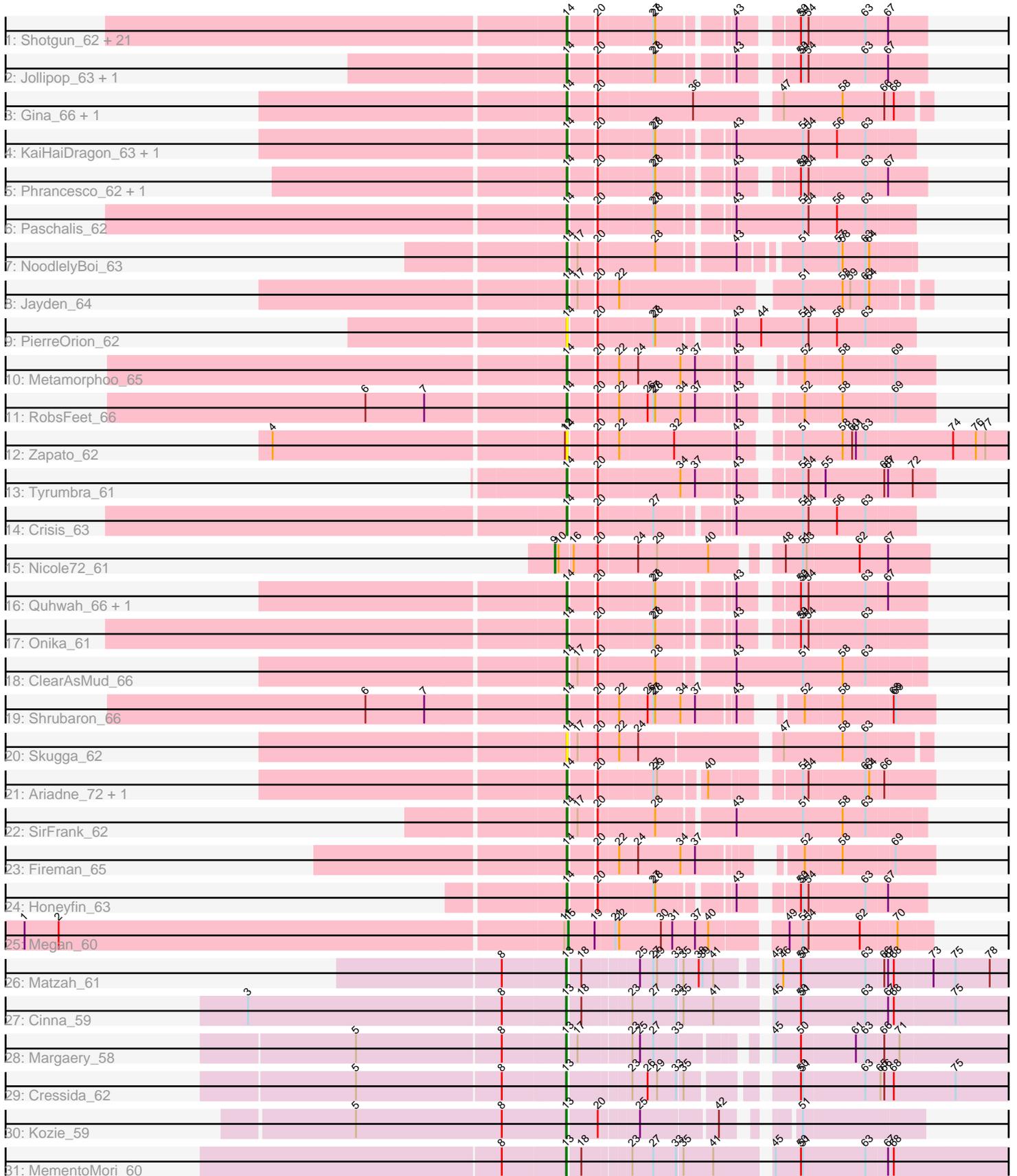


Pham 289431



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 289431 Report

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

Pham number 289431 has 58 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Shotgun_62, Hermeonysus_62, Rockwell_61, PhedwardCullen_60, Savannah_61, Busephilis_61, Lucretia_62, Phorgeous_62, Jefe_62, Ganandorf_61, Selwyn23_63, Scumberland_64, BeagleBug_61, Yeti_64, CrazyRich_61, Ramiel05_61, LittleFortune_64, Cranjjs_63, PiperSansNom_63, Antares_62, Kowalski_61, BrazzalePHS_61
- Track 2 : Jollipop_63, Piperis_63
- Track 3 : Gina_66, Teamocil_66
- Track 4 : KaiHaiDragon_63, EarickHC_63
- Track 5 : Phrancesco_62, Pulchra_64
- Track 6 : Paschalis_62
- Track 7 : NoodlelyBoi_63
- Track 8 : Jayden_64
- Track 9 : PierreOrion_62
- Track 10 : Metamorphoo_65
- Track 11 : RobsFeet_66
- Track 12 : Zapato_62
- Track 13 : Tyumbra_61
- Track 14 : Crisis_63
- Track 15 : Nicole72_61
- Track 16 : Quhwah_66, Glorp_63
- Track 17 : Onika_61
- Track 18 : ClearAsMud_66
- Track 19 : Shrubaron_66
- Track 20 : Skugga_62
- Track 21 : Ariadne_72, Smarties_72
- Track 22 : SirFrank_62
- Track 23 : Fireman_65
- Track 24 : Honeyfin_63
- Track 25 : Megan_60
- Track 26 : Matzah_61
- Track 27 : Cinna_59
- Track 28 : Margaery_58
- Track 29 : Cressida_62
- Track 30 : Kozie_59
- Track 31 : MementoMori_60

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

The start number called the most often in the published annotations is 14, it was called in 43 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_62, Ariadne_72, BeagleBug_61, BrazzalePHS_61, Busephilis_61, ClearAsMud_66, Cranjjs_63, CrazyRich_61, Crisis_63, EarickHC_63, Fireman_65, Ganandorf_61, Gina_66, Glorp_63, Hermeonysus_62, Honeyfin_63, Jayden_64, Jefe_62, Jollipop_63, KaiHaiDragon_63, Kowalski_61