Pham 289262

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 289262 Report

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

Pham number 289262 has 98 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Pepperoni_16, Lton_16, OneDirection_16
• Track 2 : Bunnybear_17
• Track 3 : Tayonia_18, Maridalia_17, Suscepit_18, Kita_18, Neobush_18, Antonio_18, Zameen_18, Manasvini_18, Polly_18, Eudoria_18, Trumpet_18
• Track 4 : Agueybana_18, Zirinka_18, Bialota_18
• Track 5 : WelcomeAyanna_17, ThankyouJordi_17
• Track 6 : Madeline_18
• Track 7 : Hyzer_18
• Track 8 : AlumE_18, BoyNamedSue_18
• Track 9 : Mocha12_16, Gizermo_16, Whiteclaw_16, Clap_16, Haley23_16, GemG_16, TuertoX_16, Sproutie_16, Savage_16, Cynthia_16, Ebert_16
• Track 10 : EdnaMode_16, Lamberg_16, Nettuno_16
• Track 11 : Matteo_16
• Track 12 : Sahara_16
• Track 13 : Attis_16, SoilAssassin_16, Bjanes7_16, Yeet412_16, LordFarquaad_16
• Track 14 : Jalleen_17
• Track 15 : Vasanti_16
• Track 16 : JCole_16, Pickett_16
• Track 17 : FroggyToad_16
• Track 18 : PantheRoc_18, BaxterFox_17, Hugley_18, Ohgeesy_18, TimTam_18, Bosnia_18, Madavieve_18, Eviarto_18, Herod_18, BatStarr_18, Nymphadora_18, Yeezy_19
• Track 19 : PhriskyACE_18
• Track 20 : Clark_19, Annalisa_19
• Track 21 : Mcklovin_19
• Track 22 : MichaelScott_19, Beenie_19
• Track 23 : Invectra_19
• Track 24 : Twinkle_19
• Track 25 : Hortense_19, Howe_19, Adora_19, Shlim410_19
• Track 26 : Dorito_18
• Track 27 : WinkNick_19, Dolores_19, Samman98_19
• Track 28 : Oregano_19, Easley_19
• Track 29 : Tuti_23
• Track 30 : Sekhmet_19
• Track 31 : DobbysSock_18
• Track 32 : Thimann_19
• Track 33 : Suerte_17

- Track 34 : Powerball_18
- Track 35 : Denise_16
- Track 36 : Faith5x5_16
- Track 37 : Moosehead_16
- Track 38 : Sidious_18
- Track 39 : RavenCo17_16, Eyre_16
- Track 40 : Jace_16
- Track 41 : GMA1_18
- Track 42 : Mbo4_16
- Track 43 : Finkle_18
- Track 44 : Gudmit_17
- Track 45 : TinyDot_18

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

The start number called the most often in the published annotations is 4, it was called in 45 of the 87 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Adora_19, Annalisa_19, Attis_16, Beenie_19, Bjanes7_16, Clap_16, Clark_19, Cynthia_16, Denise_16, Dolores_19, Dorito_18, Easley_19, Ebert_16, EdnaMode_16, Faith5x5_16, FroggyToad_16, GemG_16, Gizermo_16, Haley23_16, Hortense_19, Howe_19, Invectra_19, JCole_16, Jalleen_17, Lamberg_16, LordFarquaad_16, Lton_16, Matteo_16, Mcklovin_19, MichaelScott_19, Mocha12_16, Moosehead_16, Nettuno_16, OneDirection_16, Oregano_19, Pepperoni_16, PhriskyACE_18, Pickett_16, Sahara_16, Samman98_19, Savage_16, Sekhmet_19, Shlim410_19, SoilAssassin_16, Sproutie_16, TuertoX_16, Tuti_23, Vasanti_16, Whiteclaw_16, WinkNick_19, Yeet412_16,

Genes that have the "Most Annotated" start but do not call it:
- DobbysSock_18, Gudmit_17, Twinkle_19,

Genes that do not have the "Most Annotated" start:
- Agueybana_18, AlumE_18, Antonio_18, BatStarr_18, BaxterFox_17, Bialota_18, Bosnia_18, BoyNamedSue_18, Bunnybear_17, Eudoria_18, Eviarto_18, Eyre_16, Finkle_18, GMA1_18, Herod_18, Hugley_18, Hyzer_18, Jace_16, Kita_18, Madavieve_18, Madeline_18, Manasvini_18, Maridalia_17, Mbo4_16, Neobush_18, Nymphadora_18, Ohgeesy_18, PantheRoc_18, Polly_18, Powerball_18, RavenCo17_16, Sidious_18, Suerte_17, Suscepit_18, Tayonia_18, ThankyouJordi_17, Thimann_19, TimTam_18, TinyDot_18, Trumpet_18, WelcomeAyanna_17, Yeezy_19, Zameen_18, Zirinka_18,

Summary by start number:

Start 4:
- Found in 54 of 98 (55.1%) of genes in pham
- Manual Annotations of this start: 45 of 87
- Called 94.4% of time when present
- Phage (with cluster) where this start called: Adora_19 (CZ4), Annalisa_19 (CZ4), Attis_16 (CZ2), Beenie_19 (CZ4), Bjanes7_16 (CZ2), Clap_16 (CZ2), Clark_19 (CZ4),

