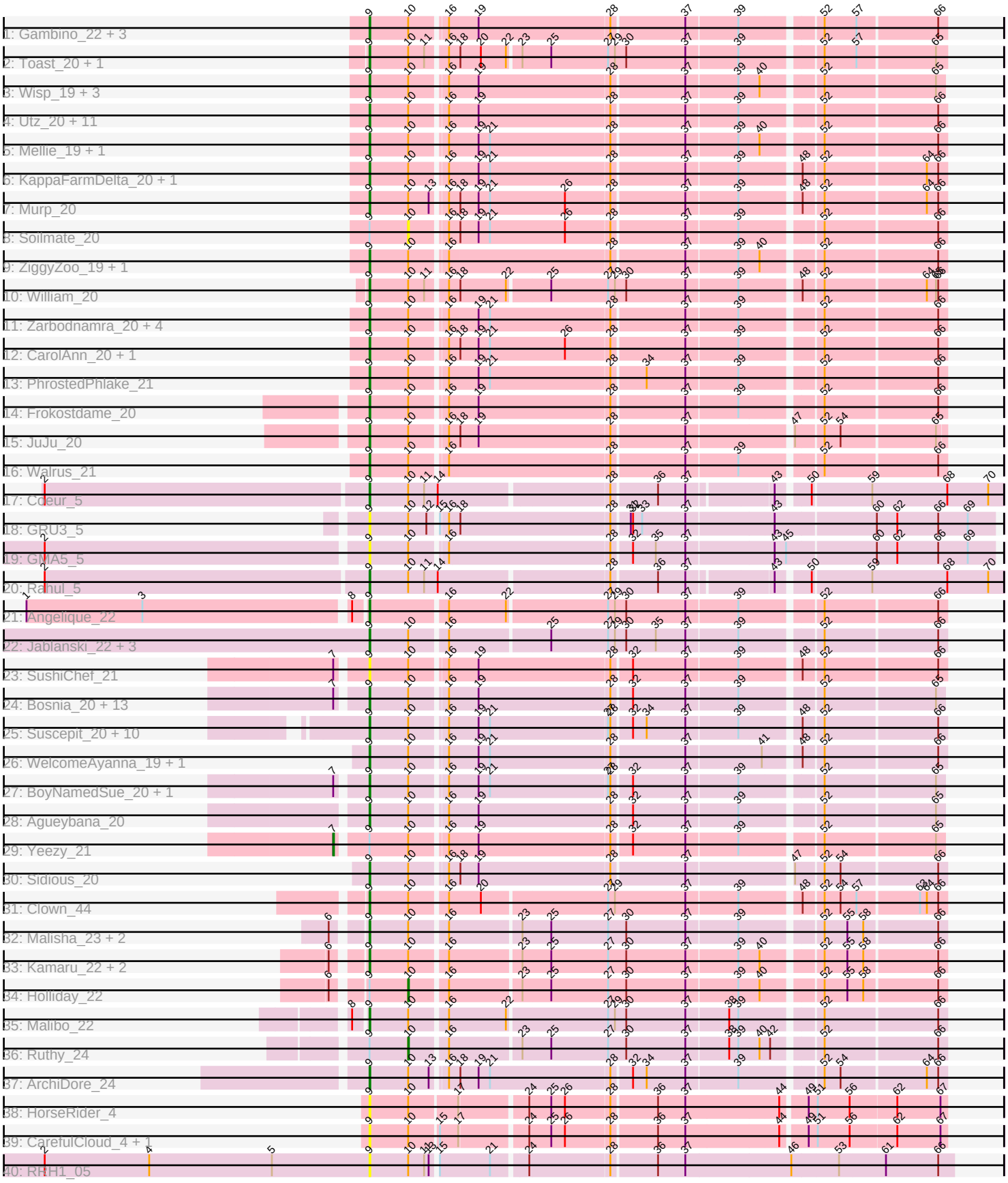
Pham 347459


1: Gambino_22 + 3
2: Toast_20 + 1
3: Wisp_19 + 3
4: Utz_20 + 11
5: Mellie_19 + 1
6: KappaFarmDelta_20 + 1
7: Murp_20
8: Soilmate_20
9: ZiggyZoo_19 + 1
10: William_20
11: Zarbodnamra_20 + 4
12: CarolAnn_20 + 1
13: PhrostedPhlake_21
14: Frokostdame_20
15: JuJu_20
16: Walrus_21
17: Coeur_5
18: GRU3_5
19: GMA5_5
20: Rahul_5
21: Angelique_22
22: Jablanski_22 + 3
23: SushiChef_21
24: Bosnia_20 + 13
25: Suscepit_20 + 10
26: WelcomeAyanna_19 + 1
27: BoyNamedSue_20 + 1
28: Agueybana_20
29: Yeezy_21
30: Sidious_20
31: Clown_44
32: Malisha_23 + 2
33: Kamaru_22 + 2
34: Holliday_22
35: Malibo_22
36: Ruthy_24
37: ArchiDore_24
38: HorseRider_4
39: CarefulCloud_4 + 1
40: RRH1_05

