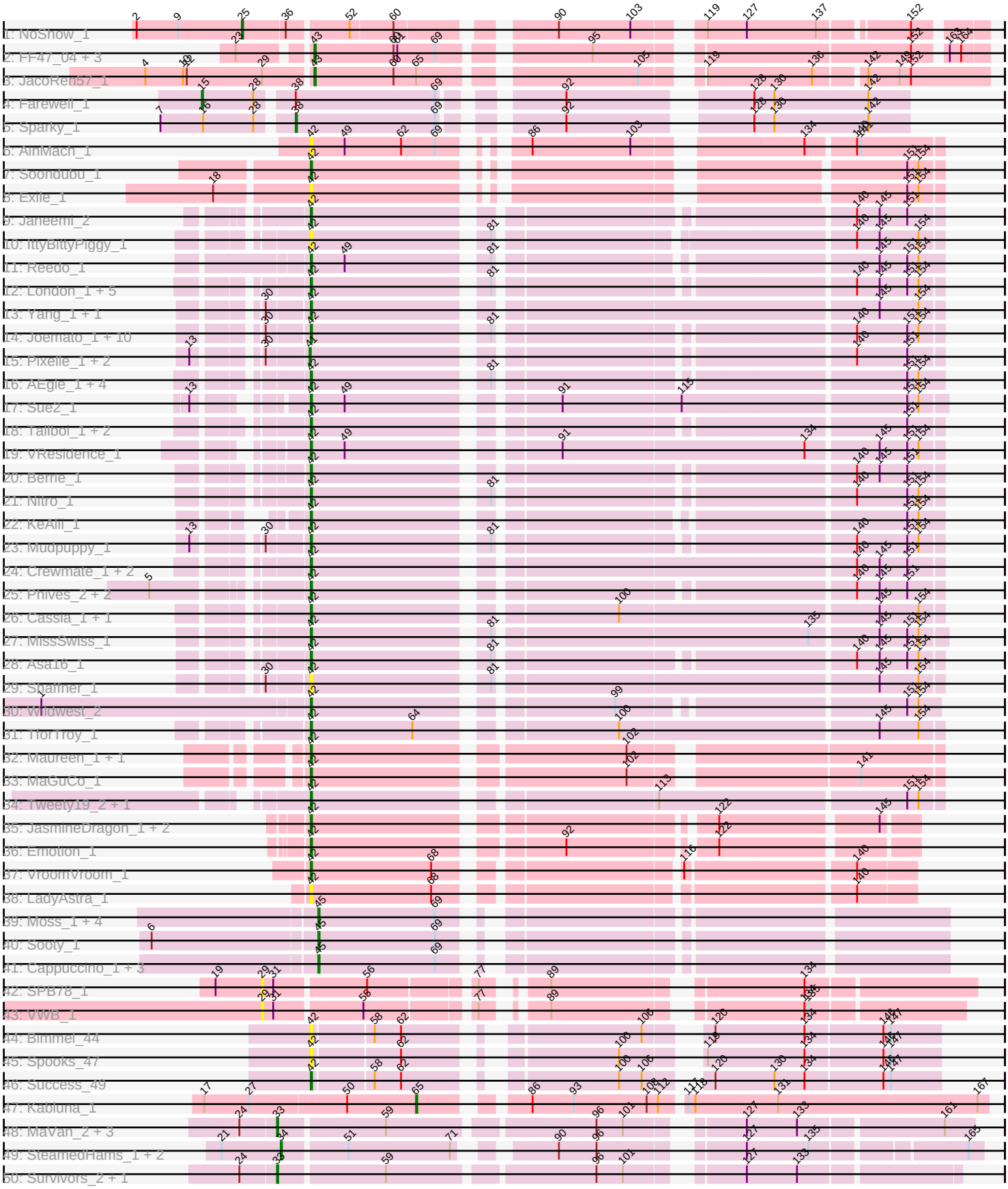
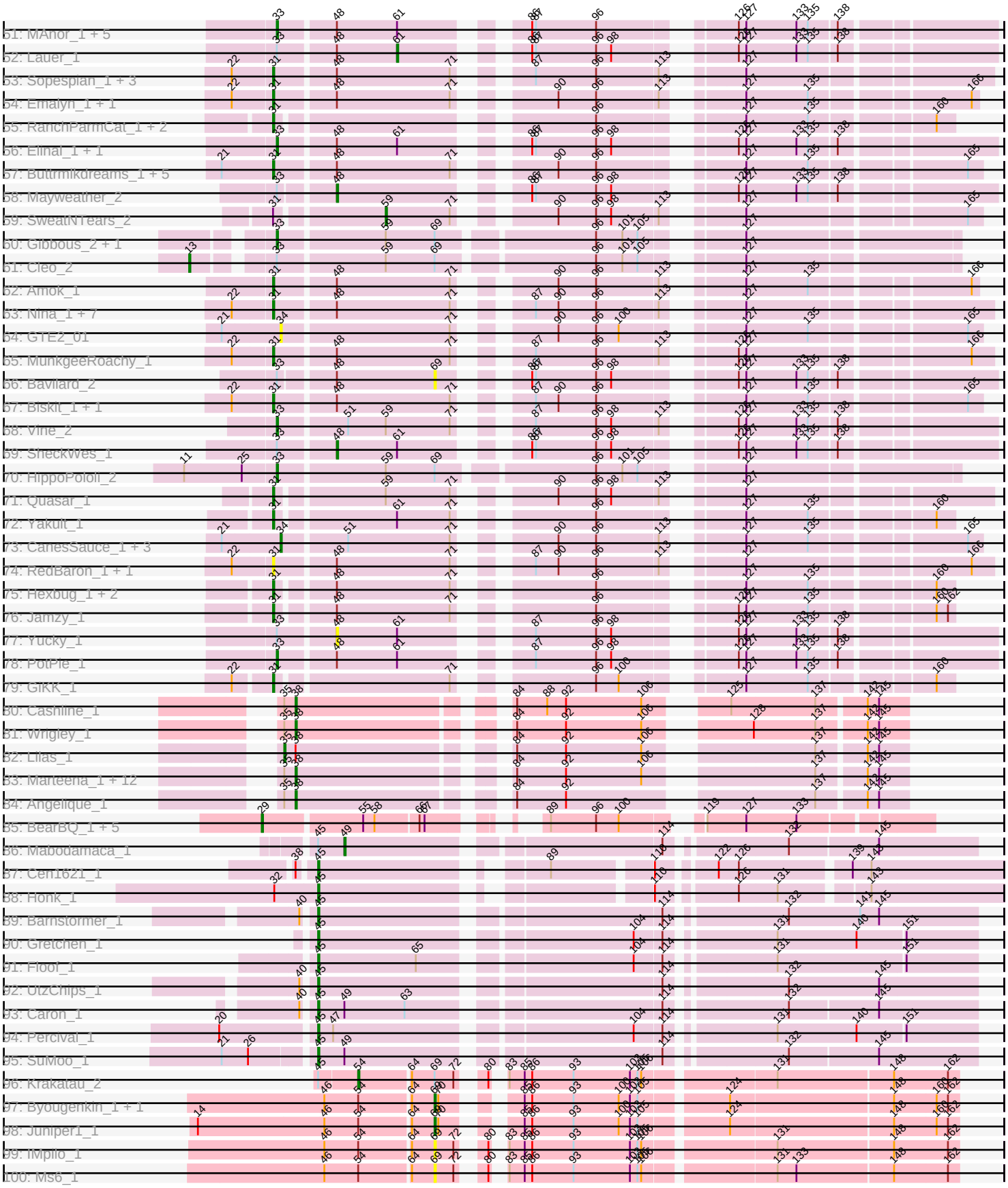
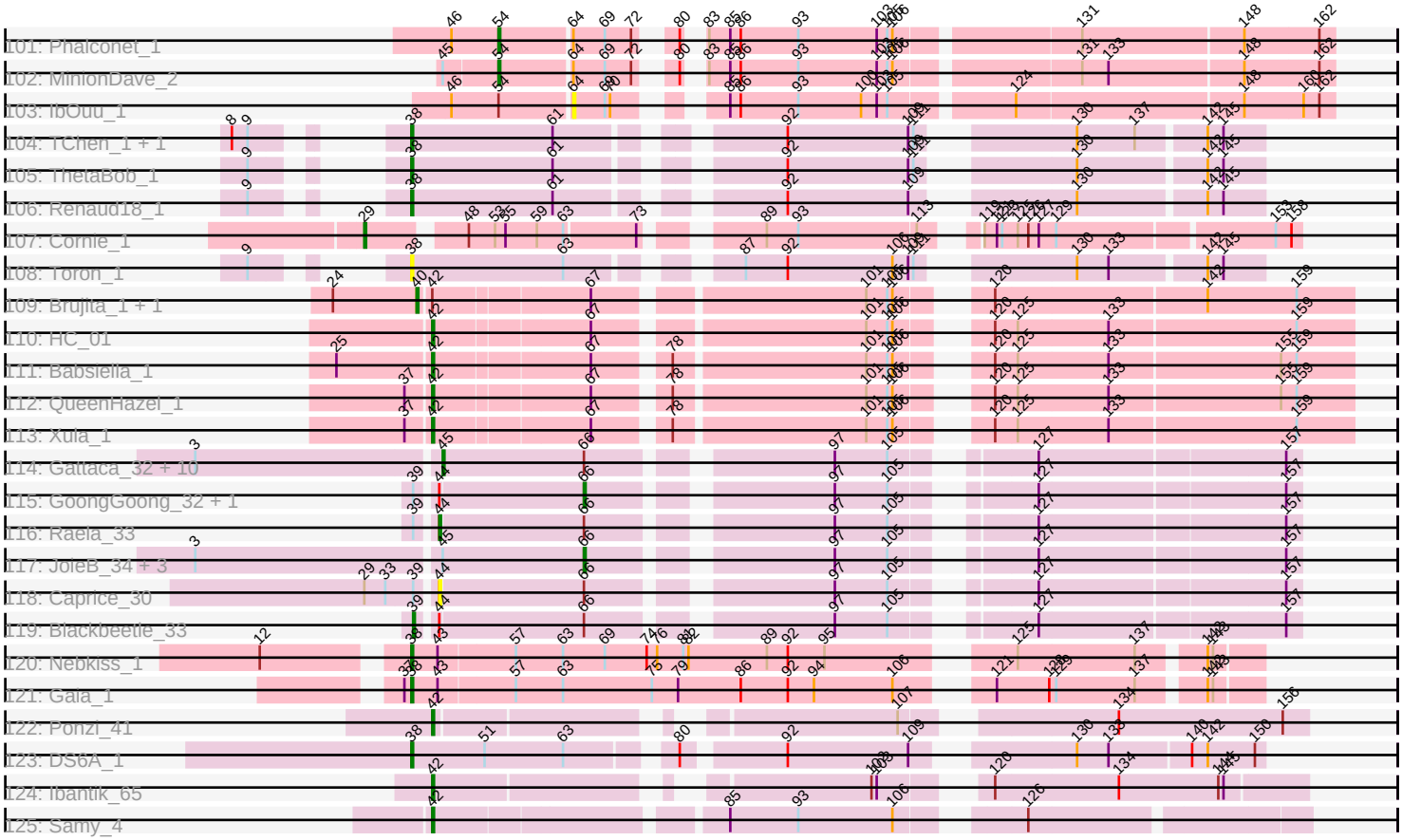
Pham 202650


