Pham 286874

1: Bench_86 + 18
2: MPhalcon_84 + 21
3: HufflyPuff_86 + 7
4: Icee_84 + 20
5: Porky_82 + 16
6: Tarkin_82 + 5
7: Rakim_84 + 4
8: Maxxinista_85 + 17
9: FairyPath_83 + 1
10: Budgie_91
11: ShereKhan_81 + 4
12: Petra64142_87 + 1
13: Becksu_82 + 6
14: Bogg_84 + 4
15: Cjw1_83
16: Kanye_80
17: Amao_83
18: RiverMonster_83
19: Goldilocks_86
20: Dumbo_83
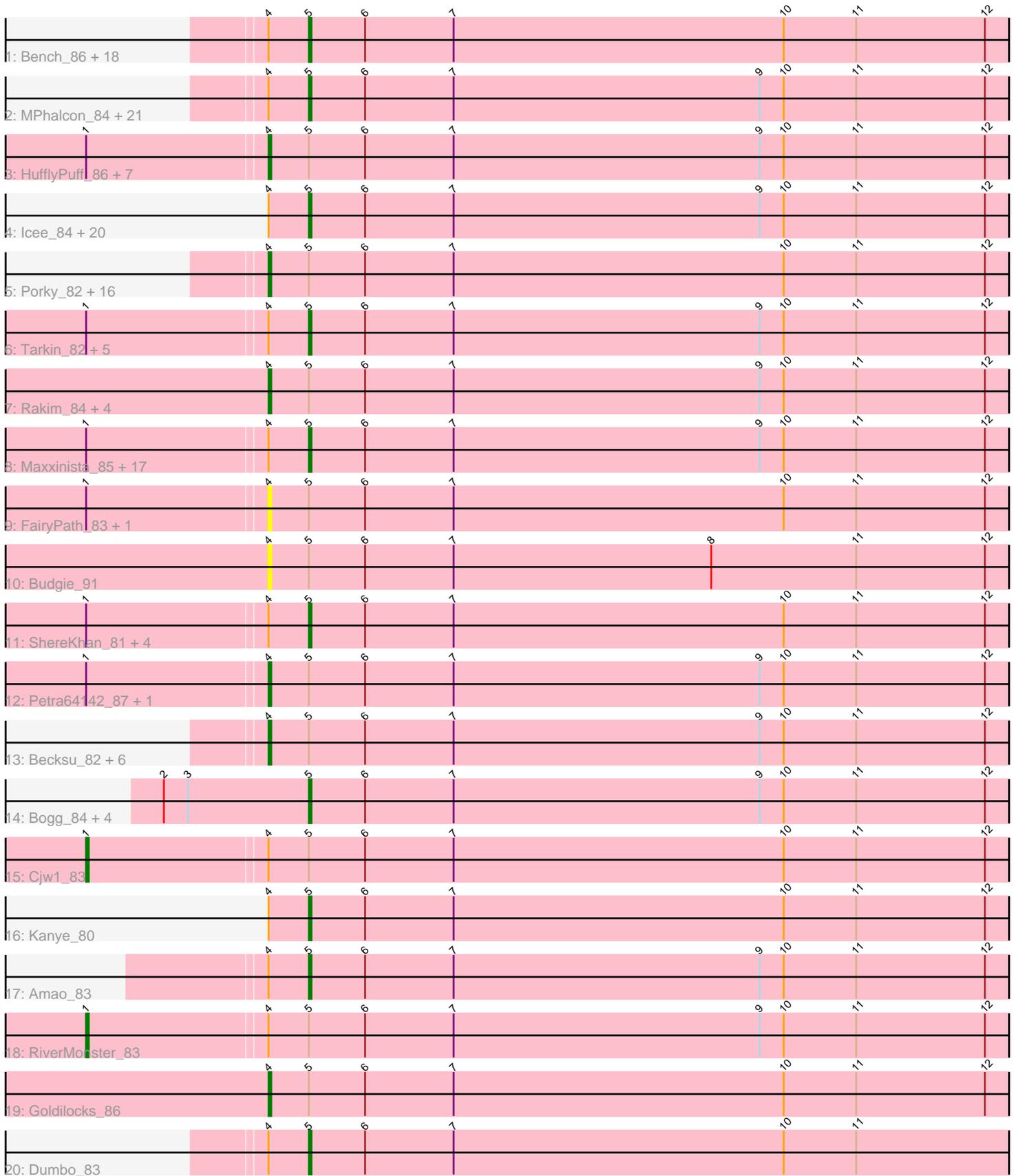
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 286874 Report

This analysis was run 03/28/26 on database version 641.

Pham number 286874 has 144 members, 16 are drafts.

Phages represented in each track:
• Track 1 : Bench_86, Lilizi_84, Greep_87, Tomaszewski_78, Filch_84, Palpatine_85, Misfit_84, Mosby_79, Elph10_83, NelitzaMV_81, TBrady12_86, Command613_85, Kostya_83, Quallification_84, Willez_78, Emmina_83, Xandras_82, MadamMonkfish_83, OrionPax_82
• Track 2 : MPhalcon_84, Traaww1_79, MISSy_84, AmericanBeauty_87, Policronamos_86, SophKB_80, Buck_84, Wiggin_85, NoSleep_84, Stank_86, Nala_85, Asriel_82, Moldemort_86, Argent26_87, Holt_88, Highbury_82, Saints25_82, HanKaySha_83, Gemini_88, Adnama_87, IHOP_81, GoldenSpark_87
• Track 3 : HufflyPuff_86, CrystalP_82, Stark_84, Easy2Say_84, PaddyBaddy_83, Toto_81, xkcd_86, Murica_86
• Track 4 : Icee_84, Flypotenuse_79, Kimchi_87, Glexan_82, Myrale_83, FoghornLeghorn_77, Harella_83, Rimmer_84, Sotrice96_84, BigBubba_83, Cookies_80, Cactus_86, Bask21_83, Daikon_85, TeamEdward_85, StormChicken_85, Gage_85, DoctorDiddles_82, StolenFromERC_86, ChotaBhai_83, Pat3_81
• Track 5 : Porky_82, Ptowny_80, Lilpickle_82, Dusk_80, BugsBunny_83, ChosenOne_83, Sassay_78, Youngblood_86, Elite2014_82, Nimrod_84, BadStone_80, NonchalantPear_81, TeardropMSU_79, Terminus_86, ABCat_80, Bruin_80, Contagion_79
• Track 6 : Tarkin_82, Miniwave_78, Pharsalus_80, Brewer_78, Paperbeatsrock_82, Phaja_81
• Track 7 : Rakim_84, Balomoji_83, Gator_81, SirDuracell_82, Hoonter_86
• Track 8 : Maxxinista_85, Ukulele_78, Phrux_80, Czyszczon1_84, 244_84, Thresher_85, ShamWow_83, StellaBean_81, Henry_81, Mindy_82, Teaspoon_84, Inca_80, Simpliphy_82, Pumpkin_86, BilboSwaggins_81, Thimble_84, Lilac_85, JeTaime_83
• Track 9 : FairyPath_83, MollyToe_78
• Track 10 : Budgie_91
• Track 11 : ShereKhan_81, Hopey_83, FireRed_87, DrDrey_83, PhatBacter_87
• Track 12 : Petra64142_87, YassJohnny_80
• Track 13 : Becksu_82, Marshmallow_81, Barbarian_82, GooberAzure_86, Murphy_83, Phaux_85, Tuco_84
• Track 14 : Bogg_84, BaboJay_81, Goku_82, Manda_85, Eureka_82
• Track 15 : Cjw1_83
• Track 16 : Kanye_80
• Track 17 : Amao_83
• Track 18 : RiverMonster_83

