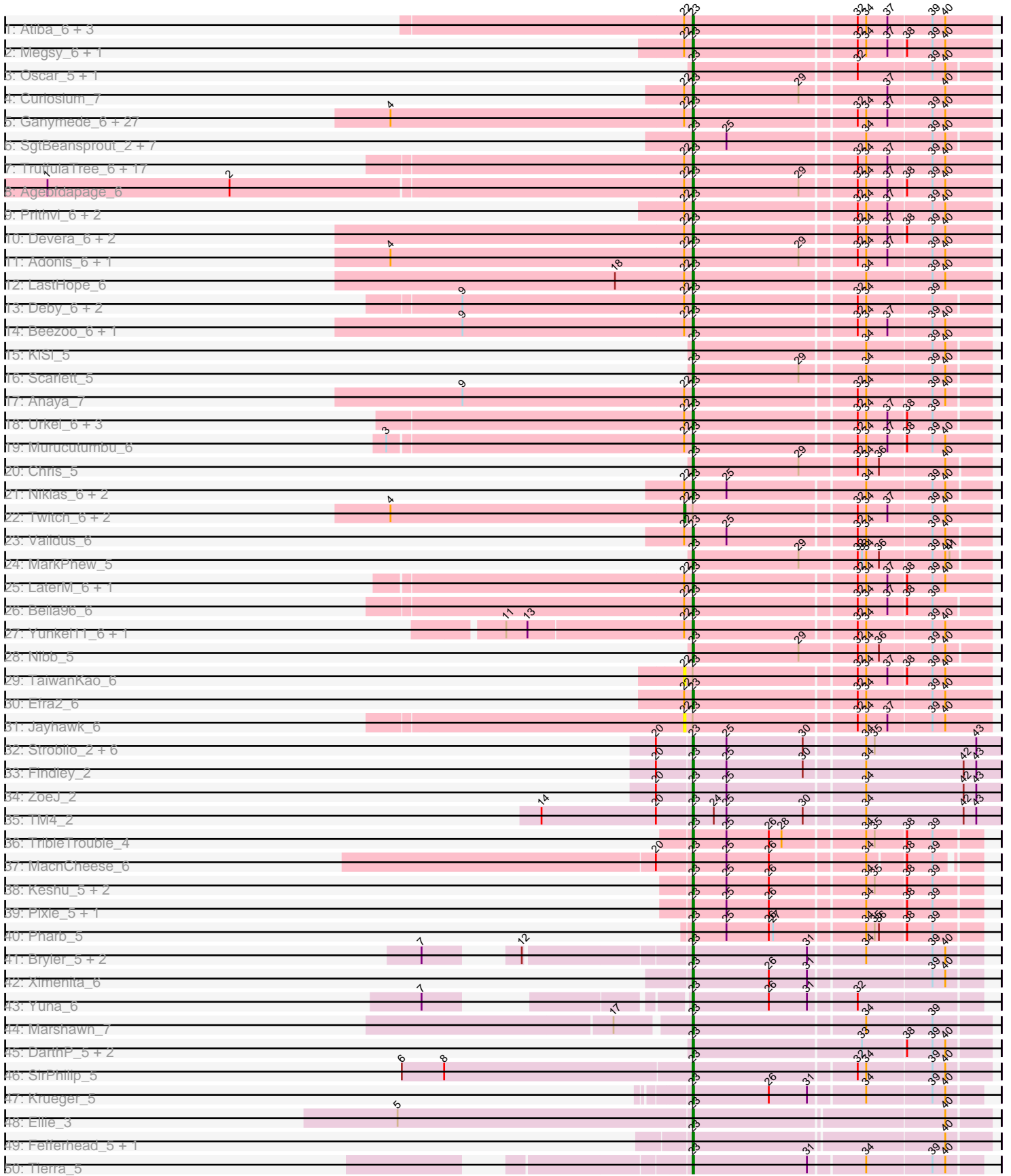


Pham 159040





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 159040 Report

This analysis was run 04/28/24 on database version 559.

Pham number 159040 has 144 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Atiba\_6, Pokerus\_5, Apocalypse\_6, Tachez\_6
- Track 2 : Megsy\_6, CrimD\_6
- Track 3 : Oscar\_5, LeMond\_5
- Track 4 : Curiosium\_7
- Track 5 : Ganymede\_6, Capricorn\_6, Durfee\_6, Blizzard\_6, Homura\_6, ShiaSurprise\_6, Boiii\_6, Inky\_6, BGIlluvia\_6, CheetoDust\_6, Topper\_6, Piatt\_6, Veliki\_6, Lunahalos\_6, Dalmuri\_6, Belladonna\_6, Jarvi\_6, Llorens\_6, QuincyRose\_5, Asayake\_6, Hyperbowlee\_6, Jeckyll\_6, Rosmarinus\_6, CREW\_6, BEEST\_6, Padfoot\_6, Spock\_6, CaseJules\_6
- Track 6 : SgtBeansprout\_2, Nutello\_2, Enkosi\_2, Mdavu\_2, Amelie\_2, Nikao\_2, LilPharaoh\_2, Binglebops\_2
- Track 7 : TruffulaTree\_6, JAWS\_6, BarrelRoll\_6, Adephagia\_6, Slimphazie\_6, Emerson\_6, Joy99\_6, YoureAdopted\_5, Zabiza\_6, HedwigODU\_6, AlishaPH\_6, BaghaKamala\_6, MeaningOfLife\_6, Padpat\_6, ActinUp\_6, Zavala\_6, Rapunzel97\_6, Ramen\_6
- Track 8 : Ageofdapage\_6
- Track 9 : Prithvi\_6, LindNT\_6, TreyKay\_6
- Track 10 : Devera\_6, Illumine\_6, Dole\_6
- Track 11 : Adonis\_6, Tiri\_6
- Track 12 : LastHope\_6
- Track 13 : Deby\_6, Angelica\_6, Sulley\_6
- Track 14 : Beezoo\_6, Geraldini\_6
- Track 15 : KiSi\_5
- Track 16 : Scarlett\_5
- Track 17 : Anaya\_7
- Track 18 : Urkel\_6, DrHayes\_6, TiniBug\_6, SamuelLPlaqson\_6
- Track 19 : Murucutumbu\_6
- Track 20 : Chris\_5
- Track 21 : Niklas\_6, Shaobing\_6, Peanam\_6
- Track 22 : Twitch\_6, Mynx\_6, Peel\_6
- Track 23 : Validus\_6
- Track 24 : MarkPhew\_5
- Track 25 : LaterM\_6, Stinson\_6
- Track 26 : Bella96\_6
- Track 27 : Yunkel11\_6, Guanica15\_6
- Track 28 : Nibb\_5
- Track 29 : TaiwanKao\_6

