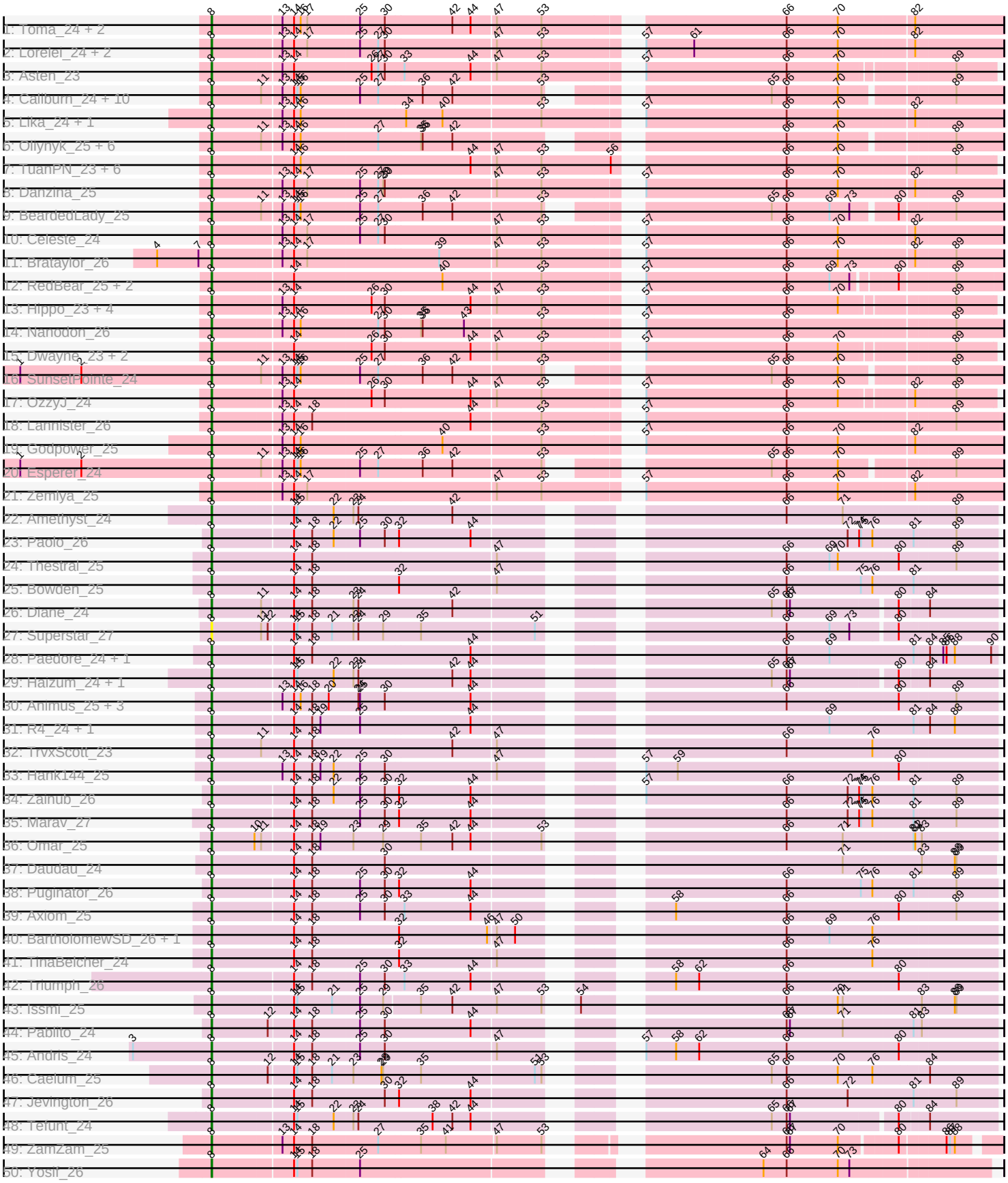
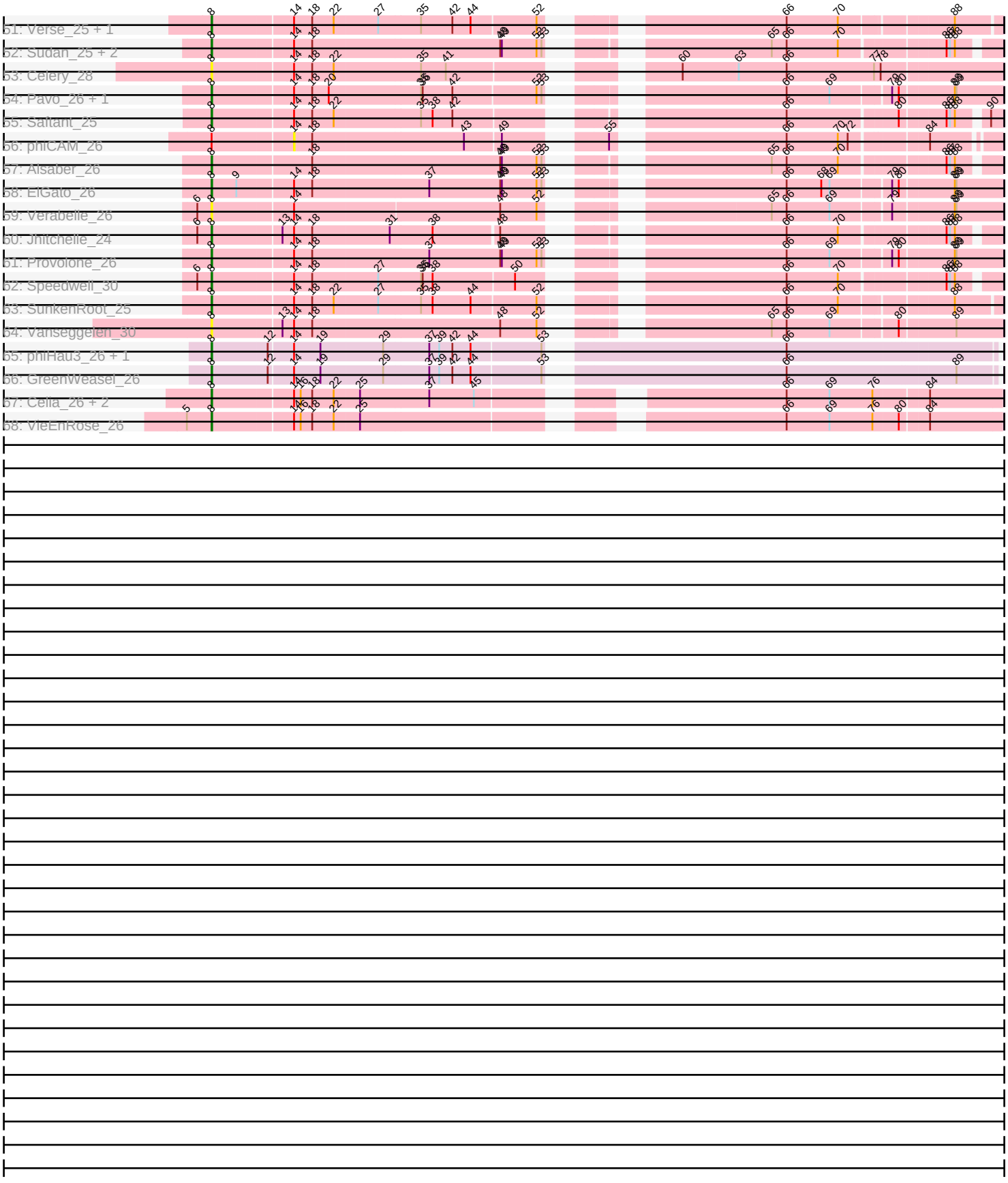
Pham 339499


