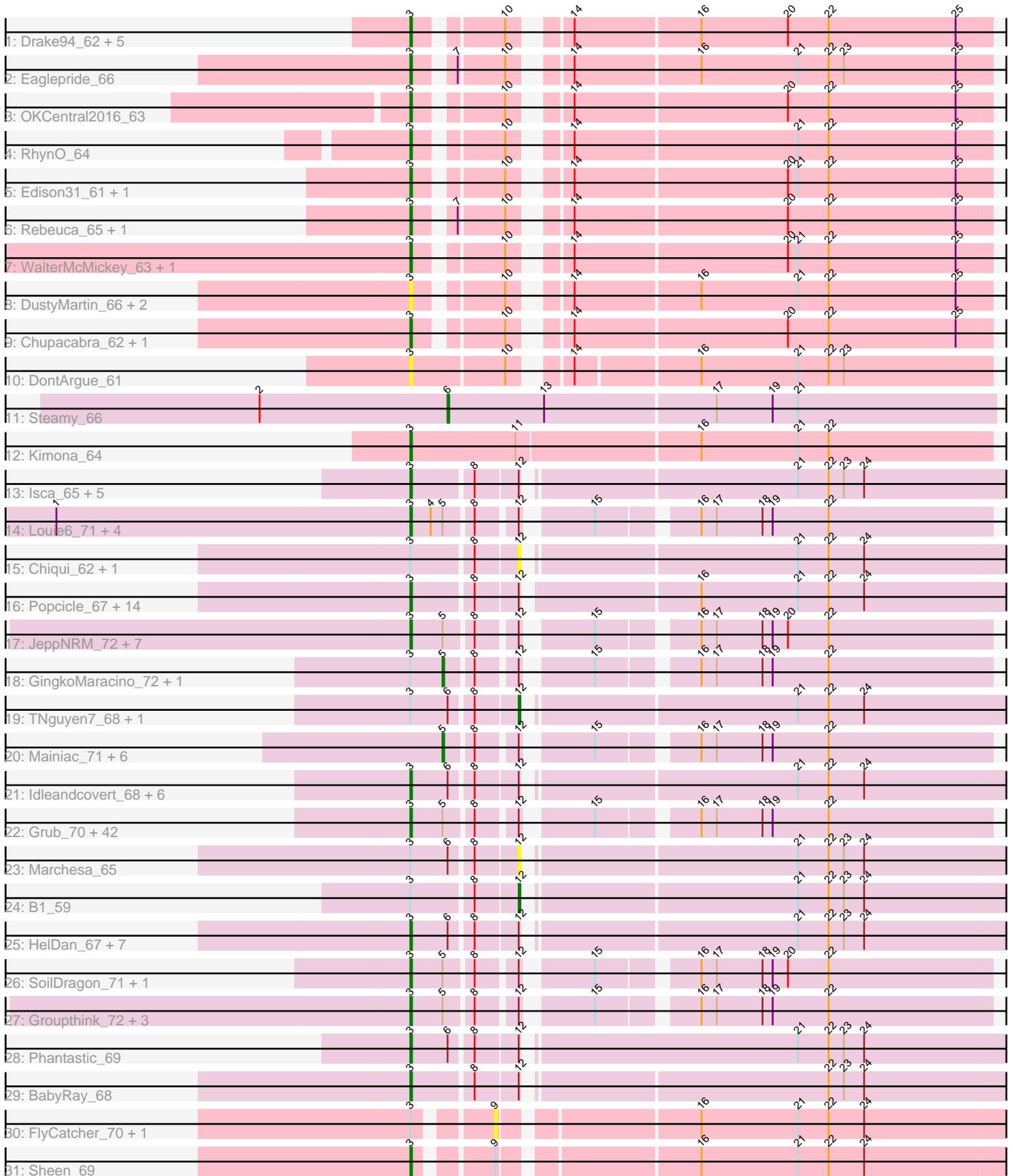# Pham 283580

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 283580 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283580 has 141 members, 18 are drafts.

Phages represented in each track:
• Track 1 : Drake94_62, KittenMittens_61, Poompha_61, PeaceMeal1_62, Severus_62, Trike_61
• Track 2 : Eaglepride_66
• Track 3 : OKCentral2016_63
• Track 4 : RhynO_64
• Track 5 : Edison31_61, Topanga_61
• Track 6 : Rebeuca_65, Kristoff_63
• Track 7 : WalterMcMickey_63, Twister_63
• Track 8 : DustyMartin_66, Rowdy_66, Shapes_66
• Track 9 : Chupacabra_62, Goose_65
• Track 10 : DontArgue_61
• Track 11 : Steamy_66
• Track 12 : Kimona_64
• Track 13 : Isca_65, JF4_65, Rockstar_66, MK4_67, MA5_67, JF2_65
• Track 14 : Louie6_71, Misomonster_73, BuzzBuzz_66, KADY_69, TinyPebbles_71
• Track 15 : Chiqui_62, BabyJohn_62
• Track 16 : Popcicle_67, Caviar_67, Todacoro_67, Panamaxus_65, Texage_65, Pocahontas_66, Lambert1_67, Norbert_63, ResDef_65, QuinnKiro_66, Margo_67, Hookmount_67, Veracruz_64, Noella_67, EtoileNova_65
• Track 17 : JeppNRM_72, HaveUMetTed_72, OlanP_70, PhishRPhriends_68, Gemma_69, Kalb97_72, Manu_71, ACFishhook_69
• Track 18 : GingkoMaracino_72, Gwennie_67
• Track 19 : TNguyen7_68, Puppy_68
• Track 20 : Mainiac_71, Daishi_71, JHC117_68, Sabia_70, MadMarie_70, Dieselweasel_72, Tiffany_71
• Track 21 : Idleandcovert_68, SaturnRing_67, BlueBird_70, Bugatti_67, Clammy_67, Giroux_70, Pistachio_67
• Track 22 : Grub_70, Cullens_72, JenCasNa_73, BreSam8_72, Sabinator_70, Methuselah_65, P28Green_72, Lilith_70, Ollie_72, Pembroke_72, Marie_70, Penny1_72, MoneyMay_71, LugYA_75, Microwolf_68, Watson_71, EpicPhail_73, DaHudson_71, StepMih_71, Fernando_72, Hercules11_72, Taurus_73, AgronaGT15_69, Farber_72, Soshari_74, PGHhamlin_74, Phoxy_72, PotatoSplit_73, Vix_68, Colbster_68, MuchMore_75, Malinsilva_74, MarQuardt_72, Rummer_71, Spike509_72, Grum1_71, Wooldri_74, Anubis_75, LBerry_73, Aglet_73, Beauxregard13_71, SoYo_69, AugsMagnumOpus_75
• Track 23 : Marchesa_65
• Track 24 : B1_59

• Track 25 : HelDan_67, Roimos_65, DropBear_65, Scout_66, Kachowdy_65, Zarafa_65, Fred313_65, Heathen_67
• Track 26 : SoilDragon_71, Jobu08_68
• Track 27 : Groupthink_72, Kalnoky_72, Marius_72, Zetzy_69
• Track 28 : Phantastic_69
• Track 29 : BabyRay_68
• Track 30 : FlyCatcher_70, Toro_68
• Track 31 : Sheen_69