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 347459 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347459 has 99 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Gambino_22, Azula_22, MissRona_22, Blueberry_22
• Track 2 : Toast_20, PCoral7_20
• Track 3 : Wisp_19, CaptainKirk2_20, UmaThurman_20, Delian_20
• Track 4 : Utz_20, Malachai_21, JasperJr_20, Zilla_20, Archis_21, Fenry_19, BlingBling_20, Begonia_21, Guacamole_20, Melba_20, Barco_20, MintFen_20
• Track 5 : Mellie_19, Pipp_20
• Track 6 : KappaFarmDelta_20, CheeseSpider_22
• Track 7 : Murp_20
• Track 8 : Soilmate_20
• Track 9 : ZiggyZoo_19, Obliviate_19
• Track 10 : William_20
• Track 11 : Zarbodnamra_20, Jalammah_22, Hitter_20, Lysidious_21, Samba_20
• Track 12 : CarolAnn_20, Blino_20
• Track 13 : PhrostedPhlake_21
• Track 14 : Frokostdame_20
• Track 15 : JuJu_20
• Track 16 : Walrus_21
• Track 17 : Coeur_5
• Track 18 : GRU3_5
• Track 19 : GMA5_5
• Track 20 : Rahul_5
• Track 21 : Angelique_22
• Track 22 : Jablanski_22, Posh_22, Pytheas_22, Wrigley_22
• Track 23 : SushiChef_21
• Track 24 : Bosnia_20, BatStarr_20, Bialota_20, Nymphadora_20, Madavieve_20, TimTam_20, Zirinka_20, PantheRoc_20, BaxterFox_19, Madeline_20, Hugley_20, Herod_20, Ohgeesy_20, Eviarto_20
• Track 25 : Suscepit_20, Tayonia_20, Zameen_20, Manasvini_20, Dillpickles_21, Neobush_20, Antonio_20, Maridalia_19, Eudoria_20, Trumpet_20, Kita_20
• Track 26 : WelcomeAyanna_19, ThankyouJordi_19
• Track 27 : BoyNamedSue_20, AlumE_20
• Track 28 : Agueybana_20
• Track 29 : Yeezy_21
• Track 30 : Sidious_20
• Track 31 : Clown_44
• Track 32 : Malisha_23, Squiddly_24, Spooky_22
• Track 33 : Kamaru_22, Budski_22, Whitney_23

• Track 34 : Holliday_22
• Track 35 : Malibo_22
• Track 36 : Ruthy_24
• Track 37 : ArchiDore_24
• Track 38 : HorseRider_4
• Track 39 : CarefulCloud_4, Flashwig_4
• Track 40 : RRH1_05

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

The start number called the most often in the published annotations is 9, it was called in 85 of the 88 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Agueybana_20, AlumE_20, Angelique_22, Antonio_20, ArchiDore_24, Archis_21, Azula_22, Barco_20, BatStarr_20, BaxterFox_19, Begonia_21, Bialota_20, BlingBling_20, Blino_20, Blueberry_22, Bosnia_20, BoyNamedSue_20, Budski_22, CaptainKirk2_20, CarefulCloud_4, CarolAnn_20, CheeseSpider_22, Clown_44, Coeur_5, Delian_20, Dillpickles_21, Eudoria_20, Eviarto_20, Fenry_19, Flashwig_4, Frokostdame_20, GMA5_5, GRU3_5, Gambino_22, Guacamole_20, Herod_20, Hitter_20, HorseRider_4, Hugley_20, Jablanski_22, Jalammah_22, JasperJr_20, JuJu_20, Kamaru_22, KappaFarmDelta_20, Kita_20, Lysidious_21, Madavieve_20, Madeline_20, Malachai_21, Malibo_22, Malisha_23, Manasvini_20, Maridalia_19, Melba_20, Mellie_19, MintFen_20, MissRona_22, Murp_20, Neobush_20, Nymphadora_20, Obliviate_19, Ohgeesy_20, PCoral7_20, PantheRoc_20, PhrostedPhlake_21, Pipp_20, Posh_22, Pytheas_22, RRH1_05, Rahul_5, Samba_20, Sidious_20, Spooky_22, Squiddly_24, Suscepit_20, SushiChef_21, Tayonia_20, ThankyouJordi_19, TimTam_20, Toast_20, Trumpet_20, UmaThurman_20, Utz_20, Walrus_21, WelcomeAyanna_19, Whitney_23, William_20, Wisp_19, Wrigley_22, Zameen_20, Zarbodnamra_20, ZiggyZoo_19, Zilla_20, Zirinka_20,

Genes that have the "Most Annotated" start but do not call it:
• Holliday_22, Ruthy_24, Soilmate_20, Yeezy_21,

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

Summary by start number:

Start 7:
• Found in 18 of 99 (18.2%) of genes in pham
• Manual Annotations of this start: 1 of 88
• Called 5.6% of time when present
• Phage (with cluster) where this start called: Yeezy_21 (CZ3),

Start 9:
• Found in 99 of 99 (100.0%) of genes in pham
• Manual Annotations of this start: 85 of 88
• Called 96.0% of time when present

• Phage (with cluster) where this start called: Agueybana_20 (CZ1), AlumE_20 (CZ1), Angelique_22 (CY1), Antonio_20 (CZ1), ArchiDore_24 (DW), Archis_21 (CV), Azula_22 (CV), Barco_20 (CV), BatStarr_20 (CZ1), BaxterFox_19 (CZ3), Begonia_21 (CV), Bialota_20 (CZ1), BlingBling_20 (CV), Blino_20 (CV), Blueberry_22 (CV), Bosnia_20 (CZ1), BoyNamedSue_20 (CZ1), Budski_22 (DN), CaptainKirk2_20 (CV), CarefulCloud_4 (ER), CarolAnn_20 (CV), CheeseSpider_22 (CV), Clown_44 (DC2), Coeur_5 (CW2), Delian_20 (CV), Dillpickles_21 (CZ1), Eudoria_20 (CZ1), Eviarto_20 (CZ1), Fenry_19 (CV), Flashwig_4 (ER), Frokostdame_20 (CV), GMA5_5 (CW2), GRU3_5 (CW2), Gambino_22 (CV), Guacamole_20 (CV), Herod_20 (CZ1), Hitter_20 (CV), HorseRider_4 (ER), Hugley_20 (CZ1), Jablanski_22 (CY3), Jalammah_22 (CV), JasperJr_20 (CV), JuJu_20 (CV), Kamaru_22 (DN1), KappaFarmDelta_20 (CV), Kita_20 (CZ1), Lysidious_21 (CV), Madavieve_20 (CZ1), Madeline_20 (CZ1), Malachai_21 (CV), Malibo_22 (DW), Malisha_23 (DN), Manasvini_20 (CZ1), Maridalia_19 (CZ1), Melba_20 (CV), Mellie_19 (CV), MintFen_20 (CV), MissRona_22 (CV), Murp_20 (CV), Neobush_20 (CZ1), Nymphadora_20 (CZ1), Obliviate_19 (CV), Ohgeesy_20 (CZ), PCoral7_20 (CV), PantheRoc_20 (CZ3), PhrostedPhlake_21 (CV), Pipp_20 (CV), Posh_22 (CY4), Pytheas_22 (CY3), RRH1_05 (singleton), Rahul_5 (CW2), Samba_20 (CV), Sidious_20 (CZ7), Spooky_22 (DN2), Squiddly_24 (DN2), Suscepit_20 (CZ1), SushiChef_21 (CZ), Tayonia_20 (CZ1), ThankyouJordi_19 (CZ1), TimTam_20 (CZ1), Toast_20 (CV), Trumpet_20 (CZ1), UmaThurman_20 (CV), Utz_20 (CV), Walrus_21 (CV), WelcomeAyanna_19 (CZ1), Whitney_23 (DN1), William_20 (CV), Wisp_19 (CV), Wrigley_22 (CY4), Zameen_20 (CZ1), Zarbodnamra_20 (CV), ZiggyZoo_19 (CV), Zilla_20 (CV), Zirinka_20 (CZ1),