1: Toma_24 + 2
2: Lorelei_24 + 2
3: Asten_23
4: Calibum_24 + 10
5: Lika_24 + 1
6: Oliynyk_25 + 6
7: TuanPN_23 + 6
8: Danzina_25
9: BeardedLady_25
10: Celeste_24
11: Brataylor_26
12: RedBear_25 + 2
13: Hippo_23 + 4
14: Nanodon_26
15: Dwayne_23 + 2
16: SunsetPointe_24
17: OzzyJ_24
18: Lannister_26
19: Godpower_25
20: Esperer_24
21: Zemlya_25
22: Amethyst_24
23: Paolo_26
24: Thestral_25
25: Bowden_25
26: Diane_24
27: Superstar_27
28: Paedore_24 + 1
29: Haizum_24 + 1
30: Animus_25 + 3
31: R4_24 + 1
32: TrvxScott_23
33: Hank144_25
34: Zainub_26
35: Marav_27
36: Omar_25
37: Daudau_24
38: Puginator_26
39: Axiom_25
40: BartholomewSD_26 + 1
41: TinaBelcher_24
42: Triumph_26
43: Issmi_25
44: Pablito_24
45: Andris_24
46: Caelum_25
47: Jevington_26
48: Telunt_24
49: ZamZam_25
50: Yosif_26

Pham 339499


51: Verse_25 + 1
52: Sudan_25 + 2
53: Celery_28
54: Pavo_26 + 1
55: Saltant_25
56: phiCAM_26
57: Alsaber_26
58: ElGato_26
59: Verabelle_26
60: Jhitchelle_24
61: Provolone_26
62: Speedwell_30
63: SunkenRoot_25
64: Vanseggelen_30
65: phiHau3_26 + 1
66: GreenWeasel_26
67: Celia_26 + 2
68: VieEnRose_26

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 339499 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 339499 has 117 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Toma_24, Dattran_25, Goby_24
• Track 2 : Lorelei_24, Nabi_24, Rana_24
• Track 3 : Asten_23
• Track 4 : Caliburn_24, Legacy_24, Nerdos_24, Leviticus_24, Unstoppable_24, Aaronocolus_24, Phettuccine_24, Hydra_26, Indigo_23, Bovely_24, Ozzie_24
• Track 5 : Lika_24, Sujidade_25
• Track 6 : Oliynyk_25, EnochSoames_26, Izzy_25, Jash_25, BryanRecycles_25, Eddasa_25, Rusticus_25
• Track 7 : TuanPN_23, TagePhighter_24, Yasdnil_23, Ejemplo_23, Chucky_23, Maneekul_23, Snorlax_23
• Track 8 : Danzina_25
• Track 9 : BeardedLady_25
• Track 10 : Celeste_24
• Track 11 : Brataylor_26
• Track 12 : RedBear_25, South40_24, Katalie_24
• Track 13 : Hippo_23, Werner_23, BarryBee_25, Whatever_23, Triste_23
• Track 14 : Nanodon_26
• Track 15 : Dwayne_23, SarahRose_23, Emaanora_25
• Track 16 : SunsetPointe_24
• Track 17 : OzzyJ_24
• Track 18 : Lannister_26
• Track 19 : Godpower_25
• Track 20 : Esperer_24
• Track 21 : Zemlya_25
• Track 22 : Amethyst_24
• Track 23 : Paolo_26
• Track 24 : Thestral_25
• Track 25 : Bowden_25
• Track 26 : Diane_24
• Track 27 : Superstar_27
• Track 28 : Paedore_24, Loofah_25
• Track 29 : Haizum_24, Nishikigoi_24
• Track 30 : Animus_25, SqueakyClean_25, GirlDinner_24, Janus_25

• Track 31 : R4_24, ELB20_23
• Track 32 : TrvxScott_23
• Track 33 : Hank144_25
• Track 34 : Zainub_26
• Track 35 : Marav_27
• Track 36 : Omar_25
• Track 37 : Daudau_24
• Track 38 : Puginator_26
• Track 39 : Axiom_25
• Track 40 : BartholomewSD_26, Alvy_26
• Track 41 : TinaBelcher_24
• Track 42 : Triumph_26
• Track 43 : Issmi_25
• Track 44 : Pablito_24
• Track 45 : Andris_24
• Track 46 : Caelum_25
• Track 47 : Jevington_26
• Track 48 : Tefunt_24
• Track 49 : ZamZam_25
• Track 50 : Yosif_26
• Track 51 : Verse_25, Amela_25
• Track 52 : Sudan_25, Dexers_24, Kaine_25
• Track 53 : Celery_28
• Track 54 : Pavo_26, Conan_26
• Track 55 : Saftant_25
• Track 56 : phiCAM_26
• Track 57 : Alsaber_26
• Track 58 : ElGato_26
• Track 59 : Verabelle_26
• Track 60 : Jhitchelle_24
• Track 61 : Provolone_26
• Track 62 : Speedwell_30
• Track 63 : SunkenRoot_25
• Track 64 : Vanseggelen_30
• Track 65 : phiHau3_26, BroPlease_25
• Track 66 : GreenWeasel_26
• Track 67 : Celia_26, Urza_26, Itza_26
• Track 68 : VieEnRose_26

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

The start number called the most often in the published annotations is 8, it was called in 111 of the 111 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aaronocolus_24, Alsaber_26, Alvy_26, Amela_25, Amethyst_24, Andris_24, Animus_25, Asten_23, Axiom_25, BarryBee_25, BartholomewSD_26, BeardedLady_25, Bovely_24, Bowden_25, Brataylor_26, BroPlease_25, BryanRecycles_25, Caelum_25, Caliburn_24, Celery_28, Celeste_24, Celia_26, Chucky_23, Conan_26, Danzina_25, Dattran_25, Daudau_24, Dexers_24, Diane_24,

Dwayne_23, ELB20_23, Eddasa_25, Ejemplo_23, ElGato_26, Emaanora_25, EnochSoames_26, Esperer_24, GirlDinner_24, Goby_24, Godpower_25, GreenWeasel_26, Haizum_24, Hank144_25, Hippo_23, Hydra_26, Indigo_23, Issmi_25, Itza_26, Izzy_25, Janus_25, Jash_25, Jevington_26, Jhitchelle_24, Kaine_25, Katalie_24, Lannister_26, Legacy_24, Leviticus_24, Lika_24, Loofah_25, Lorelei_24, Maneekul_23, Marav_27, Nabi_24, Nanodon_26, Nerdos_24, Nishikigoi_24, Oliynyk_25, Omar_25, Ozzie_24, OzzyJ_24, Pablito_24, Paedore_24, Paolo_26, Pavo_26, Phettuccine_24, Provolone_26, Puginator_26, R4_24, Rana_24, RedBear_25, Rusticus_25, Saftant_25, SarahRose_23, Snorlax_23, South40_24, Speedwell_30, SqueakyClean_25, Sudan_25, Sujidade_25, SunkenRoot_25, SunsetPointe_24, Superstar_27, TagePhighter_24, Tefunt_24, Thestral_25, TinaBelcher_24, Toma_24, Triste_23, Triumph_26, TrvxScott_23, TuanPN_23, Unstoppable_24, Urza_26, Vanseggelen_30, Verabelle_26, Verse_25, VieEnRose_26, Werner_23, Whatever_23, Yasdnil_23, Yosif_26, Zainub_26, ZamZam_25, Zemlya_25, phiHau3_26,

Genes that have the "Most Annotated" start but do not call it:
• phiCAM_26,

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

Summary by start number:

Start 8:
• Found in 117 of 117 (100.0%) of genes in pham
• Manual Annotations of this start: 111 of 111
• Called 99.1% of time when present
• Phage (with cluster) where this start called: Aaronocolus_24 (BD1), Alsaber_26 (BD3), Alvy_26 (BD2), Amela_25 (BD3), Amethyst_24 (BD2), Andris_24 (BD2), Animus_25 (BD2), Asten_23 (BD1), Axiom_25 (BD2), BarryBee_25 (BD1), BartholomewSD_26 (BD2), BeardedLady_25 (BD1), Bovely_24 (BD1), Bowden_25 (BD2), Brataylor_26 (BD1), BroPlease_25 (BD4), BryanRecycles_25 (BD1), Caelum_25 (BD2), Caliburn_24 (BD1), Celery_28 (BD3), Celeste_24 (BD1), Celia_26 (BD6), Chucky_23 (BD1), Conan_26 (BD3), Danzina_25 (BD1), Dattran_25 (BD1), Daudau_24 (BD2), Dexers_24 (BD3), Diane_24 (BD2), Dwayne_23 (BD1), ELB20_23 (BD2), Eddasa_25 (BD1), Ejemplo_23 (BD1), ElGato_26 (BD3), Emaanora_25 (BD1), EnochSoames_26 (BD1), Esperer_24 (BD1), GirlDinner_24 (BD2), Goby_24 (BD1), Godpower_25 (BD1), GreenWeasel_26 (BD4), Haizum_24 (BD2), Hank144_25 (BD2), Hippo_23 (BD1), Hydra_26 (BD1), Indigo_23 (BD1), Issmi_25 (BD2), Itza_26 (BD6), Izzy_25 (BD1), Janus_25 (BD2), Jash_25 (BD1), Jevington_26 (BD2), Jhitchelle_24 (BD3), Kaine_25 (BD3), Katalie_24 (BD1), Lannister_26 (BD1), Legacy_24 (BD1), Leviticus_24 (BD1), Lika_24 (BD1), Loofah_25 (BD2), Lorelei_24 (BD1), Maneekul_23 (BD1), Marav_27 (BD2), Nabi_24 (BD1), Nanodon_26 (BD1), Nerdos_24 (BD1), Nishikigoi_24 (BD2), Oliynyk_25 (BD1), Omar_25 (BD2), Ozzie_24 (BD1), OzzyJ_24 (BD1), Pablito_24 (BD2), Paedore_24 (BD2), Paolo_26 (BD2), Pavo_26 (BD3), Phettuccine_24 (BD1), Provolone_26 (BD3), Puginator_26 (BD2), R4_24 (BD2), Rana_24 (BD1), RedBear_25 (BD1), Rusticus_25 (BD1), Saftant_25 (BD3), SarahRose_23 (BD1), Snorlax_23 (BD1), South40_24 (BD1), Speedwell_30 (BD3), SqueakyClean_25 (BD2), Sudan_25 (BD3), Sujidade_25 (BD1), SunkenRoot_25 (BD3), SunsetPointe_24 (BD1), Superstar_27 (BD2), TagePhighter_24 (BD1), Tefunt_24 (BD2), Thestral_25 (BD2), TinaBelcher_24 (BD2), Toma_24 (BD1), Triste_23 (BD1), Triumph_26 (BD2), TrvxScott_23 (BD2),

TuanPN_23 (BD1), Unstoppable_24 (BD1), Urza_26 (BD6), Vanseggelen_30 (BD3), Verabelle_26 (BD3), Verse_25 (BD3), VieEnRose_26 (BD6), Werner_23 (BD1), Whatever_23 (BD1), Yasdnil_23 (BD1), Yosif_26 (BD3), Zainub_26 (BD2), ZamZam_25 (BD3), Zemlya_25 (BD1), phiHau3_26 (BD4),

Start 14:
• Found in 116 of 117 (99.1%) of genes in pham
• No Manual Annotations of this start.
• Called 0.9% of time when present
• Phage (with cluster) where this start called: phiCAM_26 (BD3),

Summary by clusters:

There are 5 clusters represented in this pham: BD4, BD6, BD1, BD3, BD2,

Info for manual annotations of cluster BD1:
•Start number 8 was manually annotated 55 times for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 8 was manually annotated 33 times for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 8 was manually annotated 16 times for cluster BD3.

Info for manual annotations of cluster BD4:
•Start number 8 was manually annotated 3 times for cluster BD4.

Info for manual annotations of cluster BD6:
•Start number 8 was manually annotated 4 times for cluster BD6.

Gene Information:

Gene: Aaronocolus_24 Start: 19314, Stop: 20591, Start Num: 8
Candidate Starts for Aaronocolus_24:
(Start: 8 @19314 has 111 MA's), (11, 19401), (13, 19434), (14, 19455), (15, 19461), (16, 19467), (25, 19575), (27, 19608), (36, 19686), (42, 19740), (53, 19896), (65, 20202), (66, 20229), (70, 20322), (89, 20505),

Gene: Alsaber_26 Start: 21028, Stop: 22281, Start Num: 8
Candidate Starts for Alsaber_26:
(Start: 8 @21028 has 111 MA's), (18, 21202), (48, 21538), (49, 21541), (52, 21604), (53, 21613), (65, 21913), (66, 21940), (70, 22033), (86, 22201), (87, 22207), (88, 22216),

Gene: Alvy_26 Start: 20100, Stop: 21380, Start Num: 8
Candidate Starts for Alvy_26:
(Start: 8 @20100 has 111 MA's), (14, 20250), (18, 20283), (32, 20436), (46, 20595), (47, 20607), (50, 20640), (66, 21015), (69, 21093), (76, 21168),

Gene: Amela_25 Start: 21720, Stop: 22976, Start Num: 8
Candidate Starts for Amela_25:

(Start: 8 @21720 has 111 MA's), (14, 21861), (18, 21894), (22, 21933), (27, 22011), (35, 22086), (42, 22143), (44, 22176), (52, 22290), (66, 22626), (70, 22719), (88, 22899),

Gene: Amethyst_24 Start: 19937, Stop: 21211, Start Num: 8
Candidate Starts for Amethyst_24:
(Start: 8 @19937 has 111 MA's), (14, 20078), (15, 20084), (22, 20150), (23, 20183), (24, 20192), (42, 20363), (66, 20843), (71, 20945), (89, 21140),

Gene: Andris_24 Start: 19803, Stop: 21077, Start Num: 8
Candidate Starts for Andris_24:
(3, 19662), (Start: 8 @19803 has 111 MA's), (14, 19947), (18, 19980), (25, 20064), (30, 20109), (47, 20304), (57, 20457), (58, 20511), (62, 20553), (66, 20712), (80, 20910),

Gene: Animus_25 Start: 20142, Stop: 21416, Start Num: 8
Candidate Starts for Animus_25:
(Start: 8 @20142 has 111 MA's), (13, 20265), (14, 20286), (16, 20298), (18, 20319), (20, 20349), (24, 20400), (25, 20403), (30, 20448), (44, 20601), (66, 21051), (80, 21249), (89, 21345),

Gene: Asten_23 Start: 19383, Stop: 20699, Start Num: 8
Candidate Starts for Asten_23:
(Start: 8 @19383 has 111 MA's), (13, 19503), (14, 19524), (26, 19662), (27, 19674), (30, 19686), (33, 19719), (44, 19839), (47, 19881), (53, 19962), (57, 20100), (66, 20352), (70, 20445), (89, 20628),

Gene: Axiom_25 Start: 19978, Stop: 21252, Start Num: 8
Candidate Starts for Axiom_25:
(Start: 8 @19978 has 111 MA's), (14, 20122), (18, 20155), (25, 20239), (30, 20284), (33, 20317), (44, 20437), (58, 20686), (66, 20887), (80, 21085), (89, 21181),

Gene: BarryBee_25 Start: 19393, Stop: 20709, Start Num: 8
Candidate Starts for BarryBee_25:
(Start: 8 @19393 has 111 MA's), (13, 19513), (14, 19534), (26, 19672), (30, 19696), (44, 19849), (47, 19891), (53, 19972), (57, 20110), (66, 20362), (70, 20455), (89, 20638),

Gene: BartholomewSD_26 Start: 20100, Stop: 21380, Start Num: 8
Candidate Starts for BartholomewSD_26:
(Start: 8 @20100 has 111 MA's), (14, 20250), (18, 20283), (32, 20436), (46, 20595), (47, 20607), (50, 20640), (66, 21015), (69, 21093), (76, 21168),