- Track 19 : Goldilocks_86
- Track 20 : Dumbo_83

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

The start number called the most often in the published annotations is 5, it was called in 92 of the 128 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- 244_84, Adnama_87, Amao_83, AmericanBeauty_87, Argent26_87, Asriel_82, BaboJay_81, Bask21_83, Bench_86, BigBubba_83, BilboSwaggins_81, Bogg_84, Brewer_78, Buck_84, Cactus_86, ChotaBhai_83, Command613_85, Cookies_80, Czyszczon1_84, Daikon_85, DoctorDiddles_82, DrDrey_83, Dumbo_83, Elph10_83, Emmina_83, Eureka_82, Filch_84, FireRed_87, Flypotenuse_79, FoghornLeghorn_77, Gage_85, Gemini_88, Glexan_82, Goku_82, GoldenSpark_87, Greep_87, HanKaySha_83, Harella_83, Henry_81, Highbury_82, Holt_88, Hopey_83, IHOP_81, Icee_84, Inca_80, JeTaime_83, Kanye_80, Kimchi_87, Kostya_83, Lilac_85, Lilizi_84, MISSy_84, MPhalcon_84, MadamMonkfish_83, Manda_85, Maxxinista_85, Mindy_82, Miniwave_78, Misfit_84, Moldemort_86, Mosby_79, Myrale_83, Nala_85, NelitzaMV_81, NoSleep_84, OrionPax_82, Palpatine_85, Paperbeatsrock_82, Pat3_81, Phaja_81, Pharsalus_80, PhatBacter_87, Phrux_80, Policronamos_86, Pumpkin_86, Quallification_84, Rimmer_84, Saints25_82, ShamWow_83, ShereKhan_81, Simpliphy_82, SophKB_80, Sotrice96_84, Stank_86, StellaBean_81, StolenFromERC_86, StormChicken_85, TBrady12_86, Tarkin_82, TeamEdward_85, Teaspoon_84, Thimble_84, Thresher_85, Tomaszewski_78, Traaww1_79, Ukulele_78, Wiggin_85, Willez_78, Xandras_82,

Genes that have the "Most Annotated" start but do not call it:
- ABCat_80, BadStone_80, Balomoji_83, Barbarian_82, Becksu_82, Bruin_80, Budgie_91, BugsBunny_83, ChosenOne_83, Cjw1_83, Contagion_79, CrystalP_82, Dusk_80, Easy2Say_84, Elite2014_82, FairyPath_83, Gator_81, Goldilocks_86, GooberAzure_86, Hoonter_86, HufflyPuff_86, Lilpickle_82, Marshmallow_81, MollyToe_78, Murica_86, Murphy_83, Nimrod_84, NonchalantPear_81, PaddyBaddy_83, Petra64142_87, Phaux_85, Porky_82, Ptowny_80, Rakim_84, RiverMonster_83, Sassay_78, SirDuracell_82, Stark_84, TeardropMSU_79, Terminus_86, Toto_81, Tuco_84, YassJohnny_80, Youngblood_86, xkcd_86,

Genes that do not have the "Most Annotated" start:
-

Summary by start number:

Start 1:
- Found in 43 of 144 (29.9%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 4.7% of time when present
- Phage (with cluster) where this start called: Cjw1_83 (E), RiverMonster_83 (E),

Start 4:
- Found in 139 of 144 (96.5%) of genes in pham

• Manual Annotations of this start: 34 of 128
• Called 30.9% of time when present
• Phage (with cluster) where this start called: ABCat_80 (E), BadStone_80 (E), Balomoji_83 (E), Barbarian_82 (E), Becksu_82 (E), Bruin_80 (E), Budgie_91 (E), BugsBunny_83 (E), ChosenOne_83 (E), Contagion_79 (E), CrystalP_82 (E), Dusk_80 (E), Easy2Say_84 (E), Elite2014_82 (E), FairyPath_83 (E), Gator_81 (E), Goldilocks_86 (E), GooberAzure_86 (E), Hoonter_86 (E), HufflyPuff_86 (E), Lilpickle_82 (E), Marshmallow_81 (E), MollyToe_78 (E), Murica_86 (E), Murphy_83 (E), Nimrod_84 (E), NonchalantPear_81 (E), PaddyBaddy_83 (E), Petra64142_87 (E), Phaux_85 (E), Porky_82 (E), Ptowny_80 (E), Rakim_84 (E), Sassay_78 (E), SirDuracell_82 (E), Stark_84 (E), TeardropMSU_79 (E), Terminus_86 (E), Toto_81 (E), Tuco_84 (E), YassJohnny_80 (E), Youngblood_86 (E), xkcd_86 (E),

Start 5:
• Found in 144 of 144 (100.0%) of genes in pham
• Manual Annotations of this start: 92 of 128
• Called 68.8% of time when present
• Phage (with cluster) where this start called: 244_84 (E), Adnama_87 (E), Amao_83 (E), AmericanBeauty_87 (E), Argent26_87 (E), Asriel_82 (E), BaboJay_81 (E), Bask21_83 (E), Bench_86 (E), BigBubba_83 (E), BilboSwaggins_81 (E), Bogg_84 (E), Brewer_78 (E), Buck_84 (E), Cactus_86 (E), ChotaBhai_83 (E), Command613_85 (E), Cookies_80 (E), Czyszczon1_84 (E), Daikon_85 (E), DoctorDiddles_82 (E), DrDrey_83 (E), Dumbo_83 (E), Elph10_83 (E), Emmina_83 (E), Eureka_82 (E), Filch_84 (E), FireRed_87 (E), Flypotenuse_79 (E), FoghornLeghorn_77 (E), Gage_85 (E), Gemini_88 (E), Glexan_82 (E), Goku_82 (E), GoldenSpark_87 (E), Greep_87 (E), HanKaySha_83 (E), Harella_83 (E), Henry_81 (E), Highbury_82 (E), Holt_88 (E), Hopey_83 (E), IHOP_81 (E), Icee_84 (E), Inca_80 (E), JeTaime_83 (E), Kanye_80 (E), Kimchi_87 (E), Kostya_83 (E), Lilac_85 (E), Lilizi_84 (E), MISSy_84 (E), MPhalcon_84 (E), MadamMonkfish_83 (E), Manda_85 (E), Maxxinista_85 (E), Mindy_82 (E), Miniwave_78 (E), Misfit_84 (E), Moldemort_86 (E), Mosby_79 (E), Myrale_83 (E), Nala_85 (E), NelitzaMV_81 (E), NoSleep_84 (E), OrionPax_82 (E), Palpatine_85 (E), Paperbeatsrock_82 (E), Pat3_81 (E), Phaja_81 (E), Pharsalus_80 (E), PhatBacter_87 (E), Phrux_80 (E), Policronamos_86 (E), Pumpkin_86 (E), Quallification_84 (E), Rimmer_84 (E), Saints25_82 (E), ShamWow_83 (E), ShereKhan_81 (E), Simpliphy_82 (E), SophKB_80 (E), Sotrice96_84 (E), Stank_86 (E), StellaBean_81 (E), StolenFromERC_86 (E), StormChicken_85 (E), TBrady12_86 (E), Tarkin_82 (E), TeamEdward_85 (E), Teaspoon_84 (E), Thimble_84 (E), Thresher_85 (E), Tomaszewski_78 (E), Traaww1_79 (E), Ukulele_78 (E), Wiggin_85 (E), Willez_78 (E), Xandras_82 (E),

Summary by clusters:

There is one cluster represented in this pham: E

Info for manual annotations of cluster E:
•Start number 1 was manually annotated 2 times for cluster E.
•Start number 4 was manually annotated 34 times for cluster E.
•Start number 5 was manually annotated 92 times for cluster E.

