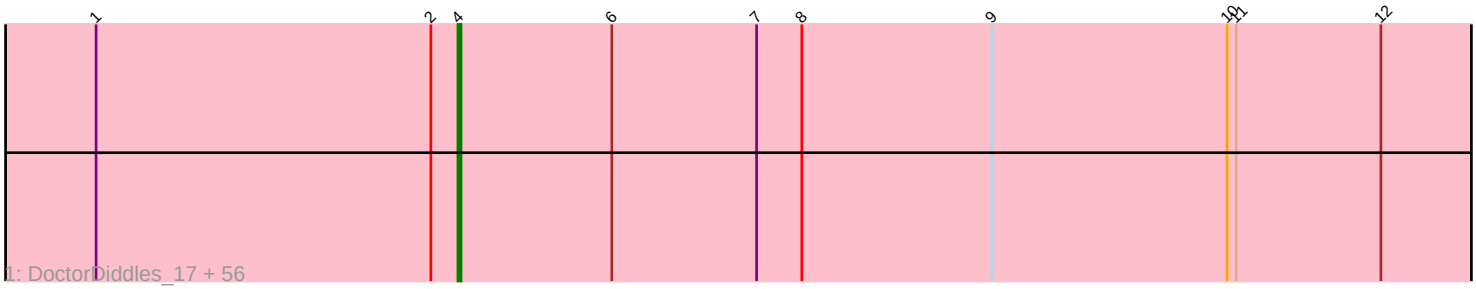
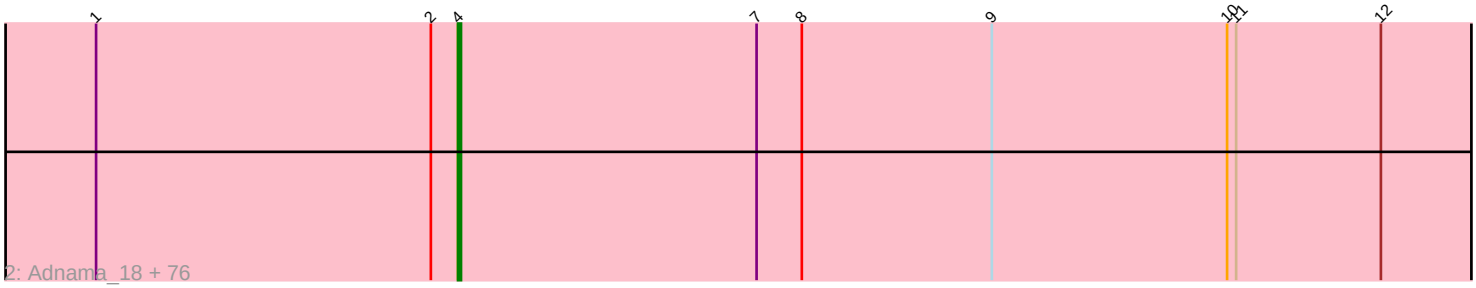
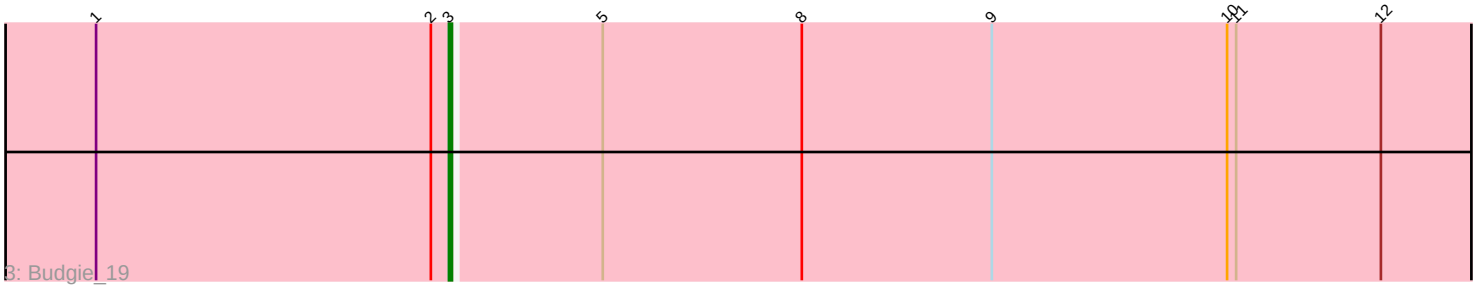
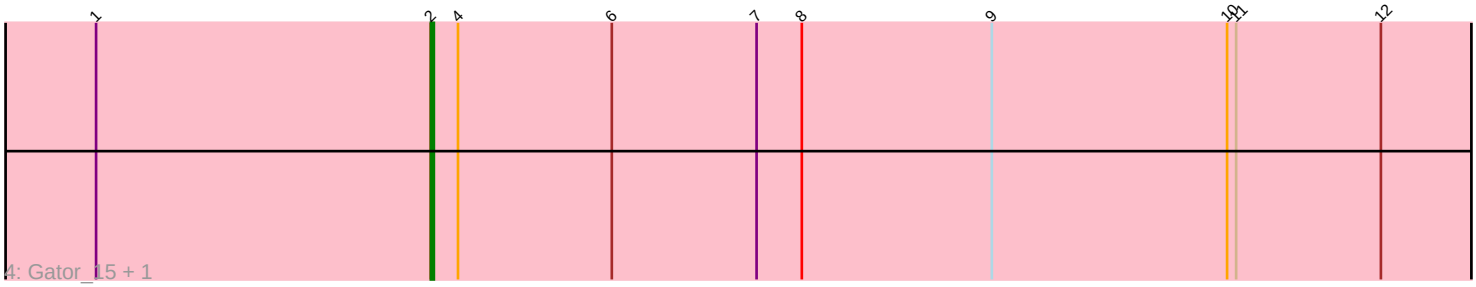
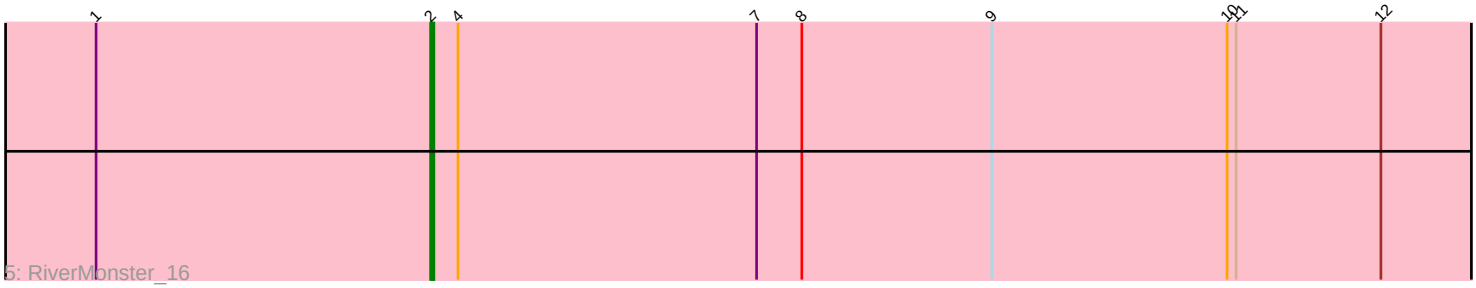
Pham 340908


1
2
4
6
7
8
9
10
11
12
1: DoctorDiddles_17 + 56


1
2
4
7
8
9
10
11
12
2: Adnama_18 + 76


1
2
3
5
8
9
10
11
12
3: Budgie_19


1
2
4
6
7
8
9
10
11
12
4: Gator_15 + 1


1
2
4
7
8
9
10
11
12
5: RiverMonster_16

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 340908 Report

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

Pham number 340908 has 138 members, 5 are drafts.

