



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 283731 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283731 has 79 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Zimmer\_65
- Track 2 : DarthPhader\_65, Refuge\_65
- Track 3 : Sunhee\_70
- Track 4 : Luchador\_70
- Track 5 : SororFago\_69
- Track 6 : Jeeves\_71
- Track 7 : Gail\_69
- Track 8 : EagleEye\_72
- Track 9 : PainterBoy\_70, Lucyedi\_71
- Track 10 : Lilbunny\_69, Temprado\_71, ToneTone\_67, BennyP\_69, Artemis2UCLA\_70, Zaka\_70, Koko\_72, Hammer\_70, Tucker\_70, Rifter\_70, Gladiator\_67, Hexamo\_70, Yokurt\_69, Garak\_71, Jeffabunny\_70, Helmet\_72, WunderPhul\_70, BlessJoy\_70, Wiks\_69, Zulu\_71, CloudWang3\_71, Indra\_73
- Track 11 : Kipper29\_69, EricB\_68, Hoot\_64, VohminGhazi\_69, Candra\_67, Newrala\_69, GreedyLawyer\_66, Polyphemus\_71
- Track 12 : Kazan\_70, SmellyB\_69, SuperAwesome\_69
- Track 13 : Blue7\_71
- Track 14 : Isiphiwo\_67
- Track 15 : Roksolana\_71, Gruunaga\_70
- Track 16 : WorldCup\_67, Bellris\_67, Minispark\_67, CogOmlette\_67, Rahalelujah\_69
- Track 17 : CocoaPuff\_40, Balloona\_38, Vine\_42, SummitAcademy\_39, Yucky\_42, Feastonyeet\_39, PotPie\_40, BigChungus\_39
- Track 18 : Yummy\_40, Buttrmilkdreams\_40, Horseradish\_40, MScarn\_41
- Track 19 : Bavidard\_39, Elinal\_43, KayGee\_41
- Track 20 : Mayweather\_43, Lauer\_36
- Track 21 : CherryonLim\_41
- Track 22 : ElJefes\_40, McDazzle\_41
- Track 23 : SheckWes\_42
- Track 24 : Pons\_41
- Track 25 : Cardigan\_136
- Track 26 : JonJames\_134
- Track 27 : Yvonnetastic\_130
- Track 28 : Yappy\_17

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

The start number called the most often in the published annotations is 15, it was called in 40 of the 65 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artemis2UCLA\_70, Bellris\_67, BennyP\_69, BlessJoy\_70, Candra\_67, CloudWang3\_71, CogOmlette\_67, DarthPhader\_65, EricB\_68, Gail\_69, Garak\_71, Gladiator\_67, GreedyLawyer\_66, Gruunaga\_70, Hammer\_70, Helmet\_72, Hexamo\_70, Hoot\_64, Indra\_73, Isiphiwo\_67, Jeeves\_71, Jeffabunny\_70, Kipper29\_69, Koko\_72, Lilbunny\_69, Luchador\_70, Lucyedi\_71, Minispark\_67, Newrala\_69, PainterBoy\_70, Polyphemus\_71, Rahalelujah\_69, Refuge\_65, Rifter\_70, Roksolana\_71, SororFago\_69, Sunhee\_70, Temprado\_71, ToneTone\_67, Tucker\_70, VohminGhazi\_69, Wiks\_69, WorldCup\_67, WunderPhul\_70, Yokurt\_69, Zaka\_70, Zimmer\_65, Zulu\_71,

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

- Bavidard\_39, Blue7\_71, CherryonLim\_41, EagleEye\_72, Elinal\_43, KayGee\_41, Kazan\_70, Lauer\_36, Mayweather\_43, SmellyB\_69, SuperAwesome\_69,

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

- Balloona\_38, BigChungus\_39, Buttrmilkdreams\_40, Cardigan\_136, CocoaPuff\_40, ElJefes\_40, Feastonyeet\_39, Horseradish\_40, JonJames\_134, MScarn\_41, McDazzle\_41, Pons\_41, PotPie\_40, SheckWes\_42, SummitAcademy\_39, Vine\_42, Yappy\_17, Yucky\_42, Yummy\_40, Yvonnetastic\_130,

