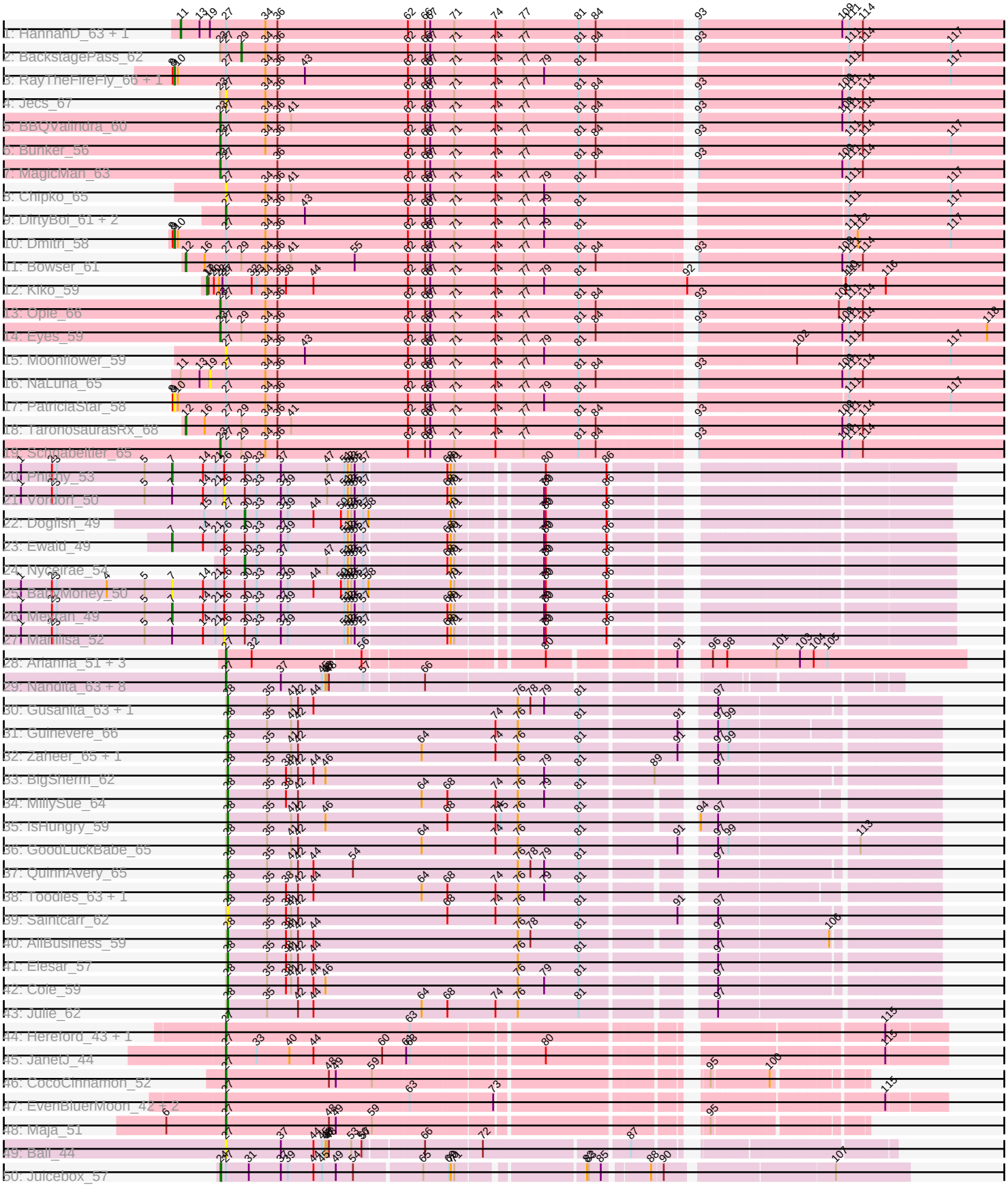
Pham 347573


1: HannahD_63 + 1
2: BackstagePass_62
3: RayTheFireFly_66 + 1
4: Jecs_67
5: BBQValindra_60
6: Bunker_56
7: MagicMan_63
8: Chipko_65
9: DirtyBoi_61 + 2
10: Dmitri_58
11: Bowser_61
12: Kiko_59
13: Opie_66
14: Eyes_59
15: Moonflower_59
16: NaLuna_65
17: PatriciaStar_58
18: TaronosauraRX_68
19: Schnabeltier_65
20: Phinny_53
21: Voldori_50
22: Dogfish_49
23: Ewald_49
24: Nyctarae_54
25: BadMoney_50
26: Meghan_49
27: Manissa_52
28: Arianna_51 + 3
29: Nandita_63 + 8
30: Gusanita_63 + 1
31: Guinevere_66
32: Zaheer_65 + 1
33: BigSherm_62
34: MillySue_64
35: IsHungry_59
36: GoodLuckBabe_65
37: QuinnAvery_65
38: Toodles_63 + 1
39: Saintcarr_62
40: AllBusiness_59
41: Elesar_57
42: Cole_59
43: Julie_62
44: Hereford_43 + 1
45: JanetJ_44
46: CocoCinnamon_52
47: EvenBlueMoon_42 + 2
48: Maja_51
49: Bait_44
50: Juicebox_57

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 347573 Report

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

Pham number 347573 has 71 members, 13 are drafts.