Start 10:
• Found in 98 of 99 (99.0%) of genes in pham
• Manual Annotations of this start: 2 of 88
• Called 3.1% of time when present
• Phage (with cluster) where this start called: Holliday_22 (DN1), Ruthy_24 (DW), Soilmate_20 (CV),

Summary by clusters:

There are 16 clusters represented in this pham: DN, CY3, CY1, CZ1, CY4, CZ3, CW2, CZ7, CZ, DN1, DN2, DW, singleton, DC2, CV, ER,

Info for manual annotations of cluster CV:
•Start number 9 was manually annotated 41 times for cluster CV.

Info for manual annotations of cluster CW2:
•Start number 9 was manually annotated 2 times for cluster CW2.

Info for manual annotations of cluster CY1:
•Start number 9 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY3:
•Start number 9 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 9 was manually annotated 2 times for cluster CY4.

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

Info for manual annotations of cluster CZ1:
•Start number 9 was manually annotated 24 times for cluster CZ1.

Info for manual annotations of cluster CZ3:
•Start number 7 was manually annotated 1 time for cluster CZ3.
•Start number 9 was manually annotated 2 times for cluster CZ3.

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

Info for manual annotations of cluster DC2:
•Start number 9 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DN:
•Start number 9 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 9 was manually annotated 2 times for cluster DN1.
•Start number 10 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 9 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DW:
•Start number 9 was manually annotated 2 times for cluster DW.
•Start number 10 was manually annotated 1 time for cluster DW.

Gene Information:

Gene: Agueybana_20 Start: 19470, Stop: 20174, Start Num: 9
Candidate Starts for Agueybana_20:
(Start: 9 @19470 has 85 MA's), (Start: 10 @19521 has 2 MA's), (16, 19563), (19, 19599), (28, 19770), (32, 19794), (37, 19863), (39, 19929), (52, 20022), (65, 20163),

Gene: AlumE_20 Start: 19469, Stop: 20173, Start Num: 9
Candidate Starts for AlumE_20:
(Start: 7 @19436 has 1 MA's), (Start: 9 @19469 has 85 MA's), (Start: 10 @19520 has 2 MA's), (16, 19562), (19, 19598), (21, 19613), (27, 19766), (28, 19769), (32, 19793), (37, 19862), (39, 19928), (52, 20021), (65, 20162),

Gene: Angelique_22 Start: 19811, Stop: 20524, Start Num: 9
Candidate Starts for Angelique_22:
(1, 19382), (3, 19535), (8, 19796), (Start: 9 @19811 has 85 MA's), (16, 19907), (22, 19982), (27, 20108), (29, 20117), (30, 20132), (37, 20210), (39, 20276), (52, 20369), (66, 20513),

Gene: Antonio_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Antonio_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943),

(66, 20087),

Gene: ArchiDore_24 Start: 21598, Stop: 22305, Start Num: 9
Candidate Starts for ArchiDore_24:
(Start: 9 @21598 has 85 MA's), (Start: 10 @21649 has 2 MA's), (13, 21676), (16, 21691), (18, 21703), (19, 21727), (21, 21742), (28, 21898), (32, 21922), (34, 21940), (37, 21991), (39, 22057), (52, 22150), (54, 22171), (64, 22279), (66, 22294),

Gene: Archis_21 Start: 18524, Stop: 19231, Start Num: 9
Candidate Starts for Archis_21:
(Start: 9 @18524 has 85 MA's), (Start: 10 @18575 has 2 MA's), (16, 18617), (19, 18653), (28, 18824), (37, 18917), (39, 18983), (52, 19076), (66, 19220),

Gene: Azula_22 Start: 18628, Stop: 19335, Start Num: 9
Candidate Starts for Azula_22:
(Start: 9 @18628 has 85 MA's), (Start: 10 @18679 has 2 MA's), (16, 18721), (19, 18757), (28, 18928), (37, 19021), (39, 19087), (52, 19180), (57, 19222), (66, 19324),

Gene: Barco_20 Start: 18313, Stop: 19020, Start Num: 9
Candidate Starts for Barco_20:
(Start: 9 @18313 has 85 MA's), (Start: 10 @18364 has 2 MA's), (16, 18406), (19, 18442), (28, 18613), (37, 18706), (39, 18772), (52, 18865), (66, 19009),

Gene: BatStarr_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for BatStarr_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: BaxterFox_19 Start: 18796, Stop: 19500, Start Num: 9
Candidate Starts for BaxterFox_19:
(Start: 7 @18763 has 1 MA's), (Start: 9 @18796 has 85 MA's), (Start: 10 @18847 has 2 MA's), (16, 18889), (19, 18925), (28, 19096), (32, 19120), (37, 19189), (39, 19255), (52, 19348), (65, 19489),

Gene: Begonia_21 Start: 18791, Stop: 19498, Start Num: 9
Candidate Starts for Begonia_21:
(Start: 9 @18791 has 85 MA's), (Start: 10 @18842 has 2 MA's), (16, 18884), (19, 18920), (28, 19091), (37, 19184), (39, 19250), (52, 19343), (66, 19487),