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

The start number called the most often in the published annotations is 3, it was called in 111 of the 123 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ACFishhook_69, Aglet_73, AgronaGT15_69, Anubis_75, AugsMagnumOpus_75, BabyRay_68, Beauxregard13_71, BlueBird_70, BreSam8_72, Bugatti_67, BuzzBuzz_66, Caviar_67, Chupacabra_62, Clammy_67, Colbster_68, Cullens_72, DaHudson_71, DontArgue_61, Drake94_62, DropBear_65, DustyMartin_66, Eaglepride_66, Edison31_61, EpicPhail_73, EtoileNova_65, Farber_72, Fernando_72, Fred313_65, Gemma_69, Giroux_70, Goose_65, Groupthink_72, Grub_70, Grum1_71, HaveUMetTed_72, Heathen_67, HelDan_67, Hercules11_72, Hookmount_67, Idleandcovert_68, Isca_65, JF2_65, JF4_65, JenCasNa_73, JeppNRM_72, Jobu08_68, KADY_69, Kachowdy_65, Kalb97_72, Kalnoky_72, Kimona_64, KittenMittens_61, Kristoff_63, LBerry_73, Lambert1_67, Lilith_70, Louie6_71, LugYA_75, MA5_67, MK4_67, Malinsilva_74, Manu_71, MarQuardt_72, Margo_67, Marie_70, Marius_72, Methuselah_65, Microwolf_68, Misomonster_73, MoneyMay_71, MuchMore_75, Noella_67, Norbert_63, OKCentral2016_63, OlanP_70, Ollie_72, P28Green_72, PGHhamlin_74, Panamaxus_65, PeaceMeal1_62, Pembroke_72, Penny1_72, Phantastic_69, PhishRPhriends_68, Phoxy_72, Pistachio_67, Pocahontas_66, Poompha_61, Popcicle_67, PotatoSplit_73, QuinnKiro_66, Rebeuca_65, ResDef_65, RhynO_64, Rockstar_66, Roimos_65, Rowdy_66, Rummer_71, Sabinator_70, SaturnRing_67, Scout_66, Severus_62, Shapes_66, Sheen_69, SoYo_69, SoilDragon_71, Soshari_74, Spike509_72, StepMih_71, Taurus_73, Texage_65, TinyPebbles_71, Todacoro_67, Topanga_61, Trike_61, Twister_63, Veracruz_64, Vix_68, WalterMcMickey_63, Watson_71, Wooldri_74, Zarafa_65, Zetzy_69,

Genes that have the "Most Annotated" start but do not call it:
• B1_59, BabyJohn_62, Chiqui_62, FlyCatcher_70, GingkoMaracino_72, Gwennie_67, Marchesa_65, Puppy_68, TNguyen7_68, Toro_68,

Genes that do not have the "Most Annotated" start:
• Daishi_71, Dieselweasel_72, JHC117_68, MadMarie_70, Mainiac_71, Sabia_70, Steamy_66, Tiffany_71,

Summary by start number:

Start 3:
• Found in 133 of 141 (94.3%) of genes in pham

- Manual Annotations of this start: 111 of 123
- Called 92.5% of time when present
- Phage (with cluster) where this start called: ACFishhook_69 (A3), Aglet_73 (A3), AgronaGT15_69 (A3), Anubis_75 (A3), AugsMagnumOpus_75 (A3), BabyRay_68 (A3), Beauxregard13_71 (A3), BlueBird_70 (A3), BreSam8_72 (A3), Bugatti_67 (A3), BuzzBuzz_66 (A3), Caviar_67 (A3), Chupacabra_62 (A10), Clammy_67 (A3), Colbster_68 (A3), Cullens_72 (A3), DaHudson_71 (A3), DontArgue_61 (A10), Drake94_62 (A10), DropBear_65 (A3), DustyMartin_66 (A10), Eaglepride_66 (A10), Edison31_61 (A10), EpicPhail_73 (A3), EtoileNova_65 (A3), Farber_72 (A3), Fernando_72 (A3), Fred313_65 (A3), Gemma_69 (A3), Giroux_70 (A3), Goose_65 (A10), Groupthink_72 (A3), Grub_70 (A3), Grum1_71 (A3), HaveUMetTed_72 (A3), Heathen_67 (A3), HelDan_67 (A3), Hercules11_72 (A3), Hookmount_67 (A3), Idleandcovert_68 (A3), Isca_65 (A3), JF2_65 (A3), JF4_65 (A3), JenCasNa_73 (A3), JeppNRM_72 (A3), Jobu08_68 (A3), KADY_69 (A3), Kachowdy_65 (A3), Kalb97_72 (A3), Kalnoky_72 (A3), Kimona_64 (A19), KittenMittens_61 (A10), Kristoff_63 (A10), LBerry_73 (A3), Lambert1_67 (A3), Lilith_70 (A3), Louie6_71 (A3), LugYA_75 (A3), MA5_67 (A3), MK4_67 (A3), Malinsilva_74 (A3), Manu_71 (A3), MarQuardt_72 (A3), Margo_67 (A3), Marie_70 (A3), Marius_72 (A3), Methuselah_65 (A3), Microwolf_68 (A3), Misomonster_73 (A3), MoneyMay_71 (A3), MuchMore_75 (A3), Noella_67 (A3), Norbert_63 (A3), OKCentral2016_63 (A10), OlanP_70 (A3), Ollie_72 (A3), P28Green_72 (A3), PGHhamlin_74 (A3), Panamaxus_65 (A3), PeaceMeal1_62 (A10), Pembroke_72 (A3), Penny1_72 (A3), Phantastic_69 (A3), PhishRPhriends_68 (A3), Phoxy_72 (A3), Pistachio_67 (A3), Pocahontas_66 (A3), Poompha_61 (A10), Popcicle_67 (A3), PotatoSplit_73 (A3), QuinnKiro_66 (A3), Rebeuca_65 (A10), ResDef_65 (A3), RhynO_64 (A10), Rockstar_66 (A3), Roimos_65 (A3), Rowdy_66 (A10), Rummer_71 (A3), Sabinator_70 (A3), SaturnRing_67 (A3), Scout_66 (A3), Severus_62 (A10), Shapes_66 (A10), Sheen_69 (A7), SoYo_69 (A3), SoilDragon_71 (A3), Soshari_74 (A3), Spike509_72 (A3), StepMih_71 (A3), Taurus_73 (A3), Texage_65 (A3), TinyPebbles_71 (A3), Todacoro_67 (A3), Topanga_61 (A10), Trike_61 (A10), Twister_63 (A10), Veracruz_64 (A3), Vix_68 (A3), WalterMcMickey_63 (A10), Watson_71 (A3), Wooldri_74 (A3), Zarafa_65 (A3), Zetzy_69 (A3),

Start 5:
- Found in 71 of 141 (50.4%) of genes in pham
- Manual Annotations of this start: 8 of 123
- Called 12.7% of time when present
- Phage (with cluster) where this start called: Daishi_71 (A3), Dieselweasel_72 (A3), GingkoMaracino_72 (A3), Gwennie_67 (A3), JHC117_68 (A3), MadMarie_70 (A3), Mainiac_71 (A3), Sabia_70 (A3), Tiffany_71 (A3),

Start 6:
- Found in 20 of 141 (14.2%) of genes in pham
- Manual Annotations of this start: 1 of 123
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Steamy_66 (A12),

Start 9:
- Found in 3 of 141 (2.1%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: FlyCatcher_70 (A7), Toro_68 (A7),

Start 12:
• Found in 115 of 141 (81.6%) of genes in pham
• Manual Annotations of this start: 3 of 123
• Called 5.2% of time when present
• Phage (with cluster) where this start called: B1_59 (A3), BabyJohn_62 (A3), Chiqui_62 (A3), Marchesa_65 (A3), Puppy_68 (A3), TNguyen7_68 (A3),

Summary by clusters:

There are 5 clusters represented in this pham: A3, A19, A10, A7, A12,

Info for manual annotations of cluster A10:
•Start number 3 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A12:
•Start number 6 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A19:
•Start number 3 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A3:
•Start number 3 was manually annotated 92 times for cluster A3.
•Start number 5 was manually annotated 8 times for cluster A3.
•Start number 12 was manually annotated 3 times for cluster A3.