### Summary by start number:

Start 9:

- Found in 17 of 79 ( 21.5% ) of genes in pham
- Manual Annotations of this start: 1 of 65
- Called 5.9% of time when present
- Phage (with cluster) where this start called: EagleEye\_72 (A16),

Start 11:

- Found in 21 of 79 ( 26.6% ) of genes in pham
- Manual Annotations of this start: 15 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Balloona\_38 (CT), Bavidard\_39 (CT), BigChungus\_39 (CT), Cardigan\_136 (DD), CherryonLim\_41 (CT), CocoaPuff\_40 (CT), ElJefes\_40 (CT), Elinal\_43 (CT), Feastonyeet\_39 (CT), JonJames\_134 (DD), KayGee\_41 (CT), Lauer\_36 (CT), Mayweather\_43 (CT), McDazzle\_41 (CT), Pons\_41 (CT), PotPie\_40 (CT), SheckWes\_42 (CT), SummitAcademy\_39 (CT), Vine\_42 (CT), Yucky\_42 (CT), Yvonnetastic\_130 (DD),

Start 12:

- Found in 16 of 79 ( 20.3% ) of genes in pham
- Manual Annotations of this start: 4 of 65
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Blue7\_71 (A6), Kazan\_70 (A6), SmellyB\_69 (A6), SuperAwesome\_69 (A6),

Start 13:

- Found in 4 of 79 ( 5.1% ) of genes in pham

- Manual Annotations of this start: 4 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Buttrmilkdreams\_40 (CT), Horseradish\_40 (CT), MScarn\_41 (CT), Yummy\_40 (CT),

Start 14:

- Found in 1 of 79 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 1 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yappy\_17 (singleton),

Start 15:

- Found in 59 of 79 ( 74.7% ) of genes in pham
- Manual Annotations of this start: 40 of 65
- Called 81.4% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA\_70 (A6), Bellris\_67 (A9), BennyP\_69 (A6), BlessJoy\_70 (A6), Candra\_67 (A6), CloudWang3\_71 (A6), CogOmelette\_67 (A9), DARTHPhader\_65 (A12), EricB\_68 (A6), Gail\_69 (A14), Garak\_71 (A6), Gladiator\_67 (A6), GreedyLawyer\_66 (A6), Gruunaga\_70 (A6), Hammer\_70 (A6), Helmet\_72 (A6), Hexamo\_70 (A6), Hoot\_64 (A6), Indra\_73 (A6), Isiphiwo\_67 (A6), Jeeves\_71 (A14), Jeffabunny\_70 (A6), Kipper29\_69 (A6), Koko\_72 (A6), Lilbunny\_69 (A6), Luchador\_70 (A14), Lucyedi\_71 (A16), Minispark\_67 (A9), Newrala\_69 (A6), PainterBoy\_70 (A16), Polyphemus\_71 (A6), Rahalelujah\_69 (A9), Refuge\_65 (A12), Rifter\_70 (A6), Roksolana\_71 (A6), SororFago\_69 (A14), Sunhee\_70 (A14), Temprado\_71 (A6), ToneTone\_67 (A6), Tucker\_70 (A6), VohminGhazi\_69 (A6), Wiks\_69 (A6), WorldCup\_67 (A9), WunderPhul\_70 (A6), Yokurt\_69 (A6), Zaka\_70 (A6), Zimmer\_65 (A12), Zulu\_71 (A6),

### Summary by clusters:

There are 8 clusters represented in this pham: A14, singleton, A16, A12, DD, A6, A9, CT,

Info for manual annotations of cluster A12:

- Start number 15 was manually annotated 3 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 15 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 9 was manually annotated 1 time for cluster A16.
- Start number 15 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A6:

- Start number 12 was manually annotated 4 times for cluster A6.
- Start number 15 was manually annotated 30 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 15 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster CT:

- Start number 11 was manually annotated 13 times for cluster CT.
- Start number 13 was manually annotated 4 times for cluster CT.

Info for manual annotations of cluster DD:

•Start number 11 was manually annotated 2 times for cluster DD.