Phages represented in each track:
• Track 1 : DoctorDiddles_17, Palpatine_16, IHOP_16, Bruin_16, FairyPath_17, Willez_16, Quallification_18, Bask21_16, Balomoji_16, MollyToe_17, Rakim_18, Myrale_17, StellaBean_17, Thimble_17, Command613_18, CrystalP_17, Cookies_17, Tomaszewski_16, Mindy_17, Mosby_16, Manda_17, Icee_16, Harella_15, Marshmallow_17, ShamWow_17, Rimmer_16, Sotrice96_17, SophKB_17, Buck_16, NelitzaMV_17, Kostya_17, Cactus_18, Miniwave_17, Henry_17, Phaja_16, TeardropMSU_16, ABCat_16, SirDuracell_16, BilboSwaggins_17, Goldilocks_18, Tuco_17, Toto_17, Sassay_16, Holt_18, Inca_16, Asriel_16, Barbarian_16, Traaww1_15, Nala_16, Flypotenuse_15, Daikon_15, Phaux_15, Glexan_15, Amao_17, xkcd_17, Dusk_16, BadStone_16
• Track 2 : Adnama_18, Lilpickle_15, Petra64142_17, BigBubba_16, FireRed_16, ChotaBhai_16, Thresher_17, GoldenSpark_18, Kanye_18, ShereKhan_18, OrionPax_17, HanKaySha_17, Lilizi_18, Hopey_17, MISSy_16, Filch_17, Terminus_16, AmericanBeauty_18, Easy2Say_17, Bench_18, Pharsalus_17, TBrady12_18, 244_17, Stark_17, Maxxinista_17, Hoonter_18, Cjw1_16, Pat3_16, Ukulele_16, Misfit_16, MPhalcon_16, Becksu_16, Moldemort_17, ChosenOne_15, Goku_17, Simpliphy_17, Teaspoon_16, Pumpkin_17, Czyszczon1_17, Highbury_17, Eureka_17, Stank_18, Wiggin_18, Argent26_18, GooberAzure_18, Xandras_18, Nimrod_16, Youngblood_16, Emmina_16, DrDrey_17, Elite2014_15, NonchalantPear_16, Paperbeatsrock_18, StolenFromERC_18, Murica_15, MadamMonkfish_16, Policronamos_16, Murphy_16, Brewer_16, Gage_18, Lilac_18, PhatBacter_16, Phrux_16, PaddyBaddy_17, Gemini_18, Elph10_17, Dumbo_16, BaboJay_16, Bogg_17, JeTaime_18, TeamEdward_17, Tarkin_18, Porky_15, NoSleep_17, HufflyPuff_15, Kimchi_18, Saints25_17
• Track 3 : Budgie_19
• Track 4 : Gator_15, Contagion_16
• Track 5 : RiverMonster_16

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

The start number called the most often in the published annotations is 4, it was called in 129 of the 133 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 244_17, ABCat_16, Adnama_18, Amao_17, AmericanBeauty_18, Argent26_18, Asriel_16, BaboJay_16, BadStone_16, Balomoji_16, Barbarian_16, Bask21_16, Becksu_16, Bench_18, BigBubba_16, BilboSwaggins_17, Bogg_17, Brewer_16, Bruin_16, Buck_16, Cactus_18, ChosenOne_15, ChotaBhai_16, Cjw1_16, Command613_18, Cookies_17, CrystalP_17, Czyszczon1_17, Daikon_15, DoctorDiddles_17, DrDrey_17, Dumbo_16, Dusk_16, Easy2Say_17, Elite2014_15, Elph10_17, Emmina_16, Eureka_17, FairyPath_17, Filch_17, FireRed_16, Flypotenuse_15, Gage_18, Gemini_18, Glexan_15, Goku_17, GoldenSpark_18, Goldilocks_18, GooberAzure_18, HanKaySha_17, Harella_15, Henry_17, Highbury_17, Holt_18, Hoonter_18, Hopey_17, HufflyPuff_15, IHOP_16, Icee_16, Inca_16, JeTaime_18, Kanye_18, Kimchi_18, Kostya_17, Lilac_18, Lilizi_18, Lilpickle_15, MISSy_16, MPhalcon_16, MadamMonkfish_16, Manda_17, Marshmallow_17, Maxxinista_17, Mindy_17, Miniwave_17, Misfit_16, Moldemort_17, MollyToe_17, Mosby_16, Murica_15, Murphy_16, Myrale_17, Nala_16, NelitzaMV_17, Nimrod_16, NoSleep_17, NonchalantPear_16, OrionPax_17, PaddyBaddy_17, Palpatine_16, Paperbeatsrock_18, Pat3_16, Petra64142_17, Phaja_16, Pharsalus_17, PhatBacter_16, Phaux_15, Phrux_16, Policronamos_16, Porky_15, Pumpkin_17, Quallification_18, Rakim_18, Rimmer_16, Saints25_17, Sassay_16, ShamWow_17, ShereKhan_18, Simpliphy_17, SirDuracell_16, SophKB_17, Sotrice96_17, Stank_18, Stark_17, StellaBean_17, StolenFromERC_18, TBrady12_18, Tarkin_18, TeamEdward_17, TeardropMSU_16, Teaspoon_16, Terminus_16, Thimble_17, Thresher_17, Tomaszewski_16, Toto_17, Traaww1_15, Tuco_17, Ukulele_16, Wiggin_18, Willez_16, Xandras_18, Youngblood_16, xkcd_17,

Genes that have the "Most Annotated" start but do not call it:
• Contagion_16, Gator_15, RiverMonster_16,

Genes that do not have the "Most Annotated" start:
• Budgie_19,

Summary by start number:

Start 2:
• Found in 138 of 138 (100.0%) of genes in pham
• Manual Annotations of this start: 3 of 133
• Called 2.2% of time when present
• Phage (with cluster) where this start called: Contagion_16 (E), Gator_15 (E), RiverMonster_16 (E),

Start 3:
• Found in 1 of 138 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 133
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Budgie_19 (E),

Start 4:
• Found in 137 of 138 (99.3%) of genes in pham
• Manual Annotations of this start: 129 of 133
• Called 97.8% of time when present
• Phage (with cluster) where this start called: 244_17 (E), ABCat_16 (E), Adnama_18 (E), Amao_17 (E), AmericanBeauty_18 (E), Argent26_18 (E), Asriel_16 (E), BaboJay_16 (E), BadStone_16 (E), Balomoji_16 (E), Barbarian_16 (E), Bask21_16 (E), Becksu_16 (E), Bench_18 (E), BigBubba_16 (E), BilboSwaggins_17 (E),