1: NoShow_1
2: FF47_04 + 3
3: JacoRen57_1
4: Farewell_1
5: Sparky_1
6: AlnMach_1
7: Soondubu_1
8: Exile_1
9: Janeemi_2
10: IttyBittyPiggy_1
11: Reedo_1
12: London_1 + 5
13: Yang_1 + 1
14: Joemato_1 + 10
15: Pixelle_1 + 2
16: AEgle_1 + 4
17: Sue2_1
18: Tallbol_1 + 2
19: VResidence_1
20: Bernie_1
21: Nitro_1
22: KeAlli_1
23: Mudpuppy_1
24: Crewmate_1 + 2
25: Phives_2 + 2
26: Cassia_1 + 1
27: MissSwiss_1
28: Asa16_1
29: Shaffner_1
30: Wildwest_2
31: ThorTroy_1
32: Maureen_1 + 1
33: MaGuCo_1
34: Tweety19_2 + 1
35: JasmineDragon_1 + 2
36: Emotion_1
37: VroomVroom_1
38: LadyAstra_1
39: Moss_1 + 4
40: Sooty_1
41: Cappuccino_1 + 3
42: SPB78_1
43: VWB_1
44: Bimmel_44
45: Spooks_47
46: Success_49
47: Kabluna_1
48: MaVan_2 + 3
49: SteamedHams_1 + 2
50: Survivors_2 + 1

Pham 202650


51: MAnor_1 + 5
52: Lauer_1
53: Sopesplan_1 + 3
54: Emalyn_1 + 1
55: RanchParmCat_1 + 2
56: Elinal_1 + 1
57: Buttrmikdreams_1 + 5
58: Mayweather_2
59: SweatNTears_2
60: Gibbous_2 + 1
61: Cleo_2
62: Amok_1
63: Nina_1 + 7
64: GTE2_01
65: MunkgeeRoachy_1
66: Bavilard_2
67: Biskit_1 + 1
68: Vine_2
69: SheckWes_1
70: HippoPolOil_2
71: Quasar_1
72: Yakult_1
73: CanesSauce_1 + 3
74: RedBaron_1 + 1
75: Hexbug_1 + 2
76: Jamzy_1
77: Yucky_1
78: PotPie_1
79: GIKK_1
80: Cashline_1
81: Wrigley_1
82: Lilas_1
83: Marteena_1 + 12
84: Angelique_1
85: BearBQ_1 + 5
86: Mabodamaca_1
87: Cen1621_1
88: Honk_1
89: Barnstormer_1
90: Gretchen_1
91: Floof_1
92: UtzChips_1
93: Caron_1
94: Percival_1
95: SuMoo_1
96: Krakatau_2
97: Byougenkin_1 + 1
98: Juniper1_1
99: Implio_1
100: MS6_1

Pham 202650


101: Phalconet_1
102: MinionDave_2
103: IbOuu_1
104: TChen_1 + 1
105: ThetaBob_1
106: Renaud18_1
107: Cornie_1
108: Toron_1
109: Brujita_1 + 1
110: HC_01
111: Babsiella_1
112: QueenHazel_1
113: Xula_1
114: Gattaca_32 + 10
115: GoongGoong_32 + 1
116: Raela_33
117: JoieB_34 + 3
118: Caprice_30
119: Blackbeetle_33
120: Nebkiss_1
121: Gala_1
122: Ponzi_41
123: DS6A_1
124: Ibantik_65
125: Samy_4

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 202650 Report

This analysis was run 01/18/25 on database version 583.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 202650 has 240 members, 44 are drafts.

Phages represented in each track:
- Track 1 : NoShow_1
- Track 2 : FF47_04, Muddy_4, 8UZL_4, Maco6_2
- Track 3 : JacoRen57_1
- Track 4 : Farewell_1
- Track 5 : Sparky_1
- Track 6 : AinMach_1
- Track 7 : Soondubu_1
- Track 8 : Exile_1
- Track 9 : Janeemi_2
- Track 10 : IttyBittyPiggy_1
- Track 11 : Reedo_1
- Track 12 : London_1, Eraser_1, Elezi_1, Lizalica_1, Niobe_1, Jstan_1
- Track 13 : Yang_1, JuneStar_1
- Track 14 : Joemato_1, Warda_1, Cyan_1, YesChef_1, Tbone_1, JohnDoe_1, Kaylissa_1, Tutumahutu_1, Simpson_1, Lego_1, Powerpuff_1
- Track 15 : Pixelle_1, Amyev_1, Tian_1
- Track 16 : AEgle_1, DrManhattan_1, Turab_1, Adolin_1, Adumb2043_1
- Track 17 : Sue2_1
- Track 18 : Tallboi_1, DrSierra_1, ObiToo_1
- Track 19 : VResidence_1
- Track 20 : Berrie_1
- Track 21 : Nitro_1
- Track 22 : KeAlii_1
- Track 23 : Mudpuppy_1
- Track 24 : Crewmate_1, Iter_1, Ascela_1
- Track 25 : Phives_2, Community_2, Tuck_2
- Track 26 : Cassia_1, Pumpkins_1
- Track 27 : MissSwiss_1
- Track 28 : Asa16_1
- Track 29 : Shaffner_1
- Track 30 : Wildwest_2
- Track 31 : TforTroy_1
- Track 32 : Maureen_1, Liebe_1

• Track 33 : MaGuCo_1
• Track 34 : Tweety19_2, Snek_2
• Track 35 : JasmineDragon_1, ShakeItOph_1, MiniMommy_1
• Track 36 : Emotion_1
• Track 37 : VroomVroom_1
• Track 38 : LadyAstra_1
• Track 39 : Moss_1, Mysterium_1, Halsey_1, Ashes_1, SpecialK_1
• Track 40 : Sooty_1
• Track 41 : Cappuccino_1, Donkey_1, Kalimba_1, Gambol_1
• Track 42 : SPB78_1
• Track 43 : VWB_1
• Track 44 : Bimmel_44
• Track 45 : Spooks_47
• Track 46 : Success_49
• Track 47 : Kabluna_1
• Track 48 : MaVan_2, Zareef_2, Azira_2, Nibbles_2
• Track 49 : SteamedHams_1, AndPeggy_1, BillDoor_1
• Track 50 : Survivors_2, Fribs8_2
• Track 51 : MAnor_1, BigChungus_1, Feastonyeet_1, SummitAcademy_1, CherryonLim_1, Pons_1
• Track 52 : Lauer_1
• Track 53 : Sopespian_1, PsychoKiller_1, Burnsey_1, Eliott_1
• Track 54 : Emalyn_1, AikoCarson_1
• Track 55 : RanchParmCat_1, Button_1, Margaret_1
• Track 56 : Elinal_1, KayGee_1
• Track 57 : Buttrmlkdreams_1, Blondies_1, Horseradish_1, Troje_1, MScarn_1, Yummy_1
• Track 58 : Mayweather_2
• Track 59 : SweatNTears_2
• Track 60 : Gibbous_2, Dre3_2
• Track 61 : Cleo_2
• Track 62 : Amok_1
• Track 63 : Nina_1, Cozz_1, ChickenTender_1, Agatha_1, Typhonomachy_1, GoldHunter_1, Starburst_1, Axym_1
• Track 64 : GTE2_01
• Track 65 : MunkgeeRoachy_1
• Track 66 : Bavilard_2
• Track 67 : Biskit_1, SketchMex_1
• Track 68 : Vine_2
• Track 69 : SheckWes_1
• Track 70 : HippoPololi_2
• Track 71 : Quasar_1
• Track 72 : Yakult_1
• Track 73 : CanesSauce_1, Tolls_1, ChocoMunchkin_1, Yarn_1
• Track 74 : RedBaron_1, Carsonalex_1
• Track 75 : Hexbug_1, Orla_1, Nodigi_1
• Track 76 : Jamzy_1
• Track 77 : Yucky_1
• Track 78 : PotPie_1
• Track 79 : GiKK_1
• Track 80 : Cashline_1
• Track 81 : Wrigley_1
• Track 82 : Lilas_1

• Track 83 : Marteena_1, EnalisNailo_1, Jablanski_1, Posh_1, BritBrat_1, BeeGee_1, Confidence_1, Bradissa_1, EMsquaredA_1, LonelyBoi_1, Pytheas_1, Pollux_1, Floral_1
• Track 84 : Angelique_1
• Track 85 : BearBQ_1, MortyNRick_1, Kuwabara_1, Crater_1, Apricot_1, Birdsong_1
• Track 86 : Mabodamaca_1
• Track 87 : Cen1621_1
• Track 88 : Honk_1
• Track 89 : Barnstormer_1
• Track 90 : Gretchen_1
• Track 91 : Floof_1
• Track 92 : UtzChips_1
• Track 93 : Caron_1
• Track 94 : Percival_1
• Track 95 : SuMoo_1
• Track 96 : Krakatau_2
• Track 97 : Byougenkin_1, Vivum_1
• Track 98 : Juniper1_1
• Track 99 : IMpilo_1
• Track 100 : Ms6_1
• Track 101 : Phalconet_1
• Track 102 : MinionDave_2
• Track 103 : IbOuu_1
• Track 104 : TChen_1, LunaStella_1
• Track 105 : ThetaBob_1
• Track 106 : Renaud18_1
• Track 107 : Cornie_1
• Track 108 : Toron_1
• Track 109 : Brujita_1, Island3_1
• Track 110 : HC_01
• Track 111 : Babsiella_1
• Track 112 : QueenHazel_1
• Track 113 : Xula_1
• Track 114 : Gattaca_32, RedRaider77_33, Huphlepuff_35, Tesla_32, Pringar_33, Lilbit_34, LittleLaf_33, Corazon_31, VasuNzinga_33, FeliMaine_35, Clarkson_34
• Track 115 : GoongGoong_32, Poise_33
• Track 116 : Raela_33
• Track 117 : JoieB_34, Marvin_31, MosMoris_31, Beelzebub_37
• Track 118 : Caprice_30
• Track 119 : Blackbeetle_33
• Track 120 : Nebkiss_1
• Track 121 : Gaia_1
• Track 122 : Ponzi_41
• Track 123 : DS6A_1
• Track 124 : Ibantik_65
• Track 125 : Samy_4

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

The start number called the most often in the published annotations is 42, it was called in 59 of the 196 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AEgle_1, Adolin_1, Adumb2043_1, AinMach_1, Asa16_1, Ascela_1, Babsiella_1, Berrie_1, Bimmel_44, Cassia_1, Community_2, Crewmate_1, Cyan_1, DrManhattan_1, DrSierra_1, Elezi_1, Emotion_1, Eraser_1, Exile_1, HC_01, Ibantik_65, Iter_1, IttyBittyPiggy_1, Janeemi_2, JasmineDragon_1, Joemato_1, JohnDoe_1, Jstan_1, JuneStar_1, Kaylissa_1, KeAlii_1, LadyAstra_1, Lego_1, Liebe_1, Lizalica_1, London_1, MaGuCo_1, Maureen_1, MiniMommy_1, MissSwiss_1, Mudpuppy_1, Niobe_1, Nitro_1, ObiToo_1, Phives_2, Ponzi_41, Powerpuff_1, Pumpkins_1, QueenHazel_1, Reedo_1, Samy_4, Shaffner_1, ShakeItOph_1, Simpson_1, Snek_2, Soondubu_1, Spooks_47, Success_49, Sue2_1, Tallboi_1, Tbone_1, TforTroy_1, Tuck_2, Turab_1, Tutumahutu_1, Tweety19_2, VResidence_1, VroomVroom_1, Warda_1, Wildwest_2, Xula_1, Yang_1, YesChef_1,

Genes that have the "Most Annotated" start but do not call it:
• Brujita_1, Island3_1,