Gene Information:

Gene: 244_84 Start: 51568, Stop: 51828, Start Num: 5
Candidate Starts for 244_84:
(Start: 1 @51487 has 2 MA's), (Start: 4 @51553 has 34 MA's), (Start: 5 @51568 has 92 MA's), (6, 51589), (7, 51622), (9, 51736), (10, 51745), (11, 51772), (12, 51820),

Gene: ABCat_80 Start: 51906, Stop: 52181, Start Num: 4
Candidate Starts for ABCat_80:
(Start: 4 @51906 has 34 MA's), (Start: 5 @51921 has 92 MA's), (6, 51942), (7, 51975), (10, 52098), (11, 52125), (12, 52173),

Gene: Adnama_87 Start: 51944, Stop: 52204, Start Num: 5
Candidate Starts for Adnama_87:
(Start: 4 @51929 has 34 MA's), (Start: 5 @51944 has 92 MA's), (6, 51965), (7, 51998), (9, 52112), (10, 52121), (11, 52148), (12, 52196),

Gene: Amao_83 Start: 51338, Stop: 51598, Start Num: 5
Candidate Starts for Amao_83:
(Start: 4 @51323 has 34 MA's), (Start: 5 @51338 has 92 MA's), (6, 51359), (7, 51392), (9, 51506), (10, 51515), (11, 51542), (12, 51590),

Gene: AmericanBeauty_87 Start: 52090, Stop: 52350, Start Num: 5
Candidate Starts for AmericanBeauty_87:
(Start: 4 @52075 has 34 MA's), (Start: 5 @52090 has 92 MA's), (6, 52111), (7, 52144), (9, 52258), (10, 52267), (11, 52294), (12, 52342),

Gene: Argent26_87 Start: 51728, Stop: 51988, Start Num: 5
Candidate Starts for Argent26_87:
(Start: 4 @51713 has 34 MA's), (Start: 5 @51728 has 92 MA's), (6, 51749), (7, 51782), (9, 51896), (10, 51905), (11, 51932), (12, 51980),

Gene: Asriel_82 Start: 50281, Stop: 50541, Start Num: 5
Candidate Starts for Asriel_82:
(Start: 4 @50266 has 34 MA's), (Start: 5 @50281 has 92 MA's), (6, 50302), (7, 50335), (9, 50449), (10, 50458), (11, 50485), (12, 50533),

Gene: BaboJay_81 Start: 51569, Stop: 51829, Start Num: 5
Candidate Starts for BaboJay_81:
(2, 51515), (3, 51524), (Start: 5 @51569 has 92 MA's), (6, 51590), (7, 51623), (9, 51737), (10, 51746), (11, 51773), (12, 51821),

Gene: BadStone_80 Start: 51475, Stop: 51750, Start Num: 4
Candidate Starts for BadStone_80:
(Start: 4 @51475 has 34 MA's), (Start: 5 @51490 has 92 MA's), (6, 51511), (7, 51544), (10, 51667), (11, 51694), (12, 51742),

Gene: Balomoji_83 Start: 52036, Stop: 52311, Start Num: 4
Candidate Starts for Balomoji_83:
(Start: 4 @52036 has 34 MA's), (Start: 5 @52051 has 92 MA's), (6, 52072), (7, 52105), (9, 52219), (10, 52228), (11, 52255), (12, 52303),

Gene: Barbarian_82 Start: 50266, Stop: 50541, Start Num: 4
Candidate Starts for Barbarian_82:

(Start: 4 @50266 has 34 MA's), (Start: 5 @50281 has 92 MA's), (6, 50302), (7, 50335), (9, 50449), (10, 50458), (11, 50485), (12, 50533),

Gene: Bask21_83 Start: 50904, Stop: 51164, Start Num: 5
Candidate Starts for Bask21_83:
(Start: 4 @50889 has 34 MA's), (Start: 5 @50904 has 92 MA's), (6, 50925), (7, 50958), (9, 51072), (10, 51081), (11, 51108), (12, 51156),

Gene: Becksu_82 Start: 52105, Stop: 52380, Start Num: 4
Candidate Starts for Becksu_82:
(Start: 4 @52105 has 34 MA's), (Start: 5 @52120 has 92 MA's), (6, 52141), (7, 52174), (9, 52288), (10, 52297), (11, 52324), (12, 52372),

Gene: Bench_86 Start: 51585, Stop: 51845, Start Num: 5
Candidate Starts for Bench_86:
(Start: 4 @51570 has 34 MA's), (Start: 5 @51585 has 92 MA's), (6, 51606), (7, 51639), (10, 51762), (11, 51789), (12, 51837),

Gene: BigBubba_83 Start: 51297, Stop: 51557, Start Num: 5
Candidate Starts for BigBubba_83:
(Start: 4 @51282 has 34 MA's), (Start: 5 @51297 has 92 MA's), (6, 51318), (7, 51351), (9, 51465), (10, 51474), (11, 51501), (12, 51549),

Gene: BilboSwaggins_81 Start: 51926, Stop: 52186, Start Num: 5
Candidate Starts for BilboSwaggins_81:
(Start: 1 @51845 has 2 MA's), (Start: 4 @51911 has 34 MA's), (Start: 5 @51926 has 92 MA's), (6, 51947), (7, 51980), (9, 52094), (10, 52103), (11, 52130), (12, 52178),

Gene: Bogg_84 Start: 51312, Stop: 51572, Start Num: 5
Candidate Starts for Bogg_84:
(2, 51258), (3, 51267), (Start: 5 @51312 has 92 MA's), (6, 51333), (7, 51366), (9, 51480), (10, 51489), (11, 51516), (12, 51564),

Gene: Brewer_78 Start: 50387, Stop: 50647, Start Num: 5
Candidate Starts for Brewer_78:
(Start: 1 @50306 has 2 MA's), (Start: 4 @50372 has 34 MA's), (Start: 5 @50387 has 92 MA's), (6, 50408), (7, 50441), (9, 50555), (10, 50564), (11, 50591), (12, 50639),

Gene: Bruin_80 Start: 50449, Stop: 50724, Start Num: 4
Candidate Starts for Bruin_80:
(Start: 4 @50449 has 34 MA's), (Start: 5 @50464 has 92 MA's), (6, 50485), (7, 50518), (10, 50641), (11, 50668), (12, 50716),

Gene: Buck_84 Start: 52169, Stop: 52429, Start Num: 5
Candidate Starts for Buck_84:
(Start: 4 @52154 has 34 MA's), (Start: 5 @52169 has 92 MA's), (6, 52190), (7, 52223), (9, 52337), (10, 52346), (11, 52373), (12, 52421),

Gene: Budgie_91 Start: 51938, Stop: 52213, Start Num: 4
Candidate Starts for Budgie_91:
(Start: 4 @51938 has 34 MA's), (Start: 5 @51953 has 92 MA's), (6, 51974), (7, 52007), (8, 52103), (11, 52157), (12, 52205),

Gene: BugsBunny_83 Start: 51978, Stop: 52253, Start Num: 4
Candidate Starts for BugsBunny_83:
(Start: 4 @51978 has 34 MA's), (Start: 5 @51993 has 92 MA's), (6, 52014), (7, 52047), (10, 52170),
(11, 52197), (12, 52245),

Gene: Cactus_86 Start: 50945, Stop: 51205, Start Num: 5
Candidate Starts for Cactus_86:
(Start: 4 @50930 has 34 MA's), (Start: 5 @50945 has 92 MA's), (6, 50966), (7, 50999), (9, 51113), (10,
51122), (11, 51149), (12, 51197),

Gene: ChosenOne_83 Start: 50930, Stop: 51205, Start Num: 4
Candidate Starts for ChosenOne_83:
(Start: 4 @50930 has 34 MA's), (Start: 5 @50945 has 92 MA's), (6, 50966), (7, 50999), (10, 51122),
(11, 51149), (12, 51197),

Gene: ChotaBhai_83 Start: 51269, Stop: 51529, Start Num: 5
Candidate Starts for ChotaBhai_83:
(Start: 4 @51254 has 34 MA's), (Start: 5 @51269 has 92 MA's), (6, 51290), (7, 51323), (9, 51437), (10,
51446), (11, 51473), (12, 51521),

Gene: Cjw1_83 Start: 52558, Stop: 52899, Start Num: 1
Candidate Starts for Cjw1_83:
(Start: 1 @52558 has 2 MA's), (Start: 4 @52624 has 34 MA's), (Start: 5 @52639 has 92 MA's), (6,
52660), (7, 52693), (10, 52816), (11, 52843), (12, 52891),