- Track 30 : Efra2\_6
- Track 31 : Jayhawk\_6
- Track 32 : Strobilo\_2, DismalFunk\_2, Mufasa\_2, BoostSeason\_2, Milly\_2, Marcoliusprime\_2, DismalStressor\_2
- Track 33 : Findley\_2
- Track 34 : ZoeJ\_2
- Track 35 : TM4\_2
- Track 36 : TribbleTrouble\_4
- Track 37 : MacnCheese\_6
- Track 38 : Keshu\_5, Hurricane\_5, ShedlockHolmes\_5
- Track 39 : Pixie\_5, TBond007\_5
- Track 40 : Pharb\_5
- Track 41 : Bryler\_5, Cain\_5, Phrank\_5
- Track 42 : Ximenita\_6
- Track 43 : Yuna\_6
- Track 44 : Marshawn\_7
- Track 45 : DarthP\_5, Amohnition\_5, Hammy\_5
- Track 46 : SirPhilip\_5
- Track 47 : Krueger\_5
- Track 48 : Ellie\_3
- Track 49 : Fefferhead\_5, Amgine\_4
- Track 50 : Tierra\_5
- Track 51 : Unicorn\_5, PhelpsODU\_5
- Track 52 : Ekdilam\_3
- Track 53 : Shadow1\_4, Sunflower1121\_4
- Track 54 : Syra333\_5
- Track 55 : TClif\_5

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

The start number called the most often in the published annotations is 23, it was called in 134 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp\_6, Adephagia\_6, Adonis\_6, Ageofdapage\_6, AlishaPH\_6, Amelie\_2, Amgine\_4, Amohnition\_5, Anaya\_7, Angelica\_6, Apocalypse\_6, Asayake\_6, Atiba\_6, BEEST\_6, BGIluviae\_6, BaghaKamala\_6, BarrelRoll\_6, Beezoo\_6, Bella96\_6, Belladonna\_6, Biglebops\_2, Blizzard\_6, Boiiii\_6, BoostSeason\_2, Bryler\_5, CREW\_6, Cain\_5, Capricorn\_6, CaseJules\_6, CheetoDust\_6, Chris\_5, CrimD\_6, Curiosium\_7, Dalmuri\_6, DarthP\_5, Deby\_6, Devera\_6, DismalFunk\_2, DismalStressor\_2, Dole\_6, DrHayes\_6, Durfee\_6, Efra2\_6, Ekdilam\_3, Ellie\_3, Emerson\_6, Enkosi\_2, Fefferhead\_5, Findley\_2, Ganymede\_6, Geraldini\_6, Guanica15\_6, Hammy\_5, HedwigODU\_6, Homura\_6, Hurricane\_5, Hyperbowlee\_6, Illumine\_6, Inky\_6, JAWS\_6, Jarvi\_6, Jeckyll\_6, Joy99\_6, Keshu\_5, KiSi\_5, Krueger\_5, LastHope\_6, LaterM\_6, LeMond\_5, LilPharaoh\_2, LindNT\_6, Llorens\_6, Lunahalos\_6, MacnCheese\_6, Marcoliusprime\_2, MarkPhew\_5, Marshawn\_7, Mdavu\_2, MeaningOfLife\_6, Megsy\_6, Milly\_2, Mufasa\_2, Murucutumbu\_6, Nibb\_5, Nikao\_2, Niklas\_6, Nutello\_2, Oscar\_5, Padfoot\_6, Padpat\_6, Peanam\_6, Pharb\_5, PhelpsODU\_5, Phrank\_5, Piatt\_6, Pixie\_5, Pokerus\_5, Prithvi\_6, QuincyRose\_5, Ramen\_6, Rapunzel97\_6, Rosmarinus\_6, SamuelLPlaqson\_6, Scarlett\_5,

SgtBeansprout\_2, Shadow1\_4, Shaobing\_6, ShedlockHolmes\_5, ShiaSurprise\_6, SirPhilip\_5, Slimphazie\_6, Spock\_6, Stinson\_6, Strobilo\_2, Sulley\_6, Sunflower1121\_4, Syra333\_5, TBond007\_5, TClif\_5, TM4\_2, Tachez\_6, Tierra\_5, TiniBug\_6, Tiri\_6, Topper\_6, TreyKay\_6, TribbleTrouble\_4, TruffulaTree\_6, Unicorn\_5, Urkel\_6, Validus\_6, Veliki\_6, Ximenita\_6, YoureAdopted\_5, Yuna\_6, Yunkel11\_6, Zabiza\_6, Zavala\_6, ZoeJ\_2,

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

- Jayhawk\_6, Mynx\_6, Peel\_6, TaiwanKao\_6, Twitch\_6,

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

- 

### Summary by start number:

Start 22:

- Found in 89 of 144 ( 61.8% ) of genes in pham
- Manual Annotations of this start: 3 of 137
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Jayhawk\_6 (K1), Mynx\_6 (K1), Peel\_6 (K1), TaiwanKao\_6 (K1), Twitch\_6 (K1),