**Gene Information:**

Gene: Artemis2UCLA\_70 Start: 40238, Stop: 40059, Start Num: 15

Candidate Starts for Artemis2UCLA\_70:

(Start: 15 @40238 has 40 MA's), (20, 40205),

Gene: Balloona\_38 Start: 28381, Stop: 28175, Start Num: 11

Candidate Starts for Balloona\_38:

(Start: 11 @28381 has 15 MA's), (20, 28315), (32, 28225), (36, 28216), (37, 28201),

Gene: Bavilard\_39 Start: 28599, Stop: 28390, Start Num: 11

Candidate Starts for Bavilard\_39:

(10, 28602), (Start: 11 @28599 has 15 MA's), (Start: 15 @28563 has 40 MA's), (20, 28530), (36, 28431), (37, 28416),

Gene: Bellris\_67 Start: 41041, Stop: 40850, Start Num: 15

Candidate Starts for Bellris\_67:

(Start: 15 @41041 has 40 MA's), (19, 41011), (20, 41008), (25, 40966), (31, 40912), (33, 40903),

Gene: BennyP\_69 Start: 40308, Stop: 40129, Start Num: 15

Candidate Starts for BennyP\_69:

(Start: 15 @40308 has 40 MA's), (20, 40275),

Gene: BigChungus\_39 Start: 28782, Stop: 28576, Start Num: 11

Candidate Starts for BigChungus\_39:

(Start: 11 @28782 has 15 MA's), (20, 28716), (32, 28626), (36, 28617), (37, 28602),

Gene: BlessJoy\_70 Start: 40664, Stop: 40485, Start Num: 15

Candidate Starts for BlessJoy\_70:

(Start: 15 @40664 has 40 MA's), (20, 40631),

Gene: Blue7\_71 Start: 40393, Stop: 40187, Start Num: 12

Candidate Starts for Blue7\_71:

(4, 40483), (7, 40411), (Start: 9 @40405 has 1 MA's), (Start: 12 @40393 has 4 MA's), (Start: 15 @40366 has 40 MA's), (20, 40333),

Gene: Buttrmlkdreams\_40 Start: 27645, Stop: 27442, Start Num: 13

Candidate Starts for Buttrmlkdreams\_40:

(2, 27837), (Start: 13 @27645 has 4 MA's), (22, 27585), (24, 27567),

Gene: Candra\_67 Start: 40269, Stop: 40090, Start Num: 15

Candidate Starts for Candra\_67:

(6, 40371), (7, 40314), (Start: 9 @40308 has 1 MA's), (Start: 12 @40296 has 4 MA's), (Start: 15 @40269 has 40 MA's), (20, 40236),

Gene: Cardigan\_136 Start: 76837, Stop: 77085, Start Num: 11

Candidate Starts for Cardigan\_136:

(1, 76651), (Start: 11 @76837 has 15 MA's), (16, 76879), (29, 76984), (35, 77008), (37, 77029), (39, 77038),

Gene: CherryonLim\_41 Start: 29932, Stop: 29723, Start Num: 11

Candidate Starts for CherryonLim\_41:

(10, 29935), (Start: 11 @29932 has 15 MA's), (Start: 15 @29896 has 40 MA's), (17, 29875), (20, 29863), (32, 29773), (36, 29764), (37, 29749),

Gene: CloudWang3\_71 Start: 40750, Stop: 40571, Start Num: 15

Candidate Starts for CloudWang3\_71:

(Start: 15 @40750 has 40 MA's), (20, 40717),

Gene: CocoaPuff\_40 Start: 28796, Stop: 28590, Start Num: 11

Candidate Starts for CocoaPuff\_40:

(Start: 11 @28796 has 15 MA's), (20, 28730), (32, 28640), (36, 28631), (37, 28616),

Gene: CogOmlette\_67 Start: 41038, Stop: 40847, Start Num: 15

Candidate Starts for CogOmlette\_67:

(Start: 15 @41038 has 40 MA's), (19, 41008), (20, 41005), (25, 40963), (31, 40909), (33, 40900),

Gene: DarthPhader\_65 Start: 42262, Stop: 42065, Start Num: 15

Candidate Starts for DarthPhader\_65:

(Start: 15 @42262 has 40 MA's), (17, 42241), (20, 42229), (35, 42130),

Gene: EagleEye\_72 Start: 41949, Stop: 41728, Start Num: 9

Candidate Starts for EagleEye\_72:

(3, 42111), (Start: 9 @41949 has 1 MA's), (Start: 15 @41910 has 40 MA's), (17, 41889), (20, 41877), (28, 41802),

Gene: ElJefes\_40 Start: 29121, Stop: 28915, Start Num: 11

Candidate Starts for ElJefes\_40:

(Start: 11 @29121 has 15 MA's), (20, 29055), (32, 28965), (36, 28956), (37, 28941),

Gene: Elinal\_43 Start: 29167, Stop: 28958, Start Num: 11

Candidate Starts for Elinal\_43:

(10, 29170), (Start: 11 @29167 has 15 MA's), (Start: 15 @29131 has 40 MA's), (20, 29098), (36, 28999), (37, 28984),

Gene: EricB\_68 Start: 40226, Stop: 40047, Start Num: 15

Candidate Starts for EricB\_68:

(6, 40328), (7, 40271), (Start: 9 @40265 has 1 MA's), (Start: 12 @40253 has 4 MA's), (Start: 15 @40226 has 40 MA's), (20, 40193),

Gene: Feastonyeet\_39 Start: 28782, Stop: 28576, Start Num: 11

Candidate Starts for Feastonyeet\_39:

(Start: 11 @28782 has 15 MA's), (20, 28716), (32, 28626), (36, 28617), (37, 28602),

Gene: Gail\_69 Start: 42059, Stop: 41856, Start Num: 15

Candidate Starts for Gail\_69:

(Start: 15 @42059 has 40 MA's), (20, 42026), (27, 41963), (32, 41936), (34, 41930),

Gene: Garak\_71 Start: 40605, Stop: 40426, Start Num: 15

Candidate Starts for Garak\_71:

(Start: 15 @40605 has 40 MA's), (20, 40572),

Gene: Gladiator\_67 Start: 39830, Stop: 39651, Start Num: 15

Candidate Starts for Gladiator\_67:

(Start: 15 @39830 has 40 MA's), (20, 39797),

Gene: GreedyLawyer\_66 Start: 40199, Stop: 40020, Start Num: 15

Candidate Starts for GreedyLawyer\_66:

(6, 40301), (7, 40244), (Start: 9 @40238 has 1 MA's), (Start: 12 @40226 has 4 MA's), (Start: 15 @40199 has 40 MA's), (20, 40166),

Gene: Gruunaga\_70 Start: 40563, Stop: 40384, Start Num: 15

Candidate Starts for Gruunaga\_70:

(4, 40680), (7, 40608), (Start: 9 @40602 has 1 MA's), (Start: 12 @40590 has 4 MA's), (Start: 15 @40563 has 40 MA's), (20, 40530),

Gene: Hammer\_70 Start: 40170, Stop: 39991, Start Num: 15

Candidate Starts for Hammer\_70:

(Start: 15 @40170 has 40 MA's), (20, 40137),

Gene: Helmet\_72 Start: 40605, Stop: 40426, Start Num: 15

Candidate Starts for Helmet\_72:

(Start: 15 @40605 has 40 MA's), (20, 40572),

Gene: Hexamo\_70 Start: 40235, Stop: 40056, Start Num: 15

Candidate Starts for Hexamo\_70:

(Start: 15 @40235 has 40 MA's), (20, 40202),

Gene: Hoot\_64 Start: 38084, Stop: 37905, Start Num: 15

Candidate Starts for Hoot\_64:

(6, 38186), (7, 38129), (Start: 9 @38123 has 1 MA's), (Start: 12 @38111 has 4 MA's), (Start: 15 @38084 has 40 MA's), (20, 38051),

Gene: Horseradish\_40 Start: 27173, Stop: 26970, Start Num: 13

Candidate Starts for Horseradish\_40:

(2, 27365), (Start: 13 @27173 has 4 MA's), (22, 27113), (24, 27095),

Gene: Indra\_73 Start: 40606, Stop: 40427, Start Num: 15

Candidate Starts for Indra\_73:

(Start: 15 @40606 has 40 MA's), (20, 40573),

Gene: Isiphiwo\_67 Start: 39765, Stop: 39586, Start Num: 15

Candidate Starts for Isiphiwo\_67:

(Start: 15 @39765 has 40 MA's), (20, 39732),

Gene: Jeeves\_71 Start: 41042, Stop: 40869, Start Num: 15

Candidate Starts for Jeeves\_71:

(5, 41156), (Start: 12 @41069 has 4 MA's), (Start: 15 @41042 has 40 MA's), (18, 41018), (20, 41009), (21, 41003), (23, 40991),

Gene: Jeffabunny\_70 Start: 40232, Stop: 40053, Start Num: 15

Candidate Starts for Jeffabunny\_70:

(Start: 15 @40232 has 40 MA's), (20, 40199),

Gene: JonJames\_134 Start: 77470, Stop: 77718, Start Num: 11  
Candidate Starts for JonJames\_134:  
(Start: 11 @77470 has 15 MA's), (16, 77512), (29, 77617), (35, 77641), (37, 77662), (39, 77671),

Gene: KayGee\_41 Start: 29167, Stop: 28958, Start Num: 11  
Candidate Starts for KayGee\_41:  
(10, 29170), (Start: 11 @29167 has 15 MA's), (Start: 15 @29131 has 40 MA's), (20, 29098), (36, 28999), (37, 28984),

Gene: Kazan\_70 Start: 40266, Stop: 40060, Start Num: 12  
Candidate Starts for Kazan\_70:  
(6, 40341), (7, 40284), (Start: 9 @40278 has 1 MA's), (Start: 12 @40266 has 4 MA's), (Start: 15 @40239 has 40 MA's), (20, 40206),

Gene: Kipper29\_69 Start: 40252, Stop: 40073, Start Num: 15  
Candidate Starts for Kipper29\_69:  
(6, 40354), (7, 40297), (Start: 9 @40291 has 1 MA's), (Start: 12 @40279 has 4 MA's), (Start: 15 @40252 has 40 MA's), (20, 40219),

Gene: Koko\_72 Start: 41090, Stop: 40911, Start Num: 15  
Candidate Starts for Koko\_72:  
(Start: 15 @41090 has 40 MA's), (20, 41057),

Gene: Lauer\_36 Start: 29997, Stop: 29788, Start Num: 11  
Candidate Starts for Lauer\_36:  
(10, 30000), (Start: 11 @29997 has 15 MA's), (Start: 15 @29961 has 40 MA's), (17, 29940), (20, 29928), (32, 29838), (36, 29829), (37, 29814),

Gene: Lilbunny\_69 Start: 40236, Stop: 40057, Start Num: 15  
Candidate Starts for Lilbunny\_69:  
(Start: 15 @40236 has 40 MA's), (20, 40203),

Gene: Luchador\_70 Start: 42522, Stop: 42328, Start Num: 15  
Candidate Starts for Luchador\_70:  
(Start: 15 @42522 has 40 MA's), (20, 42489), (24, 42462), (27, 42426), (32, 42399), (34, 42393),

Gene: Lucyedi\_71 Start: 42106, Stop: 41924, Start Num: 15  
Candidate Starts for Lucyedi\_71:  
(3, 42307), (Start: 9 @42145 has 1 MA's), (Start: 15 @42106 has 40 MA's), (17, 42085), (20, 42073), (28, 41998),

Gene: MScarn\_41 Start: 27313, Stop: 27110, Start Num: 13  
Candidate Starts for MScarn\_41:  
(2, 27505), (Start: 13 @27313 has 4 MA's), (22, 27253), (24, 27235),

Gene: Mayweather\_43 Start: 29791, Stop: 29582, Start Num: 11  
Candidate Starts for Mayweather\_43:  
(10, 29794), (Start: 11 @29791 has 15 MA's), (Start: 15 @29755 has 40 MA's), (17, 29734), (20, 29722), (32, 29632), (36, 29623), (37, 29608),

Gene: McDazzle\_41 Start: 29115, Stop: 28909, Start Num: 11  
Candidate Starts for McDazzle\_41:

(Start: 11 @29115 has 15 MA's), (20, 29049), (32, 28959), (36, 28950), (37, 28935),

