio_61
37: Lollipop1437_62
38: Skysand_60
39: Floatz94_59
40: Ennea_64
41: RedRaider_65
42: BiPaulneto_59 + 2
43: Pemberton_59
44: WhoseManz_58
45: iDyn_58
46: Marietta_59
47: NadineRae_57
48: HubbaBubba_54
49: Scuba_65 + 2
50: HomeFry_62

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51: Maselop_58 + 3
52: Gagleri_57
53: Apiary_58
54: MacGully_65
55: Giuseppe_72 + 13
56: Erk16_70 + 2
57: Gumball_70 + 1
58: PBI1_66
59: Phalaborwa_73
60: PLot_70 + 1
61: Hawkeye_82
62: Djokovic_80 + 3
63: Madi_79
64: LilyPad_77
65: Sienna_80
66: Suzy_77
67: LittleFella_79
68: Erutan_85
69: Stormer_84
70: LuckyLeo_83 + 2
71: Tillicus_79
72: Avian_81 + 8
73: NorManre_90 + 1
74: Rukungu_86
75: Xenia2_88 + 1
76: Ranch_89
77: Saaboi_85
78: Gibbin_87 + 1
79: Nettie_87
80: Charminar_82
81: Lambo_85
82: ParvusTarda_85
83: Alephilan_87
84: Sampudon_87 + 1
85: DaviePasture_86
86: LavAbarElk_85 + 1
87: Pywacket_82
88: Zany_84
89: Rota_84
90: DoobyDoo_85
91: Wojtek_78
92: MolGyank_88
93: GOATification_84 + 1
94: Yikes_86
95: Mima20_84
96: OtterstedtS21_86
97: BirthdayBoy_88
98: JingleBells_73 + 2
99: Kate_73 + 4
100: PhunaPhoke_73 + 4

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101: WinnieLou_74
102: OverHedge_72 + 5
103: FreddieHg_74 + 2
104: Bramble_77 + 3
105: Potty_72 + 1
106: Annapurna_74 + 1
107: Crestdrop_74
108: Poultress_72
109: Tedro_73
110: Kors_77
111: FountainFog_73
112: MortySmith_71 + 3
113: RikSengupta_77 + 1
114: Tongui_74
115: CoolCookie_72
116: DannyDe_74
117: Haunter_74
118: Rie18_73
119: Hager_75
120: PotatoChip_45 + 4
121: C3PO_42 + 1
122: Stickynote_44
123: Agamotto_39
124: LastNadila_41
125: Makima_39
126: Mireles_42
127: TMaxx_40
128: TripleC_40
129: Audell_38
130: Oaker_79
131: BobtimousPrime_82
132: Cborch11_80 + 2
133: Pulssant_75
134: Predator_79
135: Megatron06_80 + 1
136: Thumb_80
137: Phreeze_78
138: Konstantine_82
139: AmandaPanda_91 + 1
140: Barnyard_88
141: MontyDev_85 + 8
142: Send513_83 + 1
143: Madruga_91 + 2
144: Demikore_94 + 1
145: P1201_57
146: ChewyVm_69
147: Galla_53

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 347214 Report

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

Pham number 347214 has 257 members, 23 are drafts.

Phages represented in each track:
- Track 1 : Fowlmouth_91
- Track 2 : MrMiyagi_90
- Track 3 : Cuke_93
- Track 4 : Indlulamithi_82
- Track 5 : Aikoy_88
- Track 6 : Onyinye_87, Leopard_87
- Track 7 : Satis_66, EhyElimayoE_66, Quantum_65, Kradal_66, Sarkar_65
- Track 8 : Frankenweenie_73
- Track 9 : JustBecause_60
- Track 10 : Nirvana_70
- Track 11 : Kela_61
- Track 12 : Gibson_36, Rooney_36, Virizion_40
- Track 13 : SassyC_39
- Track 14 : Greenbelt_36
- Track 15 : Wilkos_37
- Track 16 : Dryad_40
- Track 17 : Wentworth_37
- Track 18 : PHTowN_36, Lizz_36, ShakeNBake_36
- Track 19 : Yara_34
- Track 20 : Dalilpop_62
- Track 21 : GTE5_48
- Track 22 : GRU1_47
- Track 23 : Turuncu_62
- Track 24 : Flapper_62
- Track 25 : Outis_59, StarStruck_59
- Track 26 : Bonum_61, Kabluna_61
- Track 27 : Kurt_57, KidneyBean_57, Jifall16_56, Emianna_57, Phomeo_56
- Track 28 : NosilaM_61
- Track 29 : MerCougar_59
- Track 30 : Commandaria_58
- Track 31 : NatB6_57, GrootJr_59, NovumRegina_57, Foxboro_58
- Track 32 : Wheezy_57, Tracker_57
- Track 33 : GTE8_46
- Track 34 : SuperSulley_59, Buggaboo_59
- Track 35 : Arti_57
- Track 36 : Patio_61
- Track 37 : Lollipop1437_62

• Track 38 : Skysand_60
• Track 39 : Float294_59
• Track 40 : Ennea_64
• Track 41 : RedRaider_65
• Track 42 : BiPauneto_59, Sukkupi_58, Yndexa_58
• Track 43 : Pemberton_59
• Track 44 : WhoseManz_58
• Track 45 : IDyn_58
• Track 46 : Marietta_59
• Track 47 : NadineRae_57
• Track 48 : HubbaBubba_54
• Track 49 : Scuba_65, Fury_65, Pleakley_65
• Track 50 : HomeFry_62
• Track 51 : Maselop_58, Braxoaddie_58, CoffeeBean_58, Polyyuki_58
• Track 52 : Gagieri_57
• Track 53 : Apiary_58
• Track 54 : MacGully_65
• Track 55 : Giuseppe_72, Mopey_72, Visconti_71, Adjutor_68, Nova_70, SuperheroCarly_70, Butterscotch_68, Thoth_70, SirHarley_72, Delton_70, BigMama_68, Penelope2018_70, Helpful_73, Prager_71
• Track 56 : Erk16_70, WaldoWhy_72, Chill_72
• Track 57 : Gumball_70, Troll4_70
• Track 58 : PBI1_66
• Track 59 : Phalaborwa_73
• Track 60 : PLot_70, KandZ_68
• Track 61 : Hawkeye_82
• Track 62 : Djokovic_80, Terapin_81, BiteSize_80, Beyoncage_80
• Track 63 : Madi_79
• Track 64 : LilyPad_77
• Track 65 : Sienna_80
• Track 66 : Suzy_77
• Track 67 : LittleFella_79
• Track 68 : Erutan_85
• Track 69 : Stormer_84
• Track 70 : LuckyLeo_83, Apeppi_81, Aaravos_82
• Track 71 : Tillicus_79
• Track 72 : Avian_81, Genamy16_86, Rumi_84, Alyssamiracle_86, Riduram_82, RazorC_83, NovaSharks_85, Jamemuya19_81, Astralis_83
• Track 73 : NorManre_90, Patos_90
• Track 74 : Rukungu_86
• Track 75 : Xenia2_88, DumpTruck_88
• Track 76 : Ranch_89
• Track 77 : Sadboi_85
• Track 78 : Gibbin_87, GretelLyn_85
• Track 79 : Nettle_87
• Track 80 : Charminar_82
• Track 81 : Lambo_85
• Track 82 : ParvusTarda_85
• Track 83 : Alephilan_87
• Track 84 : Sampudon_87, Jalebi_85
• Track 85 : DaviePasture_86
• Track 86 : LavAbarElk_85, Lila22_86
• Track 87 : Pywacket_82

• Track 88 : Zany_84
• Track 89 : Rota_84
• Track 90 : DoobyDoo_85
• Track 91 : Wojtek_78
• Track 92 : MoiGyank_88
• Track 93 : GOATification_84, Fulcrum_84
• Track 94 : Yikes_86
• Track 95 : Mima20_84
• Track 96 : OtterstedtS21_86
• Track 97 : BirthdayBoy_88
• Track 98 : JingleBells_73, JDawG_72, SilentWarrior_74
• Track 99 : Kate_73, AnnaSerena_73, Krampus_73, NarutoRun_73, Anakin_73
• Track 100 : PhunaPhoke_73, SafetyGuy_72, Gilda_73, Karate_72, Rachella_73
• Track 101 : WinnieLou_74
• Track 102 : OverHedge_72, Artiphact_73, Cybele_73, Tiggy93_73, Pharpay_72, OhDear_73
• Track 103 : FreddieHg_74, Chivey_74, Hiddenleaf_74
• Track 104 : Bramble_77, LordBart_77, TinyMiny_77, Ajin_77
• Track 105 : Potty_72, Neptune_73
• Track 106 : Annapurna_74, Aesir_72
• Track 107 : Crestdrop_74
• Track 108 : Poultress_72
• Track 109 : Tedro_73
• Track 110 : Kors_77
• Track 111 : FountainFog_73
• Track 112 : MortySmith_71, Dauntless_72, Erudite_72, Snakehole_74
• Track 113 : RikSengupta_77, Sparcetus_77
• Track 114 : Tongui_74
• Track 115 : CoolCookie_72
• Track 116 : DannyDe_74
• Track 117 : Haunter_74
• Track 118 : Rie18_73
• Track 119 : Hager_75
• Track 120 : PotatoChip_45, Darwin_46, Kimchi1738_42, PeteyPab_44, Zion_45
• Track 121 : C3PO_42, Cruella_42
• Track 122 : Stickynote_44
• Track 123 : Agamotto_39
• Track 124 : LastNadiia_41
• Track 125 : Makima_39
• Track 126 : Mireles_42
• Track 127 : TMaxx_40
• Track 128 : TripleC_40
• Track 129 : Audell_38
• Track 130 : Oaker_79
• Track 131 : BobtimousPrime_82
• Track 132 : Cborch11_80, Damien_79, Nish23_80
• Track 133 : Puissant_75
• Track 134 : Predator_79
• Track 135 : Megatron06_80, Beckerton_78
• Track 136 : Thumb_80
• Track 137 : Phreeze_78
• Track 138 : Konstantine_82
• Track 139 : AmandaPanda_91, DrLupo_91

• Track 140 : Barnyard_88
• Track 141 : MontyDev_85, Papyrus_82, Nilo_86, Gimesa_84, Riparian_85, Candle_81, Weiss13_83, Zenon_85, Yelo_82
• Track 142 : Send513_83, Rope_83
• Track 143 : Madruga_91, Patience_93, SuperSonics_92
• Track 144 : Demikore_94, Labelle_92
• Track 145 : P1201_57
• Track 146 : ChewyVIII_69
• Track 147 : Gallia_53

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

The start number called the most often in the published annotations is 38, it was called in 48 of the 234 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Apiary_58, Arti_57, BiPauneto_59, Bonum_61, Braxoaddie_58, Buggaboo_59, ChewyVIII_69, CoffeeBean_58, Commandaria_58, Emianna_57, Ennea_64, Float294_59, Foxboro_58, Fury_65, GRU1_47, GTE8_46, Gagieri_57, GrootJr_59, HomeFry_62, HubbaBubba_54, IDyn_58, Jifall16_56, Kabluna_61, KidneyBean_57, Kurt_57, Lollipop1437_62, MacGully_65, Marietta_59, Maselop_58, MerCougar_59, NadineRae_57, NatB6_57, NosilaM_61, NovumRegina_57, Outis_59, Patio_61, Pemberton_59, Phomeo_56, Pleakley_65, Polyyuki_58, RedRaider_65, Scuba_65, Skysand_60, StarStruck_59, Sukkupi_58, SuperSulley_59, Tracker_57, Wheezy_57, WhoseManz_58, Yndexa_58,

Genes that have the "Most Annotated" start but do not call it:
• Alephilan_87, Gibbin_87, GretelLyn_85, Rota_84, Sadboi_85, Tillicus_79, Yikes_86,

Genes that do not have the "Most Annotated" start:
• Aaravos_82, Adjutor_68, Aesir_72, Agamotto_39, Aikoy_88, Ajin_77, Alyssamiracle_86, AmandaPanda_91, Anakin_73, AnnaSerena_73, Annapurna_74, Apeppi_81, Artiphact_73, Astralis_83, Audell_38, Avian_81, Barnyard_88, Beckerton_78, Beyoncage_80, BigMama_68, BirthdayBoy_88, BiteSize_80, BobtimousPrime_82, Bramble_77, Butterscotch_68, C3PO_42, Candle_81, Cborch11_80, Charminar_82, Chill_72, Chivey_74, CoolCookie_72, Crestdrop_74, Cruella_42, Cuke_93, Cybele_73, Dalilpop_62, Damien_79, DannyDe_74, Darwin_46, Dauntless_72, DaviePasture_86, Delton_70, Demikore_94, Djokovic_80, DoobyDoo_85, DrLupo_91, Dryad_40, DumpTruck_88, EhyElimayoE_66, Erk16_70, Erudite_72, Erutan_85, Flapper_62, FountainFog_73, Fowlmouth_91, Frankenweenie_73, FreddieHg_74, Fulcrum_84, GOATification_84, GTE5_48, Gallia_53, Genamy16_86, Gibson_36, Gilda_73, Gimesa_84, Giuseppe_72, Greenbelt_36, Gumball_70, Hager_75, Haunter_74, Hawkeye_82, Helpful_73, Hiddenleaf_74, Indlulamithi_82, JDawG_72, Jalebi_85, Jamemuya19_81, JingleBells_73, JustBecause_60, KandZ_68, Karate_72, Kate_73, Kela_61, Kimchi1738_42, Konstantine_82, Kors_77, Kradal_66, Krampus_73, Labelle_92, Lambo_85, LastNadiia_41, LavAbarElk_85, Leopard_87, Lila22_86, LilyPad_77, LittleFella_79, Lizz_36, LordBart_77, LuckyLeo_83, Madi_79, Madruga_91, Makima_39, Megatron06_80, Mima20_84, Mireles_42, MoiGyank_88, MontyDev_85, Mopey_72, MortySmith_71, MrMiyagi_90, NarutoRun_73, Neptune_73, Nettle_87,

Nilo_86, Nirvana_70, Nish23_80, NorManre_90, NovaSharks_85, Nova_70, Oaker_79, OhDear_73, Onyinye_87, OtterstedtS21_86, OverHedge_72, P1201_57, PBI1_66, PHTowN_36, PLot_70, Papyrus_82, ParvusTarda_85, Patience_93, Patos_90, Penelope2018_70, PeteyPab_44, Phalaborwa_73, Pharpay_72, Phreeze_78, PhunaPhoke_73, PotatoChip_45, Potty_72, Poultress_72, Prager_71, Predator_79, Puissant_75, Pywacket_82, Quantum_65, Rachella_73, Ranch_89, RazorC_83, Riduram_82, Rie18_73, RikSengupta_77, Riparian_85, Rooney_36, Rope_83, Rukungu_86, Rumi_84, SafetyGuy_72, Sampudon_87, Sarkar_65, SassyC_39, Satis_66, Send513_83, ShakeNBake_36, Sienna_80, SilentWarrior_74, SirHarley_72, Snakehole_74, Sparcetus_77, Stickynote_44, Stormer_84, SuperSonics_92, SuperheroCarly_70, Suzy_77, TMaxx_40, Tedro_73, Terapin_81, Thoth_70, Thumb_80, Tiggy93_73, TinyMiny_77, Tongui_74, TripleC_40, Troll4_70, Turuncu_62, Virizion_40, Visconti_71, WaldoWhy_72, Weiss13_83, Wentworth_37, Wilkos_37, WinnieLou_74, Wojtek_78, Xenia2_88, Yara_34, Yelo_82, Zany_84, Zenon_85, Zion_45,

Summary by start number:

Start 9:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GTE5_48 (CR1), Turuncu_62 (CR1),

Start 10:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dalilpop_62 (CR1), Flapper_62 (CR1),

Start 19:
• Found in 1 of 257 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Suzy_77 (DG1),

Start 25:
• Found in 6 of 257 (2.3%) of genes in pham
• Manual Annotations of this start: 6 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beyoncage_80 (DG1), BiteSize_80 (DG1), Djokovic_80 (DG1), Madi_79 (DG1), Sienna_80 (DG1), Terapin_81 (DG1),

Start 28:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 50.0% of time when present
• Phage (with cluster) where this start called: LilyPad_77 (DG1),

Start 32:
• Found in 1 of 257 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 100.0% of time when present

• Phage (with cluster) where this start called: LittleFella_79 (DG2),

Start 37:
• Found in 4 of 257 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Aikoy_88 (AE),