Info for manual annotations of cluster A7:
•Start number 3 was manually annotated 1 time for cluster A7.

Gene Information:
Gene: ACFishhook_69 Start: 42330, Stop: 42022, Start Num: 3
Candidate Starts for ACFishhook_69:
(Start: 3 @42330 has 111 MA's), (Start: 5 @42312 has 8 MA's), (8, 42297), (Start: 12 @42276 has 3 MA's), (15, 42243), (16, 42192), (17, 42183), (18, 42156), (19, 42150), (20, 42141), (22, 42117),

Gene: Aglet_73 Start: 42442, Stop: 42134, Start Num: 3
Candidate Starts for Aglet_73:
(Start: 3 @42442 has 111 MA's), (Start: 5 @42424 has 8 MA's), (8, 42409), (Start: 12 @42388 has 3 MA's), (15, 42355), (16, 42304), (17, 42295), (18, 42268), (19, 42262), (22, 42229),

Gene: AgronaGT15_69 Start: 42290, Stop: 41982, Start Num: 3
Candidate Starts for AgronaGT15_69:
(Start: 3 @42290 has 111 MA's), (Start: 5 @42272 has 8 MA's), (8, 42257), (Start: 12 @42236 has 3 MA's), (15, 42203), (16, 42152), (17, 42143), (18, 42116), (19, 42110), (22, 42077),

Gene: Anubis_75 Start: 42328, Stop: 42020, Start Num: 3
Candidate Starts for Anubis_75:
(Start: 3 @42328 has 111 MA's), (Start: 5 @42310 has 8 MA's), (8, 42295), (Start: 12 @42274 has 3 MA's), (15, 42241), (16, 42190), (17, 42181), (18, 42154), (19, 42148), (22, 42115),

Gene: AugsMagnumOpus_75 Start: 42433, Stop: 42125, Start Num: 3

Candidate Starts for AugsMagnumOpus_75:
(Start: 3 @42433 has 111 MA's), (Start: 5 @42415 has 8 MA's), (8, 42400), (Start: 12 @42379 has 3 MA's), (15, 42346), (16, 42295), (17, 42286), (18, 42259), (19, 42253), (22, 42220),

Gene: B1_59 Start: 40295, Stop: 39984, Start Num: 12
Candidate Starts for B1_59:
(Start: 3 @40352 has 111 MA's), (8, 40319), (Start: 12 @40295 has 3 MA's), (21, 40145), (22, 40127), (23, 40118), (24, 40106),

Gene: BabyJohn_62 Start: 42122, Stop: 41811, Start Num: 12
Candidate Starts for BabyJohn_62:
(Start: 3 @42179 has 111 MA's), (8, 42146), (Start: 12 @42122 has 3 MA's), (21, 41972), (22, 41954), (24, 41933),

Gene: BabyRay_68 Start: 42157, Stop: 41789, Start Num: 3
Candidate Starts for BabyRay_68:
(Start: 3 @42157 has 111 MA's), (8, 42124), (Start: 12 @42100 has 3 MA's), (22, 41932), (23, 41923), (24, 41911),

Gene: Beauxregard13_71 Start: 42445, Stop: 42137, Start Num: 3
Candidate Starts for Beauxregard13_71:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: BlueBird_70 Start: 42204, Stop: 41836, Start Num: 3
Candidate Starts for BlueBird_70:
(Start: 3 @42204 has 111 MA's), (Start: 6 @42183 has 1 MA's), (8, 42171), (Start: 12 @42147 has 3 MA's), (21, 41997), (22, 41979), (24, 41958),

Gene: BreSam8_72 Start: 42435, Stop: 42127, Start Num: 3
Candidate Starts for BreSam8_72:
(Start: 3 @42435 has 111 MA's), (Start: 5 @42417 has 8 MA's), (8, 42402), (Start: 12 @42381 has 3 MA's), (15, 42348), (16, 42297), (17, 42288), (18, 42261), (19, 42255), (22, 42222),

Gene: Bugatti_67 Start: 42204, Stop: 41836, Start Num: 3
Candidate Starts for Bugatti_67:
(Start: 3 @42204 has 111 MA's), (Start: 6 @42183 has 1 MA's), (8, 42171), (Start: 12 @42147 has 3 MA's), (21, 41997), (22, 41979), (24, 41958),

Gene: BuzzBuzz_66 Start: 42469, Stop: 42161, Start Num: 3
Candidate Starts for BuzzBuzz_66:
(1, 42676), (Start: 3 @42469 has 111 MA's), (4, 42457), (Start: 5 @42451 has 8 MA's), (8, 42436), (Start: 12 @42415 has 3 MA's), (15, 42382), (16, 42331), (17, 42322), (18, 42295), (19, 42289), (22, 42256),

Gene: Caviar_67 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for Caviar_67:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: Chiqui_62 Start: 42131, Stop: 41820, Start Num: 12
Candidate Starts for Chiqui_62:

(Start: 3 @42188 has 111 MA's), (8, 42155), (Start: 12 @42131 has 3 MA's), (21, 41981), (22, 41963), (24, 41942),

Gene: Chupacabra_62 Start: 41312, Stop: 41004, Start Num: 3
Candidate Starts for Chupacabra_62:
(Start: 3 @41312 has 111 MA's), (10, 41270), (14, 41246), (20, 41123), (22, 41099), (25, 41024),

Gene: Clammy_67 Start: 42204, Stop: 41836, Start Num: 3
Candidate Starts for Clammy_67:
(Start: 3 @42204 has 111 MA's), (Start: 6 @42183 has 1 MA's), (8, 42171), (Start: 12 @42147 has 3 MA's), (21, 41997), (22, 41979), (24, 41958),

Gene: Colbster_68 Start: 42445, Stop: 42137, Start Num: 3
Candidate Starts for Colbster_68:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: Cullens_72 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for Cullens_72:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: DaHudson_71 Start: 42434, Stop: 42126, Start Num: 3
Candidate Starts for DaHudson_71:
(Start: 3 @42434 has 111 MA's), (Start: 5 @42416 has 8 MA's), (8, 42401), (Start: 12 @42380 has 3 MA's), (15, 42347), (16, 42296), (17, 42287), (18, 42260), (19, 42254), (22, 42221),

Gene: Daishi_71 Start: 41292, Stop: 41002, Start Num: 5
Candidate Starts for Daishi_71:
(Start: 5 @41292 has 8 MA's), (8, 41277), (Start: 12 @41256 has 3 MA's), (15, 41223), (16, 41172), (17, 41163), (18, 41136), (19, 41130), (22, 41097),

Gene: Dieselweasel_72 Start: 42426, Stop: 42136, Start Num: 5
Candidate Starts for Dieselweasel_72:
(Start: 5 @42426 has 8 MA's), (8, 42411), (Start: 12 @42390 has 3 MA's), (15, 42357), (16, 42306), (17, 42297), (18, 42270), (19, 42264), (22, 42231),

