Pham 291101

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 291101 Report

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

Pham number 291101 has 77 members, 11 are drafts.

Phages represented in each track:
- Track 1 : Laurie_32
- Track 2 : Gsput1_25
- Track 3 : LordVader_20
- Track 4 : MilanaBonita_19, Akhila_19
- Track 5 : Ms6_18
- Track 6 : Bluvara_21
- Track 7 : Babsiella_21, HC_21
- Track 8 : QueenHazel_21
- Track 9 : Xula_20
- Track 10 : Diminimus_31, Dulcita_31, Auspice_30, Izel_31
- Track 11 : Glaske16_31
- Track 12 : Bongo_30, TyDawg_30, IPhane7_30, FreakyGoo_31, TpudiCK_31, LilhomieP_29
- Track 13 : SlimJimmy_29
- Track 14 : Bricole_30, PegLeg_30
- Track 15 : KleverKiS_30
- Track 16 : Skinny_31
- Track 17 : Spinach_20, BabeRuth_20, ShrimpFriedEgg_20, Hanako_20, Nenae_20, Redi_20, PhancyPhin_20, Purgamenstris_20
- Track 18 : Snekmaggedon_20, Jamie19_20, SpongeBob_20
- Track 19 : Rebel_20
- Track 20 : Majeke_21, Brusacoram_21, Mangethe_21, Thespis_21
- Track 21 : StevieRay_21
- Track 22 : Camster_21, PeanutPie_21, Arib1_21, Bhagsy_21
- Track 23 : Sonah_21, HUHilltop_21, Chubbello_21, Kari_21, Vidya_21, Ksquared_21, Phegasus_21, FirstPlacePfu_21, Juniormint_21, Fishburne_21, Jebeks_21, Etoile_21, Polkaroo_21, Techage_21, Langerak_21, GaloreK_21, Zilizebeth_21, Donovan_21, Necropolis_21
- Track 24 : Bunnies_21, Bartholomew_21
- Track 25 : Venti_21
- Track 26 : Malithi_21
- Track 27 : GreaseLightnin_21
- Track 28 : Jung_21
- Track 29 : Taptic_24
- Track 30 : Argie_25
- Track 31 : Cepens_24, Megabear_24

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

The start number called the most often in the published annotations is 7, it was called in 28 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arib1_21, Bartholomew_21, Bhagsy_21, Brusacoram_21, Bunnies_21, Camster_21, Chubbello_21, Donovan_21, Etoile_21, FirstPlacePfu_21, Fishburne_21, GaloreK_21, HUHilltop_21, Jebeks_21, Jung_21, Juniormint_21, Kari_21, Ksquared_21, Langerak_21, Majeke_21, Malithi_21, Mangethe_21, Necropolis_21, PeanutPie_21, Phegasus_21, Polkaroo_21, Sonah_21, StevieRay_21, Techage_21, Thespis_21, Venti_21, Vidya_21, Zilizebeth_21,

Genes that have the "Most Annotated" start but do not call it:
• BabeRuth_20, GreaseLightnin_21, Hanako_20, Jamie19_20, Ms6_18, Nenae_20, PhancyPhin_20, Purgamenstris_20, Rebel_20, Redi_20, ShrimpFriedEgg_20, Snekmaggedon_20, Spinach_20, SpongeBob_20,

Genes that do not have the "Most Annotated" start:
• Akhila_19, Argie_25, Auspice_30, Babsiella_21, Bluvara_21, Bongo_30, Bricole_30, Cepens_24, Diminimus_31, Dulcita_31, FreakyGoo_31, Glaske16_31, Gsput1_25, HC_21, IPhane7_30, Izel_31, KleverKiS_30, Laurie_32, LilhomieP_29, LordVader_20, Megabear_24, MilanaBonita_19, PegLeg_30, QueenHazel_21, Skinny_31, SlimJimmy_29, Taptic_24, TpudiCK_31, TyDawg_30, Xula_20,

Summary by start number:

Start 3:
• Found in 14 of 77 (18.2%) of genes in pham
• Manual Annotations of this start: 13 of 66
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BabeRuth_20 (N), GreaseLightnin_21 (P1), Hanako_20 (N), Jamie19_20 (N), Ms6_18 (F1), Nenae_20 (N), PhancyPhin_20 (N), Purgamenstris_20 (N), Rebel_20 (N), Redi_20 (N), ShrimpFriedEgg_20 (N), Snekmaggedon_20 (N), Spinach_20 (N), SpongeBob_20 (N),

Start 4:
• Found in 5 of 77 (6.5%) of genes in pham
• Manual Annotations of this start: 4 of 66
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Babsiella_21 (I1), Bluvara_21 (I), HC_21 (I1), QueenHazel_21 (I1), Xula_20 (I1),

Start 5:
• Found in 3 of 77 (3.9%) of genes in pham
• Manual Annotations of this start: 2 of 66
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akhila_19 (F1), LordVader_20 (F), MilanaBonita_19 (F1),

Start 6:
• Found in 16 of 77 (20.8%) of genes in pham
• Manual Annotations of this start: 14 of 66
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Auspice_30 (M1), Bongo_30 (M1), Bricole_30 (M1), Diminimus_31 (M1), Dulcita_31 (M1), FreakyGoo_31 (M1), Glaske16_31 (M1), IPhane7_30 (M1), Izel_31 (M1), KleverKiS_30 (M1), LilhomieP_29 (M1), PegLeg_30 (M1), Skinny_31 (M1), SlimJimmy_29 (M1), TpudiCK_31 (M1), TyDawg_30 (M1),

Start 7:
• Found in 47 of 77 (61.0%) of genes in pham
• Manual Annotations of this start: 28 of 66
• Called 70.2% of time when present
• Phage (with cluster) where this start called: Arib1_21 (P1), Bartholomew_21 (P1), Bhagsy_21 (P1), Brusacoram_21 (P1), Bunnies_21 (P1), Camster_21 (P1), Chubbello_21 (P1), Donovan_21 (P1), Etoile_21 (P1), FirstPlacePfu_21 (P1), Fishburne_21 (P1), GaloreK_21 (P1), HUHilltop_21 (P1), Jebeks_21 (P1), Jung_21 (P1), Juniormint_21 (P1), Kari_21 (P1), Ksquared_21 (P1), Langerak_21 (P1), Majeke_21 (P1), Malithi_21 (P1), Mangethe_21 (P1), Necropolis_21 (P1), PeanutPie_21 (P1), Phegasus_21 (P1), Polkaroo_21 (P1), Sonah_21 (P1), StevieRay_21 (P1), Techage_21 (P1), Thespis_21 (P1), Venti_21 (P1), Vidya_21 (P1), Zilizebeth_21 (P1),

Start 21:
• Found in 1 of 77 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 66
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Laurie_32 (B2),

Start 22:
• Found in 4 of 77 (5.2%) of genes in pham
• Manual Annotations of this start: 4 of 66
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Argie_25 (W), Cepens_24 (W), Megabear_24 (W), Taptic_24 (W),

Start 50:
• Found in 1 of 77 (1.3%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gsput1_25 (CU2),

Summary by clusters:

There are 10 clusters represented in this pham: F1, P1, B2, F, I1, N, I, M1, W, CU2,

Info for manual annotations of cluster B2:
•Start number 21 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster F1:

•Start number 5 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster I1:
•Start number 4 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster M1:
•Start number 6 was manually annotated 14 times for cluster M1.

Info for manual annotations of cluster N:
•Start number 3 was manually annotated 12 times for cluster N.

Info for manual annotations of cluster P1:
•Start number 3 was manually annotated 1 time for cluster P1.
•Start number 7 was manually annotated 28 times for cluster P1.

Info for manual annotations of cluster W:
•Start number 22 was manually annotated 4 times for cluster W.