Gene: BeardedLady_25 Start: 19564, Stop: 20844, Start Num: 8
Candidate Starts for BeardedLady_25:
(Start: 8 @19564 has 111 MA's), (11, 19651), (13, 19684), (14, 19705), (15, 19711), (16, 19717), (25, 19822), (27, 19855), (36, 19933), (42, 19987), (53, 20143), (65, 20449), (66, 20476), (69, 20554), (73, 20590), (80, 20662), (89, 20758),

Gene: Bovely_24 Start: 19323, Stop: 20597, Start Num: 8
Candidate Starts for Bovely_24:
(Start: 8 @19323 has 111 MA's), (11, 19410), (13, 19443), (14, 19464), (15, 19470), (16, 19476), (25, 19581), (27, 19614), (36, 19692), (42, 19746), (53, 19902), (65, 20208), (66, 20235), (70, 20328), (89, 20511),

Gene: Bowden_25 Start: 20032, Stop: 21312, Start Num: 8
Candidate Starts for Bowden_25:

(Start: 8 @20032 has 111 MA's), (14, 20182), (18, 20215), (32, 20368), (47, 20539), (66, 20947), (75, 21082), (76, 21100), (81, 21169),

Gene: Brataylor_26 Start: 20369, Stop: 21715, Start Num: 8
Candidate Starts for Brataylor_26:
(4, 20273), (7, 20348), (Start: 8 @20369 has 111 MA's), (13, 20489), (14, 20510), (17, 20534), (39, 20768), (47, 20867), (53, 20948), (57, 21086), (66, 21338), (70, 21431), (82, 21560), (89, 21629),

Gene: BroPlease_25 Start: 19656, Stop: 20978, Start Num: 8
Candidate Starts for BroPlease_25:
(Start: 8 @19656 has 111 MA's), (12, 19755), (14, 19797), (19, 19845), (29, 19956), (37, 20037), (39, 20055), (42, 20079), (44, 20112), (53, 20235), (66, 20619),

Gene: BryanRecycles_25 Start: 19686, Stop: 20960, Start Num: 8
Candidate Starts for BryanRecycles_25:
(Start: 8 @19686 has 111 MA's), (11, 19773), (13, 19806), (14, 19827), (16, 19839), (27, 19977), (35, 20052), (36, 20055), (42, 20109), (66, 20598), (70, 20691), (89, 20874),

Gene: Caelum_25 Start: 20011, Stop: 21285, Start Num: 8
Candidate Starts for Caelum_25:
(Start: 8 @20011 has 111 MA's), (12, 20110), (14, 20152), (15, 20158), (18, 20185), (21, 20221), (23, 20257), (28, 20308), (29, 20311), (35, 20380), (51, 20581), (53, 20593), (65, 20893), (66, 20920), (70, 21013), (76, 21073), (84, 21166),

Gene: Caliburn_24 Start: 19297, Stop: 20574, Start Num: 8
Candidate Starts for Caliburn_24:
(Start: 8 @19297 has 111 MA's), (11, 19384), (13, 19417), (14, 19438), (15, 19444), (16, 19450), (25, 19558), (27, 19591), (36, 19669), (42, 19723), (53, 19879), (65, 20185), (66, 20212), (70, 20305), (89, 20488),

Gene: Celery_28 Start: 20976, Stop: 22256, Start Num: 8
Candidate Starts for Celery_28:
(Start: 8 @20976 has 111 MA's), (14, 21114), (18, 21147), (22, 21186), (35, 21339), (41, 21384), (60, 21699), (63, 21798), (66, 21882), (77, 22038), (78, 22050),

Gene: Celeste_24 Start: 19821, Stop: 21167, Start Num: 8
Candidate Starts for Celeste_24:
(Start: 8 @19821 has 111 MA's), (13, 19941), (14, 19962), (17, 19986), (25, 20079), (27, 20112), (30, 20124), (47, 20319), (53, 20400), (57, 20538), (66, 20790), (70, 20883), (82, 21012),

Gene: Celia_26 Start: 20287, Stop: 21561, Start Num: 8
Candidate Starts for Celia_26:
(Start: 8 @20287 has 111 MA's), (14, 20428), (16, 20440), (18, 20461), (22, 20500), (25, 20545), (37, 20668), (45, 20749), (66, 21190), (69, 21268), (76, 21343), (84, 21433),

Gene: Chucky_23 Start: 19397, Stop: 20713, Start Num: 8
Candidate Starts for Chucky_23:
(Start: 8 @19397 has 111 MA's), (14, 19538), (16, 19550), (44, 19853), (47, 19895), (53, 19976), (56, 20096), (66, 20366), (70, 20459), (89, 20642),

Gene: Conan_26 Start: 20904, Stop: 22178, Start Num: 8
Candidate Starts for Conan_26:

(Start: 8 @20904 has 111 MA's), (14, 21045), (18, 21078), (20, 21108), (35, 21270), (36, 21273), (42, 21327), (52, 21474), (53, 21483), (66, 21813), (69, 21891), (79, 21987), (80, 21999), (88, 22092), (89, 22095),

Gene: Danzina_25 Start: 20122, Stop: 21468, Start Num: 8
Candidate Starts for Danzina_25:
(Start: 8 @20122 has 111 MA's), (13, 20242), (14, 20263), (17, 20287), (25, 20380), (27, 20413), (29, 20422), (30, 20425), (47, 20620), (53, 20701), (57, 20839), (66, 21091), (70, 21184), (82, 21313),

Gene: Dattran_25 Start: 19931, Stop: 21277, Start Num: 8
Candidate Starts for Dattran_25:
(Start: 8 @19931 has 111 MA's), (13, 20051), (14, 20072), (16, 20084), (17, 20096), (25, 20189), (30, 20234), (42, 20354), (44, 20387), (47, 20429), (53, 20510), (66, 20900), (70, 20993), (82, 21122),

Gene: Daudau_24 Start: 20031, Stop: 21311, Start Num: 8
Candidate Starts for Daudau_24:
(Start: 8 @20031 has 111 MA's), (14, 20181), (18, 20214), (30, 20343), (71, 21045), (83, 21180), (88, 21237), (89, 21240),

Gene: Dexers_24 Start: 20949, Stop: 22202, Start Num: 8
Candidate Starts for Dexers_24:
(Start: 8 @20949 has 111 MA's), (14, 21090), (18, 21123), (48, 21459), (49, 21462), (52, 21525), (53, 21534), (65, 21834), (66, 21861), (70, 21954), (86, 22122), (87, 22128), (88, 22137),

Gene: Diane_24 Start: 20285, Stop: 21544, Start Num: 8
Candidate Starts for Diane_24:
(Start: 8 @20285 has 111 MA's), (11, 20372), (14, 20426), (18, 20459), (23, 20531), (24, 20540), (42, 20711), (65, 21167), (66, 21194), (67, 21200), (80, 21380), (84, 21425),

Gene: Dwayne_23 Start: 19384, Stop: 20700, Start Num: 8
Candidate Starts for Dwayne_23:
(Start: 8 @19384 has 111 MA's), (14, 19525), (26, 19663), (30, 19687), (44, 19840), (47, 19882), (53, 19963), (57, 20101), (66, 20353), (70, 20446), (89, 20629),

Gene: ELB20_23 Start: 20139, Stop: 21416, Start Num: 8
Candidate Starts for ELB20_23:
(Start: 8 @20139 has 111 MA's), (14, 20283), (18, 20316), (19, 20331), (25, 20400), (44, 20598), (69, 21126), (81, 21270), (84, 21294), (88, 21339),

Gene: Eddasa_25 Start: 19686, Stop: 20960, Start Num: 8
Candidate Starts for Eddasa_25:
(Start: 8 @19686 has 111 MA's), (11, 19773), (13, 19806), (14, 19827), (16, 19839), (27, 19977), (35, 20052), (36, 20055), (42, 20109), (66, 20598), (70, 20691), (89, 20874),

