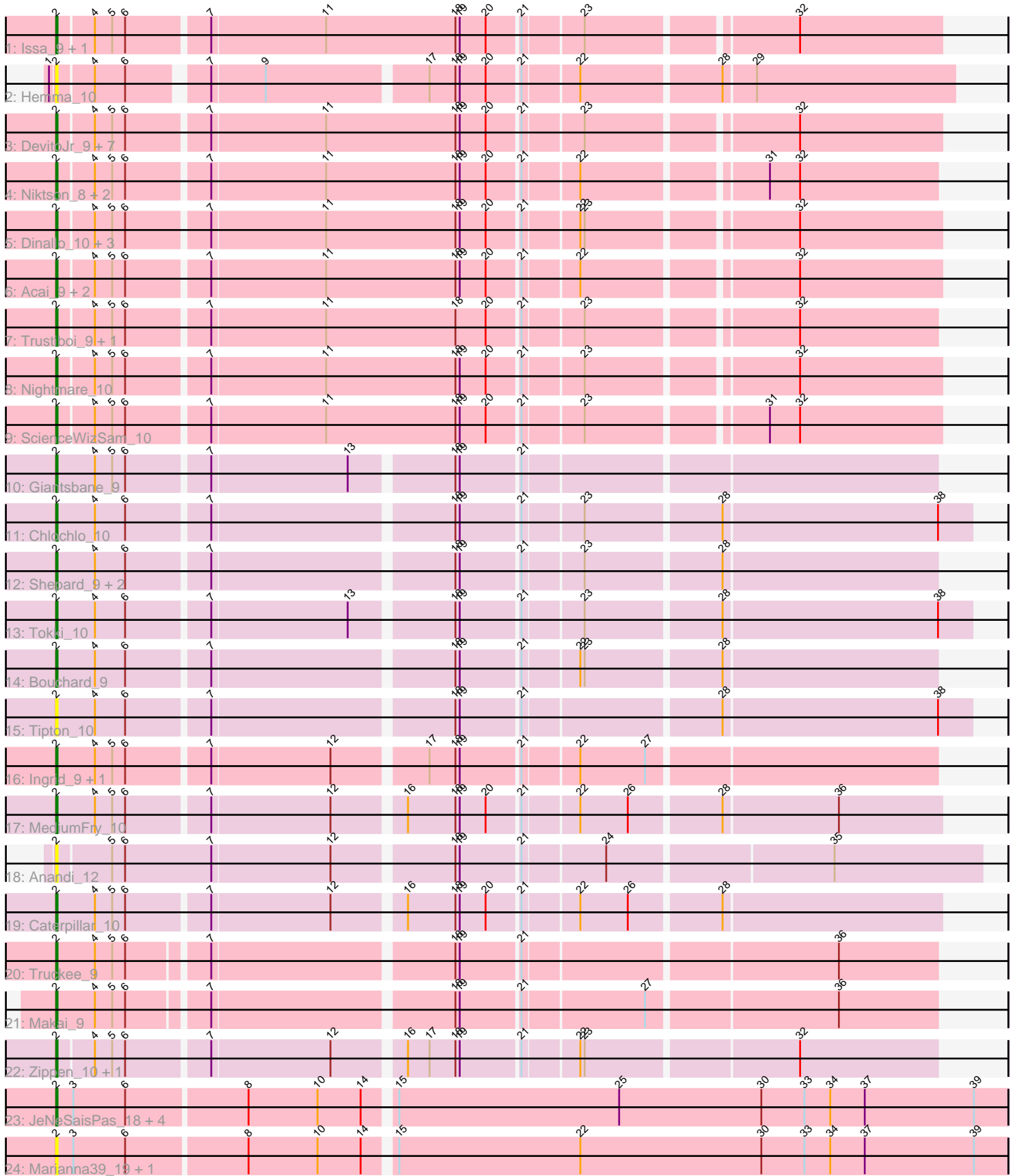


Pham 292907



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 292907 Report

This analysis was run 04/18/26 on database version 643.

