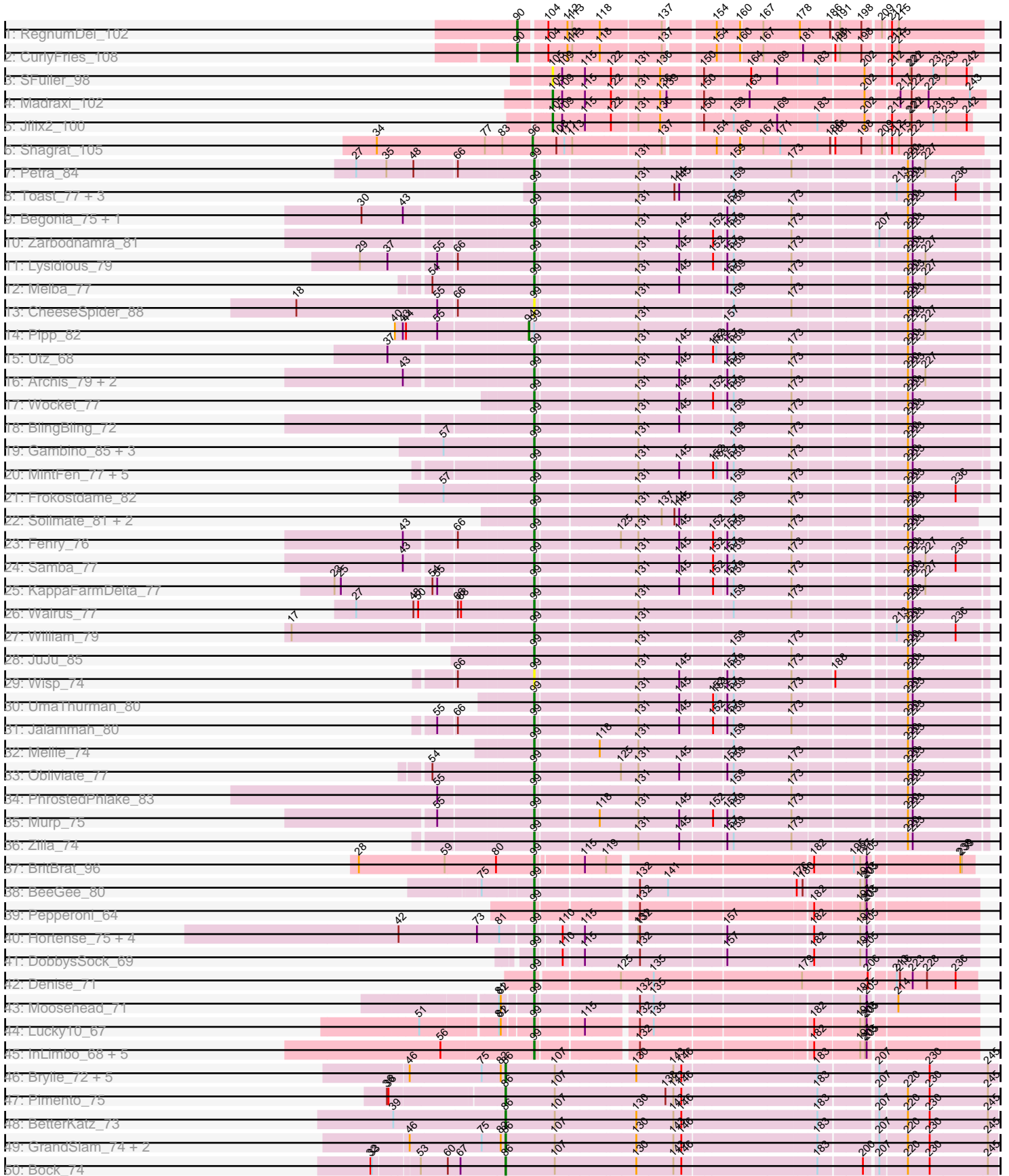
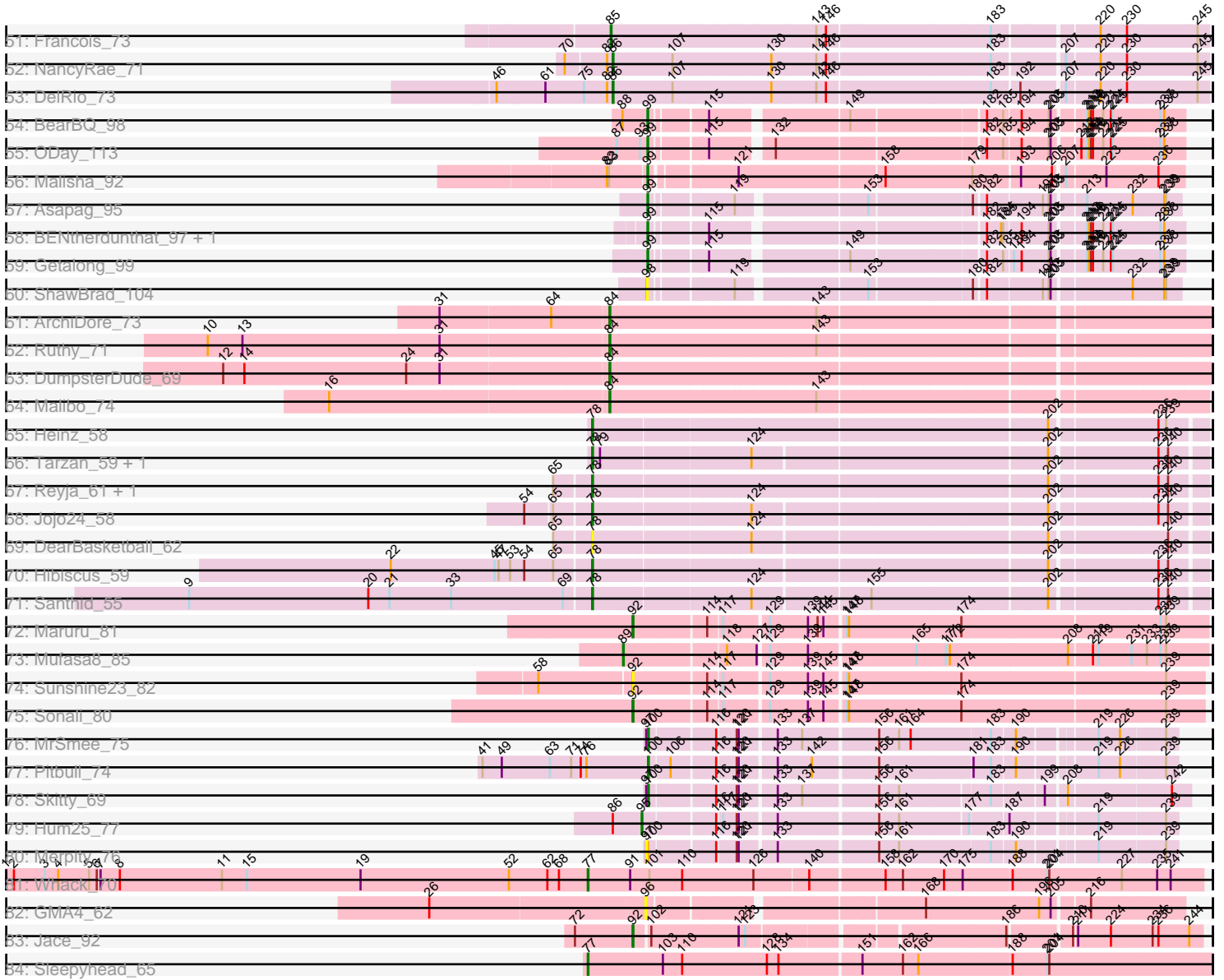


Pham 304832



Pham 304832



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 304832 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304832 has 119 members, 11 are drafts.

