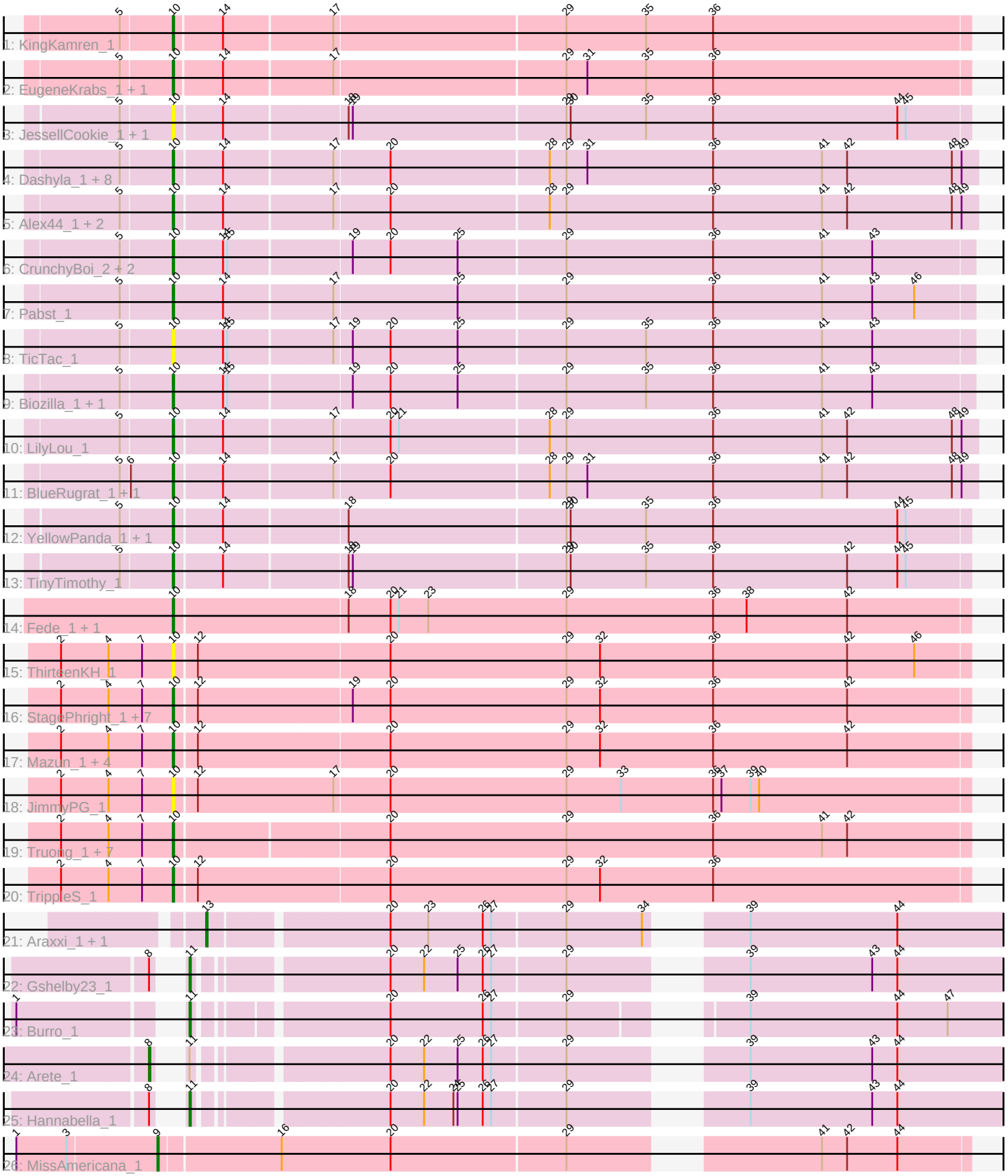
Pham 216163


1: KingKamren_1
2: EugeneKrabs_1 + 1
3: JessellCookie_1 + 1
4: Dashyla_1 + 8
5: Alex44_1 + 2
6: CrunchyBoi_2 + 2
7: Pabst_1
8: TicTac_1
9: Biozilla_1 + 1
10: LilyLou_1
11: BlueRugrat_1 + 1
12: YellowPanda_1 + 1
13: TinyTimothy_1
14: Fede_1 + 1
15: ThirteenKH_1
16: StageFright_1 + 7
17: Mazun_1 + 4
18: JimmyPG_1
19: Truong_1 + 7
20: TrippleS_1
21: Araxxi_1 + 1
22: Gshelby23_1
23: Burro_1
24: Arete_1
25: Hannabella_1
26: MissAmericana_1

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 216163 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216163 has 63 members, 13 are drafts.