Genes that do not have the "Most Annotated" start:
• 8UZL_4, Agatha_1, AikoCarson_1, Amok_1, Amyev_1, AndPeggy_1, Angelique_1, Apricot_1, Ashes_1, Axym_1, Azira_2, Barnstormer_1, Bavilard_2, BearBQ_1, BeeGee_1, Beelzebub_37, BigChungus_1, BillDoor_1, Birdsong_1, Biskit_1, Blackbeetle_33, Blondies_1, Bradissa_1, BritBrat_1, Burnsey_1, Button_1, Buttrmlkdreams_1, Byougenkin_1, CanesSauce_1, Cappuccino_1, Caprice_30, Caron_1, Carsonalex_1, Cashline_1, Cen1621_1, CherryonLim_1, ChickenTender_1, ChocoMunchkin_1, Clarkson_34, Cleo_2, Confidence_1, Corazon_31, Cornie_1, Cozz_1, Crater_1, DS6A_1, Donkey_1, Dre3_2, EMsquaredA_1, Elinal_1, Eliott_1, Emalyn_1, EnalisNailo_1, FF47_04, Farewell_1, Feastonyeet_1, FeliMaine_35, Floof_1, Floral_1, Fribs8_2, GTE2_01, Gaia_1, Gambol_1, Gattaca_32, GiKK_1, Gibbous_2, GoldHunter_1, GoongGoong_32, Gretchen_1, Halsey_1, Hexbug_1, HippoPololi_2, Honk_1, Horseradish_1, Huphlepuff_35, IMpilo_1, IbOuu_1, Jablanski_1, JacoRen57_1, Jamzy_1, JoieB_34, Juniper1_1, Kabluna_1, Kalimba_1, KayGee_1, Krakatau_2, Kuwabara_1, Lauer_1, Lilas_1, Lilbit_34, LittleLaf_33, LonelyBoi_1, LunaStella_1, MAnor_1, MScarn_1, MaVan_2, Mabodamaca_1, Maco6_2, Margaret_1, Marteena_1, Marvin_31, Mayweather_2, MinionDave_2, MortyNRick_1, MosMoris_31, Moss_1, Ms6_1, Muddy_4, MunkgeeRoachy_1, Mysterium_1, Nebkiss_1, Nibbles_2, Nina_1, NoShow_1, Nodigi_1, Orla_1, Percival_1, Phalconet_1, Pixelle_1, Poise_33, Pollux_1, Pons_1, Posh_1, PotPie_1, Pringar_33, PsychoKiller_1, Pytheas_1, Quasar_1, Raela_33, RanchParmCat_1, RedBaron_1, RedRaider77_33, Renaud18_1, SPB78_1, SheckWes_1, SketchMex_1, Sooty_1, Sopespian_1, Sparky_1, SpecialK_1, Starburst_1, SteamedHams_1, SuMoo_1, SummitAcademy_1, Survivors_2, SweatNTears_2, TChen_1, Tesla_32, ThetaBob_1, Tian_1, Tolls_1, Toron_1, Troje_1, Typhonomachy_1, UtzChips_1, VWB_1, VasuNzinga_33, Vine_2, Vivum_1, Wrigley_1, Yakult_1, Yarn_1, Yucky_1, Yummy_1, Zareef_2,

Summary by start number:

Start 13:
• Found in 6 of 240 (2.5%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 16.7% of time when present

• Phage (with cluster) where this start called: Cleo_2 (CT),

Start 15:
• Found in 1 of 240 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Farewell_1 (AF),

Start 25:
• Found in 3 of 240 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 33.3% of time when present
• Phage (with cluster) where this start called: NoShow_1 (AB),

Start 29:
• Found in 11 of 240 (4.6%) of genes in pham
• Manual Annotations of this start: 6 of 196
• Called 81.8% of time when present
• Phage (with cluster) where this start called: Apricot_1 (DN3), BearBQ_1 (DN), Birdsong_1 (DN), Cornie_1 (F5), Crater_1 (DN3), Kuwabara_1 (DN4), MortyNRick_1 (DN), SPB78_1 (BA), VWB_1 (BA),

Start 31:
• Found in 39 of 240 (16.2%) of genes in pham
• Manual Annotations of this start: 26 of 196
• Called 92.3% of time when present
• Phage (with cluster) where this start called: Agatha_1 (CT), AikoCarson_1 (CT), Amok_1 (CT), Axym_1 (CT), Biskit_1 (CT), Blondies_1 (CT), Burnsey_1 (CT), Button_1 (CT), Buttrmlkdreams_1 (CT), Carsonalex_1 (CT), ChickenTender_1 (CT), Cozz_1 (CT), Eliott_1 (CT), Emalyn_1 (CT), GiKK_1 (CT), GoldHunter_1 (CT), Hexbug_1 (CT), Horseradish_1 (CT), Jamzy_1 (CT), MScarn_1 (CT), Margaret_1 (CT), MunkgeeRoachy_1 (CT), Nina_1 (CT), Nodigi_1 (CT), Orla_1 (CT), PsychoKiller_1 (CT), Quasar_1 (CT), RanchParmCat_1 (CT), RedBaron_1 (CT), SketchMex_1 (CT), Sopespian_1 (CT), Starburst_1 (CT), Troje_1 (CT), Typhonomachy_1 (CT), Yakult_1 (CT), Yummy_1 (CT),

Start 33:
• Found in 26 of 240 (10.8%) of genes in pham
• Manual Annotations of this start: 18 of 196
• Called 73.1% of time when present
• Phage (with cluster) where this start called: Azira_2 (CT), BigChungus_1 (CT), CherryonLim_1 (CT), Dre3_2 (CT), Elinal_1 (CT), Feastonyeet_1 (CT), Fribs8_2 (CT), Gibbous_2 (CT), HippoPololi_2 (CT), KayGee_1 (CT), MAnor_1 (CT), MaVan_2 (CT), Nibbles_2 (CT), Pons_1 (CT), PotPie_1 (CT), SummitAcademy_1 (CT), Survivors_2 (CT), Vine_2 (CT), Zareef_2 (CT),

Start 34:
• Found in 8 of 240 (3.3%) of genes in pham
• Manual Annotations of this start: 5 of 196
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AndPeggy_1 (CT), BillDoor_1 (CT), CanesSauce_1 (CT), ChocoMunchkin_1 (CT), GTE2_01 (CT), SteamedHams_1 (CT), Tolls_1 (CT), Yarn_1 (CT),

Start 35:
• Found in 17 of 240 (7.1%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 5.9% of time when present
• Phage (with cluster) where this start called: Lilas_1 (CY1),

Start 38:
• Found in 28 of 240 (11.7%) of genes in pham
• Manual Annotations of this start: 24 of 196
• Called 89.3% of time when present
• Phage (with cluster) where this start called: Angelique_1 (CY1), BeeGee_1 (CY), Bradissa_1 (CY1), BritBrat_1 (CY2), Cashline_1 (CY), Confidence_1 (CY1), DS6A_1 (singleton), EMsquaredA_1 (CY1), EnalisNailo_1 (CY1), Floral_1 (CY1), Gaia_1 (X), Jablanski_1 (CY), LonelyBoi_1 (CY), LunaStella_1 (F4), Marteena_1 (CY1), Nebkiss_1 (X), Pollux_1 (CY1), Posh_1 (CY), Pytheas_1 (CY), Renaud18_1 (F4), Sparky_1 (AF), TChen_1 (F4), ThetaBob_1 (F4), Toron_1 (F6), Wrigley_1 (CY),

Start 39:
• Found in 5 of 240 (2.1%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Blackbeetle_33 (S),

Start 40:
• Found in 5 of 240 (2.1%) of genes in pham
• Manual Annotations of this start: 2 of 196
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Brujita_1 (I1), Island3_1 (I1),

Start 41:
• Found in 3 of 240 (1.2%) of genes in pham
• Manual Annotations of this start: 2 of 196
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amyev_1 (AZ1), Pixelle_1 (AZ1), Tian_1 (AZ1),

Start 42:
• Found in 75 of 240 (31.2%) of genes in pham
• Manual Annotations of this start: 59 of 196
• Called 97.3% of time when present
• Phage (with cluster) where this start called: AEgle_1 (AZ1), Adolin_1 (AZ1), Adumb2043_1 (AZ1), AinMach_1 (AZ), Asa16_1 (AZ1), Ascela_1 (AZ1), Babsiella_1 (I1), Berrie_1 (AZ1), Bimmel_44 (BT), Cassia_1 (AZ1), Community_2 (AZ1), Crewmate_1 (AZ1), Cyan_1 (AZ1), DrManhattan_1 (AZ1), DrSierra_1 (AZ1), Elezi_1 (AZ1), Emotion_1 (AZ4), Eraser_1 (AZ1), Exile_1 (AZ), HC_01 (I1), Ibantik_65 (singleton), Iter_1 (AZ1), IttyBittyPiggy_1 (AZ1), Janeemi_2 (AZ1), JasmineDragon_1 (AZ4), Joemato_1 (AZ1), JohnDoe_1 (AZ1), Jstan_1 (AZ1), JuneStar_1 (AZ1), Kaylissa_1 (AZ1), KeAlii_1 (AZ1), LadyAstra_1 (AZ4), Lego_1 (AZ1), Liebe_1 (AZ2), Lizalica_1 (AZ1), London_1 (AZ1), MaGuCo_1 (AZ2), Maureen_1 (AZ2), MiniMommy_1 (AZ4), MissSwiss_1 (AZ1), Mudpuppy_1 (AZ1), Niobe_1 (AZ1), Nitro_1 (AZ1), ObiToo_1 (AZ1), Phives_2 (AZ1), Ponzi_41 (singleton), Powerpuff_1 (AZ1), Pumpkins_1 (AZ1), QueenHazel_1 (I1), Reedo_1 (AZ1), Samy_4 (singleton),

Shaffner_1 (AZ1), ShakeItOph_1 (AZ4), Simpson_1 (AZ1), Snek_2 (AZ3), Soondubu_1 (AZ), Spooks_47 (BT), Success_49 (BT), Sue2_1 (AZ1), Tallboi_1 (AZ1), Tbone_1 (AZ1), TforTroy_1 (AZ1), Tuck_2 (AZ1), Turab_1 (AZ1), Tutumahutu_1 (AZ1), Tweety19_2 (AZ3), VResidence_1 (AZ1), VroomVroom_1 (AZ4), Warda_1 (AZ1), Wildwest_2 (AZ1), Xula_1 (I1), Yang_1 (AZ1), YesChef_1 (AZ1),

Start 43:
• Found in 7 of 240 (2.9%) of genes in pham
• Manual Annotations of this start: 3 of 196
• Called 71.4% of time when present
• Phage (with cluster) where this start called: 8UZL_4 (AB), FF47_04 (AB), JacoRen57_1 (AB), Maco6_2 (AB), Muddy_4 (AB),

Start 44:
• Found in 5 of 240 (2.1%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Caprice_30 (S), Raela_33 (S),

Start 45:
• Found in 37 of 240 (15.4%) of genes in pham
• Manual Annotations of this start: 29 of 196
• Called 81.1% of time when present
• Phage (with cluster) where this start called: Ashes_1 (AZ5), Barnstormer_1 (EH), Cappuccino_1 (AZ5), Caron_1 (EH), Cen1621_1 (EH), Clarkson_34 (S), Corazon_31 (S), Donkey_1 (AZ5), FeliMaine_35 (S), Floof_1 (EH), Gambol_1 (AZ5), Gattaca_32 (S), Gretchen_1 (EH), Halsey_1 (AZ5), Honk_1 (EH), Huphlepuff_35 (S), Kalimba_1 (AZ5), Lilbit_34 (S), LittleLaf_33 (S), Moss_1 (AZ5), Mysterium_1 (AZ5), Percival_1 (EH), Pringar_33 (S), RedRaider77_33 (S), Sooty_1 (AZ5), SpecialK_1 (AZ5), SuMoo_1 (EH), Tesla_32 (S), UtzChips_1 (EH), VasuNzinga_33 (S),

