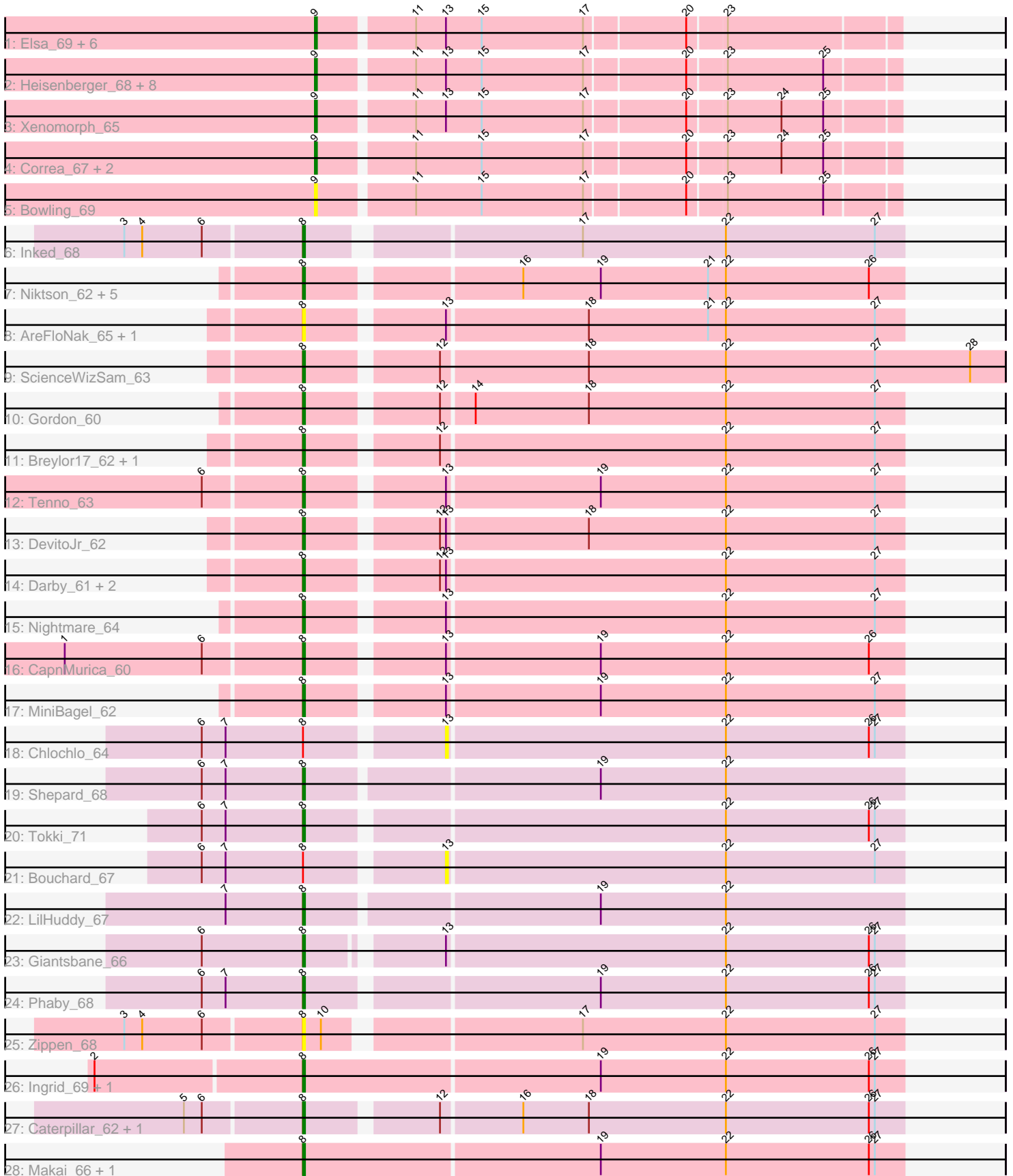


# Pham 216212



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 216212 Report

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

Pham number 216212 has 56 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Elsa\_69, Arcadia\_69, Mooshroom\_70, GoCrazy\_66, Kardesai\_69, KeaneyLin\_65, Nason\_69
- Track 2 : Heisenberger\_68, Dynamite\_69, Circum\_70, Benllo\_69, JEGGS\_68, Mudcat\_65, Hankly\_68, NapoleonB\_70, BenitoAntonio\_67
- Track 3 : Xenomorph\_65
- Track 4 : Correa\_67, Cheesy\_69, Tribby\_72
- Track 5 : Bowling\_69
- Track 6 : Inked\_68
- Track 7 : Niktson\_62, Brunswick\_63, ElephantMan\_62, Acai\_62, Teacup\_63, LucySwiss\_63
- Track 8 : AreFloNak\_65, Nivinsha\_64
- Track 9 : ScienceWizSam\_63
- Track 10 : Gordon\_60
- Track 11 : Breylor17\_62, CastorTray\_66
- Track 12 : Tenno\_63
- Track 13 : DevitoJr\_62
- Track 14 : Darby\_61, Synepsis\_61, Trustiboi\_62
- Track 15 : Nightmare\_64
- Track 16 : CapnMurica\_60
- Track 17 : MiniBagel\_62
- Track 18 : Chlochlo\_64
- Track 19 : Shepard\_68
- Track 20 : Tokki\_71
- Track 21 : Bouchard\_67
- Track 22 : LilHuddy\_67
- Track 23 : Giantsbane\_66
- Track 24 : Phaby\_68
- Track 25 : Zippen\_68
- Track 26 : Ingrid\_69, Loretta\_66
- Track 27 : Caterpillar\_62, MediumFry\_63
- Track 28 : Makai\_66, Truckee\_64

***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 28 