Gene: Command613_85 Start: 51984, Stop: 52244, Start Num: 5
Candidate Starts for Command613_85:
(Start: 4 @51969 has 34 MA's), (Start: 5 @51984 has 92 MA's), (6, 52005), (7, 52038), (10, 52161),
(11, 52188), (12, 52236),

Gene: Contagion_79 Start: 50730, Stop: 51005, Start Num: 4
Candidate Starts for Contagion_79:
(Start: 4 @50730 has 34 MA's), (Start: 5 @50745 has 92 MA's), (6, 50766), (7, 50799), (10, 50922),
(11, 50949), (12, 50997),

Gene: Cookies_80 Start: 51126, Stop: 51386, Start Num: 5
Candidate Starts for Cookies_80:
(Start: 4 @51111 has 34 MA's), (Start: 5 @51126 has 92 MA's), (6, 51147), (7, 51180), (9, 51294), (10,
51303), (11, 51330), (12, 51378),

Gene: CrystalP_82 Start: 51911, Stop: 52186, Start Num: 4
Candidate Starts for CrystalP_82:
(Start: 1 @51845 has 2 MA's), (Start: 4 @51911 has 34 MA's), (Start: 5 @51926 has 92 MA's), (6,
51947), (7, 51980), (9, 52094), (10, 52103), (11, 52130), (12, 52178),

Gene: Czyszczon1_84 Start: 51448, Stop: 51708, Start Num: 5
Candidate Starts for Czyszczon1_84:
(Start: 1 @51367 has 2 MA's), (Start: 4 @51433 has 34 MA's), (Start: 5 @51448 has 92 MA's), (6,
51469), (7, 51502), (9, 51616), (10, 51625), (11, 51652), (12, 51700),

Gene: Daikon_85 Start: 52072, Stop: 52332, Start Num: 5
Candidate Starts for Daikon_85:

(Start: 4 @52057 has 34 MA's), (Start: 5 @52072 has 92 MA's), (6, 52093), (7, 52126), (9, 52240), (10, 52249), (11, 52276), (12, 52324),

Gene: DoctorDiddles_82 Start: 51313, Stop: 51573, Start Num: 5
Candidate Starts for DoctorDiddles_82:
(Start: 4 @51298 has 34 MA's), (Start: 5 @51313 has 92 MA's), (6, 51334), (7, 51367), (9, 51481), (10, 51490), (11, 51517), (12, 51565),

Gene: DrDrey_83 Start: 52367, Stop: 52627, Start Num: 5
Candidate Starts for DrDrey_83:
(Start: 1 @52286 has 2 MA's), (Start: 4 @52352 has 34 MA's), (Start: 5 @52367 has 92 MA's), (6, 52388), (7, 52421), (10, 52544), (11, 52571), (12, 52619),

Gene: Dumbo_83 Start: 50850, Stop: 51110, Start Num: 5
Candidate Starts for Dumbo_83:
(Start: 4 @50835 has 34 MA's), (Start: 5 @50850 has 92 MA's), (6, 50871), (7, 50904), (10, 51027), (11, 51054),

Gene: Dusk_80 Start: 51135, Stop: 51410, Start Num: 4
Candidate Starts for Dusk_80:
(Start: 4 @51135 has 34 MA's), (Start: 5 @51150 has 92 MA's), (6, 51171), (7, 51204), (10, 51327), (11, 51354), (12, 51402),

Gene: Easy2Say_84 Start: 52376, Stop: 52651, Start Num: 4
Candidate Starts for Easy2Say_84:
(Start: 1 @52310 has 2 MA's), (Start: 4 @52376 has 34 MA's), (Start: 5 @52391 has 92 MA's), (6, 52412), (7, 52445), (9, 52559), (10, 52568), (11, 52595), (12, 52643),

Gene: Elite2014_82 Start: 50929, Stop: 51204, Start Num: 4
Candidate Starts for Elite2014_82:
(Start: 4 @50929 has 34 MA's), (Start: 5 @50944 has 92 MA's), (6, 50965), (7, 50998), (10, 51121), (11, 51148), (12, 51196),

Gene: Elph10_83 Start: 50946, Stop: 51206, Start Num: 5
Candidate Starts for Elph10_83:
(Start: 4 @50931 has 34 MA's), (Start: 5 @50946 has 92 MA's), (6, 50967), (7, 51000), (10, 51123), (11, 51150), (12, 51198),

Gene: Emmina_83 Start: 50848, Stop: 51108, Start Num: 5
Candidate Starts for Emmina_83:
(Start: 4 @50833 has 34 MA's), (Start: 5 @50848 has 92 MA's), (6, 50869), (7, 50902), (10, 51025), (11, 51052), (12, 51100),

Gene: Eureka_82 Start: 51860, Stop: 52120, Start Num: 5
Candidate Starts for Eureka_82:
(2, 51806), (3, 51815), (Start: 5 @51860 has 92 MA's), (6, 51881), (7, 51914), (9, 52028), (10, 52037), (11, 52064), (12, 52112),

Gene: FairyPath_83 Start: 52048, Stop: 52323, Start Num: 4
Candidate Starts for FairyPath_83:
(Start: 1 @51982 has 2 MA's), (Start: 4 @52048 has 34 MA's), (Start: 5 @52063 has 92 MA's), (6, 52084), (7, 52117), (10, 52240), (11, 52267), (12, 52315),

Gene: Filch_84 Start: 50873, Stop: 51133, Start Num: 5
Candidate Starts for Filch_84:
(Start: 4 @50858 has 34 MA's), (Start: 5 @50873 has 92 MA's), (6, 50894), (7, 50927), (10, 51050), (11, 51077), (12, 51125),

Gene: FireRed_87 Start: 52438, Stop: 52698, Start Num: 5
Candidate Starts for FireRed_87:
(Start: 1 @52357 has 2 MA's), (Start: 4 @52423 has 34 MA's), (Start: 5 @52438 has 92 MA's), (6, 52459), (7, 52492), (10, 52615), (11, 52642), (12, 52690),

Gene: Flypotenuse_79 Start: 50935, Stop: 51195, Start Num: 5
Candidate Starts for Flypotenuse_79:
(Start: 4 @50920 has 34 MA's), (Start: 5 @50935 has 92 MA's), (6, 50956), (7, 50989), (9, 51103), (10, 51112), (11, 51139), (12, 51187),

Gene: FoghornLeghorn_77 Start: 49948, Stop: 50208, Start Num: 5
Candidate Starts for FoghornLeghorn_77:
(Start: 4 @49933 has 34 MA's), (Start: 5 @49948 has 92 MA's), (6, 49969), (7, 50002), (9, 50116), (10, 50125), (11, 50152), (12, 50200),

Gene: Gage_85 Start: 51728, Stop: 51988, Start Num: 5
Candidate Starts for Gage_85:
(Start: 4 @51713 has 34 MA's), (Start: 5 @51728 has 92 MA's), (6, 51749), (7, 51782), (9, 51896), (10, 51905), (11, 51932), (12, 51980),

Gene: Gator_81 Start: 51763, Stop: 52038, Start Num: 4
Candidate Starts for Gator_81:
(Start: 4 @51763 has 34 MA's), (Start: 5 @51778 has 92 MA's), (6, 51799), (7, 51832), (9, 51946), (10, 51955), (11, 51982), (12, 52030),

Gene: Gemini_88 Start: 52245, Stop: 52505, Start Num: 5
Candidate Starts for Gemini_88:
(Start: 4 @52230 has 34 MA's), (Start: 5 @52245 has 92 MA's), (6, 52266), (7, 52299), (9, 52413), (10, 52422), (11, 52449), (12, 52497),

Gene: Glexan_82 Start: 52065, Stop: 52325, Start Num: 5
Candidate Starts for Glexan_82:
(Start: 4 @52050 has 34 MA's), (Start: 5 @52065 has 92 MA's), (6, 52086), (7, 52119), (9, 52233), (10, 52242), (11, 52269), (12, 52317),