Phages represented in each track:

- Track 1 : RegnumDei_102
- Track 2 : CurlyFries_108
- Track 3 : SFuller_98
- Track 4 : Madraxi_102
- Track 5 : Jflix2_100
- Track 6 : Shagrat_105
- Track 7 : Petra_84
- Track 8 : Toast_77, PrincePatrick_79, Fairfaxidum_80, PCoral7_76
- Track 9 : Begonia_75, Malachai_75
- Track 10 : Zarbodnamra_81
- Track 11 : Lysidious_79
- Track 12 : Melba_77
- Track 13 : CheeseSpider_88
- Track 14 : Pipp_82
- Track 15 : Utz_68
- Track 16 : Archis_79, Hitter_75, ZiggyZoo_78
- Track 17 : Wocket_77
- Track 18 : BlingBling_72
- Track 19 : Gambino_85, Azula_83, MissRona_83, Blueberry_82
- Track 20 : MintFen_77, Guacamole_75, Barco_74, Delian_80, CaptainKirk2_77, JasperJr_75
- Track 21 : Frokostdame_82
- Track 22 : Soilmate_81, Blino_79, CarolAnn_78
- Track 23 : Fenry_76
- Track 24 : Samba_77
- Track 25 : KappaFarmDelta_77
- Track 26 : Walrus_77
- Track 27 : William_79
- Track 28 : JuJu_85
- Track 29 : Wisp_74
- Track 30 : UmaThurman_80
- Track 31 : Jalammah_80
- Track 32 : Mellie_74
- Track 33 : Oblivate_77
- Track 34 : PhrostedPhlake_83
- Track 35 : Murp_75
- Track 36 : Zilla_74

- Track 37 : BritBrat_96
- Track 38 : BeeGee_80
- Track 39 : Pepperoni_64
- Track 40 : Hortense_75, Twinkle_74, Adora_72, Howe_75, Shlim410_73
- Track 41 : DobbysSock_69
- Track 42 : Denise_71
- Track 43 : Moosehead_71
- Track 44 : Lucky10_67
- Track 45 : InLimbo_68, OneDirection_65, PhorbesPhlower_69, Kuwabara_89, Morkie_71, Lton_68
- Track 46 : Brylie_72, Ayotoya_73, Nadeem_72, WheatThin_72, Mulch_72, Parada_72
- Track 47 : Pimento_75
- Track 48 : BetterKatz_73
- Track 49 : GrandSlam_74, Hamood_74, Chop_74
- Track 50 : Bock_74
- Track 51 : Francois_73
- Track 52 : NancyRae_71
- Track 53 : DelRio_73
- Track 54 : BearBQ_98
- Track 55 : ODay_113
- Track 56 : Malisha_92
- Track 57 : Asapag_95
- Track 58 : BENtherdunthat_97, CheeseTouch_105
- Track 59 : Getalong_99
- Track 60 : ShawBrad_104
- Track 61 : ArchiDore_73
- Track 62 : Ruthy_71
- Track 63 : DumpsterDude_69
- Track 64 : Malibo_74
- Track 65 : Heinz_58
- Track 66 : Tarzan_59, DonkeyMan_59
- Track 67 : Reyja_61, DinoNuggs_60
- Track 68 : Jojo24_58
- Track 69 : DearBasketball_62
- Track 70 : Hibiscus_59
- Track 71 : Santhid_55
- Track 72 : Maruru_81
- Track 73 : Mufasa8_85
- Track 74 : Sunshine23_82
- Track 75 : Sonali_80
- Track 76 : MrSmee_75
- Track 77 : Pitbull_74
- Track 78 : Skitty_69
- Track 79 : Hum25_77
- Track 80 : Merpity_76
- Track 81 : Whack_70
- Track 82 : GMA4_62
- Track 83 : Jace_92
- Track 84 : Sleepyhead_65

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

The start number called the most often in the published annotations is 99, it was called in 66 of the 108 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora_72, Archis_79, Asapag_95, Azula_83, BENtherdunthat_97, Barco_74, BearBQ_98, BeeGee_80, Begonia_75, BlingBling_72, Blino_79, Blueberry_82, BritBrat_96, CaptainKirk2_77, CarolAnn_78, CheeseSpider_88, CheeseTouch_105, Delian_80, Denise_71, DobbysSock_69, Fairfaxidum_80, Fenry_76, Frokostdame_82, Gambino_85, Getalong_99, Guacamole_75, Hitter_75, Hortense_75, Howe_75, InLimbo_68, Jalammah_80, JasperJr_75, JuJu_85, KappaFarmDelta_77, Kuwabara_89, Lton_68, Lucky10_67, Lysidious_79, Malachai_75, Malisha_92, Melba_77, Mellie_74, MintFen_77, MissRona_83, Moosehead_71, Morkie_71, Murp_75, ODay_113, Obliviate_77, OneDirection_65, PCoral7_76, Pepperoni_64, Petra_84, PhorbPhlower_69, PhrostedPhlake_83, PrincePatrick_79, Samba_77, Shlim410_73, Soilmate_81, Toast_77, Twinkle_74, UmaThurman_80, Utz_68, Walrus_77, William_79, Wisp_74, Wocket_77, Zarbodnamra_81, ZiggyZoo_78, Zilla_74,

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

- Pipp_82,

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

- ArchiDore_73, Ayotoya_73, BetterKatz_73, Bock_74, Brylie_72, Chop_74, CurlyFries_108, DearBasketball_62, DelRio_73, DinoNuggs_60, DonkeyMan_59, DumpsterDude_69, Francois_73, GMA4_62, GrandSlam_74, Hamood_74, Heinz_58, Hibiscus_59, Hum25_77, Jace_92, Jflix2_100, Jojo24_58, Madraxi_102, Malibo_74, Maruru_81, Merpity_76, MrSmee_75, Mufasa8_85, Mulch_72, Nadeem_72, NancyRae_71, Parada_72, Pimento_75, Pitbull_74, RegnumDei_102, Reyja_61, Ruthy_71, SFuller_98, Santhid_55, Shagrat_105, ShawBrad_104, Skitty_69, Sleepyhead_65, Sonali_80, Sunshine23_82, Tarzan_59, Whack_70, WheatThin_72,

Summary by start number:

Start 77:

- Found in 3 of 119 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Sleepyhead_65 (singleton), Whack_70 (singleton),

Start 78:

- Found in 9 of 119 (7.6%) of genes in pham
- Manual Annotations of this start: 7 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DearBasketball_62 (DY), DinoNuggs_60 (DY), DonkeyMan_59 (DY), Heinz_58 (DY), Hibiscus_59 (DY), Jojo24_58 (DY), Reyja_61 (DY), Santhid_55 (DY), Tarzan_59 (DY),

Start 84:

- Found in 4 of 119 (3.4%) of genes in pham

- Manual Annotations of this start: 4 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_73 (DW), DumpsterDude_69 (DW), Malibo_74 (DW), Ruthy_71 (DW),

Start 85:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Francois_73 (DI),

Start 86:

- Found in 15 of 119 (12.6%) of genes in pham
- Manual Annotations of this start: 14 of 108
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Ayotoya_73 (DI), BetterKatz_73 (DI), Bock_74 (DI), Brylie_72 (DI), Chop_74 (DI), DelRio_73 (DI), GrandSlam_74 (DI), Hamood_74 (DI), Mulch_72 (DI), Nadeem_72 (DI), NancyRae_71 (DI), Parada_72 (DI), Pimento_75 (DI), WheatThin_72 (DI),