Bogg_17 (E), Brewer_16 (E), Bruin_16 (E), Buck_16 (E), Cactus_18 (E), ChosenOne_15 (E), ChotaBhai_16 (E), Cjw1_16 (E), Command613_18 (E), Cookies_17 (E), CrystalP_17 (E), Czyszczon1_17 (E), Daikon_15 (E), DoctorDiddles_17 (E), DrDrey_17 (E), Dumbo_16 (E), Dusk_16 (E), Easy2Say_17 (E), Elite2014_15 (E), Elph10_17 (E), Emmina_16 (E), Eureka_17 (E), FairyPath_17 (E), Filch_17 (E), FireRed_16 (E), Flypotenuse_15 (E), Gage_18 (E), Gemini_18 (E), Glexan_15 (E), Goku_17 (E), GoldenSpark_18 (E), Goldilocks_18 (E), GooberAzure_18 (E), HanKaySha_17 (E), Harella_15 (E), Henry_17 (E), Highbury_17 (E), Holt_18 (E), Hoonter_18 (E), Hopey_17 (E), HufflyPuff_15 (E), IHOP_16 (E), Icee_16 (E), Inca_16 (E), JeTaime_18 (E), Kanye_18 (E), Kimchi_18 (E), Kostya_17 (E), Lilac_18 (E), Lilizi_18 (E), Lilpickle_15 (E), MISSy_16 (E), MPhalcon_16 (E), MadamMonkfish_16 (E), Manda_17 (E), Marshmallow_17 (E), Maxxinista_17 (E), Mindy_17 (E), Miniwave_17 (E), Misfit_16 (E), Moldemort_17 (E), MollyToe_17 (E), Mosby_16 (E), Murica_15 (E), Murphy_16 (E), Myrale_17 (E), Nala_16 (E), NelitzaMV_17 (E), Nimrod_16 (E), NoSleep_17 (E), NonchalantPear_16 (E), OrionPax_17 (E), PaddyBaddy_17 (E), Palpatine_16 (E), Paperbeatsrock_18 (E), Pat3_16 (E), Petra64142_17 (E), Phaja_16 (E), Pharsalus_17 (E), PhatBacter_16 (E), Phaux_15 (E), Phrux_16 (E), Policronamos_16 (E), Porky_15 (E), Pumpkin_17 (E), Quallification_18 (E), Rakim_18 (E), Rimmer_16 (E), Saints25_17 (E), Sassay_16 (E), ShamWow_17 (E), ShereKhan_18 (E), Simpliphy_17 (E), SirDuracell_16 (E), SophKB_17 (E), Sotrice96_17 (E), Stank_18 (E), Stark_17 (E), StellaBean_17 (E), StolenFromERC_18 (E), TBrady12_18 (E), Tarkin_18 (E), TeamEdward_17 (E), TeardropMSU_16 (E), Teaspoon_16 (E), Terminus_16 (E), Thimble_17 (E), Thresher_17 (E), Tomaszewski_16 (E), Toto_17 (E), Traaww1_15 (E), Tuco_17 (E), Ukulele_16 (E), Wiggin_18 (E), Willez_16 (E), Xandras_18 (E), Youngblood_16 (E), xkcd_17 (E),

Summary by clusters:

There is one cluster represented in this pham: E

Info for manual annotations of cluster E:
•Start number 2 was manually annotated 3 times for cluster E.
•Start number 3 was manually annotated 1 time for cluster E.
•Start number 4 was manually annotated 129 times for cluster E.

Gene Information:

Gene: 244_17 Start: 9814, Stop: 10194, Start Num: 4
Candidate Starts for 244_17:
(1, 9694), (Start: 2 @9805 has 3 MA's), (Start: 4 @9814 has 129 MA's), (7, 9913), (8, 9928), (9, 9991), (10, 10069), (11, 10072), (12, 10120),

Gene: ABCat_16 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for ABCat_16:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Adnama_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Adnama_18:

(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Amao_17 Start: 9794, Stop: 10174, Start Num: 4
Candidate Starts for Amao_17:
(1, 9674), (Start: 2 @9785 has 3 MA's), (Start: 4 @9794 has 129 MA's), (6, 9845), (7, 9893), (8, 9908), (9, 9971), (10, 10049), (11, 10052), (12, 10100),

Gene: AmericanBeauty_18 Start: 10043, Stop: 10423, Start Num: 4
Candidate Starts for AmericanBeauty_18:
(1, 9923), (Start: 2 @10034 has 3 MA's), (Start: 4 @10043 has 129 MA's), (7, 10142), (8, 10157), (9, 10220), (10, 10298), (11, 10301), (12, 10349),

Gene: Argent26_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Argent26_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Asriel_16 Start: 9461, Stop: 9841, Start Num: 4
Candidate Starts for Asriel_16:
(1, 9341), (Start: 2 @9452 has 3 MA's), (Start: 4 @9461 has 129 MA's), (6, 9512), (7, 9560), (8, 9575), (9, 9638), (10, 9716), (11, 9719), (12, 9767),

Gene: BaboJay_16 Start: 10125, Stop: 10505, Start Num: 4
Candidate Starts for BaboJay_16:
(1, 10005), (Start: 2 @10116 has 3 MA's), (Start: 4 @10125 has 129 MA's), (7, 10224), (8, 10239), (9, 10302), (10, 10380), (11, 10383), (12, 10431),

Gene: BadStone_16 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for BadStone_16:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Balomoji_16 Start: 10323, Stop: 10703, Start Num: 4
Candidate Starts for Balomoji_16:
(1, 10203), (Start: 2 @10314 has 3 MA's), (Start: 4 @10323 has 129 MA's), (6, 10374), (7, 10422), (8, 10437), (9, 10500), (10, 10578), (11, 10581), (12, 10629),

Gene: Barbarian_16 Start: 9461, Stop: 9841, Start Num: 4
Candidate Starts for Barbarian_16:
(1, 9341), (Start: 2 @9452 has 3 MA's), (Start: 4 @9461 has 129 MA's), (6, 9512), (7, 9560), (8, 9575), (9, 9638), (10, 9716), (11, 9719), (12, 9767),

Gene: Bask21_16 Start: 9256, Stop: 9636, Start Num: 4
Candidate Starts for Bask21_16:
(1, 9136), (Start: 2 @9247 has 3 MA's), (Start: 4 @9256 has 129 MA's), (6, 9307), (7, 9355), (8, 9370), (9, 9433), (10, 9511), (11, 9514), (12, 9562),

Gene: Becksu_16 Start: 10233, Stop: 10613, Start Num: 4
Candidate Starts for Becksu_16:
(1, 10113), (Start: 2 @10224 has 3 MA's), (Start: 4 @10233 has 129 MA's), (7, 10332), (8, 10347), (9, 10410), (10, 10488), (11, 10491), (12, 10539),

Gene: Bench_18 Start: 9919, Stop: 10299, Start Num: 4
Candidate Starts for Bench_18:
(1, 9799), (Start: 2 @9910 has 3 MA's), (Start: 4 @9919 has 129 MA's), (7, 10018), (8, 10033), (9, 10096), (10, 10174), (11, 10177), (12, 10225),

Gene: BigBubba_16 Start: 9302, Stop: 9682, Start Num: 4
Candidate Starts for BigBubba_16:
(1, 9182), (Start: 2 @9293 has 3 MA's), (Start: 4 @9302 has 129 MA's), (7, 9401), (8, 9416), (9, 9479), (10, 9557), (11, 9560), (12, 9608),

Gene: BilboSwaggins_17 Start: 10590, Stop: 10970, Start Num: 4
Candidate Starts for BilboSwaggins_17:
(1, 10470), (Start: 2 @10581 has 3 MA's), (Start: 4 @10590 has 129 MA's), (6, 10641), (7, 10689), (8, 10704), (9, 10767), (10, 10845), (11, 10848), (12, 10896),