Gene: Ejemplo_23 Start: 19408, Stop: 20739, Start Num: 8
Candidate Starts for Ejemplo_23:
(Start: 8 @19408 has 111 MA's), (14, 19549), (16, 19561), (44, 19864), (47, 19906), (53, 19987), (56, 20107), (66, 20377), (70, 20470), (89, 20668),

Gene: ElGato_26 Start: 20558, Stop: 21838, Start Num: 8
Candidate Starts for ElGato_26:
(Start: 8 @20558 has 111 MA's), (9, 20603), (14, 20699), (18, 20732), (37, 20939), (48, 21068), (49, 21071), (52, 21134), (53, 21143), (66, 21473), (68, 21536), (69, 21551), (79, 21647), (80, 21659), (88,

21752), (89, 21755),

Gene: Emaanora_25 Start: 19396, Stop: 20658, Start Num: 8
Candidate Starts for Emaanora_25:
(Start: 8 @19396 has 111 MA's), (14, 19537), (26, 19675), (30, 19699), (44, 19852), (47, 19894), (53, 19975), (57, 20113), (66, 20311), (70, 20404), (89, 20587),

Gene: EnochSoames_26 Start: 19681, Stop: 20955, Start Num: 8
Candidate Starts for EnochSoames_26:
(Start: 8 @19681 has 111 MA's), (11, 19768), (13, 19801), (14, 19822), (16, 19834), (27, 19972), (35, 20047), (36, 20050), (42, 20104), (66, 20593), (70, 20686), (89, 20869),

Gene: Esperer_24 Start: 19136, Stop: 20410, Start Num: 8
Candidate Starts for Esperer_24:
(1, 18791), (2, 18902), (Start: 8 @19136 has 111 MA's), (11, 19223), (13, 19256), (14, 19277), (15, 19283), (16, 19289), (25, 19394), (27, 19427), (36, 19505), (42, 19559), (53, 19715), (65, 20021), (66, 20048), (70, 20141), (89, 20324),

Gene: GirlDinner_24 Start: 19804, Stop: 21078, Start Num: 8
Candidate Starts for GirlDinner_24:
(Start: 8 @19804 has 111 MA's), (13, 19927), (14, 19948), (16, 19960), (18, 19981), (20, 20011), (24, 20062), (25, 20065), (30, 20110), (44, 20263), (66, 20713), (80, 20911), (89, 21007),

Gene: Goby_24 Start: 19937, Stop: 21283, Start Num: 8
Candidate Starts for Goby_24:
(Start: 8 @19937 has 111 MA's), (13, 20057), (14, 20078), (16, 20090), (17, 20102), (25, 20195), (30, 20240), (42, 20360), (44, 20393), (47, 20435), (53, 20516), (66, 20906), (70, 20999), (82, 21128),

Gene: Godpower_25 Start: 19929, Stop: 21275, Start Num: 8
Candidate Starts for Godpower_25:
(Start: 8 @19929 has 111 MA's), (13, 20049), (14, 20070), (16, 20082), (40, 20334), (53, 20508), (57, 20646), (66, 20898), (70, 20991), (82, 21120),

Gene: GreenWeasel_26 Start: 19665, Stop: 20987, Start Num: 8
Candidate Starts for GreenWeasel_26:
(Start: 8 @19665 has 111 MA's), (12, 19764), (14, 19806), (19, 19854), (29, 19965), (37, 20046), (39, 20064), (42, 20088), (44, 20121), (53, 20244), (66, 20628), (89, 20919),

Gene: Haizum_24 Start: 19959, Stop: 21218, Start Num: 8
Candidate Starts for Haizum_24:
(Start: 8 @19959 has 111 MA's), (14, 20100), (15, 20106), (22, 20172), (23, 20205), (24, 20214), (42, 20385), (44, 20418), (65, 20841), (66, 20868), (67, 20874), (80, 21054), (84, 21099),

Gene: Hank144_25 Start: 20241, Stop: 21524, Start Num: 8
Candidate Starts for Hank144_25:
(Start: 8 @20241 has 111 MA's), (13, 20370), (14, 20391), (18, 20424), (19, 20439), (22, 20463), (25, 20508), (30, 20553), (47, 20748), (57, 20901), (59, 20958), (80, 21354),

Gene: Hippo_23 Start: 19393, Stop: 20709, Start Num: 8
Candidate Starts for Hippo_23:
(Start: 8 @19393 has 111 MA's), (13, 19513), (14, 19534), (26, 19672), (30, 19696), (44, 19849), (47, 19891), (53, 19972), (57, 20110), (66, 20362), (70, 20455), (89, 20638),

Gene: Hydra_26 Start: 19845, Stop: 21122, Start Num: 8
Candidate Starts for Hydra_26:
(Start: 8 @19845 has 111 MA's), (11, 19932), (13, 19965), (14, 19986), (15, 19992), (16, 19998), (25, 20106), (27, 20139), (36, 20217), (42, 20271), (53, 20427), (65, 20733), (66, 20760), (70, 20853), (89, 21036),

Gene: Indigo_23 Start: 19316, Stop: 20590, Start Num: 8
Candidate Starts for Indigo_23:
(Start: 8 @19316 has 111 MA's), (11, 19403), (13, 19436), (14, 19457), (15, 19463), (16, 19469), (25, 19574), (27, 19607), (36, 19685), (42, 19739), (53, 19895), (65, 20201), (66, 20228), (70, 20321), (89, 20504),

Gene: Issmi_25 Start: 20668, Stop: 21939, Start Num: 8
Candidate Starts for Issmi_25:
(Start: 8 @20668 has 111 MA's), (14, 20809), (15, 20815), (21, 20878), (25, 20926), (29, 20968), (35, 21031), (42, 21088), (47, 21166), (53, 21247), (54, 21262), (66, 21571), (70, 21664), (71, 21673), (83, 21808), (88, 21865), (89, 21868),

Gene: Itza_26 Start: 20201, Stop: 21475, Start Num: 8
Candidate Starts for Itza_26:
(Start: 8 @20201 has 111 MA's), (14, 20342), (16, 20354), (18, 20375), (22, 20414), (25, 20459), (37, 20582), (45, 20663), (66, 21104), (69, 21182), (76, 21257), (84, 21347),

Gene: Izzy_25 Start: 19733, Stop: 21007, Start Num: 8
Candidate Starts for Izzy_25:
(Start: 8 @19733 has 111 MA's), (11, 19820), (13, 19853), (14, 19874), (16, 19886), (27, 20024), (35, 20099), (36, 20102), (42, 20156), (66, 20645), (70, 20738), (89, 20921),

Gene: Janus_25 Start: 20142, Stop: 21416, Start Num: 8
Candidate Starts for Janus_25:
(Start: 8 @20142 has 111 MA's), (13, 20265), (14, 20286), (16, 20298), (18, 20319), (20, 20349), (24, 20400), (25, 20403), (30, 20448), (44, 20601), (66, 21051), (80, 21249), (89, 21345),

Gene: Jash_25 Start: 19686, Stop: 20960, Start Num: 8
Candidate Starts for Jash_25:
(Start: 8 @19686 has 111 MA's), (11, 19773), (13, 19806), (14, 19827), (16, 19839), (27, 19977), (35, 20052), (36, 20055), (42, 20109), (66, 20598), (70, 20691), (89, 20874),

Gene: Jevington_26 Start: 20485, Stop: 21759, Start Num: 8
Candidate Starts for Jevington_26:
(Start: 8 @20485 has 111 MA's), (14, 20629), (18, 20662), (30, 20791), (32, 20815), (44, 20944), (66, 21394), (72, 21505), (81, 21616), (89, 21688),

Gene: Jhitchelle_24 Start: 20489, Stop: 21733, Start Num: 8
Candidate Starts for Jhitchelle_24:
(6, 20465), (Start: 8 @20489 has 111 MA's), (13, 20609), (14, 20630), (18, 20663), (31, 20801), (38, 20876), (48, 20990), (66, 21392), (70, 21485), (86, 21653), (87, 21659), (88, 21668),