Gene: Minispark\_67 Start: 41035, Stop: 40844, Start Num: 15

Candidate Starts for Minispark\_67:

(Start: 15 @41035 has 40 MA's), (19, 41005), (20, 41002), (25, 40960), (31, 40906), (33, 40897),

Gene: Newrala\_69 Start: 40200, Stop: 40021, Start Num: 15

Candidate Starts for Newrala\_69:

(6, 40302), (7, 40245), (Start: 9 @40239 has 1 MA's), (Start: 12 @40227 has 4 MA's), (Start: 15 @40200 has 40 MA's), (20, 40167),

Gene: PainterBoy\_70 Start: 41815, Stop: 41633, Start Num: 15

Candidate Starts for PainterBoy\_70:

(3, 42016), (Start: 9 @41854 has 1 MA's), (Start: 15 @41815 has 40 MA's), (17, 41794), (20, 41782), (28, 41707),

Gene: Polyphemus\_71 Start: 40586, Stop: 40407, Start Num: 15

Candidate Starts for Polyphemus\_71:

(6, 40688), (7, 40631), (Start: 9 @40625 has 1 MA's), (Start: 12 @40613 has 4 MA's), (Start: 15 @40586 has 40 MA's), (20, 40553),

Gene: Pons\_41 Start: 29139, Stop: 28933, Start Num: 11

Candidate Starts for Pons\_41:

(Start: 11 @29139 has 15 MA's), (20, 29073), (27, 29010), (32, 28983), (36, 28974), (37, 28959),

Gene: PotPie\_40 Start: 30073, Stop: 29867, Start Num: 11

Candidate Starts for PotPie\_40:

(Start: 11 @30073 has 15 MA's), (20, 30007), (32, 29917), (36, 29908), (37, 29893),

Gene: Rahalelujah\_69 Start: 41050, Stop: 40859, Start Num: 15

Candidate Starts for Rahalelujah\_69:

(Start: 15 @41050 has 40 MA's), (19, 41020), (20, 41017), (25, 40975), (31, 40921), (33, 40912),

Gene: Refuge\_65 Start: 42312, Stop: 42115, Start Num: 15

Candidate Starts for Refuge\_65:

(Start: 15 @42312 has 40 MA's), (17, 42291), (20, 42279), (35, 42180),

Gene: Rifter\_70 Start: 39766, Stop: 39587, Start Num: 15

Candidate Starts for Rifter\_70:

(Start: 15 @39766 has 40 MA's), (20, 39733),

Gene: Roksolana\_71 Start: 40600, Stop: 40421, Start Num: 15

Candidate Starts for Roksolana\_71:

(4, 40717), (7, 40645), (Start: 9 @40639 has 1 MA's), (Start: 12 @40627 has 4 MA's), (Start: 15 @40600 has 40 MA's), (20, 40567),

Gene: SheckWes\_42 Start: 28660, Stop: 28454, Start Num: 11

Candidate Starts for SheckWes\_42:

(Start: 11 @28660 has 15 MA's), (20, 28594), (32, 28504), (36, 28495), (37, 28480),

Gene: SmellyB\_69 Start: 40260, Stop: 40054, Start Num: 12

Candidate Starts for SmellyB\_69:

(6, 40335), (7, 40278), (Start: 9 @40272 has 1 MA's), (Start: 12 @40260 has 4 MA's), (Start: 15 @40233 has 40 MA's), (20, 40200),

Gene: SororFago\_69 Start: 42242, Stop: 42048, Start Num: 15

Candidate Starts for SororFago\_69:

(Start: 15 @42242 has 40 MA's), (20, 42209), (27, 42146), (32, 42119), (34, 42113),

Gene: SummitAcademy\_39 Start: 28702, Stop: 28496, Start Num: 11

Candidate Starts for SummitAcademy\_39:

(Start: 11 @28702 has 15 MA's), (20, 28636), (32, 28546), (36, 28537), (37, 28522),

Gene: Sunhee\_70 Start: 40582, Stop: 40388, Start Num: 15

Candidate Starts for Sunhee\_70:

(4, 40693), (Start: 12 @40603 has 4 MA's), (Start: 15 @40582 has 40 MA's), (27, 40486), (34, 40453),