Gene Information:

Gene: Akhila_19 Start: 18067, Stop: 20265, Start Num: 5
Candidate Starts for Akhila_19:
(2, 18055), (Start: 5 @18067 has 2 MA's), (8, 18088), (10, 18109), (13, 18148), (20, 18217), (23, 18226), (24, 18229), (30, 18280), (33, 18295), (41, 18370), (53, 18505), (55, 18517), (59, 18538), (66, 18571), (78, 18718), (85, 18781), (90, 18820), (91, 18844), (95, 18859), (96, 18868), (101, 18895), (102, 18898), (103, 18901), (108, 18970), (111, 18991), (113, 18997), (117, 19033), (119, 19051), (145, 19327), (151, 19393), (153, 19411), (155, 19429), (164, 19588), (185, 19714), (197, 19855), (198, 19870), (199, 19921), (204, 19948), (205, 19969), (221, 20071), (223, 20086), (225, 20092), (233, 20137), (236, 20155), (237, 20161), (242, 20224),

Gene: Argie_25 Start: 27496, Stop: 29625, Start Num: 22
Candidate Starts for Argie_25:
(Start: 22 @27496 has 4 MA's), (31, 27565), (36, 27598), (38, 27619), (45, 27676), (48, 27706), (49, 27724), (60, 27817), (61, 27820), (68, 27874), (76, 27958), (82, 27994), (84, 28015), (89, 28063), (93, 28102), (102, 28156), (105, 28210), (107, 28222), (109, 28246), (112, 28270), (114, 28282), (116, 28297), (118, 28312), (121, 28354), (128, 28435), (145, 28606), (151, 28672), (153, 28690), (155, 28708), (164, 28867), (167, 28894), (170, 28912), (173, 28939), (175, 28975), (177, 28993), (178, 28999), (180, 29026), (181, 29032), (187, 29074), (198, 29215), (199, 29266), (218, 29410), (224, 29446), (225, 29449), (232, 29497), (236, 29521), (239, 29557), (240, 29560), (241, 29569), (244, 29605), (245, 29620),

Gene: Arib1_21 Start: 19044, Stop: 21305, Start Num: 7
Candidate Starts for Arib1_21:
(Start: 7 @19044 has 28 MA's), (26, 19197), (53, 19470), (55, 19482), (59, 19503), (64, 19527), (70, 19602), (77, 19674), (81, 19704), (85, 19740), (91, 19803), (95, 19818), (100, 19845), (101, 19851), (108, 19926), (111, 19950), (113, 19956), (119, 20010), (120, 20016), (145, 20286), (151, 20352), (153, 20370), (155, 20388), (164, 20547), (167, 20574), (170, 20592), (173, 20619), (175, 20655), (177, 20673), (178, 20679), (180, 20706), (181, 20712), (187, 20754), (198, 20895), (199, 20946), (218, 21090), (224, 21126), (225, 21129), (232, 21177), (236, 21201), (239, 21237), (240, 21240), (241, 21249), (244, 21285), (245, 21300),

Gene: Auspice_30 Start: 24622, Stop: 26973, Start Num: 6
Candidate Starts for Auspice_30:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (151, 25981), (153, 25999), (154, 26008), (155, 26017), (163, 26164), (164, 26176), (171, 26242), (175, 26284), (178, 26308), (181, 26341), (189, 26395), (192, 26434), (194, 26446), (201, 26578), (206, 26623), (220, 26749), (224, 26773), (226, 26782), (228, 26791), (229, 26803), (231, 26815), (232, 26830), (239, 26890), (246, 26959),

Gene: BabeRuth_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for BabeRuth_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: Babsiella_21 Start: 19025, Stop: 21313, Start Num: 4
Candidate Starts for Babsiella_21:
(Start: 4 @19025 has 4 MA's), (8, 19049), (15, 19160), (18, 19169), (24, 19196), (41, 19343), (53, 19478), (55, 19490), (59, 19511), (64, 19535), (70, 19610), (77, 19682), (81, 19712), (85, 19748), (91, 19811), (95, 19826), (100, 19853), (101, 19859), (102, 19862), (108, 19934), (111, 19958), (113, 19964), (119, 20018), (120, 20024), (145, 20294), (151, 20360), (153, 20378), (155, 20396), (164, 20555), (167, 20582), (170, 20600), (173, 20627), (175, 20663), (177, 20681), (178, 20687), (180, 20714), (181, 20720), (187, 20762), (198, 20903), (199, 20954), (218, 21098), (224, 21134), (225, 21137), (232, 21185), (236, 21209), (239, 21245), (240, 21248), (241, 21257), (244, 21293), (245, 21308),

Gene: Bartholomew_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Bartholomew_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Bhagsy_21 Start: 19045, Stop: 21306, Start Num: 7
Candidate Starts for Bhagsy_21:
(Start: 7 @19045 has 28 MA's), (26, 19198), (53, 19471), (55, 19483), (59, 19504), (64, 19528), (70, 19603), (77, 19675), (81, 19705), (85, 19741), (91, 19804), (95, 19819), (100, 19846), (101, 19852), (108, 19927), (111, 19951), (113, 19957), (119, 20011), (120, 20017), (145, 20287), (151, 20353), (153, 20371), (155, 20389), (164, 20548), (167, 20575), (170, 20593), (173, 20620), (175, 20656), (177, 20674), (178, 20680), (180, 20707), (181, 20713), (187, 20755), (198, 20896), (199, 20947), (218, 21091), (224, 21127), (225, 21130), (232, 21178), (236, 21202), (239, 21238), (240, 21241), (241, 21250), (244, 21286), (245, 21301),

Gene: Bluvara_21 Start: 19092, Stop: 21380, Start Num: 4
Candidate Starts for Bluvara_21:
(Start: 4 @19092 has 4 MA's), (8, 19116), (15, 19227), (18, 19236), (24, 19263), (41, 19410), (53, 19545), (55, 19557), (59, 19578), (64, 19602), (70, 19677), (77, 19749), (81, 19779), (85, 19815), (91, 19878), (95, 19893), (100, 19920), (101, 19926), (102, 19929), (108, 20001), (111, 20025), (113, 20031), (119, 20085), (120, 20091), (145, 20361), (151, 20427), (153, 20445), (155, 20463), (164, 20622), (167, 20649), (170, 20667), (173, 20694), (175, 20730), (177, 20748), (178, 20754), (180, 20781), (181, 20787), (187, 20829), (198, 20970), (199, 21021), (218, 21165), (224, 21201), (225, 21204), (232, 21252), (236, 21276), (239, 21312), (240, 21315), (241, 21324), (244, 21360), (245, 21375),

Gene: Bongo_30 Start: 24622, Stop: 26973, Start Num: 6
Candidate Starts for Bongo_30:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (80, 25315), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (151, 25981), (153, 25999), (154, 26008), (155, 26017), (163, 26164), (164, 26176), (171, 26242), (175, 26284), (178, 26308), (181, 26341), (189, 26395), (192, 26434), (194, 26446), (201, 26578), (206, 26623), (220, 26749), (224, 26773), (226, 26782), (228, 26791), (229, 26803), (231, 26815), (232, 26830), (239, 26890), (246, 26959),

Gene: Bricole_30 Start: 24608, Stop: 26959, Start Num: 6
Candidate Starts for Bricole_30:
(Start: 6 @24608 has 14 MA's), (14, 24728), (17, 24743), (28, 24815), (30, 24836), (32, 24848), (35, 24875), (37, 24884), (53, 25070), (65, 25133), (70, 25202), (73, 25229), (80, 25301), (81, 25304), (83, 25325), (102, 25460), (108, 25541), (110, 25556), (111, 25565), (113, 25571), (126, 25694), (139, 25850), (142, 25868), (143, 25883), (151, 25967), (153, 25985), (154, 25994), (163, 26150), (164, 26162), (171, 26228), (175, 26270), (178, 26294), (181, 26327), (189, 26381), (192, 26420), (194, 26432), (201, 26564), (206, 26609), (220, 26735), (224, 26759), (226, 26768), (228, 26777), (229, 26789), (231, 26801), (232, 26816), (239, 26876), (246, 26945),