Start 89:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mufasa8_85 (FG),

Start 90:

- Found in 2 of 119 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CurlyFries_108 (CF), RegnumDei_102 (CF),

Start 92:

- Found in 4 of 119 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jace_92 (singleton), Maruru_81 (FG), Sonali_80 (FG), Sunshine23_82 (FG),

Start 94:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_82 (CV),

Start 95:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25_77 (FQ),

Start 96:

- Found in 2 of 119 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4_62 (singleton), Shagrat_105 (CF),

Start 97:

- Found in 3 of 119 (2.5%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Merpity_76 (FQ),

Start 98:

- Found in 1 of 119 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ShawBrad_104 (DN1),

Start 99:

- Found in 71 of 119 (59.7%) of genes in pham
- Manual Annotations of this start: 66 of 108
- Called 98.6% of time when present
- Phage (with cluster) where this start called: Adora_72 (CZ4), Archis_79 (CV), Asapag_95 (DN1), Azula_83 (CV), BENtherdunthat_97 (DN1), Barco_74 (CV), BearBQ_98 (DN), BeeGee_80 (CY5), Begonia_75 (CV), BlingBling_72 (CV), Blino_79 (CV), Blueberry_82 (CV), BritBrat_96 (CY2), CaptainKirk2_77 (CV), CarolAnn_78 (CV), CheeseSpider_88 (CV), CheeseTouch_105 (DN1), Delian_80 (CV), Denise_71 (CZ5), DobbysSock_69 (CZ4), Fairfaxidum_80 (CV), Fenry_76 (CV), Frokostdame_82 (CV), Gambino_85 (CV), Getalong_99 (DN1), Guacamole_75 (CV), Hitter_75 (CV), Hortense_75 (CZ4), Howe_75 (CZ4), InLimbo_68 (DH), Jalammah_80 (CV), JasperJr_75 (CV), JuJu_85 (CV), KappaFarmDelta_77 (CV), Kuwabara_89 (DN4), Lton_68 (CZ), Lucky10_67 (DH), Lysidious_79 (CV), Malachai_75 (CV), Malisha_92 (DN), Melba_77 (CV), Mellie_74 (CV), MintFen_77 (CV), MissRona_83 (CV), Moosehead_71 (CZ6), Morkie_71 (DH), Murp_75 (CV), ODay_113 (DN), Oblivate_77 (CV), OneDirection_65 (CZ6), PCoral7_76 (CV), Pepperoni_64 (CZ), Petra_84 (CV), PhorbesPhlower_69 (DH), PhrostedPhlake_83 (CV), PrincePatrick_79 (CV), Samba_77 (CV), Shlim410_73 (CZ4), Soilmate_81 (CV), Toast_77 (CV), Twinkle_74 (CZ4), UmaThurman_80 (CV), Utz_68 (CV), Walrus_77 (CV), William_79 (CV), Wisp_74 (CV), Wocket_77 (CV), Zarbodnamra_81 (CV), ZiggyZoo_78 (CV), Zilla_74 (CV),

Start 100:

- Found in 4 of 119 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 108
- Called 75.0% of time when present
- Phage (with cluster) where this start called: MrSmee_75 (FQ), Pitbull_74 (FQ), Skitty_69 (FQ),

Start 105:

- Found in 3 of 119 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Jflix2_100 (CF), Madraxi_102 (CF), SFuller_98 (CF),

Summary by clusters:

There are 18 clusters represented in this pham: DN, CY2, singleton, DH, CY5, DI, FG, CZ6, CF, CZ4, CZ5, DN4, FQ, DN1, DY, CZ, DW, CV,

Info for manual annotations of cluster CF:

- Start number 90 was manually annotated 2 times for cluster CF.
- Start number 96 was manually annotated 1 time for cluster CF.
- Start number 105 was manually annotated 2 times for cluster CF.

Info for manual annotations of cluster CV:

- Start number 94 was manually annotated 1 time for cluster CV.
- Start number 99 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster CY2:

- Start number 99 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY5:

- Start number 99 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CZ:

- Start number 99 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ4:

- Start number 99 was manually annotated 6 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 99 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 99 was manually annotated 2 times for cluster CZ6.

Info for manual annotations of cluster DH:

- Start number 99 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DI:

- Start number 85 was manually annotated 1 time for cluster DI.
- Start number 86 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DN:

- Start number 99 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 99 was manually annotated 4 times for cluster DN1.

Info for manual annotations of cluster DN4:

- Start number 99 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DW:

- Start number 84 was manually annotated 4 times for cluster DW.

Info for manual annotations of cluster DY:

- Start number 78 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster FG:

- Start number 89 was manually annotated 1 time for cluster FG.
- Start number 92 was manually annotated 2 times for cluster FG.

Info for manual annotations of cluster FQ:

- Start number 95 was manually annotated 1 time for cluster FQ.
- Start number 100 was manually annotated 3 times for cluster FQ.

Gene Information:

Gene: Adora_72 Start: 48969, Stop: 49706, Start Num: 99

Candidate Starts for Adora_72:

(42, 48723), (73, 48870), (81, 48912), (Start: 99 @48969 has 66 MA's), (110, 49011), (115, 49044), (131, 49125), (132, 49128), (157, 49275), (182, 49425), (197, 49506), (205, 49518),

Gene: ArchiDore_73 Start: 49910, Stop: 50791, Start Num: 84

Candidate Starts for ArchiDore_73:

(31, 49658), (64, 49826), (Start: 84 @49910 has 4 MA's), (143, 50222),

Gene: Archis_79 Start: 46629, Stop: 47405, Start Num: 99

Candidate Starts for Archis_79:

(43, 46410), (Start: 99 @46629 has 66 MA's), (131, 46806), (145, 46878), (157, 46956), (159, 46968), (173, 47076), (220, 47262), (223, 47271), (227, 47295),

Gene: Asapag_95 Start: 52545, Stop: 53270, Start Num: 99

Candidate Starts for Asapag_95:

(Start: 99 @52545 has 66 MA's), (119, 52656), (153, 52833), (180, 52983), (182, 52998), (197, 53079), (203, 53088), (205, 53091), (213, 53133), (232, 53199), (238, 53244), (239, 53247),

Gene: Ayotoya_73 Start: 49136, Stop: 50011, Start Num: 86

Candidate Starts for Ayotoya_73:

(46, 48965), (75, 49097), (82, 49130), (Start: 86 @49136 has 14 MA's), (107, 49229), (130, 49376), (143, 49445), (146, 49460), (183, 49700), (207, 49799), (230, 49886), (245, 49994),

Gene: Azula_83 Start: 51089, Stop: 51874, Start Num: 99

Candidate Starts for Azula_83:

(57, 50924), (Start: 99 @51089 has 66 MA's), (131, 51272), (159, 51434), (173, 51542), (220, 51728), (223, 51737),

Gene: BENtherdunthat_97 Start: 52077, Stop: 52805, Start Num: 99

Candidate Starts for BENtherdunthat_97:

(Start: 99 @52077 has 66 MA's), (115, 52152), (182, 52527), (184, 52548), (185, 52551), (194, 52575), (203, 52617), (205, 52620), (213, 52662), (214, 52665), (216, 52668), (218, 52671), (221, 52686), (224, 52698), (225, 52701), (237, 52767), (238, 52773),

Gene: Barco_74 Start: 46443, Stop: 47219, Start Num: 99

Candidate Starts for Barco_74:

(Start: 99 @46443 has 66 MA's), (131, 46620), (145, 46692), (152, 46749), (153, 46755), (157, 46770), (159, 46782), (173, 46890), (220, 47076), (223, 47085),

Gene: BearBQ_98 Start: 53192, Stop: 53920, Start Num: 99

Candidate Starts for BearBQ_98:

(88, 53159), (Start: 99 @53192 has 66 MA's), (115, 53267), (149, 53450), (182, 53642), (185, 53666), (194, 53690), (203, 53732), (205, 53735), (213, 53777), (214, 53780), (216, 53783), (218, 53786), (221, 53801), (224, 53813), (225, 53816), (237, 53882), (238, 53888),

Gene: BeeGee_80 Start: 50088, Stop: 50837, Start Num: 99

Candidate Starts for BeeGee_80:

(75, 49998), (Start: 99 @50088 has 66 MA's), (132, 50253), (141, 50301), (176, 50532), (180, 50541), (197, 50637), (203, 50646), (205, 50649),

Gene: Begonia_75 Start: 49240, Stop: 50016, Start Num: 99

Candidate Starts for Begonia_75:

(30, 48943), (43, 49021), (Start: 99 @49240 has 66 MA's), (131, 49417), (157, 49567), (159, 49579), (173, 49687), (220, 49873), (223, 49882),

Gene: BetterKatz_73 Start: 48918, Stop: 49793, Start Num: 86

Candidate Starts for BetterKatz_73:

(39, 48711), (Start: 86 @48918 has 14 MA's), (107, 49011), (130, 49158), (143, 49227), (146, 49242), (183, 49482), (207, 49581), (220, 49629), (230, 49668), (245, 49776),

Gene: BlingBling_72 Start: 46215, Stop: 46991, Start Num: 99

Candidate Starts for BlingBling_72:

(Start: 99 @46215 has 66 MA's), (131, 46392), (145, 46464), (159, 46554), (173, 46662), (220, 46848), (223, 46857),

Gene: Blino_79 Start: 52044, Stop: 52805, Start Num: 99

Candidate Starts for Blino_79:

(Start: 99 @52044 has 66 MA's), (131, 52221), (137, 52260), (144, 52284), (145, 52293), (159, 52383), (173, 52491), (220, 52677), (223, 52686),

Gene: Blueberry_82 Start: 51089, Stop: 51874, Start Num: 99

Candidate Starts for Blueberry_82:

(57, 50924), (Start: 99 @51089 has 66 MA's), (131, 51272), (159, 51434), (173, 51542), (220, 51728), (223, 51737),

Gene: Bock_74 Start: 48502, Stop: 49377, Start Num: 86

Candidate Starts for Bock_74:

(32, 48271), (33, 48274), (53, 48349), (60, 48400), (67, 48421), (Start: 86 @48502 has 14 MA's), (107, 48595), (130, 48742), (143, 48811), (146, 48826), (183, 49066), (200, 49144), (207, 49165), (220, 49213), (230, 49252), (245, 49360),

Gene: BritBrat_96 Start: 54041, Stop: 54766, Start Num: 99

Candidate Starts for BritBrat_96:

(28, 53711), (59, 53873), (80, 53969), (Start: 99 @54041 has 66 MA's), (115, 54116), (119, 54152), (182, 54494), (195, 54563), (197, 54575), (205, 54587), (238, 54740), (239, 54743),

Gene: Brylie_72 Start: 48152, Stop: 49027, Start Num: 86

Candidate Starts for Brylie_72:

(46, 47981), (75, 48113), (82, 48146), (Start: 86 @48152 has 14 MA's), (107, 48245), (130, 48392), (143, 48461), (146, 48476), (183, 48716), (207, 48815), (230, 48902), (245, 49010),

Gene: CaptainKirk2_77 Start: 46000, Stop: 46776, Start Num: 99

Candidate Starts for CaptainKirk2_77:

(Start: 99 @46000 has 66 MA's), (131, 46177), (145, 46249), (152, 46306), (153, 46312), (157, 46327), (159, 46339), (173, 46447), (220, 46633), (223, 46642),

Gene: CarolAnn_78 Start: 52043, Stop: 52804, Start Num: 99

Candidate Starts for CarolAnn_78:

(Start: 99 @52043 has 66 MA's), (131, 52220), (137, 52259), (144, 52283), (145, 52292), (159, 52382), (173, 52490), (220, 52676), (223, 52685),

Gene: CheeseSpider_88 Start: 50655, Stop: 51434, Start Num: 99

Candidate Starts for CheeseSpider_88:

(18, 50226), (55, 50490), (66, 50523), (Start: 99 @50655 has 66 MA's), (131, 50832), (159, 50994), (173, 51102), (220, 51288), (223, 51297),

Gene: CheeseTouch_105 Start: 51190, Stop: 51918, Start Num: 99

Candidate Starts for CheeseTouch_105:

(Start: 99 @51190 has 66 MA's), (115, 51265), (182, 51640), (184, 51661), (185, 51664), (194, 51688), (203, 51730), (205, 51733), (213, 51775), (214, 51778), (216, 51781), (218, 51784), (221, 51799), (224, 51811), (225, 51814), (237, 51880), (238, 51886),

Gene: Chop_74 Start: 49201, Stop: 50076, Start Num: 86

Candidate Starts for Chop_74:

(46, 49030), (75, 49162), (82, 49195), (Start: 86 @49201 has 14 MA's), (107, 49294), (130, 49441), (143, 49510), (146, 49525), (183, 49765), (207, 49864), (220, 49912), (230, 49951), (245, 50059),

Gene: CurlyFries_108 Start: 55209, Stop: 55973, Start Num: 90

Candidate Starts for CurlyFries_108:

(Start: 90 @55209 has 2 MA's), (104, 55257), (112, 55293), (113, 55302), (118, 55350), (137, 55452), (154, 55533), (160, 55569), (167, 55605), (181, 55668), (188, 55719), (191, 55728), (198, 55767), (212, 55809), (215, 55821),

Gene: DearBasketball_62 Start: 39454, Stop: 40326, Start Num: 78

Candidate Starts for DearBasketball_62:

(65, 39400), (Start: 78 @39454 has 7 MA's), (124, 39679), (202, 40108), (240, 40273),

Gene: DelRio_73 Start: 49243, Stop: 50118, Start Num: 86

Candidate Starts for DelRio_73:

(46, 49072), (61, 49147), (75, 49204), (82, 49237), (Start: 86 @49243 has 14 MA's), (107, 49336), (130, 49483), (143, 49552), (146, 49567), (183, 49807), (192, 49846), (207, 49906), (220, 49954), (230, 49993), (245, 50101),

Gene: Delian_80 Start: 45998, Stop: 46774, Start Num: 99

Candidate Starts for Delian_80:

(Start: 99 @45998 has 66 MA's), (131, 46175), (145, 46247), (152, 46304), (153, 46310), (157, 46325), (159, 46337), (173, 46445), (220, 46631), (223, 46640),

Gene: Denise_71 Start: 41520, Stop: 42272, Start Num: 99

Candidate Starts for Denise_71:

(Start: 99 @41520 has 66 MA's), (125, 41658), (135, 41715), (179, 41973), (206, 42087), (213, 42126), (216, 42132), (223, 42156), (228, 42183), (236, 42234),

Gene: DinoNuggs_60 Start: 39095, Stop: 39976, Start Num: 78

Candidate Starts for DinoNuggs_60:

(65, 39041), (Start: 78 @39095 has 7 MA's), (202, 39758), (236, 39908), (240, 39923),

Gene: DobbysSock_69 Start: 45937, Stop: 46674, Start Num: 99

Candidate Starts for DobbysSock_69:

(Start: 99 @45937 has 66 MA's), (110, 45979), (115, 46012), (132, 46096), (157, 46243), (182, 46393), (197, 46474), (205, 46486),