Pham number 292907 has 49 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Issa\_9, LucySwiss\_9
- Track 2 : Hemma\_10
- Track 3 : DevitoJr\_9, AreFloNak\_9, Gordon\_9, Westerlin\_9, Darby\_9, Nivinsha\_9, Tatanka\_8, Synopsis\_8
- Track 4 : Niktson\_8, ElephantMan\_8, Brunswick\_9
- Track 5 : Dinallo\_10, CapnMurica\_9, MiniBagel\_9, Tenno\_10
- Track 6 : Acai\_9, Breylor17\_9, Teacup\_9
- Track 7 : Trustiboi\_9, CastorTray\_10
- Track 8 : Nightmare\_10
- Track 9 : ScienceWizSam\_10
- Track 10 : Giantsbane\_9
- Track 11 : Chlochlo\_10
- Track 12 : Shepard\_9, Phaby\_9, LilHuddy\_9
- Track 13 : Tokki\_10
- Track 14 : Bouchard\_9
- Track 15 : Tipton\_10
- Track 16 : Ingrid\_9, Loretta\_9
- Track 17 : MediumFry\_10
- Track 18 : Anandi\_12
- Track 19 : Caterpillar\_10
- Track 20 : Truckee\_9
- Track 21 : Makai\_9
- Track 22 : Zippen\_10, Inked\_10
- Track 23 : JeNeSaisPas\_18, Elver\_19, Qui\_19, Paella\_19, Kureo\_20
- Track 24 : Marianna39\_19, Gandionco\_18

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

The start number called the most often in the published annotations is 2, it was called in 37 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai\_9, Anandi\_12, AreFloNak\_9, Bouchard\_9, Breylor17\_9, Brunswick\_9, CapnMurica\_9, CastorTray\_10, Caterpillar\_10, Chlochlo\_10, Darby\_9, DevitoJr\_9,

Dinallo\_10, ElephantMan\_8, Elver\_19, Gandionco\_18, Giantsbane\_9, Gordon\_9, Hemma\_10, Ingrid\_9, Inked\_10, Issa\_9, JeNeSaisPas\_18, Kureo\_20, LilHuddy\_9, Loretta\_9, LucySwiss\_9, Makai\_9, Marianna39\_19, MediumFry\_10, MiniBagel\_9, Nightmare\_10, Niktson\_8, Nivinsha\_9, Paella\_19, Phaby\_9, Qui\_19, ScienceWizSam\_10, Shepard\_9, Synepsis\_8, Tatanka\_8, Teacup\_9, Tenno\_10, Tipton\_10, Tokki\_10, Truckee\_9, Trustiboi\_9, Westerlin\_9, Zippen\_10,

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

- 

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

- 

### Summary by start number:

Start 2:

- Found in 49 of 49 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 37 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acai\_9 (AU1), Anandi\_12 (AU4), AreFloNak\_9 (AU1), Bouchard\_9 (AU2), Breylor17\_9 (AU1), Brunswick\_9 (AU1), CapnMurica\_9 (AU1), CastorTray\_10 (AU1), Caterpillar\_10 (AU4), Chlochlo\_10 (AU2), Darby\_9 (AU1), DevitoJr\_9 (AU1), Dinallo\_10 (AU1), ElephantMan\_8 (AU1), Elver\_19 (FK), Gandionco\_18 (FK), Giantsbane\_9 (AU2), Gordon\_9 (AU1), Hemma\_10 (AU1), Ingrid\_9 (AU3), Inked\_10 (AU7), Issa\_9 (AU1), JeNeSaisPas\_18 (FK), Kureo\_20 (FK), LilHuddy\_9 (AU2), Loretta\_9 (AU3), LucySwiss\_9 (AU1), Makai\_9 (AU5), Marianna39\_19 (FK), MediumFry\_10 (AU4), MiniBagel\_9 (AU1), Nightmare\_10 (AU1), Niktson\_8 (AU1), Nivinsha\_9 (AU1), Paella\_19 (FK), Phaby\_9 (AU2), Qui\_19 (FK), ScienceWizSam\_10 (AU1), Shepard\_9 (AU2), Synepsis\_8 (AU1), Tatanka\_8 (AU1), Teacup\_9 (AU1), Tenno\_10 (AU1), Tipton\_10 (AU2), Tokki\_10 (AU2), Truckee\_9 (AU5), Trustiboi\_9 (AU1), Westerlin\_9 (AU1), Zippen\_10 (AU7),