Start 48:
• Found in 45 of 240 (18.8%) of genes in pham
• Manual Annotations of this start: 2 of 196
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Mayweather_2 (CT), SheckWes_1 (CT), Yucky_1 (CT),

Start 49:
• Found in 7 of 240 (2.9%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Mabodamaca_1 (EH),

Start 54:
• Found in 9 of 240 (3.8%) of genes in pham
• Manual Annotations of this start: 3 of 196
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Krakatau_2 (F1), MinionDave_2 (F1), Phalconet_1 (F1),

Start 59:

• Found in 14 of 240 (5.8%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 7.1% of time when present
• Phage (with cluster) where this start called: SweatNTears_2 (CT),

Start 61:
• Found in 21 of 240 (8.8%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 4.8% of time when present
• Phage (with cluster) where this start called: Lauer_1 (CT),

Start 64:
• Found in 10 of 240 (4.2%) of genes in pham
• No Manual Annotations of this start.
• Called 10.0% of time when present
• Phage (with cluster) where this start called: IbOuu_1 (F1),

Start 65:
• Found in 3 of 240 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 196
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Kabluna_1 (CR2),

Start 66:
• Found in 26 of 240 (10.8%) of genes in pham
• Manual Annotations of this start: 5 of 196
• Called 23.1% of time when present
• Phage (with cluster) where this start called: Beelzebub_37 (S), GoongGoong_32 (S), JoieB_34 (S), Marvin_31 (S), MosMoris_31 (S), Poise_33 (S),

Start 69:
• Found in 32 of 240 (13.3%) of genes in pham
• Manual Annotations of this start: 2 of 196
• Called 18.8% of time when present
• Phage (with cluster) where this start called: Bavilard_2 (CT), Byougenkin_1 (F1), IMpilo_1 (F1), Juniper1_1 (F1), Ms6_1 (F1), Vivum_1 (F1),

Summary by clusters:

There are 27 clusters represented in this pham: DN, singleton, BA, BT, I1, DN4, DN3, CY2, CY1, AB, EH, AF, CY, X, AZ, CT, CR2, F1, F4, F5, F6, S, AZ1, AZ2, AZ3, AZ4, AZ5,

Info for manual annotations of cluster AB:
•Start number 25 was manually annotated 1 time for cluster AB.
•Start number 43 was manually annotated 3 times for cluster AB.

Info for manual annotations of cluster AF:
•Start number 15 was manually annotated 1 time for cluster AF.
•Start number 38 was manually annotated 1 time for cluster AF.

Info for manual annotations of cluster AZ:
•Start number 42 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:
•Start number 41 was manually annotated 2 times for cluster AZ1.
•Start number 42 was manually annotated 42 times for cluster AZ1.

Info for manual annotations of cluster AZ2:
•Start number 42 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:
•Start number 42 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:
•Start number 42 was manually annotated 3 times for cluster AZ4.

Info for manual annotations of cluster AZ5:
•Start number 45 was manually annotated 10 times for cluster AZ5.

Info for manual annotations of cluster BT:
•Start number 42 was manually annotated 1 time for cluster BT.

Info for manual annotations of cluster CR2:
•Start number 65 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CT:
•Start number 13 was manually annotated 1 time for cluster CT.
•Start number 31 was manually annotated 26 times for cluster CT.
•Start number 33 was manually annotated 18 times for cluster CT.
•Start number 34 was manually annotated 5 times for cluster CT.
•Start number 48 was manually annotated 2 times for cluster CT.
•Start number 59 was manually annotated 1 time for cluster CT.
•Start number 61 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY:
•Start number 38 was manually annotated 7 times for cluster CY.

Info for manual annotations of cluster CY1:
•Start number 35 was manually annotated 1 time for cluster CY1.
•Start number 38 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 38 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DN:
•Start number 29 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN3:
•Start number 29 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:
•Start number 29 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster EH:

•Start number 45 was manually annotated 9 times for cluster EH.
•Start number 49 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster F1:
•Start number 54 was manually annotated 3 times for cluster F1.
•Start number 69 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F4:
•Start number 38 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 29 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:
•Start number 40 was manually annotated 2 times for cluster I1.
•Start number 42 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster S:
•Start number 39 was manually annotated 1 time for cluster S.
•Start number 44 was manually annotated 1 time for cluster S.
•Start number 45 was manually annotated 10 times for cluster S.
•Start number 66 was manually annotated 5 times for cluster S.

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

Gene Information:

Gene: 8UZL_4 Start: 1322, Stop: 1795, Start Num: 43
Candidate Starts for 8UZL_4:
(23, 1274), (Start: 43 @1322 has 3 MA's), (60, 1385), (Start: 61 @1388 has 1 MA's), (Start: 69 @1418 has 2 MA's), (95, 1520), (152, 1745), (163, 1766), (164, 1775),

Gene: AEgle_1 Start: 85, Stop: 540, Start Num: 42
Candidate Starts for AEgle_1:
(Start: 42 @85 has 59 MA's), (81, 214), (151, 511), (154, 520),

Gene: Adolin_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Adolin_1:
(Start: 42 @85 has 59 MA's), (81, 214), (151, 508), (154, 517),

Gene: Adumb2043_1 Start: 85, Stop: 540, Start Num: 42
Candidate Starts for Adumb2043_1:
(Start: 42 @85 has 59 MA's), (81, 214), (151, 511), (154, 520),

Gene: Agatha_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Agatha_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: AikoCarson_1 Start: 52, Stop: 531, Start Num: 31
Candidate Starts for AikoCarson_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (90, 241), (96, 271), (113, 319), (127, 364), (135, 412), (166, 526),

Gene: AinMach_1 Start: 140, Stop: 574, Start Num: 42
Candidate Starts for AinMach_1:
(Start: 42 @140 has 59 MA's), (Start: 49 @167 has 1 MA's), (62, 212), (Start: 69 @239 has 2 MA's), (86, 281), (103, 359), (134, 473), (140, 509), (141, 512),

Gene: Amok_1 Start: 53, Stop: 532, Start Num: 31
Candidate Starts for Amok_1:
(Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (113, 320), (127, 365), (135, 413), (166, 527),

Gene: Amyev_1 Start: 84, Stop: 536, Start Num: 41
Candidate Starts for Amyev_1:
(Start: 13 @12 has 1 MA's), (30, 54), (Start: 41 @84 has 2 MA's), (140, 471), (151, 510),

Gene: AndPeggy_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for AndPeggy_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Angelique_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Angelique_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (137, 436), (142, 472), (145, 481),

Gene: Apricot_1 Start: 50, Stop: 484, Start Num: 29
Candidate Starts for Apricot_1:
(Start: 29 @50 has 6 MA's), (55, 125), (58, 134), (Start: 66 @167 has 5 MA's), (67, 170), (89, 218), (96, 254), (100, 272), (119, 317), (127, 347), (133, 386),

Gene: Asa16_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Asa16_1:
(Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (145, 489), (151, 510), (154, 519),

Gene: Ascela_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Ascela_1:
(Start: 42 @85 has 59 MA's), (140, 472), (145, 490), (151, 511),

Gene: Ashes_1 Start: 139, Stop: 579, Start Num: 45
Candidate Starts for Ashes_1:
(Start: 45 @139 has 29 MA's), (Start: 69 @232 has 2 MA's),

Gene: Axym_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Axym_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: Azira_2 Start: 425, Stop: 922, Start Num: 33
Candidate Starts for Azira_2:

(24, 398), (Start: 33 @425 has 18 MA's), (Start: 59 @506 has 1 MA's), (96, 659), (101, 680), (127, 752), (133, 791), (161, 899),

Gene: Babsiella_1 Start: 67, Stop: 540, Start Num: 42
Candidate Starts for Babsiella_1:
(Start: 25 @16 has 1 MA's), (Start: 42 @67 has 59 MA's), (67, 151), (78, 187), (101, 292), (105, 304), (106, 307), (120, 340), (125, 352), (133, 403), (155, 499), (159, 508),

Gene: Barnstormer_1 Start: 114, Stop: 596, Start Num: 45
Candidate Starts for Barnstormer_1:
(Start: 40 @108 has 2 MA's), (Start: 45 @114 has 29 MA's), (114, 363), (132, 447), (141, 504), (145, 519),

Gene: Bavilard_2 Start: 592, Stop: 963, Start Num: 69
Candidate Starts for Bavilard_2:
(Start: 33 @475 has 18 MA's), (Start: 48 @514 has 2 MA's), (Start: 69 @592 has 2 MA's), (86, 637), (87, 640), (96, 688), (98, 700), (126, 775), (127, 781), (133, 820), (135, 829), (138, 850),

Gene: BearBQ_1 Start: 50, Stop: 484, Start Num: 29
Candidate Starts for BearBQ_1:
(Start: 29 @50 has 6 MA's), (55, 125), (58, 134), (Start: 66 @167 has 5 MA's), (67, 170), (89, 218), (96, 254), (100, 272), (119, 317), (127, 347), (133, 386),

Gene: BeeGee_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for BeeGee_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Beelzebub_37 Start: 10803, Stop: 11156, Start Num: 66
Candidate Starts for Beelzebub_37:
(3, 10587), (Start: 45 @10722 has 29 MA's), (Start: 66 @10803 has 5 MA's), (97, 10923), (105, 10953), (127, 11013), (157, 11148),

Gene: Berrie_1 Start: 83, Stop: 535, Start Num: 42
Candidate Starts for Berrie_1:
(Start: 42 @83 has 59 MA's), (140, 470), (145, 488), (151, 509),

Gene: BigChungus_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for BigChungus_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: BillDoor_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for BillDoor_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Bimmel_44 Start: 24939, Stop: 25364, Start Num: 42
Candidate Starts for Bimmel_44:
(Start: 42 @24939 has 59 MA's), (58, 24984), (62, 25005), (106, 25158), (120, 25191), (134, 25260), (146, 25320), (147, 25326),

Gene: Birdsong_1 Start: 50, Stop: 484, Start Num: 29

Candidate Starts for Birdsong_1:
(Start: 29 @50 has 6 MA's), (55, 125), (58, 134), (Start: 66 @167 has 5 MA's), (67, 170), (89, 218), (96, 254), (100, 272), (119, 317), (127, 347), (133, 386),

Gene: Biskit_1 Start: 52, Stop: 534, Start Num: 31
Candidate Starts for Biskit_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (127, 364), (135, 412), (165, 523),

Gene: Blackbeetle_33 Start: 9732, Stop: 10175, Start Num: 39
Candidate Starts for Blackbeetle_33:
(Start: 39 @9732 has 1 MA's), (Start: 44 @9741 has 1 MA's), (Start: 66 @9822 has 5 MA's), (97, 9942), (105, 9972), (127, 10032), (157, 10167),

Gene: Blondies_1 Start: 53, Stop: 535, Start Num: 31
Candidate Starts for Blondies_1:
(21, 14), (Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Bradissa_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Bradissa_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: BritBrat_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for BritBrat_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Brujita_1 Start: 62, Stop: 541, Start Num: 40
Candidate Starts for Brujita_1:
(24, 14), (Start: 40 @62 has 2 MA's), (Start: 42 @68 has 59 MA's), (67, 152), (101, 293), (105, 305), (106, 308), (120, 341), (142, 458), (159, 509),

Gene: Burnsey_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Burnsey_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (96, 271), (113, 319), (127, 364),

Gene: Button_1 Start: 50, Stop: 505, Start Num: 31
Candidate Starts for Button_1:
(Start: 31 @50 has 26 MA's), (96, 263), (127, 356), (135, 404), (160, 491),