Cynthia_16 (CZ2), Denise_16 (CZ5), Dolores_19 (CZ4), Dorito_18 (CZ4), Easley_19 (CZ4), Ebert_16 (CZ2), EdnaMode_16 (CZ2), Faith5x5_16 (CZ6), FroggyToad_16 (CZ2), GemG_16 (CZ2), Gizermo_16 (CZ2), Haley23_16 (CZ2), Hortense_19 (CZ4), Howe_19 (CZ4), Invectra_19 (CZ4), JCole_16 (CZ2), Jalleen_17 (CZ2), Lamberg_16 (CZ2), LordFarquaad_16 (CZ2), Lton_16 (CZ), Matteo_16 (CZ2), Mcklovin_19 (CZ4), MichaelScott_19 (CZ4), Mocha12_16 (CZ2), Moosehead_16 (CZ6), Nettuno_16 (CZ2), OneDirection_16 (CZ6), Oregano_19 (CZ4), Pepperoni_16 (CZ), PhriskyACE_18 (CZ4), Pickett_16 (CZ2), Sahara_16 (CZ2), Samman98_19 (CZ4), Savage_16 (CZ2), Sekhmet_19 (CZ4), Shlim410_19 (CZ4), SoilAssassin_16 (CZ2), Sproutie_16 (CZ2), TuertoX_16 (CZ2), Tuti_23 (CZ4), Vasanti_16 (CZ2), Whiteclaw_16 (CZ2), WinkNick_19 (CZ4), Yeet412_16 (CZ2),

Start 5:
• Found in 2 of 98 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 87
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Eyre_16 (singleton), RavenCo17_16 (CZ8),

Start 6:
• Found in 1 of 98 (1.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mbo4_16 (singleton),

Start 7:
• Found in 1 of 98 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 87
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gudmit_17 (singleton),

Start 9:
• Found in 62 of 98 (63.3%) of genes in pham
• Manual Annotations of this start: 36 of 87
• Called 62.9% of time when present
• Phage (with cluster) where this start called: Agueybana_18 (CZ1), AlumE_18 (CZ1), Antonio_18 (CZ1), BatStarr_18 (CZ1), BaxterFox_17 (CZ3), Bialota_18 (CZ1), Bosnia_18 (CZ1), BoyNamedSue_18 (CZ1), Bunnybear_17 (CZ), DobbysSock_18 (CZ4), Eudoria_18 (CZ1), Eviarto_18 (CZ1), Herod_18 (CZ1), Hugley_18 (CZ1), Hyzer_18 (CZ1), Kita_18 (CZ1), Madavieve_18 (CZ1), Madeline_18 (CZ1), Manasvini_18 (CZ1), Maridalia_17 (CZ1), Neobush_18 (CZ1), Nymphadora_18 (CZ1), Ohgeesy_18 (CZ), PantheRoc_18 (CZ3), Polly_18 (CZ1), Powerball_18 (CZ4), Sidious_18 (CZ7), Suerte_17 (CZ4), Suscepit_18 (CZ1), Tayonia_18 (CZ1), ThankyouJordi_17 (CZ1), Thimann_19 (CZ4), TimTam_18 (CZ1), Trumpet_18 (CZ1), Twinkle_19 (CZ4), WelcomeAyanna_17 (CZ1), Yeezy_19 (CZ3), Zameen_18 (CZ1), Zirinka_18 (CZ1),

Start 10:
• Found in 3 of 98 (3.1%) of genes in pham
• Manual Annotations of this start: 1 of 87
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Jace_16 (singleton),

Start 11:
• Found in 2 of 98 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 87
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finkle_18 (singleton), GMA1_18 (singleton),

Start 12:
• Found in 1 of 98 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 87
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TinyDot_18 (singleton),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, CZ5, CZ, CZ8,

Info for manual annotations of cluster CZ:
•Start number 4 was manually annotated 1 time for cluster CZ.
•Start number 9 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 9 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 4 was manually annotated 23 times for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 9 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 4 was manually annotated 17 times for cluster CZ4.
•Start number 9 was manually annotated 5 times for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 4 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:
•Start number 4 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ7:
•Start number 9 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster CZ8:
•Start number 5 was manually annotated 1 time for cluster CZ8.

Gene Information:
Gene: Adora_19 Start: 17022, Stop: 17858, Start Num: 4
Candidate Starts for Adora_19:

(Start: 4 @17022 has 45 MA's), (Start: 9 @17031 has 36 MA's), (15, 17073), (19, 17106), (22, 17121), (28, 17169), (36, 17232), (37, 17238), (46, 17277), (53, 17331), (55, 17346), (59, 17370), (60, 17376), (66, 17412), (70, 17442), (73, 17451), (81, 17601), (91, 17691), (96, 17778),

Gene: Agueybana_18 Start: 16953, Stop: 17780, Start Num: 9
Candidate Starts for Agueybana_18:
(Start: 9 @16953 has 36 MA's), (17, 17007), (20, 17034), (35, 17148), (36, 17154), (38, 17169), (59, 17292), (66, 17334), (68, 17343), (76, 17448), (81, 17523), (85, 17544), (94, 17667), (96, 17700),

Gene: AlumE_18 Start: 16952, Stop: 17779, Start Num: 9
Candidate Starts for AlumE_18:
(Start: 9 @16952 has 36 MA's), (14, 16985), (17, 17006), (20, 17033), (35, 17147), (36, 17153), (38, 17168), (59, 17291), (66, 17333), (68, 17342), (76, 17447), (81, 17522), (85, 17543), (94, 17666), (96, 17699),