Gene: Bogg_17 Start: 9475, Stop: 9855, Start Num: 4
Candidate Starts for Bogg_17:
(1, 9355), (Start: 2 @9466 has 3 MA's), (Start: 4 @9475 has 129 MA's), (7, 9574), (8, 9589), (9, 9652), (10, 9730), (11, 9733), (12, 9781),

Gene: Brewer_16 Start: 10301, Stop: 10681, Start Num: 4
Candidate Starts for Brewer_16:
(1, 10181), (Start: 2 @10292 has 3 MA's), (Start: 4 @10301 has 129 MA's), (7, 10400), (8, 10415), (9, 10478), (10, 10556), (11, 10559), (12, 10607),

Gene: Bruin_16 Start: 10097, Stop: 10477, Start Num: 4
Candidate Starts for Bruin_16:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: Buck_16 Start: 10546, Stop: 10926, Start Num: 4
Candidate Starts for Buck_16:
(1, 10426), (Start: 2 @10537 has 3 MA's), (Start: 4 @10546 has 129 MA's), (6, 10597), (7, 10645), (8, 10660), (9, 10723), (10, 10801), (11, 10804), (12, 10852),

Gene: Budgie_19 Start: 9977, Stop: 10357, Start Num: 3
Candidate Starts for Budgie_19:
(1, 9860), (Start: 2 @9971 has 3 MA's), (Start: 3 @9977 has 1 MA's), (5, 10025), (8, 10091), (9, 10154), (10, 10232), (11, 10235), (12, 10283),

Gene: Cactus_18 Start: 9802, Stop: 10182, Start Num: 4
Candidate Starts for Cactus_18:
(1, 9682), (Start: 2 @9793 has 3 MA's), (Start: 4 @9802 has 129 MA's), (6, 9853), (7, 9901), (8, 9916), (9, 9979), (10, 10057), (11, 10060), (12, 10108),

Gene: ChosenOne_15 Start: 9266, Stop: 9646, Start Num: 4
Candidate Starts for ChosenOne_15:
(1, 9146), (Start: 2 @9257 has 3 MA's), (Start: 4 @9266 has 129 MA's), (7, 9365), (8, 9380), (9, 9443), (10, 9521), (11, 9524), (12, 9572),

Gene: ChotaBhai_16 Start: 9302, Stop: 9682, Start Num: 4
Candidate Starts for ChotaBhai_16:

(1, 9182), (Start: 2 @9293 has 3 MA's), (Start: 4 @9302 has 129 MA's), (7, 9401), (8, 9416), (9, 9479), (10, 9557), (11, 9560), (12, 9608),

Gene: Cjw1_16 Start: 10816, Stop: 11196, Start Num: 4
Candidate Starts for Cjw1_16:
(1, 10696), (Start: 2 @10807 has 3 MA's), (Start: 4 @10816 has 129 MA's), (7, 10915), (8, 10930), (9, 10993), (10, 11071), (11, 11074), (12, 11122),

Gene: Command613_18 Start: 10858, Stop: 11238, Start Num: 4
Candidate Starts for Command613_18:
(1, 10738), (Start: 2 @10849 has 3 MA's), (Start: 4 @10858 has 129 MA's), (6, 10909), (7, 10957), (8, 10972), (9, 11035), (10, 11113), (11, 11116), (12, 11164),

Gene: Contagion_16 Start: 10088, Stop: 10477, Start Num: 2
Candidate Starts for Contagion_16:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: Cookies_17 Start: 10462, Stop: 10842, Start Num: 4
Candidate Starts for Cookies_17:
(1, 10342), (Start: 2 @10453 has 3 MA's), (Start: 4 @10462 has 129 MA's), (6, 10513), (7, 10561), (8, 10576), (9, 10639), (10, 10717), (11, 10720), (12, 10768),

Gene: CrystalP_17 Start: 10590, Stop: 10970, Start Num: 4
Candidate Starts for CrystalP_17:
(1, 10470), (Start: 2 @10581 has 3 MA's), (Start: 4 @10590 has 129 MA's), (6, 10641), (7, 10689), (8, 10704), (9, 10767), (10, 10845), (11, 10848), (12, 10896),

Gene: Czyszczon1_17 Start: 9801, Stop: 10181, Start Num: 4
Candidate Starts for Czyszczon1_17:
(1, 9681), (Start: 2 @9792 has 3 MA's), (Start: 4 @9801 has 129 MA's), (7, 9900), (8, 9915), (9, 9978), (10, 10056), (11, 10059), (12, 10107),

Gene: Daikon_15 Start: 10324, Stop: 10704, Start Num: 4
Candidate Starts for Daikon_15:
(1, 10204), (Start: 2 @10315 has 3 MA's), (Start: 4 @10324 has 129 MA's), (6, 10375), (7, 10423), (8, 10438), (9, 10501), (10, 10579), (11, 10582), (12, 10630),

Gene: DoctorDiddles_17 Start: 9755, Stop: 10135, Start Num: 4
Candidate Starts for DoctorDiddles_17:
(1, 9635), (Start: 2 @9746 has 3 MA's), (Start: 4 @9755 has 129 MA's), (6, 9806), (7, 9854), (8, 9869), (9, 9932), (10, 10010), (11, 10013), (12, 10061),

Gene: DrDrey_17 Start: 10542, Stop: 10922, Start Num: 4
Candidate Starts for DrDrey_17:
(1, 10422), (Start: 2 @10533 has 3 MA's), (Start: 4 @10542 has 129 MA's), (7, 10641), (8, 10656), (9, 10719), (10, 10797), (11, 10800), (12, 10848),

Gene: Dumbo_16 Start: 9523, Stop: 9903, Start Num: 4
Candidate Starts for Dumbo_16:
(1, 9403), (Start: 2 @9514 has 3 MA's), (Start: 4 @9523 has 129 MA's), (7, 9622), (8, 9637), (9, 9700), (10, 9778), (11, 9781), (12, 9829),

Gene: Dusk_16 Start: 10249, Stop: 10629, Start Num: 4
Candidate Starts for Dusk_16:
(1, 10129), (Start: 2 @10240 has 3 MA's), (Start: 4 @10249 has 129 MA's), (6, 10300), (7, 10348), (8, 10363), (9, 10426), (10, 10504), (11, 10507), (12, 10555),

Gene: Easy2Say_17 Start: 10789, Stop: 11169, Start Num: 4
Candidate Starts for Easy2Say_17:
(1, 10669), (Start: 2 @10780 has 3 MA's), (Start: 4 @10789 has 129 MA's), (7, 10888), (8, 10903), (9, 10966), (10, 11044), (11, 11047), (12, 11095),

Gene: Elite2014_15 Start: 9266, Stop: 9646, Start Num: 4
Candidate Starts for Elite2014_15:
(1, 9146), (Start: 2 @9257 has 3 MA's), (Start: 4 @9266 has 129 MA's), (7, 9365), (8, 9380), (9, 9443), (10, 9521), (11, 9524), (12, 9572),

Gene: Elph10_17 Start: 9526, Stop: 9906, Start Num: 4
Candidate Starts for Elph10_17:
(1, 9406), (Start: 2 @9517 has 3 MA's), (Start: 4 @9526 has 129 MA's), (7, 9625), (8, 9640), (9, 9703), (10, 9781), (11, 9784), (12, 9832),

Gene: Emmina_16 Start: 9371, Stop: 9751, Start Num: 4
Candidate Starts for Emmina_16:
(1, 9251), (Start: 2 @9362 has 3 MA's), (Start: 4 @9371 has 129 MA's), (7, 9470), (8, 9485), (9, 9548), (10, 9626), (11, 9629), (12, 9677),