Start 38:
• Found in 57 of 257 (22.2%) of genes in pham
• Manual Annotations of this start: 48 of 234
• Called 87.7% of time when present
• Phage (with cluster) where this start called: Apiary_58 (CR6), Arti_57 (CR2), BiPauneto_59 (CR4), Bonum_61 (CR2), Braxoaddie_58 (CR6), Buggaboo_59 (CR2), ChewyVIII_69 (singleton), CoffeeBean_58 (CR6), Commandaria_58 (CR2), Emianna_57 (CR2), Ennea_64 (CR3), Float294_59 (CR3), Foxboro_58 (CR2), Fury_65 (CR5), GRU1_47 (CR1), GTE8_46 (CR2), Gagieri_57 (CR6), GrootJr_59 (CR2), HomeFry_62 (CR5), HubbaBubba_54 (CR4), IDyn_58 (CR4), Jifall16_56 (CR2), Kabluna_61 (CR2), KidneyBean_57 (CR2), Kurt_57 (CR2), Lollipop1437_62 (CR3), MacGully_65 (CR7), Marietta_59 (CR4), Maselop_58 (CR6), MerCougar_59 (CR2), NadineRae_57 (CR4), NatB6_57 (CR2), NosilaM_61 (CR2), NovumRegina_57 (CR2), Outis_59 (CR2), Patio_61 (CR3), Pemberton_59 (CR4), Phomeo_56 (CR2), Pleakley_65 (CR5), Polyyuki_58 (CR6), RedRaider_65 (CR3), Scuba_65 (CR5), Skysand_60 (CR3), StarStruck_59 (CR2), Sukkupi_58 (CR4), SuperSulley_59 (CR2), Tracker_57 (CR2), Wheezy_57 (CR2), WhoseManz_58 (CR4), Yndexa_58 (CR4),

Start 44:
• Found in 12 of 257 (4.7%) of genes in pham
• Manual Annotations of this start: 10 of 234
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Candle_81 (R), Gimesa_84 (R), MontyDev_85 (R), Nilo_86 (R), Papyrus_82 (R), Riparian_85 (R), Rope_83 (R), Send513_83 (R), Weiss13_83 (R), Yelo_82 (R), Zenon_85 (R),

Start 48:
• Found in 27 of 257 (10.5%) of genes in pham
• Manual Annotations of this start: 22 of 234
• Called 85.2% of time when present
• Phage (with cluster) where this start called: Adjutor_68 (D1), BigMama_68 (D1), Butterscotch_68 (D1), Chill_72 (D1), Delton_70 (D1), Erk16_70 (D1), Giuseppe_72 (D1), Hawkeye_82 (D2), Helpful_73 (D1), KandZ_68 (D1), Leopard_87 (AE), Mopey_72 (D1), Nova_70 (D1), Onyinye_87 (AE), PLot_70 (D1), Penelope2018_70 (D1), Phalaborwa_73 (D1), Prager_71 (D1), SirHarley_72 (D1), SuperheroCarly_70 (D1), Thoth_70 (D1), Visconti_71 (D1), WaldoWhy_72 (D1),

Start 54:
• Found in 4 of 257 (1.6%) of genes in pham
• Manual Annotations of this start: 3 of 234
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Cuke_93 (AC), Fowlmouth_91 (AC), MrMiyagi_90 (AC),

Start 56:
• Found in 41 of 257 (16.0%) of genes in pham
• Manual Annotations of this start: 11 of 234
• Called 26.8% of time when present
• Phage (with cluster) where this start called: Anakin_73 (EF), AnnaSerena_73 (EF), Chivey_74 (EF), FreddieHg_74 (EF), Hiddenleaf_74 (EF), Kate_73 (EF), Krampus_73 (EF), NarutoRun_73 (EF), Neptune_73 (EF), Potty_72 (EF), Rie18_73 (EF),

Start 59:
• Found in 48 of 257 (18.7%) of genes in pham
• Manual Annotations of this start: 31 of 234
• Called 70.8% of time when present
• Phage (with cluster) where this start called: Aesir_72 (EF), Ajin_77 (EF), Annapurna_74 (EF), Artiphact_73 (EF), Bramble_77 (EF), CoolCookie_72 (EF), Crestdrop_74 (EF), Cybele_73 (EF), DannyDe_74 (EF), Dauntless_72 (EF), Erudite_72 (EF), Gilda_73 (EF), Hager_75 (EF), Haunter_74 (EF), JDawG_72 (EF), JingleBells_73 (EF), Karate_72 (EF), Kors_77 (EF), LordBart_77 (EF), MortySmith_71 (EF), OhDear_73 (EF), OverHedge_72 (EF), Pharpay_72 (EF), PhunaPhoke_73 (EF), Poultress_72 (EF), Rachella_73 (EF), SafetyGuy_72 (EF), SilentWarrior_74 (EF), Snakehole_74 (EF), Tedro_73 (EF), Tiggy93_73 (EF), TinyMiny_77 (EF), Tongui_74 (EF), WinnieLou_74 (EF),

Start 60:
• Found in 61 of 257 (23.7%) of genes in pham
• Manual Annotations of this start: 6 of 234
• Called 13.1% of time when present
• Phage (with cluster) where this start called: Aaravos_82 (DV), Apeppi_81 (DV), Indlulamithi_82 (AC), Lambo_85 (DV), LuckyLeo_83 (DV), Nettle_87 (DV), Ranch_89 (DV), Zany_84 (DV),

Start 61:
• Found in 39 of 257 (15.2%) of genes in pham
• Manual Annotations of this start: 32 of 234
• Called 89.7% of time when present
• Phage (with cluster) where this start called: Alyssamiracle_86 (DV), Astralis_83 (DV), Avian_81 (DV), BirthdayBoy_88 (DV), Charminar_82 (DV), DaviePasture_86 (DV), DoobyDoo_85 (DV), DumpTruck_88 (DV), Erutan_85 (DV), Fulcrum_84 (DV), GOATification_84 (DV), Genamy16_86 (DV), Gibbin_87 (DV), GretelLyn_85 (DV), Jalebi_85 (DV), Jamemuya19_81 (DV), LavAbarElk_85 (DV), Lila22_86 (DV), Mima20_84 (DV), MoiGyank_88 (DV), NorManre_90 (DV), NovaSharks_85 (DV), OtterstedtS21_86 (DV), ParvusTarda_85 (DV), Patos_90 (DV), RazorC_83 (DV), Riduram_82 (DV), Rota_84 (DV), Rukungu_86 (DV), Rumi_84 (DV), Sampudon_87 (DV), Stormer_84 (DV), Tillicus_79 (DV), Wojtek_78 (DV), Xenia2_88 (DV),

Start 62:
• Found in 2 of 257 (0.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gallia_53 (singleton), P1201_57 (singleton),

Start 65:
• Found in 8 of 257 (3.1%) of genes in pham

• Manual Annotations of this start: 8 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: C3PO_42 (EN), Cruella_42 (EN), Darwin_46 (EN), Kimchi1738_42 (EN), PeteyPab_44 (EN), PotatoChip_45 (EN), Stickynote_44 (EN), Zion_45 (EN),

Start 70:
• Found in 24 of 257 (9.3%) of genes in pham
• Manual Annotations of this start: 2 of 234
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Gumball_70 (D1), Troll4_70 (D1),

Start 78:
• Found in 31 of 257 (12.1%) of genes in pham
• Manual Annotations of this start: 3 of 234
• Called 12.9% of time when present
• Phage (with cluster) where this start called: Alephilan_87 (DV), Pywacket_82 (DV), Sadboi_85 (DV), Yikes_86 (DV),

Start 80:
• Found in 1 of 257 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yara_34 (BN),

Start 81:
• Found in 1 of 257 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Greenbelt_36 (BN),

Start 84:
• Found in 22 of 257 (8.6%) of genes in pham
• Manual Annotations of this start: 16 of 234
• Called 90.9% of time when present
• Phage (with cluster) where this start called: Beckerton_78 (H1), BobtimousPrime_82 (H1), Cborch11_80 (H1), Damien_79 (H1), Dryad_40 (BN), Gibson_36 (BN), Konstantine_82 (H1), Lizz_36 (BN), Megatron06_80 (H1), Nish23_80 (H1), Oaker_79 (H1), PHTowN_36 (BN), Phreeze_78 (H1), Rooney_36 (BN), SassyC_39 (BN), ShakeNBake_36 (BN), Thumb_80 (H1), Virizion_40 (BN), Wentworth_37 (BN), Wilkos_37 (BN),

Start 86:
• Found in 1 of 257 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Predator_79 (H1),

Start 92:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Puissant_75 (H1),

Start 93:
• Found in 53 of 257 (20.6%) of genes in pham
• Manual Annotations of this start: 6 of 234
• Called 15.1% of time when present
• Phage (with cluster) where this start called: Demikore_94 (U), FountainFog_73 (EF), Labelle_92 (U), Madruga_91 (U), Patience_93 (U), RikSengupta_77 (EF), Sparcetus_77 (EF), SuperSonics_92 (U),

Start 95:
• Found in 3 of 257 (1.2%) of genes in pham
• Manual Annotations of this start: 2 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AmandaPanda_91 (H2), Barnyard_88 (H2), DrLupo_91 (H2),

Start 96:
• Found in 5 of 257 (1.9%) of genes in pham
• Manual Annotations of this start: 5 of 234
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EhyElimayoE_66 (BM), Kradal_66 (BM), Quantum_65 (BM), Sarkar_65 (BM), Satis_66 (BM),

Start 98:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Kela_61 (BM),

Start 101:
• Found in 7 of 257 (2.7%) of genes in pham
• Manual Annotations of this start: 2 of 234
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Frankenweenie_73 (BM), Nirvana_70 (BM),

Start 105:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 50.0% of time when present
• Phage (with cluster) where this start called: JustBecause_60 (BM),

Start 112:
• Found in 86 of 257 (33.5%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 1.2% of time when present
• Phage (with cluster) where this start called: PBI1_66 (D1),

Start 117:
• Found in 3 of 257 (1.2%) of genes in pham
• Manual Annotations of this start: 2 of 234
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Makima_39 (FR), Mireles_42 (FR),

Start 124:
• Found in 2 of 257 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 50.0% of time when present
• Phage (with cluster) where this start called: TripleC_40 (FR),

Start 126:
• Found in 11 of 257 (4.3%) of genes in pham
• Manual Annotations of this start: 3 of 234
• Called 27.3% of time when present
• Phage (with cluster) where this start called: Agamotto_39 (FR), Audell_38 (FR), LastNadiia_41 (FR),

Start 127:
• Found in 12 of 257 (4.7%) of genes in pham
• Manual Annotations of this start: 1 of 234
• Called 8.3% of time when present
• Phage (with cluster) where this start called: TMaxx_40 (FR),

Summary by clusters:

There are 24 clusters represented in this pham: FR, BM, BN, singleton, DV, AC, EN, AE, EF, DG2, DG1, U, CR2, CR3, CR1, CR6, CR7, CR4, CR5, H2, H1, R, D2, D1,

Info for manual annotations of cluster AC:
•Start number 54 was manually annotated 3 times for cluster AC.
•Start number 60 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AE:
•Start number 37 was manually annotated 1 time for cluster AE.
•Start number 48 was manually annotated 2 times for cluster AE.

Info for manual annotations of cluster BM:
•Start number 96 was manually annotated 5 times for cluster BM.
•Start number 98 was manually annotated 1 time for cluster BM.
•Start number 101 was manually annotated 2 times for cluster BM.
•Start number 105 was manually annotated 1 time for cluster BM.

Info for manual annotations of cluster BN:
•Start number 80 was manually annotated 1 time for cluster BN.
•Start number 81 was manually annotated 1 time for cluster BN.
•Start number 84 was manually annotated 7 times for cluster BN.

Info for manual annotations of cluster CR1:
•Start number 9 was manually annotated 1 time for cluster CR1.
•Start number 10 was manually annotated 2 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 38 was manually annotated 21 times for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 38 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:
•Start number 38 was manually annotated 9 times for cluster CR4.

Info for manual annotations of cluster CR5:
•Start number 38 was manually annotated 4 times for cluster CR5.

Info for manual annotations of cluster CR6:
•Start number 38 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:
•Start number 38 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster D1:
•Start number 48 was manually annotated 19 times for cluster D1.
•Start number 70 was manually annotated 2 times for cluster D1.
•Start number 112 was manually annotated 1 time for cluster D1.

Info for manual annotations of cluster D2:
•Start number 48 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DG1:
•Start number 19 was manually annotated 1 time for cluster DG1.
•Start number 25 was manually annotated 6 times for cluster DG1.
•Start number 28 was manually annotated 1 time for cluster DG1.

Info for manual annotations of cluster DG2:
•Start number 32 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:
•Start number 60 was manually annotated 5 times for cluster DV.
•Start number 61 was manually annotated 32 times for cluster DV.
•Start number 78 was manually annotated 3 times for cluster DV.

Info for manual annotations of cluster EF:
•Start number 56 was manually annotated 11 times for cluster EF.
•Start number 59 was manually annotated 31 times for cluster EF.
•Start number 93 was manually annotated 2 times for cluster EF.

Info for manual annotations of cluster EN:
•Start number 65 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster FR:
•Start number 117 was manually annotated 2 times for cluster FR.
•Start number 124 was manually annotated 1 time for cluster FR.
•Start number 126 was manually annotated 3 times for cluster FR.
•Start number 127 was manually annotated 1 time for cluster FR.

Info for manual annotations of cluster H1:
•Start number 84 was manually annotated 9 times for cluster H1.
•Start number 86 was manually annotated 1 time for cluster H1.
•Start number 92 was manually annotated 1 time for cluster H1.

Info for manual annotations of cluster H2:
•Start number 95 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster R:
•Start number 44 was manually annotated 10 times for cluster R.

Info for manual annotations of cluster U:
•Start number 93 was manually annotated 4 times for cluster U.

Gene Information:

Gene: Aaravos_82 Start: 57878, Stop: 58552, Start Num: 60
Candidate Starts for Aaravos_82:
(57, 57875), (Start: 60 @57878 has 6 MA's), (111, 58007), (138, 58070), (151, 58097), (180, 58178), (190, 58214), (206, 58274), (217, 58304), (235, 58346), (246, 58412), (252, 58454),

Gene: Adjutor_68 Start: 54806, Stop: 55477, Start Num: 48
Candidate Starts for Adjutor_68:
(Start: 48 @54806 has 22 MA's), (Start: 60 @54827 has 6 MA's), (Start: 70 @54857 has 2 MA's), (Start: 112 @54959 has 1 MA's), (116, 54965), (118, 54974), (130, 54998), (191, 55133), (192, 55136), (206, 55190), (244, 55307), (269, 55406),

Gene: Aesir_72 Start: 51638, Stop: 52348, Start Num: 59
Candidate Starts for Aesir_72:
(Start: 56 @51635 has 11 MA's), (Start: 59 @51638 has 31 MA's), (Start: 93 @51716 has 6 MA's), (118, 51794), (156, 51887), (165, 51908), (215, 52091), (228, 52139), (244, 52211), (261, 52298),

Gene: Agamotto_39 Start: 29625, Stop: 29152, Start Num: 126
Candidate Starts for Agamotto_39:
(107, 29667), (109, 29655), (110, 29652), (115, 29643), (Start: 117 @29634 has 2 MA's), (Start: 126 @29625 has 3 MA's), (167, 29532), (233, 29313), (243, 29265), (249, 29208), (258, 29181),

Gene: Aikoy_88 Start: 61398, Stop: 62117, Start Num: 37
Candidate Starts for Aikoy_88:
(Start: 37 @61398 has 1 MA's), (47, 61434), (Start: 48 @61437 has 22 MA's), (58, 61455), (67, 61479), (178, 61746), (201, 61827), (208, 61857), (241, 61953), (244, 61968), (252, 62031), (279, 62100),

Gene: Ajin_77 Start: 52086, Stop: 52784, Start Num: 59
Candidate Starts for Ajin_77:
(Start: 59 @52086 has 31 MA's), (Start: 93 @52158 has 6 MA's), (129, 52257), (135, 52275), (160, 52335), (197, 52467), (215, 52533), (233, 52596), (234, 52602), (244, 52650), (267, 52752),

Gene: Alephilan_87 Start: 58613, Stop: 59248, Start Num: 78
Candidate Starts for Alephilan_87:
(23, 58460), (27, 58475), (30, 58493), (Start: 38 @58514 has 48 MA's), (Start: 60 @58571 has 6 MA's), (Start: 61 @58574 has 32 MA's), (Start: 78 @58613 has 3 MA's), (138, 58766), (180, 58874), (190, 58910), (235, 59042), (239, 59057), (246, 59108),

Gene: Alyssamiracle_86 Start: 56530, Stop: 57204, Start Num: 61
Candidate Starts for Alyssamiracle_86:

(50, 56515), (Start: 60 @56527 has 6 MA's), (Start: 61 @56530 has 32 MA's), (Start: 78 @56569 has 3 MA's), (138, 56722), (151, 56749), (180, 56830), (190, 56866), (235, 56998), (239, 57013), (246, 57064),

Gene: AmandaPanda_91 Start: 60981, Stop: 61727, Start Num: 95
Candidate Starts for AmandaPanda_91:
(Start: 95 @60981 has 2 MA's), (99, 60996), (100, 60999), (Start: 112 @61038 has 1 MA's), (116, 61044), (128, 61068), (140, 61104), (164, 61170), (171, 61197), (174, 61206), (180, 61233), (181, 61236), (190, 61272), (194, 61290), (204, 61326), (206, 61338), (215, 61368), (219, 61383), (260, 61602), (276, 61656), (281, 61665),