### Summary by clusters:

There are 7 clusters represented in this pham: AU1, AU3, AU2, AU5, AU4, AU7, FK,

Info for manual annotations of cluster AU1:

- Start number 2 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 2 was manually annotated 7 times for cluster AU2.

Info for manual annotations of cluster AU3:

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

Info for manual annotations of cluster AU4:

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

Info for manual annotations of cluster AU5:

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

Info for manual annotations of cluster AU7:

- Start number 2 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster FK:

- Start number 2 was manually annotated 3 times for cluster FK.

### **Gene Information:**

Gene: Acai\_9 Start: 6291, Stop: 6872, Start Num: 2

Candidate Starts for Acai\_9:

(Start: 2 @6291 has 37 MA's), (4, 6315), (5, 6327), (6, 6336), (7, 6390), (11, 6468), (18, 6558), (19, 6561), (20, 6579), (21, 6600), (22, 6636), (32, 6774),

Gene: Anandi\_12 Start: 6358, Stop: 6969, Start Num: 2

Candidate Starts for Anandi\_12:

(Start: 2 @6358 has 37 MA's), (5, 6394), (6, 6403), (7, 6463), (12, 6544), (18, 6622), (19, 6625), (21, 6664), (24, 6718), (35, 6868),

Gene: AreFloNak\_9 Start: 6175, Stop: 6756, Start Num: 2

Candidate Starts for AreFloNak\_9:

(Start: 2 @6175 has 37 MA's), (4, 6199), (5, 6211), (6, 6220), (7, 6274), (11, 6352), (18, 6442), (19, 6445), (20, 6463), (21, 6484), (23, 6523), (32, 6658),

Gene: Bouchard\_9 Start: 6108, Stop: 6686, Start Num: 2

Candidate Starts for Bouchard\_9:

(Start: 2 @6108 has 37 MA's), (4, 6135), (6, 6156), (7, 6210), (18, 6369), (19, 6372), (21, 6411), (22, 6447), (23, 6450), (28, 6540),

Gene: Breylor17\_9 Start: 6300, Stop: 6878, Start Num: 2

Candidate Starts for Breylor17\_9:

(Start: 2 @6300 has 37 MA's), (4, 6324), (5, 6336), (6, 6345), (7, 6399), (11, 6477), (18, 6567), (19, 6570), (20, 6588), (21, 6609), (22, 6645), (32, 6783),

Gene: Brunswick\_9 Start: 6288, Stop: 6869, Start Num: 2

Candidate Starts for Brunswick\_9:

(Start: 2 @6288 has 37 MA's), (4, 6312), (5, 6324), (6, 6333), (7, 6387), (11, 6465), (18, 6555), (19, 6558), (20, 6576), (21, 6597), (22, 6633), (31, 6750), (32, 6771),

Gene: CapnMurica\_9 Start: 7384, Stop: 7965, Start Num: 2

Candidate Starts for CapnMurica\_9:

(Start: 2 @7384 has 37 MA's), (4, 7408), (5, 7420), (6, 7429), (7, 7483), (11, 7561), (18, 7651), (19, 7654), (20, 7672), (21, 7693), (22, 7729), (23, 7732), (32, 7867),

Gene: CastorTray\_10 Start: 6154, Stop: 6732, Start Num: 2

Candidate Starts for CastorTray\_10:

(Start: 2 @6154 has 37 MA's), (4, 6178), (5, 6190), (6, 6199), (7, 6253), (11, 6331), (18, 6421), (20, 6442), (21, 6463), (23, 6502), (32, 6637),

Gene: Caterpillar\_10 Start: 6396, Stop: 6977, Start Num: 2

Candidate Starts for Caterpillar\_10:

(Start: 2 @6396 has 37 MA's), (4, 6423), (5, 6435), (6, 6444), (7, 6498), (12, 6579), (16, 6624), (18, 6657), (19, 6660), (20, 6678), (21, 6699), (22, 6735), (26, 6768), (28, 6828),

Gene: Chlochlo\_10 Start: 6713, Stop: 7315, Start Num: 2

Candidate Starts for Chlochlo\_10:

(Start: 2 @6713 has 37 MA's), (4, 6740), (6, 6761), (7, 6815), (18, 6974), (19, 6977), (21, 7016), (23, 7055), (28, 7145), (38, 7292),

Gene: Darby\_9 Start: 6157, Stop: 6738, Start Num: 2

Candidate Starts for Darby\_9:

(Start: 2 @6157 has 37 MA's), (4, 6181), (5, 6193), (6, 6202), (7, 6256), (11, 6334), (18, 6424), (19, 6427), (20, 6445), (21, 6466), (23, 6505), (32, 6640),

Gene: DevitoJr\_9 Start: 6299, Stop: 6880, Start Num: 2

Candidate Starts for DevitoJr\_9:

(Start: 2 @6299 has 37 MA's), (4, 6323), (5, 6335), (6, 6344), (7, 6398), (11, 6476), (18, 6566), (19, 6569), (20, 6587), (21, 6608), (23, 6647), (32, 6782),

Gene: Dinallo\_10 Start: 7384, Stop: 7965, Start Num: 2

Candidate Starts for Dinallo\_10:

(Start: 2 @7384 has 37 MA's), (4, 7408), (5, 7420), (6, 7429), (7, 7483), (11, 7561), (18, 7651), (19, 7654), (20, 7672), (21, 7693), (22, 7729), (23, 7732), (32, 7867),

Gene: ElephantMan\_8 Start: 6318, Stop: 6896, Start Num: 2

Candidate Starts for ElephantMan\_8:

(Start: 2 @6318 has 37 MA's), (4, 6342), (5, 6354), (6, 6363), (7, 6417), (11, 6495), (18, 6585), (19, 6588), (20, 6606), (21, 6627), (22, 6663), (31, 6780), (32, 6801),

Gene: Elver\_19 Start: 10704, Stop: 11348, Start Num: 2

Candidate Starts for Elver\_19:

(Start: 2 @10704 has 37 MA's), (3, 10716), (6, 10752), (8, 10830), (10, 10878), (14, 10908), (15, 10926), (25, 11079), (30, 11178), (33, 11208), (34, 11226), (37, 11250), (39, 11325),

Gene: Gandionco\_18 Start: 10664, Stop: 11311, Start Num: 2

Candidate Starts for Gandionco\_18:

(Start: 2 @10664 has 37 MA's), (3, 10676), (6, 10712), (8, 10793), (10, 10841), (14, 10871), (15, 10889), (22, 11015), (30, 11141), (33, 11171), (34, 11189), (37, 11213), (39, 11288),

Gene: Giantsbane\_9 Start: 6121, Stop: 6699, Start Num: 2

Candidate Starts for Giantsbane\_9:

(Start: 2 @6121 has 37 MA's), (4, 6148), (5, 6160), (6, 6169), (7, 6223), (13, 6316), (18, 6382), (19, 6385), (21, 6424),

Gene: Gordon\_9 Start: 7423, Stop: 8004, Start Num: 2

Candidate Starts for Gordon\_9:

(Start: 2 @7423 has 37 MA's), (4, 7447), (5, 7459), (6, 7468), (7, 7522), (11, 7600), (18, 7690), (19, 7693), (20, 7711), (21, 7732), (23, 7771), (32, 7906),