Gene: Annalisa_19 Start: 16513, Stop: 17349, Start Num: 4
Candidate Starts for Annalisa_19:
(Start: 4 @16513 has 45 MA's), (Start: 9 @16522 has 36 MA's), (15, 16564), (19, 16597), (22, 16612), (36, 16723), (37, 16729), (46, 16768), (53, 16822), (59, 16861), (66, 16903), (70, 16933), (73, 16942), (81, 17092), (91, 17182), (96, 17269),

Gene: Antonio_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Antonio_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Attis_16 Start: 13903, Stop: 14751, Start Num: 4
Candidate Starts for Attis_16:
(Start: 4 @13903 has 45 MA's), (8, 13909), (27, 14044), (39, 14131), (49, 14164), (58, 14251), (59, 14254), (63, 14275), (66, 14299), (70, 14332), (88, 14554), (90, 14560), (101, 14722),

Gene: BatStarr_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for BatStarr_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: BaxterFox_17 Start: 16279, Stop: 17106, Start Num: 9
Candidate Starts for BaxterFox_17:
(Start: 9 @16279 has 36 MA's), (19, 16354), (35, 16474), (36, 16480), (50, 16546), (51, 16558), (58, 16615), (60, 16624), (66, 16660), (68, 16669), (70, 16690), (76, 16774), (81, 16849), (85, 16870), (94, 16993), (96, 17026),

Gene: Beenie_19 Start: 16864, Stop: 17706, Start Num: 4
Candidate Starts for Beenie_19:
(Start: 4 @16864 has 45 MA's), (Start: 9 @16873 has 36 MA's), (15, 16915), (19, 16948), (22, 16963), (28, 17011), (33, 17059), (36, 17074), (37, 17080), (46, 17119), (53, 17173), (59, 17212), (60, 17218), (66, 17254), (70, 17284), (73, 17293), (81, 17449), (96, 17626),

Gene: Bialota_18 Start: 16952, Stop: 17779, Start Num: 9
Candidate Starts for Bialota_18:
(Start: 9 @16952 has 36 MA's), (17, 17006), (20, 17033), (35, 17147), (36, 17153), (38, 17168), (59, 17291), (66, 17333), (68, 17342), (76, 17447), (81, 17522), (85, 17543), (94, 17666), (96, 17699),

Gene: Bjanes7_16 Start: 13903, Stop: 14751, Start Num: 4
Candidate Starts for Bjanes7_16:
(Start: 4 @13903 has 45 MA's), (8, 13909), (27, 14044), (39, 14131), (49, 14164), (58, 14251), (59, 14254), (63, 14275), (66, 14299), (70, 14332), (88, 14554), (90, 14560), (101, 14722),

Gene: Bosnia_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for Bosnia_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: BoyNamedSue_18 Start: 16952, Stop: 17779, Start Num: 9
Candidate Starts for BoyNamedSue_18:
(Start: 9 @16952 has 36 MA's), (14, 16985), (17, 17006), (20, 17033), (35, 17147), (36, 17153), (38, 17168), (59, 17291), (66, 17333), (68, 17342), (76, 17447), (81, 17522), (85, 17543), (94, 17666), (96, 17699),

Gene: Bunnybear_17 Start: 16957, Stop: 17784, Start Num: 9
Candidate Starts for Bunnybear_17:
(Start: 9 @16957 has 36 MA's), (35, 17152), (36, 17158), (38, 17173), (51, 17236), (58, 17293), (60, 17302), (66, 17338), (68, 17347), (76, 17452), (96, 17704),

Gene: Clap_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Clap_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Clark_19 Start: 16513, Stop: 17349, Start Num: 4
Candidate Starts for Clark_19:
(Start: 4 @16513 has 45 MA's), (Start: 9 @16522 has 36 MA's), (15, 16564), (19, 16597), (22, 16612), (36, 16723), (37, 16729), (46, 16768), (53, 16822), (59, 16861), (66, 16903), (70, 16933), (73, 16942), (81, 17092), (91, 17182), (96, 17269),

Gene: Cynthia_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Cynthia_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Denise_16 Start: 13946, Stop: 14794, Start Num: 4
Candidate Starts for Denise_16:
(Start: 4 @13946 has 45 MA's), (Start: 9 @13955 has 36 MA's), (19, 14030), (20, 14036), (29, 14108), (31, 14123), (33, 14141), (39, 14174), (49, 14207), (55, 14273), (58, 14294), (59, 14297), (61, 14306), (63, 14318), (65, 14333), (88, 14597), (90, 14603), (100, 14759), (101, 14765),

Gene: DobbysSock_18 Start: 15996, Stop: 16823, Start Num: 9
Candidate Starts for DobbysSock_18:
(Start: 4 @15987 has 45 MA's), (Start: 9 @15996 has 36 MA's), (15, 16038), (19, 16071), (22, 16086), (28, 16134), (36, 16197), (37, 16203), (46, 16242), (53, 16296), (59, 16335), (60, 16341), (66, 16377), (70, 16407), (73, 16416), (81, 16566), (91, 16656), (96, 16743),