Phages represented in each track:
• Track 1 : KingKamren_1
• Track 2 : EugeneKrabs_1, Zhengyi_1
• Track 3 : JessellCookie_1, MiamiPanther_1
• Track 4 : Dashyla_1, Corn21_1, Unphazed_1, Stormbreaker_1, DumpQuist_1, Xitlalli_1, TownLake_1, Birdfeeder_1, ArMaWen_1
• Track 5 : Alex44_1, Phogo_1, LesNorah_1
• Track 6 : CrunchyBoi_2, PineapplePluto_2, Oatly_1
• Track 7 : Pabst_1
• Track 8 : TicTac_1
• Track 9 : Biozilla_1, HitchHiker_2
• Track 10 : LilyLou_1
• Track 11 : BlueRugrat_1, SwissCheezer_1
• Track 12 : YellowPanda_1, Wesak_1
• Track 13 : TinyTimothy_1
• Track 14 : Fede_1, Kosier_1
• Track 15 : ThirteenKH_1
• Track 16 : StagePhright_1, Astartes_1, Phedro_1, PhriedRice_1, Phractured_1, Pharky_1, Moleficent_1, Fullmetal_1
• Track 17 : Mazun_1, RicoCaldo_1, Atraxi_1, Morrill_1, Yafa_1
• Track 18 : JimmyPG_1
• Track 19 : Truong_1, JordanFarm_1, Barroma_1, AloeVera_1, Waterlily_1, Akoni_1, ShyRosie_1, Ashton_1
• Track 20 : TrippleS_1
• Track 21 : Araxxi_1, DoTi_1
• Track 22 : Gshelby23_1
• Track 23 : Burro_1
• Track 24 : Arete_1
• Track 25 : Hannabella_1
• Track 26 : MissAmericana_1

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

The start number called the most often in the published annotations is 10, it was called in 43 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akoni_1, Alex44_1, AloeVera_1, ArMaWen_1, Ashton_1, Astartes_1, Atraxi_1, Barroma_1, Biozilla_1, Birdfeeder_1, BlueRugrat_1, Corn21_1, CrunchyBoi_2, Dashyla_1, DumpQuist_1, EugeneKrabs_1, Fede_1, Fullmetal_1, HitchHiker_2, JessellCookie_1, JimmyPG_1, JordanFarm_1, KingKamren_1, Kosier_1, LesNorah_1, LilyLou_1, Mazun_1, MiamiPanther_1, Moleficent_1, Morrill_1, Oatly_1, Pabst_1, Pharky_1, Phedro_1, Phogo_1, Phractured_1, PhriedRice_1, PineapplePluto_2, RicoCaldo_1, ShyRosie_1, StagePhright_1, Stormbreaker_1, SwissCheezer_1, ThirteenKH_1, TicTac_1, TinyTimothy_1, TownLake_1, TrippleS_1, Truong_1, Unphazed_1, Waterlily_1, Wesak_1, Xitlalli_1, Yafa_1, YellowPanda_1, Zhengyi_1,

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

Genes that do not have the "Most Annotated" start:
• Araxxi_1, Arete_1, Burro_1, DoTi_1, Gshelby23_1, Hannabella_1, MissAmericana_1,

Summary by start number:

Start 8:
• Found in 3 of 63 (4.8%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Arete_1 (EM1),

Start 9:
• Found in 1 of 63 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MissAmericana_1 (EM2),

Start 10:
• Found in 56 of 63 (88.9%) of genes in pham
• Manual Annotations of this start: 43 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akoni_1 (EK2), Alex44_1 (EK1), AloeVera_1 (EK2), ArMaWen_1 (EK1), Ashton_1 (EK2), Astartes_1 (EK2), Atraxi_1 (EK2), Barroma_1 (EK2), Biozilla_1 (EK1), Birdfeeder_1 (EK1), BlueRugrat_1 (EK1), Corn21_1 (EK1), CrunchyBoi_2 (EK1), Dashyla_1 (EK1), DumpQuist_1 (EK1), EugeneKrabs_1 (EK), Fede_1 (EK2), Fullmetal_1 (EK2), HitchHiker_2 (EK1), JessellCookie_1 (EK1), JimmyPG_1 (EK2), JordanFarm_1 (EK2), KingKamren_1 (EK), Kosier_1 (EK2), LesNorah_1 (EK1), LilyLou_1 (EK1), Mazun_1 (EK2), MiamiPanther_1 (EK1), Moleficent_1 (EK2), Morrill_1 (EK2), Oatly_1 (EK1), Pabst_1 (EK1), Pharky_1 (EK2), Phedro_1 (EK2), Phogo_1 (EK1), Phractured_1 (EK2), PhriedRice_1 (EK2), PineapplePluto_2 (EK1), RicoCaldo_1 (EK2), ShyRosie_1 (EK2), StagePhright_1 (EK2), Stormbreaker_1 (EK1), SwissCheezer_1 (EK1), ThirteenKH_1 (EK2), TicTac_1 (EK1), TinyTimothy_1 (EK1), TownLake_1 (EK1), TrippleS_1 (EK2), Truong_1 (EK2), Unphazed_1 (EK1), Waterlily_1 (EK2), Wesak_1 (EK1), Xitlalli_1 (EK1), Yafa_1 (EK2), YellowPanda_1 (EK1), Zhengyi_1 (EK),