Gene: Hemma\_10 Start: 5939, Stop: 6520, Start Num: 2

Candidate Starts for Hemma\_10:

(1, 5936), (Start: 2 @5939 has 37 MA's), (4, 5963), (6, 5984), (7, 6032), (9, 6068), (17, 6173), (18, 6191), (19, 6194), (20, 6212), (21, 6233), (22, 6269), (28, 6362), (29, 6383),

Gene: Ingrid\_9 Start: 6201, Stop: 6779, Start Num: 2

Candidate Starts for Ingrid\_9:

(Start: 2 @6201 has 37 MA's), (4, 6228), (5, 6240), (6, 6249), (7, 6303), (12, 6384), (17, 6444), (18, 6462), (19, 6465), (21, 6504), (22, 6540), (27, 6585),

Gene: Inked\_10 Start: 6378, Stop: 6953, Start Num: 2

Candidate Starts for Inked\_10:

(Start: 2 @6378 has 37 MA's), (4, 6402), (5, 6414), (6, 6423), (7, 6477), (12, 6558), (16, 6603), (17, 6618), (18, 6636), (19, 6639), (21, 6678), (22, 6714), (23, 6717), (32, 6858),

Gene: Issa\_9 Start: 6130, Stop: 6711, Start Num: 2

Candidate Starts for Issa\_9:

(Start: 2 @6130 has 37 MA's), (4, 6154), (5, 6166), (6, 6175), (7, 6229), (11, 6307), (18, 6397), (19, 6400), (20, 6418), (21, 6439), (23, 6478), (32, 6613),

Gene: JeNeSaisPas\_18 Start: 11236, Stop: 11883, Start Num: 2

Candidate Starts for JeNeSaisPas\_18:

(Start: 2 @11236 has 37 MA's), (3, 11248), (6, 11284), (8, 11365), (10, 11413), (14, 11443), (15, 11461), (25, 11614), (30, 11713), (33, 11743), (34, 11761), (37, 11785), (39, 11860),

Gene: Kureo\_20 Start: 11068, Stop: 11715, Start Num: 2

Candidate Starts for Kureo\_20:

(Start: 2 @11068 has 37 MA's), (3, 11080), (6, 11116), (8, 11197), (10, 11245), (14, 11275), (15, 11293), (25, 11446), (30, 11545), (33, 11575), (34, 11593), (37, 11617), (39, 11692),

Gene: LilHuddy\_9 Start: 6115, Stop: 6693, Start Num: 2

Candidate Starts for LilHuddy\_9:

(Start: 2 @6115 has 37 MA's), (4, 6142), (6, 6163), (7, 6217), (18, 6376), (19, 6379), (21, 6418), (23, 6457), (28, 6547),

Gene: Loretta\_9 Start: 6201, Stop: 6779, Start Num: 2

Candidate Starts for Loretta\_9:

(Start: 2 @6201 has 37 MA's), (4, 6228), (5, 6240), (6, 6249), (7, 6303), (12, 6384), (17, 6444), (18, 6462), (19, 6465), (21, 6504), (22, 6540), (27, 6585),

Gene: LucySwiss\_9 Start: 6149, Stop: 6730, Start Num: 2

Candidate Starts for LucySwiss\_9:

(Start: 2 @6149 has 37 MA's), (4, 6173), (5, 6185), (6, 6194), (7, 6248), (11, 6326), (18, 6416), (19, 6419), (20, 6437), (21, 6458), (23, 6497), (32, 6632),

Gene: Makai\_9 Start: 6244, Stop: 6819, Start Num: 2

Candidate Starts for Makai\_9:

(Start: 2 @6244 has 37 MA's), (4, 6271), (5, 6283), (6, 6292), (7, 6343), (18, 6502), (19, 6505), (21, 6544), (27, 6625), (36, 6751),