Gene: Dolores_19 Start: 16489, Stop: 17325, Start Num: 4
Candidate Starts for Dolores_19:
(Start: 4 @16489 has 45 MA's), (Start: 9 @16498 has 36 MA's), (15, 16540), (19, 16573), (22, 16588), (28, 16636), (36, 16699), (37, 16705), (46, 16744), (53, 16798), (59, 16837), (60, 16843), (66, 16879), (70, 16909), (73, 16918), (81, 17068), (96, 17245),

Gene: Dorito_18 Start: 15989, Stop: 16825, Start Num: 4
Candidate Starts for Dorito_18:
(Start: 4 @15989 has 45 MA's), (Start: 9 @15998 has 36 MA's), (15, 16040), (19, 16073), (22, 16088), (36, 16199), (37, 16205), (38, 16214), (46, 16244), (53, 16298), (59, 16337), (66, 16379), (70, 16409), (73, 16418), (81, 16568), (91, 16658), (96, 16745),

Gene: Easley_19 Start: 16499, Stop: 17335, Start Num: 4
Candidate Starts for Easley_19:
(Start: 4 @16499 has 45 MA's), (Start: 9 @16508 has 36 MA's), (15, 16550), (19, 16583), (22, 16598), (28, 16646), (36, 16709), (37, 16715), (46, 16754), (53, 16808), (59, 16847), (60, 16853), (66, 16889), (70, 16919), (73, 16928), (81, 17078), (91, 17168), (96, 17255),

Gene: Ebert_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Ebert_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: EdnaMode_16 Start: 13846, Stop: 14694, Start Num: 4
Candidate Starts for EdnaMode_16:
(3, 13759), (Start: 4 @13846 has 45 MA's), (8, 13852), (20, 13936), (27, 13987), (33, 14041), (36, 14056), (39, 14074), (49, 14107), (55, 14173), (58, 14194), (59, 14197), (63, 14218), (70, 14275), (88, 14497), (90, 14503), (100, 14659), (101, 14665),

Gene: Eudoria_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Eudoria_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Eviarto_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for Eviarto_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: Eyre_16 Start: 14536, Stop: 15369, Start Num: 5
Candidate Starts for Eyre_16:
(Start: 5 @14536 has 2 MA's), (16, 14578), (29, 14686), (39, 14752), (58, 14872), (70, 14950), (86, 15145), (90, 15178), (96, 15289),

Gene: Faith5x5_16 Start: 13806, Stop: 14654, Start Num: 4
Candidate Starts for Faith5x5_16:
(Start: 4 @13806 has 45 MA's), (8, 13812), (23, 13938), (29, 13968), (31, 13983), (33, 14001), (39, 14034), (58, 14154), (59, 14157), (61, 14166), (62, 14169), (63, 14178), (65, 14193), (68, 14211), (72, 14241), (76, 14313), (90, 14463), (101, 14625),

Gene: Finkle_18 Start: 15435, Stop: 16259, Start Num: 11

Candidate Starts for Finkle_18:
(Start: 11 @15435 has 1 MA's), (18, 15498), (19, 15501), (21, 15510), (24, 15555), (42, 15666), (53, 15741), (72, 15861), (79, 15990), (87, 16047), (99, 16215),

Gene: FroggyToad_16 Start: 13856, Stop: 14704, Start Num: 4
Candidate Starts for FroggyToad_16:
(Start: 4 @13856 has 45 MA's), (8, 13862), (Start: 9 @13865 has 36 MA's), (29, 14018), (31, 14033), (33, 14051), (35, 14060), (38, 14081), (39, 14084), (59, 14207), (61, 14216), (62, 14219), (63, 14228), (69, 14270), (72, 14291), (76, 14363), (90, 14513), (101, 14675),

Gene: GMA1_18 Start: 15118, Stop: 15930, Start Num: 11
Candidate Starts for GMA1_18:
(Start: 11 @15118 has 1 MA's), (14, 15145), (21, 15196), (33, 15301), (34, 15304), (35, 15310), (53, 15421), (54, 15424), (59, 15460), (67, 15508), (75, 15589), (89, 15739), (91, 15772), (98, 15859),

Gene: GemG_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for GemG_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Gizermo_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Gizermo_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Gudmit_17 Start: 14713, Stop: 15558, Start Num: 7
Candidate Starts for Gudmit_17:
(Start: 4 @14707 has 45 MA's), (Start: 7 @14713 has 1 MA's), (20, 14800), (36, 14920), (59, 15061), (61, 15070), (66, 15106), (71, 15142), (90, 15367), (91, 15394), (92, 15427), (95, 15472), (101, 15529),

Gene: Haley23_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Haley23_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Herod_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for Herod_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: Hortense_19 Start: 17069, Stop: 17905, Start Num: 4
Candidate Starts for Hortense_19:
(Start: 4 @17069 has 45 MA's), (Start: 9 @17078 has 36 MA's), (15, 17120), (19, 17153), (22, 17168), (28, 17216), (36, 17279), (37, 17285), (46, 17324), (53, 17378), (55, 17393), (59, 17417), (60, 17423), (66, 17459), (70, 17489), (73, 17498), (81, 17648), (91, 17738), (96, 17825),

Gene: Howe_19 Start: 17069, Stop: 17905, Start Num: 4
Candidate Starts for Howe_19:

(Start: 4 @17069 has 45 MA's), (Start: 9 @17078 has 36 MA's), (15, 17120), (19, 17153), (22, 17168), (28, 17216), (36, 17279), (37, 17285), (46, 17324), (53, 17378), (55, 17393), (59, 17417), (60, 17423), (66, 17459), (70, 17489), (73, 17498), (81, 17648), (91, 17738), (96, 17825),

Gene: Hugley_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for Hugley_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: Hyzer_18 Start: 17011, Stop: 17838, Start Num: 9
Candidate Starts for Hyzer_18:
(Start: 9 @17011 has 36 MA's), (35, 17206), (36, 17212), (51, 17290), (58, 17347), (60, 17356), (66, 17392), (68, 17401), (70, 17422), (76, 17506), (81, 17581), (96, 17758),

Gene: Invectra_19 Start: 16870, Stop: 17706, Start Num: 4
Candidate Starts for Invectra_19:
(Start: 4 @16870 has 45 MA's), (Start: 9 @16879 has 36 MA's), (15, 16921), (19, 16954), (22, 16969), (36, 17080), (37, 17086), (46, 17125), (53, 17179), (59, 17218), (60, 17224), (66, 17260), (70, 17290), (73, 17299), (81, 17449), (91, 17539), (96, 17626),

Gene: JCole_16 Start: 13901, Stop: 14749, Start Num: 4
Candidate Starts for JCole_16:
(3, 13814), (Start: 4 @13901 has 45 MA's), (8, 13907), (Start: 10 @13913 has 1 MA's), (27, 14042), (33, 14096), (39, 14129), (49, 14162), (58, 14249), (59, 14252), (63, 14273), (70, 14330), (88, 14552), (90, 14558), (101, 14720),

Gene: Jace_16 Start: 13933, Stop: 14742, Start Num: 10
Candidate Starts for Jace_16:
(Start: 10 @13933 has 1 MA's), (20, 14011), (26, 14062), (33, 14119), (36, 14134), (41, 14149), (47, 14176), (56, 14251), (66, 14305), (82, 14503), (93, 14614), (97, 14665), (99, 14698), (100, 14704),

Gene: Jalleen_17 Start: 13903, Stop: 14751, Start Num: 4
Candidate Starts for Jalleen_17:
(Start: 4 @13903 has 45 MA's), (8, 13909), (27, 14044), (39, 14131), (49, 14164), (58, 14251), (59, 14254), (63, 14275), (66, 14299), (90, 14560), (101, 14722),

Gene: Kita_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Kita_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Lamberg_16 Start: 13846, Stop: 14694, Start Num: 4
Candidate Starts for Lamberg_16:
(3, 13759), (Start: 4 @13846 has 45 MA's), (8, 13852), (20, 13936), (27, 13987), (33, 14041), (36, 14056), (39, 14074), (49, 14107), (55, 14173), (58, 14194), (59, 14197), (63, 14218), (70, 14275), (88, 14497), (90, 14503), (100, 14659), (101, 14665),

Gene: LordFarquaad_16 Start: 13903, Stop: 14751, Start Num: 4
Candidate Starts for LordFarquaad_16:
(Start: 4 @13903 has 45 MA's), (8, 13909), (27, 14044), (39, 14131), (49, 14164), (58, 14251), (59, 14254), (63, 14275), (66, 14299), (70, 14332), (88, 14554), (90, 14560), (101, 14722),

Gene: Lton_16 Start: 13875, Stop: 14723, Start Num: 4
Candidate Starts for Lton_16:
(3, 13788), (Start: 4 @13875 has 45 MA's), (8, 13881), (20, 13965), (27, 14016), (33, 14070), (39, 14103), (49, 14136), (55, 14202), (58, 14223), (59, 14226), (63, 14247), (70, 14304), (88, 14526), (90, 14532), (100, 14688), (101, 14694),

Gene: Madavieve_18 Start: 17220, Stop: 18047, Start Num: 9
Candidate Starts for Madavieve_18:
(Start: 9 @17220 has 36 MA's), (19, 17295), (35, 17415), (36, 17421), (50, 17487), (51, 17499), (58, 17556), (60, 17565), (66, 17601), (68, 17610), (70, 17631), (76, 17715), (81, 17790), (85, 17811), (94, 17934), (96, 17967),

Gene: Madeline_18 Start: 17238, Stop: 18065, Start Num: 9
Candidate Starts for Madeline_18:
(Start: 9 @17238 has 36 MA's), (17, 17292), (20, 17319), (35, 17433), (36, 17439), (38, 17454), (59, 17577), (66, 17619), (68, 17628), (70, 17649), (76, 17733), (81, 17808), (94, 17952), (96, 17985),

Gene: Manasvini_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Manasvini_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Maridalia_17 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Maridalia_17:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Matteo_16 Start: 13846, Stop: 14694, Start Num: 4
Candidate Starts for Matteo_16:
(3, 13759), (Start: 4 @13846 has 45 MA's), (8, 13852), (19, 13930), (20, 13936), (27, 13987), (39, 14074), (49, 14107), (58, 14194), (59, 14197), (63, 14218), (70, 14275), (88, 14497), (90, 14503), (101, 14665),

Gene: Mbo4_16 Start: 14927, Stop: 15760, Start Num: 6
Candidate Starts for Mbo4_16:
(6, 14927), (21, 15017), (29, 15086), (32, 15104), (36, 15128), (40, 15149), (44, 15173), (58, 15278), (74, 15401), (78, 15464), (80, 15509), (83, 15530), (84, 15533), (85, 15536),

