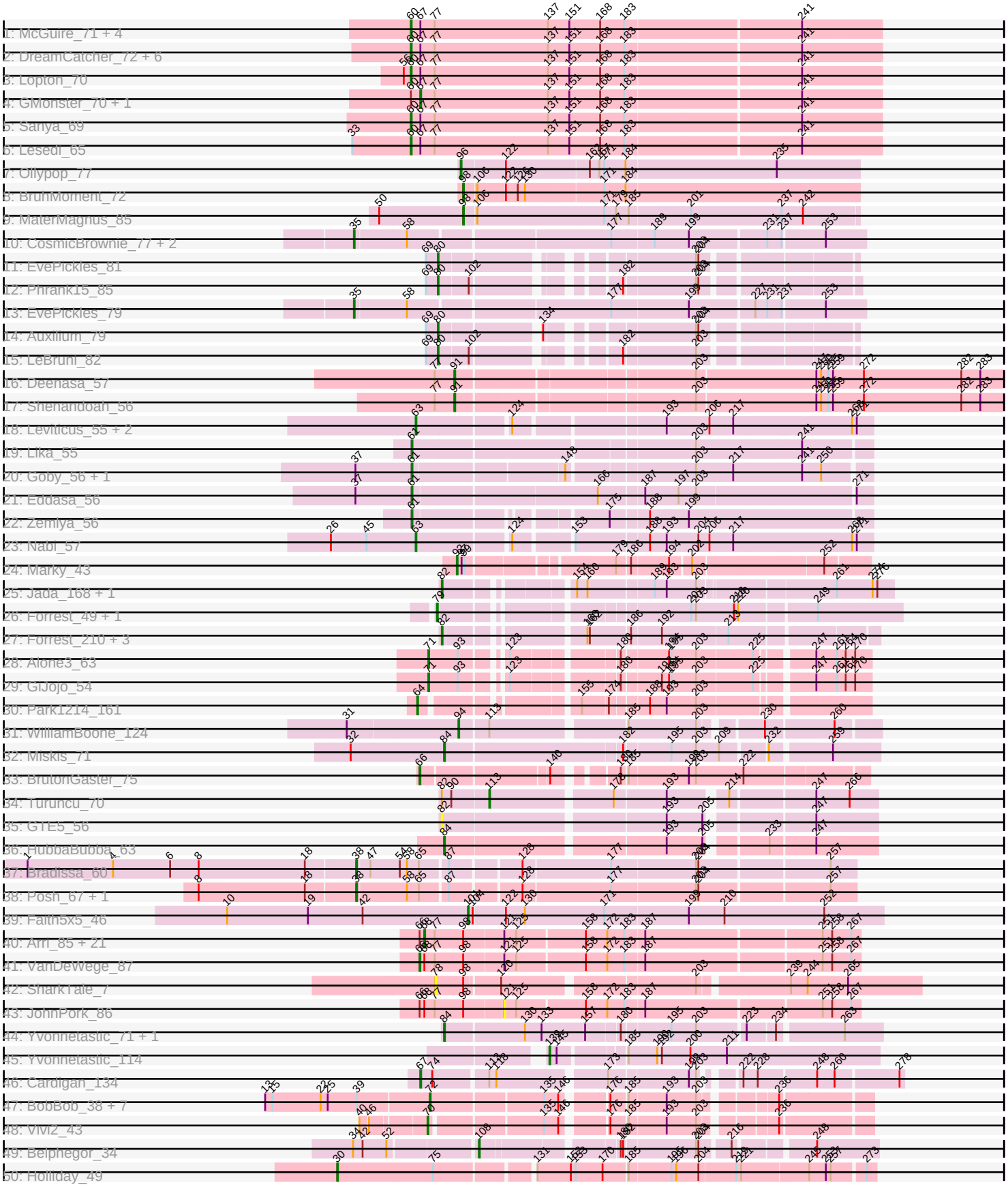
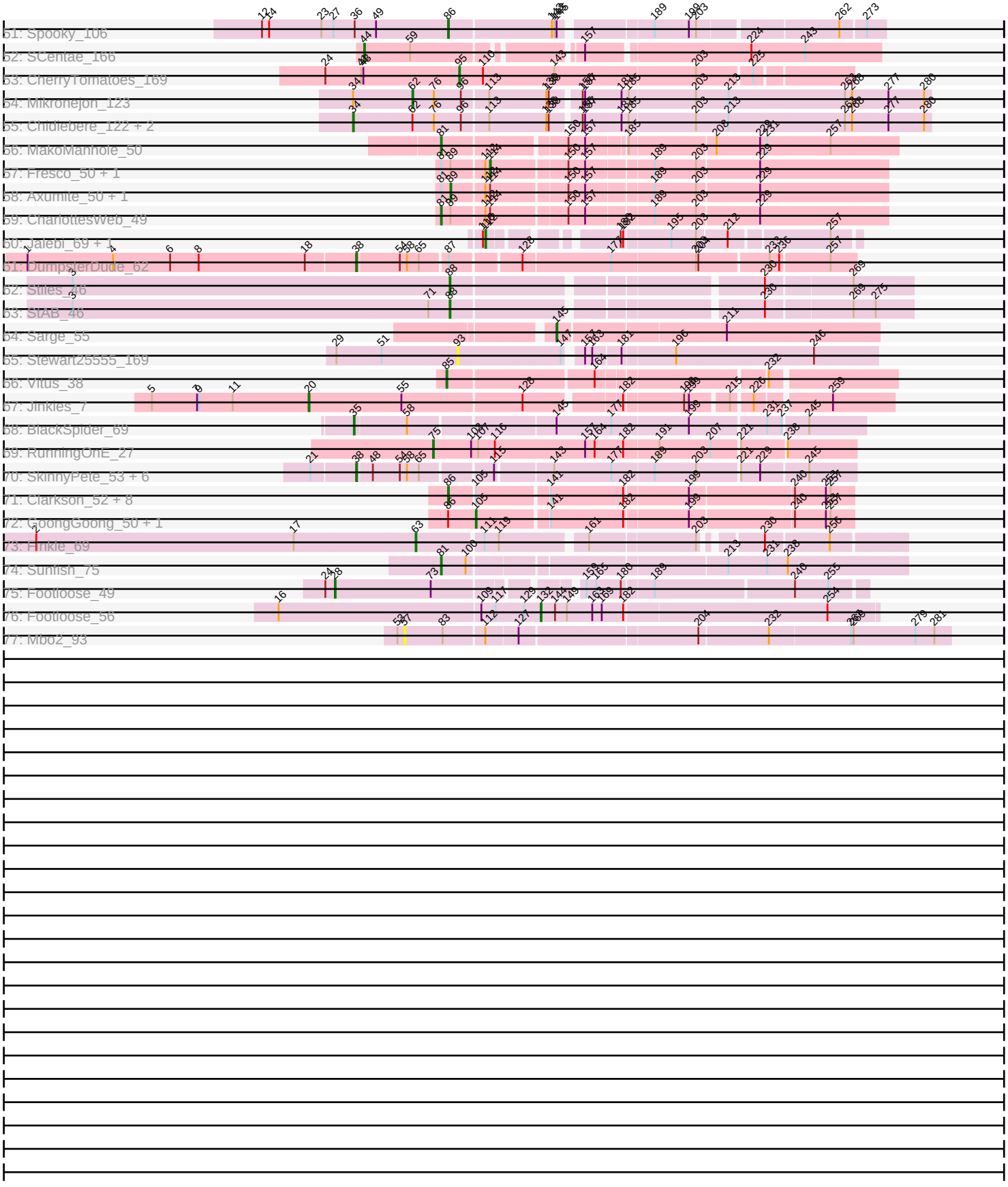
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1: McGuire_71 + 4
2: DreamCatcher_72 + 6
3: Lopton_70
4: GMonster_70 + 1
5: Sanya_69
6: Lesedi_65
7: Ollypop_77
8: BrunMoment_72
9: MatenMagnus_85
10: CosmicBrownie_77 + 2
11: EvePickles_81
12: Phrank15_85
13: EvePickles_79
14: Auxilium_79
15: LeBrunt_82
16: Deenasa_57
17: Shenandoah_56
18: Leviticus_55 + 2
19: Lika_55
20: Goby_56 + 1
21: Eddasa_56
22: Zemlya_56
23: Nabi_57
24: Marky_43
25: Jada_168 + 1
26: Forrest_49 + 1
27: Forrest_210 + 3
28: Alone3_63
29: GIJojo_54
30: Park1214_161
31: WilliamBoone_124
32: Miskis_71
33: BrutonGaster_75
34: Turuncu_70
35: GTE5_56
36: HubbaBubba_63
37: Bradissa_60
38: Posh_67 + 1
39: Faith5x5_46
40: Arri_85 + 21
41: VanDeWege_87
42: SharkTale_7
43: JohnPork_86
44: Yvonnetastic_71 + 1
45: Yvonnetastic_114
46: Cardigan_134
47: BobBob_38 + 7
48: Vivi2_43
49: Belphegor_34
50: Holliday_49

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51: Spooky_106
52: SCentae_166
53: CherryTomatoes_169
54: Mikronejon_123
55: Chidiebere_122 + 2
56: MakoManhole_50
57: Fresco_50 + 1
58: Axumite_50 + 1
59: CharlotteSWeb_49
60: Jalebi_69 + 1
61: DumpsterDude_62
62: Stiles_46
63: StAB_46
64: Sarge_55
65: Stewart25555_169
66: Vitus_38
67: Jinkies_7
68: BlackSpider_69
69: RunningOnE_27
70: SkinnyPete_53 + 6
71: Clarkson_52 + 8
72: GoongGoong_50 + 1
73: Finkle_69
74: Sunfish_75
75: Footloose_49
76: Footloose_56
77: Mbo2_93

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 347349 Report

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

Pham number 347349 has 148 members, 9 are drafts.