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai\_62, AreFloNak\_65, Breylor17\_62, Brunswick\_63, CapnMurica\_60, CastorTray\_66, Caterpillar\_62, Darby\_61, DevitoJr\_62, ElephantMan\_62, Giantsbane\_66, Gordon\_60, Ingrid\_69, Inked\_68, LilHuddy\_67, Loretta\_66, LucySwiss\_63, Makai\_66, MediumFry\_63, MiniBagel\_62, Nightmare\_64, Niktson\_62, Nivinsha\_64, Phaby\_68, ScienceWizSam\_63, Shepard\_68, Synepsis\_61, Teacup\_63, Tenno\_63, Tokki\_71, Truckee\_64, Trustiboi\_62, Zippen\_68,

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

- Bouchard\_67, Chlochlo\_64,

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

- Arcadia\_69, BenitoAntonio\_67, Benllo\_69, Bowling\_69, Cheesy\_69, Circum\_70, Correa\_67, Dynamite\_69, Elsa\_69, GoCrazy\_66, Hankly\_68, Heisenberger\_68, JEGGS\_68, Kardesai\_69, KeaneyLin\_65, Mooshroom\_70, Mudcat\_65, NapoleonB\_70, Nason\_69, Tribby\_72, Xenomorph\_65,

### Summary by start number:

Start 8:

- Found in 35 of 56 ( 62.5% ) of genes in pham
- Manual Annotations of this start: 28 of 47
- Called 94.3% of time when present
- Phage (with cluster) where this start called: Acai\_62 (AU1), AreFloNak\_65 (AU1), Breylor17\_62 (AU1), Brunswick\_63 (AU1), CapnMurica\_60 (AU1), CastorTray\_66 (AU1), Caterpillar\_62 (AU4), Darby\_61 (AU1), DevitoJr\_62 (AU1), ElephantMan\_62 (AU1), Giantsbane\_66 (AU2), Gordon\_60 (AU1), Ingrid\_69 (AU3), Inked\_68 (AU), LilHuddy\_67 (AU2), Loretta\_66 (AU3), LucySwiss\_63 (AU1), Makai\_66 (AU5), MediumFry\_63 (AU4), MiniBagel\_62 (AU1), Nightmare\_64 (AU1), Niktson\_62 (AU1), Nivinsha\_64 (AU1), Phaby\_68 (AU2), ScienceWizSam\_63 (AU1), Shepard\_68 (AU2), Synepsis\_61 (AU1), Teacup\_63 (AU1), Tenno\_63 (AU1), Tokki\_71 (AU2), Truckee\_64 (AU5), Trustiboi\_62 (AU1), Zippen\_68 (AU3),

Start 9:

- Found in 21 of 56 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 19 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia\_69 (AM), BenitoAntonio\_67 (AM), Benllo\_69 (AM), Bowling\_69 (AM), Cheesy\_69 (AM), Circum\_70 (AM), Correa\_67 (AM), Dynamite\_69 (AM), Elsa\_69 (AM), GoCrazy\_66 (AM), Hankly\_68 (AM), Heisenberger\_68 (AM), JEGGS\_68 (AM), Kardesai\_69 (AM), KeaneyLin\_65 (AM), Mooshroom\_70 (AM), Mudcat\_65 (AM), NapoleonB\_70 (AM), Nason\_69 (AM), Tribby\_72 (AM), Xenomorph\_65 (AM),

Start 13:

- Found in 30 of 56 ( 53.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Bouchard\_67 (AU2), Chlochlo\_64 (AU2),

## Summary by clusters:

There are 7 clusters represented in this pham: AM, AU1, AU3, AU2, AU5, AU4, AU,

Info for manual annotations of cluster AM:

- Start number 9 was manually annotated 19 times for cluster AM.

Info for manual annotations of cluster AU:

- Start number 8 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 8 was manually annotated 16 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 8 was manually annotated 5 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 8 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 8 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 8 was manually annotated 2 times for cluster AU5.

## Gene Information:

Gene: Acai\_62 Start: 44324, Stop: 44614, Start Num: 8

Candidate Starts for Acai\_62:

(Start: 8 @44324 has 28 MA's), (16, 44423), (19, 44462), (21, 44516), (22, 44525), (26, 44597),

Gene: Arcadia\_69 Start: 43472, Stop: 43750, Start Num: 9

Candidate Starts for Arcadia\_69:

(Start: 9 @43472 has 19 MA's), (11, 43517), (13, 43532), (15, 43550), (17, 43601), (20, 43649), (23, 43667),

Gene: AreFloNak\_65 Start: 44289, Stop: 44579, Start Num: 8

Candidate Starts for AreFloNak\_65:

(Start: 8 @44289 has 28 MA's), (13, 44352), (18, 44421), (21, 44481), (22, 44490), (27, 44565),

Gene: BenitoAntonio\_67 Start: 42507, Stop: 42785, Start Num: 9

Candidate Starts for BenitoAntonio\_67:

(Start: 9 @42507 has 19 MA's), (11, 42552), (13, 42567), (15, 42585), (17, 42636), (20, 42684), (23, 42702), (25, 42750),

Gene: Benllo\_69 Start: 43185, Stop: 43463, Start Num: 9

Candidate Starts for Benllo\_69:

(Start: 9 @43185 has 19 MA's), (11, 43230), (13, 43245), (15, 43263), (17, 43314), (20, 43362), (23, 43380), (25, 43428),

Gene: Bouchard\_67 Start: 45006, Stop: 45233, Start Num: 13

Candidate Starts for Bouchard\_67:

(6, 44892), (7, 44904), (Start: 8 @44943 has 28 MA's), (13, 45006), (22, 45144), (27, 45219),

Gene: Bowling\_69 Start: 43461, Stop: 43739, Start Num: 9

Candidate Starts for Bowling\_69:

(Start: 9 @43461 has 19 MA's), (11, 43506), (15, 43539), (17, 43590), (20, 43638), (23, 43656), (25, 43704),

Gene: Breylor17\_62 Start: 44864, Stop: 45154, Start Num: 8

Candidate Starts for Breylor17\_62:

(Start: 8 @44864 has 28 MA's), (12, 44924), (22, 45065), (27, 45140),

Gene: Brunswick\_63 Start: 44167, Stop: 44457, Start Num: 8

Candidate Starts for Brunswick\_63:

(Start: 8 @44167 has 28 MA's), (16, 44266), (19, 44305), (21, 44359), (22, 44368), (26, 44440),

Gene: CapnMurica\_60 Start: 45050, Stop: 45340, Start Num: 8

Candidate Starts for CapnMurica\_60:

(1, 44933), (6, 45002), (Start: 8 @45050 has 28 MA's), (13, 45113), (19, 45188), (22, 45251), (26, 45323),

Gene: CastorTray\_66 Start: 45053, Stop: 45343, Start Num: 8

Candidate Starts for CastorTray\_66:

(Start: 8 @45053 has 28 MA's), (12, 45113), (22, 45254), (27, 45329),

Gene: Caterpillar\_62 Start: 43978, Stop: 44268, Start Num: 8

Candidate Starts for Caterpillar\_62:

(5, 43921), (6, 43930), (Start: 8 @43978 has 28 MA's), (12, 44038), (16, 44077), (18, 44110), (22, 44179), (26, 44251), (27, 44254),

Gene: Cheesy\_69 Start: 42699, Stop: 42977, Start Num: 9

Candidate Starts for Cheesy\_69:

(Start: 9 @42699 has 19 MA's), (11, 42744), (15, 42777), (17, 42828), (20, 42876), (23, 42894), (24, 42921), (25, 42942),

Gene: Chlochlo\_64 Start: 44532, Stop: 44759, Start Num: 13

Candidate Starts for Chlochlo\_64:

(6, 44418), (7, 44430), (Start: 8 @44469 has 28 MA's), (13, 44532), (22, 44670), (26, 44742), (27, 44745),

Gene: Circum\_70 Start: 43275, Stop: 43553, Start Num: 9

Candidate Starts for Circum\_70:

(Start: 9 @43275 has 19 MA's), (11, 43320), (13, 43335), (15, 43353), (17, 43404), (20, 43452), (23, 43470), (25, 43518),

Gene: Correa\_67 Start: 42273, Stop: 42551, Start Num: 9

Candidate Starts for Correa\_67:

(Start: 9 @42273 has 19 MA's), (11, 42318), (15, 42351), (17, 42402), (20, 42450), (23, 42468), (24, 42495), (25, 42516),

Gene: Darby\_61 Start: 44099, Stop: 44389, Start Num: 8

Candidate Starts for Darby\_61:

(Start: 8 @44099 has 28 MA's), (12, 44159), (13, 44162), (22, 44300), (27, 44375),

Gene: DevitoJr\_62 Start: 44485, Stop: 44775, Start Num: 8  
Candidate Starts for DevitoJr\_62:  
(Start: 8 @44485 has 28 MA's), (12, 44545), (13, 44548), (18, 44617), (22, 44686), (27, 44761),

Gene: Dynamite\_69 Start: 43288, Stop: 43566, Start Num: 9  
Candidate Starts for Dynamite\_69:  
(Start: 9 @43288 has 19 MA's), (11, 43333), (13, 43348), (15, 43366), (17, 43417), (20, 43465), (23, 43483), (25, 43531),

Gene: ElephantMan\_62 Start: 44797, Stop: 45087, Start Num: 8  
Candidate Starts for ElephantMan\_62:  
(Start: 8 @44797 has 28 MA's), (16, 44896), (19, 44935), (21, 44989), (22, 44998), (26, 45070),

Gene: Elsa\_69 Start: 43472, Stop: 43750, Start Num: 9  
Candidate Starts for Elsa\_69:  
(Start: 9 @43472 has 19 MA's), (11, 43517), (13, 43532), (15, 43550), (17, 43601), (20, 43649), (23, 43667),

Gene: Giantsbane\_66 Start: 43674, Stop: 43961, Start Num: 8  
Candidate Starts for Giantsbane\_66:  
(6, 43623), (Start: 8 @43674 has 28 MA's), (13, 43734), (22, 43872), (26, 43944), (27, 43947),

Gene: GoCrazy\_66 Start: 42732, Stop: 43010, Start Num: 9  
Candidate Starts for GoCrazy\_66:  
(Start: 9 @42732 has 19 MA's), (11, 42777), (13, 42792), (15, 42810), (17, 42861), (20, 42909), (23, 42927),

Gene: Gordon\_60 Start: 44977, Stop: 45267, Start Num: 8  
Candidate Starts for Gordon\_60:  
(Start: 8 @44977 has 28 MA's), (12, 45037), (14, 45052), (18, 45109), (22, 45178), (27, 45253),

Gene: Hankly\_68 Start: 42356, Stop: 42634, Start Num: 9  
Candidate Starts for Hankly\_68:  
(Start: 9 @42356 has 19 MA's), (11, 42401), (13, 42416), (15, 42434), (17, 42485), (20, 42533), (23, 42551), (25, 42599),

Gene: Heisenberger\_68 Start: 42694, Stop: 42972, Start Num: 9  
Candidate Starts for Heisenberger\_68:  
(Start: 9 @42694 has 19 MA's), (11, 42739), (13, 42754), (15, 42772), (17, 42823), (20, 42871), (23, 42889), (25, 42937),