Gene: Brusacoram_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Brusacoram_21:
(Start: 7 @19038 has 28 MA's), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (115, 19962), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Bunnies_21 Start: 19060, Stop: 21321, Start Num: 7
Candidate Starts for Bunnies_21:
(Start: 7 @19060 has 28 MA's), (8, 19069), (26, 19213), (53, 19486), (55, 19498), (59, 19519), (64, 19543), (70, 19618), (77, 19690), (81, 19720), (85, 19756), (91, 19819), (95, 19834), (100, 19861), (101, 19867), (108, 19942), (111, 19966), (113, 19972), (119, 20026), (120, 20032), (145, 20302), (151, 20368), (155, 20404), (164, 20563), (167, 20590), (170, 20608), (173, 20635), (175, 20671), (177, 20689), (178, 20695), (180, 20722), (181, 20728), (187, 20770), (198, 20911), (199, 20962), (218, 21106), (224, 21142), (225, 21145), (232, 21193), (236, 21217), (239, 21253), (240, 21256), (241, 21265), (244, 21301), (245, 21316),

Gene: Camster_21 Start: 19039, Stop: 21300, Start Num: 7

Candidate Starts for Camster_21:
(Start: 7 @19039 has 28 MA's), (26, 19192), (53, 19465), (55, 19477), (59, 19498), (64, 19522), (70, 19597), (77, 19669), (81, 19699), (85, 19735), (91, 19798), (95, 19813), (100, 19840), (101, 19846), (108, 19921), (111, 19945), (113, 19951), (119, 20005), (120, 20011), (145, 20281), (151, 20347), (153, 20365), (155, 20383), (164, 20542), (167, 20569), (170, 20587), (173, 20614), (175, 20650), (177, 20668), (178, 20674), (180, 20701), (181, 20707), (187, 20749), (198, 20890), (199, 20941), (218, 21085), (224, 21121), (225, 21124), (232, 21172), (236, 21196), (239, 21232), (240, 21235), (241, 21244), (244, 21280), (245, 21295),

Gene: Cepens_24 Start: 27217, Stop: 29346, Start Num: 22
Candidate Starts for Cepens_24:
(Start: 22 @27217 has 4 MA's), (31, 27286), (36, 27319), (38, 27340), (45, 27397), (48, 27427), (49, 27445), (60, 27538), (61, 27541), (68, 27595), (76, 27679), (82, 27715), (83, 27733), (84, 27736), (89, 27784), (93, 27823), (98, 27859), (102, 27877), (105, 27931), (107, 27943), (109, 27967), (112, 27991), (114, 28003), (116, 28018), (118, 28033), (121, 28075), (127, 28132), (128, 28156), (145, 28327), (151, 28393), (153, 28411), (155, 28429), (164, 28588), (167, 28615), (170, 28633), (173, 28660), (175, 28696), (177, 28714), (178, 28720), (180, 28747), (181, 28753), (187, 28795), (198, 28936), (199, 28987), (218, 29131), (224, 29167), (225, 29170), (232, 29218), (236, 29242), (239, 29278), (240, 29281), (241, 29290), (244, 29326), (245, 29341),

Gene: Chubbello_21 Start: 19037, Stop: 21298, Start Num: 7
Candidate Starts for Chubbello_21:
(Start: 7 @19037 has 28 MA's), (8, 19046), (26, 19190), (53, 19463), (55, 19475), (59, 19496), (64, 19520), (70, 19595), (77, 19667), (81, 19697), (85, 19733), (91, 19796), (95, 19811), (100, 19838), (101, 19844), (108, 19919), (111, 19943), (113, 19949), (119, 20003), (120, 20009), (145, 20279), (151, 20345), (153, 20363), (155, 20381), (164, 20540), (167, 20567), (170, 20585), (173, 20612), (175, 20648), (177, 20666), (178, 20672), (180, 20699), (181, 20705), (187, 20747), (198, 20888), (199, 20939), (218, 21083), (224, 21119), (225, 21122), (232, 21170), (236, 21194), (239, 21230), (240, 21233), (241, 21242), (244, 21278), (245, 21293),

Gene: Diminimus_31 Start: 24621, Stop: 26972, Start Num: 6
Candidate Starts for Diminimus_31:
(Start: 6 @24621 has 14 MA's), (14, 24741), (17, 24756), (28, 24828), (30, 24849), (32, 24861), (35, 24888), (37, 24897), (53, 25083), (65, 25146), (70, 25215), (73, 25242), (81, 25317), (83, 25338), (102, 25473), (108, 25554), (110, 25569), (111, 25578), (113, 25584), (126, 25707), (139, 25863), (142, 25881), (143, 25896), (151, 25980), (153, 25998), (154, 26007), (155, 26016), (163, 26163), (164, 26175), (171, 26241), (175, 26283), (178, 26307), (181, 26340), (189, 26394), (192, 26433), (194, 26445), (201, 26577), (206, 26622), (220, 26748), (224, 26772), (226, 26781), (228, 26790), (229, 26802), (231, 26814), (232, 26829), (239, 26889), (246, 26958),

Gene: Donovan_21 Start: 19027, Stop: 21288, Start Num: 7
Candidate Starts for Donovan_21:
(Start: 7 @19027 has 28 MA's), (8, 19036), (26, 19180), (53, 19453), (55, 19465), (59, 19486), (64, 19510), (70, 19585), (77, 19657), (81, 19687), (85, 19723), (91, 19786), (95, 19801), (100, 19828), (101, 19834), (108, 19909), (111, 19933), (113, 19939), (119, 19993), (120, 19999), (145, 20269), (151, 20335), (153, 20353), (155, 20371), (164, 20530), (167, 20557), (170, 20575), (173, 20602), (175, 20638), (177, 20656), (178, 20662), (180, 20689), (181, 20695), (187, 20737), (198, 20878), (199, 20929), (218, 21073), (224, 21109), (225, 21112), (232, 21160), (236, 21184), (239, 21220), (240, 21223), (241, 21232), (244, 21268), (245, 21283),

Gene: Dulcita_31 Start: 24621, Stop: 26972, Start Num: 6
Candidate Starts for Dulcita_31:

(Start: 6 @24621 has 14 MA's), (14, 24741), (17, 24756), (28, 24828), (30, 24849), (32, 24861), (35, 24888), (37, 24897), (53, 25083), (65, 25146), (70, 25215), (73, 25242), (81, 25317), (83, 25338), (102, 25473), (108, 25554), (110, 25569), (111, 25578), (113, 25584), (126, 25707), (139, 25863), (142, 25881), (143, 25896), (151, 25980), (153, 25998), (154, 26007), (155, 26016), (163, 26163), (164, 26175), (171, 26241), (175, 26283), (178, 26307), (181, 26340), (189, 26394), (192, 26433), (194, 26445), (201, 26577), (206, 26622), (220, 26748), (224, 26772), (226, 26781), (228, 26790), (229, 26802), (231, 26814), (232, 26829), (239, 26889), (246, 26958),

Gene: Etoile_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Etoile_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: FirstPlacePfu_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for FirstPlacePfu_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Fishburne_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Fishburne_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: FreakyGoo_31 Start: 24622, Stop: 26973, Start Num: 6
Candidate Starts for FreakyGoo_31:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (80, 25315), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (151, 25981), (153, 25999), (154, 26008), (155, 26017), (163, 26164), (164, 26176), (171, 26242), (175, 26284), (178, 26308), (181, 26341), (189, 26395), (192, 26434), (194, 26446), (201, 26578), (206, 26623), (220, 26749), (224, 26773), (226, 26782), (228, 26791), (229, 26803), (231, 26815), (232, 26830), (239, 26890), (246, 26959),

Gene: GaloreK_21 Start: 19034, Stop: 21295, Start Num: 7
Candidate Starts for GaloreK_21:
(Start: 7 @19034 has 28 MA's), (8, 19043), (26, 19187), (53, 19460), (55, 19472), (59, 19493), (64, 19517), (70, 19592), (77, 19664), (81, 19694), (85, 19730), (91, 19793), (95, 19808), (100, 19835), (101, 19841), (108, 19916), (111, 19940), (113, 19946), (119, 20000), (120, 20006), (145, 20276),