Phages represented in each track:
- Track 1 : McGuire_71, Ichabod_74, Squee_73, McSinger_68, BluSpix_68
- Track 2 : DreamCatcher_72, GrecoEtereo_71, AFIS_66, Snazzy_68, Bigchungi_69, SarFire_70, Thor_70
- Track 3 : Lopton_70
- Track 4 : GMonster_70, IgnatiusPatJac_70
- Track 5 : Sanya_69
- Track 6 : Lesedi_65
- Track 7 : Ollypop_77
- Track 8 : BruhMoment_72
- Track 9 : MaterMagnus_85
- Track 10 : CosmicBrownie_77, Lasker_80, GumGum_85
- Track 11 : EvePickles_81
- Track 12 : Phrank15_85
- Track 13 : EvePickles_79
- Track 14 : Auxilium_79
- Track 15 : LeBruni_82
- Track 16 : Deenasa_57
- Track 17 : Shenandoah_56
- Track 18 : Leviticus_55, Esperer_55, Hydra_56
- Track 19 : Lika_55
- Track 20 : Goby_56, Toma_56
- Track 21 : Eddasa_56
- Track 22 : Zemlya_56
- Track 23 : Nabi_57
- Track 24 : Marky_43
- Track 25 : Jada_168, Forrest_171
- Track 26 : Forrest_49, Jada_47
- Track 27 : Forrest_210, Phredrick_212, Emma1919_210, DeluluLabubu_212
- Track 28 : Alone3_63
- Track 29 : GiJojo_54
- Track 30 : Park1214_161
- Track 31 : WilliamBoone_124
- Track 32 : Miskis_71
- Track 33 : BrutonGaster_75
- Track 34 : Turuncu_70
- Track 35 : GTE5_56
- Track 36 : HubbaBubba_63

• Track 37 : Bradissa_60
• Track 38 : Posh_67, Wrigley_69
• Track 39 : Faith5x5_46
• Track 40 : Arri_85, SmokingBunny_86, Twister6_84, Wizard_80, PullumCavea_83, Salvador_85, Fireball_88, PinkCoffee_86, Gezellig_81, TillyBobJoe_83, CherryCola_84, Savbucketdawg_80, Evamon_85, Phlop_82, KimmyK_83, Sendy_87, Valary_86, RogerDodger_88, Togo_85, Egi03_83, Portcullis_85, Shinji_84
• Track 41 : VanDeWege_87
• Track 42 : SharkTale_7
• Track 43 : JohnPork_86
• Track 44 : Yvonnetastic_71, JonJames_73
• Track 45 : Yvonnetastic_114
• Track 46 : Cardigan_134
• Track 47 : BobBob_38, Charming_41, Nordenberg_35, Love_44, Brandonk123_42, Paries_43, Tangent_41, Rofo_41
• Track 48 : Vivi2_43
• Track 49 : Belphegor_34
• Track 50 : Holliday_49
• Track 51 : Spooky_106
• Track 52 : SCentae_166
• Track 53 : CherryTomatoes_169
• Track 54 : Mikronejon_123
• Track 55 : Chidiebere_122, Kabocha_123, Schomber_120
• Track 56 : MakoManhole_50
• Track 57 : Fresco_50, Ligma_50
• Track 58 : Axumite_50, Shatter_50
• Track 59 : CharlottesWeb_49
• Track 60 : Jalebi_69, Sampudon_70
• Track 61 : DumpsterDude_62
• Track 62 : Stiles_46
• Track 63 : StAB_46
• Track 64 : Sarge_55
• Track 65 : Stewart25555_169
• Track 66 : Vitus_38
• Track 67 : Jinkies_7
• Track 68 : BlackSpider_69
• Track 69 : RunningOnE_27
• Track 70 : SkinnyPete_53, Aloeri_75, TootsiePop_72, ChickenDinner_74, DocMcStuffins_74, Misha28_72, Awesomesauce_74
• Track 71 : Clarkson_52, Pringar_51, Huphlepuff_53, VasuNzinga_51, Raela_51, Beelzebub_55, Poise_51, Lilbit_50, Blackbeetle_51
• Track 72 : GoongGoong_50, LittleLaf_51
• Track 73 : Finkle_69
• Track 74 : Sunfish_75
• Track 75 : Footloose_49
• Track 76 : Footloose_56
• Track 77 : Mbo2_93

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

The start number called the most often in the published annotations is 68, it was called in 20 of the 139 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arri_85, CherryCola_84, Egi03_83, Evamon_85, Fireball_88, Gezellig_81, KimmyK_83, Phlop_82, PinkCoffee_86, Portcullis_85, PullumCavea_83, RogerDodger_88, Salvador_85, Savbucketdawg_80, Sendy_87, Shinji_84, SmokingBunny_86, TillyBobJoe_83, Togo_85, Twister6_84, Valary_86, Wizard_80,

Genes that have the "Most Annotated" start but do not call it:
• JohnPork_86, VanDeWege_87,

Genes that do not have the "Most Annotated" start:
• AFIS_66, Aloeri_75, Alone3_63, Auxilium_79, Awesomesauce_74, Axumite_50, Beelzebub_55, Belphegor_34, Bigchungi_69, BlackSpider_69, Blackbeetle_51, BluSpix_68, BobBob_38, Bradissa_60, Brandonk123_42, BruhMoment_72, BrutonGaster_75, Cardigan_134, CharlottesWeb_49, Charming_41, CherryTomatoes_169, ChickenDinner_74, Chidiebere_122, Clarkson_52, CosmicBrownie_77, Deenasa_57, DeluluLabubu_212, DocMcStuffins_74, DreamCatcher_72, DumpsterDude_62, Eddasa_56, Emma1919_210, Esperer_55, EvePickles_79, EvePickles_81, Faith5x5_46, Finkle_69, Footloose_49, Footloose_56, Forrest_171, Forrest_210, Forrest_49, Fresco_50, GMonster_70, GTE5_56, GiJojo_54, Goby_56, GoongGoong_50, GrecoEtereo_71, GumGum_85, Holliday_49, HubbaBubba_63, Huphlepuff_53, Hydra_56, Ichabod_74, IgnatiusPatJac_70, Jada_168, Jada_47, Jalebi_69, Jinkies_7, JonJames_73, Kabocha_123, Lasker_80, LeBruni_82, Lesedi_65, Leviticus_55, Ligma_50, Lika_55, Lilbit_50, LittleLaf_51, Lopton_70, Love_44, MakoManhole_50, Marky_43, MaterMagnus_85, Mbo2_93, McGuire_71, McSinger_68, Mikronejon_123, Misha28_72, Miskis_71, Nabi_57, Nordenberg_35, Ollypop_77, Paries_43, Park1214_161, Phrank15_85, Phredrick_212, Poise_51, Posh_67, Pringar_51, Raela_51, Rofo_41, RunningOnE_27, SCentae_166, Sampudon_70, Sanya_69, SarFire_70, Sarge_55, Schomber_120, SharkTale_7, Shatter_50, Shenandoah_56, SkinnyPete_53, Snazzy_68, Spooky_106, Squee_73, StAB_46, Stewart25555_169, Stiles_46, Sunfish_75, Tangent_41, Thor_70, Toma_56, TootsiePop_72, Turuncu_70, VasuNzinga_51, Vitus_38, Vivi2_43, WilliamBoone_124, Wrigley_69, Yvonnetastic_114, Yvonnetastic_71, Zemlya_56,

Summary by start number:

Start 20:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jinkies_7 (FL),

Start 28:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Footloose_49 (singleton),

Start 30:
• Found in 1 of 148 (0.7%) of genes in pham

• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Holliday_49 (DN1),

Start 34:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 3 of 139
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Chidiebere_122 (DQ), Kabocha_123 (DQ), Schomber_120 (DQ),

Start 35:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 3 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlackSpider_69 (FN), CosmicBrownie_77 (AY), EvePickles_79 (AY), GumGum_85 (AY), Lasker_80 (AY),

Start 38:
• Found in 11 of 148 (7.4%) of genes in pham
• Manual Annotations of this start: 11 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aloeri_75 (F1), Awesomesauce_74 (F1), Bradissa_60 (CY1), ChickenDinner_74 (F1), DocMcStuffins_74 (F1), DumpsterDude_62 (DW), Misha28_72 (F1), Posh_67 (CY4), SkinnyPete_53 (N), TootsiePop_72 (F1), Wrigley_69 (CY4),

Start 44:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SCentae_166 (DO),

Start 57:
• Found in 1 of 148 (0.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mbo2_93 (singleton),

Start 60:
• Found in 17 of 148 (11.5%) of genes in pham
• Manual Annotations of this start: 15 of 139
• Called 88.2% of time when present
• Phage (with cluster) where this start called: AFIS_66 (A1), Bigchungi_69 (A1), BluSpix_68 (A1), DreamCatcher_72 (A1), GrecoEtereo_71 (A1), Ichabod_74 (A1), Lesedi_65 (A1), Lopton_70 (A1), McGuire_71 (A1), McSinger_68 (A1), Sanya_69 (A1), SarFire_70 (A1), Snazzy_68 (A1), Squee_73 (A1), Thor_70 (A1),

Start 61:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 5 of 139
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Eddasa_56 (BD1), Goby_56 (BD1), Lika_55 (BD1), Toma_56 (BD1), Zemlya_56 (BD1),

Start 62:
• Found in 4 of 148 (2.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Mikronejon_123 (DQ),

Start 63:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 5 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Esperer_55 (BD1), Finkle_69 (singleton), Hydra_56 (BD1), Leviticus_55 (BD1), Nabi_57 (BD1),

Start 64:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Park1214_161 (BS),

Start 66:
• Found in 25 of 148 (16.9%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 8.0% of time when present
• Phage (with cluster) where this start called: BrutonGaster_75 (CQ2), VanDeWege_87 (DC1),

Start 67:
• Found in 18 of 148 (12.2%) of genes in pham
• Manual Annotations of this start: 3 of 139
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Cardigan_134 (DD), GMonster_70 (A1), IgnatiusPatJac_70 (A1),