Start 23:

- Found in 144 of 144 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 134 of 137
- Called 96.5% of time when present
- Phage (with cluster) where this start called: ActinUp\_6 (K1), Adephagia\_6 (K1), Adonis\_6 (K1), Ageofdapage\_6 (K1), AlishaPH\_6 (K1), Amelie\_2 (K1), Amgine\_4 (K6), Amohnition\_5 (K6), Anaya\_7 (K1), Angelica\_6 (K1), Apocalypse\_6 (K1), Asayake\_6 (K1), Atiba\_6 (K1), BEEST\_6 (K1), BGlluviae\_6 (K1), BaghaKamala\_6 (K1), BarrelRoll\_6 (K1), Beezoo\_6 (K1), Bella96\_6 (K1), Belladonna\_6 (K1), Binglebops\_2 (K1), Blizzard\_6 (K1), Boiiii\_6 (K1), BoostSeason\_2 (K2), Bryler\_5 (K6), CREW\_6 (K1), Cain\_5 (K6), Capricorn\_6 (K1), CaseJules\_6 (K1), CheetoDust\_6 (K1), Chris\_5 (K1), CrimD\_6 (K1), Curiosium\_7 (K1), Dalmuri\_6 (K1), DarthP\_5 (K6), Deby\_6 (K1), Devera\_6 (K1), DismalFunk\_2 (K2), DismalStressor\_2 (K2), Dole\_6 (K1), DrHayes\_6 (K1), Durfee\_6 (K1), Efra2\_6 (K1), Ekdilam\_3 (K6), Ellie\_3 (K6), Emerson\_6 (K1), Enkosi\_2 (K1), Fefferhead\_5 (K6), Findley\_2 (K2), Ganymede\_6 (K1), Geraldini\_6 (K1), Guanica15\_6 (K1), Hammy\_5 (K6), HedwigODU\_6 (K1), Homura\_6 (K1), Hurricane\_5 (K3), Hyperbowlee\_6 (K1), Illumine\_6 (K1), Inky\_6 (K1), JAWS\_6 (K1), Jarvi\_6 (K1), Jeckyll\_6 (K1), Joy99\_6 (K1), Keshu\_5 (K3), KiSi\_5 (K1), Krueger\_5 (K6), LastHope\_6 (K1), LaterM\_6 (K1), LeMond\_5 (K1), LilPharaoh\_2 (K1), LindNT\_6 (K1), Llorens\_6 (K1), Lunahalos\_6 (K1), MacnCheese\_6 (K3), Marcoliusprime\_2 (K2), MarkPhew\_5 (K1), Marshawn\_7 (K6), Mdavu\_2 (K1), MeaningOfLife\_6 (K1), Megsy\_6 (K1), Milly\_2 (K2), Mufasa\_2 (K2), Murucutumbu\_6 (K1), Nibb\_5 (K1), Nikao\_2 (K1), Niklas\_6 (K1), Nutello\_2 (K1), Oscar\_5 (K1), Padfoot\_6 (K1), Padpat\_6 (K1), Peanam\_6 (K1), Pharb\_5 (K3), PhelpsODU\_5 (K6), Phrank\_5 (K6), Piatt\_6 (K1), Pixie\_5 (K3), Pokerus\_5 (K1), Prithvi\_6 (K1), QuincyRose\_5 (K1), Ramen\_6 (K1), Rapunzel97\_6 (K1), Rosmarinus\_6 (K1), SamuelLPlaqson\_6 (K1), Scarlett\_5 (K1), SgtBeansprout\_2 (K1), Shadow1\_4 (K6), Shaobing\_6 (K1), ShedlockHolmes\_5 (K3), ShiaSurprise\_6 (K1), SirPhilip\_5 (K6), Slimphazie\_6 (K1), Spock\_6 (K1), Stinson\_6 (K1), Strobilo\_2 (K2), Sulley\_6 (K1), Sunflower1121\_4 (K6), Syra333\_5 (K6), TBond007\_5 (K3), TClif\_5 (K6), TM4\_2 (K2), Tachez\_6 (K1), Tierra\_5 (K6), TiniBug\_6 (K1), Tiri\_6 (K1), Topper\_6 (K1), TreyKay\_6

(K1), TribbleTrouble\_4 (K3), TruffulaTree\_6 (K1), Unicorn\_5 (K6), Urkel\_6 (K1), Validus\_6 (K1), Veliki\_6 (K1), Ximenita\_6 (K6), YoureAdopted\_5 (K1), Yuna\_6 (K6), Yunkel11\_6 (K1), Zabiza\_6 (K1), Zavala\_6 (K1), ZoeJ\_2 (K2),

### **Summary by clusters:**

There are 4 clusters represented in this pham: K3, K2, K1, K6,

Info for manual annotations of cluster K1:

- Start number 22 was manually annotated 3 times for cluster K1.
- Start number 23 was manually annotated 96 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 23 was manually annotated 9 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 23 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K6:

- Start number 23 was manually annotated 21 times for cluster K6.