Gene: Bialota_20 Start: 19469, Stop: 20173, Start Num: 9
Candidate Starts for Bialota_20:
(Start: 7 @19436 has 1 MA's), (Start: 9 @19469 has 85 MA's), (Start: 10 @19520 has 2 MA's), (16, 19562), (19, 19598), (28, 19769), (32, 19793), (37, 19862), (39, 19928), (52, 20021), (65, 20162),

Gene: BlingBling_20 Start: 18313, Stop: 19020, Start Num: 9
Candidate Starts for BlingBling_20:
(Start: 9 @18313 has 85 MA's), (Start: 10 @18364 has 2 MA's), (16, 18406), (19, 18442), (28, 18613), (37, 18706), (39, 18772), (52, 18865), (66, 19009),

Gene: Blino_20 Start: 18281, Stop: 18988, Start Num: 9
Candidate Starts for Blino_20:
(Start: 9 @18281 has 85 MA's), (Start: 10 @18332 has 2 MA's), (16, 18374), (18, 18386), (19, 18410), (21, 18425), (26, 18524), (28, 18581), (37, 18674), (39, 18740), (52, 18833), (66, 18977),

Gene: Blueberry_22 Start: 18628, Stop: 19335, Start Num: 9
Candidate Starts for Blueberry_22:
(Start: 9 @18628 has 85 MA's), (Start: 10 @18679 has 2 MA's), (16, 18721), (19, 18757), (28, 18928), (37, 19021), (39, 19087), (52, 19180), (57, 19222), (66, 19324),

Gene: Bosnia_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for Bosnia_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: BoyNamedSue_20 Start: 19469, Stop: 20173, Start Num: 9
Candidate Starts for BoyNamedSue_20:
(Start: 7 @19436 has 1 MA's), (Start: 9 @19469 has 85 MA's), (Start: 10 @19520 has 2 MA's), (16, 19562), (19, 19598), (21, 19613), (27, 19766), (28, 19769), (32, 19793), (37, 19862), (39, 19928), (52, 20021), (65, 20162),

Gene: Budski_22 Start: 18675, Stop: 19385, Start Num: 9
Candidate Starts for Budski_22:
(6, 18642), (Start: 9 @18675 has 85 MA's), (Start: 10 @18726 has 2 MA's), (16, 18771), (23, 18861), (25, 18897), (27, 18972), (30, 18996), (37, 19074), (39, 19140), (40, 19167), (52, 19233), (55, 19263), (58, 19284), (66, 19374),

Gene: CaptainKirk2_20 Start: 18337, Stop: 19041, Start Num: 9
Candidate Starts for CaptainKirk2_20:
(Start: 9 @18337 has 85 MA's), (Start: 10 @18388 has 2 MA's), (16, 18430), (19, 18466), (28, 18637), (37, 18730), (39, 18796), (40, 18823), (52, 18889), (65, 19030),

Gene: CarefulCloud_4 Start: 2898, Stop: 3614, Start Num: 9
Candidate Starts for CarefulCloud_4:
(Start: 9 @2898 has 85 MA's), (Start: 10 @2949 has 2 MA's), (15, 2985), (17, 3009), (24, 3090), (25, 3117), (26, 3135), (28, 3192), (36, 3249), (37, 3285), (44, 3405), (49, 3435), (51, 3447), (56, 3489), (62, 3549), (67, 3606),

Gene: CarolAnn_20 Start: 18280, Stop: 18987, Start Num: 9
Candidate Starts for CarolAnn_20:
(Start: 9 @18280 has 85 MA's), (Start: 10 @18331 has 2 MA's), (16, 18373), (18, 18385), (19, 18409), (21, 18424), (26, 18523), (28, 18580), (37, 18673), (39, 18739), (52, 18832), (66, 18976),

Gene: CheeseSpider_22 Start: 18679, Stop: 19386, Start Num: 9
Candidate Starts for CheeseSpider_22:
(Start: 9 @18679 has 85 MA's), (Start: 10 @18730 has 2 MA's), (16, 18772), (19, 18808), (21, 18823), (28, 18979), (37, 19072), (39, 19138), (48, 19207), (52, 19231), (64, 19360), (66, 19375),

Gene: Clown_44 Start: 35539, Stop: 36252, Start Num: 9
Candidate Starts for Clown_44:
(Start: 9 @35539 has 85 MA's), (Start: 10 @35590 has 2 MA's), (16, 35635), (20, 35677), (27, 35836), (29, 35845), (37, 35938), (39, 36004), (48, 36073), (52, 36097), (54, 36118), (57, 36139), (63, 36217), (64, 36226), (66, 36241),

Gene: Coeur_5 Start: 3259, Stop: 4041, Start Num: 9
Candidate Starts for Coeur_5:
(2, 2839), (Start: 9 @3259 has 85 MA's), (Start: 10 @3310 has 2 MA's), (11, 3331), (14, 3349), (28, 3562), (36, 3619), (37, 3655), (43, 3757), (50, 3793), (59, 3868), (68, 3967), (70, 4021),

Gene: Delian_20 Start: 18337, Stop: 19041, Start Num: 9
Candidate Starts for Delian_20:
(Start: 9 @18337 has 85 MA's), (Start: 10 @18388 has 2 MA's), (16, 18430), (19, 18466), (28, 18637), (37, 18730), (39, 18796), (40, 18823), (52, 18889), (65, 19030),

Gene: Dillpickles_21 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Dillpickles_21:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Eudoria_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Eudoria_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Eviarto_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for Eviarto_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: Fenry_19 Start: 18032, Stop: 18739, Start Num: 9
Candidate Starts for Fenry_19:
(Start: 9 @18032 has 85 MA's), (Start: 10 @18083 has 2 MA's), (16, 18125), (19, 18161), (28, 18332), (37, 18425), (39, 18491), (52, 18584), (66, 18728),