Gene: Goku_82 Start: 51589, Stop: 51849, Start Num: 5
Candidate Starts for Goku_82:
(2, 51535), (3, 51544), (Start: 5 @51589 has 92 MA's), (6, 51610), (7, 51643), (9, 51757), (10, 51766), (11, 51793), (12, 51841),

Gene: GoldenSpark_87 Start: 51728, Stop: 51988, Start Num: 5
Candidate Starts for GoldenSpark_87:
(Start: 4 @51713 has 34 MA's), (Start: 5 @51728 has 92 MA's), (6, 51749), (7, 51782), (9, 51896), (10, 51905), (11, 51932), (12, 51980),

Gene: Goldilocks_86 Start: 51208, Stop: 51483, Start Num: 4
Candidate Starts for Goldilocks_86:

(Start: 4 @51208 has 34 MA's), (Start: 5 @51223 has 92 MA's), (6, 51244), (7, 51277), (10, 51400), (11, 51427), (12, 51475),

Gene: GooberAzure_86 Start: 51713, Stop: 51988, Start Num: 4
Candidate Starts for GooberAzure_86:
(Start: 4 @51713 has 34 MA's), (Start: 5 @51728 has 92 MA's), (6, 51749), (7, 51782), (9, 51896), (10, 51905), (11, 51932), (12, 51980),

Gene: Greep_87 Start: 52724, Stop: 52984, Start Num: 5
Candidate Starts for Greep_87:
(Start: 4 @52709 has 34 MA's), (Start: 5 @52724 has 92 MA's), (6, 52745), (7, 52778), (10, 52901), (11, 52928), (12, 52976),

Gene: HanKaySha_83 Start: 51026, Stop: 51286, Start Num: 5
Candidate Starts for HanKaySha_83:
(Start: 4 @51011 has 34 MA's), (Start: 5 @51026 has 92 MA's), (6, 51047), (7, 51080), (9, 51194), (10, 51203), (11, 51230), (12, 51278),

Gene: Harella_83 Start: 52581, Stop: 52841, Start Num: 5
Candidate Starts for Harella_83:
(Start: 4 @52566 has 34 MA's), (Start: 5 @52581 has 92 MA's), (6, 52602), (7, 52635), (9, 52749), (10, 52758), (11, 52785), (12, 52833),

Gene: Henry_81 Start: 51366, Stop: 51626, Start Num: 5
Candidate Starts for Henry_81:
(Start: 1 @51285 has 2 MA's), (Start: 4 @51351 has 34 MA's), (Start: 5 @51366 has 92 MA's), (6, 51387), (7, 51420), (9, 51534), (10, 51543), (11, 51570), (12, 51618),

Gene: Highbury_82 Start: 51017, Stop: 51277, Start Num: 5
Candidate Starts for Highbury_82:
(Start: 4 @51002 has 34 MA's), (Start: 5 @51017 has 92 MA's), (6, 51038), (7, 51071), (9, 51185), (10, 51194), (11, 51221), (12, 51269),

Gene: Holt_88 Start: 52142, Stop: 52402, Start Num: 5
Candidate Starts for Holt_88:
(Start: 4 @52127 has 34 MA's), (Start: 5 @52142 has 92 MA's), (6, 52163), (7, 52196), (9, 52310), (10, 52319), (11, 52346), (12, 52394),

Gene: Hoonter_86 Start: 51710, Stop: 51985, Start Num: 4
Candidate Starts for Hoonter_86:
(Start: 4 @51710 has 34 MA's), (Start: 5 @51725 has 92 MA's), (6, 51746), (7, 51779), (9, 51893), (10, 51902), (11, 51929), (12, 51977),

Gene: Hopey_83 Start: 51558, Stop: 51818, Start Num: 5
Candidate Starts for Hopey_83:
(Start: 1 @51477 has 2 MA's), (Start: 4 @51543 has 34 MA's), (Start: 5 @51558 has 92 MA's), (6, 51579), (7, 51612), (10, 51735), (11, 51762), (12, 51810),

Gene: HufflyPuff_86 Start: 52376, Stop: 52651, Start Num: 4
Candidate Starts for HufflyPuff_86:
(Start: 1 @52310 has 2 MA's), (Start: 4 @52376 has 34 MA's), (Start: 5 @52391 has 92 MA's), (6, 52412), (7, 52445), (9, 52559), (10, 52568), (11, 52595), (12, 52643),

Gene: IHOP_81 Start: 51490, Stop: 51750, Start Num: 5
Candidate Starts for IHOP_81:
(Start: 4 @51475 has 34 MA's), (Start: 5 @51490 has 92 MA's), (6, 51511), (7, 51544), (9, 51658), (10, 51667), (11, 51694), (12, 51742),

Gene: Icee_84 Start: 51392, Stop: 51652, Start Num: 5
Candidate Starts for Icee_84:
(Start: 4 @51377 has 34 MA's), (Start: 5 @51392 has 92 MA's), (6, 51413), (7, 51446), (9, 51560), (10, 51569), (11, 51596), (12, 51644),

Gene: Inca_80 Start: 50018, Stop: 50278, Start Num: 5
Candidate Starts for Inca_80:
(Start: 1 @49937 has 2 MA's), (Start: 4 @50003 has 34 MA's), (Start: 5 @50018 has 92 MA's), (6, 50039), (7, 50072), (9, 50186), (10, 50195), (11, 50222), (12, 50270),

Gene: JeTaime_83 Start: 52207, Stop: 52467, Start Num: 5
Candidate Starts for JeTaime_83:
(Start: 1 @52126 has 2 MA's), (Start: 4 @52192 has 34 MA's), (Start: 5 @52207 has 92 MA's), (6, 52228), (7, 52261), (9, 52375), (10, 52384), (11, 52411), (12, 52459),

Gene: Kanye_80 Start: 51074, Stop: 51334, Start Num: 5
Candidate Starts for Kanye_80:
(Start: 4 @51059 has 34 MA's), (Start: 5 @51074 has 92 MA's), (6, 51095), (7, 51128), (10, 51251), (11, 51278), (12, 51326),

Gene: Kimchi_87 Start: 51731, Stop: 51991, Start Num: 5
Candidate Starts for Kimchi_87:
(Start: 4 @51716 has 34 MA's), (Start: 5 @51731 has 92 MA's), (6, 51752), (7, 51785), (9, 51899), (10, 51908), (11, 51935), (12, 51983),

Gene: Kostya_83 Start: 51592, Stop: 51852, Start Num: 5
Candidate Starts for Kostya_83:
(Start: 4 @51577 has 34 MA's), (Start: 5 @51592 has 92 MA's), (6, 51613), (7, 51646), (10, 51769), (11, 51796), (12, 51844),

Gene: Lilac_85 Start: 51343, Stop: 51603, Start Num: 5
Candidate Starts for Lilac_85:
(Start: 1 @51262 has 2 MA's), (Start: 4 @51328 has 34 MA's), (Start: 5 @51343 has 92 MA's), (6, 51364), (7, 51397), (9, 51511), (10, 51520), (11, 51547), (12, 51595),

Gene: Lilizi_84 Start: 51056, Stop: 51316, Start Num: 5
Candidate Starts for Lilizi_84:
(Start: 4 @51041 has 34 MA's), (Start: 5 @51056 has 92 MA's), (6, 51077), (7, 51110), (10, 51233), (11, 51260), (12, 51308),

Gene: Lilpickle_82 Start: 50929, Stop: 51204, Start Num: 4
Candidate Starts for Lilpickle_82:
(Start: 4 @50929 has 34 MA's), (Start: 5 @50944 has 92 MA's), (6, 50965), (7, 50998), (10, 51121), (11, 51148), (12, 51196),

Gene: MISSy_84 Start: 51450, Stop: 51710, Start Num: 5
Candidate Starts for MISSy_84:

(Start: 4 @51435 has 34 MA's), (Start: 5 @51450 has 92 MA's), (6, 51471), (7, 51504), (9, 51618), (10, 51627), (11, 51654), (12, 51702),