Gene: DontArgue_61 Start: 40445, Stop: 40131, Start Num: 3
Candidate Starts for DontArgue_61:
(Start: 3 @40445 has 111 MA's), (10, 40394), (14, 40370), (16, 40301), (21, 40244), (22, 40226), (23, 40217),

Gene: Drake94_62 Start: 40387, Stop: 40079, Start Num: 3
Candidate Starts for Drake94_62:
(Start: 3 @40387 has 111 MA's), (10, 40345), (14, 40321), (16, 40249), (20, 40198), (22, 40174), (25, 40099),

Gene: DropBear_65 Start: 42103, Stop: 41738, Start Num: 3
Candidate Starts for DropBear_65:
(Start: 3 @42103 has 111 MA's), (Start: 6 @42082 has 1 MA's), (8, 42070), (Start: 12 @42046 has 3 MA's), (21, 41896), (22, 41878), (23, 41869), (24, 41857),

Gene: DustyMartin_66 Start: 41423, Stop: 41115, Start Num: 3

Candidate Starts for DustyMartin_66:
(Start: 3 @41423 has 111 MA's), (10, 41381), (14, 41357), (16, 41285), (21, 41228), (22, 41210), (25, 41135),

Gene: Eaglepride_66 Start: 41419, Stop: 41111, Start Num: 3
Candidate Starts for Eaglepride_66:
(Start: 3 @41419 has 111 MA's), (7, 41401), (10, 41377), (14, 41353), (16, 41281), (21, 41224), (22, 41206), (23, 41197), (25, 41131),

Gene: Edison31_61 Start: 41187, Stop: 40879, Start Num: 3
Candidate Starts for Edison31_61:
(Start: 3 @41187 has 111 MA's), (10, 41145), (14, 41121), (20, 40998), (21, 40992), (22, 40974), (25, 40899),

Gene: EpicPhail_73 Start: 42445, Stop: 42137, Start Num: 3
Candidate Starts for EpicPhail_73:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: EtoileNova_65 Start: 42164, Stop: 41793, Start Num: 3
Candidate Starts for EtoileNova_65:
(Start: 3 @42164 has 111 MA's), (8, 42131), (Start: 12 @42107 has 3 MA's), (16, 42011), (21, 41954), (22, 41936), (24, 41915),

Gene: Farber_72 Start: 42431, Stop: 42123, Start Num: 3
Candidate Starts for Farber_72:
(Start: 3 @42431 has 111 MA's), (Start: 5 @42413 has 8 MA's), (8, 42398), (Start: 12 @42377 has 3 MA's), (15, 42344), (16, 42293), (17, 42284), (18, 42257), (19, 42251), (22, 42218),

Gene: Fernando_72 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for Fernando_72:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: FlyCatcher_70 Start: 45930, Stop: 45607, Start Num: 9
Candidate Starts for FlyCatcher_70:
(Start: 3 @45966 has 111 MA's), (9, 45930), (16, 45825), (21, 45768), (22, 45750), (24, 45729),

Gene: Fred313_65 Start: 41797, Stop: 41432, Start Num: 3
Candidate Starts for Fred313_65:
(Start: 3 @41797 has 111 MA's), (Start: 6 @41776 has 1 MA's), (8, 41764), (Start: 12 @41740 has 3 MA's), (21, 41590), (22, 41572), (23, 41563), (24, 41551),

Gene: Gemma_69 Start: 42254, Stop: 41946, Start Num: 3
Candidate Starts for Gemma_69:
(Start: 3 @42254 has 111 MA's), (Start: 5 @42236 has 8 MA's), (8, 42221), (Start: 12 @42200 has 3 MA's), (15, 42167), (16, 42116), (17, 42107), (18, 42080), (19, 42074), (20, 42065), (22, 42041),

Gene: GingkoMaracino_72 Start: 42309, Stop: 42019, Start Num: 5
Candidate Starts for GingkoMaracino_72:
(Start: 3 @42327 has 111 MA's), (Start: 5 @42309 has 8 MA's), (8, 42294), (Start: 12 @42273 has 3 MA's), (15, 42240), (16, 42189), (17, 42180), (18, 42153), (19, 42147), (22, 42114),

Gene: Giroux_70 Start: 42203, Stop: 41835, Start Num: 3
Candidate Starts for Giroux_70:
(Start: 3 @42203 has 111 MA's), (Start: 6 @42182 has 1 MA's), (8, 42170), (Start: 12 @42146 has 3 MA's), (21, 41996), (22, 41978), (24, 41957),

Gene: Goose_65 Start: 41128, Stop: 40820, Start Num: 3
Candidate Starts for Goose_65:
(Start: 3 @41128 has 111 MA's), (10, 41086), (14, 41062), (20, 40939), (22, 40915), (25, 40840),

Gene: Groupthink_72 Start: 42258, Stop: 41950, Start Num: 3
Candidate Starts for Groupthink_72:
(Start: 3 @42258 has 111 MA's), (Start: 5 @42240 has 8 MA's), (8, 42225), (Start: 12 @42204 has 3 MA's), (15, 42171), (16, 42120), (17, 42111), (18, 42084), (19, 42078), (22, 42045),

Gene: Grub_70 Start: 42433, Stop: 42125, Start Num: 3
Candidate Starts for Grub_70:
(Start: 3 @42433 has 111 MA's), (Start: 5 @42415 has 8 MA's), (8, 42400), (Start: 12 @42379 has 3 MA's), (15, 42346), (16, 42295), (17, 42286), (18, 42259), (19, 42253), (22, 42220),

Gene: Grum1_71 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for Grum1_71:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: Gwennie_67 Start: 42427, Stop: 42137, Start Num: 5
Candidate Starts for Gwennie_67:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: HaveUMetTed_72 Start: 42243, Stop: 41935, Start Num: 3
Candidate Starts for HaveUMetTed_72:
(Start: 3 @42243 has 111 MA's), (Start: 5 @42225 has 8 MA's), (8, 42210), (Start: 12 @42189 has 3 MA's), (15, 42156), (16, 42105), (17, 42096), (18, 42069), (19, 42063), (20, 42054), (22, 42030),

Gene: Heathen_67 Start: 41892, Stop: 41527, Start Num: 3
Candidate Starts for Heathen_67:
(Start: 3 @41892 has 111 MA's), (Start: 6 @41871 has 1 MA's), (8, 41859), (Start: 12 @41835 has 3 MA's), (21, 41685), (22, 41667), (23, 41658), (24, 41646),

Gene: HelDan_67 Start: 42108, Stop: 41743, Start Num: 3
Candidate Starts for HelDan_67:
(Start: 3 @42108 has 111 MA's), (Start: 6 @42087 has 1 MA's), (8, 42075), (Start: 12 @42051 has 3 MA's), (21, 41901), (22, 41883), (23, 41874), (24, 41862),

Gene: Hercules11_72 Start: 42450, Stop: 42142, Start Num: 3
Candidate Starts for Hercules11_72:
(Start: 3 @42450 has 111 MA's), (Start: 5 @42432 has 8 MA's), (8, 42417), (Start: 12 @42396 has 3 MA's), (15, 42363), (16, 42312), (17, 42303), (18, 42276), (19, 42270), (22, 42237),

Gene: Hookmount_67 Start: 42161, Stop: 41790, Start Num: 3
Candidate Starts for Hookmount_67:
(Start: 3 @42161 has 111 MA's), (8, 42128), (Start: 12 @42104 has 3 MA's), (16, 42008), (21, 41951), (22, 41933), (24, 41912),

