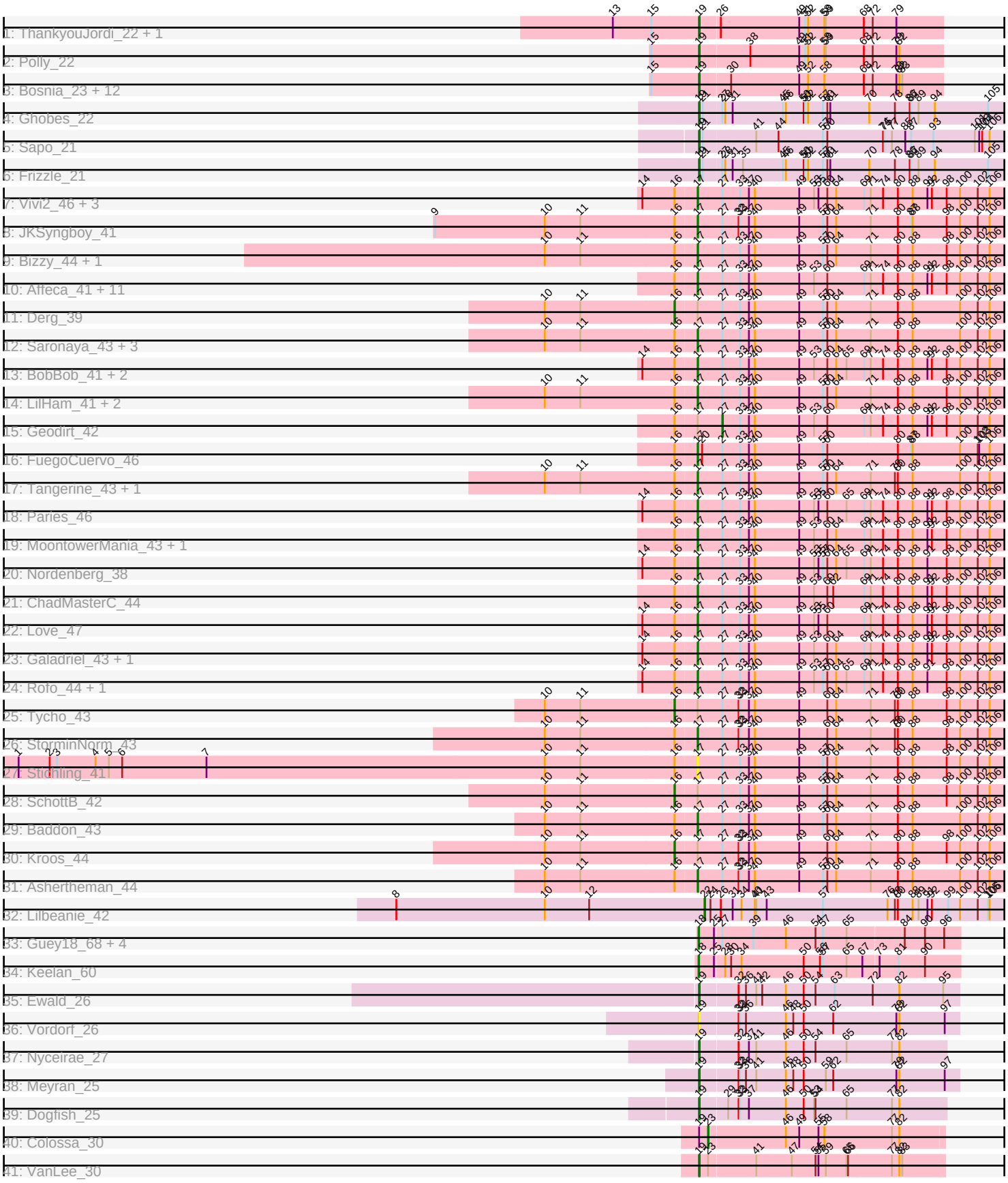
Pham 345633


1: ThankyouJordi_22 + 1
2: Polly_22
3: Bosnia_23 + 12
4: Ghobes_22
5: Sapo_21
6: Frizzle_21
7: Vivi2_46 + 3
8: JKSyngboy_41
9: Bizzy_44 + 1
10: Affeca_41 + 11
11: Derg_39
12: Saronaya_43 + 3
13: BobBob_41 + 2
14: LilHam_41 + 2
15: Geodirt_42
16: FuegoCuervo_46
17: Tangerine_43 + 1
18: Paries_46
19: MoontowerMania_43 + 1
20: Nordenberg_38
21: ChadMasterC_44
22: Love_47
23: Galadriel_43 + 1
24: Rofo_44 + 1
25: Tycho_43
26: StorminNorm_43
27: Stichling_41
28: SchottB_42
29: Baddon_43
30: Kroos_44
31: Ashertheman_44
32: Lilbeanie_42
33: Guey18_68 + 4
34: Keelan_60
35: Ewald_26
36: Vordorf_26
37: Nyceirae_27
38: Meyran_25
39: Dogfish_25
40: Colossa_30
41: VanLee_30

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 345633 Report

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

Pham number 345633 has 84 members, 7 are drafts.

Phages represented in each track:
• Track 1 : ThankyouJordi_22, WelcomeAyanna_22
• Track 2 : Polly_22
• Track 3 : Bosnia_23, BatStarr_23, Nymphadora_23, TimTam_23, Zirinka_23, Herod_23, Hugley_23, Madavieve_23, Eviarto_23, Madeline_23, Ohgeesy_23, SushiChef_25, Bialota_23
• Track 4 : Ghobes_22
• Track 5 : Sapo_21
• Track 6 : Frizzle_21
• Track 7 : Vivi2_46, Fitzgerald_42, McKinley_45, Sanjuju_42
• Track 8 : JKSyngboy_41
• Track 9 : Bizzy_44, Gaea_43
• Track 10 : Affeca_41, Lennon_43, Jabberwocky_42, Sitar_43, Barsten_44, Fosterous_41, Kamashten_41, Thing3_41, Stultus_42, Kewpiedoll_43, Angelicage_41, Shivanishola_43
• Track 11 : Derg_39
• Track 12 : Saronaya_43, Kwobi_45, Gustavo_43, Ribeye_44
• Track 13 : BobBob_41, Charming_44, Tangent_44
• Track 14 : LilHam_41, Baumdotcom_42, Flatwoods_44
• Track 15 : Geodirt_42
• Track 16 : FuegoCuervo_46
• Track 17 : Tangerine_43, YorkOnyx_44
• Track 18 : Paries_46
• Track 19 : MoontowerMania_43, Brawn1_40
• Track 20 : Nordenberg_38
• Track 21 : ChadMasterC_44
• Track 22 : Love_47
• Track 23 : Galadriel_43, McCrothy_43
• Track 24 : Rofo_44, Brandonk123_45
• Track 25 : Tycho_43
• Track 26 : StorminNorm_43
• Track 27 : Stichling_41
• Track 28 : SchottB_42
• Track 29 : Baddon_43
• Track 30 : Kroos_44
• Track 31 : Ashertheman_44
• Track 32 : Lilbeanie_42
• Track 33 : Guey18_68, Fryberger_62, Volt_65, Ziko_65, Ronaldo_65