Gene: Buttrmlkdreams_1 Start: 53, Stop: 535, Start Num: 31
Candidate Starts for Buttrmlkdreams_1:
(21, 14), (Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Byougenkin_1 Start: 193, Stop: 564, Start Num: 69
Candidate Starts for Byougenkin_1:
(46, 109), (Start: 54 @136 has 3 MA's), (64, 175), (Start: 69 @193 has 2 MA's), (70, 196), (85, 235), (86, 241), (93, 274), (100, 310), (103, 319), (105, 325), (124, 388), (148, 514), (160, 547), (162, 556),

Gene: CanesSauce_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for CanesSauce_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (113, 320), (127, 365), (135, 413), (165, 524),

Gene: Cappuccino_1 Start: 138, Stop: 578, Start Num: 45
Candidate Starts for Cappuccino_1:
(Start: 45 @138 has 29 MA's), (Start: 69 @231 has 2 MA's),

Gene: Caprice_30 Start: 9811, Stop: 10245, Start Num: 44
Candidate Starts for Caprice_30:
(Start: 29 @9775 has 6 MA's), (Start: 33 @9787 has 18 MA's), (Start: 39 @9802 has 1 MA's), (Start: 44 @9811 has 1 MA's), (Start: 66 @9892 has 5 MA's), (97, 10012), (105, 10042), (127, 10102), (157, 10237),

Gene: Caron_1 Start: 114, Stop: 593, Start Num: 45
Candidate Starts for Caron_1:
(Start: 40 @108 has 2 MA's), (Start: 45 @114 has 29 MA's), (Start: 49 @135 has 1 MA's), (63, 183), (114, 363), (132, 447), (145, 516),

Gene: Carsonalex_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Carsonalex_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364), (166, 526),

Gene: Cashline_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Cashline_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (88, 250), (92, 265), (106, 325), (125, 370), (137, 436), (142, 472), (145, 481),

Gene: Cassia_1 Start: 86, Stop: 550, Start Num: 42
Candidate Starts for Cassia_1:
(Start: 42 @86 has 59 MA's), (100, 305), (145, 503), (154, 533),

Gene: Cen1621_1 Start: 100, Stop: 576, Start Num: 45
Candidate Starts for Cen1621_1:
(Start: 38 @88 has 24 MA's), (Start: 45 @100 has 29 MA's), (89, 250), (110, 322), (122, 361), (126, 376), (139, 457), (143, 472),

Gene: CherryonLim_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for CherryonLim_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: ChickenTender_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for ChickenTender_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: ChocoMunchkin_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for ChocoMunchkin_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (113, 320), (127, 365), (135, 413), (165, 524),

Gene: Clarkson_34 Start: 10423, Stop: 10857, Start Num: 45
Candidate Starts for Clarkson_34:
(3, 10288), (Start: 45 @10423 has 29 MA's), (Start: 66 @10504 has 5 MA's), (97, 10624), (105, 10654), (127, 10714), (157, 10849),

Gene: Cleo_2 Start: 447, Stop: 983, Start Num: 13
Candidate Starts for Cleo_2:
(Start: 13 @447 has 1 MA's), (Start: 33 @498 has 18 MA's), (Start: 59 @579 has 1 MA's), (Start: 69 @618 has 2 MA's), (96, 732), (101, 753), (105, 765), (127, 825),

Gene: Community_2 Start: 1157, Stop: 1609, Start Num: 42
Candidate Starts for Community_2:
(5, 1052), (Start: 42 @1157 has 59 MA's), (140, 1544), (145, 1562), (151, 1583),

Gene: Confidence_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Confidence_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Corazon_31 Start: 10376, Stop: 10810, Start Num: 45
Candidate Starts for Corazon_31:
(3, 10241), (Start: 45 @10376 has 29 MA's), (Start: 66 @10457 has 5 MA's), (97, 10577), (105, 10607), (127, 10667), (157, 10802),

Gene: Cornie_1 Start: 85, Stop: 549, Start Num: 29
Candidate Starts for Cornie_1:
(Start: 29 @85 has 6 MA's), (Start: 48 @133 has 2 MA's), (53, 148), (55, 154), (Start: 59 @172 has 1 MA's), (63, 187), (73, 226), (89, 277), (93, 295), (113, 361), (119, 379), (121, 385), (123, 388), (125, 397), (126, 403), (127, 409), (129, 418), (153, 535), (158, 544),

Gene: Cozz_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Cozz_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: Crater_1 Start: 50, Stop: 484, Start Num: 29
Candidate Starts for Crater_1:
(Start: 29 @50 has 6 MA's), (55, 125), (58, 134), (Start: 66 @167 has 5 MA's), (67, 170), (89, 218), (96, 254), (100, 272), (119, 317), (127, 347), (133, 386),

Gene: Crewmate_1 Start: 85, Stop: 549, Start Num: 42
Candidate Starts for Crewmate_1:
(Start: 42 @85 has 59 MA's), (140, 484), (145, 502), (151, 523),

Gene: Cyan_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Cyan_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: DS6A_1 Start: 246, Stop: 680, Start Num: 38
Candidate Starts for DS6A_1:
(Start: 38 @246 has 24 MA's), (51, 288), (63, 333), (80, 384), (92, 435), (109, 504), (130, 576), (133, 594), (140, 639), (142, 648), (150, 675),

Gene: Donkey_1 Start: 138, Stop: 578, Start Num: 45
Candidate Starts for Donkey_1:
(Start: 45 @138 has 29 MA's), (Start: 69 @231 has 2 MA's),

Gene: DrManhattan_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for DrManhattan_1:
(Start: 42 @85 has 59 MA's), (81, 214), (151, 508), (154, 517),

Gene: DrSierra_1 Start: 87, Stop: 551, Start Num: 42
Candidate Starts for DrSierra_1:
(Start: 42 @87 has 59 MA's), (151, 525),

Gene: Dre3_2 Start: 442, Stop: 927, Start Num: 33
Candidate Starts for Dre3_2:
(Start: 33 @442 has 18 MA's), (Start: 59 @523 has 1 MA's), (Start: 69 @562 has 2 MA's), (96, 676), (101, 697), (105, 709), (127, 769),

Gene: EMsquaredA_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for EMsquaredA_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Elezi_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Elezi_1:
(Start: 42 @85 has 59 MA's), (81, 214), (140, 472), (145, 490), (151, 511), (154, 520),

Gene: Elinal_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for Elinal_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (98, 284), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Eliott_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Eliott_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (96, 271), (113, 319), (127, 364),

Gene: Emalyn_1 Start: 52, Stop: 531, Start Num: 31
Candidate Starts for Emalyn_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (90, 241), (96, 271), (113, 319), (127, 364), (135, 412), (166, 526),

Gene: Emotion_1 Start: 130, Stop: 558, Start Num: 42
Candidate Starts for Emotion_1:
(Start: 42 @130 has 59 MA's), (92, 310), (122, 415),

Gene: EnalisNailo_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for EnalisNailo_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Eraser_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Eraser_1:

(Start: 42 @85 has 59 MA's), (81, 214), (140, 472), (145, 490), (151, 511), (154, 520),

Gene: Exile_1 Start: 140, Stop: 571, Start Num: 42
Candidate Starts for Exile_1:
(18, 71), (Start: 42 @140 has 59 MA's), (151, 545), (154, 554),

Gene: FF47_04 Start: 1302, Stop: 1775, Start Num: 43
Candidate Starts for FF47_04:
(23, 1254), (Start: 43 @1302 has 3 MA's), (60, 1365), (Start: 61 @1368 has 1 MA's), (Start: 69 @1398 has 2 MA's), (95, 1500), (152, 1725), (163, 1746), (164, 1755),

Gene: Farewell_1 Start: 34, Stop: 528, Start Num: 15
Candidate Starts for Farewell_1:
(Start: 15 @34 has 1 MA's), (28, 73), (Start: 38 @97 has 24 MA's), (Start: 69 @208 has 2 MA's), (92, 280), (128, 406), (130, 421), (142, 496),

Gene: Feastonyeet_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for Feastonyeet_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: FeliMaine_35 Start: 10424, Stop: 10858, Start Num: 45
Candidate Starts for FeliMaine_35:
(3, 10289), (Start: 45 @10424 has 29 MA's), (Start: 66 @10505 has 5 MA's), (97, 10625), (105, 10655), (127, 10715), (157, 10850),

Gene: Floof_1 Start: 122, Stop: 601, Start Num: 45
Candidate Starts for Floof_1:
(Start: 45 @122 has 29 MA's), (Start: 65 @200 has 1 MA's), (104, 350), (114, 371), (131, 446), (151, 545),

Gene: Floral_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Floral_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Fribs8_2 Start: 426, Stop: 911, Start Num: 33
Candidate Starts for Fribs8_2:
(24, 399), (Start: 33 @426 has 18 MA's), (Start: 59 @507 has 1 MA's), (96, 660), (101, 681), (127, 753), (133, 792),

Gene: GTE2_01 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for GTE2_01:
(21, 14), (Start: 34 @59 has 5 MA's), (71, 188), (90, 242), (96, 272), (100, 290), (127, 365), (135, 413), (165, 524),

Gene: Gaia_1 Start: 129, Stop: 578, Start Num: 38
Candidate Starts for Gaia_1:
(37, 126), (Start: 38 @129 has 24 MA's), (Start: 43 @144 has 3 MA's), (57, 186), (63, 213), (75, 264), (79, 279), (86, 315), (92, 342), (94, 357), (106, 402), (121, 438), (128, 468), (129, 471), (137, 516), (142, 549), (143, 552),

Gene: Gambol_1 Start: 138, Stop: 578, Start Num: 45

Candidate Starts for Gambol_1:
(Start: 45 @138 has 29 MA's), (Start: 69 @231 has 2 MA's),

Gene: Gattaca_32 Start: 9603, Stop: 10037, Start Num: 45
Candidate Starts for Gattaca_32:
(3, 9468), (Start: 45 @9603 has 29 MA's), (Start: 66 @9684 has 5 MA's), (97, 9804), (105, 9834), (127, 9894), (157, 10029),

Gene: GiKK_1 Start: 49, Stop: 504, Start Num: 31
Candidate Starts for GiKK_1:
(22, 22), (Start: 31 @49 has 26 MA's), (71, 178), (96, 262), (100, 280), (127, 355), (135, 403), (160, 490),

Gene: Gibbous_2 Start: 442, Stop: 927, Start Num: 33
Candidate Starts for Gibbous_2:
(Start: 33 @442 has 18 MA's), (Start: 59 @523 has 1 MA's), (Start: 69 @562 has 2 MA's), (96, 676), (101, 697), (105, 709), (127, 769),

Gene: GoldHunter_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for GoldHunter_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: GoongGoong_32 Start: 9724, Stop: 10077, Start Num: 66
Candidate Starts for GoongGoong_32:
(Start: 39 @9634 has 1 MA's), (Start: 44 @9643 has 1 MA's), (Start: 66 @9724 has 5 MA's), (97, 9844), (105, 9874), (127, 9934), (157, 10069),

Gene: Gretchen_1 Start: 128, Stop: 607, Start Num: 45
Candidate Starts for Gretchen_1:
(Start: 45 @128 has 29 MA's), (104, 356), (114, 377), (131, 452), (140, 515), (151, 551),

Gene: HC_01 Start: 67, Stop: 540, Start Num: 42
Candidate Starts for HC_01:
(Start: 42 @67 has 59 MA's), (67, 151), (101, 292), (105, 304), (106, 307), (120, 340), (125, 352), (133, 403), (159, 508),