### **Gene Information:**

Gene: ActinUp\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for ActinUp\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Adephagia\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Adephagia\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Adonis\_6 Start: 1197, Stop: 1400, Start Num: 23

Candidate Starts for Adonis\_6:

(4, 984), (Start: 22 @1191 has 3 MA's), (Start: 23 @1197 has 134 MA's), (29, 1272), (32, 1308), (34, 1314), (37, 1329), (39, 1359), (40, 1368),

Gene: Ageofdapage\_6 Start: 1129, Stop: 1332, Start Num: 23

Candidate Starts for Ageofdapage\_6:

(1, 679), (2, 808), (Start: 22 @1123 has 3 MA's), (Start: 23 @1129 has 134 MA's), (29, 1204), (32, 1240), (34, 1246), (37, 1261), (38, 1273), (39, 1291), (40, 1300),

Gene: AlishaPH\_6 Start: 1185, Stop: 1388, Start Num: 23

Candidate Starts for AlishaPH\_6:

(Start: 22 @1179 has 3 MA's), (Start: 23 @1185 has 134 MA's), (32, 1296), (34, 1302), (37, 1317), (39, 1347), (40, 1356),

Gene: Amelie\_2 Start: 443, Stop: 643, Start Num: 23

Candidate Starts for Amelie\_2:

(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: Amgine\_4 Start: 777, Stop: 977, Start Num: 23

Candidate Starts for Amgine\_4:

(Start: 23 @777 has 134 MA's), (40, 948),

Gene: Amohnition\_5 Start: 980, Stop: 1183, Start Num: 23

Candidate Starts for Amohnition\_5:

(Start: 23 @980 has 134 MA's), (33, 1097), (38, 1127), (39, 1145), (40, 1154),

Gene: Anaya\_7 Start: 1212, Stop: 1412, Start Num: 23

Candidate Starts for Anaya\_7:

(9, 1050), (Start: 22 @1206 has 3 MA's), (Start: 23 @1212 has 134 MA's), (32, 1323), (34, 1329), (39, 1374), (40, 1383),

Gene: Angelica\_6 Start: 1171, Stop: 1371, Start Num: 23

Candidate Starts for Angelica\_6:

(9, 1009), (Start: 22 @1165 has 3 MA's), (Start: 23 @1171 has 134 MA's), (32, 1282), (34, 1288), (39, 1333),

Gene: Apocalypse\_6 Start: 1164, Stop: 1367, Start Num: 23

Candidate Starts for Apocalypse\_6:

(Start: 22 @1158 has 3 MA's), (Start: 23 @1164 has 134 MA's), (32, 1275), (34, 1281), (37, 1296), (39, 1326), (40, 1335),

Gene: Asayake\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Asayake\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Atiba\_6 Start: 1149, Stop: 1352, Start Num: 23

Candidate Starts for Atiba\_6:

(Start: 22 @1143 has 3 MA's), (Start: 23 @1149 has 134 MA's), (32, 1260), (34, 1266), (37, 1281), (39, 1311), (40, 1320),

Gene: BEEST\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for BEEST\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: BGlluviae\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for BGlluviae\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: BaghaKamala\_6 Start: 1156, Stop: 1359, Start Num: 23

Candidate Starts for BaghaKamala\_6:

(Start: 22 @1150 has 3 MA's), (Start: 23 @1156 has 134 MA's), (32, 1267), (34, 1273), (37, 1288), (39, 1318), (40, 1327),

Gene: BarrelRoll\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for BarrelRoll\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Beezoo\_6 Start: 1209, Stop: 1412, Start Num: 23

Candidate Starts for Beezoo\_6:

(9, 1047), (Start: 22 @1203 has 3 MA's), (Start: 23 @1209 has 134 MA's), (32, 1320), (34, 1326), (37, 1341), (39, 1371), (40, 1380),

Gene: Bella96\_6 Start: 1141, Stop: 1341, Start Num: 23

Candidate Starts for Bella96\_6:

(Start: 22 @1135 has 3 MA's), (Start: 23 @1141 has 134 MA's), (32, 1252), (34, 1258), (37, 1273), (38, 1285), (39, 1303),

Gene: Belladonna\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Belladonna\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Biglebops\_2 Start: 443, Stop: 643, Start Num: 23

Candidate Starts for Biglebops\_2:

(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: Blizzard\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Blizzard\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Boiiii\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Boiiii\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: BoostSeason\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for BoostSeason\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: Bryler\_5 Start: 1083, Stop: 1277, Start Num: 23

Candidate Starts for Bryler\_5:

(7, 936), (12, 975), (Start: 23 @1083 has 134 MA's), (31, 1164), (34, 1200), (39, 1245), (40, 1254),

Gene: CREW\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for CREW\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Cain\_5 Start: 1083, Stop: 1277, Start Num: 23

Candidate Starts for Cain\_5:

(7, 936), (12, 975), (Start: 23 @1083 has 134 MA's), (31, 1164), (34, 1200), (39, 1245), (40, 1254),

Gene: Capricorn\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Capricorn\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: CaseJules\_6 Start: 1230, Stop: 1433, Start Num: 23



Candidate Starts for CaseJules\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: CheetoDust\_6 Start: 1206, Stop: 1409, Start Num: 23

Candidate Starts for CheetoDust\_6:

(4, 993), (Start: 22 @1200 has 3 MA's), (Start: 23 @1206 has 134 MA's), (32, 1317), (34, 1323), (37, 1338), (39, 1368), (40, 1377),

Gene: Chris\_5 Start: 1121, Stop: 1324, Start Num: 23

Candidate Starts for Chris\_5:

(Start: 23 @1121 has 134 MA's), (29, 1196), (32, 1235), (34, 1241), (36, 1250), (40, 1295),

Gene: CrimD\_6 Start: 1155, Stop: 1358, Start Num: 23

Candidate Starts for CrimD\_6:

(Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (38, 1299), (39, 1317), (40, 1326),

Gene: Curiosium\_7 Start: 1537, Stop: 1740, Start Num: 23

Candidate Starts for Curiosium\_7:

(Start: 22 @1531 has 3 MA's), (Start: 23 @1537 has 134 MA's), (29, 1612), (37, 1669), (40, 1708),

Gene: Dalmuri\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Dalmuri\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: DarthP\_5 Start: 980, Stop: 1183, Start Num: 23

Candidate Starts for DarthP\_5:

(Start: 23 @980 has 134 MA's), (33, 1097), (38, 1127), (39, 1145), (40, 1154),

Gene: Deby\_6 Start: 1171, Stop: 1371, Start Num: 23

Candidate Starts for Deby\_6:

(9, 1009), (Start: 22 @1165 has 3 MA's), (Start: 23 @1171 has 134 MA's), (32, 1282), (34, 1288), (39, 1333),

Gene: Devera\_6 Start: 1197, Stop: 1400, Start Num: 23

Candidate Starts for Devera\_6:

(Start: 22 @1191 has 3 MA's), (Start: 23 @1197 has 134 MA's), (32, 1308), (34, 1314), (37, 1329), (38, 1341), (39, 1359), (40, 1368),

Gene: DismalFunk\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for DismalFunk\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: DismalStressor\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for DismalStressor\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: Dole\_6 Start: 1197, Stop: 1400, Start Num: 23

Candidate Starts for Dole\_6:

(Start: 22 @1191 has 3 MA's), (Start: 23 @1197 has 134 MA's), (32, 1308), (34, 1314), (37, 1329), (38, 1341), (39, 1359), (40, 1368),

Gene: DrHayes\_6 Start: 1162, Stop: 1362, Start Num: 23

Candidate Starts for DrHayes\_6:

(Start: 22 @1156 has 3 MA's), (Start: 23 @1162 has 134 MA's), (32, 1273), (34, 1279), (37, 1294), (38, 1306), (39, 1324),

Gene: Durfee\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Durfee\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Efra2\_6 Start: 1164, Stop: 1367, Start Num: 23

Candidate Starts for Efra2\_6:

(Start: 22 @1158 has 3 MA's), (Start: 23 @1164 has 134 MA's), (32, 1275), (34, 1281), (39, 1326), (40, 1335),

Gene: Ekdilam\_3 Start: 715, Stop: 918, Start Num: 23

Candidate Starts for Ekdilam\_3:

(10, 589), (15, 655), (16, 664), (19, 688), (21, 709), (Start: 23 @715 has 134 MA's), (25, 739), (36, 844), (38, 862), (39, 880), (40, 889),

Gene: Ellie\_3 Start: 809, Stop: 1009, Start Num: 23

Candidate Starts for Ellie\_3:

(5, 602), (Start: 23 @809 has 134 MA's), (40, 980),

Gene: Emerson\_6 Start: 1186, Stop: 1389, Start Num: 23

Candidate Starts for Emerson\_6:

(Start: 22 @1180 has 3 MA's), (Start: 23 @1186 has 134 MA's), (32, 1297), (34, 1303), (37, 1318), (39, 1348), (40, 1357),

Gene: Enkosi\_2 Start: 443, Stop: 643, Start Num: 23

Candidate Starts for Enkosi\_2:

(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: Fefferhead\_5 Start: 979, Stop: 1179, Start Num: 23

Candidate Starts for Fefferhead\_5:

(Start: 23 @979 has 134 MA's), (40, 1150),

Gene: Findley\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for Findley\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (42, 410), (43, 419),

Gene: Ganymede\_6 Start: 1206, Stop: 1409, Start Num: 23

Candidate Starts for Ganymede\_6:

(4, 993), (Start: 22 @1200 has 3 MA's), (Start: 23 @1206 has 134 MA's), (32, 1317), (34, 1323), (37, 1338), (39, 1368), (40, 1377),

Gene: Geraldini\_6 Start: 1209, Stop: 1412, Start Num: 23

Candidate Starts for Geraldini\_6:

(9, 1047), (Start: 22 @1203 has 3 MA's), (Start: 23 @1209 has 134 MA's), (32, 1320), (34, 1326), (37, 1341), (39, 1371), (40, 1380),

Gene: Guanica15\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Guanica15\_6:

(11, 1051), (13, 1066), (Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (39, 1342), (40, 1351),

Gene: Hammy\_5 Start: 977, Stop: 1180, Start Num: 23

Candidate Starts for Hammy\_5:

(Start: 23 @977 has 134 MA's), (33, 1094), (38, 1124), (39, 1142), (40, 1151),

Gene: HedwigODU\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for HedwigODU\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Homura\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Homura\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Hurricane\_5 Start: 1086, Stop: 1280, Start Num: 23

Candidate Starts for Hurricane\_5:

(Start: 23 @1086 has 134 MA's), (25, 1110), (26, 1140), (34, 1203), (35, 1209), (38, 1230), (39, 1248),

Gene: Hyperbowlee\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Hyperbowlee\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Illumine\_6 Start: 1197, Stop: 1400, Start Num: 23

Candidate Starts for Illumine\_6:

(Start: 22 @1191 has 3 MA's), (Start: 23 @1197 has 134 MA's), (32, 1308), (34, 1314), (37, 1329), (38, 1341), (39, 1359), (40, 1368),

Gene: Inky\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Inky\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: JAWS\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for JAWS\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Jarvi\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Jarvi\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Jayhawk\_6 Start: 1174, Stop: 1383, Start Num: 22

Candidate Starts for Jayhawk\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Jeckyll\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Jeckyll\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Joy99\_6 Start: 1156, Stop: 1359, Start Num: 23

Candidate Starts for Joy99\_6:

(Start: 22 @1150 has 3 MA's), (Start: 23 @1156 has 134 MA's), (32, 1267), (34, 1273), (37, 1288), (39, 1318), (40, 1327),

Gene: Keshu\_5 Start: 1065, Stop: 1259, Start Num: 23

Candidate Starts for Keshu\_5:

(Start: 23 @1065 has 134 MA's), (25, 1089), (26, 1119), (34, 1182), (35, 1188), (38, 1209), (39, 1227),

Gene: KiSi\_5 Start: 1077, Stop: 1277, Start Num: 23

Candidate Starts for KiSi\_5:

(Start: 23 @1077 has 134 MA's), (34, 1194), (39, 1239), (40, 1248),

Gene: Krueger\_5 Start: 1093, Stop: 1287, Start Num: 23

Candidate Starts for Krueger\_5:

(Start: 23 @1093 has 134 MA's), (26, 1147), (31, 1174), (34, 1210), (39, 1255), (40, 1264),

Gene: LastHope\_6 Start: 1192, Stop: 1395, Start Num: 23

Candidate Starts for LastHope\_6:

(18, 1138), (Start: 22 @1186 has 3 MA's), (Start: 23 @1192 has 134 MA's), (34, 1309), (39, 1354), (40, 1363),

Gene: LaterM\_6 Start: 1161, Stop: 1364, Start Num: 23

Candidate Starts for LaterM\_6:

(Start: 22 @1155 has 3 MA's), (Start: 23 @1161 has 134 MA's), (32, 1272), (34, 1278), (37, 1293), (38, 1305), (39, 1323), (40, 1332),

Gene: LeMond\_5 Start: 1077, Stop: 1277, Start Num: 23

Candidate Starts for LeMond\_5:

(Start: 23 @1077 has 134 MA's), (32, 1188), (39, 1239), (40, 1248),

Gene: LilPharaoh\_2 Start: 443, Stop: 643, Start Num: 23

Candidate Starts for LilPharaoh\_2:

(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: LindNT\_6 Start: 1155, Stop: 1358, Start Num: 23

Candidate Starts for LindNT\_6:

(Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (39, 1317), (40, 1326),

Gene: Llorens\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Llorens\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Lunahalos\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Lunahalos\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: MacnCheese\_6 Start: 1298, Stop: 1483, Start Num: 23

Candidate Starts for MacnCheese\_6:

(20, 1274), (Start: 23 @1298 has 134 MA's), (25, 1322), (26, 1352), (34, 1415), (38, 1439), (39, 1457),

Gene: Marcoliusprime\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for Marcoliusprime\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: MarkPhew\_5 Start: 1025, Stop: 1228, Start Num: 23

Candidate Starts for MarkPhew\_5:

(Start: 23 @1025 has 134 MA's), (29, 1100), (32, 1139), (33, 1142), (34, 1145), (36, 1154), (39, 1190), (40, 1199), (41, 1202),

Gene: Marshawn\_7 Start: 1626, Stop: 1826, Start Num: 23

Candidate Starts for Marshawn\_7:

(17, 1578), (Start: 23 @1626 has 134 MA's), (34, 1743), (39, 1788),

Gene: Mdavu\_2 Start: 443, Stop: 643, Start Num: 23

Candidate Starts for Mdavu\_2:

(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: MeaningOfLife\_6 Start: 1156, Stop: 1359, Start Num: 23

Candidate Starts for MeaningOfLife\_6:

(Start: 22 @1150 has 3 MA's), (Start: 23 @1156 has 134 MA's), (32, 1267), (34, 1273), (37, 1288), (39, 1318), (40, 1327),

Gene: Megsy\_6 Start: 1155, Stop: 1358, Start Num: 23

Candidate Starts for Megsy\_6:

(Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (38, 1299), (39, 1317), (40, 1326),

Gene: Milly\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for Milly\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: Mufasa\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for Mufasa\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: Murucutumbu\_6 Start: 1155, Stop: 1358, Start Num: 23

Candidate Starts for Murucutumbu\_6:

(3, 945), (Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (38, 1299), (39, 1317), (40, 1326),

Gene: Mynx\_6 Start: 1200, Stop: 1409, Start Num: 22

Candidate Starts for Mynx\_6:

(4, 993), (Start: 22 @1200 has 3 MA's), (Start: 23 @1206 has 134 MA's), (32, 1317), (34, 1323), (37, 1338), (39, 1368), (40, 1377),

Gene: Nibb\_5 Start: 1168, Stop: 1371, Start Num: 23

Candidate Starts for Nibb\_5:

(Start: 23 @1168 has 134 MA's), (29, 1243), (32, 1282), (34, 1288), (36, 1297), (39, 1333), (40, 1342),

Gene: Nikao\_2 Start: 443, Stop: 643, Start Num: 23  
Candidate Starts for Nikao\_2:  
(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: Niklas\_6 Start: 1256, Stop: 1456, Start Num: 23  
Candidate Starts for Niklas\_6:  
(Start: 22 @1250 has 3 MA's), (Start: 23 @1256 has 134 MA's), (25, 1280), (34, 1373), (39, 1418),  
(40, 1427),

Gene: Nutello\_2 Start: 443, Stop: 643, Start Num: 23  
Candidate Starts for Nutello\_2:  
(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: Oscar\_5 Start: 1078, Stop: 1278, Start Num: 23  
Candidate Starts for Oscar\_5:  
(Start: 23 @1078 has 134 MA's), (32, 1189), (39, 1240), (40, 1249),

Gene: Padfoot\_6 Start: 1230, Stop: 1433, Start Num: 23  
Candidate Starts for Padfoot\_6:  
(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37,  
1362), (39, 1392), (40, 1401),

Gene: Padpat\_6 Start: 1186, Stop: 1389, Start Num: 23  
Candidate Starts for Padpat\_6:  
(Start: 22 @1180 has 3 MA's), (Start: 23 @1186 has 134 MA's), (32, 1297), (34, 1303), (37, 1318),  
(39, 1348), (40, 1357),

Gene: Peanam\_6 Start: 1256, Stop: 1456, Start Num: 23  
Candidate Starts for Peanam\_6:  
(Start: 22 @1250 has 3 MA's), (Start: 23 @1256 has 134 MA's), (25, 1280), (34, 1373), (39, 1418),  
(40, 1427),

Gene: Peel\_6 Start: 1224, Stop: 1433, Start Num: 22  
Candidate Starts for Peel\_6:  
(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37,  
1362), (39, 1392), (40, 1401),