Gene: Mcklovin_19 Start: 19238, Stop: 20074, Start Num: 4
Candidate Starts for Mcklovin_19:
(Start: 4 @19238 has 45 MA's), (Start: 9 @19247 has 36 MA's), (15, 19289), (19, 19322), (22, 19337), (36, 19448), (37, 19454), (46, 19493), (53, 19547), (55, 19562), (59, 19586), (60, 19592), (66, 19628), (70, 19658), (73, 19667), (81, 19817), (91, 19907), (96, 19994),

Gene: MichaelScott_19 Start: 16864, Stop: 17706, Start Num: 4
Candidate Starts for MichaelScott_19:
(Start: 4 @16864 has 45 MA's), (Start: 9 @16873 has 36 MA's), (15, 16915), (19, 16948), (22, 16963), (28, 17011), (33, 17059), (36, 17074), (37, 17080), (46, 17119), (53, 17173), (59, 17212), (60, 17218), (66, 17254), (70, 17284), (73, 17293), (81, 17449), (96, 17626),

Gene: Mocha12_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Mocha12_16:

(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Moosehead_16 Start: 13815, Stop: 14663, Start Num: 4
Candidate Starts for Moosehead_16:
(Start: 4 @13815 has 45 MA's), (8, 13821), (31, 13992), (33, 14010), (39, 14043), (58, 14163), (59, 14166), (61, 14175), (62, 14178), (63, 14187), (72, 14250), (76, 14322), (90, 14472), (101, 14634),

Gene: Neobush_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Neobush_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Nettuno_16 Start: 13849, Stop: 14697, Start Num: 4
Candidate Starts for Nettuno_16:
(3, 13762), (Start: 4 @13849 has 45 MA's), (8, 13855), (20, 13939), (27, 13990), (33, 14044), (36, 14059), (39, 14077), (49, 14110), (55, 14176), (58, 14197), (59, 14200), (63, 14221), (70, 14278), (88, 14500), (90, 14506), (100, 14662), (101, 14668),

Gene: Nymphadora_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for Nymphadora_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: Ohgeesy_18 Start: 16563, Stop: 17390, Start Num: 9
Candidate Starts for Ohgeesy_18:
(Start: 9 @16563 has 36 MA's), (19, 16638), (35, 16758), (36, 16764), (50, 16830), (51, 16842), (58, 16899), (60, 16908), (66, 16944), (68, 16953), (70, 16974), (76, 17058), (81, 17133), (85, 17154), (94, 17277), (96, 17310),

Gene: OneDirection_16 Start: 13816, Stop: 14664, Start Num: 4
Candidate Starts for OneDirection_16:
(3, 13729), (Start: 4 @13816 has 45 MA's), (8, 13822), (20, 13906), (27, 13957), (33, 14011), (39, 14044), (49, 14077), (55, 14143), (58, 14164), (59, 14167), (63, 14188), (70, 14245), (88, 14467), (90, 14473), (100, 14629), (101, 14635),

Gene: Oregano_19 Start: 16535, Stop: 17371, Start Num: 4
Candidate Starts for Oregano_19:
(Start: 4 @16535 has 45 MA's), (Start: 9 @16544 has 36 MA's), (15, 16586), (19, 16619), (22, 16634), (28, 16682), (36, 16745), (37, 16751), (46, 16790), (53, 16844), (59, 16883), (60, 16889), (66, 16925), (70, 16955), (73, 16964), (81, 17114), (91, 17204), (96, 17291),

Gene: PantheRoc_18 Start: 16271, Stop: 17098, Start Num: 9
Candidate Starts for PantheRoc_18:
(Start: 9 @16271 has 36 MA's), (19, 16346), (35, 16466), (36, 16472), (50, 16538), (51, 16550), (58, 16607), (60, 16616), (66, 16652), (68, 16661), (70, 16682), (76, 16766), (81, 16841), (85, 16862), (94, 16985), (96, 17018),

Gene: Pepperoni_16 Start: 14166, Stop: 15014, Start Num: 4
Candidate Starts for Pepperoni_16:

(3, 14079), (Start: 4 @14166 has 45 MA's), (8, 14172), (20, 14256), (27, 14307), (33, 14361), (39, 14394), (49, 14427), (55, 14493), (58, 14514), (59, 14517), (63, 14538), (70, 14595), (88, 14817), (90, 14823), (100, 14979), (101, 14985),

Gene: PhriskyACE_18 Start: 15989, Stop: 16825, Start Num: 4
Candidate Starts for PhriskyACE_18:
(Start: 4 @15989 has 45 MA's), (Start: 9 @15998 has 36 MA's), (15, 16040), (19, 16073), (22, 16088), (36, 16199), (37, 16205), (38, 16214), (46, 16244), (53, 16298), (59, 16337), (64, 16367), (66, 16379), (70, 16409), (73, 16418), (81, 16568), (91, 16658), (96, 16745),

Gene: Pickett_16 Start: 13834, Stop: 14682, Start Num: 4
Candidate Starts for Pickett_16:
(3, 13747), (Start: 4 @13834 has 45 MA's), (8, 13840), (Start: 10 @13846 has 1 MA's), (27, 13975), (33, 14029), (39, 14062), (49, 14095), (58, 14182), (59, 14185), (63, 14206), (70, 14263), (88, 14485), (90, 14491), (101, 14653),