Gene: Anakin_73 Start: 51949, Stop: 52662, Start Num: 56
Candidate Starts for Anakin_73:
(Start: 56 @51949 has 11 MA's), (Start: 59 @51952 has 31 MA's), (Start: 93 @52030 has 6 MA's), (118, 52108), (165, 52222), (179, 52273), (215, 52405), (244, 52525), (261, 52612),

Gene: AnnaSerena_73 Start: 51983, Stop: 52696, Start Num: 56
Candidate Starts for AnnaSerena_73:
(Start: 56 @51983 has 11 MA's), (Start: 59 @51986 has 31 MA's), (Start: 93 @52064 has 6 MA's), (118, 52142), (165, 52256), (179, 52307), (215, 52439), (244, 52559), (261, 52646),

Gene: Annapurna_74 Start: 51541, Stop: 52251, Start Num: 59
Candidate Starts for Annapurna_74:
(Start: 56 @51538 has 11 MA's), (Start: 59 @51541 has 31 MA's), (Start: 93 @51619 has 6 MA's), (118, 51697), (156, 51790), (165, 51811), (215, 51994), (228, 52042), (244, 52114), (261, 52201),

Gene: Apeppi_81 Start: 57772, Stop: 58446, Start Num: 60
Candidate Starts for Apeppi_81:
(57, 57769), (Start: 60 @57772 has 6 MA's), (111, 57901), (138, 57964), (151, 57991), (180, 58072), (190, 58108), (206, 58168), (217, 58198), (235, 58240), (246, 58306), (252, 58348),

Gene: Apiary_58 Start: 42343, Stop: 41603, Start Num: 38
Candidate Starts for Apiary_58:
(29, 42370), (Start: 38 @42343 has 48 MA's), (42, 42319), (79, 42244), (99, 42202), (111, 42163), (Start: 112 @42160 has 1 MA's), (114, 42157), (148, 42082), (191, 41926), (201, 41893), (208, 41863), (210, 41860), (211, 41851), (230, 41815), (244, 41749), (275, 41611), (278, 41608),

Gene: Arti_57 Start: 44353, Stop: 43622, Start Num: 38
Candidate Starts for Arti_57:
(Start: 38 @44353 has 48 MA's), (52, 44305), (79, 44263), (Start: 112 @44176 has 1 MA's), (154, 44071), (175, 44005), (177, 43999), (178, 43996), (186, 43966), (190, 43951), (191, 43948), (253, 43702), (263, 43681), (280, 43627),

Gene: Artiphact_73 Start: 51976, Stop: 52686, Start Num: 59
Candidate Starts for Artiphact_73:
(Start: 56 @51973 has 11 MA's), (Start: 59 @51976 has 31 MA's), (Start: 93 @52054 has 6 MA's), (118, 52132), (165, 52246), (214, 52426), (215, 52429), (244, 52549), (261, 52636),

Gene: Astralis_83 Start: 56109, Stop: 56783, Start Num: 61
Candidate Starts for Astralis_83:
(50, 56094), (Start: 60 @56106 has 6 MA's), (Start: 61 @56109 has 32 MA's), (Start: 78 @56148 has 3 MA's), (138, 56301), (151, 56328), (180, 56409), (190, 56445), (235, 56577), (239, 56592), (246, 56643),

Gene: Audell_38 Start: 29191, Stop: 28739, Start Num: 126
Candidate Starts for Audell_38:
(118, 29197), (Start: 126 @29191 has 3 MA's), (178, 29062), (215, 28957), (233, 28900),

Gene: Avian_81 Start: 56261, Stop: 56935, Start Num: 61
Candidate Starts for Avian_81:
(50, 56246), (Start: 60 @56258 has 6 MA's), (Start: 61 @56261 has 32 MA's), (Start: 78 @56300 has 3 MA's), (138, 56453), (151, 56480), (180, 56561), (190, 56597), (235, 56729), (239, 56744), (246, 56795),

Gene: Barnyard_88 Start: 60764, Stop: 61486, Start Num: 95
Candidate Starts for Barnyard_88:
(Start: 95 @60764 has 2 MA's), (Start: 112 @60818 has 1 MA's), (140, 60872), (164, 60935), (171, 60962), (178, 60989), (180, 60998), (181, 61001), (190, 61037), (206, 61103), (208, 61109), (215, 61133), (219, 61148), (241, 61262), (260, 61367), (276, 61421), (281, 61430),

Gene: Beckerton_78 Start: 59931, Stop: 60683, Start Num: 84
Candidate Starts for Beckerton_78:
(Start: 84 @59931 has 16 MA's), (137, 60102), (161, 60159), (173, 60204), (178, 60225), (180, 60234), (190, 60273), (203, 60315), (208, 60339), (210, 60342), (216, 60363), (217, 60369), (227, 60408), (234, 60435), (244, 60483), (264, 60582), (272, 60606),

Gene: Beyoncage_80 Start: 55697, Stop: 56518, Start Num: 25
Candidate Starts for Beyoncage_80:
(17, 55658), (Start: 25 @55697 has 6 MA's), (45, 55769), (55, 55793), (73, 55835), (99, 55889), (116, 55937), (Start: 126 @55961 has 3 MA's), (133, 55985), (137, 56000), (201, 56186),

Gene: BiPauneto_59 Start: 43866, Stop: 43126, Start Num: 38
Candidate Starts for BiPauneto_59:
(12, 43998), (13, 43974), (20, 43929), (Start: 38 @43866 has 48 MA's), (51, 43821), (Start: 112 @43689 has 1 MA's), (152, 43596), (177, 43503), (178, 43500), (181, 43488), (191, 43452), (214, 43368), (253, 43206), (274, 43152), (280, 43131),

Gene: BigMama_68 Start: 54879, Stop: 55550, Start Num: 48
Candidate Starts for BigMama_68:
(Start: 48 @54879 has 22 MA's), (Start: 60 @54900 has 6 MA's), (Start: 70 @54930 has 2 MA's), (Start: 112 @55032 has 1 MA's), (116, 55038), (118, 55047), (130, 55071), (191, 55206), (192, 55209), (206, 55263), (244, 55380), (269, 55479),

Gene: BirthdayBoy_88 Start: 58563, Stop: 59237, Start Num: 61
Candidate Starts for BirthdayBoy_88:
(35, 58503), (41, 58527), (Start: 61 @58563 has 32 MA's), (Start: 78 @58602 has 3 MA's), (138, 58755), (180, 58863), (190, 58899), (217, 58989), (235, 59031), (246, 59097), (252, 59139),

Gene: BiteSize_80 Start: 55783, Stop: 56604, Start Num: 25
Candidate Starts for BiteSize_80:
(17, 55744), (Start: 25 @55783 has 6 MA's), (45, 55855), (55, 55879), (73, 55921), (99, 55975), (116, 56023), (Start: 126 @56047 has 3 MA's), (133, 56071), (137, 56086), (201, 56272),

Gene: BobtimousPrime_82 Start: 60220, Stop: 60924, Start Num: 84
Candidate Starts for BobtimousPrime_82:

(Start: 84 @60220 has 16 MA's), (141, 60352), (144, 60358), (161, 60400), (173, 60445), (178, 60466), (180, 60475), (190, 60514), (208, 60580), (210, 60583), (216, 60604), (217, 60610), (234, 60676), (244, 60724), (264, 60823), (272, 60847),

Gene: Bonum_61 Start: 45017, Stop: 44271, Start Num: 38
Candidate Starts for Bonum_61:
(Start: 38 @45017 has 48 MA's), (79, 44915), (Start: 112 @44828 has 1 MA's), (136, 44774), (175, 44657), (180, 44639), (184, 44630), (189, 44606), (214, 44516), (239, 44447), (263, 44330), (274, 44297), (280, 44276),

Gene: Bramble_77 Start: 52053, Stop: 52751, Start Num: 59
Candidate Starts for Bramble_77:
(Start: 59 @52053 has 31 MA's), (Start: 93 @52125 has 6 MA's), (129, 52224), (135, 52242), (160, 52302), (197, 52434), (215, 52500), (233, 52563), (234, 52569), (244, 52617), (267, 52719),

Gene: Braxoaddie_58 Start: 42332, Stop: 41592, Start Num: 38
Candidate Starts for Braxoaddie_58:
(29, 42359), (Start: 38 @42332 has 48 MA's), (42, 42308), (79, 42233), (99, 42191), (111, 42152), (Start: 112 @42149 has 1 MA's), (114, 42146), (148, 42071), (177, 41972), (191, 41915), (201, 41882), (206, 41858), (230, 41804), (244, 41738), (275, 41600), (278, 41597),

Gene: Buggaboo_59 Start: 45496, Stop: 44750, Start Num: 38
Candidate Starts for Buggaboo_59:
(Start: 38 @45496 has 48 MA's), (79, 45394), (100, 45346), (Start: 112 @45307 has 1 MA's), (136, 45253), (175, 45136), (180, 45118), (184, 45109), (214, 44995), (239, 44926), (263, 44809), (274, 44776), (280, 44755),

Gene: Butterscotch_68 Start: 54857, Stop: 55528, Start Num: 48
Candidate Starts for Butterscotch_68:
(Start: 48 @54857 has 22 MA's), (Start: 60 @54878 has 6 MA's), (Start: 70 @54908 has 2 MA's), (Start: 112 @55010 has 1 MA's), (116, 55016), (118, 55025), (130, 55049), (191, 55184), (192, 55187), (206, 55241), (244, 55358), (269, 55457),

Gene: C3PO_42 Start: 38653, Stop: 38066, Start Num: 65
Candidate Starts for C3PO_42:
(Start: 65 @38653 has 8 MA's), (111, 38557), (Start: 112 @38554 has 1 MA's), (129, 38527), (134, 38515), (212, 38287), (252, 38122), (253, 38113), (254, 38110), (266, 38083),

Gene: Candle_81 Start: 62723, Stop: 63430, Start Num: 44
Candidate Starts for Candle_81:
(Start: 44 @62723 has 10 MA's), (63, 62774), (89, 62825), (111, 62894), (114, 62900), (Start: 127 @62930 has 1 MA's), (157, 62990), (183, 63038), (191, 63068), (192, 63071), (205, 63122), (206, 63131), (230, 63185), (243, 63242), (249, 63302), (250, 63305), (252, 63311), (265, 63353), (277, 63395),

Gene: Cborch11_80 Start: 59117, Stop: 59869, Start Num: 84
Candidate Starts for Cborch11_80:
(Start: 84 @59117 has 16 MA's), (137, 59288), (161, 59345), (173, 59390), (178, 59411), (180, 59420), (190, 59459), (203, 59501), (208, 59525), (210, 59528), (216, 59549), (217, 59555), (227, 59594), (234, 59621), (264, 59768), (272, 59792),

Gene: Charminar_82 Start: 55769, Stop: 56443, Start Num: 61
Candidate Starts for Charminar_82:

(50, 55754), (Start: 60 @55766 has 6 MA's), (Start: 61 @55769 has 32 MA's), (Start: 78 @55808 has 3 MA's), (138, 55961), (151, 55988), (180, 56069), (190, 56105), (217, 56195), (235, 56237), (239, 56252), (246, 56303),

Gene: ChewyVIII_69 Start: 49815, Stop: 49147, Start Num: 38
Candidate Starts for ChewyVIII_69:
(Start: 37 @49818 has 1 MA's), (Start: 38 @49815 has 48 MA's), (71, 49728), (89, 49692), (99, 49665), (100, 49662), (Start: 112 @49623 has 1 MA's), (169, 49506), (174, 49491), (175, 49482), (184, 49458), (224, 49344), (230, 49332), (264, 49182), (273, 49152),

Gene: Chill_72 Start: 54894, Stop: 55562, Start Num: 48
Candidate Starts for Chill_72:
(Start: 48 @54894 has 22 MA's), (Start: 60 @54915 has 6 MA's), (Start: 70 @54945 has 2 MA's), (Start: 112 @55047 has 1 MA's), (116, 55053), (118, 55062), (130, 55086), (133, 55089), (191, 55221), (192, 55224), (206, 55278), (269, 55494),

Gene: Chivey_74 Start: 51437, Stop: 52150, Start Num: 56
Candidate Starts for Chivey_74:
(Start: 56 @51437 has 11 MA's), (Start: 59 @51440 has 31 MA's), (Start: 93 @51518 has 6 MA's), (118, 51596), (156, 51689), (165, 51710), (215, 51893), (244, 52013), (261, 52100),

Gene: CoffeeBean_58 Start: 42290, Stop: 41550, Start Num: 38
Candidate Starts for CoffeeBean_58:
(29, 42317), (Start: 38 @42290 has 48 MA's), (42, 42266), (79, 42191), (99, 42149), (111, 42110), (Start: 112 @42107 has 1 MA's), (114, 42104), (148, 42029), (177, 41930), (191, 41873), (201, 41840), (206, 41816), (230, 41762), (244, 41696), (275, 41558), (278, 41555),

Gene: Commandaria_58 Start: 45467, Stop: 44736, Start Num: 38
Candidate Starts for Commandaria_58:
(Start: 38 @45467 has 48 MA's), (52, 45419), (72, 45386), (99, 45332), (Start: 112 @45290 has 1 MA's), (123, 45266), (135, 45239), (160, 45173), (168, 45146), (178, 45110), (186, 45080), (190, 45065), (191, 45062), (206, 45005), (214, 44978), (225, 44960), (239, 44912), (263, 44795), (270, 44777), (274, 44762), (280, 44741),

Gene: CoolCookie_72 Start: 52040, Stop: 52750, Start Num: 59
Candidate Starts for CoolCookie_72:
(Start: 56 @52037 has 11 MA's), (Start: 59 @52040 has 31 MA's), (74, 52079), (Start: 93 @52118 has 6 MA's), (118, 52196), (156, 52289), (165, 52310), (215, 52493), (228, 52541), (244, 52613), (261, 52700),

Gene: Crestdrop_74 Start: 51864, Stop: 52574, Start Num: 59
Candidate Starts for Crestdrop_74:
(Start: 56 @51861 has 11 MA's), (Start: 59 @51864 has 31 MA's), (Start: 93 @51942 has 6 MA's), (118, 52020), (156, 52113), (165, 52134), (215, 52317), (228, 52365), (244, 52437), (250, 52488), (261, 52524),

Gene: Cruella_42 Start: 38653, Stop: 38066, Start Num: 65
Candidate Starts for Cruella_42:
(Start: 65 @38653 has 8 MA's), (111, 38557), (Start: 112 @38554 has 1 MA's), (129, 38527), (134, 38515), (212, 38287), (252, 38122), (253, 38113), (254, 38110), (266, 38083),

Gene: Cuke_93 Start: 54589, Stop: 55197, Start Num: 54
Candidate Starts for Cuke_93:

(Start: 44 @54562 has 10 MA's), (Start: 54 @54589 has 3 MA's), (69, 54625), (76, 54637), (82, 54646), (Start: 112 @54724 has 1 MA's), (114, 54727), (Start: 124 @54751 has 1 MA's), (137, 54781), (157, 54817), (174, 54838), (175, 54844), (176, 54847), (178, 54853), (182, 54865), (191, 54895), (196, 54913), (205, 54934), (223, 54979), (233, 55009), (235, 55018), (239, 55030), (246, 55081), (248, 55111), (250, 55117), (254, 55135), (266, 55162),

Gene: Cybele_73 Start: 51982, Stop: 52692, Start Num: 59
Candidate Starts for Cybele_73:
(Start: 56 @51979 has 11 MA's), (Start: 59 @51982 has 31 MA's), (Start: 93 @52060 has 6 MA's), (118, 52138), (165, 52252), (214, 52432), (215, 52435), (244, 52555), (261, 52642),

Gene: Dalilpop_62 Start: 46648, Stop: 45902, Start Num: 10
Candidate Starts for Dalilpop_62:
(Start: 10 @46648 has 2 MA's), (85, 46537), (94, 46522), (97, 46510), (100, 46501), (111, 46465), (135, 46411), (181, 46276), (187, 46255), (191, 46240), (206, 46183), (226, 46135), (244, 46057), (245, 46051), (253, 45991), (275, 45925), (280, 45916),

Gene: Damien_79 Start: 59427, Stop: 60179, Start Num: 84
Candidate Starts for Damien_79:
(Start: 84 @59427 has 16 MA's), (137, 59598), (161, 59655), (173, 59700), (178, 59721), (180, 59730), (190, 59769), (203, 59811), (208, 59835), (210, 59838), (216, 59859), (217, 59865), (227, 59904), (234, 59931), (264, 60078), (272, 60102),

Gene: DannyDe_74 Start: 51442, Stop: 52152, Start Num: 59
Candidate Starts for DannyDe_74:
(Start: 56 @51439 has 11 MA's), (Start: 59 @51442 has 31 MA's), (Start: 93 @51520 has 6 MA's), (156, 51691), (165, 51712), (215, 51895), (228, 51943), (243, 52009), (244, 52015), (261, 52102),