(151, 20342), (153, 20360), (155, 20378), (164, 20537), (167, 20564), (170, 20582), (173, 20609), (175, 20645), (177, 20663), (178, 20669), (180, 20696), (181, 20702), (187, 20744), (198, 20885), (199, 20936), (218, 21080), (224, 21116), (225, 21119), (232, 21167), (236, 21191), (239, 21227), (240, 21230), (241, 21239), (244, 21275), (245, 21290),

Gene: Glaske16_31 Start: 24621, Stop: 26972, Start Num: 6
Candidate Starts for Glaske16_31:
(Start: 6 @24621 has 14 MA's), (14, 24741), (17, 24756), (28, 24828), (30, 24849), (32, 24861), (35, 24888), (37, 24897), (53, 25083), (65, 25146), (70, 25215), (73, 25242), (81, 25317), (83, 25338), (102, 25473), (108, 25554), (110, 25569), (111, 25578), (113, 25584), (126, 25707), (139, 25863), (142, 25881), (143, 25896), (151, 25980), (153, 25998), (154, 26007), (163, 26163), (164, 26175), (171, 26241), (175, 26283), (178, 26307), (181, 26340), (189, 26394), (192, 26433), (194, 26445), (201, 26577), (206, 26622), (220, 26748), (224, 26772), (226, 26781), (228, 26790), (229, 26802), (231, 26814), (232, 26829), (239, 26889), (246, 26958),

Gene: GreaseLightnin_21 Start: 19044, Stop: 21344, Start Num: 3
Candidate Starts for GreaseLightnin_21:
(Start: 3 @19044 has 13 MA's), (Start: 7 @19053 has 28 MA's), (24, 19197), (53, 19470), (55, 19482), (59, 19503), (78, 19683), (83, 19731), (85, 19746), (86, 19761), (88, 19767), (90, 19785), (91, 19809), (95, 19824), (96, 19833), (101, 19860), (103, 19866), (105, 19911), (108, 19935), (110, 19947), (111, 19956), (113, 19962), (117, 19998), (119, 20016), (141, 20250), (145, 20292), (151, 20358), (153, 20376), (155, 20394), (164, 20553), (167, 20580), (169, 20595), (170, 20598), (175, 20661), (176, 20670), (178, 20685), (186, 20751), (193, 20814), (194, 20823), (199, 20949), (202, 20970), (207, 21006), (208, 21012), (210, 21024), (211, 21027), (214, 21066), (220, 21129), (222, 21138), (225, 21156),

Gene: Gsput1_25 Start: 19933, Stop: 21690, Start Num: 50
Candidate Starts for Gsput1_25:
(50, 19933), (58, 19987), (61, 20002), (68, 20056), (69, 20080), (71, 20098), (74, 20131), (79, 20194), (83, 20218), (87, 20248), (92, 20302), (94, 20305), (97, 20332), (104, 20374), (108, 20428), (117, 20488), (122, 20536), (124, 20551), (125, 20566), (129, 20626), (130, 20659), (131, 20665), (133, 20671), (135, 20680), (136, 20683), (137, 20710), (140, 20740), (144, 20773), (146, 20785), (147, 20803), (152, 20860), (158, 20947), (162, 21019), (165, 21049), (172, 21067), (175, 21082), (182, 21148), (184, 21163), (186, 21172), (195, 21256), (203, 21394), (213, 21487), (227, 21592), (234, 21637),

Gene: HC_21 Start: 19081, Stop: 21369, Start Num: 4
Candidate Starts for HC_21:
(Start: 4 @19081 has 4 MA's), (8, 19105), (15, 19216), (18, 19225), (24, 19252), (41, 19399), (53, 19534), (55, 19546), (59, 19567), (64, 19591), (70, 19666), (77, 19738), (81, 19768), (85, 19804), (91, 19867), (95, 19882), (100, 19909), (101, 19915), (102, 19918), (108, 19990), (111, 20014), (113, 20020), (119, 20074), (120, 20080), (145, 20350), (151, 20416), (153, 20434), (155, 20452), (164, 20611), (167, 20638), (170, 20656), (173, 20683), (175, 20719), (177, 20737), (178, 20743), (180, 20770), (181, 20776), (187, 20818), (198, 20959), (199, 21010), (218, 21154), (224, 21190), (225, 21193), (232, 21241), (236, 21265), (239, 21301), (240, 21304), (241, 21313), (244, 21349), (245, 21364),

Gene: HUHilltop_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for HUHilltop_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613),

(175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Hanako_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Hanako_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: IPhane7_30 Start: 24622, Stop: 26973, Start Num: 6
Candidate Starts for IPhane7_30:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (80, 25315), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (151, 25981), (153, 25999), (154, 26008), (155, 26017), (163, 26164), (164, 26176), (171, 26242), (175, 26284), (178, 26308), (181, 26341), (189, 26395), (192, 26434), (194, 26446), (201, 26578), (206, 26623), (220, 26749), (224, 26773), (226, 26782), (228, 26791), (229, 26803), (231, 26815), (232, 26830), (239, 26890), (246, 26959),

Gene: Izel_31 Start: 24621, Stop: 26972, Start Num: 6
Candidate Starts for Izel_31:
(Start: 6 @24621 has 14 MA's), (14, 24741), (17, 24756), (28, 24828), (30, 24849), (32, 24861), (35, 24888), (37, 24897), (53, 25083), (65, 25146), (70, 25215), (73, 25242), (81, 25317), (83, 25338), (102, 25473), (108, 25554), (110, 25569), (111, 25578), (113, 25584), (126, 25707), (139, 25863), (142, 25881), (143, 25896), (151, 25980), (153, 25998), (154, 26007), (155, 26016), (163, 26163), (164, 26175), (171, 26241), (175, 26283), (178, 26307), (181, 26340), (189, 26394), (192, 26433), (194, 26445), (201, 26577), (206, 26622), (220, 26748), (224, 26772), (226, 26781), (228, 26790), (229, 26802), (231, 26814), (232, 26829), (239, 26889), (246, 26958),

Gene: Jamie19_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Jamie19_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (47, 17920), (53, 17992), (55, 18004), (59, 18025), (62, 18037), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (89, 18304), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (106, 18442), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (114, 18493), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (145, 18814), (151, 18880), (153, 18898), (155, 18916), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: Jebeks_21 Start: 19023, Stop: 21284, Start Num: 7
Candidate Starts for Jebeks_21:
(Start: 7 @19023 has 28 MA's), (8, 19032), (26, 19176), (53, 19449), (55, 19461), (59, 19482), (64, 19506), (70, 19581), (77, 19653), (81, 19683), (85, 19719), (91, 19782), (95, 19797), (100, 19824), (101, 19830), (108, 19905), (111, 19929), (113, 19935), (119, 19989), (120, 19995), (145, 20265),

(151, 20331), (153, 20349), (155, 20367), (164, 20526), (167, 20553), (170, 20571), (173, 20598), (175, 20634), (177, 20652), (178, 20658), (180, 20685), (181, 20691), (187, 20733), (198, 20874), (199, 20925), (218, 21069), (224, 21105), (225, 21108), (232, 21156), (236, 21180), (239, 21216), (240, 21219), (241, 21228), (244, 21264), (245, 21279),

Gene: Jung_21 Start: 18964, Stop: 21225, Start Num: 7
Candidate Starts for Jung_21:
(Start: 7 @18964 has 28 MA's), (8, 18973), (26, 19117), (53, 19390), (55, 19402), (59, 19423), (63, 19444), (70, 19522), (77, 19594), (81, 19624), (85, 19660), (91, 19723), (95, 19738), (101, 19771), (102, 19774), (108, 19846), (111, 19870), (113, 19876), (119, 19930), (120, 19936), (145, 20206), (151, 20272), (153, 20290), (155, 20308), (164, 20467), (170, 20512), (173, 20539), (175, 20575), (177, 20593), (178, 20599), (180, 20626), (181, 20632), (187, 20674), (198, 20815), (199, 20866), (218, 21010), (224, 21046), (225, 21049), (232, 21097), (236, 21121), (239, 21157), (240, 21160), (241, 21169), (244, 21205), (245, 21220),