Start 68:
• Found in 24 of 148 (16.2%) of genes in pham
• Manual Annotations of this start: 20 of 139
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Arri_85 (DC1), CherryCola_84 (DC1), Egi03_83 (DC1), Evamon_85 (DC1), Fireball_88 (DC1), Gezellig_81 (DC1), KimmyK_83 (DC1), Phlop_82 (DC1), PinkCoffee_86 (DC1), Portcullis_85 (DC1), PullumCavea_83 (DC1), RogerDodger_88 (DC1), Salvador_85 (DC1), Savbucketdawg_80 (DC1), Sendy_87 (DC1), Shinji_84 (DC1), SmokingBunny_86 (DC1), TillyBobJoe_83 (DC1), Togo_85 (DC1), Twister6_84 (DC1), Valary_86 (DC1), Wizard_80 (DC1),

Start 70:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Vivi2_43 (DE1),

Start 71:
• Found in 3 of 148 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Alone3_63 (BS), GiJojo_54 (BS),

Start 72:
• Found in 8 of 148 (5.4%) of genes in pham
• Manual Annotations of this start: 8 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BobBob_38 (DE1), Brandonk123_42 (DE1), Charming_41 (DE1), Love_44 (DE1), Nordenberg_35 (DE1), Paries_43 (DE1), Rofo_41 (DE1), Tangent_41 (DE1),

Start 75:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 50.0% of time when present
• Phage (with cluster) where this start called: RunningOnE_27 (JN),

Start 78:
• Found in 1 of 148 (0.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SharkTale_7 (DC1),

Start 79:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Forrest_49 (BK1), Jada_47 (BK1),

Start 80:
• Found in 4 of 148 (2.7%) of genes in pham
• Manual Annotations of this start: 4 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Auxilium_79 (AY), EvePickles_81 (AY), LeBruni_82 (AY), Phrank15_85 (AY),

Start 81:
• Found in 7 of 148 (4.7%) of genes in pham
• Manual Annotations of this start: 3 of 139
• Called 42.9% of time when present
• Phage (with cluster) where this start called: CharlottesWeb_49 (DR), MakoManhole_50 (DR), Sunfish_75 (singleton),

Start 82:
• Found in 8 of 148 (5.4%) of genes in pham
• Manual Annotations of this start: 6 of 139
• Called 87.5% of time when present
• Phage (with cluster) where this start called: DeluluLabubu_212 (BK1), Emma1919_210 (BK1), Forrest_171 (BK1), Forrest_210 (BK1), GTE5_56 (CR1),

Jada_168 (BK1), Phredrick_212 (BK1),

Start 84:
• Found in 4 of 148 (2.7%) of genes in pham
• Manual Annotations of this start: 4 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: HubbaBubba_63 (CR4), JonJames_73 (DD), Miskis_71 (CQ1), Yvonnetastic_71 (DD),

Start 85:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Vitus_38 (FL),

Start 86:
• Found in 12 of 148 (8.1%) of genes in pham
• Manual Annotations of this start: 10 of 139
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Beelzebub_55 (S), Blackbeetle_51 (S), Clarkson_52 (S), Huphlepuff_53 (S), Lilbit_50 (S), Poise_51 (S), Pringar_51 (S), Raela_51 (S), Spooky_106 (DN2), VasuNzinga_51 (S),

Start 88:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: StAB_46 (EP), Stiles_46 (EP),

Start 89:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Axumite_50 (DR), Shatter_50 (DR),

Start 91:
• Found in 2 of 148 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Deenasa_57 (B3), Shenandoah_56 (B3),

Start 92:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Marky_43 (BH),

Start 93:
• Found in 3 of 148 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Stewart25555_169 (FC),

Start 94:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: WilliamBoone_124 (CQ1),

Start 95:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CherryTomatoes_169 (DO),

Start 96:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Ollypop_77 (AP2),

Start 98:
• Found in 27 of 148 (18.2%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 7.4% of time when present
• Phage (with cluster) where this start called: BruhMoment_72 (AP3), MaterMagnus_85 (AY),

Start 101:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Faith5x5_46 (CZ6),

Start 105:
• Found in 11 of 148 (7.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 18.2% of time when present
• Phage (with cluster) where this start called: GoongGoong_50 (S), LittleLaf_51 (S),

Start 108:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Belphegor_34 (DE2),

Start 112:
• Found in 8 of 148 (5.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Jalebi_69 (DV), Sampudon_70 (DV),

Start 113:
• Found in 7 of 148 (4.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 14.3% of time when present

• Phage (with cluster) where this start called: Turuncu_70 (CR1),

Start 114:
• Found in 5 of 148 (3.4%) of genes in pham
• Manual Annotations of this start: 2 of 139
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Fresco_50 (DR), Ligma_50 (DR),

Start 121:
• Found in 24 of 148 (16.2%) of genes in pham
• No Manual Annotations of this start.
• Called 4.2% of time when present
• Phage (with cluster) where this start called: JohnPork_86 (DC1),

Start 132:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Footloose_56 (singleton),

Start 139:
• Found in 1 of 148 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yvonnetastic_114 (DD),

Start 145:
• Found in 4 of 148 (2.7%) of genes in pham
• Manual Annotations of this start: 1 of 139
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Sarge_55 (FB),

Summary by clusters:

There are 37 clusters represented in this pham: DO, singleton, AP2, AP3, DD, CZ6, FB, FC, BS, DV, DW, DR, FN, DQ, FL, A1, BD1, DN2, DN1, CQ1, CY1, CY4, BH, N, S, BK1, CQ2, AY, EP, DC1, F1, CR1, CR4, DE1, DE2, JN, B3,

Info for manual annotations of cluster A1:
•Start number 60 was manually annotated 15 times for cluster A1.
•Start number 67 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster AP2:
•Start number 96 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP3:
•Start number 98 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AY:
•Start number 35 was manually annotated 2 times for cluster AY.
•Start number 80 was manually annotated 4 times for cluster AY.
•Start number 98 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster B3:
•Start number 91 was manually annotated 2 times for cluster B3.

Info for manual annotations of cluster BD1:
•Start number 61 was manually annotated 5 times for cluster BD1.
•Start number 63 was manually annotated 4 times for cluster BD1.

Info for manual annotations of cluster BH:
•Start number 92 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster BK1:
•Start number 79 was manually annotated 2 times for cluster BK1.
•Start number 82 was manually annotated 6 times for cluster BK1.

Info for manual annotations of cluster BS:
•Start number 64 was manually annotated 1 time for cluster BS.
•Start number 71 was manually annotated 2 times for cluster BS.

Info for manual annotations of cluster CQ1:
•Start number 84 was manually annotated 1 time for cluster CQ1.
•Start number 94 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 66 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster CR1:
•Start number 113 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR4:
•Start number 84 was manually annotated 1 time for cluster CR4.

Info for manual annotations of cluster CY1:
•Start number 38 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY4:
•Start number 38 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CZ6:
•Start number 101 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DC1:
•Start number 66 was manually annotated 1 time for cluster DC1.
•Start number 68 was manually annotated 20 times for cluster DC1.

Info for manual annotations of cluster DD:
•Start number 67 was manually annotated 1 time for cluster DD.
•Start number 84 was manually annotated 2 times for cluster DD.
•Start number 139 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DE1:
•Start number 70 was manually annotated 1 time for cluster DE1.
•Start number 72 was manually annotated 8 times for cluster DE1.

Info for manual annotations of cluster DE2:
•Start number 108 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster DN1:
•Start number 30 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 86 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DO:
•Start number 44 was manually annotated 1 time for cluster DO.
•Start number 95 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DQ:
•Start number 34 was manually annotated 3 times for cluster DQ.
•Start number 62 was manually annotated 1 time for cluster DQ.

Info for manual annotations of cluster DR:
•Start number 81 was manually annotated 2 times for cluster DR.
•Start number 89 was manually annotated 2 times for cluster DR.
•Start number 114 was manually annotated 2 times for cluster DR.

Info for manual annotations of cluster DV:
•Start number 112 was manually annotated 2 times for cluster DV.

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

Info for manual annotations of cluster EP:
•Start number 88 was manually annotated 2 times for cluster EP.

Info for manual annotations of cluster F1:
•Start number 38 was manually annotated 6 times for cluster F1.

Info for manual annotations of cluster FB:
•Start number 145 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FL:
•Start number 20 was manually annotated 1 time for cluster FL.
•Start number 85 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster FN:
•Start number 35 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster JN:
•Start number 75 was manually annotated 1 time for cluster JN.

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

Info for manual annotations of cluster S:
•Start number 86 was manually annotated 9 times for cluster S.

•Start number 105 was manually annotated 2 times for cluster S.

Gene Information:

Gene: AFIS_66 Start: 43840, Stop: 43262, Start Num: 60
Candidate Starts for AFIS_66:
(Start: 60 @43840 has 15 MA's), (Start: 67 @43828 has 3 MA's), (77, 43810), (137, 43669), (151, 43642), (168, 43603), (183, 43573), (241, 43360),

Gene: Aloeri_75 Start: 46126, Stop: 46713, Start Num: 38
Candidate Starts for Aloeri_75:
(21, 46072), (Start: 38 @46126 has 11 MA's), (48, 46144), (54, 46177), (58, 46186), (65, 46201), (115, 46282), (143, 46348), (177, 46420), (189, 46471), (203, 46522), (221, 46573), (229, 46597), (245, 46654),

Gene: Alone3_63 Start: 21624, Stop: 22094, Start Num: 71
Candidate Starts for Alone3_63:
(Start: 71 @21624 has 2 MA's), (93, 21660), (123, 21702), (180, 21816), (194, 21870), (195, 21873), (203, 21903), (225, 21969), (247, 22029), (261, 22053), (264, 22062), (270, 22074),

Gene: Arri_85 Start: 56022, Stop: 55507, Start Num: 68
Candidate Starts for Arri_85:
(Start: 66 @56028 has 2 MA's), (Start: 68 @56022 has 20 MA's), (77, 56010), (Start: 98 @55974 has 2 MA's), (121, 55929), (125, 55914), (158, 55836), (172, 55809), (183, 55788), (187, 55764), (251, 55554), (258, 55542), (267, 55518),