Phages represented in each track:
- Track 1 : HannahD_63, GEazy_66
- Track 2 : BackstagePass_62
- Track 3 : RayTheFireFly_66, Hedwig_63
- Track 4 : Jecs_67
- Track 5 : BBQValindra_60
- Track 6 : Bunker_56
- Track 7 : MagicMan_63
- Track 8 : Chipko_65
- Track 9 : DirtyBoi_61, Doggs_57, Coriander_59
- Track 10 : Dmitri_58
- Track 11 : Bowser_61
- Track 12 : Kiko_59
- Track 13 : Opie_66
- Track 14 : Eyes_59
- Track 15 : Moonflower_59
- Track 16 : NaLuna_65
- Track 17 : PatriciaStar_58
- Track 18 : TaronosaurasRx_68
- Track 19 : Schnabeltier_65
- Track 20 : Phishy_53
- Track 21 : Vordorf_50
- Track 22 : Dogfish_49
- Track 23 : Ewald_49
- Track 24 : Nyceirae_54
- Track 25 : BabyMoney_50
- Track 26 : Meyran_49
- Track 27 : Manilisa_52
- Track 28 : Arianna_51, Poushou_51, TouchMeNot_51, Colleen_51
- Track 29 : Nandita_63, Dirtdigger_62, Donatella_63, Yonex_64, Kihatsu_64, Ryan_64, Lenoxika_60, ToastyOats_64, Ichiang_60
- Track 30 : Gusanita_63, Schism_66
- Track 31 : Guinevere_66
- Track 32 : Zaheer_65, Halloweekend_58
- Track 33 : BigSherm_62
- Track 34 : MillySue_64
- Track 35 : IsHungry_59
- Track 36 : GoodLuckBabe_65

• Track 37 : QuinnAvery_65
• Track 38 : Toodles_63, Popper_64
• Track 39 : Saintcarr_62
• Track 40 : AllBusiness_59
• Track 41 : Elesar_57
• Track 42 : Cole_59
• Track 43 : Julie_62
• Track 44 : Hereford_43, Aoka_46
• Track 45 : JanetJ_44
• Track 46 : CocoCinnamon_52
• Track 47 : EvenBluerMoon_42, PrairieDogTown_43, Morrey_65
• Track 48 : Maja_51
• Track 49 : Ball_44
• Track 50 : Juicebox_57

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

The start number called the most often in the published annotations is 27, it was called in 21 of the 58 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aoka_46, Arianna_51, Ball_44, Chipko_65, CocoCinnamon_52, Colleen_51, Coriander_59, Dirtdigger_62, DirtyBoi_61, Doggs_57, Donatella_63, EvenBluerMoon_42, Hereford_43, Ichiang_60, JanetJ_44, Jecs_67, Kihatsu_64, Lenoxika_60, Maja_51, Moonflower_59, Morrey_65, Nandita_63, Poushou_51, PrairieDogTown_43, Ryan_64, ToastyOats_64, TouchMeNot_51, Yonex_64,

Genes that have the "Most Annotated" start but do not call it:
• BBQValindra_60, BackstagePass_62, Bowser_61, Bunker_56, Dmitri_58, Dogfish_49, Eyes_59, GEazy_66, HannahD_63, Hedwig_63, Juicebox_57, Kiko_59, MagicMan_63, NaLuna_65, Opie_66, PatriciaStar_58, RayTheFireFly_66, Schnabeltier_65, TaronosaurasRx_68,

Genes that do not have the "Most Annotated" start:
• AllBusiness_59, BabyMoney_50, BigSherm_62, Cole_59, Elesar_57, Ewald_49, GoodLuckBabe_65, Guinevere_66, Gusanita_63, Halloweekend_58, IsHungry_59, Julie_62, Manilisa_52, Meyran_49, MillySue_64, Nyceirae_54, Phishy_53, Popper_64, QuinnAvery_65, Saintcarr_62, Schism_66, Toodles_63, Vordorf_50, Zaheer_65,

Summary by start number:

Start 7:
• Found in 6 of 71 (8.5%) of genes in pham
• Manual Annotations of this start: 3 of 58
• Called 66.7% of time when present
• Phage (with cluster) where this start called: BabyMoney_50 (DT), Ewald_49 (DT), Meyran_49 (DT), Phishy_53 (DT),

Start 9:

• Found in 4 of 71 (5.6%) of genes in pham
• Manual Annotations of this start: 3 of 58
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dmitri_58 (DB), Hedwig_63 (DB), PatriciaStar_58 (DB), RayTheFireFly_66 (DB),

Start 11:
• Found in 3 of 71 (4.2%) of genes in pham
• Manual Annotations of this start: 2 of 58
• Called 66.7% of time when present
• Phage (with cluster) where this start called: GEazy_66 (DB), HannahD_63 (DB),

Start 12:
• Found in 2 of 71 (2.8%) of genes in pham
• Manual Annotations of this start: 2 of 58
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bowser_61 (DB), TaronosaurasRx_68 (DB),

Start 17:
• Found in 1 of 71 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 58
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kiko_59 (DB),

Start 19:
• Found in 3 of 71 (4.2%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: NaLuna_65 (DB),

Start 23:
• Found in 8 of 71 (11.3%) of genes in pham
• Manual Annotations of this start: 6 of 58
• Called 75.0% of time when present
• Phage (with cluster) where this start called: BBQValindra_60 (DB), Bunker_56 (DB), Eyes_59 (DB), MagicMan_63 (DB), Opie_66 (DB), Schnabeltier_65 (DB),