Gene: Ingrid\_69 Start: 44855, Stop: 45154, Start Num: 8  
Candidate Starts for Ingrid\_69:  
(2, 44753), (Start: 8 @44855 has 28 MA's), (19, 45002), (22, 45065), (26, 45137), (27, 45140),

Gene: Inked\_68 Start: 45528, Stop: 45815, Start Num: 8  
Candidate Starts for Inked\_68:  
(3, 45441), (4, 45450), (6, 45480), (Start: 8 @45528 has 28 MA's), (17, 45654), (22, 45726), (27, 45801),

Gene: JEGGS\_68 Start: 42773, Stop: 43051, Start Num: 9  
Candidate Starts for JEGGS\_68:

(Start: 9 @42773 has 19 MA's), (11, 42818), (13, 42833), (15, 42851), (17, 42902), (20, 42950), (23, 42968), (25, 43016),

Gene: Kardesai\_69 Start: 43082, Stop: 43360, Start Num: 9

Candidate Starts for Kardesai\_69:

(Start: 9 @43082 has 19 MA's), (11, 43127), (13, 43142), (15, 43160), (17, 43211), (20, 43259), (23, 43277),

Gene: KeaneyLin\_65 Start: 42732, Stop: 43010, Start Num: 9

Candidate Starts for KeaneyLin\_65:

(Start: 9 @42732 has 19 MA's), (11, 42777), (13, 42792), (15, 42810), (17, 42861), (20, 42909), (23, 42927),

Gene: LilHuddy\_67 Start: 44781, Stop: 45074, Start Num: 8

Candidate Starts for LilHuddy\_67:

(7, 44742), (Start: 8 @44781 has 28 MA's), (19, 44922), (22, 44985),

Gene: Loretta\_66 Start: 44855, Stop: 45154, Start Num: 8

Candidate Starts for Loretta\_66:

(2, 44753), (Start: 8 @44855 has 28 MA's), (19, 45002), (22, 45065), (26, 45137), (27, 45140),

Gene: LucySwiss\_63 Start: 43948, Stop: 44238, Start Num: 8

Candidate Starts for LucySwiss\_63:

(Start: 8 @43948 has 28 MA's), (16, 44047), (19, 44086), (21, 44140), (22, 44149), (26, 44221),

Gene: Makai\_66 Start: 44929, Stop: 45228, Start Num: 8

Candidate Starts for Makai\_66:

(Start: 8 @44929 has 28 MA's), (19, 45076), (22, 45139), (26, 45211), (27, 45214),

Gene: MediumFry\_63 Start: 44274, Stop: 44564, Start Num: 8

Candidate Starts for MediumFry\_63:

(5, 44217), (6, 44226), (Start: 8 @44274 has 28 MA's), (12, 44334), (16, 44373), (18, 44406), (22, 44475), (26, 44547), (27, 44550),

Gene: MiniBagel\_62 Start: 45041, Stop: 45331, Start Num: 8

Candidate Starts for MiniBagel\_62:

(Start: 8 @45041 has 28 MA's), (13, 45104), (19, 45179), (22, 45242), (27, 45317),

Gene: Mooshroom\_70 Start: 43082, Stop: 43360, Start Num: 9

Candidate Starts for Mooshroom\_70:

(Start: 9 @43082 has 19 MA's), (11, 43127), (13, 43142), (15, 43160), (17, 43211), (20, 43259), (23, 43277),

Gene: Mudcat\_65 Start: 44131, Stop: 44409, Start Num: 9

Candidate Starts for Mudcat\_65:

(Start: 9 @44131 has 19 MA's), (11, 44176), (13, 44191), (15, 44209), (17, 44260), (20, 44308), (23, 44326), (25, 44374),

Gene: NapoleonB\_70 Start: 43288, Stop: 43566, Start Num: 9

Candidate Starts for NapoleonB\_70:

(Start: 9 @43288 has 19 MA's), (11, 43333), (13, 43348), (15, 43366), (17, 43417), (20, 43465), (23, 43483), (25, 43531),

Gene: Nason\_69 Start: 43472, Stop: 43750, Start Num: 9  
Candidate Starts for Nason\_69:  
(Start: 9 @43472 has 19 MA's), (11, 43517), (13, 43532), (15, 43550), (17, 43601), (20, 43649), (23, 43667),