Gene: MPhalcon_84 Start: 51443, Stop: 51703, Start Num: 5
Candidate Starts for MPhalcon_84:
(Start: 4 @51428 has 34 MA's), (Start: 5 @51443 has 92 MA's), (6, 51464), (7, 51497), (9, 51611), (10, 51620), (11, 51647), (12, 51695),

Gene: MadamMonkfish_83 Start: 50671, Stop: 50931, Start Num: 5
Candidate Starts for MadamMonkfish_83:
(Start: 4 @50656 has 34 MA's), (Start: 5 @50671 has 92 MA's), (6, 50692), (7, 50725), (10, 50848), (11, 50875), (12, 50923),

Gene: Manda_85 Start: 52978, Stop: 53238, Start Num: 5
Candidate Starts for Manda_85:
(2, 52924), (3, 52933), (Start: 5 @52978 has 92 MA's), (6, 52999), (7, 53032), (9, 53146), (10, 53155), (11, 53182), (12, 53230),

Gene: Marshmallow_81 Start: 52205, Stop: 52480, Start Num: 4
Candidate Starts for Marshmallow_81:
(Start: 4 @52205 has 34 MA's), (Start: 5 @52220 has 92 MA's), (6, 52241), (7, 52274), (9, 52388), (10, 52397), (11, 52424), (12, 52472),

Gene: Maxxinista_85 Start: 51316, Stop: 51576, Start Num: 5
Candidate Starts for Maxxinista_85:
(Start: 1 @51235 has 2 MA's), (Start: 4 @51301 has 34 MA's), (Start: 5 @51316 has 92 MA's), (6, 51337), (7, 51370), (9, 51484), (10, 51493), (11, 51520), (12, 51568),

Gene: Mindy_82 Start: 50532, Stop: 50792, Start Num: 5
Candidate Starts for Mindy_82:
(Start: 1 @50451 has 2 MA's), (Start: 4 @50517 has 34 MA's), (Start: 5 @50532 has 92 MA's), (6, 50553), (7, 50586), (9, 50700), (10, 50709), (11, 50736), (12, 50784),

Gene: Miniwave_78 Start: 50988, Stop: 51248, Start Num: 5
Candidate Starts for Miniwave_78:
(Start: 1 @50907 has 2 MA's), (Start: 4 @50973 has 34 MA's), (Start: 5 @50988 has 92 MA's), (6, 51009), (7, 51042), (9, 51156), (10, 51165), (11, 51192), (12, 51240),

Gene: Misfit_84 Start: 52462, Stop: 52722, Start Num: 5
Candidate Starts for Misfit_84:
(Start: 4 @52447 has 34 MA's), (Start: 5 @52462 has 92 MA's), (6, 52483), (7, 52516), (10, 52639), (11, 52666), (12, 52714),

Gene: Moldemort_86 Start: 51544, Stop: 51804, Start Num: 5
Candidate Starts for Moldemort_86:
(Start: 4 @51529 has 34 MA's), (Start: 5 @51544 has 92 MA's), (6, 51565), (7, 51598), (9, 51712), (10, 51721), (11, 51748), (12, 51796),

Gene: MollyToe_78 Start: 50274, Stop: 50549, Start Num: 4
Candidate Starts for MollyToe_78:
(Start: 1 @50208 has 2 MA's), (Start: 4 @50274 has 34 MA's), (Start: 5 @50289 has 92 MA's), (6, 50310), (7, 50343), (10, 50466), (11, 50493), (12, 50541),

Gene: Mosby_79 Start: 50745, Stop: 51005, Start Num: 5
Candidate Starts for Mosby_79:
(Start: 4 @50730 has 34 MA's), (Start: 5 @50745 has 92 MA's), (6, 50766), (7, 50799), (10, 50922), (11, 50949), (12, 50997),

Gene: Murica_86 Start: 52376, Stop: 52651, Start Num: 4
Candidate Starts for Murica_86:
(Start: 1 @52310 has 2 MA's), (Start: 4 @52376 has 34 MA's), (Start: 5 @52391 has 92 MA's), (6, 52412), (7, 52445), (9, 52559), (10, 52568), (11, 52595), (12, 52643),

Gene: Murphy_83 Start: 51813, Stop: 52088, Start Num: 4
Candidate Starts for Murphy_83:
(Start: 4 @51813 has 34 MA's), (Start: 5 @51828 has 92 MA's), (6, 51849), (7, 51882), (9, 51996), (10, 52005), (11, 52032), (12, 52080),

Gene: Myrale_83 Start: 52088, Stop: 52348, Start Num: 5
Candidate Starts for Myrale_83:
(Start: 4 @52073 has 34 MA's), (Start: 5 @52088 has 92 MA's), (6, 52109), (7, 52142), (9, 52256), (10, 52265), (11, 52292), (12, 52340),

Gene: Nala_85 Start: 51952, Stop: 52212, Start Num: 5
Candidate Starts for Nala_85:
(Start: 4 @51937 has 34 MA's), (Start: 5 @51952 has 92 MA's), (6, 51973), (7, 52006), (9, 52120), (10, 52129), (11, 52156), (12, 52204),

Gene: NelitzaMV_81 Start: 51034, Stop: 51294, Start Num: 5
Candidate Starts for NelitzaMV_81:
(Start: 4 @51019 has 34 MA's), (Start: 5 @51034 has 92 MA's), (6, 51055), (7, 51088), (10, 51211), (11, 51238), (12, 51286),

Gene: Nimrod_84 Start: 52640, Stop: 52915, Start Num: 4
Candidate Starts for Nimrod_84:
(Start: 4 @52640 has 34 MA's), (Start: 5 @52655 has 92 MA's), (6, 52676), (7, 52709), (10, 52832), (11, 52859), (12, 52907),

Gene: NoSleep_84 Start: 51289, Stop: 51549, Start Num: 5
Candidate Starts for NoSleep_84:
(Start: 4 @51274 has 34 MA's), (Start: 5 @51289 has 92 MA's), (6, 51310), (7, 51343), (9, 51457), (10, 51466), (11, 51493), (12, 51541),

Gene: NonchalantPear_81 Start: 51130, Stop: 51405, Start Num: 4
Candidate Starts for NonchalantPear_81:
(Start: 4 @51130 has 34 MA's), (Start: 5 @51145 has 92 MA's), (6, 51166), (7, 51199), (10, 51322), (11, 51349), (12, 51397),

Gene: OrionPax_82 Start: 51040, Stop: 51300, Start Num: 5
Candidate Starts for OrionPax_82:
(Start: 4 @51025 has 34 MA's), (Start: 5 @51040 has 92 MA's), (6, 51061), (7, 51094), (10, 51217), (11, 51244), (12, 51292),

Gene: PaddyBaddy_83 Start: 51025, Stop: 51300, Start Num: 4
Candidate Starts for PaddyBaddy_83:

(Start: 1 @50959 has 2 MA's), (Start: 4 @51025 has 34 MA's), (Start: 5 @51040 has 92 MA's), (6, 51061), (7, 51094), (9, 51208), (10, 51217), (11, 51244), (12, 51292),

Gene: Palpatine_85 Start: 52418, Stop: 52678, Start Num: 5
Candidate Starts for Palpatine_85:
(Start: 4 @52403 has 34 MA's), (Start: 5 @52418 has 92 MA's), (6, 52439), (7, 52472), (10, 52595), (11, 52622), (12, 52670),

Gene: Paperbeatsrock_82 Start: 51666, Stop: 51926, Start Num: 5
Candidate Starts for Paperbeatsrock_82:
(Start: 1 @51585 has 2 MA's), (Start: 4 @51651 has 34 MA's), (Start: 5 @51666 has 92 MA's), (6, 51687), (7, 51720), (9, 51834), (10, 51843), (11, 51870), (12, 51918),

Gene: Pat3_81 Start: 50198, Stop: 50458, Start Num: 5
Candidate Starts for Pat3_81:
(Start: 4 @50183 has 34 MA's), (Start: 5 @50198 has 92 MA's), (6, 50219), (7, 50252), (9, 50366), (10, 50375), (11, 50402), (12, 50450),