Gene: Halsey_1 Start: 139, Stop: 579, Start Num: 45
Candidate Starts for Halsey_1:
(Start: 45 @139 has 29 MA's), (Start: 69 @232 has 2 MA's),

Gene: Hexbug_1 Start: 50, Stop: 505, Start Num: 31
Candidate Starts for Hexbug_1:
(Start: 31 @50 has 26 MA's), (Start: 48 @89 has 2 MA's), (71, 179), (96, 263), (127, 356), (135, 404), (160, 491),

Gene: HippoPololi_2 Start: 449, Stop: 934, Start Num: 33
Candidate Starts for HippoPololi_2:
(11, 380), (Start: 25 @425 has 1 MA's), (Start: 33 @449 has 18 MA's), (Start: 59 @530 has 1 MA's), (Start: 69 @569 has 2 MA's), (96, 683), (101, 704), (105, 716), (127, 776),

Gene: Honk_1 Start: 161, Stop: 634, Start Num: 45
Candidate Starts for Honk_1:

(32, 128), (Start: 45 @161 has 29 MA's), (110, 383), (126, 437), (131, 467), (143, 530),

Gene: Horseradish_1 Start: 53, Stop: 535, Start Num: 31
Candidate Starts for Horseradish_1:
(21, 14), (Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Huphlepuff_35 Start: 10228, Stop: 10662, Start Num: 45
Candidate Starts for Huphlepuff_35:
(3, 10093), (Start: 45 @10228 has 29 MA's), (Start: 66 @10309 has 5 MA's), (97, 10429), (105, 10459), (127, 10519), (157, 10654),

Gene: IMpilo_1 Start: 194, Stop: 565, Start Num: 69
Candidate Starts for IMpilo_1:
(46, 110), (Start: 54 @137 has 3 MA's), (64, 176), (Start: 69 @194 has 2 MA's), (72, 209), (80, 221), (83, 224), (85, 236), (86, 242), (93, 275), (103, 320), (105, 326), (106, 329), (131, 425), (148, 515), (162, 557),

Gene: IbOuu_1 Start: 174, Stop: 563, Start Num: 64
Candidate Starts for IbOuu_1:
(46, 108), (Start: 54 @135 has 3 MA's), (64, 174), (Start: 69 @192 has 2 MA's), (70, 195), (85, 234), (86, 240), (93, 273), (100, 309), (103, 318), (105, 324), (124, 387), (148, 513), (160, 546), (162, 555),

Gene: Ibantik_65 Start: 27614, Stop: 28042, Start Num: 42
Candidate Starts for Ibantik_65:
(Start: 42 @27614 has 59 MA's), (102, 27824), (103, 27827), (120, 27869), (134, 27938), (144, 27995), (145, 27998),

Gene: Island3_1 Start: 62, Stop: 541, Start Num: 40
Candidate Starts for Island3_1:
(24, 14), (Start: 40 @62 has 2 MA's), (Start: 42 @68 has 59 MA's), (67, 152), (101, 293), (105, 305), (106, 308), (120, 341), (142, 458), (159, 509),

Gene: Iter_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Iter_1:
(Start: 42 @85 has 59 MA's), (140, 472), (145, 490), (151, 511),

Gene: IttyBittyPiggy_1 Start: 86, Stop: 538, Start Num: 42
Candidate Starts for IttyBittyPiggy_1:
(Start: 42 @86 has 59 MA's), (81, 215), (140, 473), (145, 491), (154, 521),

Gene: Jablanski_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Jablanski_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: JacoRen57_1 Start: 190, Stop: 669, Start Num: 43
Candidate Starts for JacoRen57_1:
(4, 61), (10, 91), (12, 94), (Start: 29 @154 has 6 MA's), (Start: 43 @190 has 3 MA's), (60, 253), (Start: 65 @271 has 1 MA's), (105, 424), (119, 457), (136, 538), (142, 574), (149, 598), (152, 607),

Gene: Jamzy_1 Start: 49, Stop: 504, Start Num: 31
Candidate Starts for Jamzy_1:

(Start: 31 @49 has 26 MA's), (Start: 48 @88 has 2 MA's), (71, 178), (96, 262), (126, 349), (127, 355), (135, 403), (160, 490), (162, 499),

Gene: Janeemi_2 Start: 1168, Stop: 1620, Start Num: 42
Candidate Starts for Janeemi_2:
(Start: 42 @1168 has 59 MA's), (140, 1555), (145, 1573), (151, 1594),

Gene: JasmineDragon_1 Start: 132, Stop: 560, Start Num: 42
Candidate Starts for JasmineDragon_1:
(Start: 42 @132 has 59 MA's), (122, 417), (145, 534),

Gene: Joemato_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Joemato_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: JohnDoe_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for JohnDoe_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: JoieB_34 Start: 10528, Stop: 10881, Start Num: 66
Candidate Starts for JoieB_34:
(3, 10312), (Start: 45 @10447 has 29 MA's), (Start: 66 @10528 has 5 MA's), (97, 10648), (105, 10678), (127, 10738), (157, 10873),

Gene: Jstan_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Jstan_1:
(Start: 42 @85 has 59 MA's), (81, 214), (140, 472), (145, 490), (151, 511), (154, 520),

Gene: JuneStar_1 Start: 84, Stop: 548, Start Num: 42
Candidate Starts for JuneStar_1:
(30, 54), (Start: 42 @84 has 59 MA's), (145, 501), (154, 531),

Gene: Juniper1_1 Start: 192, Stop: 563, Start Num: 69
Candidate Starts for Juniper1_1:
(14, 9), (46, 108), (Start: 54 @135 has 3 MA's), (64, 174), (Start: 69 @192 has 2 MA's), (70, 195), (85, 234), (86, 240), (93, 273), (100, 309), (103, 318), (105, 324), (124, 387), (148, 513), (160, 546), (162, 555),

Gene: Kabluna_1 Start: 289, Stop: 708, Start Num: 65
Candidate Starts for Kabluna_1:
(17, 124), (27, 160), (50, 235), (Start: 65 @289 has 1 MA's), (86, 355), (93, 388), (108, 445), (112, 454), (117, 469), (118, 475), (131, 541), (167, 700),

Gene: Kalimba_1 Start: 138, Stop: 578, Start Num: 45
Candidate Starts for Kalimba_1:
(Start: 45 @138 has 29 MA's), (Start: 69 @231 has 2 MA's),

Gene: KayGee_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for KayGee_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (98, 284), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Kaylissa_1 Start: 84, Stop: 536, Start Num: 42

Candidate Starts for Kaylissa_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: KeAlii_1 Start: 69, Stop: 521, Start Num: 42
Candidate Starts for KeAlii_1:
(Start: 42 @69 has 59 MA's), (151, 492), (154, 501),

Gene: Krakatau_2 Start: 784, Stop: 1212, Start Num: 54
Candidate Starts for Krakatau_2:
(Start: 45 @754 has 29 MA's), (Start: 54 @784 has 3 MA's), (64, 823), (Start: 69 @841 has 2 MA's), (72, 856), (80, 868), (83, 871), (85, 883), (86, 889), (93, 922), (103, 967), (105, 973), (106, 976), (131, 1072), (148, 1162), (162, 1204),

Gene: Kuwabara_1 Start: 50, Stop: 484, Start Num: 29
Candidate Starts for Kuwabara_1:
(Start: 29 @50 has 6 MA's), (55, 125), (58, 134), (Start: 66 @167 has 5 MA's), (67, 170), (89, 218), (96, 254), (100, 272), (119, 317), (127, 347), (133, 386),

Gene: LadyAstra_1 Start: 132, Stop: 563, Start Num: 42
Candidate Starts for LadyAstra_1:
(Start: 42 @132 has 59 MA's), (68, 228), (140, 519),

Gene: Lauer_1 Start: 146, Stop: 547, Start Num: 61
Candidate Starts for Lauer_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (98, 284), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Lego_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Lego_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: Liebe_1 Start: 80, Stop: 535, Start Num: 42
Candidate Starts for Liebe_1:
(Start: 42 @80 has 59 MA's), (102, 311),

Gene: Lilas_1 Start: 73, Stop: 504, Start Num: 35
Candidate Starts for Lilas_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Lilbit_34 Start: 10424, Stop: 10858, Start Num: 45
Candidate Starts for Lilbit_34:
(3, 10289), (Start: 45 @10424 has 29 MA's), (Start: 66 @10505 has 5 MA's), (97, 10625), (105, 10655), (127, 10715), (157, 10850),

Gene: LittleLaf_33 Start: 10153, Stop: 10587, Start Num: 45
Candidate Starts for LittleLaf_33:
(3, 10018), (Start: 45 @10153 has 29 MA's), (Start: 66 @10234 has 5 MA's), (97, 10354), (105, 10384), (127, 10444), (157, 10579),

Gene: Lizalica_1 Start: 85, Stop: 534, Start Num: 42
Candidate Starts for Lizalica_1:
(Start: 42 @85 has 59 MA's), (81, 214), (140, 469), (145, 487), (151, 508), (154, 517),

Gene: London_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for London_1:
(Start: 42 @85 has 59 MA's), (81, 214), (140, 472), (145, 490), (151, 511), (154, 520),

Gene: LonelyBoi_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for LonelyBoi_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: LunaStella_1 Start: 55, Stop: 477, Start Num: 38
Candidate Starts for LunaStella_1:
(8, 7), (9, 16), (Start: 38 @55 has 24 MA's), (Start: 61 @136 has 1 MA's), (92, 238), (109, 307), (111, 310), (130, 376), (137, 409), (142, 445), (145, 454),

Gene: MAnor_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for MAnor_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: MScarn_1 Start: 53, Stop: 535, Start Num: 31
Candidate Starts for MScarn_1:
(21, 14), (Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: MaGuCo_1 Start: 80, Stop: 535, Start Num: 42
Candidate Starts for MaGuCo_1:
(Start: 42 @80 has 59 MA's), (102, 311), (141, 473),

Gene: MaVan_2 Start: 426, Stop: 923, Start Num: 33
Candidate Starts for MaVan_2:
(24, 399), (Start: 33 @426 has 18 MA's), (Start: 59 @507 has 1 MA's), (96, 660), (101, 681), (127, 753), (133, 792), (161, 900),

Gene: Mabodamaca_1 Start: 146, Stop: 604, Start Num: 49
Candidate Starts for Mabodamaca_1:
(Start: 45 @125 has 29 MA's), (Start: 49 @146 has 1 MA's), (114, 374), (132, 458), (145, 527),

Gene: Maco6_2 Start: 581, Stop: 1054, Start Num: 43
Candidate Starts for Maco6_2:
(23, 533), (Start: 43 @581 has 3 MA's), (60, 644), (Start: 61 @647 has 1 MA's), (Start: 69 @677 has 2 MA's), (95, 779), (152, 1004), (163, 1025), (164, 1034),

Gene: Margaret_1 Start: 49, Stop: 504, Start Num: 31
Candidate Starts for Margaret_1:
(Start: 31 @49 has 26 MA's), (96, 262), (127, 355), (135, 403), (160, 490),

Gene: Marteena_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Marteena_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Marvin_31 Start: 10504, Stop: 10857, Start Num: 66

Candidate Starts for Marvin_31:
(3, 10288), (Start: 45 @10423 has 29 MA's), (Start: 66 @10504 has 5 MA's), (97, 10624), (105, 10654), (127, 10714), (157, 10849),

Gene: Maureen_1 Start: 80, Stop: 535, Start Num: 42
Candidate Starts for Maureen_1:
(Start: 42 @80 has 59 MA's), (102, 311),