Gene: DonkeyMan_59 Start: 38622, Stop: 39494, Start Num: 78

Candidate Starts for DonkeyMan_59:

(Start: 78 @38622 has 7 MA's), (79, 38634), (124, 38847), (202, 39276), (236, 39426), (240, 39441),

Gene: DumpsterDude_69 Start: 50376, Stop: 51257, Start Num: 84

Candidate Starts for DumpsterDude_69:

(12, 49788), (14, 49821), (24, 50073), (31, 50124), (Start: 84 @50376 has 4 MA's),

Gene: Fairfaxidum_80 Start: 48694, Stop: 49470, Start Num: 99

Candidate Starts for Fairfaxidum_80:

(Start: 99 @48694 has 66 MA's), (131, 48874), (144, 48937), (145, 48946), (159, 49036), (213, 49309), (220, 49330), (223, 49339), (236, 49417),

Gene: Fenry_76 Start: 48068, Stop: 48844, Start Num: 99

Candidate Starts for Fenry_76:

(43, 47849), (66, 47936), (Start: 99 @48068 has 66 MA's), (125, 48212), (131, 48245), (145, 48317), (152, 48374), (157, 48395), (159, 48407), (173, 48515), (220, 48701), (223, 48710),

Gene: Francois_73 Start: 48813, Stop: 49691, Start Num: 85

Candidate Starts for Francois_73:

(Start: 85 @48813 has 1 MA's), (143, 49125), (146, 49140), (183, 49380), (220, 49527), (230, 49566), (245, 49674),

Gene: Frokostdame_82 Start: 50554, Stop: 51336, Start Num: 99

Candidate Starts for Frokostdame_82:

(57, 50389), (Start: 99 @50554 has 66 MA's), (131, 50737), (159, 50899), (173, 51007), (220, 51193), (223, 51202), (236, 51280),

Gene: GMA4_62 Start: 40731, Stop: 41486, Start Num: 96

Candidate Starts for GMA4_62:

(26, 40401), (Start: 96 @40731 has 1 MA's), (168, 41109), (196, 41280), (205, 41298), (216, 41346),

Gene: Gambino_85 Start: 51089, Stop: 51874, Start Num: 99

Candidate Starts for Gambino_85:

(57, 50924), (Start: 99 @51089 has 66 MA's), (131, 51272), (159, 51434), (173, 51542), (220, 51728), (223, 51737),

Gene: Getalong_99 Start: 53422, Stop: 54150, Start Num: 99

Candidate Starts for Getalong_99:

(Start: 99 @53422 has 66 MA's), (115, 53497), (149, 53680), (182, 53872), (185, 53896), (189, 53908), (194, 53920), (203, 53962), (205, 53965), (213, 54007), (214, 54010), (216, 54013), (218, 54016),

(221, 54031), (224, 54043), (225, 54046), (237, 54112), (238, 54118),

Gene: GrandSlam_74 Start: 49201, Stop: 50076, Start Num: 86

Candidate Starts for GrandSlam_74:

(46, 49030), (75, 49162), (82, 49195), (Start: 86 @49201 has 14 MA's), (107, 49294), (130, 49441), (143, 49510), (146, 49525), (183, 49765), (207, 49864), (220, 49912), (230, 49951), (245, 50059),

Gene: Guacamole_75 Start: 47418, Stop: 48194, Start Num: 99

Candidate Starts for Guacamole_75:

(Start: 99 @47418 has 66 MA's), (131, 47595), (145, 47667), (152, 47724), (153, 47730), (157, 47745), (159, 47757), (173, 47865), (220, 48051), (223, 48060),

Gene: Hamood_74 Start: 49201, Stop: 50076, Start Num: 86

Candidate Starts for Hamood_74:

(46, 49030), (75, 49162), (82, 49195), (Start: 86 @49201 has 14 MA's), (107, 49294), (130, 49441), (143, 49510), (146, 49525), (183, 49765), (207, 49864), (220, 49912), (230, 49951), (245, 50059),

Gene: Heinz_58 Start: 37588, Stop: 38469, Start Num: 78

Candidate Starts for Heinz_58:

(Start: 78 @37588 has 7 MA's), (202, 38251), (236, 38401), (239, 38413),

Gene: Hibiscus_59 Start: 37479, Stop: 38351, Start Num: 78

Candidate Starts for Hibiscus_59:

(22, 37173), (45, 37335), (47, 37341), (53, 37359), (54, 37380), (65, 37425), (Start: 78 @37479 has 7 MA's), (202, 38133), (236, 38283), (240, 38298),

Gene: Hitter_75 Start: 45674, Stop: 46450, Start Num: 99

Candidate Starts for Hitter_75:

(43, 45455), (Start: 99 @45674 has 66 MA's), (131, 45851), (145, 45923), (157, 46001), (159, 46013), (173, 46121), (220, 46307), (223, 46316), (227, 46340),

Gene: Hortense_75 Start: 50324, Stop: 51061, Start Num: 99

Candidate Starts for Hortense_75:

(42, 50078), (73, 50225), (81, 50267), (Start: 99 @50324 has 66 MA's), (110, 50366), (115, 50399), (131, 50480), (132, 50483), (157, 50630), (182, 50780), (197, 50861), (205, 50873),

Gene: Howe_75 Start: 50324, Stop: 51061, Start Num: 99

Candidate Starts for Howe_75:

(42, 50078), (73, 50225), (81, 50267), (Start: 99 @50324 has 66 MA's), (110, 50366), (115, 50399), (131, 50480), (132, 50483), (157, 50630), (182, 50780), (197, 50861), (205, 50873),

Gene: Hum25_77 Start: 39455, Stop: 40183, Start Num: 95

Candidate Starts for Hum25_77:

(Start: 86 @39410 has 14 MA's), (Start: 95 @39455 has 1 MA's), (116, 39554), (117, 39560), (120, 39581), (121, 39584), (133, 39635), (156, 39773), (161, 39803), (177, 39905), (187, 39959), (219, 40070), (239, 40166),

Gene: InLimbo_68 Start: 39899, Stop: 40642, Start Num: 99

Candidate Starts for InLimbo_68:

(56, 39728), (Start: 99 @39899 has 66 MA's), (132, 40064), (182, 40361), (197, 40442), (203, 40451), (205, 40454),

Gene: Jace_92 Start: 51606, Stop: 52397, Start Num: 92

Candidate Starts for Jace_92:

(72, 51519), (Start: 92 @51606 has 3 MA's), (102, 51627), (121, 51756), (123, 51765), (186, 52119), (210, 52203), (211, 52206), (224, 52257), (234, 52320), (236, 52329), (244, 52377),

Gene: Jalammah_80 Start: 49580, Stop: 50356, Start Num: 99

Candidate Starts for Jalammah_80:

(55, 49415), (66, 49448), (Start: 99 @49580 has 66 MA's), (131, 49757), (145, 49829), (152, 49886), (157, 49907), (159, 49919), (173, 50027), (220, 50213), (223, 50222),

Gene: JasperJr_75 Start: 47418, Stop: 48194, Start Num: 99

Candidate Starts for JasperJr_75:

(Start: 99 @47418 has 66 MA's), (131, 47595), (145, 47667), (152, 47724), (153, 47730), (157, 47745), (159, 47757), (173, 47865), (220, 48051), (223, 48060),

Gene: Jflix2_100 Start: 57187, Stop: 57882, Start Num: 105

Candidate Starts for Jflix2_100:

(Start: 105 @57187 has 2 MA's), (109, 57205), (115, 57244), (122, 57286), (131, 57328), (136, 57364), (150, 57436), (159, 57484), (169, 57559), (183, 57625), (202, 57706), (212, 57742), (221, 57775), (222, 57778), (231, 57814), (233, 57835), (242, 57874),