Start 24:
• Found in 1 of 71 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 58
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Juicebox_57 (singleton),

Start 26:
• Found in 7 of 71 (9.9%) of genes in pham
• No Manual Annotations of this start.
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Manilisa_52 (DT), Vordorf_50 (DT),

Start 27:
• Found in 47 of 71 (66.2%) of genes in pham
• Manual Annotations of this start: 21 of 58

• Called 59.6% of time when present
• Phage (with cluster) where this start called: Aoka_46 (FO), Arianna_51 (EO), Ball_44 (singleton), Chipko_65 (DB), CocoCinnamon_52 (FO), Colleen_51 (EO), Coriander_59 (DB), Dirtdigger_62 (FF), DirtyBoi_61 (DB), Doggs_57 (DB), Donatella_63 (FF), EvenBluerMoon_42 (FO), Hereford_43 (FO), Ichiang_60 (FF), JanetJ_44 (FO), Jecs_67 (DB), Kihatsu_64 (FF), Lenoxika_60 (FF), Maja_51 (FO), Moonflower_59 (DB), Morrey_65 (FO), Nandita_63 (FF), Poushou_51 (EO), PrairieDogTown_43 (FO), Ryan_64 (FF), ToastyOats_64 (FF), TouchMeNot_51 (EO), Yonex_64 (FF),

Start 28:
• Found in 17 of 71 (23.9%) of genes in pham
• Manual Annotations of this start: 16 of 58
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AllBusiness_59 (FF), BigSherm_62 (FF), Cole_59 (FF), Elesar_57 (FF), GoodLuckBabe_65 (FF), Guinevere_66 (FF), Gusanita_63 (FF), Halloweekend_58 (FF), IsHungry_59 (FF), Julie_62 (FF), MillySue_64 (FF), Popper_64 (FF), QuinnAvery_65 (FF), Saintcarr_62 (FF), Schism_66 (FF), Toodles_63 (FF), Zaheer_65 (FF),

Start 29:
• Found in 5 of 71 (7.0%) of genes in pham
• Manual Annotations of this start: 1 of 58
• Called 20.0% of time when present
• Phage (with cluster) where this start called: BackstagePass_62 (DB),

Start 30:
• Found in 8 of 71 (11.3%) of genes in pham
• Manual Annotations of this start: 2 of 58
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Dogfish_49 (DT), Nyceirae_54 (DT),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, DB, EO, FF, DT, FO,

Info for manual annotations of cluster DB:
•Start number 9 was manually annotated 3 times for cluster DB.
•Start number 11 was manually annotated 2 times for cluster DB.
•Start number 12 was manually annotated 2 times for cluster DB.
•Start number 17 was manually annotated 1 time for cluster DB.
•Start number 23 was manually annotated 6 times for cluster DB.
•Start number 27 was manually annotated 3 times for cluster DB.
•Start number 29 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DT:
•Start number 7 was manually annotated 3 times for cluster DT.
•Start number 30 was manually annotated 2 times for cluster DT.

Info for manual annotations of cluster EO:
•Start number 27 was manually annotated 4 times for cluster EO.

Info for manual annotations of cluster FF:

•Start number 27 was manually annotated 7 times for cluster FF.
•Start number 28 was manually annotated 16 times for cluster FF.

Info for manual annotations of cluster FO:
•Start number 27 was manually annotated 7 times for cluster FO.

Gene Information:

Gene: AllBusiness_59 Start: 39516, Stop: 40670, Start Num: 28
Candidate Starts for AllBusiness_59:
(Start: 28 @39516 has 16 MA's), (35, 39585), (38, 39618), (41, 39627), (42, 39639), (44, 39666), (76, 40023), (78, 40044), (81, 40128), (97, 40314), (106, 40497),

Gene: Aoka_46 Start: 32046, Stop: 33164, Start Num: 27
Candidate Starts for Aoka_46:
(Start: 27 @32046 has 21 MA's), (63, 32361), (115, 33066),

Gene: Arianna_51 Start: 38056, Stop: 39219, Start Num: 27
Candidate Starts for Arianna_51:
(Start: 27 @38056 has 21 MA's), (32, 38101), (56, 38287), (80, 38563), (91, 38755), (96, 38782), (98, 38806), (101, 38890), (103, 38929), (104, 38953), (105, 38977),

Gene: BBQValindra_60 Start: 42714, Stop: 44075, Start Num: 23
Candidate Starts for BBQValindra_60:
(Start: 23 @42714 has 6 MA's), (Start: 27 @42723 has 21 MA's), (34, 42792), (36, 42813), (41, 42837), (62, 43041), (66, 43071), (67, 43080), (71, 43122), (74, 43191), (77, 43239), (81, 43335), (84, 43365), (93, 43506), (109, 43752), (111, 43764), (114, 43788),

Gene: BabyMoney_50 Start: 37319, Stop: 38551, Start Num: 7
Candidate Starts for BabyMoney_50:
(1, 37058), (2, 37112), (3, 37121), (4, 37208), (5, 37274), (Start: 7 @37319 has 3 MA's), (14, 37373), (21, 37394), (26, 37409), (Start: 30 @37442 has 2 MA's), (33, 37463), (37, 37505), (39, 37517), (44, 37562), (50, 37607), (51, 37613), (52, 37619), (53, 37625), (55, 37631), (57, 37646), (58, 37655), (70, 37787), (71, 37793), (79, 37922), (80, 37925), (86, 38030),