Gene: Darwin_46 Start: 38531, Stop: 37944, Start Num: 65
Candidate Starts for Darwin_46:
(Start: 65 @38531 has 8 MA's), (111, 38435), (Start: 112 @38432 has 1 MA's), (129, 38405), (134, 38393), (142, 38372), (212, 38165), (252, 38000), (253, 37991), (254, 37988), (266, 37961),

Gene: Dauntless_72 Start: 51573, Stop: 52283, Start Num: 59
Candidate Starts for Dauntless_72:
(Start: 56 @51570 has 11 MA's), (Start: 59 @51573 has 31 MA's), (Start: 93 @51651 has 6 MA's), (118, 51729), (156, 51822), (165, 51843), (215, 52026), (228, 52074), (243, 52140), (244, 52146), (261, 52233),

Gene: DaviePasture_86 Start: 58094, Stop: 58768, Start Num: 61
Candidate Starts for DaviePasture_86:
(15, 57935), (18, 57959), (26, 57989), (33, 58016), (46, 58061), (Start: 60 @58091 has 6 MA's), (Start: 61 @58094 has 32 MA's), (138, 58286), (151, 58313), (180, 58394), (190, 58430), (217, 58520), (235, 58562), (246, 58628), (252, 58670),

Gene: Delton_70 Start: 55255, Stop: 55926, Start Num: 48
Candidate Starts for Delton_70:
(Start: 48 @55255 has 22 MA's), (Start: 60 @55276 has 6 MA's), (Start: 70 @55306 has 2 MA's), (Start: 112 @55408 has 1 MA's), (116, 55414), (118, 55423), (130, 55447), (191, 55582), (192, 55585), (206, 55639), (244, 55756), (269, 55855),

Gene: Demikore_94 Start: 61253, Stop: 61951, Start Num: 93
Candidate Starts for Demikore_94:

(75, 61226), (83, 61238), (88, 61244), (Start: 93 @61253 has 6 MA's), (119, 61331), (143, 61367), (180, 61481), (197, 61544), (199, 61553), (210, 61592), (222, 61640), (247, 61778), (257, 61817), (269, 61856), (284, 61916),

Gene: Djokovic_80 Start: 55696, Stop: 56517, Start Num: 25
Candidate Starts for Djokovic_80:
(17, 55657), (Start: 25 @55696 has 6 MA's), (45, 55768), (55, 55792), (73, 55834), (99, 55888), (116, 55936), (Start: 126 @55960 has 3 MA's), (133, 55984), (137, 55999), (201, 56185),

Gene: DoobyDoo_85 Start: 56890, Stop: 57564, Start Num: 61
Candidate Starts for DoobyDoo_85:
(35, 56830), (41, 56854), (Start: 60 @56887 has 6 MA's), (Start: 61 @56890 has 32 MA's), (Start: 78 @56929 has 3 MA's), (138, 57082), (151, 57109), (180, 57190), (190, 57226), (235, 57358), (239, 57373), (246, 57424),

Gene: DrLupo_91 Start: 60981, Stop: 61727, Start Num: 95
Candidate Starts for DrLupo_91:
(Start: 95 @60981 has 2 MA's), (99, 60996), (100, 60999), (Start: 112 @61038 has 1 MA's), (116, 61044), (128, 61068), (140, 61104), (164, 61170), (171, 61197), (174, 61206), (180, 61233), (181, 61236), (190, 61272), (194, 61290), (204, 61326), (206, 61338), (215, 61368), (219, 61383), (260, 61602), (276, 61656), (281, 61665),

Gene: Dryad_40 Start: 31376, Stop: 30774, Start Num: 84
Candidate Starts for Dryad_40:
(Start: 84 @31376 has 16 MA's), (122, 31265), (153, 31190), (160, 31175), (190, 31073), (211, 30995), (238, 30902), (239, 30899), (243, 30875), (244, 30869), (250, 30818),

Gene: DumpTruck_88 Start: 58077, Stop: 58757, Start Num: 61
Candidate Starts for DumpTruck_88:
(Start: 61 @58077 has 32 MA's), (100, 58170), (121, 58230), (138, 58269), (178, 58368), (180, 58377), (204, 58461), (235, 58545), (246, 58611),

Gene: EhyElimayoE_66 Start: 44745, Stop: 44173, Start Num: 96
Candidate Starts for EhyElimayoE_66:
(Start: 96 @44745 has 5 MA's), (Start: 101 @44733 has 2 MA's), (125, 44667), (132, 44652), (162, 44586), (163, 44583), (166, 44571), (200, 44445), (218, 44382), (236, 44319), (246, 44262),

Gene: Emianna_57 Start: 45345, Stop: 44614, Start Num: 38
Candidate Starts for Emianna_57:
(Start: 38 @45345 has 48 MA's), (52, 45297), (79, 45255), (Start: 112 @45168 has 1 MA's), (154, 45063), (175, 44997), (177, 44991), (178, 44988), (186, 44958), (190, 44943), (191, 44940), (253, 44694), (263, 44673), (280, 44619),

Gene: Ennea_64 Start: 46346, Stop: 45609, Start Num: 38
Candidate Starts for Ennea_64:
(Start: 38 @46346 has 48 MA's), (97, 46211), (100, 46202), (Start: 112 @46163 has 1 MA's), (129, 46127), (177, 45992), (184, 45971), (190, 45944), (191, 45941), (206, 45884), (230, 45830), (244, 45764), (275, 45632), (280, 45623),

Gene: Erk16_70 Start: 54972, Stop: 55640, Start Num: 48
Candidate Starts for Erk16_70:
(Start: 48 @54972 has 22 MA's), (Start: 60 @54993 has 6 MA's), (Start: 70 @55023 has 2 MA's), (Start: 112 @55125 has 1 MA's), (116, 55131), (118, 55140), (130, 55164), (133, 55167), (191, 55299),

(192, 55302), (206, 55356), (269, 55572),

Gene: Erudite_72 Start: 51573, Stop: 52283, Start Num: 59
Candidate Starts for Erudite_72:
(Start: 56 @51570 has 11 MA's), (Start: 59 @51573 has 31 MA's), (Start: 93 @51651 has 6 MA's), (118, 51729), (156, 51822), (165, 51843), (215, 52026), (228, 52074), (243, 52140), (244, 52146), (261, 52233),

Gene: Erutan_85 Start: 58028, Stop: 58702, Start Num: 61
Candidate Starts for Erutan_85:
(35, 57968), (41, 57992), (Start: 60 @58025 has 6 MA's), (Start: 61 @58028 has 32 MA's), (Start: 78 @58067 has 3 MA's), (138, 58220), (151, 58247), (180, 58328), (190, 58364), (204, 58412), (217, 58454), (235, 58496), (246, 58562), (252, 58604),

Gene: Flapper_62 Start: 46080, Stop: 45334, Start Num: 10
Candidate Starts for Flapper_62:
(Start: 10 @46080 has 2 MA's), (85, 45969), (94, 45954), (97, 45942), (100, 45933), (111, 45897), (129, 45858), (191, 45672), (206, 45615), (244, 45489), (245, 45483), (253, 45423), (275, 45357), (280, 45348),

Gene: Float294_59 Start: 45788, Stop: 45051, Start Num: 38
Candidate Starts for Float294_59:
(Start: 38 @45788 has 48 MA's), (97, 45653), (100, 45644), (Start: 112 @45605 has 1 MA's), (129, 45569), (177, 45434), (190, 45386), (191, 45383), (206, 45326), (230, 45272), (244, 45206), (275, 45074), (280, 45065),

Gene: FountainFog_73 Start: 51494, Stop: 52126, Start Num: 93
Candidate Starts for FountainFog_73:
(Start: 56 @51413 has 11 MA's), (Start: 59 @51416 has 31 MA's), (74, 51455), (Start: 93 @51494 has 6 MA's), (118, 51572), (149, 51641), (165, 51686), (214, 51866), (215, 51869), (244, 51989), (261, 52076),

Gene: Fowlmouth_91 Start: 56536, Stop: 57147, Start Num: 54
Candidate Starts for Fowlmouth_91:
(Start: 54 @56536 has 3 MA's), (69, 56572), (99, 56629), (168, 56776), (178, 56803), (182, 56815), (196, 56863), (205, 56884), (223, 56929), (233, 56959), (235, 56968), (239, 56980), (246, 57031), (250, 57067), (254, 57085), (266, 57112),

Gene: Foxboro_58 Start: 45851, Stop: 45120, Start Num: 38
Candidate Starts for Foxboro_58:
(Start: 38 @45851 has 48 MA's), (52, 45803), (79, 45761), (Start: 112 @45674 has 1 MA's), (154, 45569), (175, 45503), (177, 45497), (178, 45494), (186, 45464), (190, 45449), (191, 45446), (253, 45200), (263, 45179), (280, 45125),

Gene: Frankenweenie_73 Start: 47336, Stop: 46788, Start Num: 101
Candidate Starts for Frankenweenie_73:
(Start: 101 @47336 has 2 MA's), (116, 47294), (125, 47270), (139, 47234), (149, 47216), (163, 47180), (165, 47171), (198, 47051), (207, 47012), (213, 46994), (218, 46979), (221, 46964), (229, 46940), (240, 46889),

Gene: FreddieHg_74 Start: 51454, Stop: 52167, Start Num: 56
Candidate Starts for FreddieHg_74:

(Start: 56 @51454 has 11 MA's), (Start: 59 @51457 has 31 MA's), (Start: 93 @51535 has 6 MA's), (118, 51613), (156, 51706), (165, 51727), (215, 51910), (244, 52030), (261, 52117),

Gene: Fulcrum_84 Start: 57717, Stop: 58391, Start Num: 61
Candidate Starts for Fulcrum_84:
(35, 57657), (41, 57681), (Start: 61 @57717 has 32 MA's), (Start: 78 @57756 has 3 MA's), (138, 57909), (151, 57936), (180, 58017), (190, 58053), (217, 58143), (235, 58185), (246, 58251),

Gene: Fury_65 Start: 44523, Stop: 43777, Start Num: 38
Candidate Starts for Fury_65:
(8, 44583), (Start: 38 @44523 has 48 MA's), (68, 44442), (97, 44385), (99, 44379), (Start: 112 @44337 has 1 MA's), (135, 44286), (152, 44244), (175, 44166), (191, 44109), (195, 44091), (214, 44025), (250, 43881), (271, 43824), (275, 43800), (280, 43791),

Gene: GOATification_84 Start: 57717, Stop: 58391, Start Num: 61
Candidate Starts for GOATification_84:
(35, 57657), (41, 57681), (Start: 61 @57717 has 32 MA's), (Start: 78 @57756 has 3 MA's), (138, 57909), (151, 57936), (180, 58017), (190, 58053), (217, 58143), (235, 58185), (246, 58251),

Gene: GRU1_47 Start: 37626, Stop: 36880, Start Num: 38
Candidate Starts for GRU1_47:
(21, 37686), (Start: 38 @37626 has 48 MA's), (85, 37515), (94, 37500), (97, 37488), (100, 37479), (191, 37218), (206, 37161), (244, 37035), (245, 37029), (253, 36969), (275, 36903), (280, 36894),

Gene: GTE5_48 Start: 38936, Stop: 38190, Start Num: 9
Candidate Starts for GTE5_48:
(Start: 9 @38936 has 1 MA's), (85, 38825), (94, 38810), (97, 38798), (100, 38789), (111, 38753), (135, 38699), (191, 38528), (206, 38471), (244, 38345), (245, 38339), (253, 38279), (275, 38213), (280, 38204),

Gene: GTE8_46 Start: 38609, Stop: 37878, Start Num: 38
Candidate Starts for GTE8_46:
(20, 38672), (Start: 38 @38609 has 48 MA's), (52, 38561), (79, 38519), (Start: 112 @38432 has 1 MA's), (175, 38261), (177, 38255), (178, 38252), (190, 38207), (206, 38147), (214, 38120), (223, 38111), (253, 37958), (280, 37883),

Gene: Gagieri_57 Start: 42526, Stop: 41783, Start Num: 38
Candidate Starts for Gagieri_57:
(29, 42553), (Start: 38 @42526 has 48 MA's), (Start: 112 @42340 has 1 MA's), (114, 42337), (123, 42316), (135, 42289), (177, 42163), (191, 42106), (201, 42073), (205, 42058), (206, 42049), (244, 41929), (275, 41791), (278, 41788),

Gene: Gallia_53 Start: 45252, Stop: 44584, Start Num: 62
Candidate Starts for Gallia_53:
(62, 45252), (100, 45159), (131, 45078), (191, 44919), (215, 44832), (252, 44634), (255, 44622),

Gene: Genamy16_86 Start: 56519, Stop: 57193, Start Num: 61
Candidate Starts for Genamy16_86:
(50, 56504), (Start: 60 @56516 has 6 MA's), (Start: 61 @56519 has 32 MA's), (Start: 78 @56558 has 3 MA's), (138, 56711), (151, 56738), (180, 56819), (190, 56855), (235, 56987), (239, 57002), (246, 57053),

Gene: Gibbin_87 Start: 58357, Stop: 59031, Start Num: 61

Candidate Starts for Gibbin_87:
(23, 58243), (27, 58258), (30, 58276), (Start: 38 @58297 has 48 MA's), (Start: 60 @58354 has 6 MA's), (Start: 61 @58357 has 32 MA's), (Start: 78 @58396 has 3 MA's), (138, 58549), (151, 58576), (180, 58657), (190, 58693), (235, 58825), (239, 58840), (246, 58891),

Gene: Gibson_36 Start: 30882, Stop: 30280, Start Num: 84
Candidate Starts for Gibson_36:
(Start: 84 @30882 has 16 MA's), (111, 30798), (153, 30696), (190, 30579), (211, 30501), (220, 30471), (239, 30405), (243, 30381), (244, 30375), (250, 30324),

Gene: Gilda_73 Start: 51974, Stop: 52684, Start Num: 59
Candidate Starts for Gilda_73:
(Start: 56 @51971 has 11 MA's), (Start: 59 @51974 has 31 MA's), (Start: 93 @52052 has 6 MA's), (118, 52130), (165, 52244), (179, 52295), (215, 52427), (244, 52547), (261, 52634),

Gene: Gimesa_84 Start: 62573, Stop: 63280, Start Num: 44
Candidate Starts for Gimesa_84:
(Start: 44 @62573 has 10 MA's), (63, 62624), (89, 62675), (111, 62744), (114, 62750), (Start: 127 @62780 has 1 MA's), (157, 62840), (183, 62888), (191, 62918), (192, 62921), (205, 62972), (206, 62981), (230, 63035), (243, 63092), (249, 63152), (250, 63155), (252, 63161), (265, 63203), (277, 63245),

Gene: Giuseppe_72 Start: 54784, Stop: 55455, Start Num: 48
Candidate Starts for Giuseppe_72:
(Start: 48 @54784 has 22 MA's), (Start: 60 @54805 has 6 MA's), (Start: 70 @54835 has 2 MA's), (Start: 112 @54937 has 1 MA's), (116, 54943), (118, 54952), (130, 54976), (191, 55111), (192, 55114), (206, 55168), (244, 55285), (269, 55384),

Gene: Greenbelt_36 Start: 27579, Stop: 26983, Start Num: 81
Candidate Starts for Greenbelt_36:
(16, 27780), (24, 27741), (Start: 81 @27579 has 1 MA's), (Start: 92 @27558 has 1 MA's), (158, 27381), (160, 27378), (188, 27288), (204, 27234), (239, 27108), (244, 27078), (256, 27006),

Gene: GretelLyn_85 Start: 58084, Stop: 58758, Start Num: 61
Candidate Starts for GretelLyn_85:
(23, 57970), (27, 57985), (30, 58003), (Start: 38 @58024 has 48 MA's), (Start: 60 @58081 has 6 MA's), (Start: 61 @58084 has 32 MA's), (Start: 78 @58123 has 3 MA's), (138, 58276), (151, 58303), (180, 58384), (190, 58420), (235, 58552), (239, 58567), (246, 58618),

Gene: GrootJr_59 Start: 44727, Stop: 43996, Start Num: 38
Candidate Starts for GrootJr_59:
(Start: 38 @44727 has 48 MA's), (52, 44679), (79, 44637), (Start: 112 @44550 has 1 MA's), (154, 44445), (175, 44379), (177, 44373), (178, 44370), (186, 44340), (190, 44325), (191, 44322), (253, 44076), (263, 44055), (280, 44001),

Gene: Gumball_70 Start: 55377, Stop: 55997, Start Num: 70
Candidate Starts for Gumball_70:
(Start: 48 @55326 has 22 MA's), (Start: 60 @55347 has 6 MA's), (Start: 70 @55377 has 2 MA's), (Start: 112 @55479 has 1 MA's), (116, 55485), (118, 55494), (130, 55518), (191, 55653), (192, 55656), (206, 55710), (244, 55827), (269, 55926),

Gene: Hager_75 Start: 51440, Stop: 52150, Start Num: 59
Candidate Starts for Hager_75:

(Start: 56 @51437 has 11 MA's), (Start: 59 @51440 has 31 MA's), (74, 51479), (Start: 93 @51518 has 6 MA's), (118, 51596), (149, 51665), (165, 51710), (214, 51890), (215, 51893), (228, 51941), (244, 52013), (261, 52100),

Gene: Haunter_74 Start: 51350, Stop: 52060, Start Num: 59
Candidate Starts for Haunter_74:
(Start: 56 @51347 has 11 MA's), (Start: 59 @51350 has 31 MA's), (74, 51389), (Start: 93 @51428 has 6 MA's), (118, 51506), (129, 51527), (156, 51599), (165, 51620), (215, 51803), (228, 51851), (243, 51917), (244, 51923), (261, 52010),

Gene: Hawkeye_82 Start: 56674, Stop: 57330, Start Num: 48
Candidate Starts for Hawkeye_82:
(Start: 48 @56674 has 22 MA's), (53, 56686), (Start: 112 @56824 has 1 MA's), (116, 56830), (130, 56863), (177, 56950), (237, 57136), (246, 57193),

Gene: Helpful_73 Start: 55172, Stop: 55843, Start Num: 48
Candidate Starts for Helpful_73:
(Start: 48 @55172 has 22 MA's), (Start: 60 @55193 has 6 MA's), (Start: 70 @55223 has 2 MA's), (Start: 112 @55325 has 1 MA's), (116, 55331), (118, 55340), (130, 55364), (191, 55499), (192, 55502), (206, 55556), (244, 55673), (269, 55772),

Gene: Hiddenleaf_74 Start: 51437, Stop: 52150, Start Num: 56
Candidate Starts for Hiddenleaf_74:
(Start: 56 @51437 has 11 MA's), (Start: 59 @51440 has 31 MA's), (Start: 93 @51518 has 6 MA's), (118, 51596), (156, 51689), (165, 51710), (215, 51893), (244, 52013), (261, 52100),

Gene: HomeFry_62 Start: 43222, Stop: 42476, Start Num: 38
Candidate Starts for HomeFry_62:
(Start: 38 @43222 has 48 MA's), (97, 43084), (99, 43078), (Start: 112 @43036 has 1 MA's), (135, 42985), (152, 42943), (190, 42811), (214, 42724), (275, 42499), (280, 42490),

Gene: HubbaBubba_54 Start: 40875, Stop: 40135, Start Num: 38
Candidate Starts for HubbaBubba_54:
(Start: 38 @40875 has 48 MA's), (51, 40830), (71, 40797), (Start: 112 @40698 has 1 MA's), (152, 40605), (177, 40512), (178, 40509), (181, 40497), (214, 40377), (253, 40215), (274, 40161), (280, 40140),

Gene: IDyn_58 Start: 42307, Stop: 41567, Start Num: 38
Candidate Starts for IDyn_58:
(1, 43456), (2, 43183), (3, 42949), (4, 42643), (11, 42445), (Start: 38 @42307 has 48 MA's), (51, 42262), (71, 42229), (Start: 112 @42130 has 1 MA's), (152, 42037), (177, 41944), (178, 41941), (181, 41929), (214, 41809), (253, 41647), (274, 41593), (280, 41572),

Gene: Indlulamithi_82 Start: 58260, Stop: 58847, Start Num: 60
Candidate Starts for Indlulamithi_82:
(Start: 54 @58254 has 3 MA's), (Start: 60 @58260 has 6 MA's), (87, 58323), (99, 58344), (108, 58368), (114, 58389), (116, 58392), (147, 58452), (172, 58485), (235, 58674), (241, 58701), (243, 58710), (246, 58737), (250, 58773), (251, 58776), (254, 58791), (266, 58806),

Gene: JDawG_72 Start: 51633, Stop: 52343, Start Num: 59
Candidate Starts for JDawG_72:
(Start: 56 @51630 has 11 MA's), (Start: 59 @51633 has 31 MA's), (Start: 93 @51711 has 6 MA's), (118, 51789), (156, 51882), (165, 51903), (215, 52086), (244, 52206), (261, 52293),

Gene: Jalebi_85 Start: 59002, Stop: 59676, Start Num: 61
Candidate Starts for Jalebi_85:
(35, 58942), (41, 58966), (Start: 60 @58999 has 6 MA's), (Start: 61 @59002 has 32 MA's), (Start: 78 @59041 has 3 MA's), (138, 59194), (151, 59221), (180, 59302), (190, 59338), (217, 59428), (235, 59470), (246, 59536),

Gene: Jamemuya19_81 Start: 56124, Stop: 56798, Start Num: 61
Candidate Starts for Jamemuya19_81:
(50, 56109), (Start: 60 @56121 has 6 MA's), (Start: 61 @56124 has 32 MA's), (Start: 78 @56163 has 3 MA's), (138, 56316), (151, 56343), (180, 56424), (190, 56460), (235, 56592), (239, 56607), (246, 56658),

Gene: Jifall16_56 Start: 44999, Stop: 44268, Start Num: 38
Candidate Starts for Jifall16_56:
(Start: 38 @44999 has 48 MA's), (52, 44951), (79, 44909), (Start: 112 @44822 has 1 MA's), (154, 44717), (175, 44651), (177, 44645), (178, 44642), (186, 44612), (190, 44597), (191, 44594), (253, 44348), (263, 44327), (280, 44273),

Gene: JingleBells_73 Start: 51545, Stop: 52255, Start Num: 59
Candidate Starts for JingleBells_73:
(Start: 56 @51542 has 11 MA's), (Start: 59 @51545 has 31 MA's), (Start: 93 @51623 has 6 MA's), (118, 51701), (156, 51794), (165, 51815), (215, 51998), (244, 52118), (261, 52205),

Gene: JustBecause_60 Start: 41941, Stop: 41381, Start Num: 105
Candidate Starts for JustBecause_60:
(Start: 98 @41959 has 1 MA's), (Start: 105 @41941 has 1 MA's), (116, 41908), (163, 41794), (165, 41785), (170, 41767), (193, 41677), (198, 41665), (200, 41656), (202, 41653), (218, 41593), (221, 41578), (229, 41554), (240, 41503), (244, 41485), (246, 41470),

Gene: Kabluna_61 Start: 44432, Stop: 43686, Start Num: 38
Candidate Starts for Kabluna_61:
(Start: 38 @44432 has 48 MA's), (79, 44330), (Start: 112 @44243 has 1 MA's), (136, 44189), (175, 44072), (180, 44054), (184, 44045), (189, 44021), (214, 43931), (239, 43862), (263, 43745), (274, 43712), (280, 43691),

Gene: KandZ_68 Start: 55001, Stop: 55672, Start Num: 48
Candidate Starts for KandZ_68:
(Start: 48 @55001 has 22 MA's), (Start: 60 @55022 has 6 MA's), (Start: 70 @55052 has 2 MA's), (Start: 112 @55154 has 1 MA's), (116, 55160), (118, 55169), (130, 55193), (133, 55196), (191, 55328), (192, 55331), (206, 55385), (244, 55502), (269, 55601),

Gene: Karate_72 Start: 51686, Stop: 52396, Start Num: 59
Candidate Starts for Karate_72:
(Start: 56 @51683 has 11 MA's), (Start: 59 @51686 has 31 MA's), (Start: 93 @51764 has 6 MA's), (118, 51842), (165, 51956), (179, 52007), (215, 52139), (244, 52259), (261, 52346),

Gene: Kate_73 Start: 51888, Stop: 52601, Start Num: 56
Candidate Starts for Kate_73:
(Start: 56 @51888 has 11 MA's), (Start: 59 @51891 has 31 MA's), (Start: 93 @51969 has 6 MA's), (118, 52047), (165, 52161), (179, 52212), (215, 52344), (244, 52464), (261, 52551),

Gene: Kela_61 Start: 41824, Stop: 41246, Start Num: 98

Candidate Starts for Kela_61:
(Start: 98 @41824 has 1 MA's), (Start: 105 @41806 has 1 MA's), (116, 41773), (163, 41659), (165, 41650), (170, 41632), (193, 41542), (198, 41530), (200, 41521), (202, 41518), (218, 41458), (221, 41443), (229, 41419), (240, 41368), (244, 41350), (246, 41335),

Gene: KidneyBean_57 Start: 45123, Stop: 44392, Start Num: 38
Candidate Starts for KidneyBean_57:
(Start: 38 @45123 has 48 MA's), (52, 45075), (79, 45033), (Start: 112 @44946 has 1 MA's), (154, 44841), (175, 44775), (177, 44769), (178, 44766), (186, 44736), (190, 44721), (191, 44718), (253, 44472), (263, 44451), (280, 44397),

Gene: Kimchi1738_42 Start: 37740, Stop: 37153, Start Num: 65
Candidate Starts for Kimchi1738_42:
(Start: 65 @37740 has 8 MA's), (111, 37644), (Start: 112 @37641 has 1 MA's), (129, 37614), (134, 37602), (142, 37581), (212, 37374), (252, 37209), (253, 37200), (254, 37197), (266, 37170),

Gene: Konstantine_82 Start: 59921, Stop: 60673, Start Num: 84
Candidate Starts for Konstantine_82:
(Start: 84 @59921 has 16 MA's), (137, 60092), (161, 60149), (173, 60194), (178, 60215), (180, 60224), (190, 60263), (203, 60305), (208, 60329), (210, 60332), (216, 60353), (217, 60359), (234, 60425), (244, 60473), (264, 60572), (272, 60596),

Gene: Kors_77 Start: 52158, Stop: 52856, Start Num: 59
Candidate Starts for Kors_77:
(Start: 59 @52158 has 31 MA's), (Start: 93 @52230 has 6 MA's), (129, 52329), (135, 52347), (160, 52407), (197, 52539), (215, 52605), (233, 52668), (244, 52722), (267, 52824),

Gene: Kradal_66 Start: 44745, Stop: 44173, Start Num: 96
Candidate Starts for Kradal_66:
(Start: 96 @44745 has 5 MA's), (Start: 101 @44733 has 2 MA's), (125, 44667), (132, 44652), (162, 44586), (163, 44583), (166, 44571), (200, 44445), (218, 44382), (236, 44319), (246, 44262),

Gene: Krampus_73 Start: 51984, Stop: 52697, Start Num: 56
Candidate Starts for Krampus_73:
(Start: 56 @51984 has 11 MA's), (Start: 59 @51987 has 31 MA's), (Start: 93 @52065 has 6 MA's), (118, 52143), (165, 52257), (179, 52308), (215, 52440), (244, 52560), (261, 52647),

Gene: Kurt_57 Start: 45360, Stop: 44629, Start Num: 38
Candidate Starts for Kurt_57:
(Start: 38 @45360 has 48 MA's), (52, 45312), (79, 45270), (Start: 112 @45183 has 1 MA's), (154, 45078), (175, 45012), (177, 45006), (178, 45003), (186, 44973), (190, 44958), (191, 44955), (253, 44709), (263, 44688), (280, 44634),

Gene: Labelle_92 Start: 61441, Stop: 62139, Start Num: 93
Candidate Starts for Labelle_92:
(75, 61414), (83, 61426), (88, 61432), (Start: 93 @61441 has 6 MA's), (119, 61519), (143, 61555), (180, 61669), (197, 61732), (199, 61741), (210, 61780), (222, 61828), (247, 61966), (257, 62005), (269, 62044), (284, 62104),

Gene: Lambo_85 Start: 58114, Stop: 58788, Start Num: 60
Candidate Starts for Lambo_85:
(57, 58111), (Start: 60 @58114 has 6 MA's), (138, 58306), (180, 58414), (190, 58450), (217, 58540), (235, 58582), (239, 58597), (246, 58648), (252, 58690),

Gene: LastNadiia_41 Start: 29150, Stop: 28698, Start Num: 126
Candidate Starts for LastNadiia_41:
(102, 29216), (113, 29180), (118, 29165), (Start: 126 @29150 has 3 MA's), (175, 29030), (213, 28922), (229, 28871), (233, 28859), (249, 28754),

Gene: LavAbarElk_85 Start: 57175, Stop: 57849, Start Num: 61
Candidate Starts for LavAbarElk_85:
(35, 57115), (41, 57139), (Start: 60 @57172 has 6 MA's), (Start: 61 @57175 has 32 MA's), (Start: 78 @57214 has 3 MA's), (138, 57367), (151, 57394), (180, 57475), (190, 57511), (217, 57601), (235, 57643), (246, 57709), (252, 57751),

Gene: Leopard_87 Start: 61735, Stop: 62415, Start Num: 48
Candidate Starts for Leopard_87:
(Start: 37 @61696 has 1 MA's), (47, 61732), (Start: 48 @61735 has 22 MA's), (58, 61753), (67, 61777), (148, 61966), (159, 61993), (178, 62044), (201, 62125), (208, 62155), (241, 62251), (244, 62266), (252, 62329), (279, 62398),

Gene: Lila22_86 Start: 58477, Stop: 59151, Start Num: 61
Candidate Starts for Lila22_86:
(35, 58417), (41, 58441), (Start: 60 @58474 has 6 MA's), (Start: 61 @58477 has 32 MA's), (Start: 78 @58516 has 3 MA's), (138, 58669), (151, 58696), (180, 58777), (190, 58813), (217, 58903), (235, 58945), (246, 59011), (252, 59053),

Gene: LilyPad_77 Start: 54664, Stop: 55503, Start Num: 28
Candidate Starts for LilyPad_77:
(Start: 28 @54664 has 1 MA's), (45, 54727), (55, 54751), (73, 54793), (Start: 84 @54808 has 16 MA's), (133, 54943), (136, 54955), (137, 54958), (201, 55144), (249, 55339), (282, 55447), (283, 55453),

Gene: LittleFella_79 Start: 55168, Stop: 56049, Start Num: 32
Candidate Starts for LittleFella_79:
(Start: 32 @55168 has 1 MA's), (39, 55186), (40, 55201), (55, 55237), (73, 55279), (111, 55369), (Start: 112 @55372 has 1 MA's), (133, 55426), (185, 55561), (242, 55759), (266, 55870), (268, 55876), (286, 55951), (287, 55969),

Gene: Lizz_36 Start: 30696, Stop: 30094, Start Num: 84
Candidate Starts for Lizz_36:
(Start: 84 @30696 has 16 MA's), (111, 30612), (146, 30531), (175, 30447), (190, 30393), (191, 30390), (211, 30315), (215, 30303), (239, 30219), (243, 30195), (244, 30189), (250, 30138),

Gene: Lollipop1437_62 Start: 46334, Stop: 45597, Start Num: 38
Candidate Starts for Lollipop1437_62:
(Start: 38 @46334 has 48 MA's), (97, 46199), (100, 46190), (Start: 112 @46151 has 1 MA's), (129, 46115), (177, 45980), (190, 45932), (206, 45872), (230, 45818), (244, 45752), (275, 45620), (280, 45611),

Gene: LordBart_77 Start: 52068, Stop: 52766, Start Num: 59
Candidate Starts for LordBart_77:
(Start: 59 @52068 has 31 MA's), (Start: 93 @52140 has 6 MA's), (129, 52239), (135, 52257), (160, 52317), (197, 52449), (215, 52515), (233, 52578), (234, 52584), (244, 52632), (267, 52734),

Gene: LuckyLeo_83 Start: 57772, Stop: 58446, Start Num: 60
Candidate Starts for LuckyLeo_83:

(57, 57769), (Start: 60 @57772 has 6 MA's), (111, 57901), (138, 57964), (151, 57991), (180, 58072), (190, 58108), (206, 58168), (217, 58198), (235, 58240), (246, 58306), (252, 58348),

Gene: MacGully_65 Start: 44606, Stop: 43860, Start Num: 38
Candidate Starts for MacGully_65:
(Start: 38 @44606 has 48 MA's), (79, 44507), (99, 44465), (100, 44462), (111, 44426), (Start: 112 @44423 has 1 MA's), (133, 44381), (148, 44345), (190, 44192), (191, 44189), (200, 44156), (239, 44036), (244, 44006), (278, 43865),

Gene: Madi_79 Start: 55533, Stop: 56354, Start Num: 25
Candidate Starts for Madi_79:
(22, 55518), (Start: 25 @55533 has 6 MA's), (45, 55605), (55, 55629), (73, 55671), (99, 55725), (116, 55773), (Start: 126 @55797 has 3 MA's), (133, 55821), (136, 55833), (137, 55836), (201, 56022), (282, 56325),

Gene: Madruga_91 Start: 61056, Stop: 61754, Start Num: 93
Candidate Starts for Madruga_91:
(67, 61014), (73, 61026), (77, 61032), (83, 61041), (88, 61047), (Start: 93 @61056 has 6 MA's), (119, 61134), (143, 61170), (180, 61284), (197, 61347), (199, 61356), (210, 61395), (222, 61443), (247, 61581), (257, 61620), (269, 61659), (284, 61719),

Gene: Makima_39 Start: 28292, Stop: 27810, Start Num: 117
Candidate Starts for Makima_39:
(107, 28325), (109, 28313), (110, 28310), (115, 28301), (Start: 117 @28292 has 2 MA's), (Start: 126 @28283 has 3 MA's), (209, 28049), (232, 27977), (233, 27971),