Gene: Idleandcovert_68 Start: 42204, Stop: 41836, Start Num: 3
Candidate Starts for Idleandcovert_68:
(Start: 3 @42204 has 111 MA's), (Start: 6 @42183 has 1 MA's), (8, 42171), (Start: 12 @42147 has 3 MA's), (21, 41997), (22, 41979), (24, 41958),

Gene: Isca_65 Start: 41657, Stop: 41289, Start Num: 3
Candidate Starts for Isca_65:
(Start: 3 @41657 has 111 MA's), (8, 41624), (Start: 12 @41600 has 3 MA's), (21, 41450), (22, 41432), (23, 41423), (24, 41411),

Gene: JF2_65 Start: 40352, Stop: 39984, Start Num: 3
Candidate Starts for JF2_65:
(Start: 3 @40352 has 111 MA's), (8, 40319), (Start: 12 @40295 has 3 MA's), (21, 40145), (22, 40127), (23, 40118), (24, 40106),

Gene: JF4_65 Start: 40352, Stop: 39984, Start Num: 3
Candidate Starts for JF4_65:
(Start: 3 @40352 has 111 MA's), (8, 40319), (Start: 12 @40295 has 3 MA's), (21, 40145), (22, 40127), (23, 40118), (24, 40106),

Gene: JHC117_68 Start: 42422, Stop: 42132, Start Num: 5
Candidate Starts for JHC117_68:
(Start: 5 @42422 has 8 MA's), (8, 42407), (Start: 12 @42386 has 3 MA's), (15, 42353), (16, 42302), (17, 42293), (18, 42266), (19, 42260), (22, 42227),

Gene: JenCasNa_73 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for JenCasNa_73:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: JeppNRM_72 Start: 42259, Stop: 41951, Start Num: 3
Candidate Starts for JeppNRM_72:
(Start: 3 @42259 has 111 MA's), (Start: 5 @42241 has 8 MA's), (8, 42226), (Start: 12 @42205 has 3 MA's), (15, 42172), (16, 42121), (17, 42112), (18, 42085), (19, 42079), (20, 42070), (22, 42046),

Gene: Jobu08_68 Start: 42273, Stop: 41965, Start Num: 3
Candidate Starts for Jobu08_68:
(Start: 3 @42273 has 111 MA's), (Start: 5 @42255 has 8 MA's), (8, 42240), (Start: 12 @42219 has 3 MA's), (15, 42186), (16, 42135), (17, 42126), (18, 42099), (19, 42093), (20, 42084), (22, 42060),

Gene: KADY_69 Start: 42469, Stop: 42161, Start Num: 3
Candidate Starts for KADY_69:
(1, 42676), (Start: 3 @42469 has 111 MA's), (4, 42457), (Start: 5 @42451 has 8 MA's), (8, 42436), (Start: 12 @42415 has 3 MA's), (15, 42382), (16, 42331), (17, 42322), (18, 42295), (19, 42289), (22, 42256),

Gene: Kachowdy_65 Start: 42144, Stop: 41779, Start Num: 3
Candidate Starts for Kachowdy_65:
(Start: 3 @42144 has 111 MA's), (Start: 6 @42123 has 1 MA's), (8, 42111), (Start: 12 @42087 has 3 MA's), (21, 41937), (22, 41919), (23, 41910), (24, 41898),

Gene: Kalb97_72 Start: 42257, Stop: 41949, Start Num: 3

Candidate Starts for Kalb97_72:
(Start: 3 @42257 has 111 MA's), (Start: 5 @42239 has 8 MA's), (8, 42224), (Start: 12 @42203 has 3 MA's), (15, 42170), (16, 42119), (17, 42110), (18, 42083), (19, 42077), (20, 42068), (22, 42044),

Gene: Kalnoky_72 Start: 42255, Stop: 41947, Start Num: 3
Candidate Starts for Kalnoky_72:
(Start: 3 @42255 has 111 MA's), (Start: 5 @42237 has 8 MA's), (8, 42222), (Start: 12 @42201 has 3 MA's), (15, 42168), (16, 42117), (17, 42108), (18, 42081), (19, 42075), (22, 42042),

Gene: Kimona_64 Start: 41048, Stop: 40713, Start Num: 3
Candidate Starts for Kimona_64:
(Start: 3 @41048 has 111 MA's), (11, 40988), (16, 40883), (21, 40826), (22, 40808),

Gene: KittenMittens_61 Start: 40395, Stop: 40087, Start Num: 3
Candidate Starts for KittenMittens_61:
(Start: 3 @40395 has 111 MA's), (10, 40353), (14, 40329), (16, 40257), (20, 40206), (22, 40182), (25, 40107),

Gene: Kristoff_63 Start: 41709, Stop: 41401, Start Num: 3
Candidate Starts for Kristoff_63:
(Start: 3 @41709 has 111 MA's), (7, 41691), (10, 41667), (14, 41643), (20, 41520), (22, 41496), (25, 41421),

Gene: LBerry_73 Start: 42445, Stop: 42137, Start Num: 3
Candidate Starts for LBerry_73:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: Lambert1_67 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for Lambert1_67:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: Lilith_70 Start: 42434, Stop: 42126, Start Num: 3
Candidate Starts for Lilith_70:
(Start: 3 @42434 has 111 MA's), (Start: 5 @42416 has 8 MA's), (8, 42401), (Start: 12 @42380 has 3 MA's), (15, 42347), (16, 42296), (17, 42287), (18, 42260), (19, 42254), (22, 42221),

Gene: Louie6_71 Start: 42471, Stop: 42163, Start Num: 3
Candidate Starts for Louie6_71:
(1, 42678), (Start: 3 @42471 has 111 MA's), (4, 42459), (Start: 5 @42453 has 8 MA's), (8, 42438), (Start: 12 @42417 has 3 MA's), (15, 42384), (16, 42333), (17, 42324), (18, 42297), (19, 42291), (22, 42258),

Gene: LugYA_75 Start: 42442, Stop: 42134, Start Num: 3
Candidate Starts for LugYA_75:
(Start: 3 @42442 has 111 MA's), (Start: 5 @42424 has 8 MA's), (8, 42409), (Start: 12 @42388 has 3 MA's), (15, 42355), (16, 42304), (17, 42295), (18, 42268), (19, 42262), (22, 42229),

Gene: MA5_67 Start: 41561, Stop: 41193, Start Num: 3
Candidate Starts for MA5_67:
(Start: 3 @41561 has 111 MA's), (8, 41528), (Start: 12 @41504 has 3 MA's), (21, 41354), (22, 41336), (23, 41327), (24, 41315),

Gene: MK4_67 Start: 41636, Stop: 41268, Start Num: 3
Candidate Starts for MK4_67:
(Start: 3 @41636 has 111 MA's), (8, 41603), (Start: 12 @41579 has 3 MA's), (21, 41429), (22, 41411), (23, 41402), (24, 41390),

Gene: MadMarie_70 Start: 42425, Stop: 42135, Start Num: 5
Candidate Starts for MadMarie_70:
(Start: 5 @42425 has 8 MA's), (8, 42410), (Start: 12 @42389 has 3 MA's), (15, 42356), (16, 42305), (17, 42296), (18, 42269), (19, 42263), (22, 42230),