Gene: Marianna39\_19 Start: 10664, Stop: 11311, Start Num: 2

Candidate Starts for Marianna39\_19:

(Start: 2 @10664 has 37 MA's), (3, 10676), (6, 10712), (8, 10793), (10, 10841), (14, 10871), (15, 10889), (22, 11015), (30, 11141), (33, 11171), (34, 11189), (37, 11213), (39, 11288),

Gene: MediumFry\_10 Start: 6425, Stop: 7006, Start Num: 2

Candidate Starts for MediumFry\_10:

(Start: 2 @6425 has 37 MA's), (4, 6452), (5, 6464), (6, 6473), (7, 6527), (12, 6608), (16, 6653), (18, 6686), (19, 6689), (20, 6707), (21, 6728), (22, 6764), (26, 6797), (28, 6857), (36, 6935),

Gene: MiniBagel\_9 Start: 7384, Stop: 7956, Start Num: 2

Candidate Starts for MiniBagel\_9:

(Start: 2 @7384 has 37 MA's), (4, 7408), (5, 7420), (6, 7429), (7, 7483), (11, 7561), (18, 7651), (19, 7654), (20, 7672), (21, 7693), (22, 7720), (23, 7723), (32, 7858),

Gene: Nightmare\_10 Start: 6757, Stop: 7338, Start Num: 2

Candidate Starts for Nightmare\_10:

(Start: 2 @6757 has 37 MA's), (4, 6781), (5, 6793), (6, 6802), (7, 6856), (11, 6934), (18, 7024), (19, 7027), (20, 7045), (21, 7066), (23, 7105), (32, 7240),

Gene: Niktson\_8 Start: 6318, Stop: 6896, Start Num: 2

Candidate Starts for Niktson\_8:

(Start: 2 @6318 has 37 MA's), (4, 6342), (5, 6354), (6, 6363), (7, 6417), (11, 6495), (18, 6585), (19, 6588), (20, 6606), (21, 6627), (22, 6663), (31, 6780), (32, 6801),

Gene: Nivinsha\_9 Start: 6175, Stop: 6756, Start Num: 2

Candidate Starts for Nivinsha\_9:

(Start: 2 @6175 has 37 MA's), (4, 6199), (5, 6211), (6, 6220), (7, 6274), (11, 6352), (18, 6442), (19, 6445), (20, 6463), (21, 6484), (23, 6523), (32, 6658),

Gene: Paella\_19 Start: 10703, Stop: 11350, Start Num: 2

Candidate Starts for Paella\_19:

(Start: 2 @10703 has 37 MA's), (3, 10715), (6, 10751), (8, 10832), (10, 10880), (14, 10910), (15, 10928), (25, 11081), (30, 11180), (33, 11210), (34, 11228), (37, 11252), (39, 11327),

Gene: Phaby\_9 Start: 6105, Stop: 6683, Start Num: 2

Candidate Starts for Phaby\_9:

(Start: 2 @6105 has 37 MA's), (4, 6132), (6, 6153), (7, 6207), (18, 6366), (19, 6369), (21, 6408), (23, 6447), (28, 6537),

Gene: Qui\_19 Start: 10703, Stop: 11350, Start Num: 2

Candidate Starts for Qui\_19:

(Start: 2 @10703 has 37 MA's), (3, 10715), (6, 10751), (8, 10832), (10, 10880), (14, 10910), (15, 10928), (25, 11081), (30, 11180), (33, 11210), (34, 11228), (37, 11252), (39, 11327),

Gene: ScienceWizSam\_10 Start: 6130, Stop: 6711, Start Num: 2

Candidate Starts for ScienceWizSam\_10:

(Start: 2 @6130 has 37 MA's), (4, 6154), (5, 6166), (6, 6175), (7, 6229), (11, 6307), (18, 6397), (19, 6400), (20, 6418), (21, 6439), (23, 6478), (31, 6592), (32, 6613),

Gene: Shepard\_9 Start: 6115, Stop: 6693, Start Num: 2

Candidate Starts for Shepard\_9:

(Start: 2 @6115 has 37 MA's), (4, 6142), (6, 6163), (7, 6217), (18, 6376), (19, 6379), (21, 6418), (23, 6457), (28, 6547),

Gene: Synopsis\_8 Start: 6295, Stop: 6876, Start Num: 2

Candidate Starts for Synopsis\_8:

(Start: 2 @6295 has 37 MA's), (4, 6319), (5, 6331), (6, 6340), (7, 6394), (11, 6472), (18, 6562), (19, 6565), (20, 6583), (21, 6604), (23, 6643), (32, 6778),

Gene: Tatanka\_8 Start: 6235, Stop: 6816, Start Num: 2

Candidate Starts for Tatanka\_8:

(Start: 2 @6235 has 37 MA's), (4, 6259), (5, 6271), (6, 6280), (7, 6334), (11, 6412), (18, 6502), (19, 6505), (20, 6523), (21, 6544), (23, 6583), (32, 6718),

Gene: Teacup\_9 Start: 6133, Stop: 6714, Start Num: 2

Candidate Starts for Teacup\_9:

(Start: 2 @6133 has 37 MA's), (4, 6157), (5, 6169), (6, 6178), (7, 6232), (11, 6310), (18, 6400), (19, 6403), (20, 6421), (21, 6442), (22, 6478), (32, 6616),

Gene: Tenno\_10 Start: 7384, Stop: 7965, Start Num: 2

Candidate Starts for Tenno\_10:

(Start: 2 @7384 has 37 MA's), (4, 7408), (5, 7420), (6, 7429), (7, 7483), (11, 7561), (18, 7651), (19, 7654), (20, 7672), (21, 7693), (22, 7729), (23, 7732), (32, 7867),

Gene: Tipton\_10 Start: 6713, Stop: 7315, Start Num: 2

Candidate Starts for Tipton\_10:

(Start: 2 @6713 has 37 MA's), (4, 6740), (6, 6761), (7, 6815), (18, 6974), (19, 6977), (21, 7016), (28, 7145), (38, 7292),

Gene: Tokki\_10 Start: 6722, Stop: 7324, Start Num: 2

Candidate Starts for Tokki\_10:

(Start: 2 @6722 has 37 MA's), (4, 6749), (6, 6770), (7, 6824), (13, 6917), (18, 6983), (19, 6986), (21, 7025), (23, 7064), (28, 7154), (38, 7301),

Gene: Truckee\_9 Start: 6191, Stop: 6766, Start Num: 2

Candidate Starts for Truckee\_9:

(Start: 2 @6191 has 37 MA's), (4, 6218), (5, 6230), (6, 6239), (7, 6290), (18, 6449), (19, 6452), (21, 6491), (36, 6698),

Gene: Trustiboi\_9 Start: 6319, Stop: 6897, Start Num: 2

Candidate Starts for Trustiboi\_9:

(Start: 2 @6319 has 37 MA's), (4, 6343), (5, 6355), (6, 6364), (7, 6418), (11, 6496), (18, 6586), (20, 6607), (21, 6628), (23, 6667), (32, 6802),

Gene: Westerlin\_9 Start: 7381, Stop: 7962, Start Num: 2

Candidate Starts for Westerlin\_9:

(Start: 2 @7381 has 37 MA's), (4, 7405), (5, 7417), (6, 7426), (7, 7480), (11, 7558), (18, 7648), (19, 7651), (20, 7669), (21, 7690), (23, 7729), (32, 7864),

Gene: Zippen\_10 Start: 6409, Stop: 6984, Start Num: 2

Candidate Starts for Zippen\_10:

(Start: 2 @6409 has 37 MA's), (4, 6433), (5, 6445), (6, 6454), (7, 6508), (12, 6589), (16, 6634), (17, 6649), (18, 6667), (19, 6670), (21, 6709), (22, 6745), (23, 6748), (32, 6889),