Gene: Kaine_25 Start: 20731, Stop: 21984, Start Num: 8
Candidate Starts for Kaine_25:
(Start: 8 @20731 has 111 MA's), (14, 20872), (18, 20905), (48, 21241), (49, 21244), (52, 21307), (53, 21316), (65, 21616), (66, 21643), (70, 21736), (86, 21904), (87, 21910), (88, 21919),

Gene: Katalie_24 Start: 19664, Stop: 21001, Start Num: 8
Candidate Starts for Katalie_24:
(Start: 8 @19664 has 111 MA's), (14, 19805), (40, 20069), (53, 20243), (57, 20381), (66, 20636), (69, 20714), (73, 20750), (80, 20822), (89, 20918),

Gene: Lannister_26 Start: 20278, Stop: 21624, Start Num: 8
Candidate Starts for Lannister_26:
(Start: 8 @20278 has 111 MA's), (13, 20398), (14, 20419), (18, 20452), (44, 20734), (53, 20857), (57, 20995), (66, 21247), (89, 21541),

Gene: Legacy_24 Start: 19288, Stop: 20565, Start Num: 8
Candidate Starts for Legacy_24:
(Start: 8 @19288 has 111 MA's), (11, 19375), (13, 19408), (14, 19429), (15, 19435), (16, 19441), (25, 19549), (27, 19582), (36, 19660), (42, 19714), (53, 19870), (65, 20176), (66, 20203), (70, 20296), (89, 20479),

Gene: Leviticus_24 Start: 19317, Stop: 20594, Start Num: 8
Candidate Starts for Leviticus_24:
(Start: 8 @19317 has 111 MA's), (11, 19404), (13, 19437), (14, 19458), (15, 19464), (16, 19470), (25, 19578), (27, 19611), (36, 19689), (42, 19743), (53, 19899), (65, 20205), (66, 20232), (70, 20325), (89, 20508),

Gene: Lika_24 Start: 19933, Stop: 21279, Start Num: 8
Candidate Starts for Lika_24:
(Start: 8 @19933 has 111 MA's), (13, 20053), (14, 20074), (16, 20086), (34, 20272), (40, 20338), (53, 20512), (57, 20650), (66, 20902), (70, 20995), (82, 21124),

Gene: Loofah_25 Start: 20058, Stop: 21338, Start Num: 8
Candidate Starts for Loofah_25:
(Start: 8 @20058 has 111 MA's), (14, 20202), (18, 20235), (44, 20517), (66, 20967), (69, 21045), (81, 21192), (84, 21216), (85, 21240), (86, 21246), (88, 21261), (90, 21327),

Gene: Lorelei_24 Start: 19902, Stop: 21248, Start Num: 8
Candidate Starts for Lorelei_24:
(Start: 8 @19902 has 111 MA's), (13, 20022), (14, 20043), (17, 20067), (25, 20160), (27, 20193), (30, 20205), (47, 20400), (53, 20481), (57, 20619), (61, 20703), (66, 20871), (70, 20964), (82, 21093),

Gene: Maneekul_23 Start: 19407, Stop: 20738, Start Num: 8
Candidate Starts for Maneekul_23:
(Start: 8 @19407 has 111 MA's), (14, 19548), (16, 19560), (44, 19863), (47, 19905), (53, 19986), (56, 20106), (66, 20376), (70, 20469), (89, 20667),

Gene: Marav_27 Start: 20824, Stop: 22098, Start Num: 8
Candidate Starts for Marav_27:
(Start: 8 @20824 has 111 MA's), (14, 20968), (18, 21001), (25, 21085), (30, 21130), (32, 21154), (44, 21283), (66, 21733), (72, 21844), (74, 21865), (75, 21868), (76, 21886), (81, 21955), (89, 22027),

Gene: Nabi_24 Start: 19902, Stop: 21248, Start Num: 8
Candidate Starts for Nabi_24:
(Start: 8 @19902 has 111 MA's), (13, 20022), (14, 20043), (17, 20067), (25, 20160), (27, 20193), (30, 20205), (47, 20400), (53, 20481), (57, 20619), (61, 20703), (66, 20871), (70, 20964), (82, 21093),

Gene: Nanodon_26 Start: 19889, Stop: 21238, Start Num: 8

Candidate Starts for Nanodon_26:
(Start: 8 @19889 has 111 MA's), (13, 20009), (14, 20030), (16, 20042), (27, 20180), (30, 20192), (35, 20255), (36, 20258), (43, 20333), (53, 20468), (57, 20606), (66, 20858), (89, 21152),

Gene: Nerdos_24 Start: 19314, Stop: 20588, Start Num: 8
Candidate Starts for Nerdos_24:
(Start: 8 @19314 has 111 MA's), (11, 19401), (13, 19434), (14, 19455), (15, 19461), (16, 19467), (25, 19572), (27, 19605), (36, 19683), (42, 19737), (53, 19893), (65, 20199), (66, 20226), (70, 20319), (89, 20502),

Gene: Nishikigoi_24 Start: 19959, Stop: 21218, Start Num: 8
Candidate Starts for Nishikigoi_24:
(Start: 8 @19959 has 111 MA's), (14, 20100), (15, 20106), (22, 20172), (23, 20205), (24, 20214), (42, 20385), (44, 20418), (65, 20841), (66, 20868), (67, 20874), (80, 21054), (84, 21099),

Gene: Oliynyk_25 Start: 19686, Stop: 20960, Start Num: 8
Candidate Starts for Oliynyk_25:
(Start: 8 @19686 has 111 MA's), (11, 19773), (13, 19806), (14, 19827), (16, 19839), (27, 19977), (35, 20052), (36, 20055), (42, 20109), (66, 20598), (70, 20691), (89, 20874),

Gene: Omar_25 Start: 20304, Stop: 21581, Start Num: 8
Candidate Starts for Omar_25:
(Start: 8 @20304 has 111 MA's), (10, 20382), (11, 20391), (14, 20445), (18, 20478), (19, 20493), (23, 20550), (29, 20604), (35, 20673), (42, 20730), (44, 20763), (53, 20886), (66, 21210), (71, 21312), (81, 21438), (82, 21441), (83, 21450),

Gene: Ozzie_24 Start: 19297, Stop: 20574, Start Num: 8
Candidate Starts for Ozzie_24:
(Start: 8 @19297 has 111 MA's), (11, 19384), (13, 19417), (14, 19438), (15, 19444), (16, 19450), (25, 19558), (27, 19591), (36, 19669), (42, 19723), (53, 19879), (65, 20185), (66, 20212), (70, 20305), (89, 20488),

Gene: OzzyJ_24 Start: 19384, Stop: 20700, Start Num: 8
Candidate Starts for OzzyJ_24:
(Start: 8 @19384 has 111 MA's), (13, 19504), (14, 19525), (26, 19663), (30, 19687), (44, 19840), (47, 19882), (53, 19963), (57, 20101), (66, 20353), (70, 20446), (82, 20560), (89, 20629),

Gene: Pablito_24 Start: 19917, Stop: 21194, Start Num: 8
Candidate Starts for Pablito_24:
(Start: 8 @19917 has 111 MA's), (12, 20019), (14, 20061), (18, 20094), (25, 20178), (30, 20223), (44, 20376), (66, 20823), (67, 20829), (71, 20925), (81, 21048), (83, 21060),

Gene: Paedore_24 Start: 20058, Stop: 21338, Start Num: 8
Candidate Starts for Paedore_24:
(Start: 8 @20058 has 111 MA's), (14, 20202), (18, 20235), (44, 20517), (66, 20967), (69, 21045), (81, 21192), (84, 21216), (85, 21240), (86, 21246), (88, 21261), (90, 21327),

Gene: Paolo_26 Start: 20489, Stop: 21763, Start Num: 8
Candidate Starts for Paolo_26:
(Start: 8 @20489 has 111 MA's), (14, 20633), (18, 20666), (22, 20705), (25, 20750), (30, 20795), (32, 20819), (44, 20948), (72, 21509), (74, 21530), (75, 21533), (76, 21551), (81, 21620), (89, 21692),