Gene: BackstagePass_62 Start: 41771, Stop: 43123, Start Num: 29
Candidate Starts for BackstagePass_62:
(Start: 23 @41735 has 6 MA's), (Start: 27 @41744 has 21 MA's), (Start: 29 @41771 has 1 MA's), (34, 41813), (36, 41834), (62, 42062), (66, 42092), (67, 42101), (71, 42143), (74, 42212), (77, 42260), (81, 42356), (84, 42386), (93, 42527), (111, 42785), (114, 42809), (117, 42956),

Gene: Ball_44 Start: 31651, Stop: 32676, Start Num: 27
Candidate Starts for Ball_44:
(Start: 27 @31651 has 21 MA's), (37, 31744), (44, 31801), (45, 31816), (46, 31822), (47, 31825), (48, 31828), (53, 31861), (56, 31879), (57, 31882), (66, 31975), (72, 32068), (87, 32302),

Gene: BigSherm_62 Start: 38249, Stop: 39415, Start Num: 28
Candidate Starts for BigSherm_62:
(Start: 28 @38249 has 16 MA's), (35, 38318), (38, 38351), (41, 38360), (42, 38372), (44, 38399), (46, 38420), (76, 38756), (79, 38801), (81, 38861), (89, 38981), (97, 39059),

Gene: Bowser_61 Start: 42021, Stop: 43442, Start Num: 12
Candidate Starts for Bowser_61:
(Start: 12 @42021 has 2 MA's), (16, 42054), (Start: 27 @42090 has 21 MA's), (Start: 29 @42117 has 1 MA's), (34, 42159), (36, 42180), (41, 42204), (55, 42315), (62, 42408), (66, 42438), (67, 42447), (71, 42489), (74, 42558), (77, 42606), (81, 42702), (84, 42732), (93, 42873), (109, 43119), (111, 43131), (114, 43155),

Gene: Bunker_56 Start: 41096, Stop: 42487, Start Num: 23
Candidate Starts for Bunker_56:
(Start: 23 @41096 has 6 MA's), (Start: 27 @41105 has 21 MA's), (34, 41174), (36, 41195), (62, 41423), (66, 41453), (67, 41462), (71, 41504), (74, 41573), (77, 41621), (81, 41717), (84, 41747), (93, 41888), (111, 42146), (114, 42170), (117, 42317),

Gene: Chipko_65 Start: 41629, Stop: 42987, Start Num: 27
Candidate Starts for Chipko_65:
(Start: 27 @41629 has 21 MA's), (34, 41698), (36, 41719), (41, 41743), (62, 41947), (66, 41977), (67, 41986), (71, 42028), (74, 42097), (77, 42145), (79, 42181), (81, 42241), (111, 42673), (117, 42844),

Gene: CocoCinnamon_52 Start: 32925, Stop: 33902, Start Num: 27
Candidate Starts for CocoCinnamon_52:
(Start: 27 @32925 has 21 MA's), (48, 33105), (49, 33114), (59, 33177), (95, 33675), (100, 33762),

Gene: Cole_59 Start: 38308, Stop: 39462, Start Num: 28
Candidate Starts for Cole_59:
(Start: 28 @38308 has 16 MA's), (35, 38377), (38, 38410), (41, 38419), (42, 38431), (44, 38458), (46, 38479), (76, 38815), (79, 38860), (81, 38920), (97, 39106),

Gene: Colleen_51 Start: 38056, Stop: 39219, Start Num: 27
Candidate Starts for Colleen_51:
(Start: 27 @38056 has 21 MA's), (32, 38101), (56, 38287), (80, 38563), (91, 38755), (96, 38782), (98, 38806), (101, 38890), (103, 38929), (104, 38953), (105, 38977),

Gene: Coriander_59 Start: 40707, Stop: 42065, Start Num: 27
Candidate Starts for Coriander_59:
(Start: 27 @40707 has 21 MA's), (34, 40776), (36, 40797), (43, 40845), (62, 41025), (66, 41055), (67, 41064), (71, 41106), (74, 41175), (77, 41223), (79, 41259), (81, 41319), (111, 41751), (117, 41922),

Gene: Dirtdigger_62 Start: 38872, Stop: 39894, Start Num: 27
Candidate Starts for Dirtdigger_62:
(Start: 27 @38872 has 21 MA's), (37, 38965), (45, 39037), (46, 39043), (47, 39046), (48, 39049), (57, 39103), (66, 39196),

Gene: DirtyBoi_61 Start: 39455, Stop: 40813, Start Num: 27
Candidate Starts for DirtyBoi_61:
(Start: 27 @39455 has 21 MA's), (34, 39524), (36, 39545), (43, 39593), (62, 39773), (66, 39803), (67, 39812), (71, 39854), (74, 39923), (77, 39971), (79, 40007), (81, 40067), (111, 40499), (117, 40670),

Gene: Dmitri_58 Start: 41853, Stop: 43298, Start Num: 9
Candidate Starts for Dmitri_58:
(8, 41850), (Start: 9 @41853 has 3 MA's), (10, 41859), (Start: 27 @41940 has 21 MA's), (34, 42009), (36, 42030), (62, 42258), (66, 42288), (67, 42297), (71, 42339), (74, 42408), (77, 42456), (79, 42492), (81, 42552), (111, 42984), (112, 42999), (117, 43155),