, LittleFortune_64, Lucretia_62, Metamorphoo_65, NoodlelyBoi_63, Onika_61, Paschalis_62, PhedwardCullen_60, Phorgeous_62, Phrancesco_62, PierreOrion_62, PiperSansNom_63, Piperis_63, Pulchra_64, Quhwah_66, Ramiel05_61, RobsFeet_66, Rockwell_61, Savannah_61, Scumberland_64, Selwyn23_63, Shotgun_62, Shrubaron_66, SirFrank_62, Skugga_62, Smarties_72, Teamocil_66, Tyrumbra_61, Yeti_64, Zapato_62,

Genes that have the "Most Annotated" start but do not call it:

-

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

- Cinna_59, Cressida_62, Kozi_59, Margaery_58, Matzah_61, Megan_60, MementoMori_60, Nicole72_61,

Summary by start number:

Start 9:

- Found in 1 of 58 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nicole72_61 (EC),

Start 13:

- Found in 6 of 58 (10.3%) of genes in pham
- Manual Annotations of this start: 6 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cinna_59 (EI), Cressida_62 (EI), Kozi_59 (EI), Margaery_58 (EI), Matzah_61 (EI), MementoMori_60 (EI),

Start 14:

- Found in 50 of 58 (86.2%) of genes in pham
- Manual Annotations of this start: 43 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_62 (EC), Ariadne_72 (EC), BeagleBug_61 (EC), BrazzalePHS_61 (EC), Busephilis_61 (EC), ClearAsMud_66 (EC), Cranjjs_63 (EC), CrazyRich_61 (EC), Crisis_63 (EC), EarickHC_63 (EC), Fireman_65 (EC), Ganandorf_61 (EC), Gina_66 (EC), Glorp_63 (EC), Hermeonysus_62 (EC), Honeyfin_63 (EC), Jayden_64 (EC), Jefe_62 (EC), Jollipop_63 (EC), KaiHaiDragon_63 (EC), Kowalski_61 (EC), LittleFortune_64 (EC), Lucretia_62 (EC), Metamorphoo_65 (EC), NoodlelyBoi_63 (EC), Onika_61 (EC), Paschalis_62 (EC), PhedwardCullen_60 (EC), Phorgeous_62 (EC), Phrancesco_62 (EC), PierreOrion_62 (EC), PiperSansNom_63 (EC), Piperis_63 (EC), Pulchra_64 (EC), Quhwah_66 (EC), Ramiel05_61 (EC), RobsFeet_66 (EC), Rockwell_61 (EC),