Gene: Juniormint_21 Start: 19064, Stop: 21325, Start Num: 7
Candidate Starts for Juniormint_21:
(Start: 7 @19064 has 28 MA's), (8, 19073), (26, 19217), (53, 19490), (55, 19502), (59, 19523), (64, 19547), (70, 19622), (77, 19694), (81, 19724), (85, 19760), (91, 19823), (95, 19838), (100, 19865), (101, 19871), (108, 19946), (111, 19970), (113, 19976), (119, 20030), (120, 20036), (145, 20306), (151, 20372), (153, 20390), (155, 20408), (164, 20567), (167, 20594), (170, 20612), (173, 20639), (175, 20675), (177, 20693), (178, 20699), (180, 20726), (181, 20732), (187, 20774), (198, 20915), (199, 20966), (218, 21110), (224, 21146), (225, 21149), (232, 21197), (236, 21221), (239, 21257), (240, 21260), (241, 21269), (244, 21305), (245, 21320),

Gene: Kari_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Kari_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: KleverKiS_30 Start: 24605, Stop: 26953, Start Num: 6
Candidate Starts for KleverKiS_30:
(Start: 6 @24605 has 14 MA's), (14, 24725), (17, 24740), (28, 24812), (30, 24833), (32, 24845), (35, 24872), (37, 24881), (40, 24911), (42, 24938), (44, 24965), (52, 25061), (53, 25067), (57, 25091), (67, 25145), (73, 25226), (80, 25298), (81, 25301), (83, 25322), (102, 25457), (103, 25460), (108, 25538), (113, 25565), (117, 25601), (118, 25604), (120, 25625), (134, 25790), (138, 25826), (139, 25844), (143, 25877), (151, 25961), (153, 25979), (154, 25988), (163, 26144), (164, 26156), (171, 26222), (175, 26264), (178, 26288), (181, 26321), (189, 26375), (192, 26414), (194, 26426), (201, 26558), (206, 26603), (220, 26729), (224, 26753), (226, 26762), (228, 26771), (229, 26783), (231, 26795), (232, 26810), (239, 26870), (246, 26939),

Gene: Ksquared_21 Start: 19060, Stop: 21321, Start Num: 7
Candidate Starts for Ksquared_21:
(Start: 7 @19060 has 28 MA's), (8, 19069), (26, 19213), (53, 19486), (55, 19498), (59, 19519), (64, 19543), (70, 19618), (77, 19690), (81, 19720), (85, 19756), (91, 19819), (95, 19834), (100, 19861), (101, 19867), (108, 19942), (111, 19966), (113, 19972), (119, 20026), (120, 20032), (145, 20302), (151, 20368), (153, 20386), (155, 20404), (164, 20563), (167, 20590), (170, 20608), (173, 20635), (175, 20671), (177, 20689), (178, 20695), (180, 20722), (181, 20728), (187, 20770), (198, 20911),

(199, 20962), (218, 21106), (224, 21142), (225, 21145), (232, 21193), (236, 21217), (239, 21253), (240, 21256), (241, 21265), (244, 21301), (245, 21316),

Gene: Langerak_21 Start: 19022, Stop: 21283, Start Num: 7
Candidate Starts for Langerak_21:
(Start: 7 @19022 has 28 MA's), (8, 19031), (26, 19175), (53, 19448), (55, 19460), (59, 19481), (64, 19505), (70, 19580), (77, 19652), (81, 19682), (85, 19718), (91, 19781), (95, 19796), (100, 19823), (101, 19829), (108, 19904), (111, 19928), (113, 19934), (119, 19988), (120, 19994), (145, 20264), (151, 20330), (153, 20348), (155, 20366), (164, 20525), (167, 20552), (170, 20570), (173, 20597), (175, 20633), (177, 20651), (178, 20657), (180, 20684), (181, 20690), (187, 20732), (198, 20873), (199, 20924), (218, 21068), (224, 21104), (225, 21107), (232, 21155), (236, 21179), (239, 21215), (240, 21218), (241, 21227), (244, 21263), (245, 21278),

Gene: Laurie_32 Start: 29962, Stop: 32097, Start Num: 21
Candidate Starts for Laurie_32:
(Start: 21 @29962 has 1 MA's), (29, 30016), (34, 30055), (36, 30073), (39, 30100), (42, 30124), (43, 30127), (46, 30160), (56, 30268), (60, 30289), (61, 30292), (68, 30346), (75, 30406), (76, 30430), (82, 30466), (86, 30514), (89, 30535), (93, 30574), (99, 30613), (102, 30628), (105, 30682), (107, 30694), (109, 30718), (112, 30742), (114, 30754), (116, 30769), (118, 30784), (121, 30826), (123, 30844), (127, 30883), (128, 30907), (145, 31078), (151, 31144), (153, 31162), (155, 31180), (164, 31339), (167, 31366), (170, 31384), (173, 31411), (175, 31447), (177, 31465), (178, 31471), (180, 31498), (181, 31504), (187, 31546), (198, 31687), (199, 31738), (218, 31882), (224, 31918), (225, 31921), (232, 31969), (236, 31993), (239, 32029), (240, 32032), (241, 32041), (244, 32077), (245, 32092),

Gene: LilhomieP_29 Start: 24622, Stop: 26973, Start Num: 6
Candidate Starts for LilhomieP_29:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (80, 25315), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (151, 25981), (153, 25999), (154, 26008), (155, 26017), (163, 26164), (164, 26176), (171, 26242), (175, 26284), (178, 26308), (181, 26341), (189, 26395), (192, 26434), (194, 26446), (201, 26578), (206, 26623), (220, 26749), (224, 26773), (226, 26782), (228, 26791), (229, 26803), (231, 26815), (232, 26830), (239, 26890), (246, 26959),

Gene: LordVader_20 Start: 17314, Stop: 19476, Start Num: 5
Candidate Starts for LordVader_20:
(Start: 5 @17314 has 2 MA's), (8, 17335), (10, 17356), (13, 17395), (20, 17464), (23, 17473), (24, 17476), (27, 17494), (30, 17527), (33, 17542), (47, 17644), (51, 17701), (54, 17725), (66, 17782), (78, 17929), (83, 17977), (85, 17992), (88, 18013), (91, 18055), (95, 18070), (96, 18079), (101, 18106), (103, 18112), (108, 18181), (111, 18202), (113, 18208), (114, 18217), (117, 18244), (145, 18538), (148, 18565), (151, 18604), (153, 18622), (155, 18640), (159, 18733), (178, 18865), (185, 18925), (199, 19132), (204, 19159), (205, 19180), (215, 19243), (221, 19282), (224, 19300), (233, 19348), (236, 19366), (237, 19372),

Gene: Majeke_21 Start: 19044, Stop: 21305, Start Num: 7
Candidate Starts for Majeke_21:
(Start: 7 @19044 has 28 MA's), (26, 19197), (53, 19470), (55, 19482), (59, 19503), (64, 19527), (70, 19602), (77, 19674), (81, 19704), (85, 19740), (91, 19803), (95, 19818), (100, 19845), (101, 19851), (108, 19926), (111, 19950), (113, 19956), (115, 19968), (119, 20010), (120, 20016), (145, 20286), (151, 20352), (153, 20370), (155, 20388), (164, 20547), (167, 20574), (170, 20592), (173, 20619), (175, 20655), (177, 20673), (178, 20679), (180, 20706), (181, 20712), (187, 20754), (198, 20895), (199, 20946), (218, 21090), (224, 21126), (225, 21129), (232, 21177), (236, 21201), (239, 21237), (240, 21240), (241, 21249), (244, 21285), (245, 21300),