• Track 34 : Keelan_60
• Track 35 : Ewald_26
• Track 36 : Vordorf_26
• Track 37 : Nyceirae_27
• Track 38 : Meyran_25
• Track 39 : Dogfish_25
• Track 40 : Colossa_30
• Track 41 : VanLee_30

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

The start number called the most often in the published annotations is 17, it was called in 43 of the 77 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Affeca_41, Angelicage_41, Ashertheman_44, Baddon_43, Barsten_44, Baumdotcom_42, Bizzy_44, BobBob_41, Brandonk123_45, Brawn1_40, ChadMasterC_44, Charming_44, Fitzgerald_42, Flatwoods_44, Fosterous_41, FuegoCuervo_46, Gaea_43, Galadriel_43, Gustavo_43, JKSyngboy_41, Jabberwocky_42, Kamashten_41, Kewpiedoll_43, Kwobi_45, Lennon_43, LilHam_41, Love_47, McCrothy_43, McKinley_45, MoontowerMania_43, Nordenberg_38, Paries_46, Ribeye_44, Rofo_44, Sanjuju_42, Saronaya_43, Shivanishola_43, Sitar_43, Stichling_41, StorminNorm_43, Stultus_42, Tangent_44, Tangerine_43, Thing3_41, Vivi2_46, YorkOnyx_44,

Genes that have the "Most Annotated" start but do not call it:
• Derg_39, Geodirt_42, Kroos_44, SchottB_42, Tycho_43,

Genes that do not have the "Most Annotated" start:
• BatStarr_23, Bialota_23, Bosnia_23, Colossa_30, Dogfish_25, Eviarto_23, Ewald_26, Frizzle_21, Fryberger_62, Ghobes_22, Guey18_68, Herod_23, Hugley_23, Keelan_60, Lilbeanie_42, Madavieve_23, Madeline_23, Meyran_25, Nyceirae_27, Nymphadora_23, Ohgeesy_23, Polly_22, Ronaldo_65, Sapo_21, SushiChef_25, ThankyouJordi_22, TimTam_23, VanLee_30, Volt_65, Vordorf_26, WelcomeAyanna_22, Ziko_65, Zirinka_23,

Summary by start number:

Start 16:
• Found in 51 of 84 (60.7%) of genes in pham
• Manual Annotations of this start: 4 of 77
• Called 7.8% of time when present
• Phage (with cluster) where this start called: Derg_39 (DE1), Kroos_44 (DE1), SchottB_42 (DE1), Tycho_43 (DE1),

Start 17:
• Found in 51 of 84 (60.7%) of genes in pham
• Manual Annotations of this start: 43 of 77
• Called 90.2% of time when present

• Phage (with cluster) where this start called: Affeca_41 (DE1), Angelicage_41 (DE1), Ashertheman_44 (DE1), Baddon_43 (DE1), Barsten_44 (DE1), Baumdotcom_42 (DE1), Bizzy_44 (DE1), BobBob_41 (DE1), Brandonk123_45 (DE1), Brawn1_40 (DE1), ChadMasterC_44 (DE1), Charming_44 (DE1), Fitzgerald_42 (DE1), Flatwoods_44 (DE1), Fosterous_41 (DE1), FuegoCuervo_46 (DE1), Gaea_43 (DE1), Galadriel_43 (DE1), Gustavo_43 (DE1), JKSyngboy_41 (DE1), Jabberwocky_42 (DE1), Kamashten_41 (DE1), Kewpiedoll_43 (DE1), Kwobi_45 (DE1), Lennon_43 (DE1), LilHam_41 (DE1), Love_47 (DE1), McCrothy_43 (DE1), McKinley_45 (DE1), MoontowerMania_43 (DE1), Nordenberg_38 (DE1), Paries_46 (DE1), Ribeye_44 (DE1), Rofo_44 (DE1), Sanjuju_42 (DE1), Saronaya_43 (DE1), Shivanishola_43 (DE1), Sitar_43 (DE1), Stichling_41 (DE1), StorminNorm_43 (DE1), Stultus_42 (DE1), Tangent_44 (DE1), Tangerine_43 (DE1), Thing3_41 (DE1), Vivi2_46 (DE1), YorkOnyx_44 (DE1),

Start 18:
• Found in 6 of 84 (7.1%) of genes in pham
• Manual Annotations of this start: 6 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fryberger_62 (DP), Guey18_68 (DP), Keelan_60 (DP), Ronaldo_65 (DP), Volt_65 (DP), Ziko_65 (DP),

Start 19:
• Found in 26 of 84 (31.0%) of genes in pham
• Manual Annotations of this start: 21 of 77
• Called 96.2% of time when present
• Phage (with cluster) where this start called: BatStarr_23 (CZ1), Bialota_23 (CZ1), Bosnia_23 (CZ1), Dogfish_25 (DT), Eviarto_23 (CZ1), Ewald_26 (DT), Frizzle_21 (DA), Ghobes_22 (DA), Herod_23 (CZ1), Hugley_23 (CZ1), Madavieve_23 (CZ1), Madeline_23 (CZ1), Meyran_25 (DT), Nyceirae_27 (DT), Nymphadora_23 (CZ1), Ohgeesy_23 (CZ), Polly_22 (CZ1), Sapo_21 (DA), SushiChef_25 (CZ), ThankyouJordi_22 (CZ1), TimTam_23 (CZ1), VanLee_30 (KA), Vordorf_26 (DT), WelcomeAyanna_22 (CZ1), Zirinka_23 (CZ1),

Start 22:
• Found in 1 of 84 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lilbeanie_42 (DE5),

Start 23:
• Found in 2 of 84 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Colossa_30 (KA),

Start 27:
• Found in 58 of 84 (69.0%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 1.7% of time when present
• Phage (with cluster) where this start called: Geodirt_42 (DE1),

Summary by clusters:

There are 8 clusters represented in this pham: KA, DE1, CZ1, DE5, DA, CZ, DT, DP,

Info for manual annotations of cluster CZ:
•Start number 19 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 19 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster DA:
•Start number 19 was manually annotated 3 times for cluster DA.

Info for manual annotations of cluster DE1:
•Start number 16 was manually annotated 4 times for cluster DE1.
•Start number 17 was manually annotated 43 times for cluster DE1.
•Start number 27 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DE5:
•Start number 22 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DP:
•Start number 18 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster DT:
•Start number 19 was manually annotated 4 times for cluster DT.