Gene: Petra64142_87 Start: 52870, Stop: 53145, Start Num: 4
Candidate Starts for Petra64142_87:
(Start: 1 @52804 has 2 MA's), (Start: 4 @52870 has 34 MA's), (Start: 5 @52885 has 92 MA's), (6, 52906), (7, 52939), (9, 53053), (10, 53062), (11, 53089), (12, 53137),

Gene: Phaja_81 Start: 51492, Stop: 51752, Start Num: 5
Candidate Starts for Phaja_81:
(Start: 1 @51411 has 2 MA's), (Start: 4 @51477 has 34 MA's), (Start: 5 @51492 has 92 MA's), (6, 51513), (7, 51546), (9, 51660), (10, 51669), (11, 51696), (12, 51744),

Gene: Pharsalus_80 Start: 51466, Stop: 51726, Start Num: 5
Candidate Starts for Pharsalus_80:
(Start: 1 @51385 has 2 MA's), (Start: 4 @51451 has 34 MA's), (Start: 5 @51466 has 92 MA's), (6, 51487), (7, 51520), (9, 51634), (10, 51643), (11, 51670), (12, 51718),

Gene: PhatBacter_87 Start: 52438, Stop: 52698, Start Num: 5
Candidate Starts for PhatBacter_87:
(Start: 1 @52357 has 2 MA's), (Start: 4 @52423 has 34 MA's), (Start: 5 @52438 has 92 MA's), (6, 52459), (7, 52492), (10, 52615), (11, 52642), (12, 52690),

Gene: Phaux_85 Start: 52418, Stop: 52693, Start Num: 4
Candidate Starts for Phaux_85:
(Start: 4 @52418 has 34 MA's), (Start: 5 @52433 has 92 MA's), (6, 52454), (7, 52487), (9, 52601), (10, 52610), (11, 52637), (12, 52685),

Gene: Phrux_80 Start: 51026, Stop: 51286, Start Num: 5
Candidate Starts for Phrux_80:
(Start: 1 @50945 has 2 MA's), (Start: 4 @51011 has 34 MA's), (Start: 5 @51026 has 92 MA's), (6, 51047), (7, 51080), (9, 51194), (10, 51203), (11, 51230), (12, 51278),

Gene: Policronamos_86 Start: 52433, Stop: 52693, Start Num: 5
Candidate Starts for Policronamos_86:
(Start: 4 @52418 has 34 MA's), (Start: 5 @52433 has 92 MA's), (6, 52454), (7, 52487), (9, 52601), (10, 52610), (11, 52637), (12, 52685),

Gene: Porky_82 Start: 50841, Stop: 51116, Start Num: 4
Candidate Starts for Porky_82:
(Start: 4 @50841 has 34 MA's), (Start: 5 @50856 has 92 MA's), (6, 50877), (7, 50910), (10, 51033), (11, 51060), (12, 51108),

Gene: Ptowny_80 Start: 50313, Stop: 50588, Start Num: 4
Candidate Starts for Ptowny_80:
(Start: 4 @50313 has 34 MA's), (Start: 5 @50328 has 92 MA's), (6, 50349), (7, 50382), (10, 50505), (11, 50532), (12, 50580),

Gene: Pumpkin_86 Start: 52084, Stop: 52344, Start Num: 5
Candidate Starts for Pumpkin_86:
(Start: 1 @52003 has 2 MA's), (Start: 4 @52069 has 34 MA's), (Start: 5 @52084 has 92 MA's), (6, 52105), (7, 52138), (9, 52252), (10, 52261), (11, 52288), (12, 52336),

Gene: Quallification_84 Start: 52074, Stop: 52334, Start Num: 5
Candidate Starts for Quallification_84:
(Start: 4 @52059 has 34 MA's), (Start: 5 @52074 has 92 MA's), (6, 52095), (7, 52128), (10, 52251), (11, 52278), (12, 52326),

Gene: Rakim_84 Start: 51525, Stop: 51800, Start Num: 4
Candidate Starts for Rakim_84:
(Start: 4 @51525 has 34 MA's), (Start: 5 @51540 has 92 MA's), (6, 51561), (7, 51594), (9, 51708), (10, 51717), (11, 51744), (12, 51792),

Gene: Rimmer_84 Start: 51779, Stop: 52039, Start Num: 5
Candidate Starts for Rimmer_84:
(Start: 4 @51764 has 34 MA's), (Start: 5 @51779 has 92 MA's), (6, 51800), (7, 51833), (9, 51947), (10, 51956), (11, 51983), (12, 52031),

Gene: RiverMonster_83 Start: 51523, Stop: 51864, Start Num: 1
Candidate Starts for RiverMonster_83:
(Start: 1 @51523 has 2 MA's), (Start: 4 @51589 has 34 MA's), (Start: 5 @51604 has 92 MA's), (6, 51625), (7, 51658), (9, 51772), (10, 51781), (11, 51808), (12, 51856),

Gene: Saints25_82 Start: 51017, Stop: 51277, Start Num: 5
Candidate Starts for Saints25_82:
(Start: 4 @51002 has 34 MA's), (Start: 5 @51017 has 92 MA's), (6, 51038), (7, 51071), (9, 51185), (10, 51194), (11, 51221), (12, 51269),

Gene: Sassay_78 Start: 49692, Stop: 49967, Start Num: 4
Candidate Starts for Sassay_78:
(Start: 4 @49692 has 34 MA's), (Start: 5 @49707 has 92 MA's), (6, 49728), (7, 49761), (10, 49884), (11, 49911), (12, 49959),

Gene: ShamWow_83 Start: 51926, Stop: 52186, Start Num: 5
Candidate Starts for ShamWow_83:
(Start: 1 @51845 has 2 MA's), (Start: 4 @51911 has 34 MA's), (Start: 5 @51926 has 92 MA's), (6, 51947), (7, 51980), (9, 52094), (10, 52103), (11, 52130), (12, 52178),

Gene: ShereKhan_81 Start: 51999, Stop: 52259, Start Num: 5
Candidate Starts for ShereKhan_81:

(Start: 1 @51918 has 2 MA's), (Start: 4 @51984 has 34 MA's), (Start: 5 @51999 has 92 MA's), (6, 52020), (7, 52053), (10, 52176), (11, 52203), (12, 52251),

Gene: Simpliphy_82 Start: 51007, Stop: 51267, Start Num: 5
Candidate Starts for Simpliphy_82:
(Start: 1 @50926 has 2 MA's), (Start: 4 @50992 has 34 MA's), (Start: 5 @51007 has 92 MA's), (6, 51028), (7, 51061), (9, 51175), (10, 51184), (11, 51211), (12, 51259),

Gene: SirDuracell_82 Start: 50278, Stop: 50553, Start Num: 4
Candidate Starts for SirDuracell_82:
(Start: 4 @50278 has 34 MA's), (Start: 5 @50293 has 92 MA's), (6, 50314), (7, 50347), (9, 50461), (10, 50470), (11, 50497), (12, 50545),

Gene: SophKB_80 Start: 50685, Stop: 50945, Start Num: 5
Candidate Starts for SophKB_80:
(Start: 4 @50670 has 34 MA's), (Start: 5 @50685 has 92 MA's), (6, 50706), (7, 50739), (9, 50853), (10, 50862), (11, 50889), (12, 50937),

Gene: Sotrice96_84 Start: 51688, Stop: 51948, Start Num: 5
Candidate Starts for Sotrice96_84:
(Start: 4 @51673 has 34 MA's), (Start: 5 @51688 has 92 MA's), (6, 51709), (7, 51742), (9, 51856), (10, 51865), (11, 51892), (12, 51940),

Gene: Stank_86 Start: 51946, Stop: 52206, Start Num: 5
Candidate Starts for Stank_86:
(Start: 4 @51931 has 34 MA's), (Start: 5 @51946 has 92 MA's), (6, 51967), (7, 52000), (9, 52114), (10, 52123), (11, 52150), (12, 52198),