Gene: Mayweather_2 Start: 513, Stop: 962, Start Num: 48
Candidate Starts for Mayweather_2:
(Start: 33 @474 has 18 MA's), (Start: 48 @513 has 2 MA's), (86, 636), (87, 639), (96, 687), (98, 699), (126, 774), (127, 780), (133, 819), (135, 828), (138, 849),

Gene: MiniMommy_1 Start: 132, Stop: 560, Start Num: 42
Candidate Starts for MiniMommy_1:
(Start: 42 @132 has 59 MA's), (122, 417), (145, 534),

Gene: MinionDave_2 Start: 784, Stop: 1212, Start Num: 54
Candidate Starts for MinionDave_2:
(Start: 45 @754 has 29 MA's), (Start: 54 @784 has 3 MA's), (64, 823), (Start: 69 @841 has 2 MA's), (72, 856), (80, 868), (83, 871), (85, 883), (86, 889), (93, 922), (103, 967), (105, 973), (106, 976), (131, 1072), (133, 1087), (148, 1162), (162, 1204),

Gene: MissSwiss_1 Start: 87, Stop: 554, Start Num: 42
Candidate Starts for MissSwiss_1:
(Start: 42 @87 has 59 MA's), (81, 216), (135, 453), (145, 504), (151, 525), (154, 534),

Gene: MortyNRick_1 Start: 50, Stop: 484, Start Num: 29
Candidate Starts for MortyNRick_1:
(Start: 29 @50 has 6 MA's), (55, 125), (58, 134), (Start: 66 @167 has 5 MA's), (67, 170), (89, 218), (96, 254), (100, 272), (119, 317), (127, 347), (133, 386),

Gene: MosMoris_31 Start: 9684, Stop: 10037, Start Num: 66
Candidate Starts for MosMoris_31:
(3, 9468), (Start: 45 @9603 has 29 MA's), (Start: 66 @9684 has 5 MA's), (97, 9804), (105, 9834), (127, 9894), (157, 10029),

Gene: Moss_1 Start: 139, Stop: 579, Start Num: 45
Candidate Starts for Moss_1:
(Start: 45 @139 has 29 MA's), (Start: 69 @232 has 2 MA's),

Gene: Ms6_1 Start: 193, Stop: 564, Start Num: 69
Candidate Starts for Ms6_1:
(46, 109), (Start: 54 @136 has 3 MA's), (64, 175), (Start: 69 @193 has 2 MA's), (72, 208), (80, 220), (83, 223), (85, 235), (86, 241), (93, 274), (103, 319), (105, 325), (106, 328), (131, 424), (133, 439), (148, 514), (162, 556),

Gene: Muddy_4 Start: 1535, Stop: 2008, Start Num: 43
Candidate Starts for Muddy_4:
(23, 1487), (Start: 43 @1535 has 3 MA's), (60, 1598), (Start: 61 @1601 has 1 MA's), (Start: 69 @1631 has 2 MA's), (95, 1733), (152, 1958), (163, 1979), (164, 1988),

Gene: Mudpuppy_1 Start: 84, Stop: 536, Start Num: 42

Candidate Starts for Mudpuppy_1:
(Start: 13 @12 has 1 MA's), (30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: MunkgeeRoachy_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for MunkgeeRoachy_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (96, 271), (113, 319), (126, 358), (127, 364), (166, 526),

Gene: Mysterium_1 Start: 139, Stop: 579, Start Num: 45
Candidate Starts for Mysterium_1:
(Start: 45 @139 has 29 MA's), (Start: 69 @232 has 2 MA's),

Gene: Nebkiss_1 Start: 130, Stop: 579, Start Num: 38
Candidate Starts for Nebkiss_1:
(12, 58), (Start: 38 @130 has 24 MA's), (Start: 43 @145 has 3 MA's), (57, 187), (63, 214), (Start: 69 @238 has 2 MA's), (74, 262), (76, 268), (81, 283), (82, 286), (89, 331), (92, 343), (95, 364), (125, 451), (137, 517), (142, 550), (143, 553),

Gene: Nibbles_2 Start: 426, Stop: 923, Start Num: 33
Candidate Starts for Nibbles_2:
(24, 399), (Start: 33 @426 has 18 MA's), (Start: 59 @507 has 1 MA's), (96, 660), (101, 681), (127, 753), (133, 792), (161, 900),

Gene: Nina_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Nina_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: Niobe_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Niobe_1:
(Start: 42 @85 has 59 MA's), (81, 214), (140, 472), (145, 490), (151, 511), (154, 520),

Gene: Nitro_1 Start: 86, Stop: 538, Start Num: 42
Candidate Starts for Nitro_1:
(Start: 42 @86 has 59 MA's), (81, 215), (140, 473), (151, 512), (154, 521),

Gene: NoShow_1 Start: 166, Stop: 675, Start Num: 25
Candidate Starts for NoShow_1:
(2, 82), (9, 115), (Start: 25 @166 has 1 MA's), (36, 199), (52, 244), (60, 277), (90, 379), (103, 436), (119, 478), (127, 508), (137, 562), (152, 625),

Gene: Nodigi_1 Start: 50, Stop: 505, Start Num: 31
Candidate Starts for Nodigi_1:
(Start: 31 @50 has 26 MA's), (Start: 48 @89 has 2 MA's), (71, 179), (96, 263), (127, 356), (135, 404), (160, 491),

Gene: ObiToo_1 Start: 85, Stop: 549, Start Num: 42
Candidate Starts for ObiToo_1:
(Start: 42 @85 has 59 MA's), (151, 523),

Gene: Orla_1 Start: 49, Stop: 504, Start Num: 31
Candidate Starts for Orla_1:

(Start: 31 @49 has 26 MA's), (Start: 48 @88 has 2 MA's), (71, 178), (96, 262), (127, 355), (135, 403), (160, 490),

Gene: Percival_1 Start: 128, Stop: 607, Start Num: 45
Candidate Starts for Percival_1:
(20, 56), (Start: 45 @128 has 29 MA's), (47, 140), (104, 356), (114, 377), (131, 452), (140, 515), (151, 551),

Gene: Phalconet_1 Start: 136, Stop: 564, Start Num: 54
Candidate Starts for Phalconet_1:
(46, 109), (Start: 54 @136 has 3 MA's), (64, 175), (Start: 69 @193 has 2 MA's), (72, 208), (80, 220), (83, 223), (85, 235), (86, 241), (93, 274), (103, 319), (105, 325), (106, 328), (131, 424), (148, 514), (162, 556),

Gene: Phives_2 Start: 1157, Stop: 1609, Start Num: 42
Candidate Starts for Phives_2:
(5, 1052), (Start: 42 @1157 has 59 MA's), (140, 1544), (145, 1562), (151, 1583),

Gene: Pixelle_1 Start: 84, Stop: 536, Start Num: 41
Candidate Starts for Pixelle_1:
(Start: 13 @12 has 1 MA's), (30, 54), (Start: 41 @84 has 2 MA's), (140, 471), (151, 510),

Gene: Poise_33 Start: 9822, Stop: 10175, Start Num: 66
Candidate Starts for Poise_33:
(Start: 39 @9732 has 1 MA's), (Start: 44 @9741 has 1 MA's), (Start: 66 @9822 has 5 MA's), (97, 9942), (105, 9972), (127, 10032), (157, 10167),

Gene: Pollux_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Pollux_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Pons_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for Pons_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Ponzi_41 Start: 22312, Stop: 22740, Start Num: 42
Candidate Starts for Ponzi_41:
(Start: 42 @22312 has 59 MA's), (107, 22534), (134, 22633), (156, 22726),

Gene: Posh_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Posh_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: PotPie_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for PotPie_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (87, 224), (96, 272), (98, 284), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Powerpuff_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Powerpuff_1:

(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: Pringar_33 Start: 10053, Stop: 10487, Start Num: 45
Candidate Starts for Pringar_33:
(3, 9918), (Start: 45 @10053 has 29 MA's), (Start: 66 @10134 has 5 MA's), (97, 10254), (105, 10284), (127, 10344), (157, 10479),

Gene: PsychoKiller_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for PsychoKiller_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (96, 271), (113, 319), (127, 364),

Gene: Pumpkins_1 Start: 86, Stop: 550, Start Num: 42
Candidate Starts for Pumpkins_1:
(Start: 42 @86 has 59 MA's), (100, 305), (145, 503), (154, 533),

Gene: Pytheas_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Pytheas_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (137, 436), (142, 472), (145, 481),

Gene: Quasar_1 Start: 679, Stop: 1164, Start Num: 31
Candidate Starts for Quasar_1:
(Start: 31 @679 has 26 MA's), (Start: 59 @757 has 1 MA's), (71, 808), (90, 862), (96, 892), (98, 904), (113, 940), (127, 985),

Gene: QueenHazel_1 Start: 67, Stop: 540, Start Num: 42
Candidate Starts for QueenHazel_1:
(37, 55), (Start: 42 @67 has 59 MA's), (67, 151), (78, 187), (101, 292), (105, 304), (106, 307), (120, 340), (125, 352), (133, 403), (155, 499), (159, 508),

Gene: Raela_33 Start: 10296, Stop: 10730, Start Num: 44
Candidate Starts for Raela_33:
(Start: 39 @10287 has 1 MA's), (Start: 44 @10296 has 1 MA's), (Start: 66 @10377 has 5 MA's), (97, 10497), (105, 10527), (127, 10587), (157, 10722),

Gene: RanchParmCat_1 Start: 49, Stop: 504, Start Num: 31
Candidate Starts for RanchParmCat_1:
(Start: 31 @49 has 26 MA's), (96, 262), (127, 355), (135, 403), (160, 490),

Gene: RedBaron_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for RedBaron_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364), (166, 526),

Gene: RedRaider77_33 Start: 10197, Stop: 10631, Start Num: 45
Candidate Starts for RedRaider77_33:
(3, 10062), (Start: 45 @10197 has 29 MA's), (Start: 66 @10278 has 5 MA's), (97, 10398), (105, 10428), (127, 10488), (157, 10623),

Gene: Reedo_1 Start: 95, Stop: 547, Start Num: 42
Candidate Starts for Reedo_1:

(Start: 42 @95 has 59 MA's), (Start: 49 @122 has 1 MA's), (81, 224), (145, 497), (151, 518), (154, 527),

Gene: Renaud18_1 Start: 55, Stop: 477, Start Num: 38
Candidate Starts for Renaud18_1:
(9, 16), (Start: 38 @55 has 24 MA's), (Start: 61 @136 has 1 MA's), (92, 238), (109, 307), (130, 376), (142, 445), (145, 454),

Gene: SPB78_1 Start: 51220, Stop: 426, Start Num: 29
Candidate Starts for SPB78_1:
(19, 51184), (Start: 29 @51220 has 6 MA's), (Start: 31 @51229 has 26 MA's), (56, 51298), (77, 51373), (89, 51406), (134, 51580),

Gene: Samy_4 Start: 1334, Stop: 1780, Start Num: 42
Candidate Starts for Samy_4:
(Start: 42 @1334 has 59 MA's), (85, 1484), (93, 1523), (106, 1577), (126, 1631),

Gene: Shaffner_1 Start: 84, Stop: 548, Start Num: 42
Candidate Starts for Shaffner_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (145, 501), (154, 531),

Gene: ShakeItOph_1 Start: 132, Stop: 560, Start Num: 42
Candidate Starts for ShakeItOph_1:
(Start: 42 @132 has 59 MA's), (122, 417), (145, 534),

Gene: SheckWes_1 Start: 98, Stop: 547, Start Num: 48
Candidate Starts for SheckWes_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (98, 284), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Simpson_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Simpson_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: SketchMex_1 Start: 52, Stop: 534, Start Num: 31
Candidate Starts for SketchMex_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (127, 364), (135, 412), (165, 523),