Gene: SuperAwesome\_69 Start: 40265, Stop: 40059, Start Num: 12

Candidate Starts for SuperAwesome\_69:

(6, 40340), (7, 40283), (Start: 9 @40277 has 1 MA's), (Start: 12 @40265 has 4 MA's), (Start: 15 @40238 has 40 MA's), (20, 40205),

Gene: Temprado\_71 Start: 40605, Stop: 40426, Start Num: 15

Candidate Starts for Temprado\_71:

(Start: 15 @40605 has 40 MA's), (20, 40572),

Gene: ToneTone\_67 Start: 40165, Stop: 39986, Start Num: 15

Candidate Starts for ToneTone\_67:

(Start: 15 @40165 has 40 MA's), (20, 40132),

Gene: Tucker\_70 Start: 40368, Stop: 40189, Start Num: 15

Candidate Starts for Tucker\_70:

(Start: 15 @40368 has 40 MA's), (20, 40335),

Gene: Vine\_42 Start: 29438, Stop: 29232, Start Num: 11

Candidate Starts for Vine\_42:

(Start: 11 @29438 has 15 MA's), (20, 29372), (32, 29282), (36, 29273), (37, 29258),

Gene: VohminGhazi\_69 Start: 40234, Stop: 40055, Start Num: 15

Candidate Starts for VohminGhazi\_69:

(6, 40336), (7, 40279), (Start: 9 @40273 has 1 MA's), (Start: 12 @40261 has 4 MA's), (Start: 15 @40234 has 40 MA's), (20, 40201),

Gene: Wiks\_69 Start: 40236, Stop: 40057, Start Num: 15

Candidate Starts for Wiks\_69:

(Start: 15 @40236 has 40 MA's), (20, 40203),

Gene: WorldCup\_67 Start: 41044, Stop: 40853, Start Num: 15

Candidate Starts for WorldCup\_67:

(Start: 15 @41044 has 40 MA's), (19, 41014), (20, 41011), (25, 40969), (31, 40915), (33, 40906),

Gene: WunderPhul\_70 Start: 40234, Stop: 40055, Start Num: 15

Candidate Starts for WunderPhul\_70:

(Start: 15 @40234 has 40 MA's), (20, 40201),

Gene: Yappy\_17 Start: 5650, Stop: 5847, Start Num: 14

Candidate Starts for Yappy\_17:

(8, 5620), (Start: 14 @5650 has 1 MA's), (20, 5698), (23, 5716), (26, 5749), (30, 5776), (35, 5797), (38, 5821), (40, 5833),

Gene: Yokurt\_69 Start: 40236, Stop: 40057, Start Num: 15

Candidate Starts for Yokurt\_69:

(Start: 15 @40236 has 40 MA's), (20, 40203),

Gene: Yucky\_42 Start: 29378, Stop: 29172, Start Num: 11

Candidate Starts for Yucky\_42:

(Start: 11 @29378 has 15 MA's), (20, 29312), (32, 29222), (36, 29213), (37, 29198),

Gene: Yummy\_40 Start: 27287, Stop: 27084, Start Num: 13

Candidate Starts for Yummy\_40:

(2, 27479), (Start: 13 @27287 has 4 MA's), (22, 27227), (24, 27209),

Gene: Yvonnetastic\_130 Start: 73750, Stop: 73998, Start Num: 11

Candidate Starts for Yvonnetastic\_130:

(Start: 11 @73750 has 15 MA's), (16, 73792), (29, 73897), (34, 73918), (37, 73942), (39, 73951),

Gene: Zaka\_70 Start: 40236, Stop: 40057, Start Num: 15

Candidate Starts for Zaka\_70:

(Start: 15 @40236 has 40 MA's), (20, 40203),

Gene: Zimmer\_65 Start: 42012, Stop: 41815, Start Num: 15

Candidate Starts for Zimmer\_65:

(4, 42129), (5, 42126), (Start: 15 @42012 has 40 MA's), (20, 41979),

Gene: Zulu\_71 Start: 40614, Stop: 40435, Start Num: 15

Candidate Starts for Zulu\_71:

(Start: 15 @40614 has 40 MA's), (20, 40581),