Gene: Auxilium_79 Start: 44205, Stop: 44636, Start Num: 80
Candidate Starts for Auxilium_79:
(69, 44190), (Start: 80 @44205 has 4 MA's), (134, 44313), (203, 44466), (204, 44469),

Gene: Awesomesauce_74 Start: 45209, Stop: 45796, Start Num: 38
Candidate Starts for Awesomesauce_74:
(21, 45155), (Start: 38 @45209 has 11 MA's), (48, 45227), (54, 45260), (58, 45269), (65, 45284), (115, 45365), (143, 45431), (177, 45503), (189, 45554), (203, 45605), (221, 45656), (229, 45680), (245, 45737),

Gene: Axumite_50 Start: 44137, Stop: 43628, Start Num: 89
Candidate Starts for Axumite_50:
(Start: 81 @44149 has 3 MA's), (Start: 89 @44137 has 2 MA's), (Start: 112 @44101 has 2 MA's), (Start: 114 @44095 has 2 MA's), (150, 44008), (157, 43990), (189, 43912), (203, 43861), (229, 43786),

Gene: Beelzebub_55 Start: 29418, Stop: 29891, Start Num: 86
Candidate Starts for Beelzebub_55:
(Start: 86 @29418 has 10 MA's), (Start: 105 @29448 has 2 MA's), (141, 29529), (182, 29619), (199, 29694), (240, 29817), (253, 29856), (257, 29862),

Gene: Belphegor_34 Start: 32088, Stop: 31654, Start Num: 108
Candidate Starts for Belphegor_34:
(Start: 34 @32232 has 3 MA's), (42, 32220), (52, 32190), (Start: 108 @32088 has 1 MA's), (180, 31938), (182, 31935), (203, 31851), (204, 31848), (216, 31815), (248, 31728),

Gene: Bigchungi_69 Start: 44593, Stop: 44015, Start Num: 60
Candidate Starts for Bigchungi_69:
(Start: 60 @44593 has 15 MA's), (Start: 67 @44581 has 3 MA's), (77, 44563), (137, 44422), (151, 44395), (168, 44356), (183, 44326), (241, 44113),

Gene: BlackSpider_69 Start: 42752, Stop: 43360, Start Num: 35
Candidate Starts for BlackSpider_69:
(Start: 35 @42752 has 3 MA's), (58, 42815), (Start: 145 @42986 has 1 MA's), (177, 43055), (199, 43148), (231, 43241), (237, 43259), (245, 43289),

Gene: Blackbeetle_51 Start: 28464, Stop: 28937, Start Num: 86
Candidate Starts for Blackbeetle_51:
(Start: 86 @28464 has 10 MA's), (Start: 105 @28494 has 2 MA's), (141, 28575), (182, 28665), (199, 28740), (240, 28863), (253, 28902), (257, 28908),

Gene: BluSpix_68 Start: 40281, Stop: 39703, Start Num: 60
Candidate Starts for BluSpix_68:
(Start: 60 @40281 has 15 MA's), (Start: 67 @40269 has 3 MA's), (77, 40251), (137, 40110), (151, 40083), (168, 40044), (183, 40014), (241, 39801),

Gene: BobBob_38 Start: 35578, Stop: 35108, Start Num: 72
Candidate Starts for BobBob_38:
(13, 35776), (15, 35767), (22, 35707), (25, 35698), (39, 35662), (Start: 72 @35578 has 8 MA's), (135, 35452), (146, 35434), (176, 35389), (185, 35371), (193, 35326), (203, 35290), (236, 35212),

Gene: Bradissa_60 Start: 44116, Stop: 44703, Start Num: 38
Candidate Starts for Bradissa_60:
(1, 43708), (4, 43816), (6, 43888), (8, 43924), (18, 44056), (Start: 38 @44116 has 11 MA's), (47, 44131), (54, 44167), (58, 44176), (65, 44191), (87, 44221), (128, 44302), (177, 44410), (203, 44512), (204, 44515), (257, 44671),

Gene: Brandonk123_42 Start: 36713, Stop: 36243, Start Num: 72
Candidate Starts for Brandonk123_42:
(13, 36911), (15, 36902), (22, 36842), (25, 36833), (39, 36797), (Start: 72 @36713 has 8 MA's), (135, 36587), (146, 36569), (176, 36524), (185, 36506), (193, 36461), (203, 36425), (236, 36347),

Gene: BruhMoment_72 Start: 48708, Stop: 48223, Start Num: 98
Candidate Starts for BruhMoment_72:
(Start: 98 @48708 has 2 MA's), (106, 48693), (122, 48657), (126, 48642), (130, 48633), (171, 48540), (184, 48513),

Gene: BrutonGaster_75 Start: 52573, Stop: 53064, Start Num: 66
Candidate Starts for BrutonGaster_75:
(Start: 66 @52573 has 2 MA's), (140, 52717), (180, 52774), (185, 52780), (199, 52852), (203, 52861), (222, 52921),

Gene: Cardigan_134 Start: 77101, Stop: 77631, Start Num: 67
Candidate Starts for Cardigan_134:
(Start: 67 @77101 has 3 MA's), (74, 77116), (Start: 113 @77179 has 1 MA's), (118, 77188), (173, 77311), (199, 77404), (203, 77413), (222, 77446), (228, 77464), (248, 77530), (260, 77551), (278, 77626),

Gene: CharlottesWeb_49 Start: 43515, Stop: 42994, Start Num: 81

Candidate Starts for CharlottesWeb_49:
(Start: 81 @43515 has 3 MA's), (Start: 89 @43503 has 2 MA's), (Start: 112 @43467 has 2 MA's), (Start: 114 @43461 has 2 MA's), (150, 43374), (157, 43356), (189, 43278), (203, 43227), (229, 43152),

Gene: Charming_41 Start: 36214, Stop: 35744, Start Num: 72
Candidate Starts for Charming_41:
(13, 36412), (15, 36403), (22, 36343), (25, 36334), (39, 36298), (Start: 72 @36214 has 8 MA's), (135, 36088), (146, 36070), (176, 36025), (185, 36007), (193, 35962), (203, 35926), (236, 35848),

Gene: CherryCola_84 Start: 56435, Stop: 55920, Start Num: 68
Candidate Starts for CherryCola_84:
(Start: 66 @56441 has 2 MA's), (Start: 68 @56435 has 20 MA's), (77, 56423), (Start: 98 @56387 has 2 MA's), (121, 56342), (125, 56327), (158, 56249), (172, 56222), (183, 56201), (187, 56177), (251, 55967), (258, 55955), (267, 55931),

Gene: CherryTomatoes_169 Start: 123046, Stop: 122573, Start Num: 95
Candidate Starts for CherryTomatoes_169:
(24, 123214), (41, 123169), (43, 123166), (Start: 95 @123046 has 1 MA's), (110, 123016), (143, 122929), (203, 122755), (225, 122689),

Gene: ChickenDinner_74 Start: 46126, Stop: 46713, Start Num: 38
Candidate Starts for ChickenDinner_74:
(21, 46072), (Start: 38 @46126 has 11 MA's), (48, 46144), (54, 46177), (58, 46186), (65, 46201), (115, 46282), (143, 46348), (177, 46420), (189, 46471), (203, 46522), (221, 46573), (229, 46597), (245, 46654),

Gene: Chidiebere_122 Start: 85918, Stop: 86616, Start Num: 34
Candidate Starts for Chidiebere_122:
(Start: 34 @85918 has 3 MA's), (Start: 62 @85990 has 1 MA's), (76, 86017), (Start: 96 @86050 has 1 MA's), (Start: 113 @86080 has 1 MA's), (136, 86152), (138, 86155), (156, 86188), (157, 86191), (181, 86236), (185, 86245), (203, 86326), (213, 86365), (263, 86509), (268, 86518), (277, 86563), (280, 86608),

Gene: Clarkson_52 Start: 29146, Stop: 29619, Start Num: 86
Candidate Starts for Clarkson_52:
(Start: 86 @29146 has 10 MA's), (Start: 105 @29176 has 2 MA's), (141, 29257), (182, 29347), (199, 29422), (240, 29545), (253, 29584), (257, 29590),

Gene: CosmicBrownie_77 Start: 44062, Stop: 44670, Start Num: 35
Candidate Starts for CosmicBrownie_77:
(Start: 35 @44062 has 3 MA's), (58, 44125), (177, 44365), (189, 44416), (199, 44458), (231, 44551), (237, 44569), (253, 44620),

Gene: Deenasa_57 Start: 52719, Stop: 52066, Start Num: 91
Candidate Starts for Deenasa_57:
(77, 52743), (Start: 91 @52719 has 2 MA's), (203, 52446), (247, 52302), (250, 52296), (255, 52287), (259, 52281), (272, 52242), (282, 52119), (283, 52095),

Gene: DeluluLabubu_212 Start: 104650, Stop: 105126, Start Num: 82
Candidate Starts for DeluluLabubu_212:
(Start: 82 @104650 has 6 MA's), (160, 104794), (162, 104797), (186, 104845), (192, 104881), (213, 104959),

Gene: DocMcStuffins_74 Start: 46126, Stop: 46713, Start Num: 38
Candidate Starts for DocMcStuffins_74:
(21, 46072), (Start: 38 @46126 has 11 MA's), (48, 46144), (54, 46177), (58, 46186), (65, 46201), (115, 46282), (143, 46348), (177, 46420), (189, 46471), (203, 46522), (221, 46573), (229, 46597), (245, 46654),

Gene: DreamCatcher_72 Start: 44845, Stop: 44267, Start Num: 60
Candidate Starts for DreamCatcher_72:
(Start: 60 @44845 has 15 MA's), (Start: 67 @44833 has 3 MA's), (77, 44815), (137, 44674), (151, 44647), (168, 44608), (183, 44578), (241, 44365),

Gene: DumpsterDude_62 Start: 46219, Stop: 46806, Start Num: 38
Candidate Starts for DumpsterDude_62:
(1, 45811), (4, 45919), (6, 45991), (8, 46027), (18, 46159), (Start: 38 @46219 has 11 MA's), (54, 46270), (58, 46279), (65, 46294), (87, 46324), (128, 46405), (177, 46513), (203, 46615), (204, 46618), (233, 46702), (236, 46714), (257, 46774),