Start 11:
• Found in 4 of 63 (6.3%) of genes in pham
• Manual Annotations of this start: 3 of 50
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Burro_1 (EM1), Gshelby23_1 (EM1), Hannabella_1 (EM1),

Start 13:
• Found in 2 of 63 (3.2%) of genes in pham
• Manual Annotations of this start: 2 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Araxxi_1 (EM1), DoTi_1 (EM1),

Summary by clusters:

There are 5 clusters represented in this pham: EK, EM1, EK2, EK1, EM2,

Info for manual annotations of cluster EK:
•Start number 10 was manually annotated 3 times for cluster EK.

Info for manual annotations of cluster EK1:
•Start number 10 was manually annotated 20 times for cluster EK1.

Info for manual annotations of cluster EK2:
•Start number 10 was manually annotated 20 times for cluster EK2.

Info for manual annotations of cluster EM1:
•Start number 8 was manually annotated 1 time for cluster EM1.
•Start number 11 was manually annotated 3 times for cluster EM1.
•Start number 13 was manually annotated 2 times for cluster EM1.

Info for manual annotations of cluster EM2:
•Start number 9 was manually annotated 1 time for cluster EM2.

Gene Information:

Gene: Akoni_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for Akoni_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: Alex44_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Alex44_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: AloeVera_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for AloeVera_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: ArMaWen_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for ArMaWen_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: Araxxi_1 Start: 516, Stop: 1, Start Num: 13
Candidate Starts for Araxxi_1:
(Start: 13 @516 has 2 MA's), (20, 399), (23, 372), (26, 333), (27, 327), (29, 276), (34, 222), (39, 183), (44, 78),

Gene: Arete_1 Start: 525, Stop: 1, Start Num: 8
Candidate Starts for Arete_1:
(Start: 8 @525 has 1 MA's), (Start: 11 @519 has 3 MA's), (20, 399), (22, 375), (25, 351), (26, 333), (27, 327), (29, 276), (39, 183), (43, 96), (44, 78),

Gene: Ashton_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for Ashton_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: Astartes_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Astartes_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Atraxi_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Atraxi_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Barroma_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for Barroma_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: Biozilla_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Biozilla_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (15, 525), (19, 441), (20, 414), (25, 366), (29, 291), (35, 234), (36, 186), (41, 108), (43, 72),

Gene: Birdfeeder_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Birdfeeder_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: BlueRugrat_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for BlueRugrat_1:
(5, 600), (6, 594), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: Burro_1 Start: 510, Stop: 1, Start Num: 11
Candidate Starts for Burro_1:

(1, 606), (Start: 11 @510 has 3 MA's), (20, 393), (26, 327), (27, 321), (29, 270), (39, 183), (44, 78), (47, 42),

Gene: Corn21_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Corn21_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: CrunchyBoi_2 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for CrunchyBoi_2:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (15, 525), (19, 441), (20, 414), (25, 366), (29, 291), (36, 186), (41, 108), (43, 72),

Gene: Dashyla_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Dashyla_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: DoTi_1 Start: 516, Stop: 1, Start Num: 13
Candidate Starts for DoTi_1:
(Start: 13 @516 has 2 MA's), (20, 399), (23, 372), (26, 333), (27, 327), (29, 276), (34, 222), (39, 183), (44, 78),

Gene: DumpQuist_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for DumpQuist_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: EugeneKrabs_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for EugeneKrabs_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (17, 450), (29, 288), (31, 273), (35, 231), (36, 183),

Gene: Fede_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Fede_1:
(Start: 10 @564 has 43 MA's), (18, 444), (20, 414), (21, 408), (23, 387), (29, 288), (36, 183), (38, 159), (42, 87),

Gene: Fullmetal_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Fullmetal_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Gshelby23_1 Start: 519, Stop: 1, Start Num: 11
Candidate Starts for Gshelby23_1:
(Start: 8 @525 has 1 MA's), (Start: 11 @519 has 3 MA's), (20, 399), (22, 375), (25, 351), (26, 333), (27, 327), (29, 276), (39, 183), (43, 96), (44, 78),

Gene: Hannabella_1 Start: 519, Stop: 1, Start Num: 11
Candidate Starts for Hannabella_1:
(Start: 8 @525 has 1 MA's), (Start: 11 @519 has 3 MA's), (20, 399), (22, 375), (24, 354), (25, 351), (26, 333), (27, 327), (29, 276), (39, 183), (43, 96), (44, 78),