Gene: Pavo_26 Start: 21177, Stop: 22451, Start Num: 8

Candidate Starts for Pavo_26:
(Start: 8 @21177 has 111 MA's), (14, 21318), (18, 21351), (20, 21381), (35, 21543), (36, 21546), (42, 21600), (52, 21747), (53, 21756), (66, 22086), (69, 22164), (79, 22260), (80, 22272), (88, 22365), (89, 22368),

Gene: Phettuccine_24 Start: 19316, Stop: 20590, Start Num: 8
Candidate Starts for Phettuccine_24:
(Start: 8 @19316 has 111 MA's), (11, 19403), (13, 19436), (14, 19457), (15, 19463), (16, 19469), (25, 19574), (27, 19607), (36, 19685), (42, 19739), (53, 19895), (65, 20201), (66, 20228), (70, 20321), (89, 20504),

Gene: Provolone_26 Start: 20550, Stop: 21830, Start Num: 8
Candidate Starts for Provolone_26:
(Start: 8 @20550 has 111 MA's), (14, 20691), (18, 20724), (37, 20931), (48, 21060), (49, 21063), (52, 21126), (53, 21135), (66, 21465), (69, 21543), (79, 21639), (80, 21651), (88, 21744), (89, 21747),

Gene: Puginator_26 Start: 20504, Stop: 21778, Start Num: 8
Candidate Starts for Puginator_26:
(Start: 8 @20504 has 111 MA's), (14, 20648), (18, 20681), (25, 20765), (30, 20810), (32, 20834), (44, 20963), (66, 21413), (75, 21548), (76, 21566), (81, 21635), (89, 21707),

Gene: R4_24 Start: 20150, Stop: 21427, Start Num: 8
Candidate Starts for R4_24:
(Start: 8 @20150 has 111 MA's), (14, 20294), (18, 20327), (19, 20342), (25, 20411), (44, 20609), (69, 21137), (81, 21281), (84, 21305), (88, 21350),

Gene: Rana_24 Start: 19902, Stop: 21248, Start Num: 8
Candidate Starts for Rana_24:
(Start: 8 @19902 has 111 MA's), (13, 20022), (14, 20043), (17, 20067), (25, 20160), (27, 20193), (30, 20205), (47, 20400), (53, 20481), (57, 20619), (61, 20703), (66, 20871), (70, 20964), (82, 21093),

Gene: RedBear_25 Start: 19664, Stop: 21001, Start Num: 8
Candidate Starts for RedBear_25:
(Start: 8 @19664 has 111 MA's), (14, 19805), (40, 20069), (53, 20243), (57, 20381), (66, 20636), (69, 20714), (73, 20750), (80, 20822), (89, 20918),

Gene: Rusticus_25 Start: 19686, Stop: 20960, Start Num: 8
Candidate Starts for Rusticus_25:
(Start: 8 @19686 has 111 MA's), (11, 19773), (13, 19806), (14, 19827), (16, 19839), (27, 19977), (35, 20052), (36, 20055), (42, 20109), (66, 20598), (70, 20691), (89, 20874),

Gene: Saftant_25 Start: 21246, Stop: 22493, Start Num: 8
Candidate Starts for Saftant_25:
(Start: 8 @21246 has 111 MA's), (14, 21387), (18, 21420), (22, 21459), (35, 21612), (38, 21633), (42, 21669), (66, 22152), (80, 22338), (86, 22413), (87, 22419), (88, 22428), (90, 22473),

Gene: SarahRose_23 Start: 19393, Stop: 20709, Start Num: 8
Candidate Starts for SarahRose_23:
(Start: 8 @19393 has 111 MA's), (14, 19534), (26, 19672), (30, 19696), (44, 19849), (47, 19891), (53, 19972), (57, 20110), (66, 20362), (70, 20455), (89, 20638),

Gene: Snorlax_23 Start: 19396, Stop: 20712, Start Num: 8
Candidate Starts for Snorlax_23:

(Start: 8 @19396 has 111 MA's), (14, 19537), (16, 19549), (44, 19852), (47, 19894), (53, 19975), (56, 20095), (66, 20365), (70, 20458), (89, 20641),

Gene: South40_24 Start: 19664, Stop: 21001, Start Num: 8
Candidate Starts for South40_24:
(Start: 8 @19664 has 111 MA's), (14, 19805), (40, 20069), (53, 20243), (57, 20381), (66, 20636), (69, 20714), (73, 20750), (80, 20822), (89, 20918),

Gene: Speedwell_30 Start: 22453, Stop: 23706, Start Num: 8
Candidate Starts for Speedwell_30:
(6, 22429), (Start: 8 @22453 has 111 MA's), (14, 22594), (18, 22627), (27, 22744), (35, 22819), (36, 22822), (38, 22840), (50, 22984), (66, 23365), (70, 23458), (86, 23626), (87, 23632), (88, 23641),

Gene: SqueakyClean_25 Start: 20068, Stop: 21342, Start Num: 8
Candidate Starts for SqueakyClean_25:
(Start: 8 @20068 has 111 MA's), (13, 20191), (14, 20212), (16, 20224), (18, 20245), (20, 20275), (24, 20326), (25, 20329), (30, 20374), (44, 20527), (66, 20977), (80, 21175), (89, 21271),

Gene: Sudan_25 Start: 21018, Stop: 22271, Start Num: 8
Candidate Starts for Sudan_25:
(Start: 8 @21018 has 111 MA's), (14, 21159), (18, 21192), (48, 21528), (49, 21531), (52, 21594), (53, 21603), (65, 21903), (66, 21930), (70, 22023), (86, 22191), (87, 22197), (88, 22206),

Gene: Sujidade_25 Start: 20225, Stop: 21571, Start Num: 8
Candidate Starts for Sujidade_25:
(Start: 8 @20225 has 111 MA's), (13, 20345), (14, 20366), (16, 20378), (34, 20564), (40, 20630), (53, 20804), (57, 20942), (66, 21194), (70, 21287), (82, 21416),

Gene: SunkenRoot_25 Start: 21514, Stop: 22770, Start Num: 8
Candidate Starts for SunkenRoot_25:
(Start: 8 @21514 has 111 MA's), (14, 21655), (18, 21688), (22, 21727), (27, 21805), (35, 21880), (38, 21901), (44, 21970), (52, 22084), (66, 22420), (70, 22513), (88, 22693),

Gene: SunsetPointe_24 Start: 19307, Stop: 20581, Start Num: 8
Candidate Starts for SunsetPointe_24:
(1, 18962), (2, 19073), (Start: 8 @19307 has 111 MA's), (11, 19394), (13, 19427), (14, 19448), (15, 19454), (16, 19460), (25, 19565), (27, 19598), (36, 19676), (42, 19730), (53, 19886), (65, 20192), (66, 20219), (70, 20312), (89, 20495),

Gene: Superstar_27 Start: 21181, Stop: 22440, Start Num: 8
Candidate Starts for Superstar_27:
(Start: 8 @21181 has 111 MA's), (11, 21268), (12, 21280), (14, 21322), (15, 21328), (18, 21355), (21, 21391), (23, 21427), (24, 21436), (29, 21481), (35, 21547), (51, 21748), (66, 22087), (69, 22165), (73, 22201), (80, 22273),

Gene: TagePhighter_24 Start: 19396, Stop: 20712, Start Num: 8
Candidate Starts for TagePhighter_24:
(Start: 8 @19396 has 111 MA's), (14, 19537), (16, 19549), (44, 19852), (47, 19894), (53, 19975), (56, 20095), (66, 20365), (70, 20458), (89, 20641),

Gene: Tefunt_24 Start: 19962, Stop: 21221, Start Num: 8
Candidate Starts for Tefunt_24:

(Start: 8 @19962 has 111 MA's), (14, 20103), (15, 20109), (22, 20175), (23, 20208), (24, 20217), (38, 20352), (42, 20388), (44, 20421), (65, 20844), (66, 20871), (67, 20877), (80, 21057), (84, 21102),