Gene: Marietta_59 Start: 42201, Stop: 41461, Start Num: 38
Candidate Starts for Marietta_59:
(12, 42333), (13, 42309), (14, 42297), (20, 42264), (Start: 38 @42201 has 48 MA's), (51, 42156), (71, 42123), (Start: 112 @42024 has 1 MA's), (152, 41931), (177, 41838), (178, 41835), (181, 41823), (214, 41703), (253, 41541), (274, 41487), (280, 41466),

Gene: Maselop_58 Start: 42366, Stop: 41626, Start Num: 38
Candidate Starts for Maselop_58:
(29, 42393), (Start: 38 @42366 has 48 MA's), (42, 42342), (79, 42267), (99, 42225), (111, 42186), (Start: 112 @42183 has 1 MA's), (114, 42180), (148, 42105), (177, 42006), (191, 41949), (201, 41916), (206, 41892), (230, 41838), (244, 41772), (275, 41634), (278, 41631),

Gene: Megatron06_80 Start: 60012, Stop: 60764, Start Num: 84
Candidate Starts for Megatron06_80:
(Start: 84 @60012 has 16 MA's), (137, 60183), (161, 60240), (173, 60285), (178, 60306), (180, 60315), (190, 60354), (203, 60396), (208, 60420), (210, 60423), (216, 60444), (217, 60450), (227, 60489), (234, 60516), (244, 60564), (264, 60663), (272, 60687),

Gene: MerCougar_59 Start: 45623, Stop: 44877, Start Num: 38
Candidate Starts for MerCougar_59:
(Start: 38 @45623 has 48 MA's), (72, 45530), (79, 45521), (Start: 112 @45434 has 1 MA's), (118, 45419), (136, 45380), (175, 45263), (214, 45122), (250, 44972), (263, 44936), (270, 44918), (274, 44903), (280, 44882),

Gene: Mima20_84 Start: 57809, Stop: 58483, Start Num: 61
Candidate Starts for Mima20_84:

(50, 57794), (Start: 60 @57806 has 6 MA's), (Start: 61 @57809 has 32 MA's), (Start: 78 @57848 has 3 MA's), (138, 58001), (151, 58028), (180, 58109), (190, 58145), (217, 58235), (235, 58277), (246, 58343),

Gene: Mireles_42 Start: 27838, Stop: 27368, Start Num: 117
Candidate Starts for Mireles_42:
(103, 27880), (104, 27877), (Start: 117 @27838 has 2 MA's), (150, 27778), (165, 27736), (232, 27535), (233, 27529),

Gene: MoiGyank_88 Start: 58408, Stop: 59082, Start Num: 61
Candidate Starts for MoiGyank_88:
(Start: 60 @58405 has 6 MA's), (Start: 61 @58408 has 32 MA's), (Start: 78 @58447 has 3 MA's), (138, 58600), (151, 58627), (180, 58708), (190, 58744), (217, 58834), (235, 58876), (246, 58942),

Gene: MontyDev_85 Start: 62366, Stop: 63073, Start Num: 44
Candidate Starts for MontyDev_85:
(Start: 44 @62366 has 10 MA's), (63, 62417), (89, 62468), (111, 62537), (114, 62543), (Start: 127 @62573 has 1 MA's), (157, 62633), (183, 62681), (191, 62711), (192, 62714), (205, 62765), (206, 62774), (230, 62828), (243, 62885), (249, 62945), (250, 62948), (252, 62954), (265, 62996), (277, 63038),

Gene: Mopey_72 Start: 54810, Stop: 55481, Start Num: 48
Candidate Starts for Mopey_72:
(Start: 48 @54810 has 22 MA's), (Start: 60 @54831 has 6 MA's), (Start: 70 @54861 has 2 MA's), (Start: 112 @54963 has 1 MA's), (116, 54969), (118, 54978), (130, 55002), (191, 55137), (192, 55140), (206, 55194), (244, 55311), (269, 55410),

Gene: MortySmith_71 Start: 51047, Stop: 51757, Start Num: 59
Candidate Starts for MortySmith_71:
(Start: 56 @51044 has 11 MA's), (Start: 59 @51047 has 31 MA's), (Start: 93 @51125 has 6 MA's), (118, 51203), (156, 51296), (165, 51317), (215, 51500), (228, 51548), (243, 51614), (244, 51620), (261, 51707),

Gene: MrMiyagi_90 Start: 56804, Stop: 57415, Start Num: 54
Candidate Starts for MrMiyagi_90:
(Start: 54 @56804 has 3 MA's), (69, 56840), (99, 56897), (145, 57011), (168, 57044), (178, 57071), (196, 57131), (205, 57152), (223, 57197), (233, 57227), (235, 57236), (239, 57248), (246, 57299), (250, 57335), (254, 57353), (266, 57380),

Gene: NadineRae_57 Start: 41445, Stop: 40705, Start Num: 38
Candidate Starts for NadineRae_57:
(20, 41508), (Start: 38 @41445 has 48 MA's), (51, 41400), (71, 41367), (Start: 112 @41268 has 1 MA's), (152, 41175), (177, 41082), (178, 41079), (181, 41067), (214, 40947), (253, 40785), (274, 40731), (280, 40710),

Gene: NarutoRun_73 Start: 51949, Stop: 52662, Start Num: 56
Candidate Starts for NarutoRun_73:
(Start: 56 @51949 has 11 MA's), (Start: 59 @51952 has 31 MA's), (Start: 93 @52030 has 6 MA's), (118, 52108), (165, 52222), (179, 52273), (215, 52405), (244, 52525), (261, 52612),

Gene: NatB6_57 Start: 44417, Stop: 43686, Start Num: 38
Candidate Starts for NatB6_57:

(Start: 38 @44417 has 48 MA's), (52, 44369), (79, 44327), (Start: 112 @44240 has 1 MA's), (154, 44135), (175, 44069), (177, 44063), (178, 44060), (186, 44030), (190, 44015), (191, 44012), (253, 43766), (263, 43745), (280, 43691),

Gene: Neptune_73 Start: 51979, Stop: 52692, Start Num: 56
Candidate Starts for Neptune_73:
(Start: 56 @51979 has 11 MA's), (Start: 59 @51982 has 31 MA's), (Start: 93 @52060 has 6 MA's), (118, 52138), (165, 52252), (214, 52432), (215, 52435), (244, 52555), (261, 52642),

Gene: Nettle_87 Start: 58687, Stop: 59361, Start Num: 60
Candidate Starts for Nettle_87:
(57, 58684), (Start: 60 @58687 has 6 MA's), (138, 58879), (151, 58906), (180, 58987), (190, 59023), (217, 59113), (235, 59155), (246, 59221), (252, 59263),

Gene: Nilo_86 Start: 62725, Stop: 63432, Start Num: 44
Candidate Starts for Nilo_86:
(Start: 44 @62725 has 10 MA's), (63, 62776), (89, 62827), (111, 62896), (114, 62902), (Start: 127 @62932 has 1 MA's), (157, 62992), (183, 63040), (191, 63070), (192, 63073), (205, 63124), (206, 63133), (230, 63187), (243, 63244), (249, 63304), (250, 63307), (252, 63313), (265, 63355), (277, 63397),

Gene: Nirvana_70 Start: 46706, Stop: 46125, Start Num: 101
Candidate Starts for Nirvana_70:
(Start: 101 @46706 has 2 MA's), (106, 46691), (116, 46664), (125, 46640), (163, 46550), (165, 46541), (198, 46421), (200, 46412), (202, 46409), (207, 46382), (218, 46349), (221, 46334), (229, 46310), (240, 46259), (244, 46241), (246, 46226),

Gene: Nish23_80 Start: 59117, Stop: 59869, Start Num: 84
Candidate Starts for Nish23_80:
(Start: 84 @59117 has 16 MA's), (137, 59288), (161, 59345), (173, 59390), (178, 59411), (180, 59420), (190, 59459), (203, 59501), (208, 59525), (210, 59528), (216, 59549), (217, 59555), (227, 59594), (234, 59621), (264, 59768), (272, 59792),

Gene: NorManre_90 Start: 59321, Stop: 59995, Start Num: 61
Candidate Starts for NorManre_90:
(35, 59261), (41, 59285), (Start: 61 @59321 has 32 MA's), (138, 59513), (180, 59621), (190, 59657), (217, 59747), (235, 59789), (246, 59855), (252, 59897),

Gene: NosilaM_61 Start: 45330, Stop: 44584, Start Num: 38
Candidate Starts for NosilaM_61:
(36, 45333), (Start: 38 @45330 has 48 MA's), (79, 45228), (Start: 112 @45141 has 1 MA's), (136, 45087), (175, 44970), (184, 44943), (206, 44856), (214, 44829), (217, 44826), (239, 44760), (249, 44682), (263, 44643), (274, 44610), (280, 44589),

Gene: Nova_70 Start: 55349, Stop: 56020, Start Num: 48
Candidate Starts for Nova_70:
(Start: 48 @55349 has 22 MA's), (Start: 60 @55370 has 6 MA's), (Start: 70 @55400 has 2 MA's), (Start: 112 @55502 has 1 MA's), (116, 55508), (118, 55517), (130, 55541), (191, 55676), (192, 55679), (206, 55733), (244, 55850), (269, 55949),

Gene: NovaSharks_85 Start: 56222, Stop: 56896, Start Num: 61
Candidate Starts for NovaSharks_85:

(50, 56207), (Start: 60 @56219 has 6 MA's), (Start: 61 @56222 has 32 MA's), (Start: 78 @56261 has 3 MA's), (138, 56414), (151, 56441), (180, 56522), (190, 56558), (235, 56690), (239, 56705), (246, 56756),

Gene: NovumRegina_57 Start: 44726, Stop: 43995, Start Num: 38
Candidate Starts for NovumRegina_57:
(Start: 38 @44726 has 48 MA's), (52, 44678), (79, 44636), (Start: 112 @44549 has 1 MA's), (154, 44444), (175, 44378), (177, 44372), (178, 44369), (186, 44339), (190, 44324), (191, 44321), (253, 44075), (263, 44054), (280, 44000),

Gene: Oaker_79 Start: 60029, Stop: 60781, Start Num: 84
Candidate Starts for Oaker_79:
(Start: 84 @60029 has 16 MA's), (137, 60200), (161, 60257), (173, 60302), (178, 60323), (180, 60332), (190, 60371), (203, 60413), (208, 60437), (210, 60440), (216, 60461), (217, 60467), (234, 60533), (244, 60581), (272, 60704),

Gene: OhDear_73 Start: 51950, Stop: 52660, Start Num: 59
Candidate Starts for OhDear_73:
(Start: 56 @51947 has 11 MA's), (Start: 59 @51950 has 31 MA's), (Start: 93 @52028 has 6 MA's), (118, 52106), (165, 52220), (214, 52400), (215, 52403), (244, 52523), (261, 52610),

Gene: Onyinye_87 Start: 61230, Stop: 61910, Start Num: 48
Candidate Starts for Onyinye_87:
(Start: 37 @61191 has 1 MA's), (47, 61227), (Start: 48 @61230 has 22 MA's), (58, 61248), (67, 61272), (148, 61461), (159, 61488), (178, 61539), (201, 61620), (208, 61650), (241, 61746), (244, 61761), (252, 61824), (279, 61893),

Gene: OtterstedtS21_86 Start: 58125, Stop: 58799, Start Num: 61
Candidate Starts for OtterstedtS21_86:
(35, 58068), (41, 58092), (Start: 60 @58122 has 6 MA's), (Start: 61 @58125 has 32 MA's), (Start: 78 @58164 has 3 MA's), (138, 58317), (151, 58344), (180, 58425), (190, 58461), (217, 58551), (235, 58593), (239, 58608), (246, 58659), (252, 58701),

Gene: Outis_59 Start: 45317, Stop: 44571, Start Num: 38
Candidate Starts for Outis_59:
(Start: 38 @45317 has 48 MA's), (72, 45224), (79, 45215), (91, 45194), (Start: 112 @45128 has 1 MA's), (136, 45074), (175, 44957), (186, 44918), (189, 44906), (214, 44816), (250, 44666), (263, 44630), (274, 44597), (280, 44576),

Gene: OverHedge_72 Start: 51848, Stop: 52558, Start Num: 59
Candidate Starts for OverHedge_72:
(Start: 56 @51845 has 11 MA's), (Start: 59 @51848 has 31 MA's), (Start: 93 @51926 has 6 MA's), (118, 52004), (165, 52118), (214, 52298), (215, 52301), (244, 52421), (261, 52508),

Gene: P1201_57 Start: 44915, Stop: 44262, Start Num: 62
Candidate Starts for P1201_57:
(62, 44915), (131, 44756), (160, 44690), (215, 44510), (252, 44312), (255, 44300),

Gene: PBI1_66 Start: 54941, Stop: 55459, Start Num: 112
Candidate Starts for PBI1_66:
(Start: 48 @54788 has 22 MA's), (Start: 60 @54809 has 6 MA's), (Start: 70 @54839 has 2 MA's), (Start: 112 @54941 has 1 MA's), (116, 54947), (118, 54956), (130, 54980), (191, 55115), (192, 55118), (206, 55172), (244, 55289), (269, 55388),

Gene: PHTowN_36 Start: 30694, Stop: 30092, Start Num: 84
Candidate Starts for PHTowN_36:
(Start: 84 @30694 has 16 MA's), (111, 30610), (146, 30529), (175, 30445), (190, 30391), (191, 30388), (211, 30313), (215, 30301), (239, 30217), (243, 30193), (244, 30187), (250, 30136),

Gene: PLot_70 Start: 54810, Stop: 55481, Start Num: 48
Candidate Starts for PLot_70:
(Start: 48 @54810 has 22 MA's), (Start: 60 @54831 has 6 MA's), (Start: 70 @54861 has 2 MA's), (Start: 112 @54963 has 1 MA's), (116, 54969), (118, 54978), (130, 55002), (133, 55005), (191, 55137), (192, 55140), (206, 55194), (244, 55311), (269, 55410),

Gene: Papyrus_82 Start: 61384, Stop: 62091, Start Num: 44
Candidate Starts for Papyrus_82:
(Start: 44 @61384 has 10 MA's), (63, 61435), (89, 61486), (111, 61555), (114, 61561), (Start: 127 @61591 has 1 MA's), (157, 61651), (183, 61699), (191, 61729), (192, 61732), (205, 61783), (206, 61792), (230, 61846), (243, 61903), (249, 61963), (250, 61966), (252, 61972), (265, 62014), (277, 62056),

Gene: ParvusTarda_85 Start: 57398, Stop: 58072, Start Num: 61
Candidate Starts for ParvusTarda_85:
(35, 57338), (41, 57362), (Start: 60 @57395 has 6 MA's), (Start: 61 @57398 has 32 MA's), (Start: 78 @57437 has 3 MA's), (138, 57590), (151, 57617), (180, 57698), (190, 57734), (217, 57824), (235, 57866), (239, 57881), (246, 57932), (252, 57974),

Gene: Patience_93 Start: 61969, Stop: 62667, Start Num: 93
Candidate Starts for Patience_93:
(67, 61927), (73, 61939), (77, 61945), (83, 61954), (88, 61960), (Start: 93 @61969 has 6 MA's), (119, 62047), (143, 62083), (180, 62197), (197, 62260), (199, 62269), (210, 62308), (222, 62356), (247, 62494), (257, 62533), (269, 62572), (284, 62632),

Gene: Patio_61 Start: 45570, Stop: 44833, Start Num: 38
Candidate Starts for Patio_61:
(Start: 38 @45570 has 48 MA's), (97, 45435), (100, 45426), (Start: 112 @45387 has 1 MA's), (121, 45366), (177, 45216), (190, 45168), (191, 45165), (206, 45108), (230, 45054), (244, 44988), (275, 44856), (280, 44847),

Gene: Patos_90 Start: 59320, Stop: 59994, Start Num: 61
Candidate Starts for Patos_90:
(35, 59260), (41, 59284), (Start: 61 @59320 has 32 MA's), (138, 59512), (180, 59620), (190, 59656), (217, 59746), (235, 59788), (246, 59854), (252, 59896),

Gene: Pemberton_59 Start: 42183, Stop: 41443, Start Num: 38
Candidate Starts for Pemberton_59:
(14, 42279), (20, 42246), (Start: 38 @42183 has 48 MA's), (51, 42138), (Start: 112 @42006 has 1 MA's), (152, 41913), (178, 41817), (191, 41769), (214, 41685), (253, 41523), (274, 41469), (280, 41448),

Gene: Penelope2018_70 Start: 54844, Stop: 55515, Start Num: 48
Candidate Starts for Penelope2018_70:
(Start: 48 @54844 has 22 MA's), (Start: 60 @54865 has 6 MA's), (Start: 70 @54895 has 2 MA's), (Start: 112 @54997 has 1 MA's), (116, 55003), (118, 55012), (130, 55036), (191, 55171), (192, 55174), (206, 55228), (244, 55345), (269, 55444),