Gene: Jojo24_58 Start: 37912, Stop: 38784, Start Num: 78

Candidate Starts for Jojo24_58:

(54, 37819), (65, 37858), (Start: 78 @37912 has 7 MA's), (124, 38137), (202, 38566), (236, 38716), (240, 38731),

Gene: JuJu_85 Start: 51321, Stop: 52103, Start Num: 99

Candidate Starts for JuJu_85:

(Start: 99 @51321 has 66 MA's), (131, 51504), (159, 51666), (173, 51774), (220, 51960), (223, 51969),

Gene: KappaFarmDelta_77 Start: 47260, Stop: 48036, Start Num: 99

Candidate Starts for KappaFarmDelta_77:

(23, 46912), (25, 46924), (54, 47086), (55, 47095), (Start: 99 @47260 has 66 MA's), (131, 47437), (145, 47509), (152, 47566), (157, 47587), (159, 47599), (173, 47707), (220, 47893), (223, 47902), (227, 47926),

Gene: Kuwabara_89 Start: 52072, Stop: 52815, Start Num: 99

Candidate Starts for Kuwabara_89:

(56, 51901), (Start: 99 @52072 has 66 MA's), (132, 52237), (182, 52534), (197, 52615), (203, 52624), (205, 52627),

Gene: Lton_68 Start: 39225, Stop: 39968, Start Num: 99

Candidate Starts for Lton_68:

(56, 39054), (Start: 99 @39225 has 66 MA's), (132, 39390), (182, 39687), (197, 39768), (203, 39777), (205, 39780),

Gene: Lucky10_67 Start: 41325, Stop: 42068, Start Num: 99

Candidate Starts for Lucky10_67:

(51, 41145), (81, 41274), (82, 41277), (Start: 99 @41325 has 66 MA's), (115, 41406), (132, 41490), (135, 41514), (182, 41787), (197, 41868), (203, 41877), (205, 41880),

Gene: Lysidious_79 Start: 48328, Stop: 49104, Start Num: 99

Candidate Starts for Lysidious_79:

(29, 48028), (37, 48079), (55, 48163), (66, 48196), (Start: 99 @48328 has 66 MA's), (131, 48505), (145, 48577), (152, 48634), (157, 48655), (159, 48667), (173, 48775), (220, 48961), (223, 48970), (227, 48994),

Gene: Madraxi_102 Start: 59347, Stop: 60069, Start Num: 105

Candidate Starts for Madraxi_102:

(Start: 105 @59347 has 2 MA's), (109, 59365), (115, 59404), (122, 59446), (131, 59488), (136, 59524), (139, 59536), (150, 59596), (163, 59671), (202, 59866), (217, 59917), (222, 59938), (229, 59968), (243, 60040),

Gene: Malachai_75 Start: 49240, Stop: 50016, Start Num: 99

Candidate Starts for Malachai_75:

(30, 48943), (43, 49021), (Start: 99 @49240 has 66 MA's), (131, 49417), (157, 49567), (159, 49579), (173, 49687), (220, 49873), (223, 49882),

Gene: Malibo_74 Start: 48036, Stop: 48914, Start Num: 84

Candidate Starts for Malibo_74:

(16, 47619), (Start: 84 @48036 has 4 MA's), (143, 48348),

Gene: Malisha_92 Start: 53316, Stop: 54062, Start Num: 99

Candidate Starts for Malisha_92:

(82, 53265), (83, 53268), (Start: 99 @53316 has 66 MA's), (121, 53430), (158, 53634), (179, 53763), (193, 53829), (206, 53877), (207, 53889), (223, 53946), (236, 54024),

Gene: Maruru_81 Start: 50216, Stop: 51058, Start Num: 92

Candidate Starts for Maruru_81:

(Start: 92 @50216 has 3 MA's), (114, 50321), (117, 50339), (129, 50402), (139, 50456), (144, 50471), (145, 50480), (147, 50507), (148, 50510), (174, 50684), (237, 50987), (239, 50996),

Gene: Melba_77 Start: 46375, Stop: 47151, Start Num: 99

Candidate Starts for Melba_77:

(54, 46201), (Start: 99 @46375 has 66 MA's), (131, 46552), (145, 46624), (157, 46702), (159, 46714), (173, 46822), (220, 47008), (223, 47017), (227, 47041),

Gene: Mellie_74 Start: 46392, Stop: 47168, Start Num: 99

Candidate Starts for Mellie_74:

(Start: 99 @46392 has 66 MA's), (118, 46497), (131, 46569), (159, 46731), (220, 47025), (223, 47034),

Gene: Merpity_76 Start: 39442, Stop: 40167, Start Num: 97

Candidate Starts for Merpity_76:

(97, 39442), (Start: 100 @39445 has 3 MA's), (116, 39535), (120, 39562), (121, 39565), (133, 39616), (156, 39754), (161, 39784), (183, 39919), (190, 39952), (219, 40054), (239, 40150),

Gene: MintFen_77 Start: 46614, Stop: 47390, Start Num: 99

Candidate Starts for MintFen_77:

(Start: 99 @46614 has 66 MA's), (131, 46791), (145, 46863), (152, 46920), (153, 46926), (157, 46941), (159, 46953), (173, 47061), (220, 47247), (223, 47256),

Gene: MissRona_83 Start: 51090, Stop: 51875, Start Num: 99

Candidate Starts for MissRona_83:

(57, 50925), (Start: 99 @51090 has 66 MA's), (131, 51273), (159, 51435), (173, 51543), (220, 51729), (223, 51738),

Gene: Moosehead_71 Start: 39747, Stop: 40490, Start Num: 99

Candidate Starts for Moosehead_71:

(81, 39696), (82, 39699), (Start: 99 @39747 has 66 MA's), (132, 39912), (135, 39936), (197, 40290), (205, 40302), (214, 40347),

Gene: Morkie_71 Start: 40373, Stop: 41116, Start Num: 99

Candidate Starts for Morkie_71:

(56, 40202), (Start: 99 @40373 has 66 MA's), (132, 40538), (182, 40835), (197, 40916), (203, 40925), (205, 40928),

Gene: MrSmee_75 Start: 39017, Stop: 39739, Start Num: 100

Candidate Starts for MrSmee_75:

(97, 39014), (Start: 100 @39017 has 3 MA's), (116, 39107), (120, 39134), (121, 39137), (133, 39188), (137, 39221), (156, 39326), (161, 39356), (164, 39374), (183, 39491), (190, 39524), (219, 39626), (226, 39659), (239, 39722),

Gene: Mufasa8_85 Start: 50444, Stop: 51298, Start Num: 89

Candidate Starts for Mufasa8_85:

(Start: 89 @50444 has 1 MA's), (118, 50588), (127, 50633), (129, 50642), (139, 50696), (165, 50852), (171, 50897), (172, 50903), (208, 51086), (218, 51119), (219, 51128), (231, 51179), (233, 51203), (237, 51224), (239, 51233),

Gene: Mulch_72 Start: 48191, Stop: 49066, Start Num: 86

Candidate Starts for Mulch_72:

(46, 48020), (75, 48152), (82, 48185), (Start: 86 @48191 has 14 MA's), (107, 48284), (130, 48431), (143, 48500), (146, 48515), (183, 48755), (207, 48854), (230, 48941), (245, 49049),

Gene: Murp_75 Start: 49491, Stop: 50267, Start Num: 99

Candidate Starts for Murp_75:

(55, 49326), (Start: 99 @49491 has 66 MA's), (118, 49596), (131, 49668), (145, 49740), (152, 49797), (157, 49818), (159, 49830), (173, 49938), (220, 50124), (223, 50133),