Gene: Eddasa_56 Start: 41265, Stop: 40723, Start Num: 61
Candidate Starts for Eddasa_56:
(37, 41334), (Start: 61 @41265 has 5 MA's), (166, 41046), (187, 40995), (197, 40953), (203, 40932), (271, 40743),

Gene: Egi03_83 Start: 55457, Stop: 54942, Start Num: 68
Candidate Starts for Egi03_83:
(Start: 66 @55463 has 2 MA's), (Start: 68 @55457 has 20 MA's), (77, 55445), (Start: 98 @55409 has 2 MA's), (121, 55364), (125, 55349), (158, 55271), (172, 55244), (183, 55223), (187, 55199), (251, 54989), (258, 54977), (267, 54953),

Gene: Emma1919_210 Start: 103175, Stop: 103651, Start Num: 82
Candidate Starts for Emma1919_210:
(Start: 82 @103175 has 6 MA's), (160, 103319), (162, 103322), (186, 103370), (192, 103406), (213, 103484),

Gene: Esperer_55 Start: 40815, Stop: 40285, Start Num: 63
Candidate Starts for Esperer_55:
(Start: 63 @40815 has 5 MA's), (124, 40707), (193, 40539), (206, 40488), (217, 40458), (268, 40311), (271, 40305),

Gene: Evamon_85 Start: 55834, Stop: 55319, Start Num: 68
Candidate Starts for Evamon_85:
(Start: 66 @55840 has 2 MA's), (Start: 68 @55834 has 20 MA's), (77, 55822), (Start: 98 @55786 has 2 MA's), (121, 55741), (125, 55726), (158, 55648), (172, 55621), (183, 55600), (187, 55576), (251, 55366), (258, 55354), (267, 55330),

Gene: EvePickles_81 Start: 47374, Stop: 47805, Start Num: 80
Candidate Starts for EvePickles_81:
(69, 47359), (Start: 80 @47374 has 4 MA's), (203, 47635), (204, 47638),

Gene: EvePickles_79 Start: 46090, Stop: 46698, Start Num: 35
Candidate Starts for EvePickles_79:
(Start: 35 @46090 has 3 MA's), (58, 46153), (177, 46393), (199, 46486), (227, 46564), (231, 46579), (237, 46597), (253, 46648),

Gene: Faith5x5_46 Start: 31732, Stop: 32244, Start Num: 101
Candidate Starts for Faith5x5_46:
(10, 31432), (19, 31534), (42, 31603), (Start: 101 @31732 has 1 MA's), (104, 31738), (122, 31777), (130, 31801), (171, 31897), (199, 31999), (210, 32044), (252, 32170),

Gene: Finkle_69 Start: 42637, Stop: 43176, Start Num: 63
Candidate Starts for Finkle_69:
(2, 42163), (17, 42487), (Start: 63 @42637 has 5 MA's), (111, 42715), (119, 42733), (161, 42832), (203, 42955), (230, 43015), (256, 43087),

Gene: Fireball_88 Start: 56296, Stop: 55781, Start Num: 68
Candidate Starts for Fireball_88:
(Start: 66 @56302 has 2 MA's), (Start: 68 @56296 has 20 MA's), (77, 56284), (Start: 98 @56248 has 2 MA's), (121, 56203), (125, 56188), (158, 56110), (172, 56083), (183, 56062), (187, 56038), (251, 55828), (258, 55816), (267, 55792),

Gene: Footloose_49 Start: 28880, Stop: 29479, Start Num: 28
Candidate Starts for Footloose_49:
(24, 28868), (Start: 28 @28880 has 1 MA's), (73, 29000), (159, 29150), (165, 29162), (180, 29189), (189, 29225), (240, 29393), (255, 29435),

Gene: Footloose_56 Start: 32214, Stop: 32624, Start Num: 132
Candidate Starts for Footloose_56:
(16, 31890), (109, 32139), (117, 32157), (129, 32193), (Start: 132 @32214 has 1 MA's), (144, 32232), (149, 32247), (163, 32277), (169, 32289), (182, 32316), (254, 32565),

Gene: Forrest_49 Start: 41931, Stop: 42446, Start Num: 79
Candidate Starts for Forrest_49:
(Start: 79 @41931 has 2 MA's), (201, 42195), (203, 42201), (218, 42249), (220, 42252), (249, 42342),

Gene: Forrest_210 Start: 104141, Stop: 104617, Start Num: 82
Candidate Starts for Forrest_210:
(Start: 82 @104141 has 6 MA's), (160, 104285), (162, 104288), (186, 104336), (192, 104372), (213, 104450),

Gene: Forrest_171 Start: 88900, Stop: 89394, Start Num: 82
Candidate Starts for Forrest_171:
(Start: 82 @88900 has 6 MA's), (154, 89029), (160, 89041), (189, 89119), (193, 89134), (203, 89170), (261, 89323), (274, 89368), (276, 89374),

Gene: Fresco_50 Start: 44095, Stop: 43628, Start Num: 114
Candidate Starts for Fresco_50:
(Start: 81 @44149 has 3 MA's), (Start: 89 @44137 has 2 MA's), (Start: 112 @44101 has 2 MA's), (Start: 114 @44095 has 2 MA's), (150, 44008), (157, 43990), (189, 43912), (203, 43861), (229, 43786),

Gene: GMonster_70 Start: 44872, Stop: 44306, Start Num: 67
Candidate Starts for GMonster_70:
(Start: 60 @44884 has 15 MA's), (Start: 67 @44872 has 3 MA's), (77, 44854), (137, 44713), (151, 44686), (168, 44647), (183, 44617), (241, 44404),

Gene: GTE5_56 Start: 46745, Stop: 46242, Start Num: 82
Candidate Starts for GTE5_56:
(Start: 82 @46745 has 6 MA's), (193, 46481), (205, 46436), (247, 46319),

Gene: Gezellig_81 Start: 55680, Stop: 55165, Start Num: 68
Candidate Starts for Gezellig_81:
(Start: 66 @55686 has 2 MA's), (Start: 68 @55680 has 20 MA's), (77, 55668), (Start: 98 @55632 has 2 MA's), (121, 55587), (125, 55572), (158, 55494), (172, 55467), (183, 55446), (187, 55422), (251, 55212), (258, 55200), (267, 55176),

Gene: GiJojo_54 Start: 20818, Stop: 21288, Start Num: 71
Candidate Starts for GiJojo_54:
(Start: 71 @20818 has 2 MA's), (93, 20854), (123, 20896), (180, 21010), (192, 21055), (194, 21064), (195, 21067), (203, 21097), (225, 21163), (247, 21223), (261, 21247), (264, 21256), (270, 21268),

Gene: Goby_56 Start: 42305, Stop: 41778, Start Num: 61
Candidate Starts for Goby_56:
(37, 42374), (Start: 61 @42305 has 5 MA's), (148, 42131), (203, 41987), (217, 41942), (241, 41858), (250, 41834),

Gene: GoongGoong_50 Start: 28396, Stop: 28839, Start Num: 105
Candidate Starts for GoongGoong_50:
(Start: 86 @28366 has 10 MA's), (Start: 105 @28396 has 2 MA's), (141, 28477), (182, 28567), (199, 28642), (240, 28765), (253, 28804), (257, 28810),

Gene: GrecoEtereo_71 Start: 44625, Stop: 44047, Start Num: 60
Candidate Starts for GrecoEtereo_71:
(Start: 60 @44625 has 15 MA's), (Start: 67 @44613 has 3 MA's), (77, 44595), (137, 44454), (151, 44427), (168, 44388), (183, 44358), (241, 44145),

Gene: GumGum_85 Start: 45863, Stop: 46471, Start Num: 35
Candidate Starts for GumGum_85:
(Start: 35 @45863 has 3 MA's), (58, 45926), (177, 46166), (189, 46217), (199, 46259), (231, 46352), (237, 46370), (253, 46421),

Gene: Holliday_49 Start: 33694, Stop: 33062, Start Num: 30
Candidate Starts for Holliday_49:
(Start: 30 @33694 has 1 MA's), (Start: 75 @33574 has 1 MA's), (131, 33463), (152, 33421), (153, 33415), (170, 33382), (185, 33355), (195, 33304), (196, 33298), (204, 33271), (219, 33226), (221, 33220), (245, 33139), (253, 33118), (257, 33112), (273, 33073),

Gene: HubbaBubba_63 Start: 48828, Stop: 48328, Start Num: 84
Candidate Starts for HubbaBubba_63:
(Start: 84 @48828 has 4 MA's), (193, 48567), (205, 48522), (233, 48459), (247, 48405),

Gene: Huphlepuff_53 Start: 28951, Stop: 29424, Start Num: 86
Candidate Starts for Huphlepuff_53:
(Start: 86 @28951 has 10 MA's), (Start: 105 @28981 has 2 MA's), (141, 29062), (182, 29152), (199, 29227), (240, 29350), (253, 29389), (257, 29395),

Gene: Hydra_56 Start: 41651, Stop: 41121, Start Num: 63
Candidate Starts for Hydra_56:
(Start: 63 @41651 has 5 MA's), (124, 41543), (193, 41375), (206, 41324), (217, 41294), (268, 41147), (271, 41141),

Gene: Ichabod_74 Start: 45654, Stop: 45076, Start Num: 60

Candidate Starts for Ichabod_74:
(Start: 60 @45654 has 15 MA's), (Start: 67 @45642 has 3 MA's), (77, 45624), (137, 45483), (151, 45456), (168, 45417), (183, 45387), (241, 45174),

Gene: IgnatiusPatJac_70 Start: 44214, Stop: 43648, Start Num: 67
Candidate Starts for IgnatiusPatJac_70:
(Start: 60 @44226 has 15 MA's), (Start: 67 @44214 has 3 MA's), (77, 44196), (137, 44055), (151, 44028), (168, 43989), (183, 43959), (241, 43746),