Gene: Eureka_17 Start: 10569, Stop: 10949, Start Num: 4
Candidate Starts for Eureka_17:
(1, 10449), (Start: 2 @10560 has 3 MA's), (Start: 4 @10569 has 129 MA's), (7, 10668), (8, 10683), (9, 10746), (10, 10824), (11, 10827), (12, 10875),

Gene: FairyPath_17 Start: 10787, Stop: 11167, Start Num: 4
Candidate Starts for FairyPath_17:
(1, 10667), (Start: 2 @10778 has 3 MA's), (Start: 4 @10787 has 129 MA's), (6, 10838), (7, 10886), (8, 10901), (9, 10964), (10, 11042), (11, 11045), (12, 11093),

Gene: Filch_17 Start: 9811, Stop: 10191, Start Num: 4
Candidate Starts for Filch_17:
(1, 9691), (Start: 2 @9802 has 3 MA's), (Start: 4 @9811 has 129 MA's), (7, 9910), (8, 9925), (9, 9988), (10, 10066), (11, 10069), (12, 10117),

Gene: FireRed_16 Start: 10099, Stop: 10479, Start Num: 4
Candidate Starts for FireRed_16:
(1, 9979), (Start: 2 @10090 has 3 MA's), (Start: 4 @10099 has 129 MA's), (7, 10198), (8, 10213), (9, 10276), (10, 10354), (11, 10357), (12, 10405),

Gene: Flypotenuse_15 Start: 10206, Stop: 10586, Start Num: 4
Candidate Starts for Flypotenuse_15:
(1, 10086), (Start: 2 @10197 has 3 MA's), (Start: 4 @10206 has 129 MA's), (6, 10257), (7, 10305), (8, 10320), (9, 10383), (10, 10461), (11, 10464), (12, 10512),

Gene: Gage_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Gage_18:

(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Gator_15 Start: 10196, Stop: 10585, Start Num: 2
Candidate Starts for Gator_15:
(1, 10085), (Start: 2 @10196 has 3 MA's), (Start: 4 @10205 has 129 MA's), (6, 10256), (7, 10304), (8, 10319), (9, 10382), (10, 10460), (11, 10463), (12, 10511),

Gene: Gemini_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Gemini_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Glexan_15 Start: 10206, Stop: 10586, Start Num: 4
Candidate Starts for Glexan_15:
(1, 10086), (Start: 2 @10197 has 3 MA's), (Start: 4 @10206 has 129 MA's), (6, 10257), (7, 10305), (8, 10320), (9, 10383), (10, 10461), (11, 10464), (12, 10512),

Gene: Goku_17 Start: 10298, Stop: 10678, Start Num: 4
Candidate Starts for Goku_17:
(1, 10178), (Start: 2 @10289 has 3 MA's), (Start: 4 @10298 has 129 MA's), (7, 10397), (8, 10412), (9, 10475), (10, 10553), (11, 10556), (12, 10604),

Gene: GoldenSpark_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for GoldenSpark_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Goldilocks_18 Start: 10000, Stop: 10380, Start Num: 4
Candidate Starts for Goldilocks_18:
(1, 9880), (Start: 2 @9991 has 3 MA's), (Start: 4 @10000 has 129 MA's), (6, 10051), (7, 10099), (8, 10114), (9, 10177), (10, 10255), (11, 10258), (12, 10306),

Gene: GooberAzure_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for GooberAzure_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: HanKaySha_17 Start: 9801, Stop: 10181, Start Num: 4
Candidate Starts for HanKaySha_17:
(1, 9681), (Start: 2 @9792 has 3 MA's), (Start: 4 @9801 has 129 MA's), (7, 9900), (8, 9915), (9, 9978), (10, 10056), (11, 10059), (12, 10107),

Gene: Harella_15 Start: 10206, Stop: 10586, Start Num: 4
Candidate Starts for Harella_15:
(1, 10086), (Start: 2 @10197 has 3 MA's), (Start: 4 @10206 has 129 MA's), (6, 10257), (7, 10305), (8, 10320), (9, 10383), (10, 10461), (11, 10464), (12, 10512),

Gene: Henry_17 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for Henry_17:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Highbury_17 Start: 9720, Stop: 10100, Start Num: 4
Candidate Starts for Highbury_17:
(1, 9600), (Start: 2 @9711 has 3 MA's), (Start: 4 @9720 has 129 MA's), (7, 9819), (8, 9834), (9, 9897), (10, 9975), (11, 9978), (12, 10026),

Gene: Holt_18 Start: 9873, Stop: 10253, Start Num: 4
Candidate Starts for Holt_18:
(1, 9753), (Start: 2 @9864 has 3 MA's), (Start: 4 @9873 has 129 MA's), (6, 9924), (7, 9972), (8, 9987), (9, 10050), (10, 10128), (11, 10131), (12, 10179),

Gene: Hoonter_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Hoonter_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Hopey_17 Start: 9811, Stop: 10191, Start Num: 4
Candidate Starts for Hopey_17:
(1, 9691), (Start: 2 @9802 has 3 MA's), (Start: 4 @9811 has 129 MA's), (7, 9910), (8, 9925), (9, 9988), (10, 10066), (11, 10069), (12, 10117),

Gene: HufflyPuff_15 Start: 10055, Stop: 10435, Start Num: 4
Candidate Starts for HufflyPuff_15:
(1, 9935), (Start: 2 @10046 has 3 MA's), (Start: 4 @10055 has 129 MA's), (7, 10154), (8, 10169), (9, 10232), (10, 10310), (11, 10313), (12, 10361),

Gene: IHOP_16 Start: 10249, Stop: 10629, Start Num: 4
Candidate Starts for IHOP_16:
(1, 10129), (Start: 2 @10240 has 3 MA's), (Start: 4 @10249 has 129 MA's), (6, 10300), (7, 10348), (8, 10363), (9, 10426), (10, 10504), (11, 10507), (12, 10555),

Gene: Icee_16 Start: 10249, Stop: 10629, Start Num: 4
Candidate Starts for Icee_16:
(1, 10129), (Start: 2 @10240 has 3 MA's), (Start: 4 @10249 has 129 MA's), (6, 10300), (7, 10348), (8, 10363), (9, 10426), (10, 10504), (11, 10507), (12, 10555),

Gene: Inca_16 Start: 9269, Stop: 9649, Start Num: 4
Candidate Starts for Inca_16:
(1, 9149), (Start: 2 @9260 has 3 MA's), (Start: 4 @9269 has 129 MA's), (6, 9320), (7, 9368), (8, 9383), (9, 9446), (10, 9524), (11, 9527), (12, 9575),

Gene: JeTaime_18 Start: 10851, Stop: 11231, Start Num: 4
Candidate Starts for JeTaime_18:
(1, 10731), (Start: 2 @10842 has 3 MA's), (Start: 4 @10851 has 129 MA's), (7, 10950), (8, 10965), (9, 11028), (10, 11106), (11, 11109), (12, 11157),

Gene: Kanye_18 Start: 11039, Stop: 11419, Start Num: 4
Candidate Starts for Kanye_18:
(1, 10919), (Start: 2 @11030 has 3 MA's), (Start: 4 @11039 has 129 MA's), (7, 11138), (8, 11153), (9, 11216), (10, 11294), (11, 11297), (12, 11345),

Gene: Kimchi_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Kimchi_18:

(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Kostya_17 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for Kostya_17:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Lilac_18 Start: 9547, Stop: 9927, Start Num: 4
Candidate Starts for Lilac_18:
(1, 9427), (Start: 2 @9538 has 3 MA's), (Start: 4 @9547 has 129 MA's), (7, 9646), (8, 9661), (9, 9724), (10, 9802), (11, 9805), (12, 9853),

Gene: Lilizi_18 Start: 9758, Stop: 10138, Start Num: 4
Candidate Starts for Lilizi_18:
(1, 9638), (Start: 2 @9749 has 3 MA's), (Start: 4 @9758 has 129 MA's), (7, 9857), (8, 9872), (9, 9935), (10, 10013), (11, 10016), (12, 10064),

Gene: Lilpickle_15 Start: 9266, Stop: 9646, Start Num: 4
Candidate Starts for Lilpickle_15:
(1, 9146), (Start: 2 @9257 has 3 MA's), (Start: 4 @9266 has 129 MA's), (7, 9365), (8, 9380), (9, 9443), (10, 9521), (11, 9524), (12, 9572),

Gene: MISSy_16 Start: 10099, Stop: 10479, Start Num: 4
Candidate Starts for MISSy_16:
(1, 9979), (Start: 2 @10090 has 3 MA's), (Start: 4 @10099 has 129 MA's), (7, 10198), (8, 10213), (9, 10276), (10, 10354), (11, 10357), (12, 10405),

Gene: MPhalcon_16 Start: 10099, Stop: 10479, Start Num: 4
Candidate Starts for MPhalcon_16:
(1, 9979), (Start: 2 @10090 has 3 MA's), (Start: 4 @10099 has 129 MA's), (7, 10198), (8, 10213), (9, 10276), (10, 10354), (11, 10357), (12, 10405),

Gene: MadamMonkfish_16 Start: 9477, Stop: 9857, Start Num: 4
Candidate Starts for MadamMonkfish_16:
(1, 9357), (Start: 2 @9468 has 3 MA's), (Start: 4 @9477 has 129 MA's), (7, 9576), (8, 9591), (9, 9654), (10, 9732), (11, 9735), (12, 9783),

Gene: Manda_17 Start: 10559, Stop: 10939, Start Num: 4
Candidate Starts for Manda_17:
(1, 10439), (Start: 2 @10550 has 3 MA's), (Start: 4 @10559 has 129 MA's), (6, 10610), (7, 10658), (8, 10673), (9, 10736), (10, 10814), (11, 10817), (12, 10865),

Gene: Marshmallow_17 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for Marshmallow_17:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Maxxinista_17 Start: 9526, Stop: 9906, Start Num: 4
Candidate Starts for Maxxinista_17:
(1, 9406), (Start: 2 @9517 has 3 MA's), (Start: 4 @9526 has 129 MA's), (7, 9625), (8, 9640), (9, 9703), (10, 9781), (11, 9784), (12, 9832),

Gene: Mindy_17 Start: 10368, Stop: 10748, Start Num: 4
Candidate Starts for Mindy_17:
(1, 10248), (Start: 2 @10359 has 3 MA's), (Start: 4 @10368 has 129 MA's), (6, 10419), (7, 10467), (8, 10482), (9, 10545), (10, 10623), (11, 10626), (12, 10674),

Gene: Miniwave_17 Start: 10787, Stop: 11167, Start Num: 4
Candidate Starts for Miniwave_17:
(1, 10667), (Start: 2 @10778 has 3 MA's), (Start: 4 @10787 has 129 MA's), (6, 10838), (7, 10886), (8, 10901), (9, 10964), (10, 11042), (11, 11045), (12, 11093),

Gene: Misfit_16 Start: 10143, Stop: 10523, Start Num: 4
Candidate Starts for Misfit_16:
(1, 10023), (Start: 2 @10134 has 3 MA's), (Start: 4 @10143 has 129 MA's), (7, 10242), (8, 10257), (9, 10320), (10, 10398), (11, 10401), (12, 10449),

Gene: Moldemort_17 Start: 9801, Stop: 10181, Start Num: 4
Candidate Starts for Moldemort_17:
(1, 9681), (Start: 2 @9792 has 3 MA's), (Start: 4 @9801 has 129 MA's), (7, 9900), (8, 9915), (9, 9978), (10, 10056), (11, 10059), (12, 10107),

Gene: MollyToe_17 Start: 10761, Stop: 11141, Start Num: 4
Candidate Starts for MollyToe_17:
(1, 10641), (Start: 2 @10752 has 3 MA's), (Start: 4 @10761 has 129 MA's), (6, 10812), (7, 10860), (8, 10875), (9, 10938), (10, 11016), (11, 11019), (12, 11067),

Gene: Mosby_16 Start: 10097, Stop: 10477, Start Num: 4
Candidate Starts for Mosby_16:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: Murica_15 Start: 10055, Stop: 10435, Start Num: 4
Candidate Starts for Murica_15:
(1, 9935), (Start: 2 @10046 has 3 MA's), (Start: 4 @10055 has 129 MA's), (7, 10154), (8, 10169), (9, 10232), (10, 10310), (11, 10313), (12, 10361),

Gene: Murphy_16 Start: 9518, Stop: 9898, Start Num: 4
Candidate Starts for Murphy_16:
(1, 9398), (Start: 2 @9509 has 3 MA's), (Start: 4 @9518 has 129 MA's), (7, 9617), (8, 9632), (9, 9695), (10, 9773), (11, 9776), (12, 9824),

Gene: Myrale_17 Start: 10460, Stop: 10840, Start Num: 4
Candidate Starts for Myrale_17:
(1, 10340), (Start: 2 @10451 has 3 MA's), (Start: 4 @10460 has 129 MA's), (6, 10511), (7, 10559), (8, 10574), (9, 10637), (10, 10715), (11, 10718), (12, 10766),

Gene: Nala_16 Start: 10097, Stop: 10477, Start Num: 4
Candidate Starts for Nala_16:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: NelitzaMV_17 Start: 10659, Stop: 11039, Start Num: 4
Candidate Starts for NelitzaMV_17:

(1, 10539), (Start: 2 @10650 has 3 MA's), (Start: 4 @10659 has 129 MA's), (6, 10710), (7, 10758), (8, 10773), (9, 10836), (10, 10914), (11, 10917), (12, 10965),

Gene: Nimrod_16 Start: 10298, Stop: 10678, Start Num: 4
Candidate Starts for Nimrod_16:
(1, 10178), (Start: 2 @10289 has 3 MA's), (Start: 4 @10298 has 129 MA's), (7, 10397), (8, 10412), (9, 10475), (10, 10553), (11, 10556), (12, 10604),

Gene: NoSleep_17 Start: 9798, Stop: 10178, Start Num: 4
Candidate Starts for NoSleep_17:
(1, 9678), (Start: 2 @9789 has 3 MA's), (Start: 4 @9798 has 129 MA's), (7, 9897), (8, 9912), (9, 9975), (10, 10053), (11, 10056), (12, 10104),

Gene: NonchalantPear_16 Start: 9751, Stop: 10131, Start Num: 4
Candidate Starts for NonchalantPear_16:
(1, 9631), (Start: 2 @9742 has 3 MA's), (Start: 4 @9751 has 129 MA's), (7, 9850), (8, 9865), (9, 9928), (10, 10006), (11, 10009), (12, 10057),