Gene: HitchHiker_2 Start: 564, Stop: 1, Start Num: 10

Candidate Starts for HitchHiker_2:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (15, 525), (19, 441), (20, 414), (25, 366), (29, 291), (35, 234), (36, 186), (41, 108), (43, 72),

Gene: JessellCookie_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for JessellCookie_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (18, 441), (19, 438), (29, 288), (30, 285), (35, 231), (36, 183), (44, 51), (45, 45),

Gene: JimmyPG_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for JimmyPG_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (17, 453), (20, 414), (29, 288), (33, 249), (36, 183), (37, 177), (39, 156), (40, 150),

Gene: JordanFarm_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for JordanFarm_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: KingKamren_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for KingKamren_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (17, 450), (29, 288), (35, 231), (36, 183),

Gene: Kosier_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Kosier_1:
(Start: 10 @564 has 43 MA's), (18, 444), (20, 414), (21, 408), (23, 387), (29, 288), (36, 183), (38, 159), (42, 87),

Gene: LesNorah_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for LesNorah_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: LilyLou_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for LilyLou_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (21, 411), (28, 306), (29, 294), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: Mazun_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Mazun_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: MiamiPanther_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for MiamiPanther_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (18, 441), (19, 438), (29, 288), (30, 285), (35, 231), (36, 183), (44, 51), (45, 45),

Gene: MissAmericana_1 Start: 534, Stop: 1, Start Num: 9
Candidate Starts for MissAmericana_1:
(1, 633), (3, 597), (Start: 9 @534 has 1 MA's), (16, 450), (20, 372), (29, 249), (41, 105), (42, 87), (44, 51),

Gene: Moleficent_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Moleficent_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Morrill_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Morrill_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Oatly_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Oatly_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (15, 525), (19, 441), (20, 414), (25, 366), (29, 291), (36, 186), (41, 108), (43, 72),

Gene: Pabst_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Pabst_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (17, 453), (25, 366), (29, 291), (36, 186), (41, 108), (43, 72), (46, 42),

Gene: Pharky_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Pharky_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Phedro_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Phedro_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Phogo_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Phogo_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: Phractured_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Phractured_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: PhriedRice_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for PhriedRice_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: PineapplePluto_2 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for PineapplePluto_2:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (15, 525), (19, 441), (20, 414), (25, 366), (29, 291), (36, 186), (41, 108), (43, 72),

Gene: RicoCaldo_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for RicoCaldo_1:

(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: ShyRosie_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for ShyRosie_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: StagePhright_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for StagePhright_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (19, 441), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: Stormbreaker_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Stormbreaker_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: SwissCheezer_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for SwissCheezer_1:
(5, 600), (6, 594), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: ThirteenKH_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for ThirteenKH_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87), (46, 39),

Gene: TicTac_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for TicTac_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 528), (15, 525), (17, 453), (19, 441), (20, 414), (25, 366), (29, 291), (35, 234), (36, 186), (41, 108), (43, 72),

Gene: TinyTimothy_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for TinyTimothy_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (18, 441), (19, 438), (29, 288), (30, 285), (35, 231), (36, 183), (42, 87), (44, 51), (45, 45),

Gene: TownLake_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for TownLake_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: TrippleS_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for TrippleS_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183),

Gene: Truong_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for Truong_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: Unphazed_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Unphazed_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: Waterlily_1 Start: 561, Stop: 1, Start Num: 10
Candidate Starts for Waterlily_1:
(2, 639), (4, 606), (7, 582), (Start: 10 @561 has 43 MA's), (20, 414), (29, 288), (36, 183), (41, 105), (42, 87),

Gene: Wesak_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for Wesak_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (18, 441), (29, 288), (30, 285), (35, 231), (36, 183), (44, 51), (45, 45),

Gene: Xitlalli_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Xitlalli_1:
(5, 600), (Start: 10 @564 has 43 MA's), (14, 531), (17, 456), (20, 417), (28, 306), (29, 294), (31, 279), (36, 189), (41, 111), (42, 93), (48, 18), (49, 12),

Gene: Yafa_1 Start: 564, Stop: 1, Start Num: 10
Candidate Starts for Yafa_1:
(2, 642), (4, 609), (7, 585), (Start: 10 @564 has 43 MA's), (12, 549), (20, 414), (29, 288), (32, 264), (36, 183), (42, 87),

Gene: YellowPanda_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for YellowPanda_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (18, 441), (29, 288), (30, 285), (35, 231), (36, 183), (44, 51), (45, 45),

Gene: Zhengyi_1 Start: 558, Stop: 1, Start Num: 10
Candidate Starts for Zhengyi_1:
(5, 594), (Start: 10 @558 has 43 MA's), (14, 525), (17, 450), (29, 288), (31, 273), (35, 231), (36, 183),