Gene: Flashwig_4 Start: 2898, Stop: 3614, Start Num: 9
Candidate Starts for Flashwig_4:
(Start: 9 @2898 has 85 MA's), (Start: 10 @2949 has 2 MA's), (15, 2985), (17, 3009), (24, 3090), (25, 3117), (26, 3135), (28, 3192), (36, 3249), (37, 3285), (44, 3405), (49, 3435), (51, 3447), (56, 3489), (62, 3549), (67, 3606),

Gene: Frokostdame_20 Start: 18282, Stop: 18989, Start Num: 9
Candidate Starts for Frokostdame_20:
(Start: 9 @18282 has 85 MA's), (Start: 10 @18333 has 2 MA's), (16, 18375), (19, 18411), (28, 18582), (37, 18675), (39, 18741), (52, 18834), (66, 18978),

Gene: GMA5_5 Start: 3196, Stop: 3984, Start Num: 9
Candidate Starts for GMA5_5:
(2, 2782), (Start: 9 @3196 has 85 MA's), (Start: 10 @3247 has 2 MA's), (16, 3289), (28, 3496), (32, 3520), (35, 3550), (37, 3589), (43, 3700), (45, 3715), (60, 3829), (62, 3856), (66, 3910), (69, 3949),

Gene: GRU3_5 Start: 3244, Stop: 4032, Start Num: 9
Candidate Starts for GRU3_5:
(Start: 9 @3244 has 85 MA's), (Start: 10 @3295 has 2 MA's), (12, 3319), (15, 3328), (16, 3337), (18, 3349), (28, 3544), (31, 3565), (32, 3568), (33, 3580), (37, 3637), (43, 3748), (60, 3877), (62, 3904), (66, 3958), (69, 3997),

Gene: Gambino_22 Start: 18628, Stop: 19335, Start Num: 9
Candidate Starts for Gambino_22:

(Start: 9 @18628 has 85 MA's), (Start: 10 @18679 has 2 MA's), (16, 18721), (19, 18757), (28, 18928), (37, 19021), (39, 19087), (52, 19180), (57, 19222), (66, 19324),

Gene: Guacamole_20 Start: 18317, Stop: 19024, Start Num: 9
Candidate Starts for Guacamole_20:
(Start: 9 @18317 has 85 MA's), (Start: 10 @18368 has 2 MA's), (16, 18410), (19, 18446), (28, 18617), (37, 18710), (39, 18776), (52, 18869), (66, 19013),

Gene: Herod_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for Herod_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: Hitter_20 Start: 18313, Stop: 19020, Start Num: 9
Candidate Starts for Hitter_20:
(Start: 9 @18313 has 85 MA's), (Start: 10 @18364 has 2 MA's), (16, 18406), (19, 18442), (21, 18457), (28, 18613), (37, 18706), (39, 18772), (52, 18865), (66, 19009),

Gene: Holliday_22 Start: 18726, Stop: 19385, Start Num: 10
Candidate Starts for Holliday_22:
(6, 18642), (Start: 9 @18675 has 85 MA's), (Start: 10 @18726 has 2 MA's), (16, 18771), (23, 18861), (25, 18897), (27, 18972), (30, 18996), (37, 19074), (39, 19140), (40, 19167), (52, 19233), (55, 19263), (58, 19284), (66, 19374),

Gene: HorseRider_4 Start: 2898, Stop: 3614, Start Num: 9
Candidate Starts for HorseRider_4:
(Start: 9 @2898 has 85 MA's), (Start: 10 @2949 has 2 MA's), (17, 3009), (24, 3090), (25, 3117), (26, 3135), (28, 3192), (36, 3249), (37, 3285), (44, 3405), (49, 3435), (51, 3447), (56, 3489), (62, 3549), (67, 3606),

Gene: Hugley_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for Hugley_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: Jablanski_22 Start: 19787, Stop: 20500, Start Num: 9
Candidate Starts for Jablanski_22:
(Start: 9 @19787 has 85 MA's), (Start: 10 @19838 has 2 MA's), (16, 19883), (25, 20009), (27, 20084), (29, 20093), (30, 20108), (35, 20147), (37, 20186), (39, 20252), (52, 20345), (66, 20489),

Gene: Jalammah_22 Start: 19107, Stop: 19814, Start Num: 9
Candidate Starts for Jalammah_22:
(Start: 9 @19107 has 85 MA's), (Start: 10 @19158 has 2 MA's), (16, 19200), (19, 19236), (21, 19251), (28, 19407), (37, 19500), (39, 19566), (52, 19659), (66, 19803),

Gene: JasperJr_20 Start: 18317, Stop: 19024, Start Num: 9
Candidate Starts for JasperJr_20:
(Start: 9 @18317 has 85 MA's), (Start: 10 @18368 has 2 MA's), (16, 18410), (19, 18446), (28, 18617), (37, 18710), (39, 18776), (52, 18869), (66, 19013),

Gene: JuJu_20 Start: 18238, Stop: 18942, Start Num: 9
Candidate Starts for JuJu_20:

(Start: 9 @18238 has 85 MA's), (Start: 10 @18289 has 2 MA's), (16, 18331), (18, 18343), (19, 18367), (28, 18538), (37, 18631), (47, 18757), (52, 18790), (54, 18811), (65, 18931),

Gene: Kamaru_22 Start: 18675, Stop: 19385, Start Num: 9
Candidate Starts for Kamaru_22:
(6, 18642), (Start: 9 @18675 has 85 MA's), (Start: 10 @18726 has 2 MA's), (16, 18771), (23, 18861), (25, 18897), (27, 18972), (30, 18996), (37, 19074), (39, 19140), (40, 19167), (52, 19233), (55, 19263), (58, 19284), (66, 19374),

Gene: KappaFarmDelta_20 Start: 18481, Stop: 19188, Start Num: 9
Candidate Starts for KappaFarmDelta_20:
(Start: 9 @18481 has 85 MA's), (Start: 10 @18532 has 2 MA's), (16, 18574), (19, 18610), (21, 18625), (28, 18781), (37, 18874), (39, 18940), (48, 19009), (52, 19033), (64, 19162), (66, 19177),