Gene: OrionPax_17 Start: 9801, Stop: 10181, Start Num: 4
Candidate Starts for OrionPax_17:
(1, 9681), (Start: 2 @9792 has 3 MA's), (Start: 4 @9801 has 129 MA's), (7, 9900), (8, 9915), (9, 9978), (10, 10056), (11, 10059), (12, 10107),

Gene: PaddyBaddy_17 Start: 9811, Stop: 10191, Start Num: 4
Candidate Starts for PaddyBaddy_17:
(1, 9691), (Start: 2 @9802 has 3 MA's), (Start: 4 @9811 has 129 MA's), (7, 9910), (8, 9925), (9, 9988), (10, 10066), (11, 10069), (12, 10117),

Gene: Palpatine_16 Start: 10094, Stop: 10474, Start Num: 4
Candidate Starts for Palpatine_16:
(1, 9974), (Start: 2 @10085 has 3 MA's), (Start: 4 @10094 has 129 MA's), (6, 10145), (7, 10193), (8, 10208), (9, 10271), (10, 10349), (11, 10352), (12, 10400),

Gene: Paperbeatsrock_18 Start: 11033, Stop: 11413, Start Num: 4
Candidate Starts for Paperbeatsrock_18:
(1, 10913), (Start: 2 @11024 has 3 MA's), (Start: 4 @11033 has 129 MA's), (7, 11132), (8, 11147), (9, 11210), (10, 11288), (11, 11291), (12, 11339),

Gene: Pat3_16 Start: 9301, Stop: 9681, Start Num: 4
Candidate Starts for Pat3_16:
(1, 9181), (Start: 2 @9292 has 3 MA's), (Start: 4 @9301 has 129 MA's), (7, 9400), (8, 9415), (9, 9478), (10, 9556), (11, 9559), (12, 9607),

Gene: Petra64142_17 Start: 10514, Stop: 10894, Start Num: 4
Candidate Starts for Petra64142_17:
(1, 10394), (Start: 2 @10505 has 3 MA's), (Start: 4 @10514 has 129 MA's), (7, 10613), (8, 10628), (9, 10691), (10, 10769), (11, 10772), (12, 10820),

Gene: Phaja_16 Start: 10249, Stop: 10629, Start Num: 4
Candidate Starts for Phaja_16:
(1, 10129), (Start: 2 @10240 has 3 MA's), (Start: 4 @10249 has 129 MA's), (6, 10300), (7, 10348), (8, 10363), (9, 10426), (10, 10504), (11, 10507), (12, 10555),

Gene: Pharsalus_17 Start: 10833, Stop: 11213, Start Num: 4
Candidate Starts for Pharsalus_17:
(1, 10713), (Start: 2 @10824 has 3 MA's), (Start: 4 @10833 has 129 MA's), (7, 10932), (8, 10947), (9, 11010), (10, 11088), (11, 11091), (12, 11139),

Gene: PhatBacter_16 Start: 10099, Stop: 10479, Start Num: 4
Candidate Starts for PhatBacter_16:
(1, 9979), (Start: 2 @10090 has 3 MA's), (Start: 4 @10099 has 129 MA's), (7, 10198), (8, 10213), (9, 10276), (10, 10354), (11, 10357), (12, 10405),

Gene: Phaux_15 Start: 10097, Stop: 10477, Start Num: 4
Candidate Starts for Phaux_15:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: Phrux_16 Start: 9797, Stop: 10177, Start Num: 4
Candidate Starts for Phrux_16:
(1, 9677), (Start: 2 @9788 has 3 MA's), (Start: 4 @9797 has 129 MA's), (7, 9896), (8, 9911), (9, 9974), (10, 10052), (11, 10055), (12, 10103),

Gene: Policronamos_16 Start: 10099, Stop: 10479, Start Num: 4
Candidate Starts for Policronamos_16:
(1, 9979), (Start: 2 @10090 has 3 MA's), (Start: 4 @10099 has 129 MA's), (7, 10198), (8, 10213), (9, 10276), (10, 10354), (11, 10357), (12, 10405),

Gene: Porky_15 Start: 9371, Stop: 9751, Start Num: 4
Candidate Starts for Porky_15:
(1, 9251), (Start: 2 @9362 has 3 MA's), (Start: 4 @9371 has 129 MA's), (7, 9470), (8, 9485), (9, 9548), (10, 9626), (11, 9629), (12, 9677),

Gene: Pumpkin_17 Start: 9614, Stop: 9994, Start Num: 4
Candidate Starts for Pumpkin_17:
(1, 9494), (Start: 2 @9605 has 3 MA's), (Start: 4 @9614 has 129 MA's), (7, 9713), (8, 9728), (9, 9791), (10, 9869), (11, 9872), (12, 9920),

Gene: Quallification_18 Start: 10796, Stop: 11176, Start Num: 4
Candidate Starts for Quallification_18:
(1, 10676), (Start: 2 @10787 has 3 MA's), (Start: 4 @10796 has 129 MA's), (6, 10847), (7, 10895), (8, 10910), (9, 10973), (10, 11051), (11, 11054), (12, 11102),

Gene: Rakim_18 Start: 10703, Stop: 11083, Start Num: 4
Candidate Starts for Rakim_18:
(1, 10583), (Start: 2 @10694 has 3 MA's), (Start: 4 @10703 has 129 MA's), (6, 10754), (7, 10802), (8, 10817), (9, 10880), (10, 10958), (11, 10961), (12, 11009),

Gene: Rimmer_16 Start: 10156, Stop: 10536, Start Num: 4
Candidate Starts for Rimmer_16:
(1, 10036), (Start: 2 @10147 has 3 MA's), (Start: 4 @10156 has 129 MA's), (6, 10207), (7, 10255), (8, 10270), (9, 10333), (10, 10411), (11, 10414), (12, 10462),

Gene: RiverMonster_16 Start: 9802, Stop: 10191, Start Num: 2
Candidate Starts for RiverMonster_16:

(1, 9691), (Start: 2 @9802 has 3 MA's), (Start: 4 @9811 has 129 MA's), (7, 9910), (8, 9925), (9, 9988), (10, 10066), (11, 10069), (12, 10117),

Gene: Saints25_17 Start: 9720, Stop: 10100, Start Num: 4
Candidate Starts for Saints25_17:
(1, 9600), (Start: 2 @9711 has 3 MA's), (Start: 4 @9720 has 129 MA's), (7, 9819), (8, 9834), (9, 9897), (10, 9975), (11, 9978), (12, 10026),

Gene: Sassay_16 Start: 10097, Stop: 10477, Start Num: 4
Candidate Starts for Sassay_16:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: ShamWow_17 Start: 10590, Stop: 10970, Start Num: 4
Candidate Starts for ShamWow_17:
(1, 10470), (Start: 2 @10581 has 3 MA's), (Start: 4 @10590 has 129 MA's), (6, 10641), (7, 10689), (8, 10704), (9, 10767), (10, 10845), (11, 10848), (12, 10896),

Gene: ShereKhan_18 Start: 11039, Stop: 11419, Start Num: 4
Candidate Starts for ShereKhan_18:
(1, 10919), (Start: 2 @11030 has 3 MA's), (Start: 4 @11039 has 129 MA's), (7, 11138), (8, 11153), (9, 11216), (10, 11294), (11, 11297), (12, 11345),

Gene: Simpliphy_17 Start: 9801, Stop: 10181, Start Num: 4
Candidate Starts for Simpliphy_17:
(1, 9681), (Start: 2 @9792 has 3 MA's), (Start: 4 @9801 has 129 MA's), (7, 9900), (8, 9915), (9, 9978), (10, 10056), (11, 10059), (12, 10107),