Savannah_61 (EC), Scumberland_64 (EC), Selwyn23_63 (EC), Shotgun_62 (EC), Shrubaron_66 (EC), SirFrank_62 (EC), Skugga_62 (EC), Smarties_72 (EC), Teamocil_66 (EC), Tyrumbra_61 (EC), Yeti_64 (EC), Zapato_62 (EC),

Start 15:

- Found in 1 of 58 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan_60 (EC),

Summary by clusters:

There are 2 clusters represented in this pham: EI, EC,

Info for manual annotations of cluster EC:

- Start number 9 was manually annotated 1 time for cluster EC.
- Start number 14 was manually annotated 43 times for cluster EC.
- Start number 15 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EI:

- Start number 13 was manually annotated 6 times for cluster EI.

Gene Information:

Gene: Antares_62 Start: 40177, Stop: 40647, Start Num: 14

Candidate Starts for Antares_62:

(Start: 14 @40177 has 43 MA's), (20, 40213), (27, 40291), (28, 40294), (43, 40390), (50, 40459), (51, 40462), (54, 40471), (63, 40558), (67, 40591),

Gene: Ariadne_72 Start: 41766, Stop: 42257, Start Num: 14

Candidate Starts for Ariadne_72:

(Start: 14 @41766 has 43 MA's), (20, 41802), (27, 41880), (29, 41886), (40, 41949), (51, 42060), (54, 42069), (63, 42156), (64, 42162), (66, 42183),

Gene: BeagleBug_61 Start: 39957, Stop: 40427, Start Num: 14

Candidate Starts for BeagleBug_61:

(Start: 14 @39957 has 43 MA's), (20, 39993), (27, 40071), (28, 40074), (43, 40170), (50, 40239), (51, 40242), (54, 40251), (63, 40338), (67, 40371),

Gene: BrazzalePHS_61 Start: 39939, Stop: 40409, Start Num: 14

Candidate Starts for BrazzalePHS_61:

(Start: 14 @39939 has 43 MA's), (20, 39975), (27, 40053), (28, 40056), (43, 40152), (50, 40221), (51, 40224), (54, 40233), (63, 40320), (67, 40353),

Gene: Busephilis_61 Start: 39884, Stop: 40354, Start Num: 14

Candidate Starts for Busephilis_61:

(Start: 14 @39884 has 43 MA's), (20, 39920), (27, 39998), (28, 40001), (43, 40097), (50, 40166), (51, 40169), (54, 40178), (63, 40265), (67, 40298),

Gene: Cinna_59 Start: 40705, Stop: 41343, Start Num: 13

Candidate Starts for Cinna_59:

(3, 40216), (8, 40612), (Start: 13 @40705 has 6 MA's), (18, 40723), (23, 40786), (27, 40819), (33, 40855), (35, 40861), (41, 40906), (45, 40981), (50, 41020), (51, 41023), (63, 41122), (67, 41155), (68, 41161), (75, 41251),

Gene: ClearAsMud_66 Start: 40425, Stop: 40937, Start Num: 14

Candidate Starts for ClearAsMud_66:

(Start: 14 @40425 has 43 MA's), (17, 40437), (20, 40461), (28, 40545), (43, 40650), (51, 40752), (58, 40815), (63, 40851),

Gene: Cranjjs_63 Start: 40132, Stop: 40602, Start Num: 14

Candidate Starts for Cranjjs_63:

(Start: 14 @40132 has 43 MA's), (20, 40168), (27, 40246), (28, 40249), (43, 40345), (50, 40414), (51, 40417), (54, 40426), (63, 40513), (67, 40546),

Gene: CrazyRich_61 Start: 39941, Stop: 40411, Start Num: 14

Candidate Starts for CrazyRich_61:

(Start: 14 @39941 has 43 MA's), (20, 39977), (27, 40055), (28, 40058), (43, 40154), (50, 40223), (51, 40226), (54, 40235), (63, 40322), (67, 40355),

Gene: Cressida_62 Start: 40331, Stop: 40948, Start Num: 13

Candidate Starts for Cressida_62:

(5, 40013), (8, 40238), (Start: 13 @40331 has 6 MA's), (23, 40412), (26, 40436), (29, 40451), (33, 40481), (35, 40487), (50, 40622), (51, 40625), (63, 40721), (65, 40745), (66, 40751), (68, 40766), (75, 40856),

Gene: Crisis_63 Start: 39932, Stop: 40417, Start Num: 14

Candidate Starts for Crisis_63:

(Start: 14 @39932 has 43 MA's), (20, 39968), (27, 40046), (43, 40145), (51, 40247), (54, 40256), (56, 40301), (63, 40346),

Gene: EarickHC_63 Start: 39854, Stop: 40339, Start Num: 14

Candidate Starts for EarickHC_63:

(Start: 14 @39854 has 43 MA's), (20, 39890), (27, 39968), (28, 39971), (43, 40067), (51, 40169), (54, 40178), (56, 40223), (63, 40268),

Gene: Fireman_65 Start: 41845, Stop: 42327, Start Num: 14

Candidate Starts for Fireman_65:

(Start: 14 @41845 has 43 MA's), (20, 41881), (22, 41908), (24, 41935), (34, 42001), (37, 42022), (52, 42133), (58, 42190), (69, 42268),

Gene: Ganandorf_61 Start: 39965, Stop: 40435, Start Num: 14

Candidate Starts for Ganandorf_61:

(Start: 14 @39965 has 43 MA's), (20, 40001), (27, 40079), (28, 40082), (43, 40178), (50, 40247), (51, 40250), (54, 40259), (63, 40346), (67, 40379),

Gene: Gina_66 Start: 39934, Stop: 40446, Start Num: 14

Candidate Starts for Gina_66:

(Start: 14 @39934 has 43 MA's), (20, 39970), (36, 40111), (47, 40228), (58, 40321), (66, 40384), (68, 40396),

Gene: Glorp_63 Start: 39932, Stop: 40402, Start Num: 14

Candidate Starts for Glorp_63:

(Start: 14 @39932 has 43 MA's), (20, 39968), (27, 40046), (28, 40049), (43, 40145), (50, 40214), (51, 40217), (54, 40226), (63, 40313), (67, 40346),

Gene: Hermeonysus_62 Start: 39860, Stop: 40330, Start Num: 14

Candidate Starts for Hermeonysus_62:

(Start: 14 @39860 has 43 MA's), (20, 39896), (27, 39974), (28, 39977), (43, 40073), (50, 40142), (51, 40145), (54, 40154), (63, 40241), (67, 40274),

Gene: Honeyfin_63 Start: 40120, Stop: 40590, Start Num: 14

Candidate Starts for Honeyfin_63:

(Start: 14 @40120 has 43 MA's), (20, 40156), (27, 40234), (28, 40237), (43, 40333), (50, 40402), (51, 40405), (54, 40414), (63, 40501), (67, 40534),

Gene: Jayden_64 Start: 40604, Stop: 41095, Start Num: 14

Candidate Starts for Jayden_64:

(Start: 14 @40604 has 43 MA's), (17, 40616), (20, 40640), (22, 40667), (51, 40916), (58, 40979), (59, 40991), (63, 41015), (64, 41021),

Gene: Jefe_62 Start: 39918, Stop: 40388, Start Num: 14

Candidate Starts for Jefe_62:

(Start: 14 @39918 has 43 MA's), (20, 39954), (27, 40032), (28, 40035), (43, 40131), (50, 40200), (51, 40203), (54, 40212), (63, 40299), (67, 40332),

Gene: Jollipop_63 Start: 40300, Stop: 40770, Start Num: 14

Candidate Starts for Jollipop_63:

(Start: 14 @40300 has 43 MA's), (20, 40336), (27, 40414), (28, 40417), (43, 40513), (50, 40582), (51, 40585), (54, 40594), (63, 40681), (67, 40714),

Gene: KaiHaiDragon_63 Start: 39854, Stop: 40339, Start Num: 14

Candidate Starts for KaiHaiDragon_63:

(Start: 14 @39854 has 43 MA's), (20, 39890), (27, 39968), (28, 39971), (43, 40067), (51, 40169), (54, 40178), (56, 40223), (63, 40268),