Gene: Kita_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Kita_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Lysidious_21 Start: 18837, Stop: 19544, Start Num: 9
Candidate Starts for Lysidious_21:
(Start: 9 @18837 has 85 MA's), (Start: 10 @18888 has 2 MA's), (16, 18930), (19, 18966), (21, 18981), (28, 19137), (37, 19230), (39, 19296), (52, 19389), (66, 19533),

Gene: Madavieve_20 Start: 19737, Stop: 20441, Start Num: 9
Candidate Starts for Madavieve_20:
(Start: 7 @19704 has 1 MA's), (Start: 9 @19737 has 85 MA's), (Start: 10 @19788 has 2 MA's), (16, 19830), (19, 19866), (28, 20037), (32, 20061), (37, 20130), (39, 20196), (52, 20289), (65, 20430),

Gene: Madeline_20 Start: 19755, Stop: 20459, Start Num: 9
Candidate Starts for Madeline_20:
(Start: 7 @19722 has 1 MA's), (Start: 9 @19755 has 85 MA's), (Start: 10 @19806 has 2 MA's), (16, 19848), (19, 19884), (28, 20055), (32, 20079), (37, 20148), (39, 20214), (52, 20307), (65, 20448),

Gene: Malachai_21 Start: 18791, Stop: 19498, Start Num: 9
Candidate Starts for Malachai_21:
(Start: 9 @18791 has 85 MA's), (Start: 10 @18842 has 2 MA's), (16, 18884), (19, 18920), (28, 19091), (37, 19184), (39, 19250), (52, 19343), (66, 19487),

Gene: Malibo_22 Start: 18630, Stop: 19343, Start Num: 9
Candidate Starts for Malibo_22:
(8, 18615), (Start: 9 @18630 has 85 MA's), (Start: 10 @18681 has 2 MA's), (16, 18726), (22, 18801), (27, 18927), (29, 18936), (30, 18951), (37, 19029), (38, 19083), (39, 19095), (52, 19188), (66, 19332),

Gene: Malisha_23 Start: 20456, Stop: 21166, Start Num: 9
Candidate Starts for Malisha_23:
(6, 20423), (Start: 9 @20456 has 85 MA's), (Start: 10 @20507 has 2 MA's), (16, 20552), (23, 20642), (25, 20678), (27, 20753), (30, 20777), (37, 20855), (39, 20921), (52, 21014), (55, 21044), (58, 21065), (66, 21155),

Gene: Manasvini_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Manasvini_20:

(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Maridalia_19 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Maridalia_19:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Melba_20 Start: 18313, Stop: 19020, Start Num: 9
Candidate Starts for Melba_20:
(Start: 9 @18313 has 85 MA's), (Start: 10 @18364 has 2 MA's), (16, 18406), (19, 18442), (28, 18613), (37, 18706), (39, 18772), (52, 18865), (66, 19009),

Gene: Mellie_19 Start: 18074, Stop: 18781, Start Num: 9
Candidate Starts for Mellie_19:
(Start: 9 @18074 has 85 MA's), (Start: 10 @18125 has 2 MA's), (16, 18167), (19, 18203), (21, 18218), (28, 18374), (37, 18467), (39, 18533), (40, 18560), (52, 18626), (66, 18770),

Gene: MintFen_20 Start: 18313, Stop: 19020, Start Num: 9
Candidate Starts for MintFen_20:
(Start: 9 @18313 has 85 MA's), (Start: 10 @18364 has 2 MA's), (16, 18406), (19, 18442), (28, 18613), (37, 18706), (39, 18772), (52, 18865), (66, 19009),

Gene: MissRona_22 Start: 18628, Stop: 19335, Start Num: 9
Candidate Starts for MissRona_22:
(Start: 9 @18628 has 85 MA's), (Start: 10 @18679 has 2 MA's), (16, 18721), (19, 18757), (28, 18928), (37, 19021), (39, 19087), (52, 19180), (57, 19222), (66, 19324),

Gene: Murp_20 Start: 18381, Stop: 19088, Start Num: 9
Candidate Starts for Murp_20:
(Start: 9 @18381 has 85 MA's), (Start: 10 @18432 has 2 MA's), (13, 18459), (16, 18474), (18, 18486), (19, 18510), (21, 18525), (26, 18624), (28, 18681), (37, 18774), (39, 18840), (48, 18909), (52, 18933), (64, 19062), (66, 19077),

Gene: Neobush_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Neobush_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Nymphadora_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for Nymphadora_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: Obliviate_19 Start: 18103, Stop: 18810, Start Num: 9
Candidate Starts for Obliviate_19:
(Start: 9 @18103 has 85 MA's), (Start: 10 @18154 has 2 MA's), (16, 18196), (28, 18403), (37, 18496), (39, 18562), (40, 18589), (52, 18655), (66, 18799),

Gene: Ohgeesy_20 Start: 19080, Stop: 19784, Start Num: 9

Candidate Starts for Ohgeesy_20:
(Start: 7 @19047 has 1 MA's), (Start: 9 @19080 has 85 MA's), (Start: 10 @19131 has 2 MA's), (16, 19173), (19, 19209), (28, 19380), (32, 19404), (37, 19473), (39, 19539), (52, 19632), (65, 19773),

Gene: PCoral7_20 Start: 18403, Stop: 19116, Start Num: 9
Candidate Starts for PCoral7_20:
(Start: 9 @18403 has 85 MA's), (Start: 10 @18454 has 2 MA's), (11, 18475), (16, 18499), (18, 18514), (20, 18541), (22, 18574), (23, 18589), (25, 18625), (27, 18700), (29, 18709), (30, 18724), (37, 18802), (39, 18868), (52, 18961), (57, 19003), (65, 19102),

Gene: PantheRoc_20 Start: 18788, Stop: 19492, Start Num: 9
Candidate Starts for PantheRoc_20:
(Start: 7 @18755 has 1 MA's), (Start: 9 @18788 has 85 MA's), (Start: 10 @18839 has 2 MA's), (16, 18881), (19, 18917), (28, 19088), (32, 19112), (37, 19181), (39, 19247), (52, 19340), (65, 19481),