Gene: Dogfish_49 Start: 36865, Stop: 37968, Start Num: 30
Candidate Starts for Dogfish_49:
(15, 36796), (Start: 27 @36832 has 21 MA's), (Start: 30 @36865 has 2 MA's), (33, 36886), (37, 36928), (39, 36940), (44, 36985), (50, 37030), (52, 37042), (53, 37048), (55, 37054), (57, 37069), (58, 37078), (70, 37210), (71, 37216), (79, 37345), (80, 37348), (86, 37453),

Gene: Doggs_57 Start: 41040, Stop: 42398, Start Num: 27
Candidate Starts for Doggs_57:
(Start: 27 @41040 has 21 MA's), (34, 41109), (36, 41130), (43, 41178), (62, 41358), (66, 41388), (67, 41397), (71, 41439), (74, 41508), (77, 41556), (79, 41592), (81, 41652), (111, 42084), (117, 42255),

Gene: Donatella_63 Start: 39063, Stop: 40085, Start Num: 27
Candidate Starts for Donatella_63:
(Start: 27 @39063 has 21 MA's), (37, 39156), (45, 39228), (46, 39234), (47, 39237), (48, 39240), (57, 39294), (66, 39387),

Gene: Elesar_57 Start: 39401, Stop: 40567, Start Num: 28
Candidate Starts for Elesar_57:
(Start: 28 @39401 has 16 MA's), (35, 39470), (38, 39503), (41, 39512), (42, 39524), (44, 39551), (76, 39908), (81, 40013), (97, 40211),

Gene: EvenBluerMoon_42 Start: 31418, Stop: 32536, Start Num: 27
Candidate Starts for EvenBluerMoon_42:
(Start: 27 @31418 has 21 MA's), (63, 31733), (73, 31871), (115, 32438),

Gene: Ewald_49 Start: 36559, Stop: 37788, Start Num: 7
Candidate Starts for Ewald_49:
(Start: 7 @36559 has 3 MA's), (14, 36613), (21, 36634), (26, 36649), (Start: 30 @36682 has 2 MA's), (33, 36703), (37, 36745), (39, 36757), (51, 36853), (52, 36859), (53, 36865), (55, 36871), (57, 36886), (68, 37018), (70, 37024), (71, 37030), (79, 37159), (80, 37162), (86, 37267),

Gene: Eyes_59 Start: 42425, Stop: 43786, Start Num: 23
Candidate Starts for Eyes_59:
(Start: 23 @42425 has 6 MA's), (Start: 27 @42434 has 21 MA's), (Start: 29 @42461 has 1 MA's), (34, 42503), (36, 42524), (62, 42752), (66, 42782), (67, 42791), (71, 42833), (74, 42902), (77, 42950), (81, 43046), (84, 43076), (93, 43217), (109, 43463), (111, 43475), (114, 43499), (118, 43709),

Gene: GEazy_66 Start: 42215, Stop: 43645, Start Num: 11
Candidate Starts for GEazy_66:
(Start: 11 @42215 has 2 MA's), (13, 42248), (19, 42266), (Start: 27 @42293 has 21 MA's), (34, 42362), (36, 42383), (62, 42611), (66, 42641), (67, 42650), (71, 42692), (74, 42761), (77, 42809), (81, 42905), (84, 42935), (93, 43076), (109, 43322), (111, 43334), (114, 43358),

Gene: GoodLuckBabe_65 Start: 38791, Stop: 39960, Start Num: 28
Candidate Starts for GoodLuckBabe_65:
(Start: 28 @38791 has 16 MA's), (35, 38860), (41, 38902), (42, 38914), (64, 39130), (74, 39259), (76, 39298), (81, 39403), (91, 39562), (97, 39601), (99, 39619), (113, 39823),

Gene: Guinevere_66 Start: 38873, Stop: 40036, Start Num: 28
Candidate Starts for Guinevere_66:
(Start: 28 @38873 has 16 MA's), (35, 38942), (41, 38984), (42, 38996), (74, 39341), (76, 39380), (81, 39485), (91, 39644), (97, 39683), (99, 39701),

Gene: Gusanita_63 Start: 39103, Stop: 40269, Start Num: 28
Candidate Starts for Gusanita_63:
(Start: 28 @39103 has 16 MA's), (35, 39172), (41, 39214), (42, 39226), (44, 39253), (76, 39610), (78, 39631), (79, 39655), (81, 39715), (97, 39913),

Gene: Halloweekend_58 Start: 38382, Stop: 39551, Start Num: 28
Candidate Starts for Halloweekend_58:
(Start: 28 @38382 has 16 MA's), (35, 38451), (41, 38493), (42, 38505), (64, 38721), (74, 38850), (76, 38889), (81, 38994), (91, 39153), (97, 39192), (99, 39210),

Gene: HannahD_63 Start: 41582, Stop: 43012, Start Num: 11
Candidate Starts for HannahD_63:
(Start: 11 @41582 has 2 MA's), (13, 41615), (19, 41633), (Start: 27 @41660 has 21 MA's), (34, 41729), (36, 41750), (62, 41978), (66, 42008), (67, 42017), (71, 42059), (74, 42128), (77, 42176), (81, 42272), (84, 42302), (93, 42443), (109, 42689), (111, 42701), (114, 42725),