Gene: Kowalski_61 Start: 39934, Stop: 40404, Start Num: 14

Candidate Starts for Kowalski_61:

(Start: 14 @39934 has 43 MA's), (20, 39970), (27, 40048), (28, 40051), (43, 40147), (50, 40216), (51, 40219), (54, 40228), (63, 40315), (67, 40348),

Gene: Kozie_59 Start: 40090, Stop: 40545, Start Num: 13

Candidate Starts for Kozie_59:

(5, 39763), (8, 39994), (Start: 13 @40090 has 6 MA's), (20, 40129), (25, 40183), (42, 40294), (51, 40363),

Gene: LittleFortune_64 Start: 40225, Stop: 40695, Start Num: 14

Candidate Starts for LittleFortune_64:

(Start: 14 @40225 has 43 MA's), (20, 40261), (27, 40339), (28, 40342), (43, 40438), (50, 40507), (51, 40510), (54, 40519), (63, 40606), (67, 40639),

Gene: Lucretia_62 Start: 39850, Stop: 40320, Start Num: 14

Candidate Starts for Lucretia_62:

(Start: 14 @39850 has 43 MA's), (20, 39886), (27, 39964), (28, 39967), (43, 40063), (50, 40132), (51, 40135), (54, 40144), (63, 40231), (67, 40264),

Gene: Margaery_58 Start: 39960, Stop: 40562, Start Num: 13

Candidate Starts for Margaery_58:

(5, 39642), (8, 39867), (Start: 13 @39960 has 6 MA's), (17, 39972), (23, 40041), (25, 40053), (27, 40074), (33, 40110), (45, 40203), (50, 40242), (61, 40326), (63, 40341), (66, 40368), (71, 40389),

Gene: Matzah_61 Start: 40784, Stop: 41407, Start Num: 13

Candidate Starts for Matzah_61:

(8, 40691), (Start: 13 @40784 has 6 MA's), (18, 40802), (25, 40877), (27, 40898), (29, 40904), (33, 40934), (35, 40940), (38, 40964), (39, 40970), (41, 40985), (45, 41045), (46, 41057), (50, 41084), (51, 41087), (63, 41186), (66, 41213), (67, 41219), (68, 41225), (73, 41282), (75, 41315), (78, 41369),

Gene: Megan_60 Start: 44229, Stop: 44762, Start Num: 15

Candidate Starts for Megan_60:

(1, 43383), (2, 43437), (11, 44223), (Start: 15 @44229 has 1 MA's), (19, 44271), (21, 44301), (22, 44307), (30, 44373), (31, 44391), (37, 44427), (40, 44448), (49, 44550), (51, 44571), (54, 44580), (62, 44658), (70, 44712),

Gene: MementoMori_60 Start: 40364, Stop: 41005, Start Num: 13

Candidate Starts for MementoMori_60:

(8, 40271), (Start: 13 @40364 has 6 MA's), (18, 40382), (23, 40445), (27, 40478), (33, 40514), (35, 40520), (41, 40565), (45, 40640), (50, 40679), (51, 40682), (63, 40781), (67, 40814), (68, 40820),

Gene: Metamorphoo_65 Start: 41139, Stop: 41621, Start Num: 14

Candidate Starts for Metamorphoo_65:

(Start: 14 @41139 has 43 MA's), (20, 41175), (22, 41202), (24, 41229), (34, 41295), (37, 41316), (43, 41370), (52, 41427), (58, 41484), (69, 41562),

Gene: Nicole72_61 Start: 44725, Stop: 45249, Start Num: 9

Candidate Starts for Nicole72_61:

(Start: 9 @44725 has 1 MA's), (10, 44731), (16, 44749), (20, 44782), (24, 44842), (29, 44872), (40, 44947), (48, 45028), (51, 45055), (53, 45061), (62, 45142), (67, 45187),

Gene: NoodlelyBoi_63 Start: 40716, Stop: 41186, Start Num: 14

Candidate Starts for NoodlelyBoi_63:

(Start: 14 @40716 has 43 MA's), (17, 40728), (20, 40752), (28, 40836), (43, 40941), (51, 41016), (57, 41073), (58, 41079), (63, 41115), (64, 41121),

Gene: Onika_61 Start: 39943, Stop: 40413, Start Num: 14

Candidate Starts for Onika_61:

(Start: 14 @39943 has 43 MA's), (20, 39979), (27, 40057), (28, 40060), (43, 40156), (50, 40225), (51, 40228), (54, 40237), (63, 40324),

Gene: Paschalis_62 Start: 39950, Stop: 40435, Start Num: 14

Candidate Starts for Paschalis_62:

(Start: 14 @39950 has 43 MA's), (20, 39986), (27, 40064), (28, 40067), (43, 40163), (51, 40265), (54, 40274), (56, 40319), (63, 40364),

Gene: PhedwardCullen_60 Start: 39688, Stop: 40158, Start Num: 14

Candidate Starts for PhedwardCullen_60:

(Start: 14 @39688 has 43 MA's), (20, 39724), (27, 39802), (28, 39805), (43, 39901), (50, 39970), (51, 39973), (54, 39982), (63, 40069), (67, 40102),

Gene: Phorgeous_62 Start: 39751, Stop: 40221, Start Num: 14

Candidate Starts for Phorgeous_62:

(Start: 14 @39751 has 43 MA's), (20, 39787), (27, 39865), (28, 39868), (43, 39964), (50, 40033), (51, 40036), (54, 40045), (63, 40132), (67, 40165),

Gene: Phrancesco_62 Start: 40074, Stop: 40544, Start Num: 14

Candidate Starts for Phrancesco_62:

(Start: 14 @40074 has 43 MA's), (20, 40110), (27, 40188), (28, 40191), (43, 40287), (50, 40356), (51, 40359), (54, 40368), (63, 40455), (67, 40488),

Gene: PierreOrion_62 Start: 40159, Stop: 40644, Start Num: 14

Candidate Starts for PierreOrion_62:

(Start: 14 @40159 has 43 MA's), (20, 40195), (27, 40273), (28, 40276), (43, 40372), (44, 40408), (51, 40474), (54, 40483), (56, 40528), (63, 40573),

Gene: PiperSansNom_63 Start: 40256, Stop: 40726, Start Num: 14

Candidate Starts for PiperSansNom_63:

(Start: 14 @40256 has 43 MA's), (20, 40292), (27, 40370), (28, 40373), (43, 40469), (50, 40538), (51, 40541), (54, 40550), (63, 40637), (67, 40670),

Gene: Piperis_63 Start: 39876, Stop: 40346, Start Num: 14

Candidate Starts for Piperis_63:

(Start: 14 @39876 has 43 MA's), (20, 39912), (27, 39990), (28, 39993), (43, 40089), (50, 40158), (51, 40161), (54, 40170), (63, 40257), (67, 40290),

Gene: Pulchra_64 Start: 40272, Stop: 40742, Start Num: 14

Candidate Starts for Pulchra_64:

(Start: 14 @40272 has 43 MA's), (20, 40308), (27, 40386), (28, 40389), (43, 40485), (50, 40554), (51, 40557), (54, 40566), (63, 40653), (67, 40686),

Gene: Quhwah_66 Start: 40564, Stop: 41034, Start Num: 14

Candidate Starts for Quhwah_66:

(Start: 14 @40564 has 43 MA's), (20, 40600), (27, 40678), (28, 40681), (43, 40777), (50, 40846), (51, 40849), (54, 40858), (63, 40945), (67, 40978),

Gene: Ramiel05_61 Start: 39934, Stop: 40404, Start Num: 14

Candidate Starts for Ramiel05_61:

(Start: 14 @39934 has 43 MA's), (20, 39970), (27, 40048), (28, 40051), (43, 40147), (50, 40216), (51, 40219), (54, 40228), (63, 40315), (67, 40348),

Gene: RobsFeet_66 Start: 41406, Stop: 41906, Start Num: 14

Candidate Starts for RobsFeet_66:

(6, 41103), (7, 41196), (Start: 14 @41406 has 43 MA's), (20, 41442), (22, 41469), (26, 41511), (27, 41520), (28, 41523), (34, 41562), (37, 41583), (43, 41637), (52, 41712), (58, 41769), (69, 41847),

Gene: Rockwell_61 Start: 39967, Stop: 40437, Start Num: 14

Candidate Starts for Rockwell_61:

(Start: 14 @39967 has 43 MA's), (20, 40003), (27, 40081), (28, 40084), (43, 40180), (50, 40249), (51, 40252), (54, 40261), (63, 40348), (67, 40381),

Gene: Savannah_61 Start: 39994, Stop: 40464, Start Num: 14

Candidate Starts for Savannah_61:

(Start: 14 @39994 has 43 MA's), (20, 40030), (27, 40108), (28, 40111), (43, 40207), (50, 40276), (51, 40279), (54, 40288), (63, 40375), (67, 40408),

Gene: Scumberland_64 Start: 40189, Stop: 40659, Start Num: 14

Candidate Starts for Scumberland_64:

(Start: 14 @40189 has 43 MA's), (20, 40225), (27, 40303), (28, 40306), (43, 40402), (50, 40471), (51, 40474), (54, 40483), (63, 40570), (67, 40603),

Gene: Selwyn23_63 Start: 40106, Stop: 40576, Start Num: 14

Candidate Starts for Selwyn23_63:

(Start: 14 @40106 has 43 MA's), (20, 40142), (27, 40220), (28, 40223), (43, 40319), (50, 40388), (51, 40391), (54, 40400), (63, 40487), (67, 40520),

Gene: Shotgun_62 Start: 39870, Stop: 40340, Start Num: 14

Candidate Starts for Shotgun_62:

(Start: 14 @39870 has 43 MA's), (20, 39906), (27, 39984), (28, 39987), (43, 40083), (50, 40152), (51, 40155), (54, 40164), (63, 40251), (67, 40284),

Gene: Shrubaron_66 Start: 41019, Stop: 41501, Start Num: 14

Candidate Starts for Shrubaron_66:

(6, 40716), (7, 40809), (Start: 14 @41019 has 43 MA's), (20, 41055), (22, 41082), (26, 41124), (27, 41133), (28, 41136), (34, 41175), (37, 41196), (43, 41250), (52, 41307), (58, 41364), (68, 41439), (69, 41442),

Gene: SirFrank_62 Start: 40120, Stop: 40632, Start Num: 14

Candidate Starts for SirFrank_62:

(Start: 14 @40120 has 43 MA's), (17, 40132), (20, 40156), (28, 40240), (43, 40345), (51, 40447), (58, 40510), (63, 40546),

Gene: Skugga_62 Start: 40306, Stop: 40821, Start Num: 14

Candidate Starts for Skugga_62:

(Start: 14 @40306 has 43 MA's), (17, 40318), (20, 40345), (22, 40375), (24, 40405), (47, 40603), (58, 40696), (63, 40732),

Gene: Smarties_72 Start: 41766, Stop: 42257, Start Num: 14

Candidate Starts for Smarties_72:

(Start: 14 @41766 has 43 MA's), (20, 41802), (27, 41880), (29, 41886), (40, 41949), (51, 42060), (54, 42069), (63, 42156), (64, 42162), (66, 42183),

Gene: Teamocil_66 Start: 40027, Stop: 40539, Start Num: 14

Candidate Starts for Teamocil_66:

(Start: 14 @40027 has 43 MA's), (20, 40063), (36, 40204), (47, 40321), (58, 40414), (66, 40477), (68, 40489),

Gene: Tyrumbra_61 Start: 40689, Stop: 41186, Start Num: 14

Candidate Starts for Tyrumbra_61:

(Start: 14 @40689 has 43 MA's), (20, 40725), (34, 40845), (37, 40866), (43, 40920), (51, 40989), (54, 40998), (55, 41022), (66, 41112), (67, 41118), (72, 41151),

Gene: Yeti_64 Start: 39908, Stop: 40378, Start Num: 14

Candidate Starts for Yeti_64:

(Start: 14 @39908 has 43 MA's), (20, 39944), (27, 40022), (28, 40025), (43, 40121), (50, 40190), (51, 40193), (54, 40202), (63, 40289), (67, 40322),

Gene: Zapato_62 Start: 40597, Stop: 41226, Start Num: 14

Candidate Starts for Zapato_62:

(4, 40147), (12, 40594), (Start: 14 @40597 has 43 MA's), (20, 40633), (22, 40660), (32, 40744), (43, 40837), (51, 40903), (58, 40966), (60, 40981), (61, 40987), (63, 41002), (74, 41134), (76, 41170), (77, 41185),