Gene: Mainiac_71 Start: 42417, Stop: 42127, Start Num: 5
Candidate Starts for Mainiac_71:
(Start: 5 @42417 has 8 MA's), (8, 42402), (Start: 12 @42381 has 3 MA's), (15, 42348), (16, 42297), (17, 42288), (18, 42261), (19, 42255), (22, 42222),

Gene: Malinsilva_74 Start: 42433, Stop: 42125, Start Num: 3
Candidate Starts for Malinsilva_74:
(Start: 3 @42433 has 111 MA's), (Start: 5 @42415 has 8 MA's), (8, 42400), (Start: 12 @42379 has 3 MA's), (15, 42346), (16, 42295), (17, 42286), (18, 42259), (19, 42253), (22, 42220),

Gene: Manu_71 Start: 42258, Stop: 41950, Start Num: 3
Candidate Starts for Manu_71:
(Start: 3 @42258 has 111 MA's), (Start: 5 @42240 has 8 MA's), (8, 42225), (Start: 12 @42204 has 3 MA's), (15, 42171), (16, 42120), (17, 42111), (18, 42084), (19, 42078), (20, 42069), (22, 42045),

Gene: MarQuardt_72 Start: 42443, Stop: 42135, Start Num: 3
Candidate Starts for MarQuardt_72:
(Start: 3 @42443 has 111 MA's), (Start: 5 @42425 has 8 MA's), (8, 42410), (Start: 12 @42389 has 3 MA's), (15, 42356), (16, 42305), (17, 42296), (18, 42269), (19, 42263), (22, 42230),

Gene: Marchesa_65 Start: 42037, Stop: 41729, Start Num: 12
Candidate Starts for Marchesa_65:
(Start: 3 @42094 has 111 MA's), (Start: 6 @42073 has 1 MA's), (8, 42061), (Start: 12 @42037 has 3 MA's), (21, 41887), (22, 41869), (23, 41860), (24, 41848),

Gene: Margo_67 Start: 42186, Stop: 41815, Start Num: 3
Candidate Starts for Margo_67:
(Start: 3 @42186 has 111 MA's), (8, 42153), (Start: 12 @42129 has 3 MA's), (16, 42033), (21, 41976), (22, 41958), (24, 41937),

Gene: Marie_70 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for Marie_70:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: Marius_72 Start: 42255, Stop: 41947, Start Num: 3
Candidate Starts for Marius_72:
(Start: 3 @42255 has 111 MA's), (Start: 5 @42237 has 8 MA's), (8, 42222), (Start: 12 @42201 has 3 MA's), (15, 42168), (16, 42117), (17, 42108), (18, 42081), (19, 42075), (22, 42042),

Gene: Methuselah_65 Start: 42465, Stop: 42157, Start Num: 3
Candidate Starts for Methuselah_65:

(Start: 3 @42465 has 111 MA's), (Start: 5 @42447 has 8 MA's), (8, 42432), (Start: 12 @42411 has 3 MA's), (15, 42378), (16, 42327), (17, 42318), (18, 42291), (19, 42285), (22, 42252),

Gene: Microwolf_68 Start: 42457, Stop: 42149, Start Num: 3
Candidate Starts for Microwolf_68:
(Start: 3 @42457 has 111 MA's), (Start: 5 @42439 has 8 MA's), (8, 42424), (Start: 12 @42403 has 3 MA's), (15, 42370), (16, 42319), (17, 42310), (18, 42283), (19, 42277), (22, 42244),

Gene: Misomonster_73 Start: 42468, Stop: 42160, Start Num: 3
Candidate Starts for Misomonster_73:
(1, 42675), (Start: 3 @42468 has 111 MA's), (4, 42456), (Start: 5 @42450 has 8 MA's), (8, 42435), (Start: 12 @42414 has 3 MA's), (15, 42381), (16, 42330), (17, 42321), (18, 42294), (19, 42288), (22, 42255),

Gene: MoneyMay_71 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for MoneyMay_71:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: MuchMore_75 Start: 42433, Stop: 42125, Start Num: 3
Candidate Starts for MuchMore_75:
(Start: 3 @42433 has 111 MA's), (Start: 5 @42415 has 8 MA's), (8, 42400), (Start: 12 @42379 has 3 MA's), (15, 42346), (16, 42295), (17, 42286), (18, 42259), (19, 42253), (22, 42220),

Gene: Noella_67 Start: 42161, Stop: 41790, Start Num: 3
Candidate Starts for Noella_67:
(Start: 3 @42161 has 111 MA's), (8, 42128), (Start: 12 @42104 has 3 MA's), (16, 42008), (21, 41951), (22, 41933), (24, 41912),

Gene: Norbert_63 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for Norbert_63:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: OKCentral2016_63 Start: 40871, Stop: 40563, Start Num: 3
Candidate Starts for OKCentral2016_63:
(Start: 3 @40871 has 111 MA's), (10, 40829), (14, 40805), (20, 40682), (22, 40658), (25, 40583),

Gene: OlanP_70 Start: 42431, Stop: 42123, Start Num: 3
Candidate Starts for OlanP_70:
(Start: 3 @42431 has 111 MA's), (Start: 5 @42413 has 8 MA's), (8, 42398), (Start: 12 @42377 has 3 MA's), (15, 42344), (16, 42293), (17, 42284), (18, 42257), (19, 42251), (20, 42242), (22, 42218),

Gene: Ollie_72 Start: 42312, Stop: 42004, Start Num: 3
Candidate Starts for Ollie_72:
(Start: 3 @42312 has 111 MA's), (Start: 5 @42294 has 8 MA's), (8, 42279), (Start: 12 @42258 has 3 MA's), (15, 42225), (16, 42174), (17, 42165), (18, 42138), (19, 42132), (22, 42099),

Gene: P28Green_72 Start: 42444, Stop: 42136, Start Num: 3
Candidate Starts for P28Green_72:
(Start: 3 @42444 has 111 MA's), (Start: 5 @42426 has 8 MA's), (8, 42411), (Start: 12 @42390 has 3 MA's), (15, 42357), (16, 42306), (17, 42297), (18, 42270), (19, 42264), (22, 42231),

Gene: PGHhamlin_74 Start: 42433, Stop: 42125, Start Num: 3
Candidate Starts for PGHhamlin_74:
(Start: 3 @42433 has 111 MA's), (Start: 5 @42415 has 8 MA's), (8, 42400), (Start: 12 @42379 has 3 MA's), (15, 42346), (16, 42295), (17, 42286), (18, 42259), (19, 42253), (22, 42220),

Gene: Panamaxus_65 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for Panamaxus_65:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: PeaceMeal1_62 Start: 40396, Stop: 40088, Start Num: 3
Candidate Starts for PeaceMeal1_62:
(Start: 3 @40396 has 111 MA's), (10, 40354), (14, 40330), (16, 40258), (20, 40207), (22, 40183), (25, 40108),

Gene: Pembroke_72 Start: 42442, Stop: 42134, Start Num: 3
Candidate Starts for Pembroke_72:
(Start: 3 @42442 has 111 MA's), (Start: 5 @42424 has 8 MA's), (8, 42409), (Start: 12 @42388 has 3 MA's), (15, 42355), (16, 42304), (17, 42295), (18, 42268), (19, 42262), (22, 42229),

Gene: Penny1_72 Start: 42445, Stop: 42137, Start Num: 3
Candidate Starts for Penny1_72:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: Phantastic_69 Start: 41822, Stop: 41451, Start Num: 3
Candidate Starts for Phantastic_69:
(Start: 3 @41822 has 111 MA's), (Start: 6 @41801 has 1 MA's), (8, 41789), (Start: 12 @41765 has 3 MA's), (21, 41612), (22, 41594), (23, 41585), (24, 41573),