Gene: Polly_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Polly_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Powerball_18 Start: 15995, Stop: 16822, Start Num: 9
Candidate Starts for Powerball_18:
(Start: 9 @15995 has 36 MA's), (19, 16070), (28, 16133), (30, 16157), (36, 16196), (37, 16202), (46, 16241), (53, 16295), (57, 16328), (58, 16331), (59, 16334), (66, 16376), (73, 16415), (76, 16490), (81, 16565), (91, 16655),

Gene: RavenCo17_16 Start: 14717, Stop: 15550, Start Num: 5
Candidate Starts for RavenCo17_16:
(Start: 5 @14717 has 2 MA's), (16, 14759), (29, 14867), (39, 14933), (58, 15053), (70, 15131), (86, 15326), (90, 15359), (96, 15470),

Gene: Sahara_16 Start: 13936, Stop: 14784, Start Num: 4
Candidate Starts for Sahara_16:
(Start: 4 @13936 has 45 MA's), (Start: 9 @13945 has 36 MA's), (19, 14020), (20, 14026), (29, 14098), (31, 14113), (33, 14131), (39, 14164), (49, 14197), (58, 14284), (59, 14287), (61, 14296), (63, 14308), (65, 14323), (90, 14593), (100, 14749), (101, 14755),

Gene: Samman98_19 Start: 16504, Stop: 17340, Start Num: 4
Candidate Starts for Samman98_19:
(Start: 4 @16504 has 45 MA's), (Start: 9 @16513 has 36 MA's), (15, 16555), (19, 16588), (22, 16603), (28, 16651), (36, 16714), (37, 16720), (46, 16759), (53, 16813), (59, 16852), (60, 16858), (66, 16894), (70, 16924), (73, 16933), (81, 17083), (96, 17260),

Gene: Savage_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Savage_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Sekhmet_19 Start: 16864, Stop: 17700, Start Num: 4
Candidate Starts for Sekhmet_19:

(Start: 4 @16864 has 45 MA's), (Start: 9 @16873 has 36 MA's), (15, 16915), (19, 16948), (22, 16963), (28, 17011), (33, 17059), (36, 17074), (37, 17080), (46, 17119), (53, 17173), (59, 17212), (60, 17218), (66, 17254), (70, 17284), (73, 17293), (81, 17443), (91, 17533), (96, 17620),

Gene: Shlim410_19 Start: 17069, Stop: 17905, Start Num: 4
Candidate Starts for Shlim410_19:
(Start: 4 @17069 has 45 MA's), (Start: 9 @17078 has 36 MA's), (15, 17120), (19, 17153), (22, 17168), (28, 17216), (36, 17279), (37, 17285), (46, 17324), (53, 17378), (55, 17393), (59, 17417), (60, 17423), (66, 17459), (70, 17489), (73, 17498), (81, 17648), (91, 17738), (96, 17825),

Gene: Sidious_18 Start: 16465, Stop: 17292, Start Num: 9
Candidate Starts for Sidious_18:
(Start: 9 @16465 has 36 MA's), (35, 16660), (36, 16666), (38, 16681), (43, 16702), (51, 16744), (52, 16762), (60, 16810), (66, 16846), (68, 16855), (76, 16960), (81, 17035), (94, 17179), (96, 17212), (99, 17251),

Gene: SoilAssassin_16 Start: 13903, Stop: 14751, Start Num: 4
Candidate Starts for SoilAssassin_16:
(Start: 4 @13903 has 45 MA's), (8, 13909), (27, 14044), (39, 14131), (49, 14164), (58, 14251), (59, 14254), (63, 14275), (66, 14299), (70, 14332), (88, 14554), (90, 14560), (101, 14722),

Gene: Sproutie_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Sproutie_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Suerte_17 Start: 15987, Stop: 16814, Start Num: 9
Candidate Starts for Suerte_17:
(Start: 9 @15987 has 36 MA's), (19, 16062), (28, 16125), (30, 16149), (36, 16188), (37, 16194), (46, 16233), (51, 16266), (53, 16287), (57, 16320), (58, 16323), (59, 16326), (66, 16368), (70, 16398), (73, 16407), (76, 16482), (81, 16557), (91, 16647),

Gene: Suscepit_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Suscepit_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Tayonia_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Tayonia_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: ThankyouJordi_17 Start: 16982, Stop: 17809, Start Num: 9
Candidate Starts for ThankyouJordi_17:
(2, 16682), (Start: 9 @16982 has 36 MA's), (35, 17177), (36, 17183), (46, 17228), (51, 17261), (52, 17279), (60, 17327), (66, 17363), (68, 17372), (70, 17393), (72, 17399), (76, 17477), (81, 17552), (96, 17729),

Gene: Thimann_19 Start: 16471, Stop: 17298, Start Num: 9
Candidate Starts for Thimann_19:
(Start: 9 @16471 has 36 MA's), (19, 16546), (28, 16609), (30, 16633), (36, 16672), (37, 16678), (46, 16717), (51, 16750), (53, 16771), (57, 16804), (58, 16807), (59, 16810), (66, 16852), (70, 16882), (73,