Gene: Pharb\_5 Start: 883, Stop: 1077, Start Num: 23  
Candidate Starts for Pharb\_5:  
(Start: 23 @883 has 134 MA's), (25, 907), (26, 937), (27, 940), (34, 1000), (35, 1006), (36, 1009), (38,  
1027), (39, 1045),

Gene: PhelpsODU\_5 Start: 1123, Stop: 1317, Start Num: 23  
Candidate Starts for PhelpsODU\_5:  
(Start: 23 @1123 has 134 MA's), (31, 1204), (34, 1240), (39, 1285), (40, 1294),

Gene: Phrank\_5 Start: 1089, Stop: 1283, Start Num: 23  
Candidate Starts for Phrank\_5:  
(7, 942), (12, 981), (Start: 23 @1089 has 134 MA's), (31, 1170), (34, 1206), (39, 1251), (40, 1260),

Gene: Piatt\_6 Start: 1230, Stop: 1433, Start Num: 23  
Candidate Starts for Piatt\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Pixie\_5 Start: 834, Stop: 1028, Start Num: 23

Candidate Starts for Pixie\_5:

(Start: 23 @834 has 134 MA's), (25, 858), (26, 888), (34, 951), (38, 978), (39, 996),

Gene: Pokerus\_5 Start: 1140, Stop: 1343, Start Num: 23

Candidate Starts for Pokerus\_5:

(Start: 22 @1134 has 3 MA's), (Start: 23 @1140 has 134 MA's), (32, 1251), (34, 1257), (37, 1272), (39, 1302), (40, 1311),

Gene: Prithvi\_6 Start: 1155, Stop: 1358, Start Num: 23

Candidate Starts for Prithvi\_6:

(Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (39, 1317), (40, 1326),

Gene: QuincyRose\_5 Start: 1206, Stop: 1409, Start Num: 23

Candidate Starts for QuincyRose\_5:

(4, 993), (Start: 22 @1200 has 3 MA's), (Start: 23 @1206 has 134 MA's), (32, 1317), (34, 1323), (37, 1338), (39, 1368), (40, 1377),

Gene: Ramen\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Ramen\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Rapunzel97\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Rapunzel97\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Rosmarinus\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Rosmarinus\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: SamuelLPlaqson\_6 Start: 1162, Stop: 1362, Start Num: 23

Candidate Starts for SamuelLPlaqson\_6:

(Start: 22 @1156 has 3 MA's), (Start: 23 @1162 has 134 MA's), (32, 1273), (34, 1279), (37, 1294), (38, 1306), (39, 1324),

Gene: Scarlett\_5 Start: 1077, Stop: 1277, Start Num: 23

Candidate Starts for Scarlett\_5:

(Start: 23 @1077 has 134 MA's), (29, 1152), (34, 1194), (39, 1239), (40, 1248),

Gene: SgtBeansprout\_2 Start: 443, Stop: 643, Start Num: 23

Candidate Starts for SgtBeansprout\_2:

(Start: 23 @443 has 134 MA's), (25, 467), (34, 560), (39, 605), (40, 614),

Gene: Shadow1\_4 Start: 997, Stop: 1191, Start Num: 23

Candidate Starts for Shadow1\_4:

(17, 946), (Start: 23 @997 has 134 MA's), (31, 1078), (39, 1159), (40, 1168),

Gene: Shaobing\_6 Start: 1256, Stop: 1456, Start Num: 23

Candidate Starts for Shaobing\_6:

(Start: 22 @1250 has 3 MA's), (Start: 23 @1256 has 134 MA's), (25, 1280), (34, 1373), (39, 1418), (40, 1427),

Gene: ShedlockHolmes\_5 Start: 1083, Stop: 1277, Start Num: 23

Candidate Starts for ShedlockHolmes\_5:

(Start: 23 @1083 has 134 MA's), (25, 1107), (26, 1137), (34, 1200), (35, 1206), (38, 1227), (39, 1245),

Gene: ShiaSurprise\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for ShiaSurprise\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: SirPhilip\_5 Start: 960, Stop: 1160, Start Num: 23

Candidate Starts for SirPhilip\_5:

(6, 756), (8, 786), (Start: 23 @960 has 134 MA's), (32, 1071), (34, 1077), (39, 1122), (40, 1131),

Gene: Slimphazie\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Slimphazie\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Spock\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Spock\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Stinson\_6 Start: 1161, Stop: 1364, Start Num: 23

Candidate Starts for Stinson\_6:

(Start: 22 @1155 has 3 MA's), (Start: 23 @1161 has 134 MA's), (32, 1272), (34, 1278), (37, 1293), (38, 1305), (39, 1323), (40, 1332),

Gene: Strobilo\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for Strobilo\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (30, 302), (34, 341), (35, 347), (43, 419),

Gene: Sulley\_6 Start: 1171, Stop: 1371, Start Num: 23

Candidate Starts for Sulley\_6:

(9, 1009), (Start: 22 @1165 has 3 MA's), (Start: 23 @1171 has 134 MA's), (32, 1282), (34, 1288), (39, 1333),

Gene: Sunflower1121\_4 Start: 996, Stop: 1190, Start Num: 23

Candidate Starts for Sunflower1121\_4:

(17, 945), (Start: 23 @996 has 134 MA's), (31, 1077), (39, 1158), (40, 1167),

Gene: Syra333\_5 Start: 1101, Stop: 1295, Start Num: 23

Candidate Starts for Syra333\_5:

(17, 1050), (Start: 23 @1101 has 134 MA's), (26, 1155), (27, 1158), (31, 1182), (39, 1263), (40, 1272),

Gene: TBond007\_5 Start: 833, Stop: 1027, Start Num: 23

Candidate Starts for TBond007\_5:



(Start: 23 @833 has 134 MA's), (25, 857), (26, 887), (34, 950), (38, 977), (39, 995),