Gene: PhishRPhriends_68 Start: 41439, Stop: 41131, Start Num: 3
Candidate Starts for PhishRPhriends_68:
(Start: 3 @41439 has 111 MA's), (Start: 5 @41421 has 8 MA's), (8, 41406), (Start: 12 @41385 has 3 MA's), (15, 41352), (16, 41301), (17, 41292), (18, 41265), (19, 41259), (20, 41250), (22, 41226),

Gene: Phoxy_72 Start: 42466, Stop: 42158, Start Num: 3
Candidate Starts for Phoxy_72:
(Start: 3 @42466 has 111 MA's), (Start: 5 @42448 has 8 MA's), (8, 42433), (Start: 12 @42412 has 3 MA's), (15, 42379), (16, 42328), (17, 42319), (18, 42292), (19, 42286), (22, 42253),

Gene: Pistachio_67 Start: 41751, Stop: 41383, Start Num: 3
Candidate Starts for Pistachio_67:
(Start: 3 @41751 has 111 MA's), (Start: 6 @41730 has 1 MA's), (8, 41718), (Start: 12 @41694 has 3 MA's), (21, 41544), (22, 41526), (24, 41505),

Gene: Pocahontas_66 Start: 42157, Stop: 41786, Start Num: 3
Candidate Starts for Pocahontas_66:
(Start: 3 @42157 has 111 MA's), (8, 42124), (Start: 12 @42100 has 3 MA's), (16, 42004), (21, 41947), (22, 41929), (24, 41908),

Gene: Poompha_61 Start: 40394, Stop: 40086, Start Num: 3
Candidate Starts for Poompha_61:

(Start: 3 @40394 has 111 MA's), (10, 40352), (14, 40328), (16, 40256), (20, 40205), (22, 40181), (25, 40106),

Gene: Popcicle_67 Start: 42157, Stop: 41786, Start Num: 3
Candidate Starts for Popcicle_67:
(Start: 3 @42157 has 111 MA's), (8, 42124), (Start: 12 @42100 has 3 MA's), (16, 42004), (21, 41947), (22, 41929), (24, 41908),

Gene: PotatoSplit_73 Start: 42445, Stop: 42137, Start Num: 3
Candidate Starts for PotatoSplit_73:
(Start: 3 @42445 has 111 MA's), (Start: 5 @42427 has 8 MA's), (8, 42412), (Start: 12 @42391 has 3 MA's), (15, 42358), (16, 42307), (17, 42298), (18, 42271), (19, 42265), (22, 42232),

Gene: Puppy_68 Start: 41766, Stop: 41455, Start Num: 12
Candidate Starts for Puppy_68:
(Start: 3 @41823 has 111 MA's), (Start: 6 @41802 has 1 MA's), (8, 41790), (Start: 12 @41766 has 3 MA's), (21, 41616), (22, 41598), (24, 41577),

Gene: QuinnKiro_66 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for QuinnKiro_66:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: Rebeuca_65 Start: 41710, Stop: 41402, Start Num: 3
Candidate Starts for Rebeuca_65:
(Start: 3 @41710 has 111 MA's), (7, 41692), (10, 41668), (14, 41644), (20, 41521), (22, 41497), (25, 41422),

Gene: ResDef_65 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for ResDef_65:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: RhynO_64 Start: 41351, Stop: 41043, Start Num: 3
Candidate Starts for RhynO_64:
(Start: 3 @41351 has 111 MA's), (10, 41309), (14, 41285), (21, 41156), (22, 41138), (25, 41063),

Gene: Rockstar_66 Start: 41645, Stop: 41277, Start Num: 3
Candidate Starts for Rockstar_66:
(Start: 3 @41645 has 111 MA's), (8, 41612), (Start: 12 @41588 has 3 MA's), (21, 41438), (22, 41420), (23, 41411), (24, 41399),

Gene: Roimos_65 Start: 42024, Stop: 41659, Start Num: 3
Candidate Starts for Roimos_65:
(Start: 3 @42024 has 111 MA's), (Start: 6 @42003 has 1 MA's), (8, 41991), (Start: 12 @41967 has 3 MA's), (21, 41817), (22, 41799), (23, 41790), (24, 41778),

Gene: Rowdy_66 Start: 41423, Stop: 41115, Start Num: 3
Candidate Starts for Rowdy_66:
(Start: 3 @41423 has 111 MA's), (10, 41381), (14, 41357), (16, 41285), (21, 41228), (22, 41210), (25, 41135),

Gene: Rummer_71 Start: 42469, Stop: 42161, Start Num: 3

Candidate Starts for Rummer_71:
(Start: 3 @42469 has 111 MA's), (Start: 5 @42451 has 8 MA's), (8, 42436), (Start: 12 @42415 has 3 MA's), (15, 42382), (16, 42331), (17, 42322), (18, 42295), (19, 42289), (22, 42256),

Gene: Sabia_70 Start: 42432, Stop: 42142, Start Num: 5
Candidate Starts for Sabia_70:
(Start: 5 @42432 has 8 MA's), (8, 42417), (Start: 12 @42396 has 3 MA's), (15, 42363), (16, 42312), (17, 42303), (18, 42276), (19, 42270), (22, 42237),

Gene: Sabinator_70 Start: 42440, Stop: 42132, Start Num: 3
Candidate Starts for Sabinator_70:
(Start: 3 @42440 has 111 MA's), (Start: 5 @42422 has 8 MA's), (8, 42407), (Start: 12 @42386 has 3 MA's), (15, 42353), (16, 42302), (17, 42293), (18, 42266), (19, 42260), (22, 42227),

Gene: SaturnRing_67 Start: 42204, Stop: 41836, Start Num: 3
Candidate Starts for SaturnRing_67:
(Start: 3 @42204 has 111 MA's), (Start: 6 @42183 has 1 MA's), (8, 42171), (Start: 12 @42147 has 3 MA's), (21, 41997), (22, 41979), (24, 41958),

Gene: Scout_66 Start: 41355, Stop: 40990, Start Num: 3
Candidate Starts for Scout_66:
(Start: 3 @41355 has 111 MA's), (Start: 6 @41334 has 1 MA's), (8, 41322), (Start: 12 @41298 has 3 MA's), (21, 41148), (22, 41130), (23, 41121), (24, 41109),

Gene: Severus_62 Start: 40394, Stop: 40086, Start Num: 3
Candidate Starts for Severus_62:
(Start: 3 @40394 has 111 MA's), (10, 40352), (14, 40328), (16, 40256), (20, 40205), (22, 40181), (25, 40106),

Gene: Shapes_66 Start: 41423, Stop: 41115, Start Num: 3
Candidate Starts for Shapes_66:
(Start: 3 @41423 has 111 MA's), (10, 41381), (14, 41357), (16, 41285), (21, 41228), (22, 41210), (25, 41135),

Gene: Sheen_69 Start: 45854, Stop: 45495, Start Num: 3
Candidate Starts for Sheen_69:
(Start: 3 @45854 has 111 MA's), (9, 45818), (16, 45713), (21, 45656), (22, 45638), (24, 45617),

Gene: SoYo_69 Start: 42353, Stop: 42045, Start Num: 3
Candidate Starts for SoYo_69:
(Start: 3 @42353 has 111 MA's), (Start: 5 @42335 has 8 MA's), (8, 42320), (Start: 12 @42299 has 3 MA's), (15, 42266), (16, 42215), (17, 42206), (18, 42179), (19, 42173), (22, 42140),