Gene: Malithi_21 Start: 18963, Stop: 21224, Start Num: 7
Candidate Starts for Malithi_21:
(Start: 7 @18963 has 28 MA's), (8, 18972), (26, 19116), (52, 19383), (53, 19389), (55, 19401), (59, 19422), (64, 19446), (70, 19521), (77, 19593), (81, 19623), (85, 19659), (91, 19722), (95, 19737), (100, 19764), (101, 19770), (108, 19845), (111, 19869), (113, 19875), (119, 19929), (120, 19935), (145, 20205), (151, 20271), (153, 20289), (155, 20307), (164, 20466), (167, 20493), (170, 20511), (173, 20538), (175, 20574), (177, 20592), (178, 20598), (180, 20625), (181, 20631), (187, 20673), (198, 20814), (199, 20865), (218, 21009), (224, 21045), (225, 21048), (232, 21096), (236, 21120), (239, 21156), (240, 21159), (241, 21168), (244, 21204), (245, 21219),

Gene: Mangethe_21 Start: 19044, Stop: 21305, Start Num: 7
Candidate Starts for Mangethe_21:
(Start: 7 @19044 has 28 MA's), (26, 19197), (53, 19470), (55, 19482), (59, 19503), (64, 19527), (70, 19602), (77, 19674), (81, 19704), (85, 19740), (91, 19803), (95, 19818), (100, 19845), (101, 19851), (108, 19926), (111, 19950), (113, 19956), (115, 19968), (119, 20010), (120, 20016), (145, 20286), (151, 20352), (153, 20370), (155, 20388), (164, 20547), (167, 20574), (170, 20592), (173, 20619), (175, 20655), (177, 20673), (178, 20679), (180, 20706), (181, 20712), (187, 20754), (198, 20895), (199, 20946), (218, 21090), (224, 21126), (225, 21129), (232, 21177), (236, 21201), (239, 21237), (240, 21240), (241, 21249), (244, 21285), (245, 21300),

Gene: Megabear_24 Start: 27160, Stop: 29289, Start Num: 22
Candidate Starts for Megabear_24:
(Start: 22 @27160 has 4 MA's), (31, 27229), (36, 27262), (38, 27283), (45, 27340), (48, 27370), (49, 27388), (60, 27481), (61, 27484), (68, 27538), (76, 27622), (82, 27658), (83, 27676), (84, 27679), (89, 27727), (93, 27766), (98, 27802), (102, 27820), (105, 27874), (107, 27886), (109, 27910), (112, 27934), (114, 27946), (116, 27961), (118, 27976), (121, 28018), (127, 28075), (128, 28099), (145, 28270), (151, 28336), (153, 28354), (155, 28372), (164, 28531), (167, 28558), (170, 28576), (173, 28603), (175, 28639), (177, 28657), (178, 28663), (180, 28690), (181, 28696), (187, 28738), (198, 28879), (199, 28930), (218, 29074), (224, 29110), (225, 29113), (232, 29161), (236, 29185), (239, 29221), (240, 29224), (241, 29233), (244, 29269), (245, 29284),

Gene: MilanaBonita_19 Start: 18067, Stop: 20265, Start Num: 5
Candidate Starts for MilanaBonita_19:
(2, 18055), (Start: 5 @18067 has 2 MA's), (8, 18088), (10, 18109), (13, 18148), (20, 18217), (23, 18226), (24, 18229), (30, 18280), (33, 18295), (41, 18370), (53, 18505), (55, 18517), (59, 18538), (66, 18571), (78, 18718), (85, 18781), (90, 18820), (91, 18844), (95, 18859), (96, 18868), (101, 18895), (102, 18898), (103, 18901), (108, 18970), (111, 18991), (113, 18997), (117, 19033), (119, 19051), (145, 19327), (151, 19393), (153, 19411), (155, 19429), (164, 19588), (185, 19714), (197, 19855), (198, 19870), (199, 19921), (204, 19948), (205, 19969), (221, 20071), (223, 20086), (225, 20092), (233, 20137), (236, 20155), (237, 20161), (242, 20224),

Gene: Ms6_18 Start: 17407, Stop: 19719, Start Num: 3
Candidate Starts for Ms6_18:
(1, 17395), (Start: 3 @17407 has 13 MA's), (Start: 7 @17428 has 28 MA's), (9, 17449), (12, 17488), (20, 17557), (23, 17566), (24, 17569), (30, 17620), (33, 17635), (41, 17710), (53, 17845), (55, 17857), (59, 17878), (66, 17911), (78, 18058), (83, 18106), (85, 18121), (88, 18142), (89, 18157), (91, 18184), (95, 18199), (96, 18208), (101, 18235), (103, 18241), (105, 18286), (106, 18295), (108, 18310), (110, 18322), (111, 18331), (113, 18337), (114, 18346), (117, 18373), (119, 18391), (126, 18460), (132, 18550), (145, 18667), (151, 18733), (153, 18751), (155, 18769), (163, 18916), (164, 18928), (167, 18955), (169, 18970), (170, 18973), (175, 19036), (176, 19045), (178, 19060), (186, 19126), (193, 19189), (194, 19198), (196, 19252), (199, 19324), (202, 19345), (207, 19381), (208, 19387), (210, 19399), (211, 19402), (214, 19441), (220, 19504), (222, 19513), (225, 19531),

Gene: Necropolis_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Necropolis_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Nenae_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Nenae_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: PeanutPie_21 Start: 19045, Stop: 21306, Start Num: 7
Candidate Starts for PeanutPie_21:
(Start: 7 @19045 has 28 MA's), (26, 19198), (53, 19471), (55, 19483), (59, 19504), (64, 19528), (70, 19603), (77, 19675), (81, 19705), (85, 19741), (91, 19804), (95, 19819), (100, 19846), (101, 19852), (108, 19927), (111, 19951), (113, 19957), (119, 20011), (120, 20017), (145, 20287), (151, 20353), (153, 20371), (155, 20389), (164, 20548), (167, 20575), (170, 20593), (173, 20620), (175, 20656), (177, 20674), (178, 20680), (180, 20707), (181, 20713), (187, 20755), (198, 20896), (199, 20947), (218, 21091), (224, 21127), (225, 21130), (232, 21178), (236, 21202), (239, 21238), (240, 21241), (241, 21250), (244, 21286), (245, 21301),

Gene: PegLeg_30 Start: 24621, Stop: 26972, Start Num: 6
Candidate Starts for PegLeg_30:
(Start: 6 @24621 has 14 MA's), (14, 24741), (17, 24756), (28, 24828), (30, 24849), (32, 24861), (35, 24888), (37, 24897), (53, 25083), (65, 25146), (70, 25215), (73, 25242), (80, 25314), (81, 25317), (83, 25338), (102, 25473), (108, 25554), (110, 25569), (111, 25578), (113, 25584), (126, 25707), (139, 25863), (142, 25881), (143, 25896), (151, 25980), (153, 25998), (154, 26007), (163, 26163), (164, 26175), (171, 26241), (175, 26283), (178, 26307), (181, 26340), (189, 26394), (192, 26433), (194, 26445), (201, 26577), (206, 26622), (220, 26748), (224, 26772), (226, 26781), (228, 26790), (229, 26802), (231, 26814), (232, 26829), (239, 26889), (246, 26958),

Gene: PhancyPhin_20 Start: 17557, Stop: 19863, Start Num: 3
Candidate Starts for PhancyPhin_20:
(1, 17545), (Start: 3 @17557 has 13 MA's), (Start: 7 @17569 has 28 MA's), (19, 17680), (23, 17704), (24, 17707), (25, 17716), (53, 17989), (55, 18001), (59, 18022), (67, 18067), (78, 18202), (83, 18250), (85, 18265), (88, 18286), (90, 18304), (91, 18328), (95, 18343), (96, 18352), (101, 18379), (103, 18385), (105, 18430), (108, 18454), (110, 18466), (111, 18475), (113, 18481), (117, 18517), (119, 18535), (126, 18604), (132, 18694), (141, 18769), (145, 18811), (152, 18892), (153, 18895), (155, 18913), (158, 18979), (163, 19060), (164, 19072), (167, 19099), (169, 19114), (170, 19117), (175, 19180), (176, 19189), (178, 19204), (186, 19270), (193, 19333), (194, 19342), (196, 19396), (199, 19468), (202, 19489), (207, 19525), (208, 19531), (210, 19543), (211, 19546), (214, 19585), (220,