Gene: Thestral_25 Start: 20035, Stop: 21315, Start Num: 8
Candidate Starts for Thestral_25:
(Start: 8 @20035 has 111 MA's), (14, 20185), (18, 20218), (47, 20542), (66, 20950), (69, 21028), (70, 21043), (80, 21148), (89, 21244),

Gene: TinaBelcher_24 Start: 19983, Stop: 21263, Start Num: 8
Candidate Starts for TinaBelcher_24:
(Start: 8 @19983 has 111 MA's), (14, 20133), (18, 20166), (32, 20319), (47, 20490), (66, 20898), (76, 21051),

Gene: Toma_24 Start: 19937, Stop: 21283, Start Num: 8
Candidate Starts for Toma_24:
(Start: 8 @19937 has 111 MA's), (13, 20057), (14, 20078), (16, 20090), (17, 20102), (25, 20195), (30, 20240), (42, 20360), (44, 20393), (47, 20435), (53, 20516), (66, 20906), (70, 20999), (82, 21128),

Gene: Triste_23 Start: 19384, Stop: 20700, Start Num: 8
Candidate Starts for Triste_23:
(Start: 8 @19384 has 111 MA's), (13, 19504), (14, 19525), (26, 19663), (30, 19687), (44, 19840), (47, 19882), (53, 19963), (57, 20101), (66, 20353), (70, 20446), (89, 20629),

Gene: Triumph_26 Start: 19992, Stop: 21266, Start Num: 8
Candidate Starts for Triumph_26:
(Start: 8 @19992 has 111 MA's), (14, 20136), (18, 20169), (25, 20253), (30, 20298), (33, 20331), (44, 20451), (58, 20700), (62, 20742), (66, 20901), (80, 21099),

Gene: TrvxScott_23 Start: 20013, Stop: 21293, Start Num: 8
Candidate Starts for TrvxScott_23:
(Start: 8 @20013 has 111 MA's), (11, 20103), (14, 20163), (18, 20196), (42, 20445), (47, 20520), (66, 20928), (76, 21081),

Gene: TuanPN_23 Start: 19408, Stop: 20739, Start Num: 8
Candidate Starts for TuanPN_23:
(Start: 8 @19408 has 111 MA's), (14, 19549), (16, 19561), (44, 19864), (47, 19906), (53, 19987), (56, 20107), (66, 20377), (70, 20470), (89, 20668),

Gene: Unstoppable_24 Start: 19308, Stop: 20585, Start Num: 8
Candidate Starts for Unstoppable_24:
(Start: 8 @19308 has 111 MA's), (11, 19395), (13, 19428), (14, 19449), (15, 19455), (16, 19461), (25, 19569), (27, 19602), (36, 19680), (42, 19734), (53, 19890), (65, 20196), (66, 20223), (70, 20316), (89, 20499),

Gene: Urza_26 Start: 20222, Stop: 21496, Start Num: 8
Candidate Starts for Urza_26:
(Start: 8 @20222 has 111 MA's), (14, 20363), (16, 20375), (18, 20396), (22, 20435), (25, 20480), (37, 20603), (45, 20684), (66, 21125), (69, 21203), (76, 21278), (84, 21368),

Gene: Vanseggelen_30 Start: 20694, Stop: 21974, Start Num: 8
Candidate Starts for Vanseggelen_30:
(Start: 8 @20694 has 111 MA's), (13, 20814), (14, 20835), (18, 20868), (48, 21204), (52, 21270), (65, 21582), (66, 21609), (69, 21687), (80, 21795), (89, 21891),

Gene: Verabelle_26 Start: 20740, Stop: 22011, Start Num: 8
Candidate Starts for Verabelle_26:
(6, 20716), (Start: 8 @20740 has 111 MA's), (14, 20881), (48, 21247), (52, 21313), (65, 21619), (66, 21646), (69, 21724), (79, 21820), (88, 21925), (89, 21928),

Gene: Verse_25 Start: 21714, Stop: 22970, Start Num: 8
Candidate Starts for Verse_25:
(Start: 8 @21714 has 111 MA's), (14, 21855), (18, 21888), (22, 21927), (27, 22005), (35, 22080), (42, 22137), (44, 22170), (52, 22284), (66, 22620), (70, 22713), (88, 22893),

Gene: VieEnRose_26 Start: 20128, Stop: 21402, Start Num: 8
Candidate Starts for VieEnRose_26:
(5, 20086), (Start: 8 @20128 has 111 MA's), (14, 20269), (16, 20281), (18, 20302), (22, 20341), (25, 20386), (66, 21031), (69, 21109), (76, 21184), (80, 21229), (84, 21274),

Gene: Werner_23 Start: 19394, Stop: 20710, Start Num: 8
Candidate Starts for Werner_23:
(Start: 8 @19394 has 111 MA's), (13, 19514), (14, 19535), (26, 19673), (30, 19697), (44, 19850), (47, 19892), (53, 19973), (57, 20111), (66, 20363), (70, 20456), (89, 20639),

Gene: Whatever_23 Start: 19394, Stop: 20710, Start Num: 8
Candidate Starts for Whatever_23:
(Start: 8 @19394 has 111 MA's), (13, 19514), (14, 19535), (26, 19673), (30, 19697), (44, 19850), (47, 19892), (53, 19973), (57, 20111), (66, 20363), (70, 20456), (89, 20639),

Gene: Yasdnil_23 Start: 19404, Stop: 20735, Start Num: 8
Candidate Starts for Yasdnil_23:
(Start: 8 @19404 has 111 MA's), (14, 19545), (16, 19557), (44, 19860), (47, 19902), (53, 19983), (56, 20103), (66, 20373), (70, 20466), (89, 20664),

Gene: Yosif_26 Start: 21240, Stop: 22499, Start Num: 8
Candidate Starts for Yosif_26:
(Start: 8 @21240 has 111 MA's), (14, 21381), (15, 21387), (18, 21414), (25, 21498), (64, 22104), (66, 22146), (70, 22239), (73, 22260),

Gene: Zainub_26 Start: 20452, Stop: 21726, Start Num: 8
Candidate Starts for Zainub_26:
(Start: 8 @20452 has 111 MA's), (14, 20596), (18, 20629), (22, 20668), (25, 20713), (30, 20758), (32, 20782), (44, 20911), (57, 21106), (66, 21361), (72, 21472), (74, 21493), (75, 21496), (76, 21514), (81, 21583), (89, 21655),

Gene: ZamZam_25 Start: 21183, Stop: 22427, Start Num: 8
Candidate Starts for ZamZam_25:
(Start: 8 @21183 has 111 MA's), (13, 21303), (14, 21321), (18, 21354), (27, 21471), (35, 21546), (41, 21591), (47, 21678), (53, 21759), (66, 22086), (67, 22092), (70, 22179), (80, 22272), (86, 22347), (87, 22353), (88, 22362),

Gene: Zemlya_25 Start: 19928, Stop: 21274, Start Num: 8
Candidate Starts for Zemlya_25:
(Start: 8 @19928 has 111 MA's), (13, 20048), (14, 20069), (17, 20093), (47, 20426), (53, 20507), (57, 20645), (66, 20897), (70, 20990), (82, 21119),

Gene: phiCAM_26 Start: 23149, Stop: 24261, Start Num: 14
Candidate Starts for phiCAM_26:
(Start: 8 @23008 has 111 MA's), (14, 23149), (18, 23182), (43, 23452), (49, 23515), (55, 23650), (66, 23920), (70, 24013), (72, 24031), (84, 24151),

Gene: phiHau3_26 Start: 19632, Stop: 20951, Start Num: 8
Candidate Starts for phiHau3_26:
(Start: 8 @19632 has 111 MA's), (12, 19731), (14, 19773), (19, 19821), (29, 19932), (37, 20013), (39, 20031), (42, 20055), (44, 20088), (53, 20211), (66, 20592),