Info for manual annotations of cluster KA:
•Start number 19 was manually annotated 1 time for cluster KA.
•Start number 23 was manually annotated 1 time for cluster KA.

Gene Information:

Gene: Affeca_41 Start: 38338, Stop: 39018, Start Num: 17
Candidate Starts for Affeca_41:
(Start: 16 @38296 has 4 MA's), (Start: 17 @38338 has 43 MA's), (Start: 27 @38383 has 1 MA's), (33, 38419), (37, 38437), (40, 38449), (49, 38536), (53, 38566), (60, 38593), (69, 38668), (71, 38680), (74, 38704), (80, 38734), (88, 38764), (91, 38794), (92, 38803), (98, 38833), (100, 38860), (102, 38896), (106, 38920),

Gene: Angelicage_41 Start: 38756, Stop: 39436, Start Num: 17
Candidate Starts for Angelicage_41:
(Start: 16 @38714 has 4 MA's), (Start: 17 @38756 has 43 MA's), (Start: 27 @38801 has 1 MA's), (33, 38837), (37, 38855), (40, 38867), (49, 38954), (53, 38984), (60, 39011), (69, 39086), (71, 39098), (74, 39122), (80, 39152), (88, 39182), (91, 39212), (92, 39221), (98, 39251), (100, 39278), (102, 39314), (106, 39338),

Gene: Ashertheman_44 Start: 38753, Stop: 39442, Start Num: 17
Candidate Starts for Ashertheman_44:
(10, 38450), (11, 38522), (Start: 16 @38711 has 4 MA's), (Start: 17 @38753 has 43 MA's), (Start: 27 @38798 has 1 MA's), (32, 38831), (33, 38834), (37, 38852), (40, 38864), (49, 38951), (57, 38999), (60, 39008), (64, 39026), (71, 39095), (80, 39149), (88, 39179), (100, 39275), (102, 39311), (106, 39335),

Gene: Baddon_43 Start: 39291, Stop: 39980, Start Num: 17
Candidate Starts for Baddon_43:
(10, 38988), (11, 39060), (Start: 16 @39249 has 4 MA's), (Start: 17 @39291 has 43 MA's), (Start: 27 @39336 has 1 MA's), (33, 39372), (37, 39390), (40, 39402), (49, 39489), (57, 39537), (60, 39546), (64, 39564), (71, 39633), (80, 39687), (88, 39717), (100, 39813), (102, 39849), (106, 39873),

Gene: Barsten_44 Start: 38908, Stop: 39591, Start Num: 17
Candidate Starts for Barsten_44:
(Start: 16 @38866 has 4 MA's), (Start: 17 @38908 has 43 MA's), (Start: 27 @38953 has 1 MA's), (33, 38989), (37, 39007), (40, 39019), (49, 39106), (53, 39136), (60, 39163), (69, 39238), (71, 39250), (74, 39274), (80, 39304), (88, 39334), (91, 39364), (92, 39373), (98, 39403), (100, 39430), (102, 39466), (106, 39490),

Gene: BatStarr_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for BatStarr_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: Baumdotcom_42 Start: 38142, Stop: 38831, Start Num: 17
Candidate Starts for Baumdotcom_42:
(10, 37839), (11, 37911), (Start: 16 @38100 has 4 MA's), (Start: 17 @38142 has 43 MA's), (Start: 27 @38187 has 1 MA's), (33, 38223), (37, 38241), (40, 38253), (49, 38340), (57, 38388), (60, 38397), (64, 38415), (71, 38484), (80, 38538), (88, 38568), (98, 38637), (100, 38664), (102, 38700), (106, 38724),

Gene: Bialota_23 Start: 21439, Stop: 21921, Start Num: 19
Candidate Starts for Bialota_23:
(15, 21349), (Start: 19 @21439 has 21 MA's), (30, 21499), (49, 21634), (52, 21652), (58, 21685), (68, 21763), (72, 21781), (79, 21829), (82, 21835), (83, 21841),

Gene: Bizzy_44 Start: 38448, Stop: 39137, Start Num: 17
Candidate Starts for Bizzy_44:
(10, 38145), (11, 38217), (Start: 16 @38406 has 4 MA's), (Start: 17 @38448 has 43 MA's), (Start: 27 @38493 has 1 MA's), (33, 38529), (37, 38547), (40, 38559), (49, 38646), (57, 38694), (60, 38703), (64, 38721), (71, 38790), (80, 38844), (88, 38874), (98, 38943), (100, 38970), (102, 39006), (106, 39030),

Gene: BobBob_41 Start: 38027, Stop: 38710, Start Num: 17
Candidate Starts for BobBob_41:
(14, 37922), (Start: 16 @37985 has 4 MA's), (Start: 17 @38027 has 43 MA's), (Start: 27 @38072 has 1 MA's), (33, 38108), (37, 38126), (40, 38138), (49, 38225), (53, 38255), (60, 38282), (64, 38300), (65, 38321), (69, 38357), (71, 38369), (74, 38393), (80, 38423), (88, 38453), (91, 38483), (92, 38492), (98, 38522), (100, 38549), (102, 38585), (106, 38609),

Gene: Bosnia_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for Bosnia_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: Brandonk123_45 Start: 39162, Stop: 39845, Start Num: 17
Candidate Starts for Brandonk123_45:
(14, 39057), (Start: 16 @39120 has 4 MA's), (Start: 17 @39162 has 43 MA's), (Start: 27 @39207 has 1 MA's), (33, 39243), (37, 39261), (40, 39273), (49, 39360), (53, 39390), (57, 39408), (60, 39417), (64, 39435), (65, 39456), (69, 39492), (71, 39504), (74, 39528), (80, 39558), (88, 39588), (91, 39618), (98, 39657), (100, 39684), (102, 39720), (106, 39744),

Gene: Brawn1_40 Start: 38235, Stop: 38918, Start Num: 17
Candidate Starts for Brawn1_40:
(Start: 16 @38193 has 4 MA's), (Start: 17 @38235 has 43 MA's), (Start: 27 @38280 has 1 MA's), (33, 38316), (37, 38334), (40, 38346), (49, 38433), (53, 38463), (60, 38490), (64, 38508), (69, 38565), (71, 38577), (74, 38601), (80, 38631), (88, 38661), (91, 38691), (92, 38700), (98, 38730), (100, 38757), (102, 38793), (106, 38817),

Gene: ChadMasterC_44 Start: 40307, Stop: 40990, Start Num: 17
Candidate Starts for ChadMasterC_44:
(Start: 16 @40265 has 4 MA's), (Start: 17 @40307 has 43 MA's), (Start: 27 @40352 has 1 MA's), (33, 40388), (37, 40406), (40, 40418), (49, 40505), (53, 40535), (60, 40562), (62, 40574), (69, 40637), (71, 40649), (74, 40673), (80, 40703), (88, 40733), (91, 40763), (92, 40772), (98, 40802), (100, 40829), (102, 40865), (106, 40889),