Gene: Snek_2 Start: 958, Stop: 1422, Start Num: 42
Candidate Starts for Snek_2:
(Start: 42 @958 has 59 MA's), (113, 1207), (151, 1396), (154, 1405),

Gene: Soondubu_1 Start: 140, Stop: 571, Start Num: 42
Candidate Starts for Soondubu_1:
(Start: 42 @140 has 59 MA's), (151, 545), (154, 554),

Gene: Sooty_1 Start: 138, Stop: 578, Start Num: 45
Candidate Starts for Sooty_1:
(6, 12), (Start: 45 @138 has 29 MA's), (Start: 69 @231 has 2 MA's),

Gene: Sopespian_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Sopespian_1:

(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (96, 271), (113, 319), (127, 364),

Gene: Sparky_1 Start: 98, Stop: 529, Start Num: 38
Candidate Starts for Sparky_1:
(7, 2), (16, 35), (28, 74), (Start: 38 @98 has 24 MA's), (Start: 69 @209 has 2 MA's), (92, 281), (128, 407), (130, 422), (142, 497),

Gene: SpecialK_1 Start: 139, Stop: 579, Start Num: 45
Candidate Starts for SpecialK_1:
(Start: 45 @139 has 29 MA's), (Start: 69 @232 has 2 MA's),

Gene: Spooks_47 Start: 26248, Stop: 26673, Start Num: 42
Candidate Starts for Spooks_47:
(Start: 42 @26248 has 59 MA's), (62, 26314), (100, 26449), (119, 26494), (134, 26569), (146, 26629), (147, 26635),

Gene: Starburst_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Starburst_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: SteamedHams_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for SteamedHams_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: SuMoo_1 Start: 124, Stop: 603, Start Num: 45
Candidate Starts for SuMoo_1:
(21, 58), (26, 79), (Start: 45 @124 has 29 MA's), (Start: 49 @145 has 1 MA's), (114, 373), (132, 457), (145, 526),

Gene: Success_49 Start: 25367, Stop: 25792, Start Num: 42
Candidate Starts for Success_49:
(Start: 42 @25367 has 59 MA's), (58, 25412), (62, 25433), (100, 25568), (106, 25586), (120, 25619), (130, 25664), (134, 25688), (146, 25748), (147, 25754),

Gene: Sue2_1 Start: 75, Stop: 542, Start Num: 42
Candidate Starts for Sue2_1:
(Start: 13 @12 has 1 MA's), (Start: 42 @75 has 59 MA's), (Start: 49 @102 has 1 MA's), (91, 249), (115, 342), (151, 513), (154, 522),

Gene: SummitAcademy_1 Start: 56, Stop: 547, Start Num: 33
Candidate Starts for SummitAcademy_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (86, 221), (87, 224), (96, 272), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Survivors_2 Start: 426, Stop: 911, Start Num: 33
Candidate Starts for Survivors_2:
(24, 399), (Start: 33 @426 has 18 MA's), (Start: 59 @507 has 1 MA's), (96, 660), (101, 681), (127, 753), (133, 792),

Gene: SweatNTears_2 Start: 757, Stop: 1155, Start Num: 59

Candidate Starts for SweatNTears_2:
(Start: 31 @679 has 26 MA's), (Start: 59 @757 has 1 MA's), (71, 808), (90, 862), (96, 892), (98, 904), (113, 940), (127, 985), (165, 1144),

Gene: TChen_1 Start: 55, Stop: 477, Start Num: 38
Candidate Starts for TChen_1:
(8, 7), (9, 16), (Start: 38 @55 has 24 MA's), (Start: 61 @136 has 1 MA's), (92, 238), (109, 307), (111, 310), (130, 376), (137, 409), (142, 445), (145, 454),

Gene: Tallboi_1 Start: 85, Stop: 537, Start Num: 42
Candidate Starts for Tallboi_1:
(Start: 42 @85 has 59 MA's), (151, 511),

Gene: Tbone_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Tbone_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: Tesla_32 Start: 10046, Stop: 10480, Start Num: 45
Candidate Starts for Tesla_32:
(3, 9911), (Start: 45 @10046 has 29 MA's), (Start: 66 @10127 has 5 MA's), (97, 10247), (105, 10277), (127, 10337), (157, 10472),

Gene: TforTroy_1 Start: 86, Stop: 550, Start Num: 42
Candidate Starts for TforTroy_1:
(Start: 42 @86 has 59 MA's), (64, 167), (100, 305), (145, 503), (154, 533),

Gene: ThetaBob_1 Start: 55, Stop: 477, Start Num: 38
Candidate Starts for ThetaBob_1:
(9, 16), (Start: 38 @55 has 24 MA's), (Start: 61 @136 has 1 MA's), (92, 238), (109, 307), (111, 310), (130, 376), (142, 445), (145, 454),

Gene: Tian_1 Start: 84, Stop: 536, Start Num: 41
Candidate Starts for Tian_1:
(Start: 13 @12 has 1 MA's), (30, 54), (Start: 41 @84 has 2 MA's), (140, 471), (151, 510),

Gene: Tolls_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for Tolls_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (113, 320), (127, 365), (135, 413), (165, 524),

Gene: Toron_1 Start: 55, Stop: 477, Start Num: 38
Candidate Starts for Toron_1:
(9, 16), (Start: 38 @55 has 24 MA's), (63, 142), (87, 214), (92, 238), (106, 298), (109, 307), (111, 310), (130, 376), (133, 394), (142, 445), (145, 454),

Gene: Troje_1 Start: 53, Stop: 535, Start Num: 31
Candidate Starts for Troje_1:
(21, 14), (Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Tuck_2 Start: 1145, Stop: 1597, Start Num: 42
Candidate Starts for Tuck_2:
(5, 1040), (Start: 42 @1145 has 59 MA's), (140, 1532), (145, 1550), (151, 1571),

Gene: Turab_1 Start: 85, Stop: 540, Start Num: 42
Candidate Starts for Turab_1:
(Start: 42 @85 has 59 MA's), (81, 214), (151, 511), (154, 520),

Gene: Tutumahutu_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Tutumahutu_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: Tweety19_2 Start: 958, Stop: 1422, Start Num: 42
Candidate Starts for Tweety19_2:
(Start: 42 @958 has 59 MA's), (113, 1207), (151, 1396), (154, 1405),

Gene: Typhonomachy_1 Start: 52, Stop: 543, Start Num: 31
Candidate Starts for Typhonomachy_1:
(22, 22), (Start: 31 @52 has 26 MA's), (Start: 48 @97 has 2 MA's), (71, 187), (87, 223), (90, 241), (96, 271), (113, 319), (127, 364),

Gene: UtzChips_1 Start: 114, Stop: 596, Start Num: 45
Candidate Starts for UtzChips_1:
(Start: 40 @108 has 2 MA's), (Start: 45 @114 has 29 MA's), (114, 363), (132, 447), (145, 519),

Gene: VResidence_1 Start: 140, Stop: 604, Start Num: 42
Candidate Starts for VResidence_1:
(Start: 42 @140 has 59 MA's), (Start: 49 @167 has 1 MA's), (91, 314), (134, 503), (145, 557), (151, 578), (154, 587),

Gene: VWB_1 Start: 1, Stop: 480, Start Num: 29
Candidate Starts for VWB_1:
(Start: 29 @1 has 6 MA's), (Start: 31 @10 has 26 MA's), (55, 76), (77, 154), (89, 187), (134, 361), (135, 364),

Gene: VasuNzinga_33 Start: 9630, Stop: 10064, Start Num: 45
Candidate Starts for VasuNzinga_33:
(3, 9495), (Start: 45 @9630 has 29 MA's), (Start: 66 @9711 has 5 MA's), (97, 9831), (105, 9861), (127, 9921), (157, 10056),

Gene: Vine_2 Start: 681, Stop: 1172, Start Num: 33
Candidate Starts for Vine_2:
(Start: 33 @681 has 18 MA's), (51, 732), (Start: 59 @762 has 1 MA's), (71, 813), (87, 849), (96, 897), (98, 909), (113, 945), (126, 984), (127, 990), (133, 1029), (135, 1038), (138, 1059),

Gene: Vivum_1 Start: 193, Stop: 564, Start Num: 69
Candidate Starts for Vivum_1:
(46, 109), (Start: 54 @136 has 3 MA's), (64, 175), (Start: 69 @193 has 2 MA's), (70, 196), (85, 235), (86, 241), (93, 274), (100, 310), (103, 319), (105, 325), (124, 388), (148, 514), (160, 547), (162, 556),

Gene: VroomVroom_1 Start: 132, Stop: 563, Start Num: 42
Candidate Starts for VroomVroom_1:
(Start: 42 @132 has 59 MA's), (68, 228), (116, 393), (140, 519),

Gene: Warda_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for Warda_1:

(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: Wildwest_2 Start: 1032, Stop: 1481, Start Num: 42
Candidate Starts for Wildwest_2:
(1, 825), (Start: 42 @1032 has 59 MA's), (99, 1248), (151, 1455), (154, 1464),

Gene: Wrigley_1 Start: 82, Stop: 504, Start Num: 38
Candidate Starts for Wrigley_1:
(Start: 35 @73 has 1 MA's), (Start: 38 @82 has 24 MA's), (84, 226), (92, 265), (106, 325), (128, 388), (137, 436), (142, 472), (145, 481),

Gene: Xula_1 Start: 67, Stop: 540, Start Num: 42
Candidate Starts for Xula_1:
(37, 55), (Start: 42 @67 has 59 MA's), (67, 151), (78, 187), (101, 292), (105, 304), (106, 307), (120, 340), (125, 352), (133, 403), (159, 508),

Gene: Yakult_1 Start: 48, Stop: 503, Start Num: 31
Candidate Starts for Yakult_1:
(Start: 31 @48 has 26 MA's), (Start: 61 @135 has 1 MA's), (71, 177), (96, 261), (127, 354), (135, 402), (160, 489),

Gene: Yang_1 Start: 84, Stop: 548, Start Num: 42
Candidate Starts for Yang_1:
(30, 54), (Start: 42 @84 has 59 MA's), (145, 501), (154, 531),

Gene: Yarn_1 Start: 59, Stop: 535, Start Num: 34
Candidate Starts for Yarn_1:
(21, 14), (Start: 34 @59 has 5 MA's), (51, 107), (71, 188), (90, 242), (96, 272), (113, 320), (127, 365), (135, 413), (165, 524),

Gene: YesChef_1 Start: 84, Stop: 536, Start Num: 42
Candidate Starts for YesChef_1:
(30, 54), (Start: 42 @84 has 59 MA's), (81, 213), (140, 471), (151, 510), (154, 519),

Gene: Yucky_1 Start: 98, Stop: 547, Start Num: 48
Candidate Starts for Yucky_1:
(Start: 33 @56 has 18 MA's), (Start: 48 @98 has 2 MA's), (Start: 61 @146 has 1 MA's), (87, 224), (96, 272), (98, 284), (126, 359), (127, 365), (133, 404), (135, 413), (138, 434),

Gene: Yummy_1 Start: 53, Stop: 535, Start Num: 31
Candidate Starts for Yummy_1:
(21, 14), (Start: 31 @53 has 26 MA's), (Start: 48 @98 has 2 MA's), (71, 188), (90, 242), (96, 272), (127, 365), (135, 413), (165, 524),

Gene: Zareef_2 Start: 426, Stop: 923, Start Num: 33
Candidate Starts for Zareef_2:
(24, 399), (Start: 33 @426 has 18 MA's), (Start: 59 @507 has 1 MA's), (96, 660), (101, 681), (127, 753), (133, 792), (161, 900),