Gene: SoilDragon_71 Start: 41889, Stop: 41581, Start Num: 3
Candidate Starts for SoilDragon_71:
(Start: 3 @41889 has 111 MA's), (Start: 5 @41871 has 8 MA's), (8, 41856), (Start: 12 @41835 has 3 MA's), (15, 41802), (16, 41751), (17, 41742), (18, 41715), (19, 41709), (20, 41700), (22, 41676),

Gene: Soshari_74 Start: 42465, Stop: 42157, Start Num: 3
Candidate Starts for Soshari_74:
(Start: 3 @42465 has 111 MA's), (Start: 5 @42447 has 8 MA's), (8, 42432), (Start: 12 @42411 has 3 MA's), (15, 42378), (16, 42327), (17, 42318), (18, 42291), (19, 42285), (22, 42252),

Gene: Spike509_72 Start: 42466, Stop: 42158, Start Num: 3
Candidate Starts for Spike509_72:
(Start: 3 @42466 has 111 MA's), (Start: 5 @42448 has 8 MA's), (8, 42433), (Start: 12 @42412 has 3 MA's), (15, 42379), (16, 42328), (17, 42319), (18, 42292), (19, 42286), (22, 42253),

Gene: Steamy_66 Start: 42070, Stop: 41750, Start Num: 6
Candidate Starts for Steamy_66:
(2, 42181), (Start: 6 @42070 has 1 MA's), (13, 42013), (17, 41914), (19, 41881), (21, 41866),

Gene: StepMih_71 Start: 42435, Stop: 42127, Start Num: 3
Candidate Starts for StepMih_71:
(Start: 3 @42435 has 111 MA's), (Start: 5 @42417 has 8 MA's), (8, 42402), (Start: 12 @42381 has 3 MA's), (15, 42348), (16, 42297), (17, 42288), (18, 42261), (19, 42255), (22, 42222),

Gene: TNguyen7_68 Start: 42107, Stop: 41796, Start Num: 12
Candidate Starts for TNguyen7_68:
(Start: 3 @42164 has 111 MA's), (Start: 6 @42143 has 1 MA's), (8, 42131), (Start: 12 @42107 has 3 MA's), (21, 41957), (22, 41939), (24, 41918),

Gene: Taurus_73 Start: 42441, Stop: 42133, Start Num: 3
Candidate Starts for Taurus_73:
(Start: 3 @42441 has 111 MA's), (Start: 5 @42423 has 8 MA's), (8, 42408), (Start: 12 @42387 has 3 MA's), (15, 42354), (16, 42303), (17, 42294), (18, 42267), (19, 42261), (22, 42228),

Gene: Texage_65 Start: 42161, Stop: 41790, Start Num: 3
Candidate Starts for Texage_65:
(Start: 3 @42161 has 111 MA's), (8, 42128), (Start: 12 @42104 has 3 MA's), (16, 42008), (21, 41951), (22, 41933), (24, 41912),

Gene: Tiffany_71 Start: 42309, Stop: 42019, Start Num: 5
Candidate Starts for Tiffany_71:
(Start: 5 @42309 has 8 MA's), (8, 42294), (Start: 12 @42273 has 3 MA's), (15, 42240), (16, 42189), (17, 42180), (18, 42153), (19, 42147), (22, 42114),

Gene: TinyPebbles_71 Start: 42471, Stop: 42163, Start Num: 3
Candidate Starts for TinyPebbles_71:
(1, 42678), (Start: 3 @42471 has 111 MA's), (4, 42459), (Start: 5 @42453 has 8 MA's), (8, 42438), (Start: 12 @42417 has 3 MA's), (15, 42384), (16, 42333), (17, 42324), (18, 42297), (19, 42291), (22, 42258),

Gene: Todacoro_67 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for Todacoro_67:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: Topanga_61 Start: 41190, Stop: 40882, Start Num: 3
Candidate Starts for Topanga_61:
(Start: 3 @41190 has 111 MA's), (10, 41148), (14, 41124), (20, 41001), (21, 40995), (22, 40977), (25, 40902),

Gene: Toro_68 Start: 45930, Stop: 45607, Start Num: 9
Candidate Starts for Toro_68:
(Start: 3 @45966 has 111 MA's), (9, 45930), (16, 45825), (21, 45768), (22, 45750), (24, 45729),

Gene: Trike_61 Start: 40401, Stop: 40093, Start Num: 3
Candidate Starts for Trike_61:
(Start: 3 @40401 has 111 MA's), (10, 40359), (14, 40335), (16, 40263), (20, 40212), (22, 40188), (25, 40113),

Gene: Twister_63 Start: 41311, Stop: 41003, Start Num: 3
Candidate Starts for Twister_63:
(Start: 3 @41311 has 111 MA's), (10, 41269), (14, 41245), (20, 41122), (21, 41116), (22, 41098), (25, 41023),

Gene: Veracruz_64 Start: 42160, Stop: 41789, Start Num: 3
Candidate Starts for Veracruz_64:
(Start: 3 @42160 has 111 MA's), (8, 42127), (Start: 12 @42103 has 3 MA's), (16, 42007), (21, 41950), (22, 41932), (24, 41911),

Gene: Vix_68 Start: 42524, Stop: 42216, Start Num: 3
Candidate Starts for Vix_68:
(Start: 3 @42524 has 111 MA's), (Start: 5 @42506 has 8 MA's), (8, 42491), (Start: 12 @42470 has 3 MA's), (15, 42437), (16, 42386), (17, 42377), (18, 42350), (19, 42344), (22, 42311),

Gene: WalterMcMickey_63 Start: 41311, Stop: 41003, Start Num: 3
Candidate Starts for WalterMcMickey_63:
(Start: 3 @41311 has 111 MA's), (10, 41269), (14, 41245), (20, 41122), (21, 41116), (22, 41098), (25, 41023),

Gene: Watson_71 Start: 42433, Stop: 42125, Start Num: 3
Candidate Starts for Watson_71:
(Start: 3 @42433 has 111 MA's), (Start: 5 @42415 has 8 MA's), (8, 42400), (Start: 12 @42379 has 3 MA's), (15, 42346), (16, 42295), (17, 42286), (18, 42259), (19, 42253), (22, 42220),

Gene: Wooldri_74 Start: 42353, Stop: 42045, Start Num: 3
Candidate Starts for Wooldri_74:
(Start: 3 @42353 has 111 MA's), (Start: 5 @42335 has 8 MA's), (8, 42320), (Start: 12 @42299 has 3 MA's), (15, 42266), (16, 42215), (17, 42206), (18, 42179), (19, 42173), (22, 42140),

Gene: Zarafa_65 Start: 42117, Stop: 41752, Start Num: 3
Candidate Starts for Zarafa_65:
(Start: 3 @42117 has 111 MA's), (Start: 6 @42096 has 1 MA's), (8, 42084), (Start: 12 @42060 has 3 MA's), (21, 41910), (22, 41892), (23, 41883), (24, 41871),

Gene: Zetzy_69 Start: 42004, Stop: 41696, Start Num: 3
Candidate Starts for Zetzy_69:
(Start: 3 @42004 has 111 MA's), (Start: 5 @41986 has 8 MA's), (8, 41971), (Start: 12 @41950 has 3 MA's), (15, 41917), (16, 41866), (17, 41857), (18, 41830), (19, 41824), (22, 41791),