Gene: Charming_44 Start: 38663, Stop: 39346, Start Num: 17
Candidate Starts for Charming_44:
(14, 38558), (Start: 16 @38621 has 4 MA's), (Start: 17 @38663 has 43 MA's), (Start: 27 @38708 has 1 MA's), (33, 38744), (37, 38762), (40, 38774), (49, 38861), (53, 38891), (60, 38918), (64, 38936), (65, 38957), (69, 38993), (71, 39005), (74, 39029), (80, 39059), (88, 39089), (91, 39119), (92, 39128), (98, 39158), (100, 39185), (102, 39221), (106, 39245),

Gene: Colossa_30 Start: 25570, Stop: 26034, Start Num: 23
Candidate Starts for Colossa_30:
(Start: 19 @25552 has 21 MA's), (Start: 23 @25570 has 1 MA's), (46, 25720), (49, 25747), (55, 25786), (58, 25798), (77, 25933), (82, 25948),

Gene: Derg_39 Start: 37998, Stop: 38729, Start Num: 16
Candidate Starts for Derg_39:
(10, 37737), (11, 37809), (Start: 16 @37998 has 4 MA's), (Start: 17 @38040 has 43 MA's), (Start: 27 @38085 has 1 MA's), (33, 38121), (37, 38139), (40, 38151), (49, 38238), (57, 38286), (60, 38295), (64, 38313), (71, 38382), (80, 38436), (88, 38466), (100, 38562), (102, 38598), (106, 38622),

Gene: Dogfish_25 Start: 21688, Stop: 22176, Start Num: 19
Candidate Starts for Dogfish_25:
(Start: 19 @21688 has 21 MA's), (29, 21742), (32, 21763), (33, 21766), (37, 21784), (46, 21856), (50, 21892), (53, 21913), (54, 21916), (65, 21979), (77, 22069), (82, 22084),

Gene: Eviarto_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for Eviarto_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: Ewald_26 Start: 22047, Stop: 22562, Start Num: 19
Candidate Starts for Ewald_26:
(Start: 19 @22047 has 21 MA's), (32, 22122), (36, 22137), (41, 22158), (42, 22170), (46, 22215), (50, 22251), (54, 22275), (63, 22314), (72, 22389), (82, 22443), (95, 22530),

Gene: Fitzgerald_42 Start: 39565, Stop: 40248, Start Num: 17
Candidate Starts for Fitzgerald_42:
(14, 39460), (Start: 16 @39523 has 4 MA's), (Start: 17 @39565 has 43 MA's), (Start: 27 @39610 has 1 MA's), (33, 39646), (37, 39664), (40, 39676), (49, 39763), (53, 39793), (55, 39802), (60, 39820), (64, 39838), (69, 39895), (71, 39907), (74, 39931), (80, 39961), (88, 39991), (91, 40021), (92, 40030), (98,

40060), (100, 40087), (102, 40123), (106, 40147),

Gene: Flatwoods_44 Start: 38392, Stop: 39081, Start Num: 17
Candidate Starts for Flatwoods_44:
(10, 38089), (11, 38161), (Start: 16 @38350 has 4 MA's), (Start: 17 @38392 has 43 MA's), (Start: 27 @38437 has 1 MA's), (33, 38473), (37, 38491), (40, 38503), (49, 38590), (57, 38638), (60, 38647), (64, 38665), (71, 38734), (80, 38788), (88, 38818), (98, 38887), (100, 38914), (102, 38950), (106, 38974),

Gene: Fosterous_41 Start: 38124, Stop: 38807, Start Num: 17
Candidate Starts for Fosterous_41:
(Start: 16 @38082 has 4 MA's), (Start: 17 @38124 has 43 MA's), (Start: 27 @38169 has 1 MA's), (33, 38205), (37, 38223), (40, 38235), (49, 38322), (53, 38352), (60, 38379), (69, 38454), (71, 38466), (74, 38490), (80, 38520), (88, 38550), (91, 38580), (92, 38589), (98, 38619), (100, 38646), (102, 38682), (106, 38706),

Gene: Frizzle_21 Start: 18925, Stop: 19572, Start Num: 19
Candidate Starts for Frizzle_21:
(Start: 19 @18925 has 21 MA's), (21, 18931), (Start: 27 @18967 has 1 MA's), (28, 18973), (31, 18988), (35, 19009), (45, 19087), (46, 19093), (50, 19129), (51, 19132), (52, 19138), (57, 19168), (60, 19177), (61, 19183), (70, 19261), (78, 19312), (86, 19342), (87, 19345), (89, 19360), (94, 19393), (105, 19501),

Gene: Fryberger_62 Start: 34972, Stop: 35487, Start Num: 18
Candidate Starts for Fryberger_62:
(Start: 18 @34972 has 6 MA's), (25, 35002), (Start: 27 @35014 has 1 MA's), (39, 35077), (46, 35143), (54, 35203), (57, 35218), (65, 35266), (84, 35377), (90, 35416), (96, 35455),

Gene: FuegoCuervo_46 Start: 37995, Stop: 38678, Start Num: 17
Candidate Starts for FuegoCuervo_46:
(Start: 16 @37953 has 4 MA's), (Start: 17 @37995 has 43 MA's), (20, 38004), (Start: 27 @38040 has 1 MA's), (33, 38076), (37, 38094), (40, 38106), (49, 38193), (57, 38241), (60, 38250), (80, 38391), (87, 38418), (88, 38421), (100, 38517), (102, 38553), (103, 38556), (106, 38577),

Gene: Gaea_43 Start: 38036, Stop: 38725, Start Num: 17
Candidate Starts for Gaea_43:
(10, 37733), (11, 37805), (Start: 16 @37994 has 4 MA's), (Start: 17 @38036 has 43 MA's), (Start: 27 @38081 has 1 MA's), (33, 38117), (37, 38135), (40, 38147), (49, 38234), (57, 38282), (60, 38291), (64, 38309), (71, 38378), (80, 38432), (88, 38462), (98, 38531), (100, 38558), (102, 38594), (106, 38618),

Gene: Galadriel_43 Start: 38931, Stop: 39614, Start Num: 17
Candidate Starts for Galadriel_43:
(14, 38826), (Start: 16 @38889 has 4 MA's), (Start: 17 @38931 has 43 MA's), (Start: 27 @38976 has 1 MA's), (33, 39012), (37, 39030), (40, 39042), (49, 39129), (53, 39159), (60, 39186), (64, 39204), (69, 39261), (71, 39273), (74, 39297), (80, 39327), (88, 39357), (91, 39387), (92, 39396), (98, 39426), (100, 39453), (102, 39489), (106, 39513),