Gene: PeteyPab_44 Start: 39498, Stop: 38911, Start Num: 65
Candidate Starts for PeteyPab_44:
(Start: 65 @39498 has 8 MA's), (111, 39402), (Start: 112 @39399 has 1 MA's), (129, 39372), (134, 39360), (142, 39339), (212, 39132), (252, 38967), (253, 38958), (254, 38955), (266, 38928),

Gene: Phalaborwa_73 Start: 55437, Stop: 56108, Start Num: 48
Candidate Starts for Phalaborwa_73:
(Start: 48 @55437 has 22 MA's), (Start: 60 @55458 has 6 MA's), (Start: 70 @55488 has 2 MA's), (Start: 112 @55590 has 1 MA's), (116, 55596), (130, 55629), (133, 55632), (191, 55764), (192, 55767), (194, 55779), (206, 55821), (217, 55851), (269, 56037),

Gene: Pharpay_72 Start: 51997, Stop: 52707, Start Num: 59
Candidate Starts for Pharpay_72:
(Start: 56 @51994 has 11 MA's), (Start: 59 @51997 has 31 MA's), (Start: 93 @52075 has 6 MA's), (118, 52153), (165, 52267), (214, 52447), (215, 52450), (244, 52570), (261, 52657),

Gene: Phomeo_56 Start: 44995, Stop: 44264, Start Num: 38
Candidate Starts for Phomeo_56:
(Start: 38 @44995 has 48 MA's), (52, 44947), (79, 44905), (Start: 112 @44818 has 1 MA's), (154, 44713), (175, 44647), (177, 44641), (178, 44638), (186, 44608), (190, 44593), (191, 44590), (253, 44344), (263, 44323), (280, 44269),

Gene: Phreeze_78 Start: 58999, Stop: 59703, Start Num: 84
Candidate Starts for Phreeze_78:
(Start: 84 @58999 has 16 MA's), (141, 59131), (144, 59137), (161, 59179), (173, 59224), (178, 59245), (180, 59254), (190, 59293), (203, 59335), (208, 59359), (210, 59362), (216, 59383), (217, 59389), (234, 59455), (272, 59626),

Gene: PhunaPhoke_73 Start: 51967, Stop: 52677, Start Num: 59
Candidate Starts for PhunaPhoke_73:
(Start: 56 @51964 has 11 MA's), (Start: 59 @51967 has 31 MA's), (Start: 93 @52045 has 6 MA's), (118, 52123), (165, 52237), (179, 52288), (215, 52420), (244, 52540), (261, 52627),

Gene: Pleakley_65 Start: 44524, Stop: 43778, Start Num: 38
Candidate Starts for Pleakley_65:
(8, 44584), (Start: 38 @44524 has 48 MA's), (68, 44443), (97, 44386), (99, 44380), (Start: 112 @44338 has 1 MA's), (135, 44287), (152, 44245), (175, 44167), (191, 44110), (195, 44092), (214, 44026), (250, 43882), (271, 43825), (275, 43801), (280, 43792),

Gene: Polyyuki_58 Start: 42355, Stop: 41615, Start Num: 38
Candidate Starts for Polyyuki_58:
(29, 42382), (Start: 38 @42355 has 48 MA's), (42, 42331), (79, 42256), (99, 42214), (111, 42175), (Start: 112 @42172 has 1 MA's), (114, 42169), (148, 42094), (177, 41995), (191, 41938), (201, 41905), (206, 41881), (230, 41827), (244, 41761), (275, 41623), (278, 41620),

Gene: PotatoChip_45 Start: 39500, Stop: 38913, Start Num: 65
Candidate Starts for PotatoChip_45:
(Start: 65 @39500 has 8 MA's), (111, 39404), (Start: 112 @39401 has 1 MA's), (129, 39374), (134, 39362), (142, 39341), (212, 39134), (252, 38969), (253, 38960), (254, 38957), (266, 38930),

Gene: Potty_72 Start: 51894, Stop: 52607, Start Num: 56
Candidate Starts for Potty_72:

(Start: 56 @51894 has 11 MA's), (Start: 59 @51897 has 31 MA's), (Start: 93 @51975 has 6 MA's), (118, 52053), (165, 52167), (214, 52347), (215, 52350), (244, 52470), (261, 52557),

Gene: Poultress_72 Start: 52242, Stop: 52952, Start Num: 59
Candidate Starts for Poultress_72:
(Start: 56 @52239 has 11 MA's), (Start: 59 @52242 has 31 MA's), (Start: 93 @52320 has 6 MA's), (118, 52398), (156, 52491), (165, 52512), (167, 52518), (215, 52695), (244, 52815),

Gene: Prager_71 Start: 54904, Stop: 55575, Start Num: 48
Candidate Starts for Prager_71:
(Start: 48 @54904 has 22 MA's), (Start: 60 @54925 has 6 MA's), (Start: 70 @54955 has 2 MA's), (Start: 112 @55057 has 1 MA's), (116, 55063), (118, 55072), (130, 55096), (191, 55231), (192, 55234), (206, 55288), (244, 55405), (269, 55504),

Gene: Predator_79 Start: 59366, Stop: 60121, Start Num: 86
Candidate Starts for Predator_79:
(43, 59273), (Start: 86 @59366 has 1 MA's), (99, 59396), (111, 59435), (137, 59543), (176, 59660), (180, 59675), (184, 59684), (190, 59714), (210, 59783), (234, 59873), (239, 59891), (285, 60092),

Gene: Puissant_75 Start: 59222, Stop: 59914, Start Num: 92
Candidate Starts for Puissant_75:
(90, 59219), (Start: 92 @59222 has 1 MA's), (116, 59285), (141, 59345), (144, 59351), (155, 59384), (164, 59405), (173, 59438), (178, 59459), (180, 59468), (190, 59507), (203, 59549), (206, 59567), (210, 59576), (216, 59597), (217, 59603), (227, 59642), (234, 59669), (239, 59687), (272, 59837),

Gene: Pywacket_82 Start: 58303, Stop: 58938, Start Num: 78
Candidate Starts for Pywacket_82:
(35, 58204), (41, 58228), (Start: 60 @58261 has 6 MA's), (Start: 61 @58264 has 32 MA's), (68, 58288), (Start: 78 @58303 has 3 MA's), (138, 58456), (151, 58483), (180, 58564), (190, 58600), (204, 58648), (217, 58690), (235, 58732), (239, 58747), (246, 58798), (252, 58840),

Gene: Quantum_65 Start: 44745, Stop: 44173, Start Num: 96
Candidate Starts for Quantum_65:
(Start: 96 @44745 has 5 MA's), (Start: 101 @44733 has 2 MA's), (125, 44667), (132, 44652), (162, 44586), (163, 44583), (166, 44571), (200, 44445), (218, 44382), (236, 44319), (246, 44262),

Gene: Rachella_73 Start: 51978, Stop: 52688, Start Num: 59
Candidate Starts for Rachella_73:
(Start: 56 @51975 has 11 MA's), (Start: 59 @51978 has 31 MA's), (Start: 93 @52056 has 6 MA's), (118, 52134), (165, 52248), (179, 52299), (215, 52431), (244, 52551), (261, 52638),

Gene: Ranch_89 Start: 57797, Stop: 58471, Start Num: 60
Candidate Starts for Ranch_89:
(57, 57794), (Start: 60 @57797 has 6 MA's), (97, 57881), (138, 57989), (180, 58097), (190, 58133), (217, 58223), (235, 58265), (246, 58331),

Gene: RazorC_83 Start: 56264, Stop: 56938, Start Num: 61
Candidate Starts for RazorC_83:
(50, 56249), (Start: 60 @56261 has 6 MA's), (Start: 61 @56264 has 32 MA's), (Start: 78 @56303 has 3 MA's), (138, 56456), (151, 56483), (180, 56564), (190, 56600), (235, 56732), (239, 56747), (246, 56798),

Gene: RedRaider_65 Start: 47592, Stop: 46855, Start Num: 38

Candidate Starts for RedRaider_65:
(Start: 38 @47592 has 48 MA's), (66, 47517), (97, 47457), (100, 47448), (Start: 112 @47409 has 1 MA's), (177, 47238), (190, 47190), (191, 47187), (206, 47130), (230, 47076), (244, 47010), (275, 46878), (280, 46869),

Gene: Riduram_82 Start: 55839, Stop: 56513, Start Num: 61
Candidate Starts for Riduram_82:
(50, 55824), (Start: 60 @55836 has 6 MA's), (Start: 61 @55839 has 32 MA's), (Start: 78 @55878 has 3 MA's), (138, 56031), (151, 56058), (180, 56139), (190, 56175), (235, 56307), (239, 56322), (246, 56373),

Gene: Rie18_73 Start: 51765, Stop: 52478, Start Num: 56
Candidate Starts for Rie18_73:
(Start: 56 @51765 has 11 MA's), (Start: 59 @51768 has 31 MA's), (74, 51807), (Start: 93 @51846 has 6 MA's), (118, 51924), (165, 52038), (214, 52218), (215, 52221), (244, 52341), (261, 52428),

Gene: RikSengupta_77 Start: 52261, Stop: 52887, Start Num: 93
Candidate Starts for RikSengupta_77:
(Start: 59 @52189 has 31 MA's), (Start: 93 @52261 has 6 MA's), (129, 52360), (135, 52378), (160, 52438), (197, 52570), (215, 52636), (233, 52699), (234, 52705), (244, 52753), (267, 52855),

Gene: Riparian_85 Start: 62171, Stop: 62878, Start Num: 44
Candidate Starts for Riparian_85:
(Start: 44 @62171 has 10 MA's), (63, 62222), (89, 62273), (111, 62342), (114, 62348), (Start: 127 @62378 has 1 MA's), (157, 62438), (183, 62486), (191, 62516), (192, 62519), (205, 62570), (206, 62579), (230, 62633), (243, 62690), (249, 62750), (250, 62753), (252, 62759), (265, 62801), (277, 62843),

Gene: Rooney_36 Start: 30879, Stop: 30277, Start Num: 84
Candidate Starts for Rooney_36:
(Start: 84 @30879 has 16 MA's), (111, 30795), (153, 30693), (190, 30576), (211, 30498), (220, 30468), (239, 30402), (243, 30378), (244, 30372), (250, 30321),

Gene: Rope_83 Start: 62330, Stop: 63037, Start Num: 44
Candidate Starts for Rope_83:
(Start: 44 @62330 has 10 MA's), (63, 62381), (89, 62432), (111, 62501), (114, 62507), (116, 62510), (Start: 127 @62537 has 1 MA's), (157, 62597), (183, 62645), (191, 62675), (192, 62678), (205, 62729), (206, 62738), (230, 62792), (243, 62849), (249, 62909), (250, 62912), (252, 62918), (265, 62960), (277, 63002),

Gene: Rota_84 Start: 58231, Stop: 58905, Start Num: 61
Candidate Starts for Rota_84:
(23, 58117), (27, 58132), (30, 58150), (Start: 38 @58171 has 48 MA's), (Start: 60 @58228 has 6 MA's), (Start: 61 @58231 has 32 MA's), (Start: 78 @58270 has 3 MA's), (138, 58423), (180, 58531), (190, 58567), (204, 58615), (217, 58657), (235, 58699), (246, 58765), (252, 58807),

Gene: Rukungu_86 Start: 58585, Stop: 59259, Start Num: 61
Candidate Starts for Rukungu_86:
(50, 58570), (Start: 60 @58582 has 6 MA's), (Start: 61 @58585 has 32 MA's), (Start: 78 @58624 has 3 MA's), (138, 58777), (151, 58804), (180, 58885), (190, 58921), (217, 59011), (235, 59053), (246, 59119), (252, 59161),

Gene: Rumi_84 Start: 55807, Stop: 56481, Start Num: 61

Candidate Starts for Rumi_84:
(50, 55792), (Start: 60 @55804 has 6 MA's), (Start: 61 @55807 has 32 MA's), (Start: 78 @55846 has 3 MA's), (138, 55999), (151, 56026), (180, 56107), (190, 56143), (235, 56275), (239, 56290), (246, 56341),

Gene: Sadboi_85 Start: 58124, Stop: 58759, Start Num: 78
Candidate Starts for Sadboi_85:
(23, 57971), (27, 57986), (30, 58004), (Start: 38 @58025 has 48 MA's), (Start: 60 @58082 has 6 MA's), (Start: 61 @58085 has 32 MA's), (Start: 78 @58124 has 3 MA's), (138, 58277), (180, 58385), (190, 58421), (217, 58511), (235, 58553), (246, 58619), (252, 58661),

Gene: SafetyGuy_72 Start: 51958, Stop: 52668, Start Num: 59
Candidate Starts for SafetyGuy_72:
(Start: 56 @51955 has 11 MA's), (Start: 59 @51958 has 31 MA's), (Start: 93 @52036 has 6 MA's), (118, 52114), (165, 52228), (179, 52279), (215, 52411), (244, 52531), (261, 52618),

Gene: Sampudon_87 Start: 59002, Stop: 59676, Start Num: 61
Candidate Starts for Sampudon_87:
(35, 58942), (41, 58966), (Start: 60 @58999 has 6 MA's), (Start: 61 @59002 has 32 MA's), (Start: 78 @59041 has 3 MA's), (138, 59194), (151, 59221), (180, 59302), (190, 59338), (217, 59428), (235, 59470), (246, 59536),

Gene: Sarkar_65 Start: 44745, Stop: 44173, Start Num: 96
Candidate Starts for Sarkar_65:
(Start: 96 @44745 has 5 MA's), (Start: 101 @44733 has 2 MA's), (125, 44667), (132, 44652), (162, 44586), (163, 44583), (166, 44571), (200, 44445), (218, 44382), (236, 44319), (246, 44262),

Gene: SassyC_39 Start: 31477, Stop: 30875, Start Num: 84
Candidate Starts for SassyC_39:
(Start: 84 @31477 has 16 MA's), (153, 31291), (158, 31279), (190, 31174), (191, 31171), (239, 31000), (243, 30976), (244, 30970), (250, 30919),

Gene: Satis_66 Start: 44741, Stop: 44169, Start Num: 96
Candidate Starts for Satis_66:
(Start: 96 @44741 has 5 MA's), (Start: 101 @44729 has 2 MA's), (125, 44663), (132, 44648), (162, 44582), (163, 44579), (166, 44567), (200, 44441), (218, 44378), (236, 44315), (246, 44258),

Gene: Scuba_65 Start: 44598, Stop: 43852, Start Num: 38
Candidate Starts for Scuba_65:
(8, 44658), (Start: 38 @44598 has 48 MA's), (68, 44517), (97, 44460), (99, 44454), (Start: 112 @44412 has 1 MA's), (135, 44361), (152, 44319), (175, 44241), (191, 44184), (195, 44166), (214, 44100), (250, 43956), (271, 43899), (275, 43875), (280, 43866),

Gene: Send513_83 Start: 62707, Stop: 63414, Start Num: 44
Candidate Starts for Send513_83:
(Start: 44 @62707 has 10 MA's), (63, 62758), (89, 62809), (111, 62878), (114, 62884), (116, 62887), (Start: 127 @62914 has 1 MA's), (157, 62974), (183, 63022), (191, 63052), (192, 63055), (205, 63106), (206, 63115), (230, 63169), (243, 63226), (249, 63286), (250, 63289), (252, 63295), (265, 63337), (277, 63379),

Gene: ShakeNBake_36 Start: 30712, Stop: 30110, Start Num: 84
Candidate Starts for ShakeNBake_36:

(Start: 84 @30712 has 16 MA's), (111, 30628), (146, 30547), (175, 30463), (190, 30409), (191, 30406), (211, 30331), (215, 30319), (239, 30235), (243, 30211), (244, 30205), (250, 30154),

Gene: Sienna_80 Start: 55774, Stop: 56595, Start Num: 25
Candidate Starts for Sienna_80:
(22, 55759), (Start: 25 @55774 has 6 MA's), (45, 55846), (55, 55870), (73, 55912), (99, 55966), (116, 56014), (Start: 126 @56038 has 3 MA's), (133, 56062), (137, 56077), (201, 56263),

Gene: SilentWarrior_74 Start: 51406, Stop: 52116, Start Num: 59
Candidate Starts for SilentWarrior_74:
(Start: 56 @51403 has 11 MA's), (Start: 59 @51406 has 31 MA's), (Start: 93 @51484 has 6 MA's), (118, 51562), (156, 51655), (165, 51676), (215, 51859), (244, 51979), (261, 52066),

Gene: SirHarley_72 Start: 55309, Stop: 55980, Start Num: 48
Candidate Starts for SirHarley_72:
(Start: 48 @55309 has 22 MA's), (Start: 60 @55330 has 6 MA's), (Start: 70 @55360 has 2 MA's), (Start: 112 @55462 has 1 MA's), (116, 55468), (118, 55477), (130, 55501), (191, 55636), (192, 55639), (206, 55693), (244, 55810), (269, 55909),