Gene: PhrostedPhlake_21 Start: 18689, Stop: 19396, Start Num: 9
Candidate Starts for PhrostedPhlake_21:
(Start: 9 @18689 has 85 MA's), (Start: 10 @18740 has 2 MA's), (16, 18782), (19, 18818), (21, 18833), (28, 18989), (34, 19031), (37, 19082), (39, 19148), (52, 19241), (66, 19385),

Gene: Pipp_20 Start: 18307, Stop: 19014, Start Num: 9
Candidate Starts for Pipp_20:
(Start: 9 @18307 has 85 MA's), (Start: 10 @18358 has 2 MA's), (16, 18400), (19, 18436), (21, 18451), (28, 18607), (37, 18700), (39, 18766), (40, 18793), (52, 18859), (66, 19003),

Gene: Posh_22 Start: 19640, Stop: 20353, Start Num: 9
Candidate Starts for Posh_22:
(Start: 9 @19640 has 85 MA's), (Start: 10 @19691 has 2 MA's), (16, 19736), (25, 19862), (27, 19937), (29, 19946), (30, 19961), (35, 20000), (37, 20039), (39, 20105), (52, 20198), (66, 20342),

Gene: Pytheas_22 Start: 19786, Stop: 20499, Start Num: 9
Candidate Starts for Pytheas_22:
(Start: 9 @19786 has 85 MA's), (Start: 10 @19837 has 2 MA's), (16, 19882), (25, 20008), (27, 20083), (29, 20092), (30, 20107), (35, 20146), (37, 20185), (39, 20251), (52, 20344), (66, 20488),

Gene: RRH1_05 Start: 3586, Stop: 4320, Start Num: 9
Candidate Starts for RRH1_05:
(2, 3157), (4, 3295), (5, 3457), (Start: 9 @3586 has 85 MA's), (Start: 10 @3637 has 2 MA's), (11, 3658), (13, 3664), (15, 3670), (21, 3736), (24, 3778), (28, 3880), (36, 3937), (37, 3973), (46, 4111), (53, 4171), (61, 4231), (66, 4300),

Gene: Rahul_5 Start: 3256, Stop: 4038, Start Num: 9
Candidate Starts for Rahul_5:
(2, 2836), (Start: 9 @3256 has 85 MA's), (Start: 10 @3307 has 2 MA's), (11, 3328), (14, 3346), (28, 3559), (36, 3616), (37, 3652), (43, 3754), (50, 3790), (59, 3865), (68, 3964), (70, 4018),

Gene: Ruthy_24 Start: 21732, Stop: 22394, Start Num: 10
Candidate Starts for Ruthy_24:
(Start: 9 @21681 has 85 MA's), (Start: 10 @21732 has 2 MA's), (16, 21777), (23, 21867), (25, 21903), (27, 21978), (30, 22002), (37, 22080), (38, 22134), (39, 22146), (40, 22173), (42, 22185), (52, 22239), (66, 22383),

Gene: Samba_20 Start: 18391, Stop: 19098, Start Num: 9

Candidate Starts for Samba_20:
(Start: 9 @18391 has 85 MA's), (Start: 10 @18442 has 2 MA's), (16, 18484), (19, 18520), (21, 18535), (28, 18691), (37, 18784), (39, 18850), (52, 18943), (66, 19087),

Gene: Sidious_20 Start: 18909, Stop: 19616, Start Num: 9
Candidate Starts for Sidious_20:
(Start: 9 @18909 has 85 MA's), (Start: 10 @18960 has 2 MA's), (16, 19002), (18, 19014), (19, 19038), (28, 19209), (37, 19302), (47, 19428), (52, 19461), (54, 19482), (66, 19605),

Gene: Soilmate_20 Start: 18331, Stop: 18987, Start Num: 10
Candidate Starts for Soilmate_20:
(Start: 9 @18280 has 85 MA's), (Start: 10 @18331 has 2 MA's), (16, 18373), (18, 18385), (19, 18409), (21, 18424), (26, 18523), (28, 18580), (37, 18673), (39, 18739), (52, 18832), (66, 18976),

Gene: Spooky_22 Start: 18665, Stop: 19375, Start Num: 9
Candidate Starts for Spooky_22:
(6, 18632), (Start: 9 @18665 has 85 MA's), (Start: 10 @18716 has 2 MA's), (16, 18761), (23, 18851), (25, 18887), (27, 18962), (30, 18986), (37, 19064), (39, 19130), (52, 19223), (55, 19253), (58, 19274), (66, 19364),

Gene: Squiddly_24 Start: 20077, Stop: 20787, Start Num: 9
Candidate Starts for Squiddly_24:
(6, 20044), (Start: 9 @20077 has 85 MA's), (Start: 10 @20128 has 2 MA's), (16, 20173), (23, 20263), (25, 20299), (27, 20374), (30, 20398), (37, 20476), (39, 20542), (52, 20635), (55, 20665), (58, 20686), (66, 20776),

Gene: Suscepit_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Suscepit_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: SushiChef_21 Start: 19457, Stop: 20164, Start Num: 9
Candidate Starts for SushiChef_21:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (48, 19985), (52, 20009), (66, 20153),

Gene: Tayonia_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Tayonia_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: ThankyouJordi_19 Start: 19426, Stop: 20133, Start Num: 9
Candidate Starts for ThankyouJordi_19:
(Start: 9 @19426 has 85 MA's), (Start: 10 @19477 has 2 MA's), (16, 19519), (19, 19555), (21, 19570), (28, 19726), (37, 19819), (41, 19915), (48, 19954), (52, 19978), (66, 20122),

Gene: TimTam_20 Start: 19457, Stop: 20161, Start Num: 9
Candidate Starts for TimTam_20:
(Start: 7 @19424 has 1 MA's), (Start: 9 @19457 has 85 MA's), (Start: 10 @19508 has 2 MA's), (16, 19550), (19, 19586), (28, 19757), (32, 19781), (37, 19850), (39, 19916), (52, 20009), (65, 20150),