Gene: Geodirt_42 Start: 39588, Stop: 40226, Start Num: 27
Candidate Starts for Geodirt_42:
(Start: 16 @39501 has 4 MA's), (Start: 17 @39543 has 43 MA's), (Start: 27 @39588 has 1 MA's), (33, 39624), (37, 39642), (40, 39654), (49, 39741), (53, 39771), (60, 39798), (69, 39873), (71, 39885), (74, 39909), (80, 39939), (88, 39969), (91, 39999), (92, 40008), (98, 40038), (100, 40065), (102, 40101), (106, 40125),

Gene: Ghobes_22 Start: 18925, Stop: 19572, Start Num: 19

Candidate Starts for Ghobes_22:
(Start: 19 @18925 has 21 MA's), (21, 18931), (Start: 27 @18967 has 1 MA's), (28, 18973), (31, 18988), (45, 19087), (46, 19093), (50, 19129), (51, 19132), (52, 19138), (57, 19168), (60, 19177), (61, 19183), (70, 19261), (78, 19312), (86, 19342), (87, 19345), (89, 19360), (94, 19393), (105, 19501),

Gene: Guey18_68 Start: 36492, Stop: 37007, Start Num: 18
Candidate Starts for Guey18_68:
(Start: 18 @36492 has 6 MA's), (25, 36522), (Start: 27 @36534 has 1 MA's), (39, 36597), (46, 36663), (54, 36723), (57, 36738), (65, 36786), (84, 36897), (90, 36936), (96, 36975),

Gene: Gustavo_43 Start: 38208, Stop: 38897, Start Num: 17
Candidate Starts for Gustavo_43:
(10, 37905), (11, 37977), (Start: 16 @38166 has 4 MA's), (Start: 17 @38208 has 43 MA's), (Start: 27 @38253 has 1 MA's), (33, 38289), (37, 38307), (40, 38319), (49, 38406), (57, 38454), (60, 38463), (64, 38481), (71, 38550), (80, 38604), (88, 38634), (100, 38730), (102, 38766), (106, 38790),

Gene: Herod_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for Herod_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: Hugley_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for Hugley_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: JKSyngboy_41 Start: 38807, Stop: 39496, Start Num: 17
Candidate Starts for JKSyngboy_41:
(9, 38282), (10, 38504), (11, 38576), (Start: 16 @38765 has 4 MA's), (Start: 17 @38807 has 43 MA's), (Start: 27 @38852 has 1 MA's), (32, 38885), (33, 38888), (37, 38906), (40, 38918), (49, 39005), (57, 39053), (60, 39062), (64, 39080), (71, 39149), (80, 39203), (87, 39230), (88, 39233), (98, 39302), (100, 39329), (102, 39365), (106, 39389),

Gene: Jabberwocky_42 Start: 39969, Stop: 40652, Start Num: 17
Candidate Starts for Jabberwocky_42:
(Start: 16 @39927 has 4 MA's), (Start: 17 @39969 has 43 MA's), (Start: 27 @40014 has 1 MA's), (33, 40050), (37, 40068), (40, 40080), (49, 40167), (53, 40197), (60, 40224), (69, 40299), (71, 40311), (74, 40335), (80, 40365), (88, 40395), (91, 40425), (92, 40434), (98, 40464), (100, 40491), (102, 40527), (106, 40551),

Gene: Kamashten_41 Start: 37904, Stop: 38587, Start Num: 17
Candidate Starts for Kamashten_41:
(Start: 16 @37862 has 4 MA's), (Start: 17 @37904 has 43 MA's), (Start: 27 @37949 has 1 MA's), (33, 37985), (37, 38003), (40, 38015), (49, 38102), (53, 38132), (60, 38159), (69, 38234), (71, 38246), (74, 38270), (80, 38300), (88, 38330), (91, 38360), (92, 38369), (98, 38399), (100, 38426), (102, 38462), (106, 38486),

Gene: Keelan_60 Start: 35211, Stop: 35726, Start Num: 18
Candidate Starts for Keelan_60:
(Start: 18 @35211 has 6 MA's), (25, 35241), (28, 35259), (30, 35271), (34, 35292), (50, 35418), (56, 35451), (57, 35457), (65, 35505), (67, 35535), (73, 35565), (81, 35604), (90, 35655),

Gene: Kewpiedoll_43 Start: 38845, Stop: 39528, Start Num: 17

Candidate Starts for Kewpiedoll_43:
(Start: 16 @38803 has 4 MA's), (Start: 17 @38845 has 43 MA's), (Start: 27 @38890 has 1 MA's), (33, 38926), (37, 38944), (40, 38956), (49, 39043), (53, 39073), (60, 39100), (69, 39175), (71, 39187), (74, 39211), (80, 39241), (88, 39271), (91, 39301), (92, 39310), (98, 39340), (100, 39367), (102, 39403), (106, 39427),

Gene: Kroos_44 Start: 38906, Stop: 39637, Start Num: 16
Candidate Starts for Kroos_44:
(10, 38645), (11, 38717), (Start: 16 @38906 has 4 MA's), (Start: 17 @38948 has 43 MA's), (Start: 27 @38993 has 1 MA's), (32, 39026), (33, 39029), (37, 39047), (40, 39059), (49, 39146), (60, 39203), (64, 39221), (71, 39290), (80, 39344), (88, 39374), (98, 39443), (100, 39470), (102, 39506), (106, 39530),

Gene: Kwobi_45 Start: 38934, Stop: 39623, Start Num: 17
Candidate Starts for Kwobi_45:
(10, 38631), (11, 38703), (Start: 16 @38892 has 4 MA's), (Start: 17 @38934 has 43 MA's), (Start: 27 @38979 has 1 MA's), (33, 39015), (37, 39033), (40, 39045), (49, 39132), (57, 39180), (60, 39189), (64, 39207), (71, 39276), (80, 39330), (88, 39360), (100, 39456), (102, 39492), (106, 39516),

Gene: Lennon_43 Start: 39651, Stop: 40331, Start Num: 17
Candidate Starts for Lennon_43:
(Start: 16 @39609 has 4 MA's), (Start: 17 @39651 has 43 MA's), (Start: 27 @39696 has 1 MA's), (33, 39732), (37, 39750), (40, 39762), (49, 39849), (53, 39879), (60, 39906), (69, 39981), (71, 39993), (74, 40017), (80, 40047), (88, 40077), (91, 40107), (92, 40116), (98, 40146), (100, 40173), (102, 40209), (106, 40233),