Gene: Jada_168 Start: 87596, Stop: 88090, Start Num: 82
Candidate Starts for Jada_168:
(Start: 82 @87596 has 6 MA's), (154, 87725), (160, 87737), (189, 87815), (193, 87830), (203, 87866), (261, 88019), (274, 88064), (276, 88070),

Gene: Jada_47 Start: 41113, Stop: 41628, Start Num: 79
Candidate Starts for Jada_47:
(Start: 79 @41113 has 2 MA's), (201, 41377), (203, 41383), (218, 41431), (220, 41434), (249, 41524),

Gene: Jalebi_69 Start: 49016, Stop: 49408, Start Num: 112
Candidate Starts for Jalebi_69:
(110, 49013), (Start: 112 @49016 has 2 MA's), (180, 49139), (182, 49142), (195, 49196), (203, 49226), (212, 49262), (257, 49376),

Gene: Jinkies_7 Start: 5796, Stop: 6461, Start Num: 20
Candidate Starts for Jinkies_7:
(5, 5598), (7, 5655), (9, 5658), (11, 5700), (Start: 20 @5796 has 1 MA's), (55, 5910), (128, 6057), (182, 6165), (198, 6234), (199, 6240), (215, 6279), (226, 6300), (259, 6384),

Gene: JohnPork_86 Start: 55643, Stop: 55221, Start Num: 121
Candidate Starts for JohnPork_86:
(Start: 66 @55742 has 2 MA's), (Start: 68 @55736 has 20 MA's), (77, 55724), (Start: 98 @55688 has 2 MA's), (121, 55643), (125, 55628), (158, 55550), (172, 55523), (183, 55502), (187, 55478), (251, 55268), (258, 55256), (267, 55232),

Gene: JonJames_73 Start: 49905, Stop: 50405, Start Num: 84
Candidate Starts for JonJames_73:
(Start: 84 @49905 has 4 MA's), (130, 49998), (133, 50019), (157, 50073), (180, 50112), (195, 50169), (203, 50199), (223, 50253), (234, 50286), (263, 50361),

Gene: Kabocha_123 Start: 86731, Stop: 87429, Start Num: 34
Candidate Starts for Kabocha_123:
(Start: 34 @86731 has 3 MA's), (Start: 62 @86803 has 1 MA's), (76, 86830), (Start: 96 @86863 has 1 MA's), (Start: 113 @86893 has 1 MA's), (136, 86965), (138, 86968), (156, 87001), (157, 87004), (181, 87049), (185, 87058), (203, 87139), (213, 87178), (263, 87322), (268, 87331), (277, 87376), (280, 87421),

Gene: KimmyK_83 Start: 56127, Stop: 55612, Start Num: 68
Candidate Starts for KimmyK_83:
(Start: 66 @56133 has 2 MA's), (Start: 68 @56127 has 20 MA's), (77, 56115), (Start: 98 @56079 has 2 MA's), (121, 56034), (125, 56019), (158, 55941), (172, 55914), (183, 55893), (187, 55869), (251, 55659), (258, 55647), (267, 55623),

Gene: Lasker_80 Start: 46302, Stop: 46910, Start Num: 35

Candidate Starts for Lasker_80:
(Start: 35 @46302 has 3 MA's), (58, 46365), (177, 46605), (189, 46656), (199, 46698), (231, 46791), (237, 46809), (253, 46860),

Gene: LeBruni_82 Start: 46016, Stop: 46447, Start Num: 80
Candidate Starts for LeBruni_82:
(69, 46001), (Start: 80 @46016 has 4 MA's), (102, 46052), (182, 46193), (203, 46277),

Gene: Lesedi_65 Start: 42530, Stop: 41952, Start Num: 60
Candidate Starts for Lesedi_65:
(33, 42602), (Start: 60 @42530 has 15 MA's), (Start: 67 @42518 has 3 MA's), (77, 42500), (137, 42359), (151, 42332), (168, 42293), (183, 42263), (241, 42050),

Gene: Leviticus_55 Start: 41002, Stop: 40472, Start Num: 63
Candidate Starts for Leviticus_55:
(Start: 63 @41002 has 5 MA's), (124, 40894), (193, 40726), (206, 40675), (217, 40645), (268, 40498), (271, 40492),

Gene: Ligma_50 Start: 44095, Stop: 43628, Start Num: 114
Candidate Starts for Ligma_50:
(Start: 81 @44149 has 3 MA's), (Start: 89 @44137 has 2 MA's), (Start: 112 @44101 has 2 MA's), (Start: 114 @44095 has 2 MA's), (150, 44008), (157, 43990), (189, 43912), (203, 43861), (229, 43786),

Gene: Lika_55 Start: 42316, Stop: 41774, Start Num: 61
Candidate Starts for Lika_55:
(Start: 61 @42316 has 5 MA's), (203, 41986), (241, 41857),

Gene: Lilbit_50 Start: 29147, Stop: 29620, Start Num: 86
Candidate Starts for Lilbit_50:
(Start: 86 @29147 has 10 MA's), (Start: 105 @29177 has 2 MA's), (141, 29258), (182, 29348), (199, 29423), (240, 29546), (253, 29585), (257, 29591),

Gene: LittleLaf_51 Start: 28906, Stop: 29349, Start Num: 105
Candidate Starts for LittleLaf_51:
(Start: 86 @28876 has 10 MA's), (Start: 105 @28906 has 2 MA's), (141, 28987), (182, 29077), (199, 29152), (240, 29275), (253, 29314), (257, 29320),

Gene: Lopton_70 Start: 46302, Stop: 45724, Start Num: 60
Candidate Starts for Lopton_70:
(56, 46311), (Start: 60 @46302 has 15 MA's), (Start: 67 @46290 has 3 MA's), (77, 46272), (137, 46131), (151, 46104), (168, 46065), (183, 46035), (241, 45822),

Gene: Love_44 Start: 37647, Stop: 37177, Start Num: 72
Candidate Starts for Love_44:
(13, 37845), (15, 37836), (22, 37776), (25, 37767), (39, 37731), (Start: 72 @37647 has 8 MA's), (135, 37521), (146, 37503), (176, 37458), (185, 37440), (193, 37395), (203, 37359), (236, 37281),

Gene: MakoManhole_50 Start: 45251, Stop: 44724, Start Num: 81
Candidate Starts for MakoManhole_50:
(Start: 81 @45251 has 3 MA's), (150, 45113), (157, 45095), (185, 45050), (208, 44948), (229, 44894), (231, 44885), (257, 44807),

Gene: Marky_43 Start: 31173, Stop: 31622, Start Num: 92

Candidate Starts for Marky_43:
(Start: 92 @31173 has 1 MA's), (97, 31179), (99, 31182), (179, 31344), (186, 31359), (194, 31404), (202, 31428), (252, 31572),

Gene: MaterMagnus_85 Start: 48532, Stop: 49020, Start Num: 98
Candidate Starts for MaterMagnus_85:
(50, 48427), (Start: 98 @48532 has 2 MA's), (106, 48547), (171, 48706), (179, 48721), (185, 48736), (201, 48811), (237, 48925), (242, 48952),

Gene: Mbo2_93 Start: 66190, Stop: 65546, Start Num: 57
Candidate Starts for Mbo2_93:
(53, 66199), (57, 66190), (83, 66142), (Start: 112 @66094 has 2 MA's), (127, 66058), (204, 65854), (232, 65770), (267, 65671), (269, 65668), (279, 65590), (281, 65566),

Gene: McGuire_71 Start: 44174, Stop: 43596, Start Num: 60
Candidate Starts for McGuire_71:
(Start: 60 @44174 has 15 MA's), (Start: 67 @44162 has 3 MA's), (77, 44144), (137, 44003), (151, 43976), (168, 43937), (183, 43907), (241, 43694),

Gene: McSinger_68 Start: 43534, Stop: 42956, Start Num: 60
Candidate Starts for McSinger_68:
(Start: 60 @43534 has 15 MA's), (Start: 67 @43522 has 3 MA's), (77, 43504), (137, 43363), (151, 43336), (168, 43297), (183, 43267), (241, 43054),

Gene: Mikronejon_123 Start: 85340, Stop: 85966, Start Num: 62
Candidate Starts for Mikronejon_123:
(Start: 34 @85268 has 3 MA's), (Start: 62 @85340 has 1 MA's), (76, 85367), (Start: 96 @85400 has 1 MA's), (Start: 113 @85430 has 1 MA's), (136, 85502), (138, 85505), (156, 85538), (157, 85541), (181, 85586), (185, 85595), (203, 85676), (213, 85715), (263, 85859), (268, 85868), (277, 85913), (280, 85958),

Gene: Misha28_72 Start: 45214, Stop: 45801, Start Num: 38
Candidate Starts for Misha28_72:
(21, 45160), (Start: 38 @45214 has 11 MA's), (48, 45232), (54, 45265), (58, 45274), (65, 45289), (115, 45370), (143, 45436), (177, 45508), (189, 45559), (203, 45610), (221, 45661), (229, 45685), (245, 45742),

Gene: Miskis_71 Start: 47774, Stop: 48271, Start Num: 84
Candidate Starts for Miskis_71:
(32, 47657), (Start: 84 @47774 has 4 MA's), (182, 47984), (195, 48038), (203, 48068), (209, 48095), (232, 48146), (259, 48215),

Gene: Nabi_57 Start: 42255, Stop: 41725, Start Num: 63
Candidate Starts for Nabi_57:
(26, 42360), (45, 42315), (Start: 63 @42255 has 5 MA's), (124, 42147), (153, 42084), (188, 42000), (193, 41979), (204, 41940), (206, 41928), (217, 41898), (268, 41751), (271, 41745),

Gene: Nordenberg_35 Start: 35840, Stop: 35370, Start Num: 72
Candidate Starts for Nordenberg_35:
(13, 36038), (15, 36029), (22, 35969), (25, 35960), (39, 35924), (Start: 72 @35840 has 8 MA's), (135, 35714), (146, 35696), (176, 35651), (185, 35633), (193, 35588), (203, 35552), (236, 35474),