Gene: Toast_20 Start: 18403, Stop: 19116, Start Num: 9
Candidate Starts for Toast_20:
(Start: 9 @18403 has 85 MA's), (Start: 10 @18454 has 2 MA's), (11, 18475), (16, 18499), (18, 18514), (20, 18541), (22, 18574), (23, 18589), (25, 18625), (27, 18700), (29, 18709), (30, 18724), (37, 18802), (39, 18868), (52, 18961), (57, 19003), (65, 19102),

Gene: Trumpet_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Trumpet_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: UmaThurman_20 Start: 18441, Stop: 19145, Start Num: 9
Candidate Starts for UmaThurman_20:
(Start: 9 @18441 has 85 MA's), (Start: 10 @18492 has 2 MA's), (16, 18534), (19, 18570), (28, 18741), (37, 18834), (39, 18900), (40, 18927), (52, 18993), (65, 19134),

Gene: Utz_20 Start: 18308, Stop: 19015, Start Num: 9
Candidate Starts for Utz_20:
(Start: 9 @18308 has 85 MA's), (Start: 10 @18359 has 2 MA's), (16, 18401), (19, 18437), (28, 18608), (37, 18701), (39, 18767), (52, 18860), (66, 19004),

Gene: Walrus_21 Start: 18536, Stop: 19243, Start Num: 9
Candidate Starts for Walrus_21:
(Start: 9 @18536 has 85 MA's), (Start: 10 @18587 has 2 MA's), (16, 18629), (28, 18836), (37, 18929), (39, 18995), (52, 19088), (66, 19232),

Gene: WelcomeAyanna_19 Start: 19426, Stop: 20133, Start Num: 9
Candidate Starts for WelcomeAyanna_19:
(Start: 9 @19426 has 85 MA's), (Start: 10 @19477 has 2 MA's), (16, 19519), (19, 19555), (21, 19570), (28, 19726), (37, 19819), (41, 19915), (48, 19954), (52, 19978), (66, 20122),

Gene: Whitney_23 Start: 19479, Stop: 20189, Start Num: 9
Candidate Starts for Whitney_23:
(6, 19446), (Start: 9 @19479 has 85 MA's), (Start: 10 @19530 has 2 MA's), (16, 19575), (23, 19665), (25, 19701), (27, 19776), (30, 19800), (37, 19878), (39, 19944), (40, 19971), (52, 20037), (55, 20067), (58, 20088), (66, 20178),

Gene: William_20 Start: 18351, Stop: 19064, Start Num: 9
Candidate Starts for William_20:
(Start: 9 @18351 has 85 MA's), (Start: 10 @18402 has 2 MA's), (11, 18423), (16, 18447), (18, 18462), (22, 18522), (25, 18573), (27, 18648), (29, 18657), (30, 18672), (37, 18750), (39, 18816), (48, 18885), (52, 18909), (64, 19038), (65, 19050), (66, 19053),

Gene: Wisp_19 Start: 18026, Stop: 18730, Start Num: 9
Candidate Starts for Wisp_19:
(Start: 9 @18026 has 85 MA's), (Start: 10 @18077 has 2 MA's), (16, 18119), (19, 18155), (28, 18326), (37, 18419), (39, 18485), (40, 18512), (52, 18578), (65, 18719),

Gene: Wrigley_22 Start: 19537, Stop: 20250, Start Num: 9
Candidate Starts for Wrigley_22:

(Start: 9 @19537 has 85 MA's), (Start: 10 @19588 has 2 MA's), (16, 19633), (25, 19759), (27, 19834), (29, 19843), (30, 19858), (35, 19897), (37, 19936), (39, 20002), (52, 20095), (66, 20239),

Gene: Yeezy_21 Start: 18779, Stop: 19516, Start Num: 7
Candidate Starts for Yeezy_21:
(Start: 7 @18779 has 1 MA's), (Start: 9 @18812 has 85 MA's), (Start: 10 @18863 has 2 MA's), (16, 18905), (19, 18941), (28, 19112), (32, 19136), (37, 19205), (39, 19271), (52, 19364), (65, 19505),

Gene: Zameen_20 Start: 19391, Stop: 20098, Start Num: 9
Candidate Starts for Zameen_20:
(Start: 9 @19391 has 85 MA's), (Start: 10 @19442 has 2 MA's), (16, 19484), (19, 19520), (21, 19535), (27, 19688), (28, 19691), (32, 19715), (34, 19733), (37, 19784), (39, 19850), (48, 19919), (52, 19943), (66, 20087),

Gene: Zarbodnamra_20 Start: 18312, Stop: 19019, Start Num: 9
Candidate Starts for Zarbodnamra_20:
(Start: 9 @18312 has 85 MA's), (Start: 10 @18363 has 2 MA's), (16, 18405), (19, 18441), (21, 18456), (28, 18612), (37, 18705), (39, 18771), (52, 18864), (66, 19008),

Gene: ZiggyZoo_19 Start: 18103, Stop: 18810, Start Num: 9
Candidate Starts for ZiggyZoo_19:
(Start: 9 @18103 has 85 MA's), (Start: 10 @18154 has 2 MA's), (16, 18196), (28, 18403), (37, 18496), (39, 18562), (40, 18589), (52, 18655), (66, 18799),

Gene: Zilla_20 Start: 18330, Stop: 19037, Start Num: 9
Candidate Starts for Zilla_20:
(Start: 9 @18330 has 85 MA's), (Start: 10 @18381 has 2 MA's), (16, 18423), (19, 18459), (28, 18630), (37, 18723), (39, 18789), (52, 18882), (66, 19026),

Gene: Zirinka_20 Start: 19469, Stop: 20173, Start Num: 9
Candidate Starts for Zirinka_20:
(Start: 7 @19436 has 1 MA's), (Start: 9 @19469 has 85 MA's), (Start: 10 @19520 has 2 MA's), (16, 19562), (19, 19598), (28, 19769), (32, 19793), (37, 19862), (39, 19928), (52, 20021), (65, 20162),