Gene: LilHam_41 Start: 37535, Stop: 38224, Start Num: 17
Candidate Starts for LilHam_41:
(10, 37232), (11, 37304), (Start: 16 @37493 has 4 MA's), (Start: 17 @37535 has 43 MA's), (Start: 27 @37580 has 1 MA's), (33, 37616), (37, 37634), (40, 37646), (49, 37733), (57, 37781), (60, 37790), (64, 37808), (71, 37877), (80, 37931), (88, 37961), (98, 38030), (100, 38057), (102, 38093), (106, 38117),

Gene: Lilbeanie_42 Start: 34007, Stop: 34681, Start Num: 22
Candidate Starts for Lilbeanie_42:
(8, 33386), (10, 33686), (12, 33776), (Start: 22 @34007 has 1 MA's), (24, 34019), (26, 34040), (31, 34064), (34, 34082), (40, 34109), (41, 34112), (43, 34133), (57, 34244), (76, 34373), (78, 34388), (80, 34394), (88, 34424), (89, 34436), (91, 34454), (92, 34463), (99, 34496), (100, 34520), (102, 34556), (105, 34577), (106, 34580),

Gene: Love_47 Start: 40096, Stop: 40779, Start Num: 17
Candidate Starts for Love_47:
(14, 39991), (Start: 16 @40054 has 4 MA's), (Start: 17 @40096 has 43 MA's), (Start: 27 @40141 has 1 MA's), (33, 40177), (37, 40195), (40, 40207), (49, 40294), (53, 40324), (55, 40333), (60, 40351), (69, 40426), (71, 40438), (74, 40462), (80, 40492), (88, 40522), (91, 40552), (92, 40561), (98, 40591), (100, 40618), (102, 40654), (106, 40678),

Gene: Madavieve_23 Start: 21707, Stop: 22189, Start Num: 19
Candidate Starts for Madavieve_23:
(15, 21617), (Start: 19 @21707 has 21 MA's), (30, 21767), (49, 21902), (52, 21920), (58, 21953), (68, 22031), (72, 22049), (79, 22097), (82, 22103), (83, 22109),

Gene: Madeline_23 Start: 21725, Stop: 22207, Start Num: 19
Candidate Starts for Madeline_23:

(15, 21635), (Start: 19 @21725 has 21 MA's), (30, 21785), (49, 21920), (52, 21938), (58, 21971), (68, 22049), (72, 22067), (79, 22115), (82, 22121), (83, 22127),

Gene: McCrothy_43 Start: 39255, Stop: 39938, Start Num: 17
Candidate Starts for McCrothy_43:
(14, 39150), (Start: 16 @39213 has 4 MA's), (Start: 17 @39255 has 43 MA's), (Start: 27 @39300 has 1 MA's), (33, 39336), (37, 39354), (40, 39366), (49, 39453), (53, 39483), (60, 39510), (64, 39528), (69, 39585), (71, 39597), (74, 39621), (80, 39651), (88, 39681), (91, 39711), (92, 39720), (98, 39750), (100, 39777), (102, 39813), (106, 39837),

Gene: McKinley_45 Start: 39469, Stop: 40152, Start Num: 17
Candidate Starts for McKinley_45:
(14, 39364), (Start: 16 @39427 has 4 MA's), (Start: 17 @39469 has 43 MA's), (Start: 27 @39514 has 1 MA's), (33, 39550), (37, 39568), (40, 39580), (49, 39667), (53, 39697), (55, 39706), (60, 39724), (64, 39742), (69, 39799), (71, 39811), (74, 39835), (80, 39865), (88, 39895), (91, 39925), (92, 39934), (98, 39964), (100, 39991), (102, 40027), (106, 40051),

Gene: Meyran_25 Start: 22519, Stop: 23031, Start Num: 19
Candidate Starts for Meyran_25:
(Start: 19 @22519 has 21 MA's), (32, 22594), (33, 22597), (36, 22609), (41, 22630), (46, 22687), (48, 22702), (50, 22723), (59, 22768), (62, 22783), (79, 22909), (82, 22915), (97, 23002),

Gene: MoontowerMania_43 Start: 39304, Stop: 39987, Start Num: 17
Candidate Starts for MoontowerMania_43:
(Start: 16 @39262 has 4 MA's), (Start: 17 @39304 has 43 MA's), (Start: 27 @39349 has 1 MA's), (33, 39385), (37, 39403), (40, 39415), (49, 39502), (53, 39532), (60, 39559), (64, 39577), (69, 39634), (71, 39646), (74, 39670), (80, 39700), (88, 39730), (91, 39760), (92, 39769), (98, 39799), (100, 39826), (102, 39862), (106, 39886),

Gene: Nordenberg_38 Start: 38289, Stop: 38972, Start Num: 17
Candidate Starts for Nordenberg_38:
(14, 38184), (Start: 16 @38247 has 4 MA's), (Start: 17 @38289 has 43 MA's), (Start: 27 @38334 has 1 MA's), (33, 38370), (37, 38388), (40, 38400), (49, 38487), (53, 38517), (55, 38526), (57, 38535), (60, 38544), (64, 38562), (65, 38583), (69, 38619), (71, 38631), (74, 38655), (80, 38685), (88, 38715), (91, 38745), (98, 38784), (100, 38811), (102, 38847), (106, 38871),

Gene: Nyceirae_27 Start: 22280, Stop: 22768, Start Num: 19
Candidate Starts for Nyceirae_27:
(Start: 19 @22280 has 21 MA's), (32, 22355), (37, 22376), (41, 22391), (46, 22448), (50, 22484), (54, 22508), (65, 22571), (77, 22661), (82, 22676),

Gene: Nymphadora_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for Nymphadora_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: Ohgeesy_23 Start: 21050, Stop: 21532, Start Num: 19
Candidate Starts for Ohgeesy_23:
(15, 20960), (Start: 19 @21050 has 21 MA's), (30, 21110), (49, 21245), (52, 21263), (58, 21296), (68, 21374), (72, 21392), (79, 21440), (82, 21446), (83, 21452),

Gene: Paries_46 Start: 39758, Stop: 40441, Start Num: 17
Candidate Starts for Paries_46:

(14, 39653), (Start: 16 @39716 has 4 MA's), (Start: 17 @39758 has 43 MA's), (Start: 27 @39803 has 1 MA's), (33, 39839), (37, 39857), (40, 39869), (49, 39956), (53, 39986), (55, 39995), (60, 40013), (65, 40052), (69, 40088), (71, 40100), (74, 40124), (80, 40154), (88, 40184), (91, 40214), (92, 40223), (98, 40253), (100, 40280), (102, 40316), (106, 40340),

Gene: Polly_22 Start: 20867, Stop: 21349, Start Num: 19
Candidate Starts for Polly_22:
(15, 20777), (Start: 19 @20867 has 21 MA's), (38, 20966), (49, 21062), (51, 21074), (52, 21080), (58, 21113), (59, 21116), (68, 21191), (72, 21209), (79, 21257), (82, 21263),