Gene: Skysand_60 Start: 45790, Stop: 45053, Start Num: 38
Candidate Starts for Skysand_60:
(5, 45910), (7, 45898), (Start: 38 @45790 has 48 MA's), (97, 45655), (100, 45646), (Start: 112 @45607 has 1 MA's), (177, 45436), (190, 45388), (191, 45385), (206, 45328), (230, 45274), (244, 45208), (275, 45076), (280, 45067),

Gene: Snakehole_74 Start: 51389, Stop: 52099, Start Num: 59
Candidate Starts for Snakehole_74:
(Start: 56 @51386 has 11 MA's), (Start: 59 @51389 has 31 MA's), (Start: 93 @51467 has 6 MA's), (118, 51545), (156, 51638), (165, 51659), (215, 51842), (228, 51890), (243, 51956), (244, 51962), (261, 52049),

Gene: Sparcetus_77 Start: 52075, Stop: 52701, Start Num: 93
Candidate Starts for Sparcetus_77:
(Start: 59 @52003 has 31 MA's), (Start: 93 @52075 has 6 MA's), (129, 52174), (135, 52192), (160, 52252), (197, 52384), (215, 52450), (233, 52513), (234, 52519), (244, 52567), (267, 52669),

Gene: StarStruck_59 Start: 45317, Stop: 44571, Start Num: 38
Candidate Starts for StarStruck_59:
(Start: 38 @45317 has 48 MA's), (72, 45224), (79, 45215), (91, 45194), (Start: 112 @45128 has 1 MA's), (136, 45074), (175, 44957), (186, 44918), (189, 44906), (214, 44816), (250, 44666), (263, 44630), (274, 44597), (280, 44576),

Gene: Stickynote_44 Start: 38920, Stop: 38333, Start Num: 65
Candidate Starts for Stickynote_44:
(Start: 65 @38920 has 8 MA's), (111, 38824), (Start: 112 @38821 has 1 MA's), (129, 38794), (134, 38782), (142, 38761), (212, 38554), (252, 38389), (254, 38377), (266, 38350),

Gene: Stormer_84 Start: 55949, Stop: 56623, Start Num: 61
Candidate Starts for Stormer_84:
(31, 55877), (34, 55886), (35, 55889), (41, 55913), (Start: 61 @55949 has 32 MA's), (138, 56141), (151, 56168), (180, 56249), (190, 56285), (217, 56375), (235, 56417), (239, 56432), (246, 56483),

Gene: Sukkupi_58 Start: 43757, Stop: 43017, Start Num: 38

Candidate Starts for Sukkupi_58:
(12, 43889), (13, 43865), (20, 43820), (Start: 38 @43757 has 48 MA's), (51, 43712), (Start: 112 @43580 has 1 MA's), (152, 43487), (177, 43394), (178, 43391), (181, 43379), (191, 43343), (214, 43259), (253, 43097), (274, 43043), (280, 43022),

Gene: SuperSonics_92 Start: 61024, Stop: 61722, Start Num: 93
Candidate Starts for SuperSonics_92:
(67, 60982), (73, 60994), (77, 61000), (83, 61009), (88, 61015), (Start: 93 @61024 has 6 MA's), (119, 61102), (143, 61138), (180, 61252), (197, 61315), (199, 61324), (210, 61363), (222, 61411), (247, 61549), (257, 61588), (269, 61627), (284, 61687),

Gene: SuperSulley_59 Start: 45496, Stop: 44750, Start Num: 38
Candidate Starts for SuperSulley_59:
(Start: 38 @45496 has 48 MA's), (79, 45394), (100, 45346), (Start: 112 @45307 has 1 MA's), (136, 45253), (175, 45136), (180, 45118), (184, 45109), (214, 44995), (239, 44926), (263, 44809), (274, 44776), (280, 44755),

Gene: SuperheroCarly_70 Start: 54992, Stop: 55663, Start Num: 48
Candidate Starts for SuperheroCarly_70:
(Start: 48 @54992 has 22 MA's), (Start: 60 @55013 has 6 MA's), (Start: 70 @55043 has 2 MA's), (Start: 112 @55145 has 1 MA's), (116, 55151), (118, 55160), (130, 55184), (191, 55319), (192, 55322), (206, 55376), (244, 55493), (269, 55592),

Gene: Suzy_77 Start: 55845, Stop: 56666, Start Num: 19
Candidate Starts for Suzy_77:
(Start: 19 @55845 has 1 MA's), (45, 55917), (55, 55941), (73, 55983), (99, 56037), (116, 56085), (Start: 126 @56109 has 3 MA's), (133, 56133), (137, 56148), (201, 56334),

Gene: TMaxx_40 Start: 27472, Stop: 26996, Start Num: 127
Candidate Starts for TMaxx_40:
(Start: 127 @27472 has 1 MA's), (186, 27316), (231, 27166), (233, 27157), (249, 27052), (258, 27025),

Gene: Tedro_73 Start: 51437, Stop: 52147, Start Num: 59
Candidate Starts for Tedro_73:
(Start: 56 @51434 has 11 MA's), (Start: 59 @51437 has 31 MA's), (74, 51476), (Start: 93 @51515 has 6 MA's), (118, 51593), (120, 51596), (165, 51707), (214, 51887), (215, 51890), (244, 52010), (261, 52097),

Gene: Terapin_81 Start: 55698, Stop: 56519, Start Num: 25
Candidate Starts for Terapin_81:
(17, 55659), (Start: 25 @55698 has 6 MA's), (45, 55770), (55, 55794), (73, 55836), (99, 55890), (116, 55938), (Start: 126 @55962 has 3 MA's), (133, 55986), (137, 56001), (201, 56187),

Gene: Thoth_70 Start: 54898, Stop: 55569, Start Num: 48
Candidate Starts for Thoth_70:
(Start: 48 @54898 has 22 MA's), (Start: 60 @54919 has 6 MA's), (Start: 70 @54949 has 2 MA's), (Start: 112 @55051 has 1 MA's), (116, 55057), (118, 55066), (130, 55090), (191, 55225), (192, 55228), (206, 55282), (244, 55399), (269, 55498),

Gene: Thumb_80 Start: 59431, Stop: 60135, Start Num: 84
Candidate Starts for Thumb_80:
(Start: 84 @59431 has 16 MA's), (141, 59563), (144, 59569), (161, 59611), (173, 59656), (178, 59677), (180, 59686), (190, 59725), (203, 59767), (208, 59791), (210, 59794), (216, 59815), (217, 59821),

(234, 59887), (272, 60058), (285, 60106),

Gene: Tiggy93_73 Start: 51996, Stop: 52706, Start Num: 59
Candidate Starts for Tiggy93_73:
(Start: 56 @51993 has 11 MA's), (Start: 59 @51996 has 31 MA's), (Start: 93 @52074 has 6 MA's), (118, 52152), (165, 52266), (214, 52446), (215, 52449), (244, 52569), (261, 52656),

Gene: Tillicus_79 Start: 57502, Stop: 58176, Start Num: 61
Candidate Starts for Tillicus_79:
(23, 57388), (27, 57403), (30, 57421), (Start: 38 @57442 has 48 MA's), (Start: 60 @57499 has 6 MA's), (Start: 61 @57502 has 32 MA's), (138, 57694), (151, 57721), (180, 57802), (190, 57838), (206, 57898), (217, 57928), (235, 57970), (246, 58036), (252, 58078),

Gene: TinyMiny_77 Start: 52093, Stop: 52791, Start Num: 59
Candidate Starts for TinyMiny_77:
(Start: 59 @52093 has 31 MA's), (Start: 93 @52165 has 6 MA's), (129, 52264), (135, 52282), (160, 52342), (197, 52474), (215, 52540), (233, 52603), (234, 52609), (244, 52657), (267, 52759),

Gene: Tongui_74 Start: 51880, Stop: 52590, Start Num: 59
Candidate Starts for Tongui_74:
(Start: 56 @51877 has 11 MA's), (Start: 59 @51880 has 31 MA's), (74, 51919), (Start: 93 @51958 has 6 MA's), (118, 52036), (149, 52105), (165, 52150), (214, 52330), (215, 52333), (244, 52453), (261, 52540),

Gene: Tracker_57 Start: 44141, Stop: 43410, Start Num: 38
Candidate Starts for Tracker_57:
(20, 44204), (Start: 38 @44141 has 48 MA's), (52, 44093), (79, 44051), (Start: 112 @43964 has 1 MA's), (154, 43859), (175, 43793), (177, 43787), (178, 43784), (186, 43754), (190, 43739), (191, 43736), (253, 43490), (263, 43469), (280, 43415),

Gene: TripleC_40 Start: 29799, Stop: 29347, Start Num: 124
Candidate Starts for TripleC_40:
(Start: 124 @29799 has 1 MA's), (229, 29520), (233, 29508), (249, 29403), (258, 29376),

Gene: Troll4_70 Start: 55017, Stop: 55637, Start Num: 70
Candidate Starts for Troll4_70:
(Start: 48 @54966 has 22 MA's), (Start: 60 @54987 has 6 MA's), (Start: 70 @55017 has 2 MA's), (Start: 112 @55119 has 1 MA's), (116, 55125), (118, 55134), (130, 55158), (191, 55293), (192, 55296), (206, 55350), (244, 55467), (269, 55566),

Gene: Turuncu_62 Start: 45742, Stop: 44996, Start Num: 9
Candidate Starts for Turuncu_62:
(Start: 9 @45742 has 1 MA's), (85, 45631), (94, 45616), (97, 45604), (100, 45595), (111, 45559), (129, 45520), (135, 45505), (191, 45334), (206, 45277), (244, 45151), (245, 45145), (275, 45019), (280, 45010),

Gene: Virizion_40 Start: 31078, Stop: 30476, Start Num: 84
Candidate Starts for Virizion_40:
(Start: 84 @31078 has 16 MA's), (111, 30994), (153, 30892), (190, 30775), (211, 30697), (220, 30667), (239, 30601), (243, 30577), (244, 30571), (250, 30520),

Gene: Visconti_71 Start: 54874, Stop: 55545, Start Num: 48
Candidate Starts for Visconti_71:

(Start: 48 @54874 has 22 MA's), (Start: 60 @54895 has 6 MA's), (Start: 70 @54925 has 2 MA's), (Start: 112 @55027 has 1 MA's), (116, 55033), (118, 55042), (130, 55066), (191, 55201), (192, 55204), (206, 55258), (244, 55375), (269, 55474),

Gene: WaldoWhy_72 Start: 54894, Stop: 55562, Start Num: 48
Candidate Starts for WaldoWhy_72:
(Start: 48 @54894 has 22 MA's), (Start: 60 @54915 has 6 MA's), (Start: 70 @54945 has 2 MA's), (Start: 112 @55047 has 1 MA's), (116, 55053), (118, 55062), (130, 55086), (133, 55089), (191, 55221), (192, 55224), (206, 55278), (269, 55494),

Gene: Weiss13_83 Start: 62408, Stop: 63115, Start Num: 44
Candidate Starts for Weiss13_83:
(Start: 44 @62408 has 10 MA's), (63, 62459), (89, 62510), (111, 62579), (114, 62585), (Start: 127 @62615 has 1 MA's), (157, 62675), (183, 62723), (191, 62753), (192, 62756), (205, 62807), (206, 62816), (230, 62870), (243, 62927), (249, 62987), (250, 62990), (252, 62996), (265, 63038), (277, 63080),

Gene: Wentworth_37 Start: 31184, Stop: 30582, Start Num: 84
Candidate Starts for Wentworth_37:
(Start: 84 @31184 has 16 MA's), (136, 31040), (153, 30998), (190, 30881), (220, 30773), (239, 30707), (243, 30683), (244, 30677), (250, 30626), (262, 30590),

Gene: Wheezy_57 Start: 44349, Stop: 43618, Start Num: 38
Candidate Starts for Wheezy_57:
(20, 44412), (Start: 38 @44349 has 48 MA's), (52, 44301), (79, 44259), (Start: 112 @44172 has 1 MA's), (154, 44067), (175, 44001), (177, 43995), (178, 43992), (186, 43962), (190, 43947), (191, 43944), (253, 43698), (263, 43677), (280, 43623),

Gene: WhoseManz_58 Start: 41814, Stop: 41074, Start Num: 38
Candidate Starts for WhoseManz_58:
(6, 42120), (12, 41946), (13, 41922), (14, 41910), (20, 41877), (Start: 38 @41814 has 48 MA's), (51, 41769), (71, 41736), (Start: 112 @41637 has 1 MA's), (152, 41544), (177, 41451), (178, 41448), (181, 41436), (214, 41316), (253, 41154), (274, 41100), (280, 41079),

Gene: Wilkos_37 Start: 30999, Stop: 30397, Start Num: 84
Candidate Starts for Wilkos_37:
(Start: 84 @30999 has 16 MA's), (114, 30909), (153, 30813), (158, 30801), (190, 30696), (191, 30693), (239, 30522), (243, 30498), (244, 30492), (250, 30441),

Gene: WinnieLou_74 Start: 51440, Stop: 52150, Start Num: 59
Candidate Starts for WinnieLou_74:
(Start: 56 @51437 has 11 MA's), (Start: 59 @51440 has 31 MA's), (74, 51479), (Start: 93 @51518 has 6 MA's), (118, 51596), (149, 51665), (160, 51695), (165, 51710), (214, 51890), (215, 51893), (228, 51941), (244, 52013), (261, 52100),

Gene: Wojtek_78 Start: 58104, Stop: 58778, Start Num: 61
Candidate Starts for Wojtek_78:
(35, 58044), (41, 58068), (Start: 61 @58104 has 32 MA's), (138, 58296), (180, 58404), (190, 58440), (217, 58530), (235, 58572), (239, 58587), (246, 58638), (252, 58680),

Gene: Xenia2_88 Start: 58445, Stop: 59125, Start Num: 61
Candidate Starts for Xenia2_88:

(Start: 61 @58445 has 32 MA's), (100, 58538), (121, 58598), (138, 58637), (178, 58736), (180, 58745), (204, 58829), (235, 58913), (246, 58979),

Gene: Yara_34 Start: 30376, Stop: 29774, Start Num: 80
Candidate Starts for Yara_34:
(24, 30535), (Start: 28 @30520 has 1 MA's), (49, 30445), (64, 30403), (Start: 70 @30391 has 2 MA's), (Start: 80 @30376 has 1 MA's), (Start: 84 @30370 has 16 MA's), (122, 30259), (146, 30205), (158, 30172), (160, 30169), (177, 30115), (191, 30070), (228, 29941), (244, 29869), (252, 29812), (259, 29791),

Gene: Yelo_82 Start: 62763, Stop: 63470, Start Num: 44
Candidate Starts for Yelo_82:
(Start: 44 @62763 has 10 MA's), (63, 62814), (89, 62865), (111, 62934), (114, 62940), (Start: 127 @62970 has 1 MA's), (157, 63030), (183, 63078), (191, 63108), (192, 63111), (205, 63162), (206, 63171), (230, 63225), (243, 63282), (249, 63342), (250, 63345), (252, 63351), (265, 63393), (277, 63435),

Gene: Yikes_86 Start: 58672, Stop: 59307, Start Num: 78
Candidate Starts for Yikes_86:
(23, 58519), (27, 58534), (30, 58552), (Start: 38 @58573 has 48 MA's), (Start: 60 @58630 has 6 MA's), (Start: 61 @58633 has 32 MA's), (Start: 78 @58672 has 3 MA's), (138, 58825), (151, 58852), (180, 58933), (190, 58969), (235, 59101), (239, 59116), (246, 59167),

Gene: Yndexa_58 Start: 43757, Stop: 43017, Start Num: 38
Candidate Starts for Yndexa_58:
(12, 43889), (13, 43865), (20, 43820), (Start: 38 @43757 has 48 MA's), (51, 43712), (Start: 112 @43580 has 1 MA's), (152, 43487), (177, 43394), (178, 43391), (181, 43379), (191, 43343), (214, 43259), (253, 43097), (274, 43043), (280, 43022),

Gene: Zany_84 Start: 58887, Stop: 59561, Start Num: 60
Candidate Starts for Zany_84:
(57, 58884), (Start: 60 @58887 has 6 MA's), (138, 59079), (151, 59106), (180, 59187), (190, 59223), (235, 59355), (239, 59370), (246, 59421), (252, 59463),

Gene: Zenon_85 Start: 62734, Stop: 63441, Start Num: 44
Candidate Starts for Zenon_85:
(Start: 44 @62734 has 10 MA's), (63, 62785), (89, 62836), (111, 62905), (114, 62911), (Start: 127 @62941 has 1 MA's), (157, 63001), (183, 63049), (191, 63079), (192, 63082), (205, 63133), (206, 63142), (230, 63196), (243, 63253), (249, 63313), (250, 63316), (252, 63322), (265, 63364), (277, 63406),

Gene: Zion_45 Start: 39498, Stop: 38911, Start Num: 65
Candidate Starts for Zion_45:
(Start: 65 @39498 has 8 MA's), (111, 39402), (Start: 112 @39399 has 1 MA's), (129, 39372), (134, 39360), (142, 39339), (212, 39132), (252, 38967), (253, 38958), (254, 38955), (266, 38928),