Gene: TClif\_5 Start: 1057, Stop: 1251, Start Num: 23

Candidate Starts for TClif\_5:

(Start: 23 @1057 has 134 MA's), (25, 1081), (31, 1138), (39, 1219), (40, 1228),

Gene: TM4\_2 Start: 236, Stop: 448, Start Num: 23

Candidate Starts for TM4\_2:

(14, 131), (20, 212), (Start: 23 @236 has 134 MA's), (24, 251), (25, 260), (30, 314), (34, 353), (42, 422), (43, 431),

Gene: Tachez\_6 Start: 1149, Stop: 1352, Start Num: 23

Candidate Starts for Tachez\_6:

(Start: 22 @1143 has 3 MA's), (Start: 23 @1149 has 134 MA's), (32, 1260), (34, 1266), (37, 1281), (39, 1311), (40, 1320),

Gene: TaiwanKao\_6 Start: 1149, Stop: 1358, Start Num: 22

Candidate Starts for TaiwanKao\_6:

(Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (38, 1299), (39, 1317), (40, 1326),

Gene: Tierra\_5 Start: 1091, Stop: 1285, Start Num: 23

Candidate Starts for Tierra\_5:

(Start: 23 @1091 has 134 MA's), (31, 1172), (34, 1208), (39, 1253), (40, 1262),

Gene: TiniBug\_6 Start: 1162, Stop: 1362, Start Num: 23

Candidate Starts for TiniBug\_6:

(Start: 22 @1156 has 3 MA's), (Start: 23 @1162 has 134 MA's), (32, 1273), (34, 1279), (37, 1294), (38, 1306), (39, 1324),

Gene: Tiri\_6 Start: 1197, Stop: 1400, Start Num: 23

Candidate Starts for Tiri\_6:

(4, 984), (Start: 22 @1191 has 3 MA's), (Start: 23 @1197 has 134 MA's), (29, 1272), (32, 1308), (34, 1314), (37, 1329), (39, 1359), (40, 1368),

Gene: Topper\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Topper\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: TreyKay\_6 Start: 1155, Stop: 1358, Start Num: 23

Candidate Starts for TreyKay\_6:

(Start: 22 @1149 has 3 MA's), (Start: 23 @1155 has 134 MA's), (32, 1266), (34, 1272), (37, 1287), (39, 1317), (40, 1326),

Gene: TribelTrouble\_4 Start: 901, Stop: 1095, Start Num: 23

Candidate Starts for TribelTrouble\_4:

(Start: 23 @901 has 134 MA's), (25, 925), (26, 955), (28, 964), (34, 1018), (35, 1024), (38, 1045), (39, 1063),

Gene: TruffulaTree\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for TruffulaTree\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Twitch\_6 Start: 1224, Stop: 1433, Start Num: 22

Candidate Starts for Twitch\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Unicorn\_5 Start: 1123, Stop: 1317, Start Num: 23

Candidate Starts for Unicorn\_5:

(Start: 23 @1123 has 134 MA's), (31, 1204), (34, 1240), (39, 1285), (40, 1294),

Gene: Urkel\_6 Start: 1162, Stop: 1362, Start Num: 23

Candidate Starts for Urkel\_6:

(Start: 22 @1156 has 3 MA's), (Start: 23 @1162 has 134 MA's), (32, 1273), (34, 1279), (37, 1294), (38, 1306), (39, 1324),

Gene: Validus\_6 Start: 1172, Stop: 1372, Start Num: 23

Candidate Starts for Validus\_6:

(Start: 22 @1166 has 3 MA's), (Start: 23 @1172 has 134 MA's), (25, 1196), (32, 1283), (34, 1289), (39, 1334), (40, 1343),

Gene: Veliki\_6 Start: 1230, Stop: 1433, Start Num: 23

Candidate Starts for Veliki\_6:

(4, 1017), (Start: 22 @1224 has 3 MA's), (Start: 23 @1230 has 134 MA's), (32, 1341), (34, 1347), (37, 1362), (39, 1392), (40, 1401),

Gene: Ximenita\_6 Start: 1265, Stop: 1459, Start Num: 23

Candidate Starts for Ximenita\_6:

(Start: 23 @1265 has 134 MA's), (26, 1319), (31, 1346), (39, 1427), (40, 1436),

Gene: YoureAdopted\_5 Start: 1156, Stop: 1359, Start Num: 23

Candidate Starts for YoureAdopted\_5:

(Start: 22 @1150 has 3 MA's), (Start: 23 @1156 has 134 MA's), (32, 1267), (34, 1273), (37, 1288), (39, 1318), (40, 1327),

Gene: Yuna\_6 Start: 1258, Stop: 1452, Start Num: 23

Candidate Starts for Yuna\_6:

(7, 1129), (Start: 23 @1258 has 134 MA's), (26, 1312), (31, 1339), (32, 1369),

Gene: Yunkel11\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Yunkel11\_6:

(11, 1051), (13, 1066), (Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (39, 1342), (40, 1351),

Gene: Zabiza\_6 Start: 1180, Stop: 1383, Start Num: 23

Candidate Starts for Zabiza\_6:

(Start: 22 @1174 has 3 MA's), (Start: 23 @1180 has 134 MA's), (32, 1291), (34, 1297), (37, 1312), (39, 1342), (40, 1351),

Gene: Zavala\_6 Start: 1165, Stop: 1368, Start Num: 23

Candidate Starts for Zavala\_6:

(Start: 22 @1159 has 3 MA's), (Start: 23 @1165 has 134 MA's), (32, 1276), (34, 1282), (37, 1297),  
(39, 1327), (40, 1336),

Gene: ZoeJ\_2 Start: 224, Stop: 436, Start Num: 23

Candidate Starts for ZoeJ\_2:

(20, 200), (Start: 23 @224 has 134 MA's), (25, 248), (34, 341), (42, 410), (43, 419),