Gene: Ribeye_44 Start: 39366, Stop: 40055, Start Num: 17
Candidate Starts for Ribeye_44:
(10, 39063), (11, 39135), (Start: 16 @39324 has 4 MA's), (Start: 17 @39366 has 43 MA's), (Start: 27 @39411 has 1 MA's), (33, 39447), (37, 39465), (40, 39477), (49, 39564), (57, 39612), (60, 39621), (64, 39639), (71, 39708), (80, 39762), (88, 39792), (100, 39888), (102, 39924), (106, 39948),

Gene: Rofo_44 Start: 39084, Stop: 39767, Start Num: 17
Candidate Starts for Rofo_44:
(14, 38979), (Start: 16 @39042 has 4 MA's), (Start: 17 @39084 has 43 MA's), (Start: 27 @39129 has 1 MA's), (33, 39165), (37, 39183), (40, 39195), (49, 39282), (53, 39312), (57, 39330), (60, 39339), (64, 39357), (65, 39378), (69, 39414), (71, 39426), (74, 39450), (80, 39480), (88, 39510), (91, 39540), (98, 39579), (100, 39606), (102, 39642), (106, 39666),

Gene: Ronaldo_65 Start: 35871, Stop: 36386, Start Num: 18
Candidate Starts for Ronaldo_65:
(Start: 18 @35871 has 6 MA's), (25, 35901), (Start: 27 @35913 has 1 MA's), (39, 35976), (46, 36042), (54, 36102), (57, 36117), (65, 36165), (84, 36276), (90, 36315), (96, 36354),

Gene: Sanjuju_42 Start: 39698, Stop: 40381, Start Num: 17
Candidate Starts for Sanjuju_42:
(14, 39593), (Start: 16 @39656 has 4 MA's), (Start: 17 @39698 has 43 MA's), (Start: 27 @39743 has 1 MA's), (33, 39779), (37, 39797), (40, 39809), (49, 39896), (53, 39926), (55, 39935), (60, 39953), (64, 39971), (69, 40028), (71, 40040), (74, 40064), (80, 40094), (88, 40124), (91, 40154), (92, 40163), (98, 40193), (100, 40220), (102, 40256), (106, 40280),

Gene: Sapo_21 Start: 18878, Stop: 19525, Start Num: 19
Candidate Starts for Sapo_21:
(Start: 19 @18878 has 21 MA's), (21, 18884), (41, 18989), (44, 19031), (57, 19121), (60, 19130), (74, 19241), (75, 19244), (77, 19259), (85, 19286), (87, 19298), (93, 19343), (101, 19427), (103, 19436), (104, 19442), (106, 19457),

Gene: Saronaya_43 Start: 38208, Stop: 38897, Start Num: 17
Candidate Starts for Saronaya_43:
(10, 37905), (11, 37977), (Start: 16 @38166 has 4 MA's), (Start: 17 @38208 has 43 MA's), (Start: 27 @38253 has 1 MA's), (33, 38289), (37, 38307), (40, 38319), (49, 38406), (57, 38454), (60, 38463), (64, 38481), (71, 38550), (80, 38604), (88, 38634), (100, 38730), (102, 38766), (106, 38790),

Gene: SchottB_42 Start: 39166, Stop: 39897, Start Num: 16
Candidate Starts for SchottB_42:
(10, 38905), (11, 38977), (Start: 16 @39166 has 4 MA's), (Start: 17 @39208 has 43 MA's), (Start: 27 @39253 has 1 MA's), (33, 39289), (37, 39307), (40, 39319), (49, 39406), (57, 39454), (60, 39463), (64, 39481), (71, 39550), (80, 39604), (88, 39634), (98, 39703), (100, 39730), (102, 39766), (106, 39790),

Gene: Shivanishola_43 Start: 37965, Stop: 38648, Start Num: 17
Candidate Starts for Shivanishola_43:
(Start: 16 @37923 has 4 MA's), (Start: 17 @37965 has 43 MA's), (Start: 27 @38010 has 1 MA's), (33, 38046), (37, 38064), (40, 38076), (49, 38163), (53, 38193), (60, 38220), (69, 38295), (71, 38307), (74, 38331), (80, 38361), (88, 38391), (91, 38421), (92, 38430), (98, 38460), (100, 38487), (102, 38523), (106, 38547),

Gene: Sitar_43 Start: 39651, Stop: 40331, Start Num: 17
Candidate Starts for Sitar_43:
(Start: 16 @39609 has 4 MA's), (Start: 17 @39651 has 43 MA's), (Start: 27 @39696 has 1 MA's), (33, 39732), (37, 39750), (40, 39762), (49, 39849), (53, 39879), (60, 39906), (69, 39981), (71, 39993), (74, 40017), (80, 40047), (88, 40077), (91, 40107), (92, 40116), (98, 40146), (100, 40173), (102, 40209), (106, 40233),

Gene: Stichling_41 Start: 37728, Stop: 38417, Start Num: 17
Candidate Starts for Stichling_41:
(1, 36360), (2, 36423), (3, 36438), (4, 36516), (5, 36543), (6, 36570), (7, 36741), (10, 37425), (11, 37497), (Start: 16 @37686 has 4 MA's), (Start: 17 @37728 has 43 MA's), (Start: 27 @37773 has 1 MA's), (33, 37809), (37, 37827), (40, 37839), (49, 37926), (57, 37974), (60, 37983), (64, 38001), (71, 38070), (80, 38124), (88, 38154), (98, 38223), (100, 38250), (102, 38286), (106, 38310),

Gene: StorminNorm_43 Start: 38299, Stop: 38988, Start Num: 17
Candidate Starts for StorminNorm_43:
(10, 37996), (11, 38068), (Start: 16 @38257 has 4 MA's), (Start: 17 @38299 has 43 MA's), (Start: 27 @38344 has 1 MA's), (32, 38377), (33, 38380), (37, 38398), (40, 38410), (49, 38497), (60, 38554), (64, 38572), (71, 38641), (78, 38689), (80, 38695), (88, 38725), (98, 38794), (100, 38821), (102, 38857), (106, 38881),

Gene: Stultus_42 Start: 38601, Stop: 39284, Start Num: 17
Candidate Starts for Stultus_42:
(Start: 16 @38559 has 4 MA's), (Start: 17 @38601 has 43 MA's), (Start: 27 @38646 has 1 MA's), (33, 38682), (37, 38700), (40, 38712), (49, 38799), (53, 38829), (60, 38856), (69, 38931), (71, 38943), (74, 38967), (80, 38997), (88, 39027), (91, 39057), (92, 39066), (98, 39096), (100, 39123), (102, 39159), (106, 39183),