Gene: Stark_84 Start: 51472, Stop: 51747, Start Num: 4
Candidate Starts for Stark_84:
(Start: 1 @51406 has 2 MA's), (Start: 4 @51472 has 34 MA's), (Start: 5 @51487 has 92 MA's), (6, 51508), (7, 51541), (9, 51655), (10, 51664), (11, 51691), (12, 51739),

Gene: StellaBean_81 Start: 51250, Stop: 51510, Start Num: 5
Candidate Starts for StellaBean_81:
(Start: 1 @51169 has 2 MA's), (Start: 4 @51235 has 34 MA's), (Start: 5 @51250 has 92 MA's), (6, 51271), (7, 51304), (9, 51418), (10, 51427), (11, 51454), (12, 51502),

Gene: StolenFromERC_86 Start: 51728, Stop: 51988, Start Num: 5
Candidate Starts for StolenFromERC_86:
(Start: 4 @51713 has 34 MA's), (Start: 5 @51728 has 92 MA's), (6, 51749), (7, 51782), (9, 51896), (10, 51905), (11, 51932), (12, 51980),

Gene: StormChicken_85 Start: 52386, Stop: 52646, Start Num: 5
Candidate Starts for StormChicken_85:
(Start: 4 @52371 has 34 MA's), (Start: 5 @52386 has 92 MA's), (6, 52407), (7, 52440), (9, 52554), (10, 52563), (11, 52590), (12, 52638),

Gene: TBrady12_86 Start: 51427, Stop: 51687, Start Num: 5
Candidate Starts for TBrady12_86:
(Start: 4 @51412 has 34 MA's), (Start: 5 @51427 has 92 MA's), (6, 51448), (7, 51481), (10, 51604), (11, 51631), (12, 51679),

Gene: Tarkin_82 Start: 51675, Stop: 51935, Start Num: 5
Candidate Starts for Tarkin_82:
(Start: 1 @51594 has 2 MA's), (Start: 4 @51660 has 34 MA's), (Start: 5 @51675 has 92 MA's), (6, 51696), (7, 51729), (9, 51843), (10, 51852), (11, 51879), (12, 51927),

Gene: TeamEdward_85 Start: 52380, Stop: 52640, Start Num: 5
Candidate Starts for TeamEdward_85:
(Start: 4 @52365 has 34 MA's), (Start: 5 @52380 has 92 MA's), (6, 52401), (7, 52434), (9, 52548), (10, 52557), (11, 52584), (12, 52632),

Gene: TeardropMSU_79 Start: 50660, Stop: 50935, Start Num: 4
Candidate Starts for TeardropMSU_79:
(Start: 4 @50660 has 34 MA's), (Start: 5 @50675 has 92 MA's), (6, 50696), (7, 50729), (10, 50852), (11, 50879), (12, 50927),

Gene: Teaspoon_84 Start: 51569, Stop: 51829, Start Num: 5
Candidate Starts for Teaspoon_84:
(Start: 1 @51488 has 2 MA's), (Start: 4 @51554 has 34 MA's), (Start: 5 @51569 has 92 MA's), (6, 51590), (7, 51623), (9, 51737), (10, 51746), (11, 51773), (12, 51821),

Gene: Terminus_86 Start: 52447, Stop: 52722, Start Num: 4
Candidate Starts for Terminus_86:
(Start: 4 @52447 has 34 MA's), (Start: 5 @52462 has 92 MA's), (6, 52483), (7, 52516), (10, 52639), (11, 52666), (12, 52714),

Gene: Thimble_84 Start: 50907, Stop: 51167, Start Num: 5
Candidate Starts for Thimble_84:
(Start: 1 @50826 has 2 MA's), (Start: 4 @50892 has 34 MA's), (Start: 5 @50907 has 92 MA's), (6, 50928), (7, 50961), (9, 51075), (10, 51084), (11, 51111), (12, 51159),

Gene: Thresher_85 Start: 52546, Stop: 52806, Start Num: 5
Candidate Starts for Thresher_85:
(Start: 1 @52465 has 2 MA's), (Start: 4 @52531 has 34 MA's), (Start: 5 @52546 has 92 MA's), (6, 52567), (7, 52600), (9, 52714), (10, 52723), (11, 52750), (12, 52798),

Gene: Tomaszewski_78 Start: 50838, Stop: 51098, Start Num: 5
Candidate Starts for Tomaszewski_78:
(Start: 4 @50823 has 34 MA's), (Start: 5 @50838 has 92 MA's), (6, 50859), (7, 50892), (10, 51015), (11, 51042), (12, 51090),

Gene: Toto_81 Start: 51911, Stop: 52186, Start Num: 4
Candidate Starts for Toto_81:
(Start: 1 @51845 has 2 MA's), (Start: 4 @51911 has 34 MA's), (Start: 5 @51926 has 92 MA's), (6, 51947), (7, 51980), (9, 52094), (10, 52103), (11, 52130), (12, 52178),

Gene: Traaww1_79 Start: 51110, Stop: 51370, Start Num: 5
Candidate Starts for Traaww1_79:
(Start: 4 @51095 has 34 MA's), (Start: 5 @51110 has 92 MA's), (6, 51131), (7, 51164), (9, 51278), (10, 51287), (11, 51314), (12, 51362),

Gene: Tuco_84 Start: 52419, Stop: 52694, Start Num: 4
Candidate Starts for Tuco_84:

(Start: 4 @52419 has 34 MA's), (Start: 5 @52434 has 92 MA's), (6, 52455), (7, 52488), (9, 52602), (10, 52611), (11, 52638), (12, 52686),

Gene: Ukulele_78 Start: 50820, Stop: 51080, Start Num: 5
Candidate Starts for Ukulele_78:
(Start: 1 @50739 has 2 MA's), (Start: 4 @50805 has 34 MA's), (Start: 5 @50820 has 92 MA's), (6, 50841), (7, 50874), (9, 50988), (10, 50997), (11, 51024), (12, 51072),

Gene: Wiggin_85 Start: 51511, Stop: 51771, Start Num: 5
Candidate Starts for Wiggin_85:
(Start: 4 @51496 has 34 MA's), (Start: 5 @51511 has 92 MA's), (6, 51532), (7, 51565), (9, 51679), (10, 51688), (11, 51715), (12, 51763),

Gene: Willez_78 Start: 49707, Stop: 49967, Start Num: 5
Candidate Starts for Willez_78:
(Start: 4 @49692 has 34 MA's), (Start: 5 @49707 has 92 MA's), (6, 49728), (7, 49761), (10, 49884), (11, 49911), (12, 49959),

Gene: Xandras_82 Start: 50919, Stop: 51179, Start Num: 5
Candidate Starts for Xandras_82:
(Start: 4 @50904 has 34 MA's), (Start: 5 @50919 has 92 MA's), (6, 50940), (7, 50973), (10, 51096), (11, 51123), (12, 51171),

Gene: YassJohnny_80 Start: 50862, Stop: 51137, Start Num: 4
Candidate Starts for YassJohnny_80:
(Start: 1 @50796 has 2 MA's), (Start: 4 @50862 has 34 MA's), (Start: 5 @50877 has 92 MA's), (6, 50898), (7, 50931), (9, 51045), (10, 51054), (11, 51081), (12, 51129),

Gene: Youngblood_86 Start: 52374, Stop: 52649, Start Num: 4
Candidate Starts for Youngblood_86:
(Start: 4 @52374 has 34 MA's), (Start: 5 @52389 has 92 MA's), (6, 52410), (7, 52443), (10, 52566), (11, 52593), (12, 52641),

Gene: xkcd_86 Start: 52561, Stop: 52836, Start Num: 4
Candidate Starts for xkcd_86:
(Start: 1 @52495 has 2 MA's), (Start: 4 @52561 has 34 MA's), (Start: 5 @52576 has 92 MA's), (6, 52597), (7, 52630), (9, 52744), (10, 52753), (11, 52780), (12, 52828),