Gene: SirDuracell_16 Start: 9256, Stop: 9636, Start Num: 4
Candidate Starts for SirDuracell_16:
(1, 9136), (Start: 2 @9247 has 3 MA's), (Start: 4 @9256 has 129 MA's), (6, 9307), (7, 9355), (8, 9370), (9, 9433), (10, 9511), (11, 9514), (12, 9562),

Gene: SophKB_17 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for SophKB_17:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Sotrice96_17 Start: 10545, Stop: 10925, Start Num: 4
Candidate Starts for Sotrice96_17:
(1, 10425), (Start: 2 @10536 has 3 MA's), (Start: 4 @10545 has 129 MA's), (6, 10596), (7, 10644), (8, 10659), (9, 10722), (10, 10800), (11, 10803), (12, 10851),

Gene: Stank_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Stank_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Stark_17 Start: 9814, Stop: 10194, Start Num: 4
Candidate Starts for Stark_17:
(1, 9694), (Start: 2 @9805 has 3 MA's), (Start: 4 @9814 has 129 MA's), (7, 9913), (8, 9928), (9, 9991), (10, 10069), (11, 10072), (12, 10120),

Gene: StellaBean_17 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for StellaBean_17:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: StolenFromERC_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for StolenFromERC_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: TBrady12_18 Start: 10043, Stop: 10423, Start Num: 4
Candidate Starts for TBrady12_18:
(1, 9923), (Start: 2 @10034 has 3 MA's), (Start: 4 @10043 has 129 MA's), (7, 10142), (8, 10157), (9, 10220), (10, 10298), (11, 10301), (12, 10349),

Gene: Tarkin_18 Start: 11042, Stop: 11422, Start Num: 4
Candidate Starts for Tarkin_18:
(1, 10922), (Start: 2 @11033 has 3 MA's), (Start: 4 @11042 has 129 MA's), (7, 11141), (8, 11156), (9, 11219), (10, 11297), (11, 11300), (12, 11348),

Gene: TeamEdward_17 Start: 10761, Stop: 11141, Start Num: 4
Candidate Starts for TeamEdward_17:
(1, 10641), (Start: 2 @10752 has 3 MA's), (Start: 4 @10761 has 129 MA's), (7, 10860), (8, 10875), (9, 10938), (10, 11016), (11, 11019), (12, 11067),

Gene: TeardropMSU_16 Start: 10497, Stop: 10877, Start Num: 4
Candidate Starts for TeardropMSU_16:
(1, 10377), (Start: 2 @10488 has 3 MA's), (Start: 4 @10497 has 129 MA's), (6, 10548), (7, 10596), (8, 10611), (9, 10674), (10, 10752), (11, 10755), (12, 10803),

Gene: Teaspoon_16 Start: 9496, Stop: 9876, Start Num: 4
Candidate Starts for Teaspoon_16:
(1, 9376), (Start: 2 @9487 has 3 MA's), (Start: 4 @9496 has 129 MA's), (7, 9595), (8, 9610), (9, 9673), (10, 9751), (11, 9754), (12, 9802),

Gene: Terminus_16 Start: 10143, Stop: 10523, Start Num: 4
Candidate Starts for Terminus_16:
(1, 10023), (Start: 2 @10134 has 3 MA's), (Start: 4 @10143 has 129 MA's), (7, 10242), (8, 10257), (9, 10320), (10, 10398), (11, 10401), (12, 10449),

Gene: Thimble_17 Start: 9546, Stop: 9926, Start Num: 4
Candidate Starts for Thimble_17:
(1, 9426), (Start: 2 @9537 has 3 MA's), (Start: 4 @9546 has 129 MA's), (6, 9597), (7, 9645), (8, 9660), (9, 9723), (10, 9801), (11, 9804), (12, 9852),

Gene: Thresher_17 Start: 10804, Stop: 11184, Start Num: 4
Candidate Starts for Thresher_17:
(1, 10684), (Start: 2 @10795 has 3 MA's), (Start: 4 @10804 has 129 MA's), (7, 10903), (8, 10918), (9, 10981), (10, 11059), (11, 11062), (12, 11110),

Gene: Tomaszewski_16 Start: 10190, Stop: 10570, Start Num: 4
Candidate Starts for Tomaszewski_16:

(1, 10070), (Start: 2 @10181 has 3 MA's), (Start: 4 @10190 has 129 MA's), (6, 10241), (7, 10289), (8, 10304), (9, 10367), (10, 10445), (11, 10448), (12, 10496),

Gene: Toto_17 Start: 10590, Stop: 10970, Start Num: 4
Candidate Starts for Toto_17:
(1, 10470), (Start: 2 @10581 has 3 MA's), (Start: 4 @10590 has 129 MA's), (6, 10641), (7, 10689), (8, 10704), (9, 10767), (10, 10845), (11, 10848), (12, 10896),

Gene: Traaww1_15 Start: 10235, Stop: 10615, Start Num: 4
Candidate Starts for Traaww1_15:
(1, 10115), (Start: 2 @10226 has 3 MA's), (Start: 4 @10235 has 129 MA's), (6, 10286), (7, 10334), (8, 10349), (9, 10412), (10, 10490), (11, 10493), (12, 10541),

Gene: Tuco_17 Start: 10589, Stop: 10969, Start Num: 4
Candidate Starts for Tuco_17:
(1, 10469), (Start: 2 @10580 has 3 MA's), (Start: 4 @10589 has 129 MA's), (6, 10640), (7, 10688), (8, 10703), (9, 10766), (10, 10844), (11, 10847), (12, 10895),

Gene: Ukulele_16 Start: 9814, Stop: 10194, Start Num: 4
Candidate Starts for Ukulele_16:
(1, 9694), (Start: 2 @9805 has 3 MA's), (Start: 4 @9814 has 129 MA's), (7, 9913), (8, 9928), (9, 9991), (10, 10069), (11, 10072), (12, 10120),

Gene: Wiggin_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Wiggin_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Willez_16 Start: 10097, Stop: 10477, Start Num: 4
Candidate Starts for Willez_16:
(1, 9977), (Start: 2 @10088 has 3 MA's), (Start: 4 @10097 has 129 MA's), (6, 10148), (7, 10196), (8, 10211), (9, 10274), (10, 10352), (11, 10355), (12, 10403),

Gene: Xandras_18 Start: 10046, Stop: 10426, Start Num: 4
Candidate Starts for Xandras_18:
(1, 9926), (Start: 2 @10037 has 3 MA's), (Start: 4 @10046 has 129 MA's), (7, 10145), (8, 10160), (9, 10223), (10, 10301), (11, 10304), (12, 10352),

Gene: Youngblood_16 Start: 10224, Stop: 10604, Start Num: 4
Candidate Starts for Youngblood_16:
(1, 10104), (Start: 2 @10215 has 3 MA's), (Start: 4 @10224 has 129 MA's), (7, 10323), (8, 10338), (9, 10401), (10, 10479), (11, 10482), (12, 10530),

Gene: xkcd_17 Start: 10249, Stop: 10629, Start Num: 4
Candidate Starts for xkcd_17:
(1, 10129), (Start: 2 @10240 has 3 MA's), (Start: 4 @10249 has 129 MA's), (6, 10300), (7, 10348), (8, 10363), (9, 10426), (10, 10504), (11, 10507), (12, 10555),