19648), (222, 19657), (225, 19675),

Gene: Phegasus_21 Start: 19044, Stop: 21305, Start Num: 7
Candidate Starts for Phegasus_21:
(Start: 7 @19044 has 28 MA's), (8, 19053), (26, 19197), (53, 19470), (55, 19482), (59, 19503), (64, 19527), (70, 19602), (77, 19674), (81, 19704), (85, 19740), (91, 19803), (95, 19818), (100, 19845), (101, 19851), (108, 19926), (111, 19950), (113, 19956), (119, 20010), (120, 20016), (145, 20286), (151, 20352), (153, 20370), (155, 20388), (164, 20547), (167, 20574), (170, 20592), (173, 20619), (175, 20655), (177, 20673), (178, 20679), (180, 20706), (181, 20712), (187, 20754), (198, 20895), (199, 20946), (218, 21090), (224, 21126), (225, 21129), (232, 21177), (236, 21201), (239, 21237), (240, 21240), (241, 21249), (244, 21285), (245, 21300),

Gene: Polkaroo_21 Start: 19054, Stop: 21315, Start Num: 7
Candidate Starts for Polkaroo_21:
(Start: 7 @19054 has 28 MA's), (8, 19063), (26, 19207), (53, 19480), (55, 19492), (59, 19513), (64, 19537), (70, 19612), (77, 19684), (81, 19714), (85, 19750), (91, 19813), (95, 19828), (100, 19855), (101, 19861), (108, 19936), (111, 19960), (113, 19966), (119, 20020), (120, 20026), (145, 20296), (151, 20362), (153, 20380), (155, 20398), (164, 20557), (167, 20584), (170, 20602), (173, 20629), (175, 20665), (177, 20683), (178, 20689), (180, 20716), (181, 20722), (187, 20764), (198, 20905), (199, 20956), (218, 21100), (224, 21136), (225, 21139), (232, 21187), (236, 21211), (239, 21247), (240, 21250), (241, 21259), (244, 21295), (245, 21310),

Gene: Purgamenstris_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Purgamenstris_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: QueenHazel_21 Start: 19085, Stop: 21412, Start Num: 4
Candidate Starts for QueenHazel_21:
(Start: 4 @19085 has 4 MA's), (8, 19109), (11, 19145), (16, 19220), (19, 19229), (24, 19256), (41, 19403), (53, 19538), (55, 19550), (59, 19571), (66, 19604), (78, 19751), (85, 19814), (90, 19853), (91, 19877), (95, 19892), (96, 19901), (101, 19928), (102, 19931), (103, 19934), (108, 20003), (111, 20024), (113, 20030), (117, 20066), (119, 20084), (145, 20360), (148, 20387), (151, 20426), (153, 20444), (164, 20621), (171, 20687), (175, 20729), (176, 20738), (178, 20753), (186, 20819), (193, 20882), (194, 20891), (199, 21017), (202, 21038), (207, 21074), (208, 21080), (210, 21092), (211, 21095), (214, 21134), (220, 21197), (222, 21206), (225, 21224),

Gene: Rebel_20 Start: 17557, Stop: 19857, Start Num: 3
Candidate Starts for Rebel_20:
(1, 17545), (Start: 3 @17557 has 13 MA's), (Start: 7 @17569 has 28 MA's), (19, 17680), (23, 17704), (24, 17707), (25, 17716), (53, 17989), (55, 18001), (59, 18022), (64, 18046), (70, 18121), (77, 18193), (81, 18223), (85, 18259), (91, 18322), (95, 18337), (100, 18364), (101, 18370), (102, 18373), (108, 18445), (111, 18469), (113, 18475), (119, 18529), (120, 18535), (145, 18805), (151, 18871), (153, 18889), (155, 18907), (164, 19066), (167, 19093), (169, 19108), (170, 19111), (175, 19174), (176, 19183), (178, 19198), (186, 19264), (193, 19327), (194, 19336), (196, 19390), (199, 19462), (202, 19483), (207, 19519), (208, 19525), (210, 19537), (211, 19540), (214, 19579), (220, 19642), (222,

19651), (225, 19669),

Gene: Redi_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Redi_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: ShrimpFriedEgg_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for ShrimpFriedEgg_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: Skinny_31 Start: 24622, Stop: 27432, Start Num: 6
Candidate Starts for Skinny_31:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (80, 25315), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (145, 25915), (147, 25939), (148, 25942), (149, 25963), (150, 25984), (153, 26008), (156, 26029), (157, 26038), (159, 26119), (160, 26146), (161, 26161), (166, 26236), (168, 26242), (171, 26278), (174, 26305), (179, 26365), (183, 26389), (188, 26425), (190, 26434), (191, 26452), (196, 26554), (200, 26632), (206, 26683), (209, 26707), (212, 26722), (216, 26767), (217, 26782), (219, 26809), (220, 26818), (224, 26842), (226, 26851), (230, 26881), (235, 26923), (238, 26947), (243, 27022), (247, 27076), (248, 27100), (249, 27148), (250, 27166), (251, 27184), (252, 27196), (253, 27232), (254, 27271), (255, 27298), (256, 27334), (257, 27352), (258, 27388), (259, 27394), (260, 27424),

Gene: SlimJimmy_29 Start: 24608, Stop: 26956, Start Num: 6
Candidate Starts for SlimJimmy_29:
(Start: 6 @24608 has 14 MA's), (14, 24728), (17, 24743), (28, 24815), (30, 24836), (32, 24848), (35, 24875), (37, 24884), (40, 24914), (42, 24941), (44, 24968), (52, 25064), (53, 25070), (57, 25094), (67, 25148), (72, 25211), (73, 25229), (80, 25301), (81, 25304), (83, 25325), (102, 25460), (103, 25463), (108, 25541), (113, 25568), (117, 25604), (118, 25607), (120, 25628), (134, 25793), (138, 25829), (139, 25847), (143, 25880), (151, 25964), (153, 25982), (154, 25991), (155, 26000), (163, 26147), (164, 26159), (171, 26225), (175, 26267), (178, 26291), (181, 26324), (189, 26378), (192, 26417), (194, 26429), (201, 26561), (206, 26606), (220, 26732), (224, 26756), (226, 26765), (228, 26774), (229, 26786), (231, 26798), (232, 26813), (239, 26873), (246, 26942),

Gene: Snekmaggedon_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Snekmaggedon_20:

(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (47, 17920), (53, 17992), (55, 18004), (59, 18025), (62, 18037), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (89, 18304), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (106, 18442), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (114, 18493), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (145, 18814), (151, 18880), (153, 18898), (155, 18916), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: Sonah_21 Start: 19028, Stop: 21289, Start Num: 7
Candidate Starts for Sonah_21:
(Start: 7 @19028 has 28 MA's), (8, 19037), (26, 19181), (53, 19454), (55, 19466), (59, 19487), (64, 19511), (70, 19586), (77, 19658), (81, 19688), (85, 19724), (91, 19787), (95, 19802), (100, 19829), (101, 19835), (108, 19910), (111, 19934), (113, 19940), (119, 19994), (120, 20000), (145, 20270), (151, 20336), (153, 20354), (155, 20372), (164, 20531), (167, 20558), (170, 20576), (173, 20603), (175, 20639), (177, 20657), (178, 20663), (180, 20690), (181, 20696), (187, 20738), (198, 20879), (199, 20930), (218, 21074), (224, 21110), (225, 21113), (232, 21161), (236, 21185), (239, 21221), (240, 21224), (241, 21233), (244, 21269), (245, 21284),