Gene: Hedwig_63 Start: 40287, Stop: 41729, Start Num: 9
Candidate Starts for Hedwig_63:
(8, 40284), (Start: 9 @40287 has 3 MA's), (10, 40293), (Start: 27 @40374 has 21 MA's), (34, 40443), (36, 40464), (43, 40512), (62, 40692), (66, 40722), (67, 40731), (71, 40773), (74, 40842), (77, 40890), (79, 40926), (81, 40986), (111, 41418), (117, 41589),

Gene: Hereford_43 Start: 31162, Stop: 32280, Start Num: 27
Candidate Starts for Hereford_43:
(Start: 27 @31162 has 21 MA's), (63, 31477), (115, 32182),

Gene: Ichiang_60 Start: 38423, Stop: 39445, Start Num: 27
Candidate Starts for Ichiang_60:
(Start: 27 @38423 has 21 MA's), (37, 38516), (45, 38588), (46, 38594), (47, 38597), (48, 38600), (57, 38654), (66, 38747),

Gene: IsHungry_59 Start: 37191, Stop: 38348, Start Num: 28
Candidate Starts for IsHungry_59:
(Start: 28 @37191 has 16 MA's), (35, 37260), (41, 37302), (42, 37314), (46, 37362), (68, 37575), (74, 37659), (75, 37668), (76, 37698), (81, 37803), (94, 37962), (97, 37989),

Gene: JanetJ_44 Start: 32563, Stop: 33687, Start Num: 27
Candidate Starts for JanetJ_44:
(Start: 27 @32563 has 21 MA's), (33, 32617), (40, 32674), (44, 32716), (60, 32833), (61, 32872), (63, 32878), (80, 33091), (115, 33583),

Gene: Jecs_67 Start: 43876, Stop: 45228, Start Num: 27
Candidate Starts for Jecs_67:
(Start: 23 @43867 has 6 MA's), (Start: 27 @43876 has 21 MA's), (34, 43945), (36, 43966), (62, 44194), (66, 44224), (67, 44233), (71, 44275), (74, 44344), (77, 44392), (81, 44488), (84, 44518), (93, 44659), (109, 44905), (111, 44917), (114, 44941),

Gene: Juicebox_57 Start: 38635, Stop: 39720, Start Num: 24
Candidate Starts for Juicebox_57:
(Start: 24 @38635 has 1 MA's), (Start: 27 @38644 has 21 MA's), (31, 38683), (37, 38737), (39, 38749), (44, 38794), (45, 38809), (49, 38830), (54, 38860), (65, 38971), (69, 39013), (70, 39016), (71, 39022), (82, 39217), (83, 39220), (85, 39241), (88, 39310), (90, 39328), (107, 39592),

Gene: Julie_62 Start: 38820, Stop: 39977, Start Num: 28
Candidate Starts for Julie_62:
(Start: 28 @38820 has 16 MA's), (35, 38889), (42, 38943), (44, 38970), (64, 39159), (68, 39204), (74, 39288), (76, 39327), (81, 39432), (97, 39618),

Gene: Kihatsu_64 Start: 39971, Stop: 40993, Start Num: 27
Candidate Starts for Kihatsu_64:
(Start: 27 @39971 has 21 MA's), (37, 40064), (45, 40136), (46, 40142), (47, 40145), (48, 40148), (57, 40202), (66, 40295),

Gene: Kiko_59 Start: 40009, Stop: 41421, Start Num: 17
Candidate Starts for Kiko_59:
(Start: 17 @40009 has 1 MA's), (18, 40012), (20, 40021), (22, 40030), (25, 40036), (Start: 27 @40042 has 21 MA's), (32, 40087), (33, 40096), (34, 40111), (36, 40132), (38, 40147), (44, 40195), (62, 40360), (66, 40390), (67, 40399), (71, 40441), (74, 40510), (77, 40558), (79, 40594), (81, 40654), (92, 40843), (110, 41104), (111, 41110), (116, 41170),

Gene: Lenoxika_60 Start: 38298, Stop: 39320, Start Num: 27
Candidate Starts for Lenoxika_60:
(Start: 27 @38298 has 21 MA's), (37, 38391), (45, 38463), (46, 38469), (47, 38472), (48, 38475), (57, 38529), (66, 38622),

Gene: MagicMan_63 Start: 43151, Stop: 44515, Start Num: 23
Candidate Starts for MagicMan_63:
(Start: 23 @43151 has 6 MA's), (Start: 27 @43160 has 21 MA's), (36, 43250), (62, 43478), (66, 43508), (67, 43517), (71, 43559), (74, 43628), (77, 43676), (81, 43772), (84, 43802), (93, 43943), (109, 44189), (111, 44201), (114, 44225),

Gene: Maja_51 Start: 33550, Stop: 34527, Start Num: 27
Candidate Starts for Maja_51:
(6, 33448), (Start: 27 @33550 has 21 MA's), (48, 33730), (49, 33739), (59, 33802), (95, 34300),

Gene: Manilisa_52 Start: 37821, Stop: 38960, Start Num: 26
Candidate Starts for Manilisa_52:
(1, 37470), (2, 37524), (3, 37533), (5, 37686), (Start: 7 @37731 has 3 MA's), (14, 37785), (21, 37806), (26, 37821), (Start: 30 @37854 has 2 MA's), (33, 37875), (37, 37917), (39, 37929), (51, 38025), (52, 38031), (53, 38037), (55, 38043), (57, 38058), (68, 38190), (70, 38196), (71, 38202), (79, 38331), (80, 38334), (86, 38439),