16891), (76, 16966), (81, 17041), (85, 17062), (91, 17131),

Gene: TimTam_18 Start: 16940, Stop: 17767, Start Num: 9
Candidate Starts for TimTam_18:
(Start: 9 @16940 has 36 MA's), (19, 17015), (35, 17135), (36, 17141), (50, 17207), (51, 17219), (58, 17276), (60, 17285), (66, 17321), (68, 17330), (70, 17351), (76, 17435), (81, 17510), (85, 17531), (94, 17654), (96, 17687),

Gene: TinyDot_18 Start: 14464, Stop: 15303, Start Num: 12
Candidate Starts for TinyDot_18:
(Start: 12 @14464 has 1 MA's), (13, 14476), (25, 14572), (36, 14647), (45, 14695), (48, 14704), (53, 14761), (59, 14800), (61, 14806), (66, 14839), (83, 15043), (101, 15274),

Gene: Trumpet_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Trumpet_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: TuertoX_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for TuertoX_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: Tuti_23 Start: 16876, Stop: 17712, Start Num: 4
Candidate Starts for Tuti_23:
(Start: 4 @16876 has 45 MA's), (Start: 9 @16885 has 36 MA's), (15, 16927), (19, 16960), (22, 16975), (28, 17023), (36, 17086), (37, 17092), (46, 17131), (53, 17185), (59, 17224), (66, 17266), (70, 17296), (73, 17305), (76, 17380), (77, 17398), (81, 17455), (91, 17545), (96, 17632),

Gene: Twinkle_19 Start: 18137, Stop: 18964, Start Num: 9
Candidate Starts for Twinkle_19:
(Start: 4 @18128 has 45 MA's), (Start: 9 @18137 has 36 MA's), (15, 18179), (19, 18212), (22, 18227), (28, 18275), (36, 18338), (37, 18344), (46, 18383), (53, 18437), (55, 18452), (59, 18476), (60, 18482), (66, 18518), (70, 18548), (73, 18557), (81, 18707), (91, 18797), (96, 18884),

Gene: Vasanti_16 Start: 13856, Stop: 14704, Start Num: 4
Candidate Starts for Vasanti_16:
(3, 13769), (Start: 4 @13856 has 45 MA's), (8, 13862), (Start: 9 @13865 has 36 MA's), (19, 13940), (29, 14018), (31, 14033), (33, 14051), (39, 14084), (59, 14207), (62, 14219), (63, 14228), (76, 14363), (90, 14513), (100, 14669), (101, 14675),

Gene: WelcomeAyanna_17 Start: 16982, Stop: 17809, Start Num: 9
Candidate Starts for WelcomeAyanna_17:
(2, 16682), (Start: 9 @16982 has 36 MA's), (35, 17177), (36, 17183), (46, 17228), (51, 17261), (52, 17279), (60, 17327), (66, 17363), (68, 17372), (70, 17393), (72, 17399), (76, 17477), (81, 17552), (96, 17729),

Gene: Whiteclaw_16 Start: 13910, Stop: 14758, Start Num: 4
Candidate Starts for Whiteclaw_16:
(1, 13442), (3, 13823), (Start: 4 @13910 has 45 MA's), (8, 13916), (20, 14000), (27, 14051), (49, 14171), (58, 14258), (59, 14261), (62, 14273), (63, 14282), (66, 14309), (68, 14318), (70, 14339), (90, 14567), (100, 14723), (101, 14729),

Gene: WinkNick_19 Start: 16489, Stop: 17325, Start Num: 4
Candidate Starts for WinkNick_19:
(Start: 4 @16489 has 45 MA's), (Start: 9 @16498 has 36 MA's), (15, 16540), (19, 16573), (22, 16588), (28, 16636), (36, 16699), (37, 16705), (46, 16744), (53, 16798), (59, 16837), (60, 16843), (66, 16879), (70, 16909), (73, 16918), (81, 17068), (96, 17245),

Gene: Yeet412_16 Start: 13903, Stop: 14751, Start Num: 4
Candidate Starts for Yeet412_16:
(Start: 4 @13903 has 45 MA's), (8, 13909), (27, 14044), (39, 14131), (49, 14164), (58, 14251), (59, 14254), (63, 14275), (66, 14299), (70, 14332), (88, 14554), (90, 14560), (101, 14722),

Gene: Yeezy_19 Start: 16295, Stop: 17122, Start Num: 9
Candidate Starts for Yeezy_19:
(Start: 9 @16295 has 36 MA's), (19, 16370), (35, 16490), (36, 16496), (50, 16562), (51, 16574), (58, 16631), (60, 16640), (66, 16676), (68, 16685), (70, 16706), (76, 16790), (81, 16865), (85, 16886), (94, 17009), (96, 17042),

Gene: Zameen_18 Start: 16949, Stop: 17776, Start Num: 9
Candidate Starts for Zameen_18:
(Start: 9 @16949 has 36 MA's), (17, 17003), (20, 17030), (35, 17144), (36, 17150), (38, 17165), (59, 17288), (66, 17330), (68, 17339), (70, 17360), (76, 17444), (81, 17519), (94, 17663), (96, 17696),

Gene: Zirinka_18 Start: 16952, Stop: 17779, Start Num: 9
Candidate Starts for Zirinka_18:
(Start: 9 @16952 has 36 MA's), (17, 17006), (20, 17033), (35, 17147), (36, 17153), (38, 17168), (59, 17291), (66, 17333), (68, 17342), (76, 17447), (81, 17522), (85, 17543), (94, 17666), (96, 17699),