Gene: Spinach_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for Spinach_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (53, 17992), (55, 18004), (59, 18025), (67, 18070), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (90, 18307), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (141, 18772), (145, 18814), (152, 18895), (153, 18898), (155, 18916), (158, 18982), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: SpongeBob_20 Start: 17560, Stop: 19866, Start Num: 3
Candidate Starts for SpongeBob_20:
(1, 17548), (Start: 3 @17560 has 13 MA's), (Start: 7 @17572 has 28 MA's), (19, 17683), (23, 17707), (24, 17710), (25, 17719), (47, 17920), (53, 17992), (55, 18004), (59, 18025), (62, 18037), (78, 18205), (83, 18253), (85, 18268), (88, 18289), (89, 18304), (91, 18331), (95, 18346), (96, 18355), (101, 18382), (103, 18388), (105, 18433), (106, 18442), (108, 18457), (110, 18469), (111, 18478), (113, 18484), (114, 18493), (117, 18520), (119, 18538), (126, 18607), (132, 18697), (145, 18814), (151, 18880), (153, 18898), (155, 18916), (163, 19063), (164, 19075), (167, 19102), (169, 19117), (170, 19120), (175, 19183), (176, 19192), (178, 19207), (186, 19273), (193, 19336), (194, 19345), (196, 19399), (199, 19471), (202, 19492), (207, 19528), (208, 19534), (210, 19546), (211, 19549), (214, 19588), (220, 19651), (222, 19660), (225, 19678),

Gene: StevieRay_21 Start: 19029, Stop: 21290, Start Num: 7
Candidate Starts for StevieRay_21:
(Start: 7 @19029 has 28 MA's), (26, 19182), (53, 19455), (55, 19467), (59, 19488), (64, 19512), (67, 19533), (70, 19587), (77, 19659), (81, 19689), (85, 19725), (91, 19788), (95, 19803), (100, 19830), (101, 19836), (108, 19911), (111, 19935), (113, 19941), (119, 19995), (120, 20001), (145, 20271), (151, 20337), (153, 20355), (155, 20373), (164, 20532), (167, 20559), (170, 20577), (173, 20604), (175, 20640), (177, 20658), (178, 20664), (180, 20691), (181, 20697), (187, 20739), (198, 20880), (199, 20931), (218, 21075), (224, 21111), (225, 21114), (232, 21162), (236, 21186), (239, 21222), (240, 21225), (241, 21234), (244, 21270), (245, 21285),

Gene: Taptic_24 Start: 27160, Stop: 29289, Start Num: 22
Candidate Starts for Taptic_24:
(Start: 22 @27160 has 4 MA's), (31, 27229), (36, 27262), (38, 27283), (45, 27340), (48, 27370), (49, 27388), (60, 27481), (61, 27484), (76, 27622), (82, 27658), (84, 27679), (86, 27706), (89, 27727), (93, 27766), (102, 27820), (105, 27874), (107, 27886), (109, 27910), (112, 27934), (114, 27946), (116, 27961), (118, 27976), (121, 28018), (127, 28075), (128, 28099), (145, 28270), (151, 28336), (153, 28354), (155, 28372), (164, 28531), (167, 28558), (170, 28576), (173, 28603), (175, 28639), (177, 28657), (178, 28663), (180, 28690), (181, 28696), (187, 28738), (198, 28879), (199, 28930), (218, 29074), (224, 29110), (225, 29113), (232, 29161), (236, 29185), (239, 29221), (240, 29224), (241, 29233), (244, 29269), (245, 29284),

Gene: Techage_21 Start: 19029, Stop: 21290, Start Num: 7
Candidate Starts for Techage_21:
(Start: 7 @19029 has 28 MA's), (8, 19038), (26, 19182), (53, 19455), (55, 19467), (59, 19488), (64, 19512), (70, 19587), (77, 19659), (81, 19689), (85, 19725), (91, 19788), (95, 19803), (100, 19830), (101, 19836), (108, 19911), (111, 19935), (113, 19941), (119, 19995), (120, 20001), (145, 20271), (151, 20337), (153, 20355), (155, 20373), (164, 20532), (167, 20559), (170, 20577), (173, 20604), (175, 20640), (177, 20658), (178, 20664), (180, 20691), (181, 20697), (187, 20739), (198, 20880), (199, 20931), (218, 21075), (224, 21111), (225, 21114), (232, 21162), (236, 21186), (239, 21222), (240, 21225), (241, 21234), (244, 21270), (245, 21285),

Gene: Thespis_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Thespis_21:
(Start: 7 @19038 has 28 MA's), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (115, 19962), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: TpudiCK_31 Start: 24621, Stop: 26972, Start Num: 6
Candidate Starts for TpudiCK_31:
(Start: 6 @24621 has 14 MA's), (14, 24741), (17, 24756), (28, 24828), (30, 24849), (32, 24861), (35, 24888), (37, 24897), (53, 25083), (65, 25146), (70, 25215), (73, 25242), (80, 25314), (81, 25317), (83, 25338), (102, 25473), (108, 25554), (110, 25569), (111, 25578), (113, 25584), (126, 25707), (139, 25863), (142, 25881), (143, 25896), (151, 25980), (153, 25998), (154, 26007), (155, 26016), (163, 26163), (164, 26175), (171, 26241), (175, 26283), (178, 26307), (181, 26340), (189, 26394), (192, 26433), (194, 26445), (201, 26577), (206, 26622), (220, 26748), (224, 26772), (226, 26781), (228, 26790), (229, 26802), (231, 26814), (232, 26829), (239, 26889), (246, 26958),

Gene: TyDawg_30 Start: 24622, Stop: 26973, Start Num: 6
Candidate Starts for TyDawg_30:
(Start: 6 @24622 has 14 MA's), (14, 24742), (17, 24757), (28, 24829), (30, 24850), (32, 24862), (35, 24889), (37, 24898), (53, 25084), (65, 25147), (70, 25216), (73, 25243), (80, 25315), (81, 25318), (83, 25339), (102, 25474), (108, 25555), (110, 25570), (111, 25579), (113, 25585), (126, 25708), (139, 25864), (142, 25882), (143, 25897), (151, 25981), (153, 25999), (154, 26008), (155, 26017), (163, 26164), (164, 26176), (171, 26242), (175, 26284), (178, 26308), (181, 26341), (189, 26395), (192, 26434), (194, 26446), (201, 26578), (206, 26623), (220, 26749), (224, 26773), (226, 26782), (228, 26791), (229, 26803), (231, 26815), (232, 26830), (239, 26890), (246, 26959),

Gene: Venti_21 Start: 19038, Stop: 21299, Start Num: 7

Candidate Starts for Venti_21:
(Start: 7 @19038 has 28 MA's), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Vidya_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Vidya_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),

Gene: Xula_20 Start: 18717, Stop: 20930, Start Num: 4
Candidate Starts for Xula_20:
(Start: 4 @18717 has 4 MA's), (8, 18741), (11, 18777), (16, 18852), (19, 18861), (24, 18888), (41, 19035), (53, 19170), (55, 19182), (59, 19203), (66, 19236), (78, 19383), (85, 19446), (90, 19485), (91, 19509), (95, 19524), (96, 19533), (101, 19560), (102, 19563), (103, 19566), (108, 19635), (111, 19656), (113, 19662), (117, 19698), (119, 19716), (145, 19992), (148, 20019), (151, 20058), (153, 20076), (178, 20319), (185, 20379), (197, 20520), (199, 20586), (204, 20613), (205, 20634), (221, 20736), (224, 20754), (233, 20802), (236, 20820), (237, 20826),

Gene: Zilizebeth_21 Start: 19038, Stop: 21299, Start Num: 7
Candidate Starts for Zilizebeth_21:
(Start: 7 @19038 has 28 MA's), (8, 19047), (26, 19191), (53, 19464), (55, 19476), (59, 19497), (64, 19521), (70, 19596), (77, 19668), (81, 19698), (85, 19734), (91, 19797), (95, 19812), (100, 19839), (101, 19845), (108, 19920), (111, 19944), (113, 19950), (119, 20004), (120, 20010), (145, 20280), (151, 20346), (153, 20364), (155, 20382), (164, 20541), (167, 20568), (170, 20586), (173, 20613), (175, 20649), (177, 20667), (178, 20673), (180, 20700), (181, 20706), (187, 20748), (198, 20889), (199, 20940), (218, 21084), (224, 21120), (225, 21123), (232, 21171), (236, 21195), (239, 21231), (240, 21234), (241, 21243), (244, 21279), (245, 21294),