Gene: Ollypop_77 Start: 49851, Stop: 49363, Start Num: 96

Candidate Starts for Ollypop_77:
(Start: 96 @49851 has 1 MA's), (122, 49797), (162, 49698), (167, 49686), (171, 49680), (184, 49653), (235, 49467),

Gene: Paries_43 Start: 37309, Stop: 36839, Start Num: 72
Candidate Starts for Paries_43:
(13, 37507), (15, 37498), (22, 37438), (25, 37429), (39, 37393), (Start: 72 @37309 has 8 MA's), (135, 37183), (146, 37165), (176, 37120), (185, 37102), (193, 37057), (203, 37021), (236, 36943),

Gene: Park1214_161 Start: 84748, Stop: 85224, Start Num: 64
Candidate Starts for Park1214_161:
(Start: 64 @84748 has 1 MA's), (155, 84904), (174, 84934), (188, 84976), (193, 84997), (203, 85033),

Gene: Phlop_82 Start: 55730, Stop: 55215, Start Num: 68
Candidate Starts for Phlop_82:
(Start: 66 @55736 has 2 MA's), (Start: 68 @55730 has 20 MA's), (77, 55718), (Start: 98 @55682 has 2 MA's), (121, 55637), (125, 55622), (158, 55544), (172, 55517), (183, 55496), (187, 55472), (251, 55262), (258, 55250), (267, 55226),

Gene: Phrank15_85 Start: 46952, Stop: 47386, Start Num: 80
Candidate Starts for Phrank15_85:
(69, 46937), (Start: 80 @46952 has 4 MA's), (102, 46988), (182, 47129), (203, 47213), (204, 47216),

Gene: Phredrick_212 Start: 102971, Stop: 103447, Start Num: 82
Candidate Starts for Phredrick_212:
(Start: 82 @102971 has 6 MA's), (160, 103115), (162, 103118), (186, 103166), (192, 103202), (213, 103280),

Gene: PinkCoffee_86 Start: 55594, Stop: 55079, Start Num: 68
Candidate Starts for PinkCoffee_86:
(Start: 66 @55600 has 2 MA's), (Start: 68 @55594 has 20 MA's), (77, 55582), (Start: 98 @55546 has 2 MA's), (121, 55501), (125, 55486), (158, 55408), (172, 55381), (183, 55360), (187, 55336), (251, 55126), (258, 55114), (267, 55090),

Gene: Poise_51 Start: 28464, Stop: 28937, Start Num: 86
Candidate Starts for Poise_51:
(Start: 86 @28464 has 10 MA's), (Start: 105 @28494 has 2 MA's), (141, 28575), (182, 28665), (199, 28740), (240, 28863), (253, 28902), (257, 28908),

Gene: Portcullis_85 Start: 55736, Stop: 55221, Start Num: 68
Candidate Starts for Portcullis_85:
(Start: 66 @55742 has 2 MA's), (Start: 68 @55736 has 20 MA's), (77, 55724), (Start: 98 @55688 has 2 MA's), (121, 55643), (125, 55628), (158, 55550), (172, 55523), (183, 55502), (187, 55478), (251, 55268), (258, 55256), (267, 55232),

Gene: Posh_67 Start: 45892, Stop: 46479, Start Num: 38
Candidate Starts for Posh_67:
(8, 45700), (18, 45832), (Start: 38 @45892 has 11 MA's), (58, 45952), (65, 45967), (87, 45997), (128, 46078), (177, 46186), (203, 46288), (204, 46291), (257, 46447),

Gene: Pringar_51 Start: 28752, Stop: 29225, Start Num: 86
Candidate Starts for Pringar_51:

(Start: 86 @28752 has 10 MA's), (Start: 105 @28782 has 2 MA's), (141, 28863), (182, 28953), (199, 29028), (240, 29151), (253, 29190), (257, 29196),

Gene: PullumCavea_83 Start: 55907, Stop: 55392, Start Num: 68
Candidate Starts for PullumCavea_83:
(Start: 66 @55913 has 2 MA's), (Start: 68 @55907 has 20 MA's), (77, 55895), (Start: 98 @55859 has 2 MA's), (121, 55814), (125, 55799), (158, 55721), (172, 55694), (183, 55673), (187, 55649), (251, 55439), (258, 55427), (267, 55403),

Gene: Raela_51 Start: 29019, Stop: 29492, Start Num: 86
Candidate Starts for Raela_51:
(Start: 86 @29019 has 10 MA's), (Start: 105 @29049 has 2 MA's), (141, 29130), (182, 29220), (199, 29295), (240, 29418), (253, 29457), (257, 29463),

Gene: Rofo_41 Start: 36635, Stop: 36165, Start Num: 72
Candidate Starts for Rofo_41:
(13, 36833), (15, 36824), (22, 36764), (25, 36755), (39, 36719), (Start: 72 @36635 has 8 MA's), (135, 36509), (146, 36491), (176, 36446), (185, 36428), (193, 36383), (203, 36347), (236, 36269),

Gene: RogerDodger_88 Start: 56495, Stop: 55980, Start Num: 68
Candidate Starts for RogerDodger_88:
(Start: 66 @56501 has 2 MA's), (Start: 68 @56495 has 20 MA's), (77, 56483), (Start: 98 @56447 has 2 MA's), (121, 56402), (125, 56387), (158, 56309), (172, 56282), (183, 56261), (187, 56237), (251, 56027), (258, 56015), (267, 55991),

Gene: RunningOnE_27 Start: 14405, Stop: 13887, Start Num: 75
Candidate Starts for RunningOnE_27:
(Start: 75 @14405 has 1 MA's), (103, 14357), (107, 14348), (116, 14327), (157, 14213), (164, 14201), (182, 14165), (191, 14123), (207, 14060), (221, 14027), (238, 13973),

Gene: SCentae_166 Start: 121636, Stop: 122217, Start Num: 44
Candidate Starts for SCentae_166:
(Start: 44 @121636 has 1 MA's), (59, 121693), (157, 121873), (224, 122059), (243, 122125),

Gene: Salvador_85 Start: 55832, Stop: 55317, Start Num: 68
Candidate Starts for Salvador_85:
(Start: 66 @55838 has 2 MA's), (Start: 68 @55832 has 20 MA's), (77, 55820), (Start: 98 @55784 has 2 MA's), (121, 55739), (125, 55724), (158, 55646), (172, 55619), (183, 55598), (187, 55574), (251, 55364), (258, 55352), (267, 55328),

Gene: Sampudon_70 Start: 49016, Stop: 49408, Start Num: 112
Candidate Starts for Sampudon_70:
(110, 49013), (Start: 112 @49016 has 2 MA's), (180, 49139), (182, 49142), (195, 49196), (203, 49226), (212, 49262), (257, 49376),

Gene: Sanya_69 Start: 45481, Stop: 44903, Start Num: 60
Candidate Starts for Sanya_69:
(Start: 60 @45481 has 15 MA's), (Start: 67 @45469 has 3 MA's), (77, 45451), (137, 45310), (151, 45283), (168, 45244), (183, 45214), (241, 45001),

Gene: SarFire_70 Start: 44563, Stop: 43985, Start Num: 60
Candidate Starts for SarFire_70:

(Start: 60 @44563 has 15 MA's), (Start: 67 @44551 has 3 MA's), (77, 44533), (137, 44392), (151, 44365), (168, 44326), (183, 44296), (241, 44083),

Gene: Sarge_55 Start: 31661, Stop: 32050, Start Num: 145
Candidate Starts for Sarge_55:
(Start: 145 @31661 has 1 MA's), (211, 31862),

Gene: Savbucketdawg_80 Start: 55174, Stop: 54659, Start Num: 68
Candidate Starts for Savbucketdawg_80:
(Start: 66 @55180 has 2 MA's), (Start: 68 @55174 has 20 MA's), (77, 55162), (Start: 98 @55126 has 2 MA's), (121, 55081), (125, 55066), (158, 54988), (172, 54961), (183, 54940), (187, 54916), (251, 54706), (258, 54694), (267, 54670),

Gene: Schomber_120 Start: 85119, Stop: 85817, Start Num: 34
Candidate Starts for Schomber_120:
(Start: 34 @85119 has 3 MA's), (Start: 62 @85191 has 1 MA's), (76, 85218), (Start: 96 @85251 has 1 MA's), (Start: 113 @85281 has 1 MA's), (136, 85353), (138, 85356), (156, 85389), (157, 85392), (181, 85437), (185, 85446), (203, 85527), (213, 85566), (263, 85710), (268, 85719), (277, 85764), (280, 85809),

Gene: Sendy_87 Start: 55912, Stop: 55397, Start Num: 68
Candidate Starts for Sendy_87:
(Start: 66 @55918 has 2 MA's), (Start: 68 @55912 has 20 MA's), (77, 55900), (Start: 98 @55864 has 2 MA's), (121, 55819), (125, 55804), (158, 55726), (172, 55699), (183, 55678), (187, 55654), (251, 55444), (258, 55432), (267, 55408),

Gene: SharkTale_7 Start: 4424, Stop: 4984, Start Num: 78
Candidate Starts for SharkTale_7:
(78, 4424), (Start: 98 @4457 has 2 MA's), (120, 4496), (203, 4718), (239, 4820), (244, 4841), (265, 4892),

Gene: Shatter_50 Start: 44137, Stop: 43628, Start Num: 89
Candidate Starts for Shatter_50:
(Start: 81 @44149 has 3 MA's), (Start: 89 @44137 has 2 MA's), (Start: 112 @44101 has 2 MA's), (Start: 114 @44095 has 2 MA's), (150, 44008), (157, 43990), (189, 43912), (203, 43861), (229, 43786),

Gene: Shenandoah_56 Start: 51483, Stop: 50830, Start Num: 91
Candidate Starts for Shenandoah_56:
(77, 51507), (Start: 91 @51483 has 2 MA's), (203, 51210), (247, 51066), (250, 51060), (255, 51051), (259, 51045), (272, 51006), (282, 50883), (283, 50859),