Gene: Meyran_49 Start: 37660, Stop: 38889, Start Num: 7
Candidate Starts for Meyran_49:
(1, 37399), (2, 37453), (3, 37462), (5, 37615), (Start: 7 @37660 has 3 MA's), (14, 37714), (21, 37735), (26, 37750), (Start: 30 @37783 has 2 MA's), (33, 37804), (37, 37846), (39, 37858), (51, 37954), (52, 37960), (53, 37966), (55, 37972), (57, 37987), (68, 38119), (70, 38125), (71, 38131), (79, 38260), (80, 38263), (86, 38368),

Gene: MillySue_64 Start: 38437, Stop: 39585, Start Num: 28
Candidate Starts for MillySue_64:
(Start: 28 @38437 has 16 MA's), (35, 38506), (38, 38539), (42, 38560), (64, 38776), (68, 38821), (74, 38905), (76, 38944), (79, 38989), (81, 39049),

Gene: Moonflower_59 Start: 41479, Stop: 42837, Start Num: 27
Candidate Starts for Moonflower_59:

(Start: 27 @41479 has 21 MA's), (34, 41548), (36, 41569), (43, 41617), (62, 41797), (66, 41827), (67, 41836), (71, 41878), (74, 41947), (77, 41995), (79, 42031), (81, 42091), (102, 42442), (111, 42523), (117, 42694),

Gene: Morrey_65 Start: 31420, Stop: 32538, Start Num: 27
Candidate Starts for Morrey_65:
(Start: 27 @31420 has 21 MA's), (63, 31735), (73, 31873), (115, 32440),

Gene: NaLuna_65 Start: 41633, Stop: 43012, Start Num: 19
Candidate Starts for NaLuna_65:
(Start: 11 @41582 has 2 MA's), (13, 41615), (19, 41633), (Start: 27 @41660 has 21 MA's), (34, 41729), (36, 41750), (62, 41978), (66, 42008), (67, 42017), (71, 42059), (74, 42128), (77, 42176), (81, 42272), (84, 42302), (93, 42443), (109, 42689), (111, 42701), (114, 42725),

Gene: Nandita_63 Start: 38985, Stop: 40007, Start Num: 27
Candidate Starts for Nandita_63:
(Start: 27 @38985 has 21 MA's), (37, 39078), (45, 39150), (46, 39156), (47, 39159), (48, 39162), (57, 39216), (66, 39309),

Gene: Nyceirae_54 Start: 37807, Stop: 38916, Start Num: 30
Candidate Starts for Nyceirae_54:
(26, 37774), (Start: 30 @37807 has 2 MA's), (33, 37828), (37, 37870), (47, 37951), (51, 37978), (52, 37984), (53, 37990), (55, 37996), (57, 38011), (68, 38143), (70, 38149), (71, 38155), (79, 38284), (80, 38287), (86, 38392),

Gene: Opie_66 Start: 43275, Stop: 44636, Start Num: 23
Candidate Starts for Opie_66:
(Start: 23 @43275 has 6 MA's), (Start: 27 @43284 has 21 MA's), (34, 43353), (36, 43374), (62, 43602), (66, 43632), (67, 43641), (71, 43683), (74, 43752), (77, 43800), (81, 43896), (84, 43926), (93, 44067), (108, 44307), (111, 44325), (114, 44349),

Gene: PatriciaStar_58 Start: 41490, Stop: 42935, Start Num: 9
Candidate Starts for PatriciaStar_58:
(8, 41487), (Start: 9 @41490 has 3 MA's), (10, 41496), (Start: 27 @41577 has 21 MA's), (34, 41646), (36, 41667), (62, 41895), (66, 41925), (67, 41934), (71, 41976), (74, 42045), (77, 42093), (79, 42129), (81, 42189), (111, 42621), (117, 42792),

Gene: Phishy_53 Start: 38633, Stop: 39862, Start Num: 7
Candidate Starts for Phishy_53:
(1, 38372), (2, 38426), (3, 38435), (5, 38588), (Start: 7 @38633 has 3 MA's), (14, 38687), (21, 38708), (26, 38723), (Start: 30 @38756 has 2 MA's), (33, 38777), (37, 38819), (47, 38900), (51, 38927), (52, 38933), (53, 38939), (55, 38945), (57, 38960), (68, 39092), (70, 39098), (71, 39104), (80, 39236), (86, 39341),

Gene: Popper_64 Start: 38422, Stop: 39570, Start Num: 28
Candidate Starts for Popper_64:
(Start: 28 @38422 has 16 MA's), (35, 38491), (38, 38524), (42, 38545), (44, 38572), (64, 38761), (68, 38806), (74, 38890), (76, 38929), (79, 38974), (81, 39034),

Gene: Poushou_51 Start: 37885, Stop: 39048, Start Num: 27
Candidate Starts for Poushou_51:
(Start: 27 @37885 has 21 MA's), (32, 37930), (56, 38116), (80, 38392), (91, 38584), (96, 38611), (98, 38635), (101, 38719), (103, 38758), (104, 38782), (105, 38806),

Gene: PrairieDogTown_43 Start: 31420, Stop: 32538, Start Num: 27
Candidate Starts for PrairieDogTown_43:
(Start: 27 @31420 has 21 MA's), (63, 31735), (73, 31873), (115, 32440),