Gene: Nadeem_72 Start: 48179, Stop: 49054, Start Num: 86

Candidate Starts for Nadeem_72:

(46, 48008), (75, 48140), (82, 48173), (Start: 86 @48179 has 14 MA's), (107, 48272), (130, 48419), (143, 48488), (146, 48503), (183, 48743), (207, 48842), (230, 48929), (245, 49037),

Gene: NancyRae_71 Start: 48057, Stop: 48932, Start Num: 86

Candidate Starts for NancyRae_71:

(70, 47997), (82, 48051), (Start: 86 @48057 has 14 MA's), (107, 48150), (130, 48297), (143, 48366), (146, 48381), (183, 48621), (207, 48720), (220, 48768), (230, 48807), (245, 48915),

Gene: ODay_113 Start: 56624, Stop: 57352, Start Num: 99

Candidate Starts for ODay_113:

(87, 56576), (93, 56612), (Start: 99 @56624 has 66 MA's), (115, 56699), (132, 56777), (182, 57074), (185, 57098), (194, 57122), (203, 57164), (205, 57167), (212, 57200), (213, 57209), (214, 57212), (216, 57215), (218, 57218), (221, 57233), (224, 57245), (225, 57248), (237, 57314), (238, 57320),

Gene: Obliviate_77 Start: 46932, Stop: 47708, Start Num: 99

Candidate Starts for Obliviate_77:

(54, 46752), (Start: 99 @46932 has 66 MA's), (125, 47076), (131, 47109), (145, 47181), (157, 47259), (159, 47271), (173, 47379), (220, 47565), (223, 47574),

Gene: OneDirection_65 Start: 37787, Stop: 38530, Start Num: 99

Candidate Starts for OneDirection_65:

(56, 37616), (Start: 99 @37787 has 66 MA's), (132, 37952), (182, 38249), (197, 38330), (203, 38339), (205, 38342),

Gene: PCoral7_76 Start: 47524, Stop: 48300, Start Num: 99

Candidate Starts for PCoral7_76:

(Start: 99 @47524 has 66 MA's), (131, 47704), (144, 47767), (145, 47776), (159, 47866), (213, 48139), (220, 48160), (223, 48169), (236, 48247),

Gene: Parada_72 Start: 48191, Stop: 49066, Start Num: 86

Candidate Starts for Parada_72:

(46, 48020), (75, 48152), (82, 48185), (Start: 86 @48191 has 14 MA's), (107, 48284), (130, 48431), (143, 48500), (146, 48515), (183, 48755), (207, 48854), (230, 48941), (245, 49049),

Gene: Pepperoni_64 Start: 38913, Stop: 39656, Start Num: 99

Candidate Starts for Pepperoni_64:

(Start: 99 @38913 has 66 MA's), (132, 39078), (182, 39375), (197, 39456), (203, 39465), (205, 39468),

Gene: Petra_84 Start: 49488, Stop: 50267, Start Num: 99

Candidate Starts for Petra_84:

(27, 49173), (35, 49230), (48, 49281), (66, 49356), (Start: 99 @49488 has 66 MA's), (131, 49665), (159, 49827), (173, 49935), (220, 50121), (223, 50130), (227, 50154),

Gene: PhorbesPhlower_69 Start: 39768, Stop: 40511, Start Num: 99

Candidate Starts for PhorbesPhlower_69:

(56, 39597), (Start: 99 @39768 has 66 MA's), (132, 39933), (182, 40230), (197, 40311), (203, 40320), (205, 40323),

Gene: PhrostedPhlake_83 Start: 49071, Stop: 49847, Start Num: 99

Candidate Starts for PhrostedPhlake_83:

(55, 48906), (Start: 99 @49071 has 66 MA's), (131, 49248), (159, 49410), (173, 49518), (220, 49704), (223, 49713),

Gene: Pimento_75 Start: 48276, Stop: 49151, Start Num: 86

Candidate Starts for Pimento_75:

(36, 48075), (38, 48078), (Start: 86 @48276 has 14 MA's), (107, 48369), (138, 48570), (143, 48585), (146, 48600), (183, 48840), (207, 48939), (220, 48987), (230, 49026), (245, 49134),

Gene: Pipp_82 Start: 48884, Stop: 49675, Start Num: 94

Candidate Starts for Pipp_82:

(40, 48650), (43, 48665), (44, 48671), (55, 48728), (Start: 94 @48884 has 1 MA's), (Start: 99 @48893 has 66 MA's), (131, 49076), (157, 49226), (220, 49532), (223, 49541), (227, 49565),

Gene: Pitbull_74 Start: 38878, Stop: 39600, Start Num: 100

Candidate Starts for Pitbull_74:

(41, 38620), (49, 38650), (63, 38725), (71, 38758), (74, 38773), (76, 38782), (Start: 100 @38878 has 3 MA's), (106, 38908), (116, 38968), (120, 38995), (121, 38998), (133, 39049), (142, 39097), (156, 39187), (181, 39325), (183, 39352), (190, 39385), (219, 39487), (226, 39520), (239, 39583),

Gene: PrincePatrick_79 Start: 47344, Stop: 48120, Start Num: 99

Candidate Starts for PrincePatrick_79:

(Start: 99 @47344 has 66 MA's), (131, 47524), (144, 47587), (145, 47596), (159, 47686), (213, 47959), (220, 47980), (223, 47989), (236, 48067),

Gene: RegnumDei_102 Start: 55850, Stop: 56620, Start Num: 90

Candidate Starts for RegnumDei_102:

(Start: 90 @55850 has 2 MA's), (104, 55898), (112, 55934), (113, 55943), (118, 55991), (137, 56093), (154, 56174), (160, 56210), (167, 56246), (178, 56306), (186, 56363), (191, 56375), (198, 56414), (209, 56444), (212, 56456), (215, 56468),

Gene: Reyja_61 Start: 39095, Stop: 39976, Start Num: 78

Candidate Starts for Reyja_61:

(65, 39041), (Start: 78 @39095 has 7 MA's), (202, 39758), (236, 39908), (240, 39923),

Gene: Ruthy_71 Start: 49474, Stop: 50355, Start Num: 84

Candidate Starts for Ruthy_71:

(10, 48862), (13, 48916), (31, 49222), (Start: 84 @49474 has 4 MA's), (143, 49786),

Gene: SFuller_98 Start: 57309, Stop: 58004, Start Num: 105

Candidate Starts for SFuller_98:

(Start: 105 @57309 has 2 MA's), (109, 57327), (115, 57366), (122, 57408), (131, 57450), (136, 57486), (150, 57558), (164, 57636), (169, 57681), (183, 57747), (202, 57828), (212, 57864), (221, 57897), (222, 57900), (231, 57936), (233, 57957), (242, 57996),

Gene: Samba_77 Start: 49525, Stop: 50301, Start Num: 99

Candidate Starts for Samba_77:

(43, 49306), (Start: 99 @49525 has 66 MA's), (131, 49702), (145, 49774), (152, 49831), (157, 49852), (159, 49864), (173, 49972), (220, 50158), (223, 50167), (227, 50191), (236, 50245),

Gene: Santhid_55 Start: 36515, Stop: 37387, Start Num: 78

Candidate Starts for Santhid_55:

(9, 35897), (20, 36176), (21, 36209), (33, 36305), (69, 36476), (Start: 78 @36515 has 7 MA's), (124, 36740), (155, 36911), (202, 37169), (236, 37319), (240, 37334),

Gene: Shagrat_105 Start: 54894, Stop: 55640, Start Num: 96

Candidate Starts for Shagrat_105:

(34, 54600), (Start: 77 @54804 has 2 MA's), (83, 54837), (Start: 96 @54894 has 1 MA's), (108, 54939), (111, 54954), (113, 54969), (137, 55119), (154, 55200), (160, 55236), (167, 55272), (171, 55299), (186, 55386), (188, 55389), (198, 55437), (209, 55467), (212, 55479), (215, 55491), (222, 55515),

Gene: ShawBrad_104 Start: 52546, Stop: 53271, Start Num: 98

Candidate Starts for ShawBrad_104:

(98, 52546), (119, 52657), (153, 52834), (180, 52984), (182, 52999), (197, 53080), (203, 53089), (205, 53092), (232, 53200), (238, 53245), (239, 53248),

Gene: Shlim410_73 Start: 50324, Stop: 51061, Start Num: 99

Candidate Starts for Shlim410_73:

(42, 50078), (73, 50225), (81, 50267), (Start: 99 @50324 has 66 MA's), (110, 50366), (115, 50399), (131, 50480), (132, 50483), (157, 50630), (182, 50780), (197, 50861), (205, 50873),

Gene: Skitty_69 Start: 37268, Stop: 38008, Start Num: 100

Candidate Starts for Skitty_69:

(97, 37265), (Start: 100 @37268 has 3 MA's), (116, 37358), (120, 37385), (121, 37388), (133, 37439), (137, 37472), (156, 37577), (161, 37607), (183, 37739), (199, 37808), (208, 37832), (242, 37979),

Gene: Sleepyhead_65 Start: 41971, Stop: 42924, Start Num: 77

Candidate Starts for Sleepyhead_65:

(Start: 77 @41971 has 2 MA's), (103, 42088), (110, 42118), (128, 42250), (134, 42268), (151, 42391), (162, 42454), (166, 42478), (188, 42616), (201, 42670), (204, 42673),

Gene: Soilmate_81 Start: 52043, Stop: 52804, Start Num: 99

Candidate Starts for Soilmate_81:

(Start: 99 @52043 has 66 MA's), (131, 52220), (137, 52259), (144, 52283), (145, 52292), (159, 52382), (173, 52490), (220, 52676), (223, 52685),

Gene: Sonali_80 Start: 50220, Stop: 51053, Start Num: 92

Candidate Starts for Sonali_80:

(Start: 92 @50220 has 3 MA's), (114, 50325), (117, 50343), (129, 50406), (139, 50460), (145, 50484), (147, 50511), (148, 50514), (174, 50688), (239, 51000),

Gene: Sunshine23_82 Start: 50194, Stop: 51027, Start Num: 92

Candidate Starts for Sunshine23_82:

(58, 50056), (Start: 92 @50194 has 3 MA's), (114, 50299), (117, 50317), (129, 50380), (139, 50434), (145, 50458), (147, 50485), (148, 50488), (174, 50662), (239, 50974),

Gene: Tarzan_59 Start: 37877, Stop: 38749, Start Num: 78

Candidate Starts for Tarzan_59:

(Start: 78 @37877 has 7 MA's), (79, 37889), (124, 38102), (202, 38531), (236, 38681), (240, 38696),

Gene: Toast_77 Start: 47524, Stop: 48300, Start Num: 99

Candidate Starts for Toast_77:

(Start: 99 @47524 has 66 MA's), (131, 47704), (144, 47767), (145, 47776), (159, 47866), (213, 48139), (220, 48160), (223, 48169), (236, 48247),

Gene: Twinkle_74 Start: 51383, Stop: 52120, Start Num: 99

Candidate Starts for Twinkle_74:

(42, 51137), (73, 51284), (81, 51326), (Start: 99 @51383 has 66 MA's), (110, 51425), (115, 51458), (131, 51539), (132, 51542), (157, 51689), (182, 51839), (197, 51920), (205, 51932),

Gene: UmaThurman_80 Start: 47661, Stop: 48437, Start Num: 99

Candidate Starts for UmaThurman_80:

(Start: 99 @47661 has 66 MA's), (131, 47838), (145, 47910), (152, 47967), (153, 47973), (157, 47988), (159, 48000), (173, 48108), (220, 48294), (223, 48303),

Gene: Utz_68 Start: 47303, Stop: 48079, Start Num: 99

Candidate Starts for Utz_68:

(37, 47054), (Start: 99 @47303 has 66 MA's), (131, 47480), (145, 47552), (152, 47609), (153, 47615), (157, 47630), (159, 47642), (173, 47750), (220, 47936), (223, 47945),

Gene: Walrus_77 Start: 48349, Stop: 49125, Start Num: 99

Candidate Starts for Walrus_77:

(27, 48034), (48, 48142), (50, 48151), (66, 48217), (68, 48223), (Start: 99 @48349 has 66 MA's), (131, 48526), (159, 48688), (173, 48796), (220, 48982), (223, 48991),

Gene: Whack_70 Start: 45809, Stop: 46741, Start Num: 77

Candidate Starts for Whack_70:

(1, 44903), (2, 44915), (3, 44963), (4, 44984), (5, 45032), (6, 45044), (7, 45050), (8, 45080), (11, 45239), (15, 45278), (19, 45455), (52, 45686), (62, 45746), (68, 45764), (Start: 77 @45809 has 2 MA's), (91, 45875), (101, 45905), (110, 45956), (126, 46067), (140, 46148), (158, 46259), (162, 46286), (170, 46349), (175, 46376), (188, 46448), (201, 46502), (204, 46505), (227, 46616), (235, 46670), (241, 46691),

Gene: WheatThin_72 Start: 48179, Stop: 49054, Start Num: 86

Candidate Starts for WheatThin_72:

(46, 48008), (75, 48140), (82, 48173), (Start: 86 @48179 has 14 MA's), (107, 48272), (130, 48419), (143, 48488), (146, 48503), (183, 48743), (207, 48842), (230, 48929), (245, 49037),

Gene: William_79 Start: 48596, Stop: 49372, Start Num: 99

Candidate Starts for William_79:

(17, 48164), (Start: 99 @48596 has 66 MA's), (131, 48776), (213, 49211), (220, 49232), (223, 49241), (236, 49319),

Gene: Wisp_74 Start: 47248, Stop: 48024, Start Num: 99

Candidate Starts for Wisp_74:

(66, 47116), (Start: 99 @47248 has 66 MA's), (131, 47425), (145, 47497), (157, 47575), (159, 47587), (173, 47695), (188, 47761), (220, 47881), (223, 47890),

Gene: Wocket_77 Start: 47897, Stop: 48673, Start Num: 99

Candidate Starts for Wocket_77:

(Start: 99 @47897 has 66 MA's), (131, 48074), (145, 48146), (152, 48203), (157, 48224), (159, 48236), (173, 48344), (220, 48530), (223, 48539),

Gene: Zarbodnamra_81 Start: 47607, Stop: 48383, Start Num: 99

Candidate Starts for Zarbodnamra_81:

(Start: 99 @47607 has 66 MA's), (131, 47784), (145, 47856), (152, 47913), (157, 47934), (159, 47946), (173, 48054), (207, 48192), (220, 48240), (223, 48249),

Gene: ZiggyZoo_78 Start: 49093, Stop: 49869, Start Num: 99

Candidate Starts for ZiggyZoo_78:

(43, 48874), (Start: 99 @49093 has 66 MA's), (131, 49270), (145, 49342), (157, 49420), (159, 49432), (173, 49540), (220, 49726), (223, 49735), (227, 49759),

Gene: Zilla_74 Start: 46460, Stop: 47236, Start Num: 99

Candidate Starts for Zilla_74:

(Start: 99 @46460 has 66 MA's), (131, 46637), (145, 46709), (157, 46787), (159, 46799), (173, 46907), (220, 47093), (223, 47102),