Gene: SushiChef_25 Start: 21626, Stop: 22108, Start Num: 19
Candidate Starts for SushiChef_25:
(15, 21536), (Start: 19 @21626 has 21 MA's), (30, 21686), (49, 21821), (52, 21839), (58, 21872), (68, 21950), (72, 21968), (79, 22016), (82, 22022), (83, 22028),

Gene: Tangent_44 Start: 38675, Stop: 39358, Start Num: 17
Candidate Starts for Tangent_44:
(14, 38570), (Start: 16 @38633 has 4 MA's), (Start: 17 @38675 has 43 MA's), (Start: 27 @38720 has 1 MA's), (33, 38756), (37, 38774), (40, 38786), (49, 38873), (53, 38903), (60, 38930), (64, 38948), (65, 38969), (69, 39005), (71, 39017), (74, 39041), (80, 39071), (88, 39101), (91, 39131), (92, 39140), (98, 39170), (100, 39197), (102, 39233), (106, 39257),

Gene: Tangerine_43 Start: 38080, Stop: 38769, Start Num: 17
Candidate Starts for Tangerine_43:
(10, 37777), (11, 37849), (Start: 16 @38038 has 4 MA's), (Start: 17 @38080 has 43 MA's), (Start: 27 @38125 has 1 MA's), (33, 38161), (37, 38179), (40, 38191), (49, 38278), (57, 38326), (60, 38335), (64, 38353), (71, 38422), (78, 38470), (80, 38476), (88, 38506), (100, 38602), (102, 38638), (106, 38662),

Gene: ThankyouJordi_22 Start: 21402, Stop: 21884, Start Num: 19
Candidate Starts for ThankyouJordi_22:
(13, 21234), (15, 21312), (Start: 19 @21402 has 21 MA's), (26, 21441), (49, 21597), (51, 21609), (52, 21615), (58, 21648), (59, 21651), (68, 21726), (72, 21744), (79, 21792),

Gene: Thing3_41 Start: 37904, Stop: 38587, Start Num: 17
Candidate Starts for Thing3_41:
(Start: 16 @37862 has 4 MA's), (Start: 17 @37904 has 43 MA's), (Start: 27 @37949 has 1 MA's), (33, 37985), (37, 38003), (40, 38015), (49, 38102), (53, 38132), (60, 38159), (69, 38234), (71, 38246), (74, 38270), (80, 38300), (88, 38330), (91, 38360), (92, 38369), (98, 38399), (100, 38426), (102, 38462), (106, 38486),

Gene: TimTam_23 Start: 21427, Stop: 21909, Start Num: 19
Candidate Starts for TimTam_23:
(15, 21337), (Start: 19 @21427 has 21 MA's), (30, 21487), (49, 21622), (52, 21640), (58, 21673), (68, 21751), (72, 21769), (79, 21817), (82, 21823), (83, 21829),

Gene: Tycho_43 Start: 38125, Stop: 38856, Start Num: 16
Candidate Starts for Tycho_43:
(10, 37864), (11, 37936), (Start: 16 @38125 has 4 MA's), (Start: 17 @38167 has 43 MA's), (Start: 27 @38212 has 1 MA's), (32, 38245), (33, 38248), (37, 38266), (40, 38278), (49, 38365), (60, 38422), (64, 38440), (71, 38509), (78, 38557), (80, 38563), (88, 38593), (98, 38662), (100, 38689), (102, 38725), (106, 38749),

Gene: VanLee_30 Start: 25581, Stop: 26066, Start Num: 19
Candidate Starts for VanLee_30:
(Start: 19 @25581 has 21 MA's), (Start: 23 @25599 has 1 MA's), (41, 25692), (47, 25761), (54, 25809), (55, 25815), (59, 25830), (65, 25872), (66, 25875), (77, 25962), (82, 25977), (83, 25983),

Gene: Vivi2_46 Start: 39701, Stop: 40384, Start Num: 17
Candidate Starts for Vivi2_46:
(14, 39596), (Start: 16 @39659 has 4 MA's), (Start: 17 @39701 has 43 MA's), (Start: 27 @39746 has 1 MA's), (33, 39782), (37, 39800), (40, 39812), (49, 39899), (53, 39929), (55, 39938), (60, 39956), (64, 39974), (69, 40031), (71, 40043), (74, 40067), (80, 40097), (88, 40127), (91, 40157), (92, 40166), (98, 40196), (100, 40223), (102, 40259), (106, 40283),

Gene: Volt_65 Start: 36035, Stop: 36550, Start Num: 18
Candidate Starts for Volt_65:
(Start: 18 @36035 has 6 MA's), (25, 36065), (Start: 27 @36077 has 1 MA's), (39, 36140), (46, 36206), (54, 36266), (57, 36281), (65, 36329), (84, 36440), (90, 36479), (96, 36518),

Gene: Vordorf_26 Start: 21985, Stop: 22497, Start Num: 19
Candidate Starts for Vordorf_26:
(Start: 19 @21985 has 21 MA's), (32, 22060), (33, 22063), (36, 22075), (46, 22153), (48, 22168), (50, 22189), (62, 22249), (79, 22375), (82, 22381), (97, 22468),

Gene: WelcomeAyanna_22 Start: 21402, Stop: 21884, Start Num: 19
Candidate Starts for WelcomeAyanna_22:
(13, 21234), (15, 21312), (Start: 19 @21402 has 21 MA's), (26, 21441), (49, 21597), (51, 21609), (52, 21615), (58, 21648), (59, 21651), (68, 21726), (72, 21744), (79, 21792),

Gene: YorkOnyx_44 Start: 38424, Stop: 39113, Start Num: 17
Candidate Starts for YorkOnyx_44:

(10, 38121), (11, 38193), (Start: 16 @38382 has 4 MA's), (Start: 17 @38424 has 43 MA's), (Start: 27 @38469 has 1 MA's), (33, 38505), (37, 38523), (40, 38535), (49, 38622), (57, 38670), (60, 38679), (64, 38697), (71, 38766), (78, 38814), (80, 38820), (88, 38850), (100, 38946), (102, 38982), (106, 39006),

Gene: Ziko_65 Start: 35857, Stop: 36372, Start Num: 18
Candidate Starts for Ziko_65:
(Start: 18 @35857 has 6 MA's), (25, 35887), (Start: 27 @35899 has 1 MA's), (39, 35962), (46, 36028), (54, 36088), (57, 36103), (65, 36151), (84, 36262), (90, 36301), (96, 36340),

Gene: Zirinka_23 Start: 21439, Stop: 21921, Start Num: 19
Candidate Starts for Zirinka_23:
(15, 21349), (Start: 19 @21439 has 21 MA's), (30, 21499), (49, 21634), (52, 21652), (58, 21685), (68, 21763), (72, 21781), (79, 21829), (82, 21835), (83, 21841),