Gene: QuinnAvery_65 Start: 39767, Stop: 40921, Start Num: 28
Candidate Starts for QuinnAvery_65:
(Start: 28 @39767 has 16 MA's), (35, 39836), (41, 39878), (42, 39890), (44, 39917), (54, 39986), (76, 40274), (78, 40295), (79, 40319), (81, 40379), (97, 40565),

Gene: RayTheFireFly_66 Start: 41744, Stop: 43189, Start Num: 9
Candidate Starts for RayTheFireFly_66:
(8, 41741), (Start: 9 @41744 has 3 MA's), (10, 41750), (Start: 27 @41831 has 21 MA's), (34, 41900), (36, 41921), (43, 41969), (62, 42149), (66, 42179), (67, 42188), (71, 42230), (74, 42299), (77, 42347), (79, 42383), (81, 42443), (111, 42875), (117, 43046),

Gene: Ryan_64 Start: 39538, Stop: 40560, Start Num: 27
Candidate Starts for Ryan_64:
(Start: 27 @39538 has 21 MA's), (37, 39631), (45, 39703), (46, 39709), (47, 39712), (48, 39715), (57, 39769), (66, 39862),

Gene: Saintcarr_62 Start: 39397, Stop: 40563, Start Num: 28
Candidate Starts for Saintcarr_62:
(Start: 28 @39397 has 16 MA's), (35, 39466), (38, 39499), (41, 39508), (42, 39520), (68, 39781), (74, 39865), (76, 39904), (81, 40009), (91, 40168), (97, 40207),

Gene: Schism_66 Start: 39832, Stop: 40998, Start Num: 28
Candidate Starts for Schism_66:
(Start: 28 @39832 has 16 MA's), (35, 39901), (41, 39943), (42, 39955), (44, 39982), (76, 40339), (78, 40360), (79, 40384), (81, 40444), (97, 40642),

Gene: Schnabeltier_65 Start: 42563, Stop: 43924, Start Num: 23
Candidate Starts for Schnabeltier_65:
(Start: 23 @42563 has 6 MA's), (Start: 27 @42572 has 21 MA's), (Start: 29 @42599 has 1 MA's), (34, 42641), (36, 42662), (62, 42890), (66, 42920), (67, 42929), (71, 42971), (74, 43040), (77, 43088), (81, 43184), (84, 43214), (93, 43355), (109, 43601), (111, 43613), (114, 43637),

Gene: TaronosaurasRx_68 Start: 42626, Stop: 44047, Start Num: 12
Candidate Starts for TaronosaurasRx_68:
(Start: 12 @42626 has 2 MA's), (16, 42659), (Start: 27 @42695 has 21 MA's), (Start: 29 @42722 has 1 MA's), (34, 42764), (36, 42785), (41, 42809), (62, 43013), (66, 43043), (67, 43052), (71, 43094), (74, 43163), (77, 43211), (81, 43307), (84, 43337), (93, 43478), (109, 43724), (111, 43736), (114, 43760),

Gene: ToastyOats_64 Start: 38718, Stop: 39740, Start Num: 27
Candidate Starts for ToastyOats_64:
(Start: 27 @38718 has 21 MA's), (37, 38811), (45, 38883), (46, 38889), (47, 38892), (48, 38895), (57, 38949), (66, 39042),

Gene: Toodles_63 Start: 39508, Stop: 40656, Start Num: 28
Candidate Starts for Toodles_63:
(Start: 28 @39508 has 16 MA's), (35, 39577), (38, 39610), (42, 39631), (44, 39658), (64, 39847), (68, 39892), (74, 39976), (76, 40015), (79, 40060), (81, 40120),

Gene: TouchMeNot_51 Start: 38058, Stop: 39221, Start Num: 27
Candidate Starts for TouchMeNot_51:
(Start: 27 @38058 has 21 MA's), (32, 38103), (56, 38289), (80, 38565), (91, 38757), (96, 38784), (98, 38808), (101, 38892), (103, 38931), (104, 38955), (105, 38979),

Gene: Vordorf_50 Start: 37013, Stop: 38146, Start Num: 26
Candidate Starts for Vordorf_50:
(1, 36662), (2, 36716), (3, 36725), (5, 36878), (Start: 7 @36923 has 3 MA's), (14, 36977), (21, 36998), (26, 37013), (Start: 30 @37046 has 2 MA's), (33, 37067), (37, 37109), (39, 37121), (47, 37190), (51, 37217), (52, 37223), (53, 37229), (55, 37235), (57, 37250), (68, 37382), (70, 37388), (71, 37394), (79, 37523), (80, 37526), (86, 37631),

Gene: Yonex_64 Start: 39538, Stop: 40560, Start Num: 27
Candidate Starts for Yonex_64:
(Start: 27 @39538 has 21 MA's), (37, 39631), (45, 39703), (46, 39709), (47, 39712), (48, 39715), (57, 39769), (66, 39862),

Gene: Zaheer_65 Start: 39810, Stop: 40979, Start Num: 28
Candidate Starts for Zaheer_65:
(Start: 28 @39810 has 16 MA's), (35, 39879), (41, 39921), (42, 39933), (64, 40149), (74, 40278), (76, 40317), (81, 40422), (91, 40581), (97, 40620), (99, 40638),