Gene: Shinji_84 Start: 55913, Stop: 55398, Start Num: 68
Candidate Starts for Shinji_84:
(Start: 66 @55919 has 2 MA's), (Start: 68 @55913 has 20 MA's), (77, 55901), (Start: 98 @55865 has 2 MA's), (121, 55820), (125, 55805), (158, 55727), (172, 55700), (183, 55679), (187, 55655), (251, 55445), (258, 55433), (267, 55409),

Gene: SkinnyPete_53 Start: 35995, Stop: 36582, Start Num: 38
Candidate Starts for SkinnyPete_53:
(21, 35941), (Start: 38 @35995 has 11 MA's), (48, 36013), (54, 36046), (58, 36055), (65, 36070), (115, 36151), (143, 36217), (177, 36289), (189, 36340), (203, 36391), (221, 36442), (229, 36466), (245, 36523),

Gene: SmokingBunny_86 Start: 56828, Stop: 56313, Start Num: 68
Candidate Starts for SmokingBunny_86:
(Start: 66 @56834 has 2 MA's), (Start: 68 @56828 has 20 MA's), (77, 56816), (Start: 98 @56780 has 2 MA's), (121, 56735), (125, 56720), (158, 56642), (172, 56615), (183, 56594), (187, 56570), (251, 56360), (258, 56348), (267, 56324),

Gene: Snazzy_68 Start: 43855, Stop: 43277, Start Num: 60
Candidate Starts for Snazzy_68:
(Start: 60 @43855 has 15 MA's), (Start: 67 @43843 has 3 MA's), (77, 43825), (137, 43684), (151, 43657), (168, 43618), (183, 43588), (241, 43375),

Gene: Spooky_106 Start: 55742, Stop: 56233, Start Num: 86
Candidate Starts for Spooky_106:
(12, 55508), (14, 55517), (23, 55583), (27, 55598), (36, 55625), (49, 55652), (Start: 86 @55742 has 10 MA's), (142, 55859), (143, 55862), (Start: 145 @55865 has 1 MA's), (189, 55967), (199, 56009), (203, 56018), (262, 56180), (273, 56210),

Gene: Squee_73 Start: 44893, Stop: 44315, Start Num: 60
Candidate Starts for Squee_73:
(Start: 60 @44893 has 15 MA's), (Start: 67 @44881 has 3 MA's), (77, 44863), (137, 44722), (151, 44695), (168, 44656), (183, 44626), (241, 44413),

Gene: StAB_46 Start: 35820, Stop: 36344, Start Num: 88
Candidate Starts for StAB_46:
(3, 35346), (Start: 71 @35793 has 2 MA's), (Start: 88 @35820 has 2 MA's), (230, 36168), (269, 36270), (275, 36297),

Gene: Stewart25555_169 Start: 117773, Stop: 118273, Start Num: 93
Candidate Starts for Stewart25555_169:
(29, 117620), (51, 117677), (93, 117773), (147, 117902), (157, 117917), (163, 117926), (181, 117959), (196, 118022), (246, 118193),

Gene: Stiles_46 Start: 35275, Stop: 35799, Start Num: 88
Candidate Starts for Stiles_46:
(3, 34801), (Start: 88 @35275 has 2 MA's), (230, 35623), (269, 35725),

Gene: Sunfish_75 Start: 46858, Stop: 46316, Start Num: 81
Candidate Starts for Sunfish_75:
(Start: 81 @46858 has 3 MA's), (100, 46828), (213, 46537), (231, 46489), (238, 46465),

Gene: Tangent_41 Start: 36226, Stop: 35756, Start Num: 72
Candidate Starts for Tangent_41:
(13, 36424), (15, 36415), (22, 36355), (25, 36346), (39, 36310), (Start: 72 @36226 has 8 MA's), (135, 36100), (146, 36082), (176, 36037), (185, 36019), (193, 35974), (203, 35938), (236, 35860),

Gene: Thor_70 Start: 43921, Stop: 43343, Start Num: 60
Candidate Starts for Thor_70:
(Start: 60 @43921 has 15 MA's), (Start: 67 @43909 has 3 MA's), (77, 43891), (137, 43750), (151, 43723), (168, 43684), (183, 43654), (241, 43441),

Gene: TillyBobJoe_83 Start: 55714, Stop: 55199, Start Num: 68
Candidate Starts for TillyBobJoe_83:

(Start: 66 @55720 has 2 MA's), (Start: 68 @55714 has 20 MA's), (77, 55702), (Start: 98 @55666 has 2 MA's), (121, 55621), (125, 55606), (158, 55528), (172, 55501), (183, 55480), (187, 55456), (251, 55246), (258, 55234), (267, 55210),

Gene: Togo_85 Start: 56828, Stop: 56313, Start Num: 68
Candidate Starts for Togo_85:
(Start: 66 @56834 has 2 MA's), (Start: 68 @56828 has 20 MA's), (77, 56816), (Start: 98 @56780 has 2 MA's), (121, 56735), (125, 56720), (158, 56642), (172, 56615), (183, 56594), (187, 56570), (251, 56360), (258, 56348), (267, 56324),

Gene: Toma_56 Start: 42308, Stop: 41778, Start Num: 61
Candidate Starts for Toma_56:
(37, 42377), (Start: 61 @42308 has 5 MA's), (148, 42131), (203, 41987), (217, 41942), (241, 41858), (250, 41834),

Gene: TootsiePop_72 Start: 45214, Stop: 45801, Start Num: 38
Candidate Starts for TootsiePop_72:
(21, 45160), (Start: 38 @45214 has 11 MA's), (48, 45232), (54, 45265), (58, 45274), (65, 45289), (115, 45370), (143, 45436), (177, 45508), (189, 45559), (203, 45610), (221, 45661), (229, 45685), (245, 45742),

Gene: Turuncu_70 Start: 53491, Stop: 53045, Start Num: 113
Candidate Starts for Turuncu_70:
(Start: 82 @53548 has 6 MA's), (90, 53536), (Start: 113 @53491 has 1 MA's), (178, 53347), (193, 53284), (214, 53221), (247, 53122), (266, 53080),

Gene: Twister6_84 Start: 55177, Stop: 54662, Start Num: 68
Candidate Starts for Twister6_84:
(Start: 66 @55183 has 2 MA's), (Start: 68 @55177 has 20 MA's), (77, 55165), (Start: 98 @55129 has 2 MA's), (121, 55084), (125, 55069), (158, 54991), (172, 54964), (183, 54943), (187, 54919), (251, 54709), (258, 54697), (267, 54673),

Gene: Valary_86 Start: 56820, Stop: 56305, Start Num: 68
Candidate Starts for Valary_86:
(Start: 66 @56826 has 2 MA's), (Start: 68 @56820 has 20 MA's), (77, 56808), (Start: 98 @56772 has 2 MA's), (121, 56727), (125, 56712), (158, 56634), (172, 56607), (183, 56586), (187, 56562), (251, 56352), (258, 56340), (267, 56316),

Gene: VanDeWege_87 Start: 56351, Stop: 55830, Start Num: 66
Candidate Starts for VanDeWege_87:
(Start: 66 @56351 has 2 MA's), (Start: 68 @56345 has 20 MA's), (77, 56333), (Start: 98 @56297 has 2 MA's), (121, 56252), (125, 56237), (158, 56159), (172, 56132), (183, 56111), (187, 56087), (251, 55877), (258, 55865), (267, 55841),

Gene: VasuNzinga_51 Start: 28326, Stop: 28799, Start Num: 86
Candidate Starts for VasuNzinga_51:
(Start: 86 @28326 has 10 MA's), (Start: 105 @28356 has 2 MA's), (141, 28437), (182, 28527), (199, 28602), (240, 28725), (253, 28764), (257, 28770),

Gene: Vitus_38 Start: 31088, Stop: 31606, Start Num: 85
Candidate Starts for Vitus_38:
(Start: 85 @31088 has 1 MA's), (164, 31262), (232, 31457),

Gene: Vivi2_43 Start: 37381, Stop: 36914, Start Num: 70
Candidate Starts for Vivi2_43:
(40, 37450), (46, 37441), (Start: 70 @37381 has 1 MA's), (135, 37258), (146, 37240), (176, 37195), (185, 37177), (193, 37132), (203, 37096), (236, 37018),

Gene: WilliamBoone_124 Start: 68689, Stop: 69156, Start Num: 94
Candidate Starts for WilliamBoone_124:
(31, 68554), (Start: 94 @68689 has 1 MA's), (Start: 113 @68722 has 1 MA's), (185, 68878), (203, 68962), (230, 69028), (260, 69106),

Gene: Wizard_80 Start: 55680, Stop: 55165, Start Num: 68
Candidate Starts for Wizard_80:
(Start: 66 @55686 has 2 MA's), (Start: 68 @55680 has 20 MA's), (77, 55668), (Start: 98 @55632 has 2 MA's), (121, 55587), (125, 55572), (158, 55494), (172, 55467), (183, 55446), (187, 55422), (251, 55212), (258, 55200), (267, 55176),

Gene: Wrigley_69 Start: 45475, Stop: 46062, Start Num: 38
Candidate Starts for Wrigley_69:
(8, 45283), (18, 45415), (Start: 38 @45475 has 11 MA's), (58, 45535), (65, 45550), (87, 45580), (128, 45661), (177, 45769), (203, 45871), (204, 45874), (257, 46030),

Gene: Yvonnetastic_71 Start: 47446, Stop: 47946, Start Num: 84
Candidate Starts for Yvonnetastic_71:
(Start: 84 @47446 has 4 MA's), (130, 47539), (133, 47560), (157, 47614), (180, 47653), (195, 47710), (203, 47740), (223, 47794), (234, 47827), (263, 47902),

Gene: Yvonnetastic_114 Start: 64668, Stop: 65060, Start Num: 139
Candidate Starts for Yvonnetastic_114:
(Start: 139 @64668 has 1 MA's), (Start: 145 @64677 has 1 MA's), (185, 64749), (190, 64785), (192, 64788), (200, 64824), (211, 64869),

Gene: Zemlya_56 Start: 42043, Stop: 41525, Start Num: 61
Candidate Starts for Zemlya_56:
(Start: 61 @42043 has 5 MA's), (175, 41836), (188, 41794), (199, 41746),