Gene: Nightmare\_64 Start: 45339, Stop: 45629, Start Num: 8  
Candidate Starts for Nightmare\_64:  
(Start: 8 @45339 has 28 MA's), (13, 45402), (22, 45540), (27, 45615),

Gene: Niktson\_62 Start: 44797, Stop: 45087, Start Num: 8  
Candidate Starts for Niktson\_62:  
(Start: 8 @44797 has 28 MA's), (16, 44896), (19, 44935), (21, 44989), (22, 44998), (26, 45070),

Gene: Nivinsha\_64 Start: 44289, Stop: 44579, Start Num: 8  
Candidate Starts for Nivinsha\_64:  
(Start: 8 @44289 has 28 MA's), (13, 44352), (18, 44421), (21, 44481), (22, 44490), (27, 44565),

Gene: Phaby\_68 Start: 45345, Stop: 45635, Start Num: 8  
Candidate Starts for Phaby\_68:  
(6, 45294), (7, 45306), (Start: 8 @45345 has 28 MA's), (19, 45483), (22, 45546), (26, 45618), (27, 45621),

Gene: ScienceWizSam\_63 Start: 44451, Stop: 44792, Start Num: 8  
Candidate Starts for ScienceWizSam\_63:  
(Start: 8 @44451 has 28 MA's), (12, 44511), (18, 44583), (22, 44652), (27, 44727), (28, 44775),

Gene: Shepard\_68 Start: 44640, Stop: 44933, Start Num: 8  
Candidate Starts for Shepard\_68:  
(6, 44589), (7, 44601), (Start: 8 @44640 has 28 MA's), (19, 44781), (22, 44844),

Gene: Synopsis\_61 Start: 44455, Stop: 44742, Start Num: 8  
Candidate Starts for Synopsis\_61:  
(Start: 8 @44455 has 28 MA's), (12, 44512), (13, 44515), (22, 44653), (27, 44728),

Gene: Teacup\_63 Start: 44876, Stop: 45166, Start Num: 8  
Candidate Starts for Teacup\_63:  
(Start: 8 @44876 has 28 MA's), (16, 44975), (19, 45014), (21, 45068), (22, 45077), (26, 45149),

Gene: Tenno\_63 Start: 45105, Stop: 45395, Start Num: 8  
Candidate Starts for Tenno\_63:  
(6, 45057), (Start: 8 @45105 has 28 MA's), (13, 45168), (19, 45243), (22, 45306), (27, 45381),

Gene: Tokki\_71 Start: 44994, Stop: 45284, Start Num: 8  
Candidate Starts for Tokki\_71:  
(6, 44943), (7, 44955), (Start: 8 @44994 has 28 MA's), (22, 45195), (26, 45267), (27, 45270),

Gene: Tribby\_72 Start: 43659, Stop: 43937, Start Num: 9  
Candidate Starts for Tribby\_72:  
(Start: 9 @43659 has 19 MA's), (11, 43704), (15, 43737), (17, 43788), (20, 43836), (23, 43854), (24, 43881), (25, 43902),

Gene: Truckee\_64 Start: 44713, Stop: 45012, Start Num: 8  
Candidate Starts for Truckee\_64:



(Start: 8 @44713 has 28 MA's), (19, 44860), (22, 44923), (26, 44995), (27, 44998),

Gene: Trustiboi\_62 Start: 44710, Stop: 44997, Start Num: 8

Candidate Starts for Trustiboi\_62:

(Start: 8 @44710 has 28 MA's), (12, 44767), (13, 44770), (22, 44908), (27, 44983),

Gene: Xenomorph\_65 Start: 43143, Stop: 43421, Start Num: 9

Candidate Starts for Xenomorph\_65:

(Start: 9 @43143 has 19 MA's), (11, 43188), (13, 43203), (15, 43221), (17, 43272), (20, 43320), (23, 43338), (24, 43365), (25, 43386),

Gene: Zippen\_68 Start: 45396, Stop: 45683, Start Num: 8

Candidate Starts for Zippen\_68:

(3, 45309), (4, 45318), (6, 45348), (Start: 8 @45396 has 28 MA's), (10, 45405), (17, 45522), (22, 45594), (27, 45669),